

**Perceived Organisational Support, Self-Efficacy and Productive  
Energy across different Generations in the Independent  
Pharmacy Sector of South Africa**

**by**

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## DECLARATION

I, Belinda Cecelia Botha, hereby declare that the work contained in this research dissertation titled "Perceived Organisational Support; Self-Efficacy and Productive Energy across different Generations in the Independent Pharmacy Sector of South Africa" is my own original work, and that it has never before been submitted for any qualification at any institution, whether partial or in full. I also declare that all the resources used for this research are cited and referred to in the comprehensive reference list.

*"If you steal from one author it's plagiarism; if you steal from many it's research."* Wilson Mizner

A handwritten signature in black ink, appearing to be 'B.C. Botha', written over a horizontal line.

**B.C. Botha (Ms.)**

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*“There is no passion to be found playing small – in settling for a life that is less than the one you are capable of living...” Nelson Mandela 1918-2013*

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## **ABSTRACT**

### **Title:**

Perceived Organisational Support; Self-Efficacy and Productive Energy across different Generations in the Independent Pharmacy Sector of South Africa

### **Background and Aim**

The Independent Pharmacy Sector in South Africa is experiencing numerous challenges, ranging from competition from the retail pharmacy sector to government legislation changes. Specifically, human resource challenges with the historic composition of a multi-generational workforce (for the first time in history, five different generations work alongside each other in the independent community pharmacy) pose problems in terms of service delivery; motivation, productivity and attaining pharmacy goals and targets. This study aims to investigate the impact of perceived organisational support, self-efficacy and productive organisational energy across different generations in the independent pharmacy sector of South Africa.

### **Method**

This study followed a descriptive, quantitative, non-experimental design with a cross-sectional survey approach. Data was collected across the independent pharmacy sector in South Africa (N=525). The Survey of Perceived Organisational Support (SPOS), New General Self-efficacy Scale (NGSE) and Productive Energy Measure (PEM) were administered. Exploratory Factor Analysis, Reliability Analyses, Descriptive Analyses and Regression Analysis were applied.

### **Results**

The following was found:

- There is a statistically significant relationship between Perceived Organisational Support and Self-efficacy on the Baby Boomer Generation and Generation X.
- There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (Affective

Dimension) on the Baby Boomer Generation; Generation X, Generation Y and Generation Z.

- There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (Behavioural Dimension) on the Traditionalist Generation and Generation Y.
- There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (overall) on all of the Generations.
- There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (Affective Dimension) on the Traditionalist Generation, the Baby Boomer Generation and Generation Y.
- There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (Behavioural Dimension) on the Baby Boomer Generation and Generation X.
- There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (overall) on the Baby Boomer Generation and Generation X.

### **Practical Relevance**

As far as could be established, not much research has been conducted on the five different generations in the workplace; specifically combined with the constructs of perceived organisational support, self-efficacy and productive organisational energy.

This study will attempt to further provide insights into the generational composition of the Independent Pharmacy Sector of South Africa, but on a larger perspective, provide valuable information on how different generations experience the research constructs, as for the first time in history, five different generations share a workplace. Furthermore, this study investigates productive organisational energy in a South African context and will further provide valuable insights. The combination of perceived organisational support and self-efficacy on different generations does not seem to have been studied in this way, further contributing

to the body of research on the relationship between these two constructs amongst different generations.

**KEYWORDS:** Perceived Organisational Support, Self-Efficacy, Productive Organisational Energy, Generations, Traditionalists, Baby Boomers, Generation X, Generation Y, Generation Z, Independent Pharmacy Sector, South Africa.

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## ABBREVIATIONS

|                                                   |         |
|---------------------------------------------------|---------|
| <b>Baby Boomers (Born 1946-1964)</b>              | Boomers |
| <b>Dependent Variable</b>                         | DV      |
| <b>Extraneous Variable</b>                        | EV      |
| <b>General Self-Efficacy</b>                      | GSE     |
| <b>Generation</b>                                 | GEN     |
| <b>Generation X (Born 1965-1985)</b>              | Gen X   |
| <b>Generation Y (Born 1978-1990)</b>              | Gen Y   |
| <b>Generation Z (Born 1990-2007)</b>              | Gen Z   |
| <b>Independent Variable</b>                       | IV      |
| <b>Mediating Variable</b>                         | MV      |
| <b>New General Self-Efficacy Scale</b>            | NGSE    |
| <b>Perceived Organisational Support</b>           | POS     |
| <b>Productive Energy Measure</b>                  | PEM     |
| <b>Productive Organisational Energy</b>           | POE     |
| <b>Self-Efficacy</b>                              | SE      |
| <b>Survey of Perceived Organisational Support</b> | SPOS    |
| <b>Traditionalist (Born 1901-1945)</b>            | TRAD    |

# CHAPTER ONE - INTRODUCTION

Some studies (Adams, 2011; Perepelkin & Findlay, 2009) investigated the future of the independent community pharmacy, specifically the autonomy and orientation of the pharmacist as owners of independent community pharmacies. Emphasising that *“pharmacists must leverage their professional and business duties in order to remain in business within the communities they serve”* (Adams, 2011:17).

## 1.1 INTRODUCTION

In this chapter key concepts are defined, followed by the introduction and problem statement of this research. The research problem is defined and expected contributions of the study reviewed. Finally, the research hypotheses are explained and a summary of the research is provided.

## 1.2 OVERVIEW

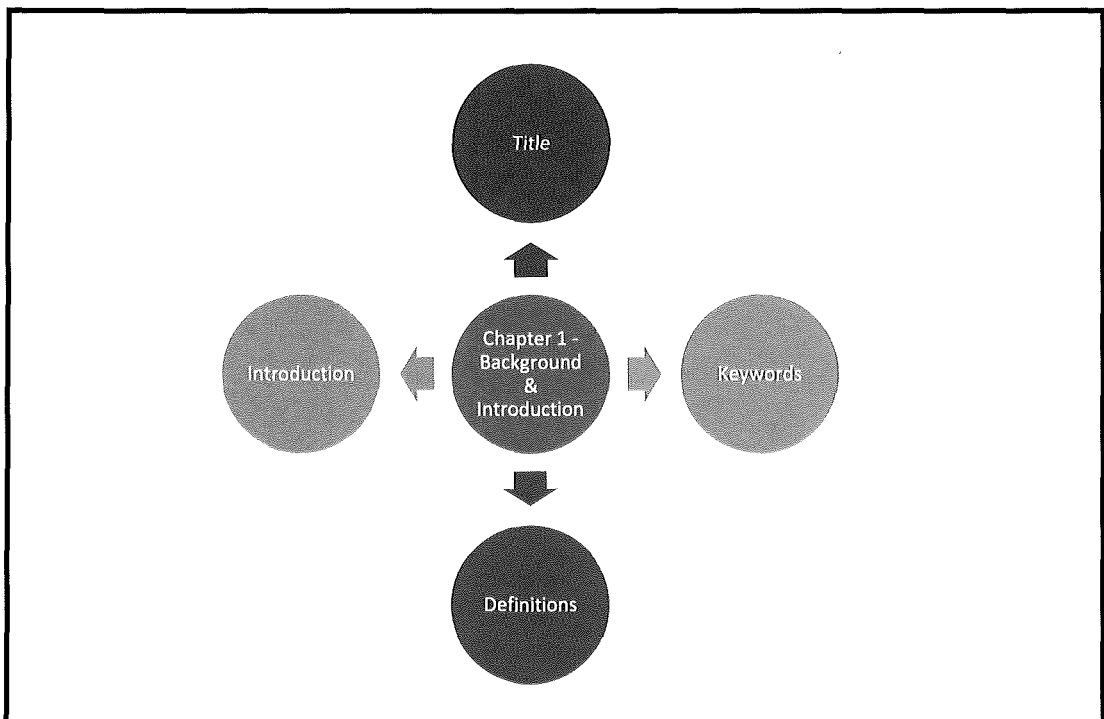


**Figure1.1: General Chapter 1 Overview**

### 1.3 PROBLEM STATEMENT

*“These are exciting times. There are forces at work that over the coming decades will fundamentally shift much of what we take for granted about employees, work and organizations. We live at a time when the schism with the past is of the same magnitude, perhaps even greater than that last seen in the Industrial Revolution of the late 18th century” (Gratton, 2011:246).*

The Independent Pharmacy Sector in South Africa is experiencing numerous challenges, ranging from competition from the retail pharmacy sector to government legislation changes. Legislation changes include allowing medical aid schemes to bypass pharmacies by appointing designated service providers to provide cut-price chronic medication (Mabuza, n.d.) and act amendments (Medicines and Related Substances Control Amendment Act 90 of 1997). Legislative challenges also include the elimination of extraneous mark-ups used at individual pharmacies by requiring each medicine to be sold by the pharmacy at its single exit price (with the addition of a uniform dispensing fee for profit) (Andrews, 2009; Gilbert, 1998) In addition; resource challenges and skills shortages also add to a challenging environment (Lowe & Montagu, 2009); (Adams, 2011).

A recent study conducted by The Professional Provident Society of South Africa, 2013 (PPS), concluded that South Africa’s pharmacists have voiced concerns over the impact that the expanse of pharmacies in large retail chains is having on their profession. According to Joubert (2013):

*“...it is unsurprising that pharmacies are concerned about the impact of retail stores moving into the pharmacy space and notes that in line with many skilled professionals in South Africa, the shortage of qualified people remains a huge problem.”*

Joubert further indicates a key challenge still remaining for pharmacists is the regulation of the sector. Adding to the debate, Manana (2013) emphasised the need for specific professions to give a clear indication of the supply and demand in their human resources requirements for effective service delivery, and for educators to

Impacting on the resource challenges, and further complicating the issues, emerge the historical composition of the pharmacy sector. This is a sector where leaders and owners are predominantly from the Traditionalist and Baby Boomer generation and finding themselves needing to manage Generation X, Y and even Z employees. In other words, the employee complement in a typical pharmacy is literally made up of five generations.

For the first time in history people work alongside each other that are both as young as their children and as old as their parents, and more interestingly, competing for the same leadership roles that were historically designated to veteran employees due to job descriptions and hierarchy (Gursoy, Maier & Chi, 2008).

What is known from research conducted in the business world, is what one generation sees as a positive move might appear threatening to another generation because upbringing varies by age bracket, shaping not only personality but also job performance, relations to co-workers and dealings with superiors (CFO Publications, 2013). Research findings indicate, for example, that while Generation X employees will respect the Baby Boomer employees; the Baby Boomer employees do not have a very high opinion of the younger generations (Gursoy *et al.*, 2008).

Gratton (2011) elaborated on the need for generational cohesion and the challenge organisations face to shape the world of work to make the best of the skills and aspirations of all five different generations; highlighting the potential opportunities and conflicts arising between the different generations are a recent phenomenon. These types of conflict can easily erupt in the workplace and impact performance of employees, teams and organisations.

*“This potential for inter-generational conflict arises at the confluence of a number of accelerating trends. The first is the accelerating force of demography in terms of falling pension provision for many Gen Xs, the enhanced longevity of the Baby Boomers and the rising influence of Gen Y. Add to this the accelerating force of technology, which has the potential to*

*create tensions between the technological and social media preferences of generations Y and Z, raised on a diet of Facebook and Twitter. And finally, the emerging and accelerating societal trends are also creating profoundly different shaping experiences between the generations in terms of their family experiences, their attitudes to work/life balance (particularly on the part of men), the potential emergence in Gen Y of women as a powerful source of influence, and the likely preference of Gen Y and Gen Z to be “reflexive” and to make more independent choices” (Gratton, 2011:251).*

This also applies in the pharmaceutical environment. Furthermore, an early literature review indicates that an employee’s perceived level of support they receive from management, including different generation leadership, has an impact on general self-efficacy (Burgess, n.d.); (Du Plessis, 2010). This in turn may impact on the overall productivity in the business, indicated as seen through lower organisational energy. It appears as if limited research has been done combining different generations with perceived organisational support, self-efficacy and productive organisational energy.

