The impact of personal financial wellbeing on total employee cost

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Declaration from the language editor

Declaration

This is to declare that I, Annette L Combrink

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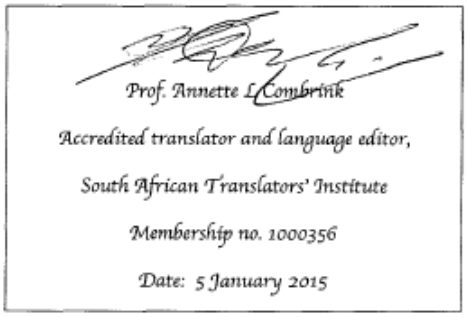

REMARKS

The reader is reminded of the following:

This dissertation is presented in the article format in accordance with the policies of the WorkWell Research Unit of the Faculty of Economic and Management Sciences at the North-West University. It consists of one research article (faculty rule E8.3). In terms of these policies, ONE unpublished manuscript in article format may be presented for the purposes of a mini-dissertation that makes up not more than 50% of a master's degree.

The article complies with the writing style requirements (i.e. the abstract, spelling, grammar, layout and referencing) of the journal to which the article was submitted. The author requirements of the journal and proof of submission are attached as part of the annexure A and B of the mini-dissertation.

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LIST OF ABBREVIATIONS AND ACRONYMS

CFI	Comparative Fit Index
DV	Dependent Variable
HSE	Health and Safety Statistics
IV	Independent Variable
NFI	Normed Fit Index
NNFI	Non-Normed Fit Index
RMSEA	Root Mean Square Error Approximation
SAEHWS	South African Health and Wellness Survey
SEM	Structural Equation Model
TLI	Trucker Lewis Index

ABSTRACT

Title: The impact of personal financial wellbeing on total employee cost

Keywords: Personal financial wellbeing, financial interference, productivity, absenteeism, wellness, human capital, total employee cost

The present fast-changing economic environment contributes to the daily challenges faced by organisations in their attempts to maintain a competitive edge. Employees need to be innovative continuously and maintain high levels of productivity in order to reach organisational goals. From a global perspective, a lot of research has been done concerning personal financial wellbeing, yet very little research on this topic could be found in the South African context. Seeing that intellectual capital is regarded as one of the most important assets of any organisation, the current study set out to determine the impact of personal financial wellbeing on employee productivity and absenteeism as part of total employee cost. For this purpose, a confidential online questionnaire was completed voluntarily by sampled employees (n=872) from the manufacturing industry.

The results showed that financial interference is an outcome of the level of financial wellbeing; therefore, financial wellbeing does have an impact on financial interference. It was also determined that financial interference, in turn, does have an impact on both productivity and absenteeism. According to the results, personal financial wellbeing also affects both productivity and absenteeism directly. One recommendation for future research is to use this study as a basis from which to more generally improve financial wellbeing in the South African context. Also, more research could be conducted on suitable financial educational programmes to improve financial wellbeing in the South African workplace, as well as on determining a monetary value of the impact of financial wellbeing on productivity and absenteeism.

OPSOMMING

Titel: Die impak van persoonlike finansiële welstand op totale werknemerkoste

Sleutelterme: Persoonlike finansiële welstand, finansiële inmenging, produktiwiteit, afwesigheid, algehele welstand, menslike kapitaal, totale werknemerskoste

Die huidige snel-veranderende ekonomiese omgewing stel talle uitdagings aan organisasies wat aanpasbaarheid noodsaak ten einde ’n mededingende voorsprong te behou. Werknemers moet dus daagliks innoverend wees en hoë produktiwiteitsvlakke handhaaf om organisatoriese doelwitte te bereik. Min navorsing is gevind rakende werknemers se persoonlike finansiële welstandsvlakke in Suid-Afrika, sowel as die impak wat hierdie welstand op produktiwiteit en afwesigheid kan (elemente van totale werknemerskoste) hê – talle internasionale studies is wel gevind. Aangesien menslike kapitaal as een van die belangrikste bates van enige organisasie beskou word, beoog die huidige studie om hierdie impak te bepaal. Vir dié doel is ’n vertroulike aanlynvraelys vrywillig deur verskeie werknemers uit die vervaardigingsektor (n=872) voltooi.

Die resultate het getoon dat finansiële inmenging ’n uitkoms van finansiële welstand is; daar is dus ’n verwantskap tussen finansiële welstand en finansiële inmenging. Daar is ook vasgestel dat finansiële inmenging ’n impak op produktiwiteit sowel as afwesigheid het. Die bevindings toon dat finansiële welstand wel ook ’n direkte impak op produktiwiteit en afwesigheid het. Een voorstel vir ‘n toekomstige moontlike studie is om dié studie te gebruik as n basis vir die moontlike verbetering van finansiële welstandsvlakke in Suid-Afrika. Verdere navorsing kan ook gedoen word rakende toepaslike finansiële welstandsprogramme om finansiële welstand binne die Suid Afrikaanse konteks te verbeter sowel as om ‘n geldwaarde te koppel aan die impak wat finansiële welstand het op produktiwiteit en afwesigheid.

CHAPTER 1

BACKGROUND, PURPOSE, SCOPE AND METHOD OF STUDY

1.1 Introduction

The rapid expansion of science, technology and globalisation has redefined the configuration and composition of the production environment in which entities participate globally. In addition, the 2008 economic crisis had a definite impact on the individual. Some of the main consequences of the recent economic and financial crisis or recession worldwide are contraction of demand, production and stock market, sub-capitalisation of banks due to their inability to recover loans, inflation and unfavourable exchange rates and increased vulnerability of the standard of living of the unemployed and those with low incomes; the crisis affects all social classes, both rich and poor, but disadvantaged categories, unemployed or low-income employees are most at risk of default or input repayment of a loan (Claessens *et al*., 2012:8).

Firms are driven by demands of productivity, well-organised management and intellectual capital (Ahangar, 2011:88). To counter the above-mentioned challenges within the fast-changing business environment, more emphasis needs to be placed on managerial approaches which could increase organisational productivity, financial performance and efficiency in the workplace (Gollan, 2001).

The employees of an organisation can be seen as one of the most treasured assets in order to maintain a productive future for the organisation, yet 'employees' are not listed as an asset on the balance sheet (Crager, 2002:65). Organisations are increasingly acknowledging that employee wellbeing and productive engagement should become one of their non-financial objectives in order to gain a reasonable advantage over rivals in the market (Ogilvie, 2008:6; Schabracq & Cooper, 2000; Woods, 2000). In order for an organisation to survive within the competitive environment, the overall wellbeing of the employees is essential for the organisation's survival in a competitive environment.

Implicit in the above are those stress-related problems that could be related to the recent financial crisis concerning work and careers and which can negatively influence employees' sense of wellbeing and engagement in their work activities. For employers to maintain a profit-generating and sustainable environment, employees need to live healthy lifestyles which should translate into the overall increased performance of the organisation. Employees need to be mentally healthy. Mentally healthy employees will contribute towards reaching the financial objectives and goals as they are more energetic and focused to achieve success. Thus, organisations need to determine the levels of wellbeing of employees and their impact on productivity and absenteeism especially (Crager, 2002:65; Schabracq & Cooper, 2000).

In the next few paragraphs the concept of 'wellbeing', the impact of personal finance thereon and its ultimate impact on productivity and absenteeism are described. The effect of interference is also addressed, although the literature is limited in this regard.

1.2 Wellbeing and personal finances

For the reasons stated above, it is advocated that the wellbeing of employees be an integral part of any entity strategy. 'Wellbeing' refers to a person's happiness, prosperity and physical health (Hornby, 1980:976). Kim (2000) defined financial wellbeing as 'a function of individual characteristics, financial behaviours, and financial stressor events'. Therefore it can be interpreted as a result of financial behaviours. Cox *et al.* (2009:144) contend that 'financial wellbeing refers to subjective perceptions and objective indicators of an individual's personal financial status'. First, economic wellbeing consists of three components: awareness of economic wellbeing, financial adequacy, and fulfilment of one's own personal life (Draughn *et al.*, 1994). Financial wellbeing can, therefore, be described as people's perception of the economy of their country and how easily they adjust to the environment. In this context, financial wellbeing is regarded as people's perception of their current financial situation. In this light, constant financial concerns and problems could negatively affect one's perception of one's state of finances, which could then cause more issues to arise, eventually leading to extreme financial stress.

'A primary source of stress is personal financial problems' (Garman *et al*., 1996). In this sense, financial stress is a result of a lack of financial wellbeing. Issues related to personal finance were identified by both Bruner and Cooper (1991) and Sporakowski (1979). A few relevant examples are financial distresses and hardships, family relationships, and also the psychological aspects, viz. financial problems and stress. Various studies have been executed to investigate people's financial behaviours and what has been done to control their applicable financial situations to ultimately attain financial freedom and realisation (Joo, 1998). Contributing to increased health problems are credit card debt and any stress relating to debt (Drentea & Lavrakas, 2000).

Increased financial interference as well as personal financial difficulties could be due to low levels of financial literacy and knowledge (Kim *et al*., 2003). ''Financial literacy' refers to adequate knowledge of personal finance facts and vocabulary for successful personal financial management' (Garman & Forgue, 1997). Previous research has pointed out various factors that affect a person's financial wellbeing which, in turn, affects a person's overall wellbeing. People do not live compartmentalised lives, and millions carry financial burdens each day from home to work. This affects their ability to perform at work and, as seen below, causes a decrease in productivity at work. In turn, the total cost of employment is increased.

1.3 Impact of personal finances on employers

Financial stress is part of the everyday lives of people, whether we choose to accept this or not. This undeniable reality of financial stress has a noteworthy influence on both productivity and absenteeism. According to Brown (1979a), 'employee financial problems are one of the four major problems in the workplace'. He reported that '10% is a very conservative estimate of the number of employees in the workplace with financial difficulties' (Brown, 1993). Garman *et al*. (1996) indicated 'that approximately 15% of workers in the United States (US) are currently experiencing stress from poor financial behaviours to the extent that it has a negative impact on their productivity'. Employees battling with financial difficulties throughout the business hours of the organisation are also therefore not capable of focusing and being productive (Delafrooz *et al.*, 2010).

Financial distress has negative workplace outcomes, such as decreased dedication to the organisation, rivalry between emotions of personal finance and productive hours, less satisfaction with compensation remuneration, idle work time while dealing with personal finances, increased absenteeism and deprived levels of health (Prawitz & Thomas, 2009:1). Stress associated with employees' poor personal financial behaviours causes substantial costs to employers (Garman *et al.*, 1996).

1.4 Productivity and absenteeism

Personal finance–work conflict involves the interference an employee experiences in the context of the employee's responsibility in the workplace. Two of the aspects that are most often identified in the literature as being affected by personal financial stress are absenteeism and productivity. These concepts will be discussed below.

1.4.1 Absenteeism

Previous research has indicated that levels of financial stress are related to an employee's wellness and the level of financial stress also have an impact on absenteeism (Kim & Garman, 2004:69). Absenteeism is costly to employers, has a negative impact on productivity, and stresses employees who do show up at work.

'Productivity losses related to personal and family health problems cost US employers $1,685 per employee a year, or $225.8 billion annually' (Stewart *et al*., 2003). Employees who are absent from work due to personal financial reasons cannot contribute effectively to the productivity of the organisation as a whole. It is evident that absenteeism from work has a detrimental impact on the employee cost of a company.

1.4.2 Productivity

Actual absenteeism is not the only cause of increased employee cost. Researchers have estimated that between 15-20% of employees in the US are working at lower levels of productivity due to financial stress (Kim & Garman, 2004:69). Employee productivity and the increased cost caused by reduced productivity due to reduced levels of financial behaviours are significant. According to Rogers and Herting (1993), 'the estimated direct cost of absenteeism is between $25 to 35 billion a year in the US'. In a study mentioned by Luther *et al.* (1997), 'the cost of poor productivity due to personal financial problems of

Navy service members ranged from $172 to258 million' in the US. The magnitude of total employee cost is still to be determined (Garman *et al*., 1996:157).

1.4.3 Interference

The effect of poor financial wellbeing comprises not only a direct impact on productivity and absenteeism. Kim *et al*. (2003) introduced the term 'financial interference' when she provided reasons as to people's financial illiteracy. Wallace (1997) also advocated support for employees in order to reduce financial interference at work. In short, low financial wellbeing can cause interference at work and lead to high absenteeism and low productivity.

1.4.4 Addressing the issue

When employees dwell on the fact that they need to manage their personal finances, it will in return create financial dissatisfaction and lead to a concern not only for the individual but also for the employer (Cohart, 1997). Financial concerns and employers' way of dealing with them have changed over the decades. Twenty years ago employees were expected to leave their problems outside the workplace. Today, employers need to assist their employees in dealing with a variety of difficulties, because the daily stress of bad economic times has been having a greater impact on more employees than ever before.

Increased employee productivity will lead to increased profits (Prawitz & Garman, 2009:4). Wallace (1997) provided three points of evidence for the effect of supporting employees to manage their personal finances better:

- effective financial education would increase the corporate earnings of the company and improve the overall performance by lowering absenteeism;
- employees' focus is increased by eliminating their fears and financial insecurity, and
- reducing the financial interference at work with productivity with increased levels of financial wellbeing.

Helping troubled workers by means of an effective financial education programme would not only improve productivity and reduce costs, as mentioned by Joo (1998), but ultimately have a positive effect on corporate earnings. Effective financial education programmes for

employees could therefore lead to increased productivity and reduced cost as employees are more focused and driven to perform better with less interference as educational programmes might lead to increased financial wellbeing. Also, according to Rogers and Herting (1993), 'the return on investment for employers who offer their employees easy access to quality financial programmes is 3:1 or more'.

It is critical to determine the impact that personal financial wellbeing has on employee absenteeism and productivity and acknowledge the vital role that employees play in the organisation. If the extent of the impact were known, employers would have less difficulty in justifying the cost spent on employee wellness programmes that address financial wellness specifically.

1.5 Clarification of terms

The key terms in this research are defined below:

1.5.1 Absenteeism

'Absenteeism is defined as: temporary, extended or permanent incapacity from work as a result of sickness or infirmity' (Van Damme, 1995:5). Nel *et al.* (2001:582) define absenteeism as 'the withdrawal of levels of productivity and collegial interaction for a given time to escape a perceived undesirable working environment'. Absenteeism can also be described as 'unplanned behaviour as an employee does not report for duty to perform scheduled tasks' (Nel *et al*., 2001).