This research aims to investigate the impact of the above and contribute not only to the existing body of knowledge on the above constructs in a South African context but also combine them in a unique way. An important aspect of the research process is to provide clear and unambiguous definitions of key concepts (Terre Blanche, Durrheim & Painter, 2006).

#### **1.4 RESEARCH PROBLEM AND QUESTIONS**

The main research question of this study will be to determine: Perceived Organisational Support; Self-Efficacy and Productive Energy across different Generations in the Independent Pharmacy Sector of South Africa.

**The sub-research questions of this study are:**

1. Is perceived organizational support a significant predictor of self-efficacy across generations?
2. Is perceived organisational support a predictor of productive organisational energy across generations?
3. Is self-efficacy a predictor of productive organisational energy?

### **1.5 EXPECTED CONTRIBUTION OF THE STUDY**

The value of this study on a theoretical and practical level will aim to contribute additional information to the body of knowledge with regards to different generations in the workplace. Perceived organisational support and self-efficacy have been researched to some extent whereas productive organisational energy in the South African environment has not been widely researched and this study aims to further add to that database of knowledge (Cuff, 2011; Derman, 2008).

The study is also expected to provide insights into the generational composition of the Independent Pharmacy Sector of South Africa that could potentially assist in cross-generational understandings and addressing critical skills shortages and training gaps within the Independent Pharmacy Sector of South Africa.

Srinivasan (2012) concludes that multi-generations in the workforce bring different values and therefore could result in tension.

*“The work values gap also impacts communication processes, problem solving processes, knowledge sharing processes, interpersonal relationships, leadership behaviours and management styles. From an HRM point of view, organisations and their leaders need to recognise the presence of multi-generational diversity and thereby engage with it more proactively” (Srinivasan, 2012:54).*

Further, this research could provide additional insights into HRM practices geared to specifically understand and manage cross-generational workforces.

*“Rather than try for pasteurization, savvy managers create a generationally comfortable environment in which each employee's focus is on the business of the business” (Kupperschmidt, 2000:71).*

Evidence in research shows that a failure to acknowledge and adjust to different generations in the workplace could have an impact on employee productivity, corporate citizenship and innovation, that may lead to higher turnover (Westerman & Yamamura, 2007; Kupperschmidt, 2000; Jokela, 2012).

### **1.5.1 Theoretical contribution**

It appears from the preliminary literature review that the combination of perceived organisational support across different generations along with self efficacy and productive organisational energy has not been researched in this way; therefore this research aims to contribute in a unique and fresh way.

### **1.5.2 Methodological contribution**

The 14-item Productive Organisational Energy (POE) measure has not been widely used in a South African context and this research study will further validate this instrument in a South Africa context. In addition research seems to indicate that the 8-item New General Self-efficacy (NGSE) scale has as yet not been used in a South African context.

### **1.5.3 Practical contribution**

On a practical level this research can add significant value to the pharmacy sector in South Africa, and not just the independent pharmacy environment. Not only will this research aim to assist in better understanding the generational composition of the independent pharmacy sector to align human resources practices, policies and procedures, but also to understand any possible relationships between perceived organisational support, self efficacy and productive organisational energy.

## 1.6 RESEARCH TERMINOLOGY

A tentative explanation of the relationship between two or more variables is called a hypothesis. A hypothesis implies a relationship, that is, a presumed cause and effect (Robbins & Judge, 2009); also known as causality direction. For example, changes in the Independent Variable (IV) are assumed to cause changes in the Dependent Variables (DV). Until confirmed by empirical research, that means this specific study, the hypotheses or research questions remains a tentative explanation.

### 1.6.1 Variables

Variables are explained as any general characteristic that can be measured and that can change in amplitude and intensity, or both for that matter (Robbins & Judge, 2009). Ultimately researchers are interested in how things relate to each other; that is any possible relationship (Mouton, 2002).

A distinction is made between qualitative (discrete categories and are expressed in words or labels) and quantitative (consist of numbers and the values are expressed numerically) variables; whereby qualitative variables can identify the strength of relationships and quantitative variables the direction (positive or negative) and linearity (Mouton, 2002).

For the purpose of this study the dependent and independent variables will vary across different regression analyses conducted. An independent variable can be defined as *“the presumed cause of some change in the dependent variable”* (Robbins & Judge, 2009:65) and is the variable manipulated by the researcher (Mouton, 2002). Dependent variables are a response that is affected by the independent variable (Robbins & Judge, 2009).

Research question one (Is perceived organisational support a significant predictor of self-efficacy across generations?) and two (Is perceived organisational support a predictor of productive organisational energy across generations?), will utilise the constructs of Self-efficacy (SE) and Productive Organisational Energy (POE) as the

dependent variable and Perceived Organisational Support (POS) as the independent variable across the different Generations.

Research question three (Is self-efficacy a predictor of productive organisational energy?) will utilise the construct of Productive Organisational Energy (POE) as the Dependent variable and Self Efficacy (SE) as the Independent Variable across the different Generations. This is illustrated in Figure 1.2 below:

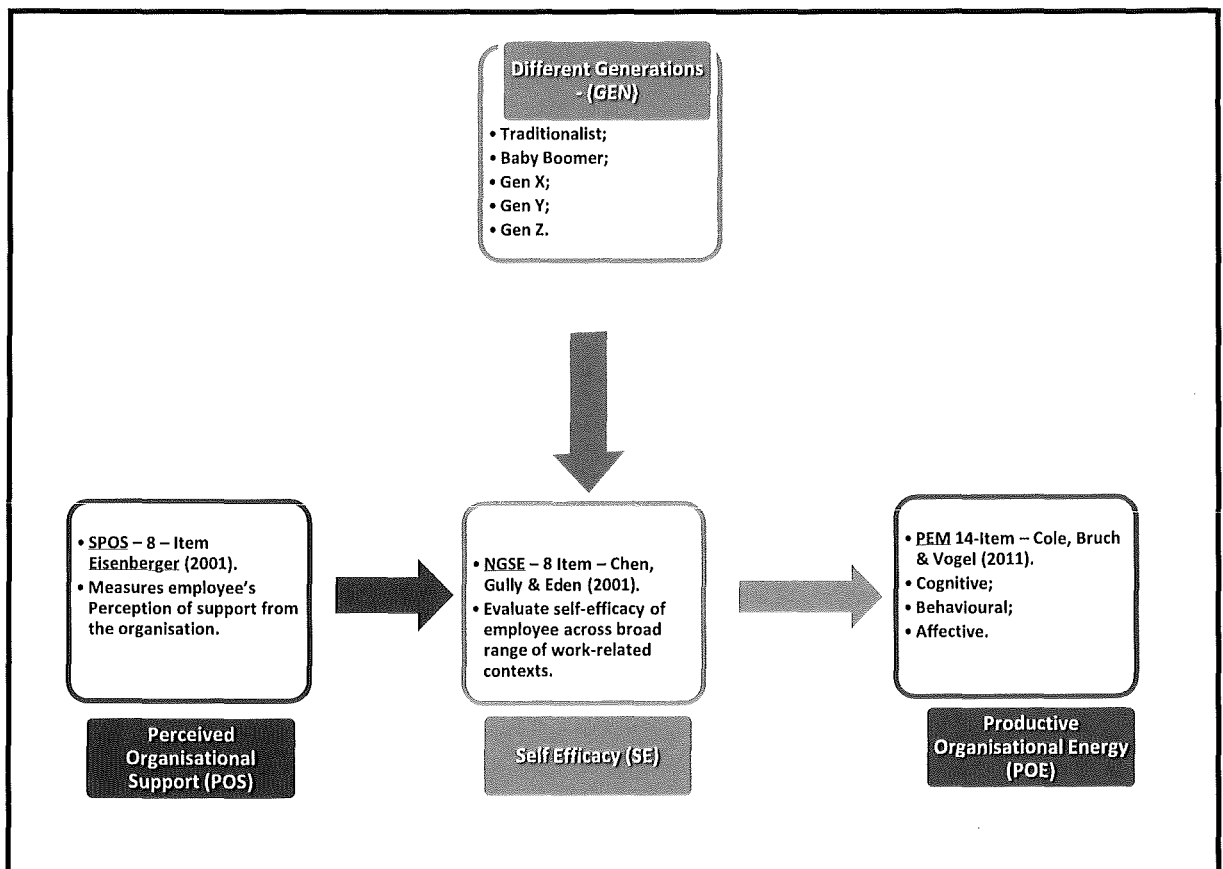


**Figure1.2: Impact of POS on SE and POE across different GEN**

## **1.7 DEFINITION OF KEY CONCEPTS**

### **1.7.1 Independent Pharmacy Sector**

For the purpose of this study the independent pharmacy sector is defined as independent community pharmacies that are owned and/or operated by pharmacists and small business entrepreneurs who take special care in providing multifaceted health care services that are accessible and affordable to all in the communities they

They include single-store operations, pharmacist-owned multiple store locations, franchise, specialty, and warehouse pharmacy operation. Characteristics of independent pharmacy owners generally include having high standards of customer service and a focus on outperforming chain pharmacy competitors.

In addition, pharmacies were included that are retail pharmacies not directly affiliated with any chain of pharmacies and is not owned (or operated) by a publicly traded company.

### **1.7.2 Perceived Organisational Support**

Eisenberger (n.d.) explains that Perceived Organisational Support (POS) refers to employees' perception concerning the extent to which the organisation values their contribution and cares about their wellbeing. Perceived organisational support has been found to have important consequences for employee performance and well-being.

### **1.7.3 Self-efficacy**

Self-efficacy originated from the groundbreaking work of Bandura (1977). Perceived self-efficacy was explained by Bandura (1988:279) as:

*"Success requires not only skills but also strong self-belief in one's capabilities to exercise control over events to accomplish desired goals. People with the same skills may, therefore perform poorly, adequately, or extraordinarily, depending on whether their self-beliefs or efficacy enhance or impair their motivation and problem-solving efforts."*

### **1.7.4 Productive organisational energy**

Lamberti (2010:3) comments that productive organisational energy is *"most relevant for organisations that employ knowledge workers, particularly the professional service sector of the economy. Given the critical importance of the professional services industry growth for emerging markets, this topic is particularly relevant for South African managers"*. In particular this insight may be useful considering the pharmacy environment and the South African independent pharmacy sector this

To conclude, productive organisational energy in this study will focus on the definition by Cole, Bruch and Vogel (2005) which state the strength of productive organisational energy reflects the extent to which a company has mobilised its emotional, cognitive and behavioural potential in pursuit of its goals. Thus describing the joint experience and demonstration of positive affect, cognitive activation, and agentic behaviour amongst members of a collective in their pursuit of organisationally-salient objectives (Bruch, Menges, Cole & Vogel, 2009; Cole *et al.*, 2005).

### **1.7.5 Generations**

Online definitions range from (Merriam-Webster.com, n.d.) “a group of individuals born and living contemporaneously”; (Oxford Dictionaries, n.d.) “*all of the people born and living at about the same time, regarded collectively; a group of people of similar age involved in a particular activity*” and (Collins Dictionary, n.d.) as: “*all the people of approximately the same age, especially when considered as sharing certain attitudes....*”.

*“While the times and your company’s employees are changing, it is important that not only the younger employees need to be understood, but also the more senior employees need help understanding and embracing the change. It is important to consider how your company will embrace, manage, promote, and retain, these new, highly technical workers because (they) are not going away, they will only grow in the work force”* (Burgess, n.d.).