In relation to this study, absenteeism could therefore be referred to as not having been at work regardless of the reason.

1.5.2 Financial interference

In order to define 'financial interference,' we first need to understand what is meant by 'interference'. The Oxford Dictionary (2013c) defines 'interference' as the prevention of a process or activity from continuing or being carried out properly. 'Financial interference,'

thus, is caused by a financial situation that interferes with a subsequent activity in this case, productivity and absenteeism. As stated previously, the effect of personal financial wellbeing on productivity might well be through interference. In the statistical analysis performed in the study, financial interference was used as a median between personal financial wellbeing, and productivity and absenteeism.

1.5.3 Personal financial wellbeing

Porter (1990:22) defines 'financial wellbeing' as both objective and subjective aspects of financial situations evaluated against standards of comparison in order to shape one's opinion of one's financial situation. Rath *et al*. (2010:154) view financial wellbeing as the effective management of one's economic life: 'People with high financial wellbeing manage their personal finances well and spend their money wisely.'

To conclude, personal financial wellbeing can be seen as managing one's personal finances in such a way that one is satisfied with one's living standard.

1.5.4 Productivity

'Productivity is commonly defined as a ratio between the output volume and the input volume' (Krugman, 1994:1). Lawlor (l985) sums up 'productivity' as 'comprehensive measures of how efficient and effective an organization or economy satisfies five aims: objectives, efficiency, effectiveness, comparability, and progressive trends. No matter how it is perceived, productivity implies that there is an incremental gain in what is produced as compared with the expenditure on measures utilized'. In short, productivity is about effectiveness and the amount of work that can be completed correctly and up to the pre-determined standard within a certain time period.

1.6 Motivation and actuality of topic

Traditionally, property, labour and intellectual capital were contemplated to be the three assets that contribute the most within the economic environment (Dae-Bong, 2009). These physical assets were considered to be the main determinants of the performance of any

business. A combination between intellectual capital and physical assets within the manufacturing industry were used to improve competitiveness (Dae-Bong, 2009). Brennan and Connell (2000) concur by claiming that long-term organizational performance is highly dependent on intellectual capital management. .

Intellectual capital is defined as 'the possession of knowledge, applied experience, organisational technology, customer relations and professional skills that provide a company with a competitive advantage in the market' (Edvinsson, 1997). In this regard, it is critical to note that intellectual capital is generated by each individual to the benefit of the employer. Thus, employees need to be supported to perform optimally.

In order for entities to keep up with the changing economic environment, any factors which can potentially harm the wellbeing of employees should be identified. For this reason, we need to determine whether personal financial wellbeing of employees and financial interference do have an impact on two pertinent aspects identified in the literature, namely employee absenteeism from work and productivity at work.

As is evident from the research provided earlier, many studies have been conducted internationally to determine the relationship between financial wellbeing and productivity and the influence of financial wellbeing on absenteeism. Yet, within the South African context, no research on this phenomenon could be found in terms of the impact of personal financial wellbeing on employees, the relationship between financial wellbeing and productivity and absenteeism, and lost productivity through financial interference at work.

Research which evaluates the impact of personal financial wellbeing on employee productivity and absence will be of great value to companies. The return on investment of educational programmes can be much greater than the actual cost of incorporating the programme. The interventions that employers implement could also benefit the employees.

1.7 Problem statement

The need for research on the impact of personal financial wellbeing on productivity and absenteeism in South Africa is indisputable. In these times of globalisation, international competition and financial turbulence, enterprises are losing precious time, profits and, ultimately market share in their industry partly due to the fact that their employees are not performing according to expected standards. Understanding the impact of personal financial wellness on productivity and absenteeism (also by means of interference) will provide insight into the financial effect of employee financial wellness on the enterprise. This will motivate enterprises to support employees in improving their overall financial wellness which would lead to reduced absenteeism and enhanced productivity.

On the other hand, more emphasis is being placed on the corporate social responsibility of enterprises towards their employees and on showing that the relationship can, in fact, motivate enterprises to implement interventions for their own and their employees' benefit. If the impact is understood, interventions can be implemented and evaluated more effectively.

1.8 Objectives

1.8.1 Main objective

The main objective of this study was to determine the impact of personal financial wellbeing and financial interference on absenteeism and productivity levels of employees in a South African context.

1.8.2 Secondary objectives

The secondary objectives to reach the main objectives were as follows:

- To gain a better understanding of the existing literature and research that have been conducted on personal financial wellbeing and financial interference and their impact on absenteeism and productivity (addressed in chapters 2 and 3),
- To derive a model which shows the impact of financial wellbeing and the relationship between financial wellbeing, financial interference, absenteeism and productivity (addressed in chapter 3), and

- To make recommendations based on the findings and highlight directions for possible future studies (addressed in chapters 3 and 4).

1.9 Hypotheses

A 'hypothesis' is regarded as a statement that can be proved or rejected. According to the Oxford Dictionary (2013b), 'hypothesis' is defined as 'a supposition or proposed explanation that is made based on limited evidence as a starting point for further investigation'. In line with the objectives, the following hypotheses were tested in the study:

H1: There is a relationship between personal financial wellbeing and the level of personal financial interference that an employee experiences at work.

H2: There is a relationship between personal financial wellbeing and employee productivity self-ratings.

H3: Employees' levels of absenteeism from work in South Africa are influenced by their personal financial wellbeing.

H4a: Personal financial interference has an impact on productivity.

H4b: Personal financial interference has an impact on absenteeism.

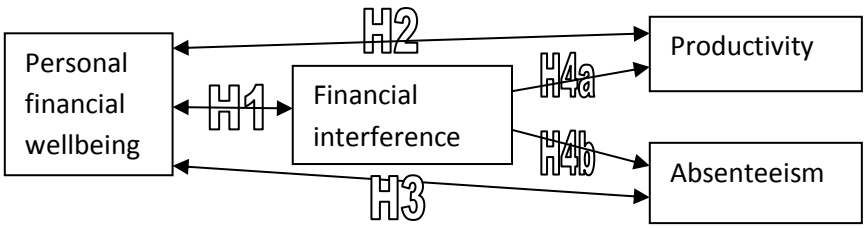

Figure 1. Schematic representation of hypotheses

1.10 Research method and design

The research method consisted of a literature study and empirical research.

1.10.1 Literature study

The first secondary research objective was achieved by performing a literature review to gain insight into the perceptions of wellness, financial interference, absenteeism, productivity and personal financial wellbeing.

1.10.2 Empirical study

The empirical research addressed the second and third secondary research objectives. The empirical research is based on existing data supplied by Afriforte Pty Ltd.

1.10.3 Research design

A research design can be defined as the approach that was used to attend to the articulated research problem (Mouton, 1996). A quantitative non-experimental cross-sectional design was applied in the current study. Non-experimental research can be seen as investigating different variables that are not manipulated by the researcher, but that are studied as they exist instead. Belli (2008) stated that 'one reason for using non-experimental research is that many variables of interest in the social sciences cannot be manipulated because they are attribute variables, such as gender, socio-economic status, learning style, or other personal characteristics or traits'.

'Cross-sectional' is defined as a study whereby consequences are monitored concurrently within the population. In this type of design, researchers investigate the association between the exposure and the outcome, but cannot infer the relationship between cause and effect (Rosell *et al.*, 2004:1391-1396). These types of research studies therefore focus on the population as a whole or sub-sections thereof. Once this is done, the research question is answered. It is referred to as 'cross-sectional' because the data that are gathered about X and Y represent what is occurring only at specific points in time. In this study, a sub-set of the population was used from the manufacturing industry. The online questionnaire was completed at a specific point in time and responses reflected the current state of those individuals' feeling towards the variables, namely the impact of financial wellbeing (X) on

three variables, i.e. productivity, absenteeism and interference (Y). More detail on the research design will be provided in chapter 2.

1.10.4 Data collection

The data were collected by means of an online questionnaire on a secure website. Participation in the survey was voluntary and all respondents were aware of this. Prior to completing the questionnaire, a detailed explanation of the purpose of the study was provided. Also, the respondents were guaranteed that their answers would be kept confidential. Informed consent was provided by all the respondents and they were allowed thirty minutes to complete the questionnaire. The management teams of various organisations within the manufacturing industry granted permission to conduct the research. Authorisation was also given to use the data anonymously for research purposes.

1.10.5 Sample

Data were collected from a random sample of employees (n=872) from the manufacturing sector by means of the South African Employee Health and Wellness Survey (SAEHWS) was developed in response to the need for a context-specific tool in this field. Results from the study cannot be generalised because the number of participants is too small to represent the entire population. Employees of all ages, races and occupational levels were sampled.

1.11 Overview

The following is the chapter layout of the current study.

CHAPTER 1

Chapter 1 is an introduction to the topic, the reason and motivation for the research. It provides the problem statement, the method of research and the chapter overview.

CHAPTER 2

This chapter consists of a literature review of personal financial wellbeing, financial literacy, financial education, the state of financial literacy, the current economic environment, productivity, absenteeism, and financial interference both locally and globally. It discusses

previous research on the relationship between these variables and provides the motivation for the choice of research methodology.

CHAPTER 3 (Research article): The impact of personal financial wellbeing on total employee cost in the South African manufacturing sector

The third chapter is presented in the form of a research article that was submitted for publication. The article includes a literature overview based on current relevant research on financial wellbeing, financial interference, absenteeism, productivity in general. It also reports the empirical research findings and makes recommendations.

CHAPTER 4

This chapter comprises a summary of the findings and discusses the limitations of the study and the recommendations for future studies.

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CHAPTER 2

LITERATURE REVIEW OF PERSONAL FINANCIAL WELLBEING, PRODUCTIVITY AND ABSENTEEISM WITHIN A LOCAL AND GLOBAL PERSPECTIVE.

2.1 Introduction

In chapter 1 the background to the study and the research problem were discussed. To understand the notion of the impact of personal financial wellbeing on financial interference, productivity and absenteeism, we need to focus in more detail on previous research on this phenomenon. In this regard, the following will be addressed in this chapter:

- Financial wellbeing
- Financial literacy
    - Financial education as part of financial literacy
    - The current state of financial literacy locally and globally
- The current economic environment locally and globally
- Productivity and financial wellbeing
- Absenteeism and financial wellbeing
- Financial interference

The chapter also addresses in detail the reasoning behind the chosen research methodology, thereby addressing point 1 under objective 2 as set out in chapter 1.

2.2 Financial wellbeing

Wellbeing can be explained with referring to various applicable concepts. According to Van Praag *et al.* (2003:30), personal satisfaction levels within six relevant areas, namely economic, financial, personal, relaxation, healthiness and environmental contributes to the level of wellbeing of an individual. Wellbeing can also be defined as the satisfaction levels with economic, physical, social, emotional, environmental, political and spiritual aspects and factors (McGregor & Goldsmith, 1998) Therefore, as derived from these authors, financial wellbeing can be seen as a relevant aspect of welfare and expediency. Therefore, in general, wellbeing is defined as "a state of being healthy, happy and free from worry" (Zimmerman, 1995:18).

Taft *et al*. (2013:64) see financial wellbeing as both a function of physical and emotional determinants of one's financial position and one's feeling of satisfaction with one's financial status. Financial wellbeing can also be viewed as the way in which people control their money on a daily basis, make use of short-term precautionary savings, set financial goals such as when to buy a new car, create wealth management tools and gain financial confidence. Joo (1998) indicated that the terms *financial wellbeing* and *financial wellness* are used to describe the same concept. In this context, financial wellness can be seen as a proactive approach in maintaining healthy and stable wealth.

Personal financial wellness is conceptualised as an individual's financial health level. Within this sense, financial health can include the level of satisfaction with physical and emotional aspects of an individual's financial situation, financial stability and the necessary levels of financial resources (Joo, 1998.48). Therefore, in short, financial wellbeing could represent being financially independent, healthy and carefree in line with the current financial situation.

Financial stress is causing increased levels of stress in the lives of individuals. Everyday measure of success for an individual and the urge to improve financially and provide more, can be closely linked to the current levels of personal financial wealth (Peirce *et al*., 1996:291). Joo (1998:49) lists a few variables that have an impact on personal financial wellbeing and, consequently, entity cost:

- demographics,
- financial stressors, and
- personal financial wellness and financial stress levels.

It is important to discuss each of the above-mentioned factors in detail to understand the concept of financial wellbeing more clearly before discussing the impact of personal financial wellbeing on productivity and absenteeism. Financial stressors are also graphically presented in figure 2. Personal financial wellness is influenced by various demographics such as gender, whether married or not, schooling, culture, age, remuneration, life cycle stage, amount of children, and profession (Porter, 1990).

A 'stressor' can be defined as a life incidence which could possibly impose strain upon the family (McCubbin & Patterson, 1983:4). 'Stressors are agents of stress' say Shinn *et al.*

*(*1984). Personal, family and financial situations form the basis and core of financial stressors. In contrast to financial stress, personal stress consists of two groupings, namely profession-correlated events and other. Job-related events as referred to above consist of variables such as change of employer, reduction in remuneration, retrenchment and also retirement. Joo, 1998:49). Job-related events such as those mentioned above have been determined to contribute the most to the increased levels of financial stress (Varcoe, 1990). Other personal stressors include stressors such as loss of investments, permanent disability, and chronic illness. Joo (1998:48) adds to the list of other personal stressors by mentioning relocation, major house and vehicle repair and maintenance, mortgage foreclosure, legal difficulties, low remuneration and large consumer debts.

The stressors mentioned above have been indicated by employee assistance professionals to affect 20% of any workforce which, in turn, harms job performance (Masi, 1992:1). Between 10 and 15% of the workforce of an organisation suffer productivity issues due to these personal financial problems (Brown, 1993; Garman *et al.*, 1996; Luther *et al.*, 1997).

Productivity in the workplace is affected when credit-providers are trying to make contact with employees. This will usually occur during business hours. Also, employees will most likely discuss their personal financial problems with co-workers, spouses, friends and family during business hours. This would decrease productivity.

As evidenced by previous research, the above-mentioned factors might impair personal financial wellness to such an extent that productivity is decreased and absenteeism is increased. It can also cause interference at work.