## **1.8 OVERVIEW OF STUDY**

The chapters in this study are divided into six chapters, as follows:

Chapter One introduces the background to the study of the Independent Pharmacy Sector, perceived organisational support, self-efficacy, productive organisational energy and different generations. The problem statement is highlighted as well as the aim of the study, research questions, research objectives and an overview to the study is provided.

Chapter Two explains in detail the constructs of Perceived Organisational Support (POS); Self-efficacy (SE) and Productive Organisational Energy (POE) by means of a comprehensive literature reviews. In addition the construct of Generations (GEN) is defined and the five different generation groups explained.

POS is explained by reviewing Social Exchange Theory and Organisational Support Theory. SE is explained by looking at the foundation, that is, Human Agency; followed by a review of general self-efficacy (GSE) and the efficacy expectations. POE is introduced by investigating the components of individual energy and reviewing the energy matrix. The collective nature of all three of the above constructs is investigated. GEN is broken down into five different generation groups, Traditionalist (TRAD); Baby Boomers (BOOMERS); Generation X (GEN X); Generation Y (GEN Y); Generation Z (GEN Z). In closing, a review of the literature on the relationships between the dependable variables will take place.

Chapter Three will review in detail the research approach and paradigm followed in this research study, followed by the broad research design and strategy of the study. The research method is discussed; followed by a discussion of the sampling and data collection methods. The measuring instruments used for this study, the SPOS, NGSE and PEM, are reviewed and explained. The research procedure followed is highlighted followed by the statistical analysis used in this study. The chapter concludes by reviewing the research ethics.

Chapter Four will review the results of this study in great detail, reviewing the study research objectives against the data gathered as well as describing in detail the statistical analysis techniques used in this study. Reliability and validity of the measuring instruments are assessed with the use of the Cronbach Alpha Coefficients and Factor Analysis. Descriptive Statistics (that is, Mean, standard Deviation, Skewness and Kurtosis) were used to analyse the data. Exploratory Factor Analysis is used to assess the structure of the measuring instruments. Detailed attention is given to reliability and validity considerations in this study followed by the descriptive statistics utilised. Specifically, sample statistics whereby the frequency analysis is reviewed. Following, the frequency demographics is

illustrated and the descriptive per subscale discussed. The results per instrument are discussed in great detail. In closing, the correlation and regression descriptive statistics is discussed and illustrated in this study.

Chapter 5 entails a discussion of the empirical results presented in Chapter 4. Each of the seven research questions of the research study is presented and explained based on the evidence gathered from the research study.

Chapter 6 comprises an overview of the research findings of the study in regards to the literature reviewed conducted and the statistical analysis undertaken. The limitations of the study are addressed and selected recommendations for further study in the field of perceived organisational support, self-efficacy, productive organisational energy and specifically the five different generations in the workplace are made. In conclusion, final comments are made.

## **1.9 CHAPTER SUMMARY**

Chapter One introduced the background to the study of the Independent Pharmacy Sector, perceived organisational support, self-efficacy, productive organisational energy and different generations. It highlighted the problem statement, aim of the study, and research questions and provided an overview to the study. The following chapter will review the literature on the above.

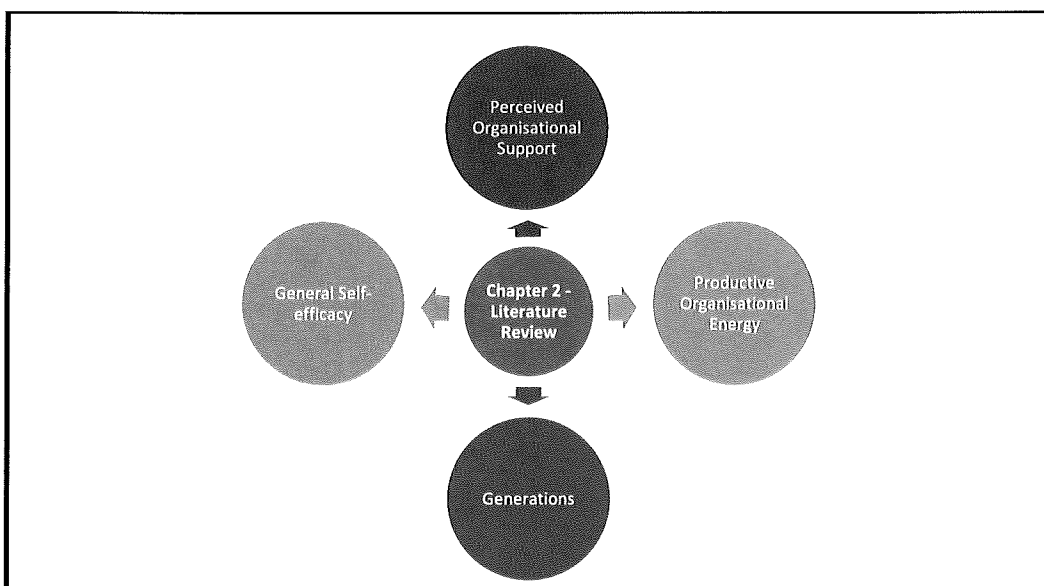
## CHAPTER TWO - LITERATURE REVIEW

*“Conceptualisation also means ‘integrating one’s study into a larger conceptual framework’. It is essential to relate one’s work to an existing body of theoretical and empirical knowledge. One way of doing this is to frame empirically testable research hypotheses, either by deriving them deductively from well-established theories or by basing them on observation of phenomena and events in everyday life” (Mouton, 2002:119).*

### 2.1 INTRODUCTION

Chapter two deals with an in-depth review of the available literature on the constructs of perceived organisational support (POS); self-efficacy (SE) and general self-efficacy (GSE); productive organisational energy, (POE) and different generations (GEN). To start, perceived organisational support is defined and a brief historical background is provided highlighting social exchange theory and organisational support theory; followed by definitions of self-efficacy and general self-efficacy and a brief historical background overview. Thereafter productive organisational energy is defined with an overview of the historical background. Finally different generations are defined and the background reviewed.

### 2.2 CHAPTER TWO OVERVIEW



## **2.3 PERCEIVED ORGANISATIONAL SUPPORT**

### **2.3.1 Definition of Perceived Organisational Support**

Eisenberger (n.d.) explained that Perceived Organisational Support (POS) refers to employees' perception concerning the extent to which the organisation values their contribution and cares about their wellbeing. Perceived organisational support has been found to have important consequences for employee performance and well-being.

*"These investigators did not directly explore links between these variables and continuance commitment, although they suggested that **perceived support** would also enhance this form of commitment by creating an atmosphere of trust in the organisation's willingness to fulfil its obligations towards employees" (O'Driscoll & Randall, 1999:199).*

Research further shows that *"people perceive their organization as supportive when rewards are deemed fair, when employees have a voice in decisions, and when their supervisors are seen as supportive"* (Robbins & Judge, 2009:115).

This research aims to further explore any potential relationship between perceived organisational support, self-efficacy and productive organisational energy as another variable.

In addition the impact of the different generations on all of the variables, including POS is analysed in this study. It appears that limited research has been done on looking at the impact of the different generations on POS.

### **2.3.2 Brief historical background of Perceived Organisational Support**

According to Du Plessis (2010) there have been two major theories that support the research associated with Perceived Organisational Support, namely Social Exchange Theory and Organisational Support Theory.

### **2.3.2.1 Social Exchange Theory**

Social exchange theory argues that *“resources received from others are more highly valued if they are based on discretionary choice rather than circumstances beyond the donor’s control”* (Rhoades & Eisenberger, 2002:698).

Social exchange theory further highlights the importance of understanding employee motivation as it relates to the attainment of the organisations goals; encompassing an employee’s motivation to complete activities for the mutual gain of both the employer and the employee (Aselage & Eisenberger, 2003).

### **2.3.2.2 Perceived Organisational Support and Reciprocation**

In POS and social exchange theory reciprocity becomes important, *“to the extent that both the employee and employer apply the reciprocity norm to their relationship, favourable treatment received by either party is reciprocated, leading to beneficial outcomes for both”* (Rhoades & Eisenberger, 2002:698).

Recent research assessed *“felt obligation”* as mediator of POS outcome relationships and Eisenberger, Armeli, Rexwinkel, Lynch and Rhoades (2001) found that felt obligation mediated the relationship between POS and affective commitment, in-role performance and extra-role performance. Further, the employee exchange ideology (explained as the belief of the employee that it is appropriate to base their concern with the organisation and their own work effort on how favourably they have been treated by the organisation) showed that employees with a high exchange ideology showed greater relationships of POS with felt obligation to the organisation (Eisenberger, Fasolo & Davis-LaMastro, 1990).

### **2.3.2.3 Organisational Support Theory**

Organisational support theory as explained by (Du Plessis, 2010:44) *“suggests that employees pay attention to the manner in which the organisation treats them in order to discern the extent to which the organisation is supportive and values their contribution”*. Therefore high organisational support should strengthen employees’ beliefs that the organisation recognises and rewards increased performance and therefore should have favourable outcomes both for employees and for the

Organisational support theory also assumes that an employee will increase the level of effort for the organisation to the extent that the organisation is perceived to be willing and able to reciprocate with impersonal and socio-emotional resources (Aselage & Eisenberger, 2003). Due to this reciprocity, perceived organisational support leads to a general feeling of obligation to assist the organisation in obtaining goals and objectives. In addition, the obligation to repay POS with enhanced performance should be greater among employees with high socio-emotional needs.

### **2.3.3 Perceived Organisational Support and Job Performance**

One of the consequences of perceived organisational support, as *cited by* Rhoades and Eisenberger (2002:701), is job-related affect, or mood. *"Mood has been proposed as the state component of affectivity, influenced by environment"* (George & Brief, 1992). Perceived organisational support may therefore contribute to an employee's feelings of competence and worth, thus enhancing positive mood (Eisenberger, Huntington, Hutchison & Sowa, 1986). Rhoades and Eisenberger (2002) reported that perceived organisational support should increase job performance.

According to O'Driscoll and Randall (1999) general categories of favourable treatment received by employees from their organisation (that is, fairness, supervisor support, and rewards (job conditions) relate positively to POS, and in turn is associated with employee favoured outcomes (that is, increased job satisfaction, organisational commitment and job involvement.

Organisations are investing vast resources into perceived organisational support initiatives as research continues to suggest a strong correlation between perceived organisational support and organisational commitment and job satisfaction and a weak to moderate, positive effect on employee performance (Riggle, Edmondson & Hansen, 2009).

Eisenberger *et al.*, (1990) further found that employees with high perceived support expressed greater affective attachment to the organisation and greater performance-

(1990:57) employees with high perceived support expressed stronger expectancies that higher effort would produce material rewards involving pay and promotion, as well as social rewards that include approval and recognition.

In a recent study Linlin and Yinghong (2014) found the need to further investigate the contextual variables of the important role organisational context plays in team performance and found that knowledge integration mediates the relationship between perceived organisational support and team innovative performance. Further, research tells us that individual POS is positively related to performance (Rhoades & Eisenberger, 2002) although not always the case at team level (Mathieu, Tannenbaum, Donsbach & Alliger, 2013 *cited by* Linlin & Yinghong, 2014:518).

Further recent study findings in China indicated *“Our findings support existing findings in the Western literature that OCBs and task performance increase with more favorable perception of organizational support and job satisfaction”* (Miao, 2011:119).

Linlin and Yinghong (2014) focused their study on team-level relationships and confirmed that as per organisational support theory, high POS tends to improve work attitudes and produce effective work behaviour for two reasons: *“First, these beneficial effects result from a process of social exchange. People examine discretionary actions and, if they infer that they are being supported, they then seek to repay this favorable treatment”* (Linlin & Yinghong, 2014:518).