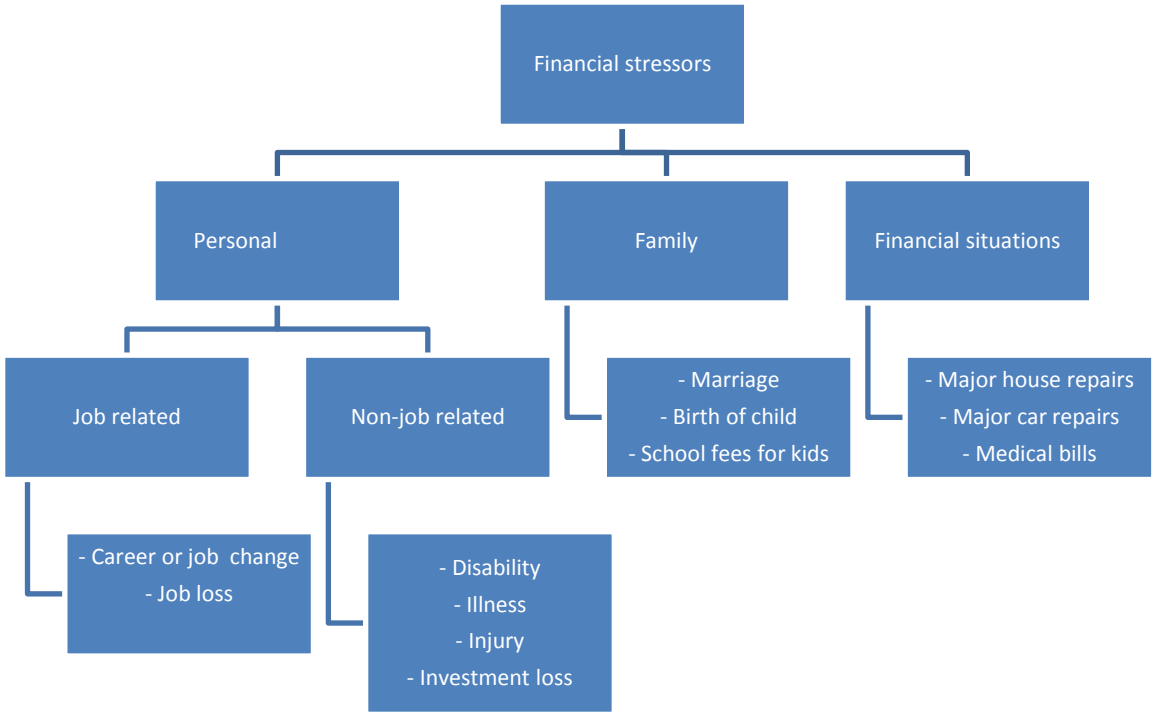

Figure 2: Schematic layout of financial stressors

In view of the information provided above, it is clear that personal financial wellbeing does have an influence on an employee and, ultimately, on the employer.

2.3 Financial literacy

Although it does not form part of this study, financial literacy is discussed to provide background to the concept of financial wellbeing and its impact on productivity and absenteeism. Shim and Baber *et al.* (2009:1468) stated that financial knowledge alone is adequate to ensure control over personal finances, and that positive financial behaviours and financial efficacy are equally important.

Anthes (2014:39) explained that financial literacy is the competency to comprehend and elaborate on personal financial circumstances which possibly could affect material wellbeing. Material wellbeing, in this sense, can be defined as the ability to differentiate between financial choices. Taft *et al.* (2010:64) define financial literacy as including an understanding of financial instruments and their application in businesses and personal life.

Referring to the workplace, higher levels of financial literacy could lead to improved efficiency and productivity, which means that employees would concentrate less on financial concerns and related problems (Taft *et al.*, 2013:64).

Garman and Forgue (1997:16) define financial knowledge as an understanding of the principles and terminology that are required to manage one's personal financial issues successfully. Financial literacy could therefore lead to better interpreting financial decisions, making strategic long-term decisions to spend more wisely and also to be prepared for unplanned financial setbacks such as retrenchment In effect, people with high financial literacy should experience less stress.

Next, the chapter explores previous research conducted on the impact of financial education on personal financial wellbeing.

2.3.1 Financial education

Employees with improved financial literacy could indeed be more focused (Brennan, 1998). The impact of improved financial literacy could soften the negative impact of low personal financial wellbeing on productivity and absenteeism. As mentioned in specific studies, financially educated participants can testify to have improved health and wellness, elevated performance levels within a work environment, and overall being more productive at work. (Garman *et al*., 1996; Joo, 1998)), which points to a relation between financial education and productivity. Beneficial to financial educated individuals is the fact that this level of knowledge could increase earlier retirement as individuals feel more comfortable with their financial situation (Pomeroy, 1997).

The employer, on the other hand, can use financial education to their benefit by employing the correct individuals as well as maintaining their current workforce (Decker *et al.*, 1998). Financial education could also lead to a long-term return on investment of at least 3:1 for the employer if workplace education is provided (Joo & Garman, 1998b). In other words, employers would be wise to invest in their employees' financial wellness. Already in 1998, the first-year savings as a result of workplace financial education (which led to reduced productivity) were estimates to be more than $400 per employee in the USA (Joo & Garman, 1998b).

The importance of financial education in the workplace is emphasised by Garman (*The business case for financial education*, 1998). He found that workers who participate in worksite financial education are expected to display the following:

- increased financial wellness,
- lower household debt-to-income ratio,
- increased self-esteem and improved attitude towards work,
- increased satisfaction with employer-provided fringe benefits,
- increased capability to participate in and contribute to retirement plans, and
- increased savings for retirement (Kratzer *et al*., 1998).

Providing worksite financial education and advice offers benefits for both employers and employees. Worksite financial educational programmes could lead to improved awareness of financial concerns by employees and understanding the personal circumstances and also decreased levels of stress. Overall, the benefits of worksite financial education will reflect increased overall wellness within the employees personal live as well as financial live (Wissert, 1998).

To improve profitability, employers need to focus on helping their employees achieve personal financial wellbeing.

As seen from the above, financial educational programmes play a critical part in understanding the financial wellness of employees.

2.3.2 The current state of financial literacy

There is a definite shortage of sound financial knowledge among South African citizens. Weak financial literacy skills are also taking their toll in the local entrepreneurial environment (Kotzé & Smit, 2008:156). Financial management, as seen from an entrepreneurial point of view, is a daunting concept to grasp, and their consequent lack of knowledge in this regard contributes to the decreased level of new venture creation (Timmons & Spinelli, 2007:388). Ultimately, South African small and medium-sized enterprises have a high failure rate.

The demand for knowledge of personal finance has increased rapidly. Extensive research by Kim (2000:1) and Joo (1998:34) has shown that the absence of financial knowledge within adults in general could lead to the making of incompetent and ineffective personal financial choices. Possible reasons for financial illiteracy include individuals being victims of excessive high levels of debt, low levels of savings, being targets of fraudulent investment schemes, credit card fraud and even bankruptcy (Kim, 2000:1). Within South Africa, employees' personal financial wellbeing could be affected by their level of financial literacy.

2.4 Current economic environment

Swart (1996:4) argues that people's striving to achieve their needs and gain financial independence has become complex due to changing economic conditions and the political climate, inflation, the large number of financial institutions, financial advisors with conflicting opinions, and attractive advertisements. Human capital in any industry and organisation is seen as one of the most important contributing factors to the organisational success.

Instability of the world economy and the recession have led to escalated inflation and increased retrenchment and also a reduction in employment opportunities. The impact of this is that it will cause a decrease in consumer income. The complexity of financial decision making, as a result of the conditions described above, threatens the individual's way of living from both a personal and work environment (Swart, 1996). This has led to the motivation for more research to be done on ways to deal with financial decision-making going forward. Furthermore, an increase in the diversity of alternative products and the recent insecurity of the global economy have created several challenges in economic and financial activities of consumers (Taft *et al*., 2013).

Within a changing economic environment companies need to maintain a competitive edge in the market. Brennan and Connell (2000:215) claim that human resource management plays an important role in sustainable business performance.

With regard to the South African economic environment, the relationship between personal debt levels and consumer disposable income altered between 50.6% and 71.8% from 1996 to 2006 (Kotzé & Smit, 2008). The 2014 household debt-to-disposable income ratio has remained high at 74.5% (Loos, 2014:1). However, levels of savings have declined from 1980 to 2006. Over these 20 years, savings have decreased from 8% to -0.5% of the disposable income (Kane-Berman & Tempest, 2007:87). Furthermore, increased levels of personal debt initiated the tendency to save less among South Africans (Grawitzky 2003:57). Lorgat (2003:8) has argued that South Africans lack a comprehensive savings culture.

The economic environment forms part of each individual's life – regardless of the individual's being employed or an entrepreneur, or running his/her own business – and would thus affect his/her financial wellness.

2.5 Productivity

2.5.1 Introduction

The literature discussed above indicated the possible influence of the current economic environment on individuals and described the meaning of financial literacy. In this section, we focus on the impact that these variables could have on financial wellbeing and the subsequent effect on productivity.

Productivity as defined by Ailabouni and Gidado (2000) is 'the ratio of output of required quality to the input for a specific production situation'. Within the building industry productivity is defined as output per relevant working hours (Ailabouni & Gidado, 2000). Productivity is also commonly defined as 'a ratio between the output volume and the input volume'. Therefore, productivity can also be interpreted as the effectiveness of production input such as intellectual capital and working hours, and how this input contributes within the business environment to reach a certain desired output (Krugman, 1994). Productivity could, therefore, be described as the level and quality of the output based on the input.

The cost of reduced employee productivity due to poor financial behaviours can be substantial. Researchers have estimated that 15-20% of workers in the US experience financial stress that decreases their productivity (Kim & Garman, 2004:69). Moreover, the importance of controlling personal finances to the employees is often misunderstood. Lack of managing and controlling personal finances creates financial concerns for both the

employees and the employer (Cohart, 1997). However, the full extent of the cost to employers in this regard remains unknown (Garman *et al.*, 1996:157).

2.5.2 Productivity and financial wellbeing

The section takes a closer look at the impact of financial wellbeing on productivity from the point of view of the employer.

Productivity in an organisation has been categorised as an organisational consequence. It is influenced by determinants, financial stress, financial wellness and financial behaviour (Delafrooz *et al.*, 2010:871-878).

Productivity, as seen above, have therefor a direct connection to the working environment of the employer. Due to this connection, employer's interest towards the personal financial concerns of the employee has increased (Joo, 1998:1), and specifically on productivity and costs (Williams, 1996:147). Research done within the US by Garman *et al.* (1996) has indicated that, on average, about 15% of the workforce are concerned about the state of their financial behaviour and that this will impact on their productivity levels. Therefore, employers need to pay heed to employee personal finances or financial wellbeing. Also, based on previous research, there is a relationship between employee productivity and levels of financial wellbeing (Kotzé & Smit, 2008:157). If personal financial wellness increases, productivity will increase and vice versa. Furthermore, decreased productivity, increased absenteeism, not meeting deadlines and inaccuracy towards work are just a few outcomes of the effect of employee financial stress and levels of financial wellbeing (Williams, 1996). Performance of employees is reduced when they experience financial problems (Williams, 1996), and the outcome in relation to the reduction of productivity and performance, is an increase in cost towards the employer. Examples of more cost areas for employers are increased stress, increased work time wasted and higher health-care costs.

Below, the emphasis shifts to the notion of absenteeism and its relation to financial wellbeing.

2.5.3 Absenteeism and financial wellbeing

Absenteeism is defined as an employee's non-attendance of scheduled work (Langenhoff, 2011:23). Simply put, it is not being physically present at work. Absenteeism could lead to increased cost because, in many instances, additional temporary and permanent employees must be employed which could lead to the reduction in completing task and goals on time as there is a transition period and time lost in induction processes before starting to be completely productive (Langenhoff, 2011:23).

Absenteeism is affected by various factors. A few examples of such factors are job satisfaction, decreased performance at work, stress, type of working environment, history and demographics of workers, work commitment, and also employee responsibilities towards the entity (Joo & Garman, 1998:2). Similarly, and as a response to reduce absenteeism, the levels of financial wellness need to increase (Joo, 1998). Professional and personal stress also have an impact on organisational commitment (Hendrix *et al.*, 1987).

One contributing factor which could increase absenteeism is financial stress. Stress due to personal finances increases the levels of psychosocial stress as most daily activities are linked to making financial decisions (Peirce *et al.*, 1996). Financial stress has also been discussed by researchers as 'economic stress, economic hardship, economic strain, and economic pressure' (Kim *et al*., 2003:4).

From the above, it is clear that stress and financially related stress are common causes of financial interference which causes absenteeism.

2.6 Financial interference

The balance between personal life and the working environment needs to be carefully considered as this can have an impact on job performance (Forthofer *et al.*, 1996). The effect of poor financial wellbeing comprises not only a direct impact on productivity and absenteeism. Kim (2003:34) introduced the term 'financial interference' when she explained the reasons for a lack of financial literacy in people. Wallace (1997) also advocated support for employees in order to reduce financial interference at work. In short, low financial wellbeing can cause interference at work and contribute to high absenteeism and low productivity.

In this study, financial interference is regarded as an outcome of personal financial wellbeing and the question is asked whether financial interference causes a decrease in productivity and an increase in absenteeism.

2.7 Summary of literature

The literature review emphasised that the relationship between financial wellbeing and elements such as the economic environment is crucial for determining the personal financial wellness of individuals. It became evident that the changing economic environment does have an impact on an individual. Personal financial wellbeing, as the key concept of this study, was conceptualised as a level of financial health. Anthes' (2004:49) explanation was provided that financial literacy is the ability to control your personal financial position which in return can affect your daily satisfaction levels in terms of wellbeing. The literature showed that the current state of financial literacy in South Africa and the lack of knowledge of financial management contribute to a decrease in organizational development. Entrepreneurs within South Africa feel threatened by the idea of financial management due to low levels of financial literacy and therefore decreases in creativity in terms of new venture creation or managing their current entrepreneurial activity (Timmons & Spinelli, 2007:388).

It became clear from studying the literature that people with high levels of financial literacy should be experiencing less stress. In a fast-changing economic environment, people need to be geared for challenge. Some will find it easy to adjust to the economic environment, but for many others, adjustment would prove to be a challenge. On the other hand, the literature has emphasised that low levels of financial literacy might increase stress levels which, in turn, would have an impact on an individual's health and emotional attitude. Low levels of financial literacy could also increase financial stress, for example, an individual is concerned about factors such as bankruptcy, paying monthly expenses and saving money for pension.

The current state of the global economic environment, and especially the South African environment, was discussed as a cause for concern due to many factors, for instance, the debt-to-household income, which is currently at a high 74.5%. This indicates that the level of financial wellbeing will have an impact on productivity and absenteeism, based on previous

research. As indicated, the cost of reduced employee productivity as a result of poor financial behaviours can be substantial. The literature also pointed to the fact that lower productivity levels are linked to lower levels of financial knowledge. The term 'financial interference,' as coined by Kim (2003:34), was discussed as one of the reasons for people's lack of financial literacy.