POS is further positively related to performance in job activities and task performance (Linlin & Yinghong, 2014; Rhoades & Eisenberger, 2002; Riggle, Edmondson & Hansen, 2009; Miao, 2011; Shanock & Eisenberger, 2006).

Riggle *et al.*, (2009) elaborated further on the above:

*“Findings from the study indicate that perceived organizational support has a strong, positive effect on job satisfaction and organizational commitment; a moderate, positive effect on employee performance; and a strong, negative*

*effect on intention to leave. Study findings also indicate that the effects of perceived organizational support are more pronounced for non-frontline employees” (Riggle et al., 2009:1027).*

Based on the above findings, it can be predicted that the individual-level conclusions regarding POS can also be applied at the team level (Linlin & Yinghong, 2014).

Karatepe and Vatankhan (2014) refer to human resource activities that are performance-enhancing as high-performance work practices (HPWPs) and they in turn, stimulate perceived organisational support.

Worley, Fuga and Hellman (2009) speaks about the possibility of two distinct components of POS, the first suggests that perceived support would raise the expectancy of the employee that the organisation would reward greater effort that could subsequently lead to meeting organisational goals and the second: *positive mood, and reduced strains) and the organisation (for example, increased affective commitment and performance and reduced turnover)* (Rhoades & Eisenberger, 2002:711).

Further research suggests that although a logical relationship exists between perceptions of organisational support, levels of organisational commitment and job involvement, not much research has been done on the relative influence of POS on the above.

*“... is the belief that the organisation is concerned about the socioemotional well-being of employees. This aspect of organisational support reflects employee perceptions with regard to organisational policies and practices pertaining to time away from work for personal circumstances or family care”*  
(Worley et al., 2009:1).

#### **2.3.4 Perceived Organisational Support and Employee Characteristics**

Personality may also influence POS and positive affectivity might lead to expansive and friendly behaviours, leading to favourable impressions and more effective

In the same way, demographics; including age (or generation), education, gender and tenure are often used as control variables to rule out alternative explanations for the relationship between POS and hypothesized antecedents (Rhoades & Eisenberger, 2002). This is further explored in this study by adding different generations to the variables.

From the information gathered during the review of the literature and research conducted (and although research on the topic of POS has snowballed the past ten years), it remains clear that the POS construct is helpful in understanding the complex relationship between the employee and the organisation.

## **2.4 SELF-EFFICACY AND GENERAL SELF-EFFICACY**

### **2.4.1 Self Efficacy Defined**

Self-efficacy originated from the groundbreaking work of Bandura (1977). Perceived self-efficacy was explained by Bandura (1988:279) as:

*“Success requires not only skills but also strong self-belief in one’s capabilities to exercise control over events to accomplish desired goals. People with the same skills may, therefore perform poorly, adequately, or extraordinarily, depending on whether their self-beliefs or efficacy enhance or impair their motivation and problem-solving efforts.”*

Self-efficacy (also referred to as social cognitive theory or social learning theory) is thus an individual’s belief that they are capable of performing a specific task, *“The higher your self-efficacy, the more confidence you have in your ability to succeed in a task”* (Robbins & Judge, 2009:222).

### **2.4.2 General Self-efficacy Defined**

For the purpose of this study the focus will lie on general self-efficacy that originated from the concept of self-efficacy above. General self-efficacy (GSE), according to Chen, Gully and Eden (2004) is distinguishable from the concept of self-efficacy because, whereas self-efficacy is a relatively malleable, task specific belief, GSE is a

relatively stable, trait-like, generalized competence belief (Chen, *et al.*, 2001; Chen, Gully, Whiteman & Kilcullen, 2000).

*“General self-efficacy can be defined as one’s belief in one’s overall competence to effect requisite performance across a wide variety of achievement situations”* (Eden, 2001:75).

### **2.4.3 Brief historical background of Self-Efficacy and General Self-Efficacy**

#### **2.4.3.1 Self-efficacy**

Self-efficacy appears from studies as a constructive self-belief related to positive motivation and behaviour (Bandura, 2005). *“Among the mechanisms of human agency, none is more central or persuasive than beliefs of personal efficacy”* (Bandura & Locke, 2003:87). Much research has been conducted over the years to further explain how self-efficacy beliefs determine how a person feels, thinks, gets motivated and behave. These beliefs produce effects through four processes; i.e. cognitive, motivational, affective and selection processes (Bandura, 1994). Interestingly, it is noted that the scope and nature of perceived self-efficacy will undergo changes throughout the course of the individual’s lifespan (Bandura, 1994).

Human agency and agentic as defined by Agentic Digital Media (n.d.) as:

1. *“a social cognitive theory perspective that views people as self-organising, proactive, self-reflecting, not just as reactive organisms shaping by environment forces or driven by inner impulses and;*
2. *human agency as the capacity of human beings to make choices.”*

Further, Bandura (1999) believes that personal agency is the foundation of human agency. Perceived self-efficacy forms the key of social cognitive theory because it affects action directly and through the impact it has on other determinants as well (Bandura, 1982).

Human agency can take different forms.

*“Within this theory, human agency is embedded in a self theory encompassing self-organizing, proactive, self-reflective and self-regulative mechanisms. Human agency*

*can be exercised through personal agency; through proxy agency relying on the efforts of intermediaries; and by collective agency, operating through shared beliefs of efficacy, pooled understanding, group aspirations and incentive systems of collective action"* (Bandura, 1999:21).

Personal and individual self-efficacy cannot be seen as unrelated to group efficacy. Bandura (1982) showed that collective efficacy is rooted in self-efficacy. According to Bandura (2009:179) *"self-efficacy theory provides a conceptual framework within which to study the determinants of effective work design and the mechanisms through which they enhance organizational functioning"*.

Social cognitive theory is rooted in an agentic perspective in which people function as anticipative, purposive and self-evaluating proactive regulators of their motivation and actions (Bandura, 2001). *"To be an agent is to influence intentionally one's functioning and life conditions. In this view, people are contributors to their life circumstances not just products of them"* (Bandura, 2009:179).

Perceived self-efficacy affects subsequent organisational attainments both directly and indirectly through its influence on personal goal challenges. Perceived self-efficacy is also *"concerned with how well one can execute courses of action required to deal with prospective situations"* (Bandura, 1982:122). *"Personal goals, in turn, enhanced organizational attainments directly and through mediation of analytic strategies"* as stated by Bandura & Wood (1989:805). Further research indicates that goals (in conjunction with self-efficacy) *"often mediate or partially mediate the effects of other potentially motivating variables, such as personality traits, feedback, participation in decision making, job autonomy, and monetary incentives"* (Locke & Latham, 2006:265).

Further, self-efficacy can be divided into general self-efficacy and social self-efficacy (Sherer & Adams, 1983). A recent study conducted by Park and Roedder John (2014) showed how brand use can enhance the feelings of self-efficacy and very importantly, can lead to better performance; confirming early research conducted by Bandura (1986) that self-efficacy is an important self-regulatory mechanism that

governs on-going motivation and performance. Further studies confirmed positive self-efficacy in students resulted in positive performance (Hanks & Beier, 2012). Also, in a recent study it was found that increases in creative self-efficacy corresponded with increases in creative performance as well (Tierney & Farmer, 2011). Further investigations looked at the importance of efficacy perceptions for organisational commitment and it was found that organisational efficacy and an employee's self-efficacy appeared to be a significant predictor of commitment (Van Vuuren, De Jong & Seydel, 2008).

*"Self-efficacy beliefs increase the level of challenge people are willing to undertake, the amount of effort they expend in meeting those challenges, and the level of perseverance in the face of difficulties in completing the task, resulting in better performance"* (Bandura, 1982; Wood & Bandura, 1989 cited by Park & Roedder John, 2014:234).

#### **2.4.3.2 Self-efficacy and reciprocal causation**

Human agency operation has been described in three different ways; autonomous agency, mechanical agency and emergent interactive agency Bandura (1989), whereby social cognitive theory subscribes to a model of emergent interactive agency (Bandura, 1986).

*"Persons are neither autonomous agents nor simply mechanical conveyers of animating environmental influences. Rather, they make causal contribution to their own motivation and action within a system of triadic reciprocal causation"* (Bandura, 1989:1175).

#### **2.4.3.3 Self-efficacy and performance**

Positive relationships have been established between self-efficacy judgements and performance (Telch, Bandura, Vinciguerra, Agras & Stout, 1982).

*"The higher the self-dissatisfaction with a sub-standard performance and the stronger the perceived self-efficacy for goal attainment, the greater was the subsequent intensification of effort"* (Bandura & Cervone, 1983:1017).

Perceived self-efficacy takes on an important role in causal structures because it not only affects human functioning directly, but also through its impact on other determinants (Bandura, 2009). How does one assist employees in achieving high levels of self-efficacy? By combining goal-setting theory and self-efficacy theory as the two complement each other (Robbins & Judge, 2009).

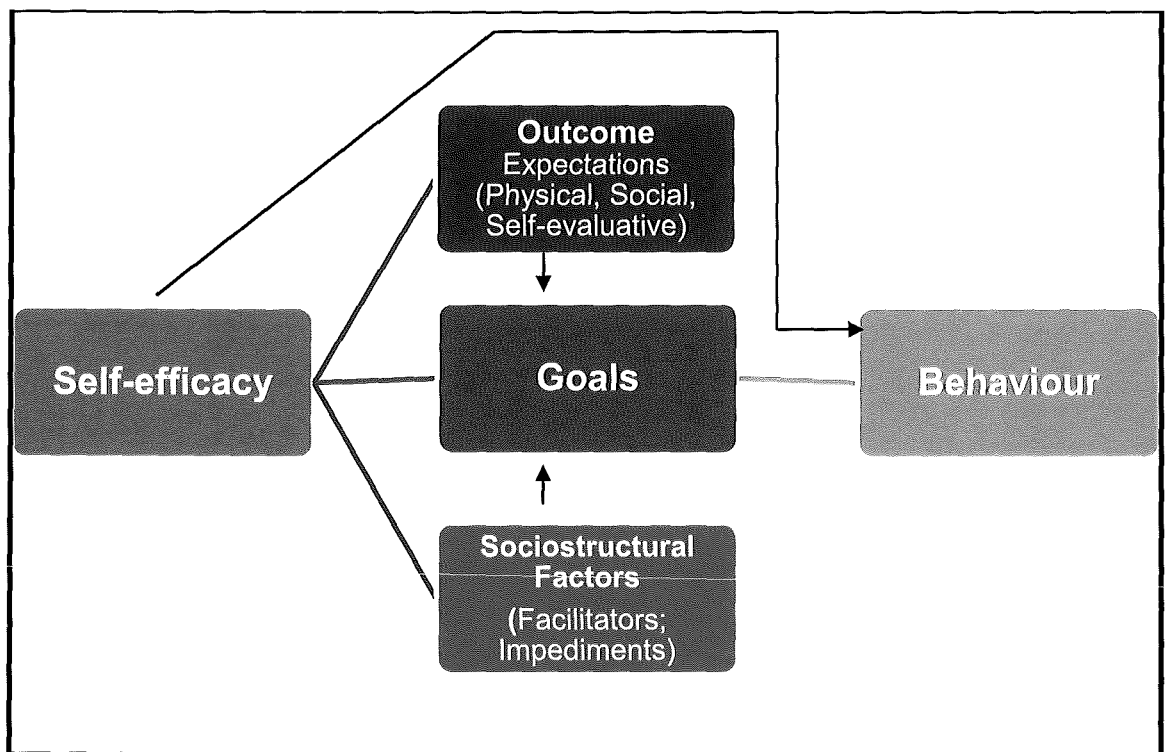


**Figure 2.2: Structure of the causal model – Adapted from Bandura (2009)**

The above Figure 2.2 highlights the structural pathos of influence wherein perceived self-efficacy affects motivation and performance attainments both directly and through its impact on goals, outcome expectations, and perception of sociostructural facilitators and impediments.