The literature on international research has indicated that levels of financial wellbeing do have a relationship with productivity and absenteeism. In the South African context, a gap was found in the research on this topic.

2.8 Research methodology

2.8.1 Introduction

In taking the first steps to commence a research study, it is crucial for the researcher to familiarise himself/herself with the research method and design to be followed. The purpose of this particular section is to provide insight into the research design, manner of sample selection and the process followed for data collection. It is also important to discuss some relevant and basic definitions. The research was designed to test the hypotheses in this study, as stated in chapter 1.

'Research can be described as a cautious, methodical, patient study and investigation of a specific area of expertise which is conducted in order to establish evidences, realities or philosophies' (Kumar, 2005). Williams (1996:3) defines research as a procedural investigation to improve general knowledge with regards to a certain topic and to explain or answer a certain research problem. In summary, the concept of 'research' is regarded as gathering data and evaluating the data to try to determine the outcome in terms of the identified research questions.

2.8.2 Paradigm, method and design

According to Johnson and Christensen (2004), 'a research paradigm is a perspective based on a set of shared assumptions, values, concepts and practices'. *The Business Dictionary* (2012) defines a 'paradigm' as a well-informed outlook towards the perception of the world acceptable within society. In other words, a paradigm can be explained as the way in which a

researcher thinks to contribute to the expansion of knowledge. The term *paradigm* consists of three levels, namely the philosophical, social and technical (Williams, 1988:3). According to Williams (1988:3), 'the term *paradigm* in management or organisational research encompasses three levels, namely i) philosophical-, ii) social- and iii) technical levels'. Philosophical levels relate to what is believed in concerning the world (Williams, 1988). In this study, the philosophical level was interpreted as being positivist in nature, because data were gathered and reality was interpreted based on the results. It was also assumed that the researcher stands independent from the research environment. The positivist paradigm therefore explains that real events can be observed and investigated empirically which in return can be explained with a logical analysis.

The social level refers to what is the acceptable way to perform the study. The technical level refers to the most applicable methods to use to reach the research objective of the applicable study (Williams, 1988). From a technical point of view, the research method that was chosen for this study was a tried and tested method design, as discussed below. Accountability of the research method is supported by the quality and validity of the research done (Mouton, 1996).

A research design can be described as the approach to be followed to tackle the research problem (Mouton, 1996). A structure (or research design) needs to be decided upon before data can be collected and analysed (De Vaus, 2001). According to De Vaus (2001), the research design is the plan of action needed to complete the study. The research design needs to be formulated in such a way that it enables the researcher to gather enough information to answer the research question.

In this study, data from the respondents were gathered by Afriforte, using a quantitative, non-experimental, cross-sectional design. The respondents completed a confidential online questionnaire voluntarily. Afriforte was established in February 2005 as the commercial arm of WorkWell, The Research Unit for Economic and Management Sciences, at the North-West University, Potchefstroom Campus. The purpose of Afriforte is two-fold: to convert human factor and workplace research efforts into practical management and risk management tools that would promote the capability of businesses (Date of access: 10 March 2015, http://www.afriforte.com/aboutus.php).

Quantitative non-experimental research

Quantitative research is empirical in nature and uses numerical and quantifiable data to ultimately draw conclusions based on experimentation and objective, systematic observations. There are two main categories for quantitative research, namely experimental and non-experimental. The fundamental aspects of experimental research differ from non-experimental research (Belli, 2008). In order to provide meaningful evidence in line with the cause-and-effect relationship, the goal of experimental research needs to be provided (Lowry, 2008). This is demonstrated by the outcomes of two different variables. One will be the independent variable, which will then have an effect on the dependent variable. If one variable (independent) changes the outcome of the other variable (dependent) also changes (Lowry, 2008).

This study was non-experimental, which meant that the variables were not manipulated but studied as they exist instead. Non-experimental research was used due to the fact that the variables are fixed as variables such as gender cannot be manipulated. Therefore for example, a researcher cannot randomly place individuals into different groups based on gender or learning style because they are naturally existing attributes (Belli, 2008). Another reason for using a non-experimental research design is that certain individuals will only fit into certain conditions such as gender. Therefore it will be impossible to place a male into the female grouping.

Referring to what is meant by a cross-sectional study, this type of study is undertaken when outcomes are measured and observed concurrently within the population. In this type of design, a researcher investigates the association between the exposure and the outcome, but cannot form a reliable opinion about cause and effect (Rosell *et al.*, 2004:1394). In this type of study, the population as a whole or just a sub-section thereof is chosen to perform the study on and to collect the relevant data from in order to reach the research objective... It is called 'cross-sectional' because the information that is gathered about X and Y represents what is occurring at only one point in time. In this study, only a sub-set of the population was used from the manufacturing industry. The online questionnaire was completed at a specific point in time and reflected the current state of the respondents' feeling towards the variables,

namely the impact of financial wellbeing (X) on the two variables of productivity and absenteeism (Y).

2.8.3 Objectives

Main objective

The main objective of this study was to determine the impact of personal financial wellbeing and financial interference on productivity levels and absenteeism of employees.

Secondary objectives to reach the main objective are:

- To gain a better understanding of the existing literature and research that has been conducted on personal financial wellbeing and financial interference and their impact on absenteeism and productivity,
- To derive a model which shows the impact of financial wellbeing and the relationship between financial wellbeing, absenteeism and productivity, and
- To make recommendations based on the findings and highlight directions for possible future studies (addressed in chapters 3 and 4).

2.8.4 Hypotheses

In line with the objectives, the following hypotheses were tested in the study:

H1: There is a relationship between personal financial wellbeing and the level of personal financial interference that an employee experiences at work.

H2: There is a relationship between personal financial wellbeing and employee productivity self-ratings.

H3: Employees' levels of absenteeism from work in South Africa are influenced by their personal financial wellbeing.

H4a: Personal financial interference has an impact on productivity.

H4b: Personal financial interference has an impact on absenteeism.

2.8.5 Participants of research sample

Data were collected from a random sample of employees (n=872) from the manufacturing sector. Employees from all different age groups, races and occupational levels were sampled.

2.8.6 Data collection

As soon as the research problem has been formulated and the research sample and model identified and selected, collection of the data is initiated to solve the research problem (Kothari, 1985). Data collection can be either qualitative or quantitative. In this study, the data were collected from employees sampled from similar companies within the manufacturing industry. The respondents voluntarily completed a confidential online questionnaire. The data-collection method as used by Afriforte was a pre-tested valid method for this particular type of research, as described below.

2.8.7 Analytical instruments

Measuring instruments

The South African Employee Health and Wellness Survey (SAEHWS) was developed in response to the need for a context-specific tool in this field. This survey is administered by the users themselves and it can be completed either on the internet or with paper and pen. These assessments are used to measure the health and wellbeing of the employee. The SAEHWS is used to assess and determine which variables will influence the organisation and in return provide meaningful information for management (Rothmann & Rothmann, 2007). In South Africa, the SAEWHS has been used in cross-sectional and longitudinal studies with acceptable alpha coefficients and correlation results, which adds to the reliability and validity of its use. The SAEHWS with the relevant sub-scales is an acceptable tool to use for data measurement (i.e. $\alpha \geq 0.70$) (Nunnally & Bernstein, 1994)

Sub-scales measured for this study are as follows:

- General financial wellbeing: (α=0.80) by means of four items (e.g. 'I am satisfied with my personal financial situation'), and
- Financial interference: (α=0.71) by means of three items (e.g. 'Personal money matters interfere with my work-related activities').

The ordinal scales were all measured on a four-point Likert scale ranging from 'never' to 'always'.

Statistical analyses

The hypotheses were tested by means of structural equation modelling (SEM) methods implemented by means of Mplus 7.11 (Muthen & Muthen, 2010). 'Structural equation modelling is a methodology for representing, estimating and testing a theoretical network of mostly linear relations between variables' (Rigdon, 1998). Structural equation modelling can be described as 'applying statistical models to evaluate the validity of substantive theories with empirical data"' (Lei & Wu, 2007). Mplus has the ability to identify unremitting categorical latent variables in analyses. Latent variable models attempt to explain complex relationships between several variables by using simple relationships between the variables and an underlying unobservable (Lauritzen, 2007). 'The default estimator for models that contain categorical outcomes in Mplus is the mean and variance-adjusted weighted least-squares method', which is a categorical estimator (Muthen *et al.*, 1997).

The various fit indices that were used to determine the hypotheses are discussed below. 'Absolute fit indices determine how well a priori model fits the sample data' (McDonald & Ho, 2002) and therefore they show which model has the more superior fit.

In this study, the following fit indices were considered: Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA). The TLI, also known as Non-Normed Fit Index, was created to rectify the issue with the NFI. The major disadvantage of the NFI is that it is sensitive to sample size and can therefore underestimate the fit of a model is fit for a specific study (Hooper *et al*., 2008:55).

All these indices can be seen as defaults in the Mplus package, the reason being the need to provide one well-performing fit statistic from several groups of fit statistics instead of many fit statistics from one group (Hu & Bentler, 1998).

The RMSEA is one of the fit statistics reported in the Mplus programme and was developed by Steiger and Lind (1980, cited in Steiger, 1990). The purpose of RMSEA is to determine whether a research model with unspecified and untested parameters would be compatible to determine whether a research model would fit within a chosen population (Byrne, 1998). In recent years, the RMSEA was found to be one of the fit indices that are the most revealing in terms of data (Diamantopoulos & Siguaw, 2000: 85) The model with a reduced number of parameters was chosen by RMSEA. For the RMSEA, a value of 0.05 or less indicates a good fit, but values of 0.08 and less are also to be considered an acceptable model fit (Cudeck & Browne, 1993). 'Up until the early nineties, an RMSEA in the range of 0.05 to 0.10 was considered an indication of fair fit and values above 0.10 of poor fit' (MacCallum *et al*., 1996). 'It was then thought that an RMSEA of between 0.08 and 0.10 provides a mediocre fit and below 0.08 a good fit' (MacCallum *et al*., 1996). Recently, a cut-off value between 0.06 (Hu & Bentler, 1999) and 0.07 (Steiger, 2007) would seem to be the general consensus among researchers in this area.

Therefore, based on previous research, the value for a good fitting model is between the limits of 0.06 and 0.10. The results are discussed in chapter 3.

'The CFI is a revised form of the NFI which takes into account sample size that performs well even when the sample size is small' (Tabachnick & Fidell, 2007). Like the Normed Fit Index, the CFI makes use of the assumption that there is no relationship between the concealed variables and therefore compares the collection of the applicable data with the CFI, which is seen as a null model.

As seen from the research above, initially the limit for CFI is 0.90. However, recent studies have indicated that the criteria for the CFI should be greater than 0.90 for research models which are not specified (Hu & Bentler, 1999). From this, a value of CFI≥0.95 is at present

recognised as indicative of good fit (Hu & Bentler, 1999). According to Hoyle (1995), CFI and TLI will be accepted within a study if the value is 0.90 or above.

2.8.8 Validity and reliability

Reliability relates to the steadiness and stability of a measure. In other words, reliability is the level of consistency of the research whereby the results are stable over a particular period and a precise representation of the population. When the outcome or results can be imitated under more or less the same methodology, then the research instrument can be regarded as reliable. A study is considered to be reliable when similar outcomes are reached with more or less the same measuring instrument (Bryman & Bell, 2007:162).

As indicated earlier, the data collection was done by means of an existing online questionnaire on a secure website. The Cronbach alphas for this survey have been tested previously. The data that were collected were kept confidential and each participant completed the survey voluntarily. Prior to completing the questionnaire, the purpose of the study was explained to the participants and they were also assured that their answers would be kept private. Informed consent was provided by the respondents and they were allowed thirty minutes to complete the questionnaire.

'Validity refers to the degree to which the data obtained from the sample can be applied to the relevant population (also known as external validity) and to the credibility of the research results (also known as internal validity)' (Kallet, 2004). The credibility of a study depends upon the validity of the study. The survey questions must be aligned with the objective of the research in order for the outcome to be meaningful (Taylor-Powell & Hermann, 2000). To ensure that participants answer the questions thoroughly and remain focused, a standardised sliding questionnaire was used, allowing them to provide their own perspective in the context of the questions. Therefore, the method of data collection used proved both valid and reliable.

2.9 Conclusion

In this chapter, a literature review was provided to gain a deeper understanding of the notions of personal financial wellness, productivity and absenteeism from both a global and local

perspective. The research design and various methods used in this study were discussed as well.

In the next chapter, the emphasis will be on analysing the statistical data and interpreting the empirical findings in line with the chosen sample. The results of the empirical analysis, which are presented in the next chapter, are in the form of an article for an academic journal. In the article, some of the basic principles which were discussed in chapters 1 and chapter 2 are highlighted.

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CHAPTER 3

ARTICLE

The impact of personal financial wellbeing on total employee cost in the South African manufacturing sector

The reader is requested to take note of the following:

- This article has been submitted for publication to the following SA approved, peer reviewed and Department of Higher Education and Training accredited academic journal as follows:
  Van Vuren, F., Fouché, J.P. & Barnard R.J,J. 2014. The impact of personal financial wellbeing on total employee cost in the South African manufacturing sector. *Southern African Business Review,* unpublished.

- The article was researched and written by the first author as candidate. The second and third author, as study leaders, fulfilled a "reviewer" function. Estimated weightings of contributions are as follows:
  - Van Vuuren, F - 75%
  - Fouche, JP – 15%
  - Barnard, RJJ – 10%
- Confirmation of receipt of the article by the journal has been received and is presented as part of Annexure A. The article was written and formatted in line with the journal's submission guidelines, which are included as part of annexure B.

The impact of personal financial wellbeing on total employee cost in the South African manufacturing sector

ABSTRACT

Levels of personal financial wellbeing are significant for both the employer and the employee in the current competitive economic environment. Research has found that levels of personal financial wellbeing do have an impact on the profitability of an employer. With increased levels of competitiveness and rivalry among employers, profitability and productive employees are critical factors in increasing the financial performance and results of the company. This study focused on the effect of employees' levels of personal financial wellbeing on their employers, with specific reference to productivity and absenteeism (two elements of total employee cost) in the South African manufacturing industry. For this purpose, a sample of 872 employees from this industry was used and a quantitative, cross-sectional design was followed. The proposed hypotheses were investigated by means of using the structural equation modelling techniques with a categorical estimator. Mediation analyses were also conducted to determine whether there were any significant indirect relationships between financial wellbeing, productivity and absenteeism due to financial interference. Findings include a statistically significant negative relationship between financial wellbeing, financial interference and absenteeism. The relationship between financial wellbeing and productivity was, however, found to be positive. This study has value in that it can create awareness in entities of what is meant by personal financial wellbeing, why personal financial wellbeing is so important to the employer and what impact this could have on an entity's overall performance in the South African manufacturing environment.

Key words: Personal financial wellbeing, financial interference, productivity, absenteeism, employee cost, manufacturing environment

Introduction

Low trading volumes and simple financial decision-making were qualities that were associated with the early to mid-twentieth century (Taft *et al.*, 2013:63). The start of the Industrial Revolution, together with higher demands for products and a wider assortment of product, however, led to an outburst of trading among countries from all over the world. Subsequently, financial decision-making for both entities and individuals has become far more complex over the past few decades. Globalisation and competition in times like these put tremendous pressure on entities that want to remain profitable. In times of turmoil and change, the most valuable asset of every organisation for future survival is employees' brainpower; yet, 'employees' are not listed as an asset on the balance sheet (Crager, 2002).

Matters regarding money and debt management continue to be the highest contributor in terms of financial concern for employees. This is due to the fact that employees are concerned about not saving enough when it comes to unexpected expenses (54%) and there are also concerns about low retirement funds and therefore employees are worried about the fact that they cannot retire on time (37%). Currently these concerns have more than doubled from the 2007 results of 25% and 18%, respectively. In addition, 49% of the candidates cannot keep up with their style of living because of higher expenses and they are unable to make payments on time. Also to support the above statement, 24% also make use of existing debt to pay for monthly requirements which they would be unable to afford otherwise (*Employee financial wellness survey*, 2014). These financial pressures have been exacerbated by the following fact: "The ratio of household debt-to-disposable income in South Africa fluctuated between 50.6% and 71.8% between 1996 and 2006" (Kotzé & Smit, 2008). The ratio between monthly living expenses and individual net income in 2014 has remained high at 74.5% (Loos, 2014:1). However, the savings rates which were at 8% in the 1980s have deteriorated in comparison with the -0.5% savings rate in 2006 (Kane-Berman & Tempest, 2007:87). Furthermore, debt for the individual has caused the effect of a lack in savings among South Africans (Grawitzky, 2003:57), and Lorgat (2003:8) has argued that South Africans lack a comprehensive savings culture. Lloyd (2005:15) concurs by stating that South Africans do not have the correct level of financial skills to productively plan for retirement. Therefore, there is a need for financial education towards the South African employees.

The recession and changing economic times have threatened the financial wellbeing of employees, which in turn has led to economic concerns regarding health, debt, income and career advancement. These concerns not only contribute towards decreased physical health as

well as psychological health, but produce a lack of interest and lowered productivity within the working environment. Lower financial wellbeing among the employees as stated above also increases absenteeism and causes disruptions in concentration levels among employees (Godfrey, 2006; Van Praag *et al.*, 2003). In South Africa, the lack of financial knowledge and skills adds to the already disrupted levels of financial wellbeing of citizens (Kotzé & Smit, 2008:157).

According to Zimmerman (1995), "financial wellbeing is the state of being healthy, happy and free from worry". Williams (1983) "recognises financial wellbeing as a function of material and spiritual aspects of one's financial status", whereas Hayhoe (1990) views financial wellbeing as the state of being satisfied with one's financial status. In short, financial wellbeing could be regarded as the way in which an individual manages money daily, creates precautionary savings, sets personal financial goals, and attempts to create wealth management and financial confidence.

People's financial wellbeing could determine their quality of life and their view of the increasing complexity of the economic environment. Low levels of financial wellbeing can lead to financial concerns, in other words, not being able to meet one's financial needs or assessing one's financial status as being poor (Friedman, 1991). Financial concerns cause emotions such as fear and anxiety which can curb one's ability to make beneficial alterations in an individual's life (for example, hunting for a new job opportunity and managing one's financial affairs)(Tedeschi & Calhoun, 2004). Financial concerns can reduce productivity and overall reduced work performance of employees as well as absenteeism (Taft *et al.*, 2013).

Previous research has indicated the importance of employee financial wellbeing to the employer. Many employees constantly struggle with personal financial matters, according to Joo (1998). These matters include satisfaction with material and non-material aspects of everyday living, the awareness of an individual's financial stability (e.g. having sufficient financial resources), and the availability of financial recourses. Ultimately, this struggle towards improving financial wellbeing will have an impact on any business (Joo & Garman, 1998). Employee wellness and wellbeing are becoming more important for organisations, as well as the need for incorporating wellness activities within the organisations to assist employees which is on the increase (Hillier *et al.*, 2005). For organisations to maintain a competitive edge towards competitors, they need to be more engaged in assisting their employees with their wellbeing as this will also be beneficial towards the employer (Schabracq & Cooper, 2000). Organisations that value the financial impact of employees and

the intellectual contribution made by them, denote these employees as being 'human capital' (Brocaglia, 2006). According to Brennan and Connell (2000), intellectual capital management plays a crucial part in the long-term performance of an enterprise. One way of addressing personal financial wellbeing is to implement Employee Wellness Programmes. However, in a day and age where funds are limited, hard evidence is required to convince enterprises of the importance of attending to the personal financial wellbeing of their employees.

To the author's knowledge, the current study is the first to use structural equation modelling (SEM) to investigate the effect of personal financial wellbeing on employee cost elements, specifically productivity and absenteeism. It is also the first study on this topic in South Africa. The remainder of the article states the research problem, provides a summary of relevant previous research and the research methodology, and presents the results.

Background and purpose of the study

There is no doubt that businesses are exposed to fierce competition in a globalised economy. This is even more so in times of financial turmoil. Previous research has indicated that the most valuable asset of every organisation is its employees. Financial concerns are created towards the employer as well, if the employees neglect to control their personal financial finances (Joo & Garman, 1998).

Several international studies have been conducted on the influence of personal financial wellbeing on employee cost (including productivity and absenteeism). Many of them support a positive relationship between personal financial wellbeing and productivity (Taft *et al.*, 2013). However, this topic is highly under-researched in South Africa. The current study has aimed to contribute to the literature by following a large sample, quantitative, non-experimental cross-sectional design to investigate the influence of personal financial wellbeing on productivity and absenteeism in the South African manufacturing environment. The main objective of this study has been to determine the impact of personal financial wellbeing and financial interference on productivity levels and absenteeism of employees in a South African environment. In line with the objectives, the following hypotheses were tested (see figure 1):

H_1: There is a relationship between personal financial wellbeing and the level of personal financial interference that an employee experiences at work.

H_2: Employees' productivity self-ratings in South Africa are influenced by their personal financial wellbeing.

H_3: Employees' levels of absenteeism from work in South Africa are influenced by their personal financial wellbeing.

H_{4a}: Personal financial interference has an impact on productivity.

H_{4b}: Personal financial interference has an impact on absenteeism.

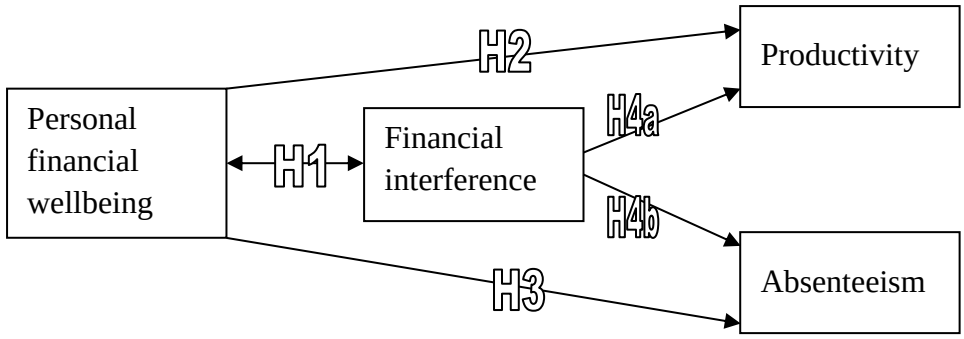

Figure 1: Schematic presentation of hypotheses

Once the impact of financial wellbeing on productivity and absenteeism in a South African context has been determined, proper interventions to benefit employees and employers can be motivated.

Literature review

The literature review provides an overview of previous findings and developments regarding financial wellbeing, financial literacy, productivity, absenteeism and financial interference at work. These concepts are explained below.

Financial wellbeing

Wellbeing is a concept consisting of various elements. According to Van Praag *et al.* (2003), "wellbeing is provided by individual satisfaction in six areas: business, finance, home, leisure, health and environmental". McGregor and Goldsmith (1998:1) view welfare as "including economic, physical, social, emotional, environmental aspects, political and spiritual factors". "Generally, wellbeing is defined as a state of being healthy, happy and free

from worry" (Zimmerman, 1995:18). Taft *et al*. (2013:65) see financial wellbeing as one's feeling of satisfaction with one's financial status. Financial wellbeing can also be viewed as the way in which people control their money on a daily basis, make use of short-term precautionary savings, set financial goals such as when to buy a new car, and create wealth management tools and gain financial confidence (Taft *et al.*, 2013:65). 'Financial wellness' and 'financial wellbeing' can be seen as the same concepts (Joo, 1998:11). In short, financial wellbeing can be defined as people's perception of their view of financial knowledge and the way in which they control their money and monetary value.

Joo (1998:49) lists a few variables that have an impact on an individual's personal financial wellbeing and, consequently, on entity cost:

- demographics,
- financial stressors, and
- personal financial wellness and financial stress levels.

"Demographic characteristics such as gender, marital status, education, ethnicity, age, income, life stage, number of young children, occupation, and housing tenure are related to personal financial wellness" (Porter, 1990).

'Stressor' can be defined as a life incidence which could possibly put strain upon the family (McCubbin & Patterson, 1983:4). Stressors could therefore be seen as events leading to personal stress (Shinn, Rosario, Morch & Chestnut, 1984). Financial stressors come from three sources and include personal, family and financial situations. In contrast to financial stress, personal stress consists of two groupings namely job-related events and other. "Job-related events include job change, decrease in wage, job loss and retirement (Joo, 1998:49). Job-related events such as mentioned above contribute the most to the increased levels of financial stress (Varcoe, 1990). Other personal stressors include stressors such as loss of investments, injuries and permanent disability, chronic illness and wage deductions (Garman *et al*., 1996).

Financially stressful situations include relocating, necessary and expensive home repairs, key automotive repairs, loss of a vehicle due to non-payment, mortgage foreclosure, legal problems, increased medical expenses and also too much debt from previous situations (Joo, 1998:48). Figure 2 provides an overview of the financial stressors as identified in the

literature in more detail which affect personal financial wellbeing. The scope thereof points to the complexity of the matter.

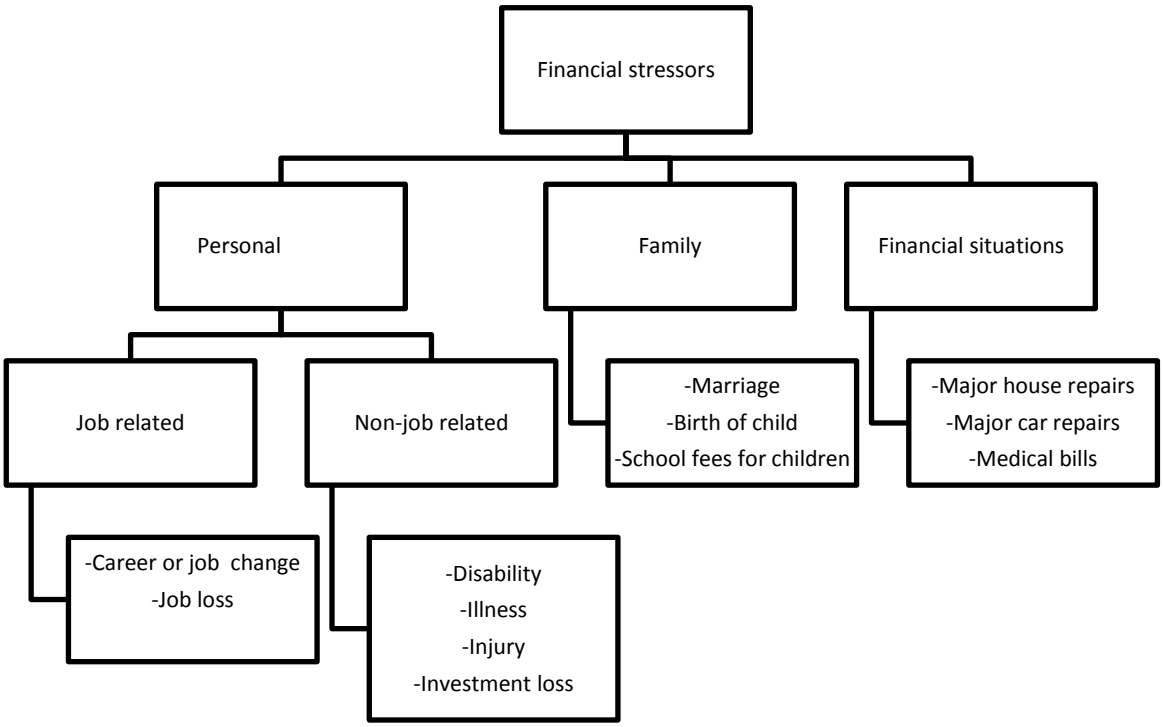

Figure 2: Financial stressors

As indicated by employee assistance professionals, personal problems do have an impact on job performance and 20% of employees are affected by this (Masi, 1992:1). It is estimated by other researchers that 10-15% of employees could have financial problems and that ultimately these financial problems will contribute to lower levels of productivity (Brown, 1993; Garman *et al.*, 1996).

|Financial stress could have a long-term effect on the employee and might be a concept which is difficult to restrict to private time. The impact of financial stress can contribute to the level of productivity and absenteeism and employee experience. Continuous attempts from financial institutions to contact employees lead to decreased productive hours. As evidenced by previous research, the stressors might impair personal financial wellbeing which, in turn, can decrease productivity and increase absenteeism. It can also cause interference at work.