Further studies elaborated on the link between self-efficacy and goal attainment (performance) “*evidence from diverse methodological and analytic strategies verifies that perceived self-efficacy and personal goals enhance motivation and performance attainments*” (Bandura & Locke, 2003:87).

#### **2.4.3.4 General Self-efficacy**

According to Jude, Erez & Bono (1998:170) *“a high generalised self-efficacy (that is a strong belief in one’s own capabilities) can lead to a self-fulfilling prophecy – high generalised self efficacy results in greater success in new endeavours and success, in turn, reinforces the initial assessment of self-efficacy”*. Also, the findings of Chen *et al.*, (2001) suggest that new general self efficacy may help to explain motivation and performance in a variety of work contexts and can also substantially contribute to organisational theory, research and practice (Chen *et al.*, 2001).

This early literature review indicates a potential relationship between (general) self-efficacy and productive organisational energy. This forms part of the motivation behind the research question.

*“Powerful mastery experiences that provide striking testimony to one’s capacity to effect personal changes can also produce a transformational restructuring of efficacy beliefs that is manifested across diverse realms of functioning. Such personal triumphs serve as transforming experiences. What generalizes is the belief that one can mobilize whatever effort it takes to succeed in different undertakings”* (Bandura, 1997:53).

Efficacy expectations are developed via four types of learning experiences (Bandura, 1977, 1986). Thus, there are four ways self-efficacy can be increased (Robbins & Judge, 2009). In the social learning analysis, expectations of personal efficacy are based on four major sources of information: performance accomplishments; vicarious experience, verbal persuasion, and physiological states. These four elements form the basis for efficacy-enhancing interventions (Gainor, 2006).

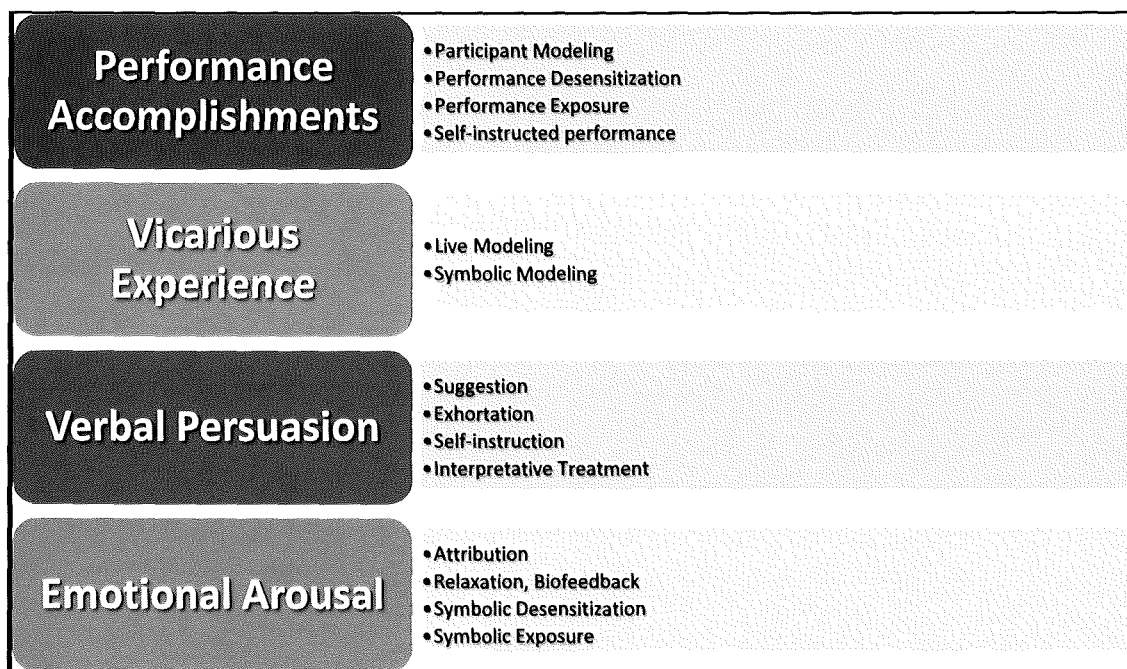


**Figure 2.3: Efficacy Expectations – Sources and of Induction.**

**Adapted from Bandura (1977)**

Figure 2.3 above identifies major Sources of efficacy information and the principles through which different modes of treatment operate.

## **2.5 PRODUCTIVE ORGANISATIONAL ENERGY**

### **2.5.1 Productive Organisational Energy Defined**

The study findings of Schiuma, Mason and Kennerley (2007:76) summarises *“the key focus areas for the enhancement of productive organisational energy are those influencing factors that are individual and personal”*. Lamberti (2012:3) comments that productive organisational energy is *“most relevant for organisations that employ knowledge workers, particularly the professional service sector of the economy. Given the critical importance of the professional services industry growth for emerging markets, this topic is particularly relevant for South African managers”*. In particular this insight may be useful considering the pharmacy environment and the South African independent pharmacy sector this study will focus on.

To conclude, productive organisational energy in this study will focus on the

energy reflects the extent to which a company has mobilised its emotional, cognitive and behavioural potential in pursuit of its goals; thus describing the joint experience and demonstration of positive affect, cognitive activation, and agentic behaviour amongst members of a collective in their pursuit of organisationally-salient objectives (Bruch *et al.*, 2009; Cole *et al.*, 2005).

For the purpose of this study collective energy will be considered to be the same as productive energy as explained by Cole, Bruch and Vogel (2011).

### **2.5.2. Brief historical background of Productive Organisational Energy**

*“Without a high level of energy, a company cannot achieve radical productivity improvements, cannot grow fast and cannot create major innovations”* (Bruch & Ghoshal, 2003:51).

Energy is the ability to do work, in whatever format it is presented. Originating in the mid 16<sup>th</sup> century (denoting force or vigour of expression) from French “energie”, or via late Latin from Greek “energeia” combined as “en”- in and ergon – “work”. As defined in Oxford Dictionaries (n.d.) “energy is the strength and vitality for sustained physical or mental activity”.

*“So energy is that essence that allows us to perform physical, mental and emotional tasks – and all tasks take up some of our energy”* (Louw, Sutherland & Hofmeyr, 2012:11).

Individual energy is explained by Schiuma *et al.*, (2007) as a “complex result of multiple causes, which can be traced back to the fundamental laws affecting the conditions of well-being: the physical state, that is, the body’s conditions; the cognitive state, that is, the mind’s conditions; and emotional state, that is, feelings, both conscious and unconscious”. This is illustrated in Figure 2.4 below.

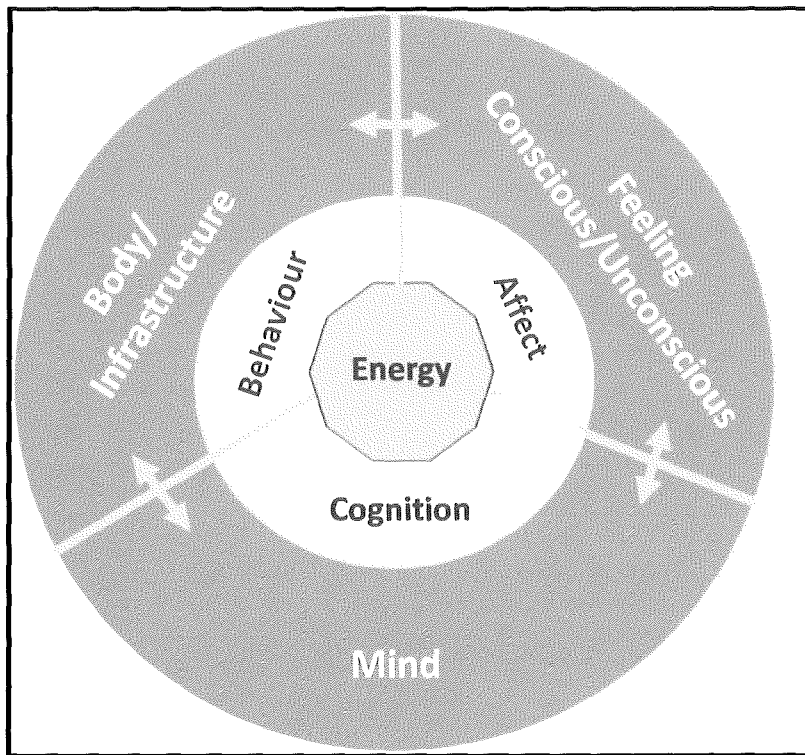


**Figure2.4: Components of Individual Energy**  
**Adapted from Schiuma *et al.* (2007)**

Schiuma *et al.*, (2007) state that an important link between individual and team energy is organisational energy. Organisational energy as explained by Schiuma *et al.*, state that energy is dynamic and changing, and managing energy encompasses managing energy dynamics that are related to both structural and contingent factors (organisational infrastructure, social interaction and individual behaviour). It can therefore be construed that organisational performance is founded in energy.

Organisational energy is also defined as a force that organisations work to purposefully put things, core initiatives, innovations and changes into motion. The strength of this force is the extent to which an organisation has mobilized its emotional, cognitive and behavioural potential in pursuit of its goals (Cole *et al.*, 2011; Brusch & Goshal, 2003). Furthermore, Cole, Bruch and Vogel (2005) explain that organisational energy is “*the fuel tank that makes organisations run*”.

Collective energy and productive energy is used interchangeably (Cole *et al.*, 2011)

*cognitive arousal, and agentic behaviour among unit members and their joint pursuit of organizationally salient objectives” (Cole et al., 2011:447).*

Furthermore, recent studies indicate a positive relationship between High Performance Work Systems (HPWS) and Productive Organisational Energy (POE) (Bruch et al., 2009).

*“The energy of employees is recognised as an important factor in their performance and in maximising their overall contribution to the organisation. Organisational energy is dynamic in nature; it is more than just the sum of the energy of its employees. It also includes the interaction and dynamics of teams and the organisation as a whole” (Schiuma et al., 2007:69).*

Theory further defines two scales of organisational energy, integrity and quality (Bruch & Vogel, 2011). They combine to form the energy matrix and quantify levels of organisational energy as depicted in Figure 2.5 below (Bruch & Ghoshal, 2003; Cole et al., 2011).