Financial literacy and financial wellbeing

Anthes (2004:49) explains that financial literacy refers to the level of financial knowledge in order to control and manage one's personal financial situation which in turn has an impact on the material wellbeing of an individual. Therefore, material wellbeing, in this sense, will have an impact on an individual's ability to make financial choices. Taft *et al.* (2013:64) define financial literacy as applying discernment towards one's personal life as well as within the organisation. Another definition of financial literacy as set by the US Financial Literacy and Education Commission (Basu, 2005:2) refers to the ability to raise knowledgeable opinions towards one's financial situation and also to take necessary steps to improve management of money.

Weak financial literacy skills are also taking their toll in the South African entrepreneurial environment (Kotzé & Smit, 2008:156). Research by Kim (2000:1) and Joo (1998:34) has shown that adults on an international basis have a shortage of financial literacy and therefore struggle to make knowledgeable and skilled financial decisions (Kim, 2000:1).

In the workplace, higher levels of financial literacy could lead to improved efficiency and productivity, which means that employees could concentrate less on financial concerns and related problems (Taft *et al.*, 2013:64). Employees with improved financial literacy could indeed be more focused (Kim, 2000) which could moderate the negative impact of low personal financial wellbeing on productivity and absenteeism. Also employees with financial education reported increased health, improved performance evaluations, and higher job productivity (Garman *et al.*, 1996; Joo, 1998). Financial education could also lead to a long-term return on investment of at least 3:1 for the employer if workplace education is provided (Joo & Garman 1998). In other words, employers would be wise to invest in their employees with regard to their financial wellness. Already in 1998, savings due to workplace financial education were calculated to be $400 per employee within the USA (Joo & Garman, 1998b). These savings programmes thus also lead to a reduction in absenteeism and increases in productivity.

To improve profitability, employers need to assist their employees in enhancing their personal financial wellbeing. In order to retain but also to enlist valuable employees, employers need to invest in financial education (Garman, 1999:1). In the light of the above, it is clear that financial educational programmes play a significant part in understanding financial wellness and addressing levels of financial wellness.

Productivity

One of the factors affected by financial wellbeing and a lack of financial literacy is productivity. "Productivity could be defined as the ratio of output of required quality to the inputs for a specific production situation. In the construction industry, it is generally accepted as work output per man-hours worked" (Ailabouni *et al*., 2007). The output of the specified production situation will have a definite impact on the employer or the organisation. The output is influenced by determinants such as financial stress, financial wellness and financial behaviour (Delafrooz *et al.*, 2010:871-878).

Previous research has pointed out a relationship between personal financial wellbeing and the productivity of the employees (Kotzé & Smit, 2008:157). The cost of reduced employee productivity due to poor financial behaviours can be substantial. Employees with financial problems could experience decreased levels of performance (Williams, 1996). This in return will be more expensive for employers.

The personal financial concerns of the employees have a direct impact on the working environment and therefore is causing increasing employer awareness towards employee financial wellbeing (Joo, 1999:1), and with regard to productivity and costs specifically (Williams *et al.*, 1996:147). Research in the US has indicated that, on average, poor financial literacy contributes to increased stress levels which have an influence on productivity levels of 15% of employees (Garman *et al*., 1996:146). The total magnitude of the cost to employers in this regard has, however, not yet been determined (Garman, Leech & Grable, 1996:157). In another study, Brown (1979) calculated that "10% of selected employees were suffering from stress as a result of money problems". Researchers have also estimated that 15-20% of workers in the US have financial concerns that decrease their productivity (Kim & Garman, 2004:69). Evidently, employers suffer high productivity costs as a result of employees who are not financially well (Garman *et al.*, 1996:1).

Absenteeism

Absenteeism can be described as an employee's non-attendance of scheduled work (Langenhoff, 2011:23). Simply put, it is not being physically present at work. In many instances, temporary employees need to be hired in to perform the relevant tasks as scheduled which will be more costly for the employer (Langenhoff, 2011:23).

Absenteeism is a variable which is usually influenced by factors such as "job satisfaction, stress, job performance, the employment environment, demographic characteristics of employees, job characteristics, commitment to employer, absence norm, and the managerial strategies of employers "(Joo & Garman, 1998:2). "Job or life stress affects organisational commitment" (Hendrix *et al.*, 1987). Stress from personal finances has been indicated as one of the most influential sources of psychosocial stress, because many basic life activities are associated with personal financial resources and their management (Peirce, Frone, Russel & Cooper, 1996). Similarly, Joo (1998) has found that a higher level of financial wellness was associated with less absenteeism. From the above, it is clear that stress and financially related stress are common causes of financial interference which causes absenteeism.

Financial interference

Not much research has been conducted specifically on the term *interference*, but it can be interpreted as the level of disruption or the prevention of a process from flowing fluently. The relationship between personal employee problems and problems experienced at work implies that this will have an effect on an employee's organisational performance (Forthofer, Markman, Cox, Stanley & Kessler, 1996). The effect of poor financial wellbeing comprises not only a direct impact on productivity but also absenteeism. Kim (2003:34) introduced the term 'financial interference' when she explained the reasons for people's lack of financial literacy. Wallace (1997) also advocated support for employees in order to reduce financial interference at work. In short, low financial wellbeing can cause interference at work and lead to high absenteeism and low productivity.

Research methodology

A research paradigm can be defined as a viewpoint based on a set of shared expectations (Johnson & Christensen, 2004) - in other words, a paradigm can be defined as the level of thinking towards contributing and expanding the level of knowledge. This study was conducted within the context of the positivist researchers' paradigm, because statistical analyses were used to obtain an understanding of social and psychological concepts (Bryman, 2001). Positivists use statistical methods of analysis on quantitative data to measure social occurrences and draw conclusions on relationships found between variables (Burgess, 1984).

A quantitative, non-experimental, cross-sectional design was followed in the study. Quantitative research involves using empirical quantifiable data to draw conclusions based on experimentation and objective, systematic observations (Belli, 2008:60). Non-experimental research investigates the variables as they currently exist and are not being manipulated because many variables of interest (like gender, socio-economic status, personal characteristics) in the field of social sciences cannot be manipulated (Belli, 2008:60). A cross-sectional study is regarded as a study in which both exposures and output are measured at the same time within the population. In this type of design, the researcher investigates the relationship between the exposure and the outcome, but cannot form a reliable opinion about cause and effect (Rosell *et al.*, 2004:1393).

Measuring instruments

The data were collected by means of the South African Employee Health and Wellness Survey (SAEHWS) (De Beer *et al.2007*; Rothmann & Rothmann, 2007) on a secure website from sampled employees in the South African manufacturing sector. Before completing the questionnaire, the participants were provided with a specific set of instructions with regards to the purpose of the study and the confidentiality of the questionnaires was confirmed. Participation in the survey was voluntary. Informed consent was provided by all the respondents. Authorization was given by each organisation to perform the study and to use the data anonymously Factor scores were created in a confirmatory way, for example, the items representing the factors were grouped together. The alpha coefficients for all the constructs were found to be acceptable ($\alpha \geq 0.70$). The following subscales of the SAEHWS were measured for this study:

- General financial wellbeing: (α=0.80) by means of four items (e.g. 'I am satisfied with my personal financial situation'), and
- Financial interference: (α=0.71) by means of three items (e.g. 'Personal money matters interfere with my work-related activities').

The items for general financial wellbeing and financial interference were all measured on a four-point Likert scale ranging from 'Never' (1) to 'Always' (4). Productivity was measured by 'Over the last 3 months, roughly how productive have you felt in your job?' with options

in percentages for participants to choose from. Absenteeism was measured by 'Over the last 3 months, how many working days in total have you been off work due to illness?'

Validity and reliability

Reliability conveys how consistent and dependable the measure is. A study is considered to be reliable when the outcome of a similar study is more or less the same when using the same measurement instrument (Bryman & Bell, 2007:162). As indicated earlier, the data collection was performed by means of an existing survey on a secure website. The Cronbach alphas for this survey have been tested previously, supporting the reliability of the questionnaire.

"Validity refers to the degree to which the data obtained from the sample can be applied to the relevant population (also known as external validity) and to the credibility of the research results (also known as internal validity)" (Kallet, 2004). The credibility or integrity of a study is determined by whether the outcomes of the study and assumptions drawn from the results are correctly explained and described. The survey questions must be aligned with the objective of the research in order for the outcome to be meaningful (Taylor-Powell & Hermann, 2000). For purposes of this study, proper planning was conducted and the questionnaire was developed to investigate the main and secondary objectives of the research study. To ensure that participants answered the questions thoroughly and remain focused, a standardised sliding questionnaire was used, allowing them to provide their own perspective in the context of the questions. As managerial consent and information regarding the purpose of the questionnaire were provided beforehand, employees were aware of the survey's relevance. These aspects contributed towards the validity of the questionnaire.

Statistical analysis

Structural equation modelling (SEM) methods, as applied by Mplus 7.11 (Muthen & Muthen, 2010), "were used to investigate the hypotheses". Structural equation modelling is described as the creation of statistical models that are used to determine whether the theories that were used with the empirical data are valid. (Lei & Wu, 2007). The reason for choosing Mplus was because of its ability to distinguish latent variables from ordinal items in analyses. Latent variable models attempt to explain complex relationships between several variables by using simple relationships between the variables and an underlying unobservable (Lauritzen, 1996).

The mean and variance-adjusted weighted least-squares method is the default estimator for models that contain ordinal categorical items in Mplus (Muthen *et al.*, 1997).

"Absolute fit indices determine how well an *a priori* model fits the sample data and demonstrates which proposed model has the most superior fit" (McDonald & Ho, 2002). This study reflects the following fit indices: Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA). The purpose of the CFI is to justify the sample size for the particular study (Tabachnick & Fidell, 2007). A good and proper fit for a study needs to have a value of CFI≥0.95 (Hu & Bentler, 1999). Also, when the statistical range has values of between 0 and 1, the recommendation of the value needs to be higher than 0.90 in order for the range to be identified as a good fit (Bentler & Bonnet, 1980). Over the last few decades, the RMSEA has been observed to be one of the most revealing fit indices (Diamantopoulos & Siguaw, 2000:85) due to its sensitivity to the number of estimated parameters in the model. Recently, a cut-off value of between 0.06 (Hu & Bentler, 1999) and a stringent upper limit of 0.07 (Steiger, 2007) seems to be the general consensus among authorities in this area.

Owing to the nature of the hypothesised model, an investigation of potential indirect effects with a mediation model was performed in this study. "A mediation model hypothesizes that the independent variable influences the mediator variable which, in turn, influences the dependent variable" (Baron & Kenny, 1986) The mediator variable therefore serves to explain the nature of the relationship between the independent and dependent variables more clearly" (Baron & Kenny, 1986). Bootstrapping resampling was implemented with the model indirect function of Mplus, requesting 95% confidence intervals for the potential indirect effects from 5 000 resampling draws (Hayes, 2009). Although hesitant to connect descriptive labels to mediation effects, Preacher and Kelley (2011) suggest that kappa-squared (κ^2) values should be calculated and interpreted in the same light as squared correlation coefficients – i.e. with the guidelines of Cohen (1988) – where small, medium and large effect sizes are stated as 0.01, 0.09 and 0.25 respectively. Calculation of κ^2 values is at present reserved for simple mediation models, but to allow for a general indication of effect size above and beyond the basic indirect effect value, κ^2 was calculated for the indirect effects in this study.

The correlation between the variables was also determined. Correlations describe the association between variables, but do not indicate the direction of the relationship as with regression. A negative correlation between two variables indicates that the two variables

move in different directions – as one increases, the other decreases. On the other hand, a positive correlation means that both variables move in the same direction – as one increases, the other increases as well, or vice versa. The two-tailed p-value indicates the statistical significance of the estimates. When the p-values are less than 0.05, the estimates will be significant and one can conclude that there is evidence for a relationship between the measured variables (Crudeck & Browne, 1993).

Results

Descriptive statistics

Data were gathered from a random sample of individuals (n=872) in the manufacturing sector (see table 1). Employees from different ages, races and occupational levels were sampled. The bulk of the participants were men (729; 83.6%). With regard to race, the majority of the participants were white (430; 49.3%), followed by black participants (318; 36.5%). The most prevalent language was Afrikaans with 420 (48.2%) participants, then English with 146 (16.7%), followed by isiZulu with 100 (11.5%). Most of the participants (631; 72.4%) were married. The majority of the participants, that is 426 (48.9%), had a general high school education and diploma (Grade 12), and 108 (12.4%) participants had a higher education degree. With regard to age groups, most participants, namely 180 (20.6%), were 46-51 years of age. The majority of the participants, which is 706 (81%), were from Mpumalanga and the second most from the Free State (141; 16.2%).

Table 1: Biographical characteristics of participants (n=872)

Item	Category	*Frequency*	Percentage (%)
Gender	Male	729	83.6
	Female	143	16.4
Race	Black	318	36.5
	White	430	49.3
	Coloured	18	2.1
	Indian	28	3.2
	Other	78	8.9
Marital Status	Single	184	21.1

Item	Category	*Frequency*	Percentage (%)
	Engaged	11	1.3
	Married	631	72.4
	Divorced	39	4.5
	Widow/Widower	7	0.8
Qualification	Grade 8	57	6.5
	Grade 9	12	1.4
	Grade 10	80	9.2
	Grade 11	31	3.6
	Grade 12	426	48.9
	3-year degree/diploma	108	12.4
	4-year degree/diploma	97	11.1
	5 to 7-year degree	17	1.9
	Master's degree	41	4.7
	Doctoral degree	2	0.2
	Unanswered	1	0.1
Province	Gauteng	12	1.4
	Mpumalanga	706	81.0
	North West	2	0.2
	Limpopo	2	0.2
	Free State	141	16.2
	Unanswered	9	1.0
Home language	Afrikaans	420	48.2
	English	146	16.7
	Sepedi	41	4.7
	Sesotho	70	8.0
	Setswana	13	1.5
	Siswati	16	1.8
	Tshivenda	9	1.0
	isiZulu	100	11.5
	isiNdebele	13	1.5
	isiXhosa	21	2.4

Item	Category	*Frequency*	Percentage (%)
	Xitsonga	18	2.1
	Other	5	0.6
Age	22-27	71	7.9
	28-33	163	18.6
	34-39	124	14.2
	40-45	115	13.2
	46-51	180	20.6
	52-57	161	18.5
	58-63	51	5.7
	64-67	6	0.6

Model fit

The SEM is divided into two parts. The measurement model is the part which relates measured indicators to latent variables in confirmatory factor analysis. The structural model is the part that determines the relationship of the latent variables towards each other (Wuensch, 2009:1) by adding regressions to the measurement model. Table 2 displays the results of the SEM.