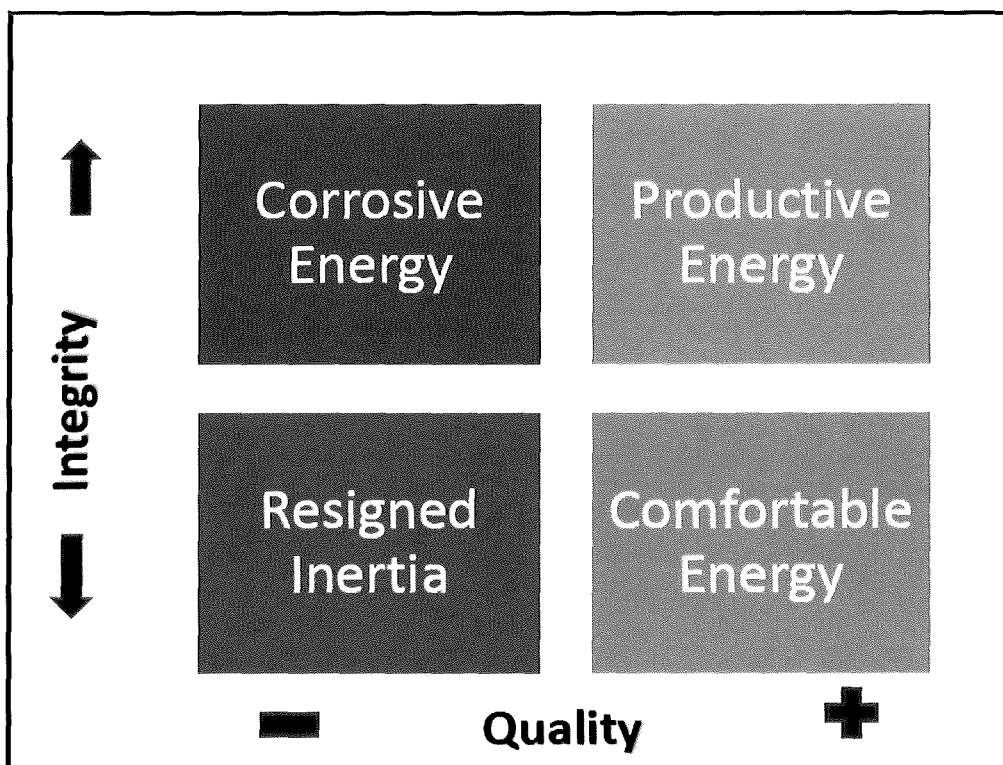


**Figure 2.5: Energy Matrix -Four Energy States.**

**Adapted from Bruch & Vogel, 2011**

### 2.5.2.1 Organisational Inertias Defined

**Resignative organisational inertia** can be described as *“an emotional climate that manifest in weak or negative emotions such as frustration, disappointment and sorrow”* (Lamberti, 2012); organisations display *“cognitive absence, disinterest or emotional distance towards company goals, or even lethargic behaviour”* (Bruch, Vogel, & Morhart, 2005). Organisations that are currently in resignative organisational inertia can activate and maintain energy by to move to the productive organisational energy state by implementing the “Winning the Princess” strategy (Lamberti, 2012; Bruch *et al.*, 2005). This strategy includes creating an object of desire, compelling communication of the vision and employing symbolic management (Bruch *et al.*, 2005).

**Comfortable organisational inertia** can be described as *“low animation but a relatively high level of satisfaction”* (Lamberti, 2012) and *“weak but positive emotions such as calm and contentedness”* (Bruch *et al.*, 2005) but these organisations lack vitality, alertness and emotional tension needed for change. Organisations that are currently in comfortable organisational inertia can activate and maintain energy by to move to the productive organisational energy state by implementing the “Slaying the Dragon” strategy (Lamberti, 2012; Bruch *et al.*, 2005). This strategy includes defining a tangible threat; creating a sense of urgency and implementing attention management (Bruch *et al.*, 2005).

**Corrosive organisational energy** can be described as a state where “the organisation displays high levels of energy intensity; however, incorrectly channelled to negative internal tension” (Lamberti, 2012); for example, conflicts, rumours or counter-productive activities, all of them “intimately rob a company of its vitality and stamina” (Bruch *et al.*, 2005). The mobilising strategy to move from corrosive organisational energy to productive organisational energy is “Focusing Energy”. This strategy includes addressing destructive events directly; catalysing shared, positive experiences and creating a culture of trust through fair, transparent communication (Lamberti, 2012; Bruch *et al.*, 2005).

**Productive organisational energy** can be described as *“companies that show intense, positive emotions, high attention and strong activity levels which are oriented towards the core goals”* (Bruch et al., 2005). To maintain productive organisational energy, organisations should focus on creating space for regeneration and by building up self-revitalising management systems (strategies, structures and cultures) (Bruch et al., 2005).

Also, organisational energy is defined by Lamberti (2012:11) as *“an emotional resource that can be built up for consumption during periods of immense organisational, general and task environment pressures”*. These definitions link directly to productive organisational energy, which, as such is still a relatively new area of research within not only the South African context, but also internationally.

This research aims to further add to the body of productive organisational and productive energy knowledge compiled in a South African context by (Derman, 2008; Lamberti, 2012; Louw, Sutherland & Hofmeyr, 2012; Cuff, 2011; Derman, Barkhuizen & Stanz, 2011).

#### **2.5.2.2 Collective Self-efficacy and Productive Organisational Energy**

*“Most leaders have experienced the ebb and flow of different states of energy in their own organisations. This energy belongs to the intangible but very powerful, so-called soft factors of human potential that lie at the core of all companies. We call this phenomenon organisational energy....”*  
(Bruch & Vogel, 2011:9).

Energy per se is an interaction between three types of energy: individual, team and organisational energy and each of these are driven by a set of factors (Louw, 2011). Enhanced individual energy can positively influence organisational energy and therefore productivity. Collective energy stems from individual level energy that needs to be aligned within a work group, team and/or organisation. By focussing on collective energy and the shared experiences of positive affect, cognitive arousal and agentic behaviour, a more complete picture of energy in the organisations can potentially be painted.

### **2.5.2.3 Affective Dimension of POE**

The emotional dimension of POE refers to the collective experience of positive feelings and emotions that arise due to an individual's enthusiastic assessment of the task and goals.

### **2.5.2.4 Cognitive Dimension of POE**

The cognitive (intellectual processes) dimension of POE refers to the shared experience of being cognitively aroused and mentally alert in pursuit of the shared tasks and goals. Noted here is the fact that the social and cognitive dimensions are mingled.

### **2.5.2.5 Agentic Behavioural Dimension of POE**

The behavioural (action-related) dimension of POE refers to the group behaviour as they collectively bring efforts together to pursue shared goals and tasks. Further, according to a study by Spreitzer, Sutcliffe, Dutton, Sonenshein & Grant (2005) notion that unit contextual features, agentic behaviours and resources produced in work done jointly enable individuals to thrive, enhancing further the understanding of just how social contexts and human agency interacts to promote positive functioning at work.

It can be derived that collective efficacy and collective productive energy are similar but uniquely different; hence there could potentially be a positive impact between the two collective constructs.

### **2.5.2.6 Collective nature of Self-efficacy**

Human agency has historically been described in individual terms and consequently self-efficacy focuses on the perceived self-efficacy. Evidence verifies that perceived self-efficacy and personal goals enhance motivation and performance attainments (Bandura & Locke, 2003).

*"However, people do not live their lives as isolates. They work together to produce the outcomes they desire but cannot accomplish on their own. Social cognitive theory therefore extends the conception of human agency to collective*

*agency. People's shared beliefs in their collective power to produce desired outcomes are a crucial ingredient to collective agency" (Bandura, 1999:34).*

Previous research indicates that beliefs of collective efficacy (stemming from self-efficacy, and seen as a group's shared belief) predict the level of group performance in various contexts, including organisations (Wood & Bandura, 1989); goals (Locke & Latham, 2006); group performance (Hodges & Carron, 1992); individual performance (Tierney & Farmer, 2011); teams (Little & Madigan, 1994) and groups (Prussia & Kinicki, 1996).

In a study conducted by Fernandez-Ballesteros, Diez-Nicolas, Caprara, Barbaranelli and Bandura (2002) *"people's perceived individual efficacy and its link to their perceived collective efficacy was investigated and the findings were positive"*. Collective efficacy clearly has a strong impact on performance, and therefore the performance of a group can be based on their collective efficacy.

*"Given the generality and centrality of the self-efficacy mechanism in the causal structures governing diverse aspects of the organisational functioning, programs aimed at developing a resilient sense of efficacy can yield significant dividends in performance accomplishments and personal well-being" (Bandura, 2009:184).*

Humans do not live their lives autonomously and achievement are many a time reached through socially interdependent effort; therefore Bandura (2005) extends the human agency to collectively agency rooted in our shared belief in joint capabilities to bring change by collective effort.

It was found that the impact of perceived collective efficacy on group functioning is only now beginning to be verified empirically (Fernandez-Ballesteros *et al.*, 2002).

*"Unless people believe that they can produce desired effects and forestall undesired ones by their actions, they have little incentive to act. The growing interdependence of human functioning is placing a premium on the exercise*

*of collective agency through shared beliefs in the power to produce effects by collective action” (Bandura, 2000:75).*

Important further research is needed to explore the impact of perceived collective efficacy on group functioning. The contribution of perceived collective efficacy to group performance can be replicated across diverse social systems (Bandura, 1999).

## **2.6 COLLECTIVE NATURE OF SELF-EFFICACY**

*“The conceptualization of collective efficacy and productive energy are assumed to be complementary but distinct” (Cole et al., 2011:33) and further:*

*The productive energy construct is similar to collective efficacy because both constructs involve a heightened sense of confidence that will not only help unit members persevere during hard times but also facilitate the attainment of shared goals. On the other hand, collective efficacy is a belief, whereas productive energy consists of members’ affect, behaviour, and cognitions” (Cole et al., 2011:33).*

*“It can be derived that collective efficacy and collective productive energy are similar but uniquely different; hence here could potentially be a positive impact between the above constructs” (Cole et al., 2011:449).*

## **2.7 GENERATIONS**

### **2.7.1 Generations Defined**

*“While the times and your company’s employees are changing, it is important that not only the younger employees need to be understood, but also the more senior employees need help understanding and embracing the change. It is important to consider how your company will embrace, manage, promote, and retain, these new, highly technical workers because (they) are not going away, they will only grow in the work force” (Burgess, n.d.).*

Further definitions include Kupperschmidt (2000:66) *“an identifiable group (cohorts) that shares birth years, age location, and significant life events at critical developmental stages (times) divided by 2-7 years into first wave, core group and last wave”*. These generations will share certain characteristics regarding their view of the world, values, attitudes, peer or generational personality and perspective (Kupperschmidt, 2000).

Generational groups also include those who share historical and social life experiences; resulting in effects that are relatively stable over their lives (Westerman & Yamamura, 2007).

Defining generations remains challenging as some scholars believe *“the generational approach is more popular culture than social science”* (Giancola, 2006). However, generational studies have a long and distinguished place in social sciences (Srinivasan, 2012) and will continue to peak interest for decades to come.

To date, most of the research conducted on multi-generations has been done in the USA, UK, Canada and India (Srinivasan, 2012), making this research in an African context valuable.

#### **2.7.1.1 Traditionalist Generation Explained**

Traditionalists are also referred to as Veterans, Adaptive Generation, Loyalists, Pre-Baby Boomers, Silent Generation, Matures, Greatest Generation, Builders, Industrialists, Depression Babies, Radio Babies and the GI Joe generation (Srinivasan, 2012). Characteristics of Traditionalists include dedication, respect for authority, loyalty and sacrifice (Weingarten, 2009).

As with all the generations, there is also little agreement on the exact years encompassing the Traditionalist Generation. For the purpose of this research, Traditionalists will be defined as those born between 1928 and 1945.

*“This generation was influenced by the Great Depression, World War II, and also saw the rise of television networks and mass marketing. Veterans view*

*stability in life, a predicted career ladder and are loyal and consistent”*  
(Srinivasan, 2012:51).

#### **2.7.1.2 Baby Boomers Generation Explained**

Baby Boomers are also referred to as The Forgotten generation, Woodstock Generation, Sandwich Generation and Vietnam Generation. Characteristics of this generation include being goal oriented (which could lead to tension between younger workers due to them not sharing similar work ethic), optimism, team-orientation with the experience of post-war stress and prosperity as well as being part of radical social changes (Srinivasan, 2012; Gursoy *et al.*, 2013; Weingarten, 2009). Baby Boomers were tasked to take care of ageing parents as well as their own children and generally have a lack of respect for loyalty, authority and social institutions (Kupperschmidt, 2000). Baby Boomers live to work!

The birth year of the Baby Boomer Generation seems to vary (McCrindle, 2014), but this research will use the range of 1946-1964 (Giancola, 2006; Gursoy, Chi, & Karadag, 2013; Meister & Willyerd, 2010; Westerman & Yamamura, 2007; Smola & Sutton, 2002; Srinivasan, 2012).

#### **2.7.1.3 Generation X Explained**

Generation X is also known as Baby Busters; Post-Boomers; Slackers, The Shadow Generation; Generation 2000 and the MTV Generation. This generation is characterised by behaviours of independence, scepticism, cynicism, resilience and adaptability, economic prosperity, high divorce rates of parents, constant change, diversity, social liberalism and environmentalism (Srinivasan, 2012; Kupperschmidt, 2000; Gursoy, *et al.*, 2013; Weingarten, 2009). Generation X work to live!

Research again varies on the exact birth year of Generation X, but for the purpose of this research, the range of 1965-1985 will be used (Giancola, 2006; Gursoy, *et al.*, 2013; Meister & Willyerd, 2010; Westerman & Yamamura, 2007).

#### **2.7.1.4 Generation Y Explained**

Generation Y are also known as Millennials, Next Generation, Generation me, Echo Boomers, Nexters, the Boomlet, Digital Generation, Dot com generation, Net Generation, N-Gens, Generation WWW, Digital Natives, Ninetendo Generation, Sunshine Generation; Do or Die generation, the Wannabes, The Nothing is sacred Generation, Cyberkids, The Feel good Generation and the Non-nuclear family Generation. This generation is characterised by confidence, demanding nature, impatience, globalisation, outsourcing, foreign investments, technology and information overload and witnessed natural disasters and terrorist attacks (Srinivasan, 2012; Weingarten, 2009). Generation X also believes in collective action, teamwork and optimism (Gursoy *et al.*, 2013).

Research is not conclusive, but for this study, the range of 1978-1990 will be used to categorise Generation Y (ESDS, 2014).

#### **2.7.1.5 Generation Z Explained**

Although the latest edition to the generational phenomenon sparked wide-spread interest in choosing an appropriate name to follow Generation Y, a comprehensive online search seems to suggest Generation Z is prevalent. Other names included: Post-millennials Scholars Generation; iGeneration, Gen Tech, Gen Wii, Net Gen, Digital Natives, Gen Next, Post Gen.

For the purpose of this study, Generation Z would be used to describe the generation following Generation Y. It is also generally agreed that it includes those born between early and mid 1990s (Peterson, 2014). Further, Birkner (2013:14) describes Gen Z as those *“born from 1990 to 2010”*.

Birkner (2013) describes Generation Z (born after the *“much-buzzedabout”* millennial generation) as the most tech-savvy group of consumers yet; digital natives growing up in the age of technology with direct access to information at an unprecedented scale.

Generation Z remains open for ongoing study as not much research has been conducted to fully understand them as the latest edition to the generation chain (Tulgan, 2013).

*“Generation Z represents the greatest generational shift the workplace has ever seen. Generation Z will present profound challenges to leaders, managers, supervisors, HR leaders, and educators in every sector of the workforce”* (Tulgan, 2013:2).

### **2.7.2. Brief historical background of Generations**

Although much debated, discussed, theorised, ignored, jargoned and speculated, the construct of generations received little research attention since the concept was first formed and defined. Online definitions range from (Merriam-Webster.com, n.d.) *“a group of individuals born and living contemporaneously”*; (Oxford Dictionaries, n.d.) *“all of the people born and living at about the same time, regarded collectively; a group of people of similar age involved in a particular activity”* and (Collins Dictionary, n.d.) as *“all the people of approximately the same age, especially when considered as sharing certain attitudes....”*.

Kralj and Solnet (2011) explain a generational cohort will be influenced by broad external forces that contribute to the creation of a personal value system that is vastly different to those of others who grew up in a different time period.

*“These shared experiences and value systems influence how a person reacts towards authority, what their work-related values are, and how they will act to satisfy those values”* (Gursoy et al., 2008 cited by Kralj & Solnet, 2011:2).

One study conducted amongst Baby Boomers, Generation X and Generation Y (Gursoy et al., 2008) found that the biggest differences in the world views of these generations were their attitude towards authority and the perceived importance of work in their lives.

Meister and Willyerd (2010) explain that in the 2020 workplace three forces will shape the future: globalisation, social web and generations (demographics). Therefore the understanding and study of the different generations will become increasingly important in today's day and world.

*"There is, and always will be, a lack of agreement about the precise years for the start and end of each generation. This in part because there is a lack of agreement about what the defining events for a generation are – whether it be a significant social events or a change in birth rates, for example.... Nevertheless, for practical purposes, it is useful to categorize certain birth year groups together as, grouped together, members of these cohorts display a certain amount of similarity" (Kralj & Solnet, 2011:2).*

Further research conducted provided support for the *premise "that within a hierarchy based bureaucratic organizational structure, there exist generational and job category differences in the perceptions employees hold about older and younger managers"* (Chi, Maier & Gursoy, 2013).

Interestingly, it was found that Generation Y's perceptions of work are more in line with their own generation compared to Baby Boomers and Generation X (Chi *et al.*, 2013). In addition Smola and Sutton (2002) found work values are more influenced by generational experiences compared to actual age or maturity. Further research conducted found that generational differences in terms of work values and attitudes also exist between older and younger generation workers (Gursoy *et al.*, 2013).

Also Westerman and Yamamura (2007) found in their study that work environment fit is significantly predictive of employee outcomes of that of younger generations.

Given the above, there seems to be concurrence that generations can be defined and categorised as indicated in Figure 2.6 below. Although these categories and accompanying names can be generalised, it is not necessarily widely accepted. The classification and time span used to describe different generations have been inconsistent, but behavioural sociologists seem to suggest that each generation lasts

roughly two decades and then fades away as it makes way for the next generation (Gursoy *et al.*, 2008).

Again, highlighting the need for further research about different generations, particularly as workplaces will now face five generations in working alongside each other. Gratton (2011) classified these five generations as The Traditionalists (born around 1928-1945; Baby Boomers (born around 1945-1964); Generation X (born around 1965-1979); Generation Y (born around 1980-1995) and Generation Z (born after 1995).

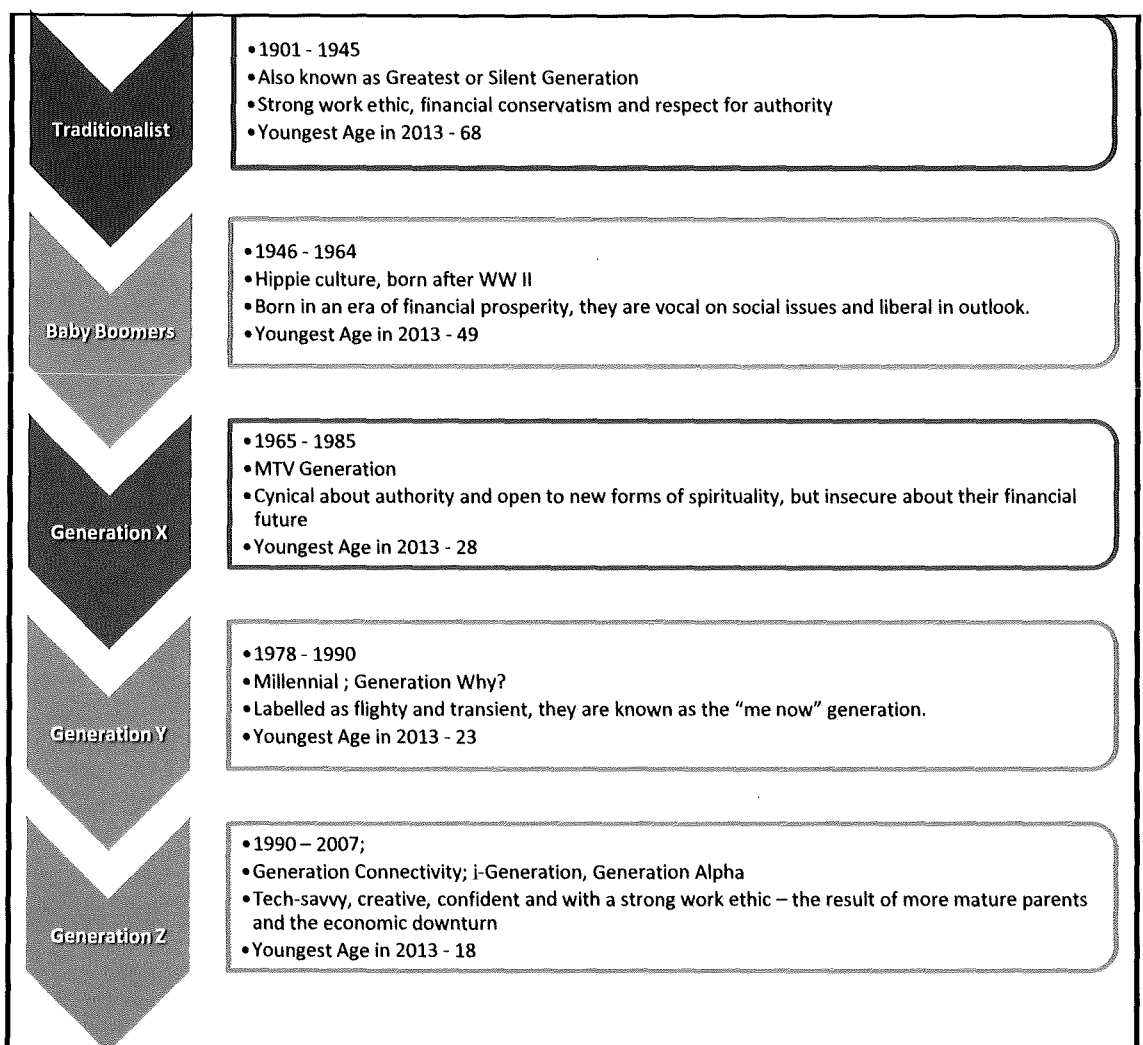


**Figure 2.6: Generation Chart – Build from comprehensive literature review online**

### **2.7.3 Generational Values**

Research indicates that work values can be integrated into four groups that attempt to capture the unique values of these different generational groups (or cohorts) (Robbins & Judge, 2009). Another group, generation Z (Gen Z) was added to this study to further add to the proposition that employees can be segmented by the era in which they enter the world of work. Robbins and Judge (2009) also confirm the suggestion that although different generations receive a lot of press coverage, there is little rigorous research on generational values.

*"There is no law that some-one born in 1985 can't have similar values to someone born in 1955. You may see values better reflected in other generations than in your own. Despite limitations, values do change over generations...."*  
(Robbins & Judge, 2009:153).

This seem to support other more recent research that although the expectation and perception remains that generations do differ in values displayed in the workplace, some specific values of different generational cohorts may not be that far removed from each other. Research confirmed that work values such as work-life balance tend to differ; this research aims to investigate other constructs such as POS, SE and POE.

## **2.8 SPECIFIC RESEARCH CONDUCTED ON RELATIONSHIPS BETWEEN STUDY VARIABLES**

### **2.8.1 Perceived Organisational Support and Self-Efficacy**

One study exploring the role of self-efficacy and organisational support on employee engagement found that POS was a significant mediator between self-efficacy and engagement (Pati & Kumar, 2010). The study further argues that engagement results out of the interaction between self-efficacy and POS.

### 2.8.2 Perceived Organisational Support and Generations

The “Multi-Generational” workforce of the 21<sup>st</sup> Century brings an interesting dynamic to the workplace and challenges existing Human Resources Management (HRM) practices.