Table 2: Results of the structural equation modelling (n=872)

Description	**CFI**	**TLI**	**RMSEA**
Measurement model	0.991	0.987	0.041
Structural model	0.989	0.984	0.042
Note: CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA= Root Mean Square Error of Approximation			

The research model was specified as the structural equation model and was discussed in detail previously. The indicator variables (items) mentioned in the hypotheses were set as categorical in Mplus (Muthen & Muthen, 2010) and, according to the results, the measurement model was found to fit the data acceptably (refer to table 2 – measurement model). The TLI, also known as the Non-Normed Fit Index (NNFI), was created to rectify the

issue with the NFI. The major disadvantage of the NFI is that this index is sensitive to sample size and can, therefore, underestimate the fit of a model for a specific study (Hooper, Coughlan & Mullen, 2008:55). The CFI (0.989) and the TLI (0.984) also passed the acceptable fit criterion, which is a minimum of 0.90 for a good model fit (Hoyle, 1995). As mentioned above, "a major drawback to this index is that it is sensitive to sample size, underestimating fit for samples less than 200" (Mulaik *et al.*, 1989; Bentler, 1990) The sample size of the current study was greater than 200. This problem was rectified by the NNFI, an index that prefers simpler models. However, in studies with smaller samples the NNFI can reflect a poor fit although the other statistics reflected a good fit (Bentler, 1990; Kline, 2005; Tabachnick & Fidell, 2007). Another problem with the NNFI is that, due to its non-normed nature, values can be above 1.0 which can lead to difficulty in interpretation (Byrne, 1998). For the NNFI, a value of as low as 0.80 can still be seen as an acceptable fit; however, Hu and Bentler (1999) "have suggested TLI ≥0.95 as the threshold". Therefore, in the light of the NNFI, the data from this study are still regarded as fit as per the values above. Also, the RMSEA value of 0.042 for this particular study is below the parameter guideline of 0.06, which confirms that the model is fit and acceptable (Hu & Bentler, 1999).

Correlations

Table 3 shows the structural correlation statistics of the variables in the sample.

Table 3: Pearson correlation matrix (r) of the variables (n=872)

Variable	***R***			
	1	**2**	**3**	**4**
1. General financial wellbeing	1.000			
2. Financial interference	−0.733	1.000		
3. Productivity	0.224	0.134	1.000	
4. Absenteeism	−0.156	0.084	0.000	1.000

As indicated in table 3, there was a negative correlation between general financial wellbeing and financial interference (r=−0.733; large effect) and absenteeism (r=−0.16; small effect), with a positive relationship between general financial wellbeing and productivity (r=0.22; small effect). The correlations between financial interference and productivity, financial interference and absenteeism, as well as productivity and absenteeism, were positive.

Regressions

Table 4 below indicates that most of the p-values are lower than 0.05, except for the p-value between financial interference and absenteeism, which is 0.316 and indicates non-significance of the regression. Apart from this correlation between financial interference and absenteeism, the correlations are statistically significant and relevant for this study, and the regression between the variables is sufficient.

Table 4: Results of standardised regression

Structural regression path specified	**Standardised estimate**	**Standard error**	**Two-tailed p-value**
General financial wellbeing → Financial interference	−0.733	0.022	0.001
Financial interference → Productivity	0.224	0.070	0.001
Financial wellbeing → Productivity	0.134	0.066	0.042
Financial interference → Absenteeism	0.084	0.084	0.316
Financial wellbeing → Absenteeism	−0.156	0.080	0.049*

*Note: *Would be 0.05 when rounded*

It is clear from table 4 that general financial wellbeing predicted financial interference negatively (β=–0.73; p=0.001), which confirmed H_1. Financial interference, in turn, showed a small positive predictive relationship to productivity (β=0.22; p=0.001), which confirmed H_{4a}. Furthermore, the relationship between financial wellbeing and productivity proved significant (β=0.13; p=0.042) which, in turn, confirmed H_2. However, the relationship between financial interference and absenteeism was not significant (p=0.316); therefore, H_{4b} could not be confirmed. Finally, financial wellbeing negatively predicted absenteeism (β=–0.16; p=0.049), which confirmed H_3.

Indirect effects: mediation model

The bootstrapping resampling revealed no significant mediating effect between general financial wellbeing and absenteeism through interference as p>0.05. However, the indirect effect for general financial wellbeing on productivity was shown to be –0.16 (95% CI [–0.29; –0.04]; p=0.01). The κ^2 value for this mediating effect of financial interference between general wellbeing and productivity was calculated to be κ^2=0.145, which indicated a medium effect.

Discussion

In line with the results as indicated in table 2, the model that is suggested by the various hypotheses provides a good fit for investigating the impact of personal financial wellbeing on productivity, absenteeism and the median effect of financial interference on productivity and absenteeism. This proposed model in itself, therefore, contributes to providing a suitable model for further studies on the phenomenon.

H_1 stated that there is a relationship between personal financial wellbeing and the level of personal financial interference that an employee experiences at work. A robust negative relationship between general financial wellbeing and financial interference (β=–0.733) was observed. The relationship was statistically significant ($p<0.05$). This indicates that, as employees' financial wellbeing increases, the level of financial interference would decrease. In other words, if employees are satisfied with their personal financial wellbeing, there would be less financial interference at work. H_1 is therefore supported by the findings of the study, which concur with those of Forthofer *et al.* (1996) and Kim *et al.* (2003). The implication for the employer is less interference and more focused and productive employees.

H_2 stated that employees' productivity self-ratings in South Africa are influenced by their personal financial wellbeing. A positive relationship was found between general financial wellbeing and productivity and it was statistically significant (β=0.134; $p<0.05$). Accordingly, an increase in financial wellbeing would result in an increase in productivity. H_2 is therefore supported by the findings, which agree with those of Kotzé and Smit (2008) who determined that there was a relationship between personal financial wellness and worker productivity. Moreover, this hypothesis is supported by Williams (1996) who found that employees who face financial wellness problems are more costly to employers. Evidently, a positive relationship between financial wellbeing and productivity is beneficial to the employer, because an increase in general wellbeing would see an increase in productivity and, ultimately, employees reaching the goal of the entity more efficiently and effectively.

H_3 stated that the levels of absenteeism of South African employees are affected by their personal financial wellbeing. The correlation matrix indicated a negative correlation between personal financial wellbeing and absenteeism (β=–0.156; $p<0.05$). In other words, as financial wellbeing increases, levels of absenteeism would decrease. An increase in financial wellbeing could result in an increase in productivity due to lower levels of absenteeism. H_2 is

therefore supported. Previous research has shown that employees who are stressed by individual external factors often take a day off from work to sort out financial problems – which again increases absenteeism from work. This finding is supported by research of Joo and Garman (1998) who indicated an association between a higher level of financial wellbeing and less absenteeism. In the same vein, Bagwell (2000) and Garman *et al.*, 1999) found that an increase in absenteeism was correlated to deprived levels of personal financial management. It would be beneficial for the employer to increase levels of financial wellbeing as it goes hand in hand with a decrease in absenteeism. Lost productive time due to absenteeism is minimised in this way and the indirect effect of lost personal time in monetary value is decreased. Employers need to establish a support system to decrease absenteeism caused by low levels of financial wellbeing.

H_{4a} stated that personal financial interference has an impact on productivity. A positive relationship was found between financial interference and productivity, which was statistically significant (β=0.224; p<0.001). This indicates that increased levels of financial interference have a positive impact on productivity. H_{4a} is therefore supported in accordance with findings of Forthofer *et al.* (1996). These authors contend that the interface between work and personal financial problems could affect job performance. The results were, however, opposite to what was expected in the current study: One would have expected that an increase in interference would have decreased productivity. Nevertheless, from the study sample, it seems that financial interference could indeed increase productivity to some extent. A possible explanation is that, because of the interference, employees need to concentrate harder when they are productive, or they fear losing their job, which causes them to compensate by increased productivity. This phenomenon needs more investigation.

H_{4b} stated that personal financial interference has an impact on absenteeism. A positive relationship was found (β=0.084), but the regression was not statistically significant (at p>0.316). Employees need to attend work, whether an employee experiences financial interference or not. Therefore this might be the reason why the data are not significant.

Conclusions, recommendations and limitations

Conclusions

One of the more noticeable concerns for workers is the issue of their personal financial difficulties. Previous research done has indicated that productivity is influenced by these financial difficulties and this will also lead to increased absenteeism (Garman *et al.*, 1996;

Joo, 1998; Joo & Garman, 1998). Employees who are burdened with financial problems and experience low levels of financial wellbeing most likely will not perform to their full potential (William, 1996). The results of the study could explain why employees' perceptions of their financial situation and financial soundness cause interference which can lead not only to absenteeism from work, but also to low productivity levels.

The study set out to investigate the impact of personal financial wellbeing on total employee cost items, viz. productivity and absenteeism in the South African manufacturing context. The hypotheses were investigated by means of a structural equation modelling analysis. This particular model was found to be a proper and effective fit for the sample data. A model was derived to show the impact of financial wellbeing and the relationship between financial wellbeing, productivity and absenteeism. The model further indicates financial interference as the mediator, and the impact of financial wellbeing on productivity and absenteeism. A statistically significant negative relationship was found between financial wellbeing, financial interference and absenteeism. The relationship between financial wellbeing and productivity was positive. The mediating effect between financial wellbeing and absenteeism was not significant, but a medium effect was calculated between financial wellbeing and productivity.

This study provides useful information to various companies in the South African manufacturing industry since local research on the topic is limited. The study could also initiate change within the economic environment by offering insight to South African companies regarding the personal financial wellbeing of their employees and related matters. Valid contributions for the employer would be the provision of assistance with regard to personal financial wellbeing for employees seeing that this will increase productivity and decrease absenteeism and, ultimately, make an organisation much more competitive.

Recommendations

It is recommended that researchers, employees and managers take note of the findings of this study in order to increase productivity of and reduce absenteeism by the most important asset of a company, which is the employee. A survey conducted by Aon Consulting (1998) indicated that there had been an increase in absenteeism among employees due to various factors such as stress and personal problems. The survey concluded that personal reasons and sickness increased absenteeism and that on average it amounted to 6% of their pay rate which was almost as much as time taken for holidays. Therefore, companies need to consider the

importance of their employees' financial wellbeing in order for them to be more cost-effective. Financial literacy programmes suitable for the manufacturing industry can be developed, guidance on management of financial wellbeing could be provided, and workshops could be held for employers on improved financial management of personal finances.

Owing to the limited amount of literature on this topic in South Africa, more attention needs to be paid to local studies. South African companies also need to try to limit the problems of decreased productivity and absenteeism by assisting their employees and providing financial educational programmes.

Limitations of the study

One limitation of this study was that the online questionnaire was administered only in the manufacturing industry. Both employees and employers differ from industry to industry based on placement within the sector, the working environment, competitiveness between entities and demographics. Therefore, views about personal financial wellbeing of employees from various sectors could differ.

The current study investigated only personal financial wellbeing and its impact on financial interference, productivity and absenteeism; in other words, whether financial wellbeing does have an influence on these variables. Many more variables could affect financial interference, productivity and absenteeism. Furthermore, the study investigated only productivity and absenteeism, while other elements of employee cost were not included.

Future research

Considering the limitations mentioned above, more research should be conducted within other industries. One focus point can be to determine more accurately the actual cost of the impact of personal financial wellbeing on productivity and absenteeism, while another can be to determine the return on investment for South African companies on financial wellness educational programmes. Studies could also be expanded to include a magnitude of other variables. Various existing financial educational programmes could be implemented in South Africa in order to improve financial wellbeing, and new methods could be developed in this

regard. The reason for the positive relationship between financial interference and productivity also warrants further investigation.

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CHAPTER 4

SUMMARY, CONCLUSION AND RECOMMENDATIONS

4.1 Introduction

The purpose of this chapter is to summarise the essence of the research conducted. This includes a synopsis of the literature review and the results of the empirical analysis. It is shown how the hypotheses were addressed, and conclusions drawn. Lastly, some recommendations for future research are made and the limitations of the study are discussed.

For this study, five hypotheses were set, namely (1) there is a relationship between personal financial wellbeing and the level of personal financial interference that an employee experiences at work; (2) there is a relationship between personal financial wellbeing and employee productivity self-ratings; (3) employees' levels of absenteeism from work in South Africa are influenced by their personal financial wellbeing; (4a) personal financial interference has an impact on productivity; and (4b) personal financial interference has an impact on absenteeism.

4.2 Overview of the study

As indicated in this study, employees with high levels of financial stress tend to be more absent from work; thus, financial wellbeing correlates positively to low levels of absenteeism (Kim & Garman, 2003:38-39). A positive correlation between financial wellbeing and productivity has also been found, as mentioned previously (Joo, 1998:244). Both variables have an impact on the employer (in the form of total employee cost) and the employee, as evident from this study.

Past research has indicated that firms are driven by productivity, well-organised management and intellectual capital (Ahangar, 2011:88). Moreover, a greater focus has been placed on long-term managerial strategies to increase the productivity of an organisation, motivate financial success and efficiency within the working environment, in order to oppose challenges imposed by the fast-changing business environment (Gollan, 1995). It is clear that

organisations need to determine the level of employee wellbeing and its impact on productivity and absenteeism (Crager, 2002:65).

Many organisations might deem personal financial wellbeing to be insignificant as it seems to have no direct effect on the monetary value of the organisation in the short term. However, as shown by this study, financial wellbeing of employees has an impact on the human capital of an organisation, which leads to the long-term effect of decreased productivity and increased absenteeism and, ultimately, decreased overall performance by the organisation. This research was conducted in the manufacturing industry in South Africa from a sample of various employees of all ages, races and occupational levels. Also as mentioned previously, various studies have been conducted internationally on this topic; yet none or little research in this field has been done in South Africa. The literature review has indicated that organisations need to be aware of factors such as financial wellbeing if they want to retain a competitive edge, especially in South Africa, a developing country with a vulnerable economy. The gap in the research on the impact of personal financial wellbeing on productivity and absenteeism in South Africa became clear in during the literature review.

The most valuable asset of every organisation has been proposed as brainpower; yet, 'employees' are not listed as an asset on the balance sheet (Crager, 2002). Companies are losing precious time, profits and, ultimately, market share in their industry due to their employees' not performing up to standard. The literature has also indicated that more emphasis needs to be placed on corporate social responsibility of entities towards their employees. Clearly, the wellness of employees needs to be a top priority for any organisation that wants to maintain its competitive edge.

The main objective of this study was to determine the impact of personal financial wellbeing and financial interference on absenteeism and productivity levels of employees in a South African context. Three secondary objectives were set to contribute to the achievement of the main objective.

4.2.1 An understanding of the existing literature and research that has been conducted previously on personal financial wellbeing and financial interference and the impact on absenteeism and productivity (addressed in chapters 2 and 3)

A literature review (chapter 2) was conducted, in the first place, to gain insight into the topic and, in the second place, to provide the basis for the empirical study (reported in the article, chapter 3). Financial wellbeing, productivity, absenteeism and financial interference were selected as variable measuring instruments in the current study. In the literature review, these key terms were defined. The literature saw financial wellbeing as an outcome of the perception of one's financial status (Taft *et al.*, 2013:64). With regard to these aspects, it was found that 10-15% of the employees are influenced by financial problems in such a way that these problems have a negative impact on their job productivity (Kim & Garman, 2004:137, Porter & Garman, 1993:137).

Productivity and absenteeism were the two main aspects in this study. Previous research has pointed out a link between personal financial wellness and the productivity level of the employee (Kotzé & Smit, 2008:157): Low financial wellbeing is related to both absenteeism (Kim & Garman, 2003:39) and lower productivity (Joo, 1998:171, 244). Employees with financial problems are likely to not perform to their fullest capabilities (Williams, 1996:147), because employee financial stress or low levels of financial wellbeing result in negative productivity behaviours such as absence, tardiness, mistakes, accidents, loss of concentration and lower output (Williams *et al.*, 1996), as well as lower organisational commitment (Kim, 1999:43).

When employees fail to control their own finances, it creates financial problems not only for themselves, but also for their employers (Cohart, 1997). Employees with low levels of financial wellbeing are often the cause of increased costs to employers due to lower productivity levels (Garman *et al.*, 1996:1). The literature indicates that employers' interest in employee financial wellbeing has increased due to their need to improve productivity and lower costs in a more competitive environment (Williams *et al.*, 1996:147). To convince employers that intervention programmes to improve employee financial wellbeing will also benefit them, the impact of personal financial wellbeing on productivity and absenteeism needs to be determined.

With regard to absenteeism, the literature refers to an association between higher levels of personal financial wellness and less absenteeism (Joo, 1998:52). Also, absenteeism is costly for employers because temporary employees must be hired to complete tasks, and some tasks simply do not get accomplished at all (Langenhoff, 2003:23). Absenteeism is regarded as a variable that is usually influenced by factors such as job satisfaction, stress, job performance, the employment environment, demographics of employees, job characteristics, commitment to employer, the absence norm, and the managerial strategies of the employers (Joo & Garman, 1998:2).

The last variable to be investigated in this study was 'financial interference'. According to the literature, financial interference is one of the reasons why people are financially illiterate (Kim, 2003:34). The effect of poor financial wellbeing can thus not only be seen in its impact on productivity and absenteeism, but also on lower levels of financial literacy.

4.2.2 A model which shows the relationship between financial wellbeing, financial interference, absenteeism and productivity (addressed in chapter 3)

The empirical research addressed secondary research objectives 2 and 3. The research was based on existing data supplied by Afriforte Pty Ltd, which were collected by means of the online SAEHWS survey on a secure website. Data were taken from a random sample of employees (n=872) from the manufacturing sector, including all ages, races and occupational levels.

Structural equation modelling (SEM) methods were implemented to analyse the data. Absolute fit indices were used to determine whether the model used was fit for the sample data. In testing the hypotheses, Pearson's correlation coefficients were calculated and standardised regression analysis was applied to determine the relationship between the variables. The statistical data were found reliable and valid for the study.

The SEM was divided into two parts: the measurement model related measured indicators to underlying variables in confirmatory factor analysis; and the structural model related

underlying variables to one another (Wuensch, 2009:1). The measurement model was also found to be fit for this study. As seen from the research results, the CFI (0.989) and the TLI (0.984) passed the acceptable fit criterion, which is a minimum of 0.90 for a good model fit (Hoyle, 1995). Values for TLI range between 0 and 1. Bentler and Bonnet (1980) state that values greater than 0.90 indicate a good fit. More recently, however, the cut-off criterion has been recommended to be NFI≥.95 (Hu & Bentler, 1999). The SEM model therefore proved to be a suitable and valuable measurement model for this study.

Findings regarding the relationship between financial wellbeing, financial interference, absenteeism and productivity were as follows:

a) Hypothesis 1 stated that there is a relationship between personal financial wellbeing and the level of personal financial interference that an employee experiences at work. The data were found to be statistically significant. Therefore, a relationship was established between personal financial wellbeing and the level of personal financial interference. This supports the findings of Forthofer *et al.* (1996) and Kim (2003:39). If management were to improve the personal financial wellbeing of employees, it would most likely lead to benefits for the employer as well. H1 is therefore supported.

b) The second hypothesis of this study stated that there is a relationship between personal financial wellbeing and employee productivity ratings. The findings indicated that this hypothesis is indeed valid and true. In support, Williams *et al.* (1996) contend that employees who are burdened with financial problems and low levels of financial wellbeing are likely to perform at decreased levels to their full potential. An increase in financial wellbeing will therefore result in an increase in productivity. Kotzé and Smit (2008:157) have determined further that personal financial wellness and worker productivity are related. Increased personal financial wellbeing of employees could be beneficial to the employer because this will also increase productivity for the employer and the entire entity.

c) Hypothesis 3 stated that employees' levels of absenteeism from work in South Africa are influenced by their personal financial wellbeing. The study found that, as financial wellbeing increases, levels of absenteeism decrease. On the other hand, an increase in financial wellbeing will result in an increase in productivity due to lower levels of absenteeism. H3 is therefore supported. Findings of Joo and Garman (1998) have

shown that higher levels of financial wellness are associated with decreased absenteeism, and Bagwell (2000) and Garman *et al.* (1999) also found that higher absenteeism is linked to poor personal financial management. Increasing the levels of employee financial wellbeing would thus be beneficial for the employer, seeing that it goes hand in hand with a decrease in absenteeism. Lost productive time due to absenteeism is minimised and the indirect effect of lost personal time in money value is decreased. Evidently, employers need to establish a network of support to decrease absenteeism caused by low levels of financial wellbeing.

d) Hypothesis 4a stated that personal financial interference has an impact on productivity. From the research, it became clear that increased levels of financial interference have a positive impact on productivity. This supports the findings of Forthofer *et al.* (1996) that the interface between work and personal financial problems might affect job performance. However, these results were opposite to what was expected, namely that an increase in interference would decrease productivity. From the results, it seemed that financial interference would increase productivity.

e) H4b stated that personal financial interference has an impact on absenteeism. The correlation was, however, not statistically significant. This can be ascribed to the fact that employees need to attend work, whether they experience financial interference or not. For this particular hypothesis, the data could not be determined to be significant, because employees might have been uncertain as to how to answer the questionnaire.

4.3 Conclusion

The objective of this study was to determine the impact of personal financial wellbeing and financial interference on productivity levels and absenteeism of employees. To reach this objective, a literature review was done and the impact on absenteeism and productivity was determined and explained. A model was derived to show the impact of financial wellbeing and the relationship between financial wellbeing, productivity and absenteeism. This model shows financial interference as the mediator, as well as the impact of financial wellbeing on productivity and absenteeism.

One of the more noticeable concerns for workers are their personal financial difficulties. Previous research done indicated that productivity is influenced by these financial difficulties and this will also lead to increased absenteeism. Owing to increased pressures on personal finances in the current competitive economic environment, as well as the impact that low levels of financial wellbeing have on employers and the productivity of employees, entities need to seek ways in which to increase productivity and decrease absenteeism. By doing this, it could increase the business performance of the entity.

This contribution of this study primarily lies in its focus on the South African manufacturing environment. Within this environment little or no research has been done on the topic. Also, the SEM model contributed to understanding and analysing the significance of the data in order for this study to contribute to the employer. The study sample is more focused and industry-specific where previous studies have focused more on a global perspective.

This study also contributes to the existing body of knowledge on financial wellness.

4.4 Recommendations

The concept of 'financial wellbeing' is unknown to many employees and employers. Most people and organisations regard it as an uncontrollable concept which is determined by the current economic environment and remains the responsibility of each individual. This might be true, but by making both the employee and employer accountable for financial wellbeing, various improvements with regard to employee cost elements will be achieved, such as increased productivity, decreased absenteeism and overall life satisfaction. Owing to the limited amount of literature on this topic in South Africa, more research is required to increase insight into this phenomenon in our country.

The following recommendations based on this study are made to employers. South African companies need to limit the problems of decreased productivity and absenteeism by providing financial educational programmes for employees. Companies need to consider the gravity of their employees' financial wellbeing in order for them to be more cost effective. It

is important for employers to be active in assisting employees in improving their levels of financial wellbeing. This, in turn, will increase productivity and decrease absenteeism. Various financial education programmes applicable to each industry, suited to each organisational structure and environment, could be developed to assist both the employee and the employer.

4.5 Limitations

The results of this study cannot be generalised to other industries seeing that it was conducted in the manufacturing industry only. Individuals from various industries might hold different opinions and perceptions regarding their levels of confidence in financial wellbeing.

The study was conducted by means of a survey with the inherent limitation that the participants could affect the outcome of the survey by manipulating their emotions in answering the questions. It is also possible that the respondents could have wanted to please the researcher and provide the researcher with the answers that he was seeking. Lastly, participants could be dishonest in fearing that their employers might see their answers (Wyse, 2012).

The current study investigated only personal financial wellbeing and its impact on financial interference, productivity and absenteeism; in other words, whether financial wellbeing does have an influence on these variables. Many more variables could affect financial interference, productivity and absenteeism.

Another limitation of this study is the fact that it does not link an actual figure or monetary value to the bottom line on the profit and loss statement or balance sheet to indicate the impact of financial wellbeing on productivity and absenteeism.

This study did not investigate ways in which to improve the level of financial wellbeing and how South African employers could improve productivity and decrease absenteeism.

4.6 Areas for future research

Numerous opportunities exist for further research in this field. The findings from this study can be applied to various companies and organisations within various industries. Research could be conducted to determine a monetary value of the impact of financial wellbeing on productivity and absenteeism to an employer. If the impact of financial wellbeing could be quantified, companies would be able to determine whether their investment in the financial wellbeing of their employees would yield a return. Investment in this sense refers to intervention programmes that are implemented at the workplace with the objective of improving personal financial wellness and decreasing absenteeism and increasing productivity. The reason for the positive relationship between financial interference and productivity also warrants further investigation.

Some more comparisons could be drawn between countries on the success of intervention programmes which might assist in improving financial wellness. Also, the impact of personal financial on other variables as the ones in this study could be investigated.

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ANNEXURE A

Confirmation of submission

E-mail received to confirm that article was submitted:

>>> "Koekemoer, Erna" <Koekeem@unisa.ac.za> 2014/11/05 12:09 PM >>>

Dear Prof Fouche

Thank you for submitting your manuscript for possible publication in the *Southern African Business Review*. Your manuscript is currently in the peer review process. We would like to mention that reviewers are normally requested to submit their review reports within a period of four to six weeks. However, experience has shown that requests for peer review during the October/November university examination period and the December recess holidays were seldom honoured. Your manuscript will therefore be distributed for review during the second week of January 2014.

Kind regards

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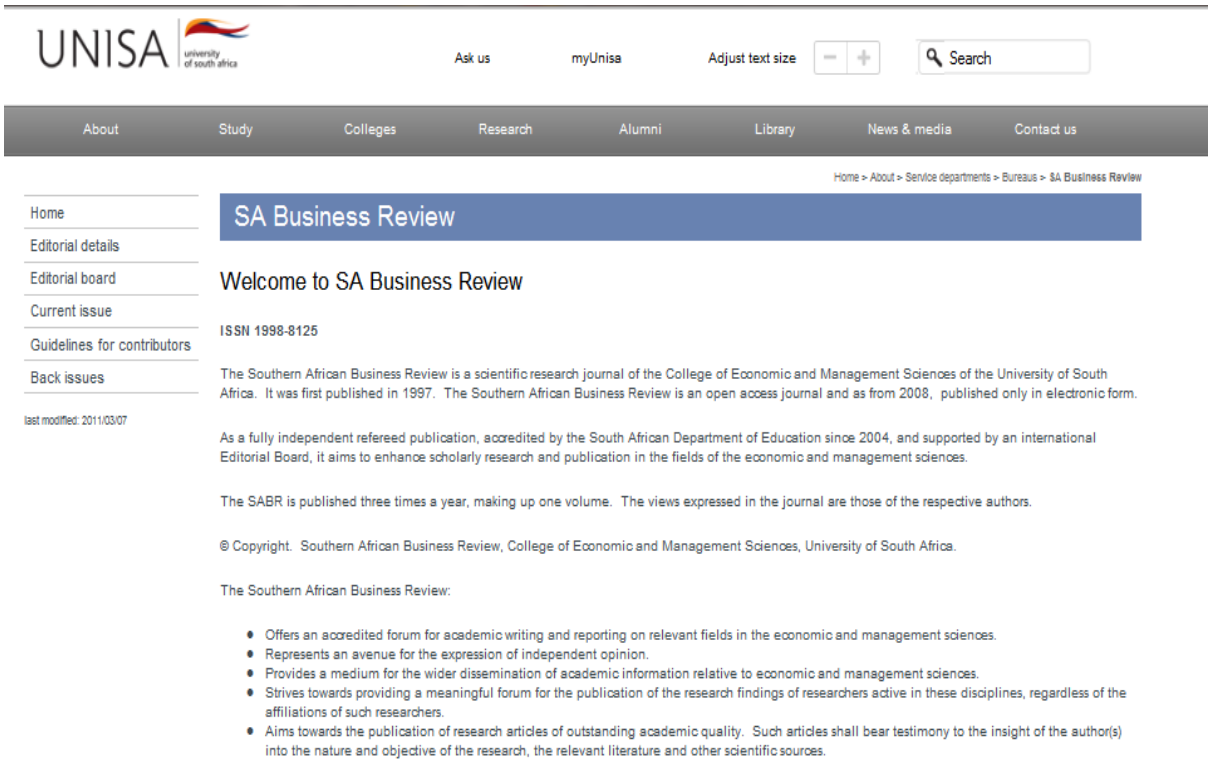
ANNEXURE B

Author Requirements for papers to be submitted to Southern African Business Review:



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- Aims towards the publication of research articles of outstanding academic quality. Such articles shall bear testimony to the insight of the author(s) into the nature and objective of the research, the relevant literature and other scientific sources.