Human Resources Management is defined as:

*“The process of hiring and developing employees so that they become more valuable to the organization. Human Resource Management includes conducting job analyses, planning personnel needs, recruiting the right people for the job, orienting and training, managing wages and salaries, providing benefits and incentives, evaluating performance, resolving disputes, and communicating with all employees at all levels” (BusinessDictionary.com).*

One study that investigated the influence of POS on engagement amongst different generations proved that it is quite strong for all generation employees; engagement referring to a much discussed topic in HRM and organisational performance for management and academics alike (Kralj & Solnet, 2011).

Another interesting study conducted in the hospitality industry researched the relationship between perceived organisational support and the willingness to pursue a career in the industry amongst younger Generation Y students and found a clear causal relationship between the above. Specifically; it showed a clear conflict between what the Generation Y members want and appreciate, and what they are experiencing (Jokela, 2012).

*“One of the overwhelming aspects of the future of work is the need to work collaboratively across boundaries — be these boundaries generational, national, functional, or business boundaries. This is as true for the HR function as it is for any other part of the business” (Gratton, 2011:253).*

### **2.8.3 Self-efficacy and generations**

Although self-efficacy is believed to be universal (Bandura, 1997) and that there is cross-cultural commonality of agentic capacity rooted in beliefs of self-efficacy (Bandura, 2002)a, it is noted that the ways in which efficacy beliefs are developed and structured varies cross-culturally (Siu, Lu & Spector, 2007).

Interestingly, given the agentic features of social cognitive theory it is very well suited to address the exercise of human agency in its diverse forms for personal and social change in the evolving electronic era we find ourselves in (Bandura, 2002)b.

### **2.8.4 Self-efficacy and productive organisational energy**

In two recent and related studies regarding the antecedents and outcomes of proactive work behaviours, the following was found:

- i. Sonnetag and Spsychala (2012) examined the relationship between job stressors and proactive work behaviour. Results suggest that an employee working in a job with high job control and high time pressure but with low situational constraints experience higher role breadth self-efficacy and thereby show more proactive work behaviour.
- ii. Following this; the second study Spsychala (2010) investigated if relationships between various individual antecedents and proactive work behaviour can be applied to the organisational level as well. It was found that productive organisational energy moderated the relationships on the employee's proactive behaviour climate; *"i.e. the relationships between antecedents and employees proactive behaviour climate were stronger for organizations with higher levels of productive organisational energy"* (Spsychala, 2010:9).

Further, perceived self-efficacy occupies a critical role in social cognitive theory because it affects action directly but also indirectly through its impact on other classes of determinants. Goal adoption for one enlists self-investment.

*“Once people commit themselves to valued goals, they seek self-satisfaction from fulfilling them and intensify their efforts by discontent with substandard performances. The motivational effects do not stem from the goals themselves, but from the self-evaluation that is made conditional on their fulfilment” (Bandura, 1999:28).*

#### **2.8.5 Generations and Productivity**

The perceptions around age (and therefore different generations) in the workplace will continue to become an important consideration during the next decade. Global considerations like: the aging population; perceptions that productivity decline with age; changes in mandatory retirement ages worldwide, perceptions of older workers lacking flexibility and technology skills, perceived increases in turnover, absenteeism, and others of older workers, will become more important considerations as more generations work side by side.

A summary of the key literature review learnings follow in Figure 2.7 below:

**Key Literature Review Learnings relevant for this study:**

- Limited research done comparing different generations to variables;
- GEN is group sharing same birth years (Kupperschmidt, 2002);
- Work values seem to be unique for different GEN (Robbins & Judge, 2009);
- Perceptions of different values for different Gen not always true (Robbins & Judge, 2009)
- Now 5 GEN in workplace for first time (Gratton, 2011);
- Multi generational work done internationally, limited in African context (Srinivasan, 2012).

•SPOS – 8 – Item Eisenberger (2001) that measures employee's Perception of support from the organisation.

Perceived Organisational support (POS) - DV = Y

•Traditionalist;  
•Baby Boomer;  
•Gen X;  
•Gen Y;  
•Gen Z.

Different Generations - (GEN) - IV = X

•PEM 14-Item – Cole, Bruch & Vogel (2011) measures POE in the Affective Cognitive; Behavioural Dimensions.

Productive Organisational Energy (POE) - DV = Y

•NGSE – 8 Item – Chen, Gully & Eden (2001) that evaluates self-efficacy of employee across broad range of work-related contexts.

Self Efficacy (SE) - DV = Y

**Key Literature Review Learnings relevant for this study:**

- POE is fuel tank that makes organisations work (Cole, et al, 2005);
- Key focus areas for increased POE is individual and personal (Shiluma, et al, 2007);
- POE is joint experience and demonstration of positive affect, cognitive activation & agentic behaviour & have positive relationship in HPWS (Bruch, et al 2009);
- Two scales of organisational energy form energy matrix (Bruch & Vogel, 2011; Cole, et al 2011);
- Collective & productive energy is used interchangeably (Cole, et al, 2011); POE have collective nature (Cole, et al, 2011);
- POE most relevant for knowledge workers & can be build up & used in stressful times (Lamberti, 2012).

**Key Literature Review Learnings relevant for this study:**

- POS relates positively to Job Performance (O'Driscoll & Randall, 1999);
- Social Exchange Theory (Rhoades & Eisenberger, 2002);
- Organisational Support Theory (Rhoades & Eisenberger, 2002);
- Demographics (like generations) often used as control variable (Rhoades & Eisenberger, 2002)
- POS increases Job Satisfaction & Organisational Commitment (Riggle, et al, 2009);
- POS increases team work attitudes (Lamir & Yinghong, 2014);
- POS relates positively to HPWP's (Kadepe & Valankhan, 2014).

**Key Literature Review Learnings relevant for this study:**

- Efficacy Expectations – 4 ways to increase (Bandura, 1997; Robbins & Judge, 2009)
- SE can be divided into GSE & Social SE (Sherer & Adams, 1983);
- SE is related to positive motivation & behaviour (Bandura, 2005);
- SE will change over life span (age) (Bandura, 1994);
- SE is human agency and agentic (Bandura, 1999);
- NGSE help explain motivation & performance (Chen, et al, 2001)
- SE provides framework to study work design & enhancing organization functioning (Bandura, 2009);
- SE significant predictor of commitment (van Vuuren et al, 2008);
- High SE feelings can lead to high performance (Park & Roedder John, 2014).

## **2.9 CHAPTER SUMMARY**

Chapter Two explained in detail the constructs of Perceived Organisational Support (POS); Self-efficacy (SE) and Productive Organisational Energy (POE) by means of a comprehensive literature review. In addition the construct of Generations (GEN) was defined and the five different generation groups explained.

POS was explained by reviewing Social Exchange Theory and Organisational Support Theory. SE was explained by analysing the foundation that is, Human Agency; followed by a review of general self-efficacy (GSE) and the efficacy expectations. POE was introduced by analysing the components of individual energy and reviewing the energy matrix. The collective nature of all three of the above constructs was investigated. GEN were disseminated into five different generation groups, Traditionalist (TRAD); Baby Boomers (BOOMERS); Generation X (GEN X); Generation Y (GEN Y); Generation Z (GEN Z).

In closing, a review of the literature on the relationships between the dependable variables took place. The following chapter, Chapter Three, will deal with the research method followed for this study.

### 3. CHAPTER THREE - RESEARCH METHOD

*Research is about creating new social realities, not just about studying old ones* (Terre Blanche et al., 2006:10).

Research methodology is all about controlling and dictating the acquisition of data and to corral the data after acquisition to extract meaningfulness (Leedy, 1997). The term methodology is derived from the Greek words “methodos” (made up in turn of “meta” meaning “alongside” and “hodos” meaning “road or journey”) and “logos” (logic or study) (Mouton, 2002:35).

Research can also be seen as a journey by the traveller with different destinations as outcomes (Mouton, 2002; Leedy, 1997; Robbins & Judge, 2009).

*Come, it's pleased so far”, thought Alice and she went on. Would you tell me, please, which way I ought to go from here?” “That depends on a good deal on where you want to get to”, said the Cat. “I don't much care where”, said Alice. “Then it doesn't matter which way you go”, said the Cat. “- so long as I get somewhere”, Alice added as an explanation. “Oh, you're sure to do that”, said the Cat, “if only you walk long enough”.*

(L. Carroll, Alice's Adventures in Wonderland as cited by Mouton, 2002:25)

#### 3.1 CHAPTER INTRODUCTION

This chapter will deal with the research approach and paradigm; followed by an overview of the research design and strategy of inquiry with an explanation of the research method followed for this study. Thereafter, the sampling technique is explained followed by the data collection method and an explanation of the measurement instruments used, covering validity and reliability. The research procedure and statistical analysis will be discussed and in closing, the research ethics reviewed.

## 3.2 CHAPTER THREE OVERVIEW

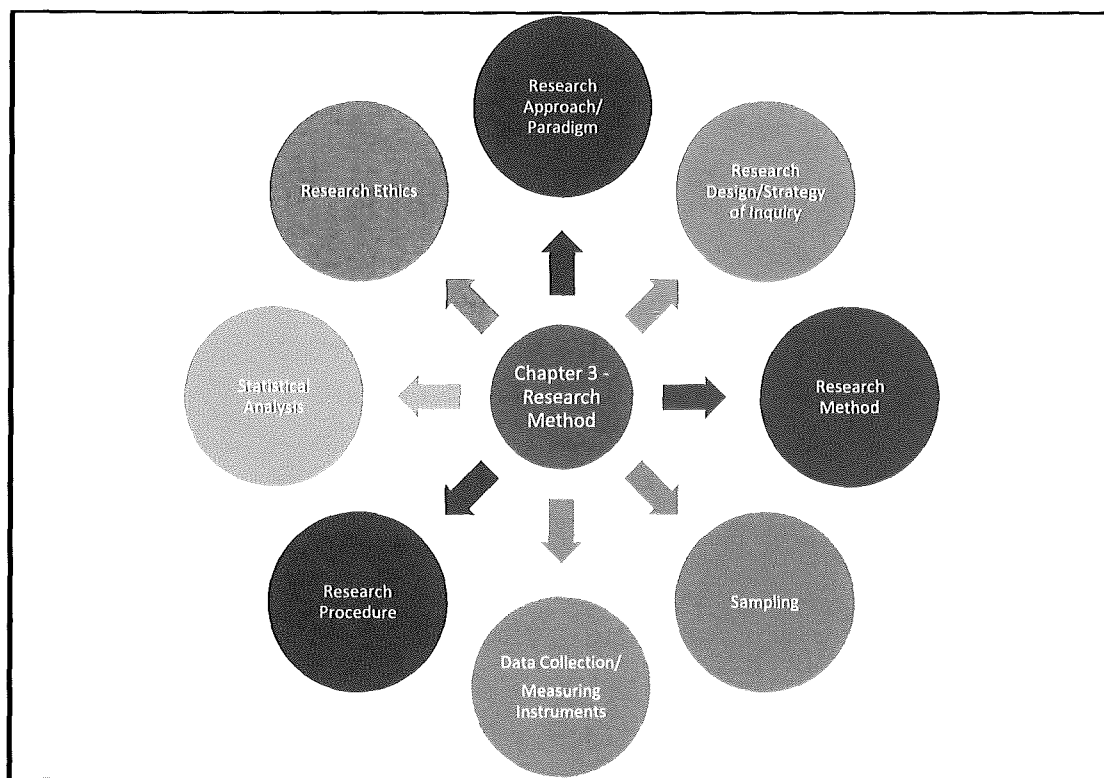


**Figure 3.1: General Chapter 3 Overview**

## 3.3 RESEARCH APPROACH/PARADIGM

*Thomas Kuhn coined the phrase paradigm to refer to established research traditions in a particular discipline. In this sense a paradigm in the social science will include the accepted theories, modes, body of research and methodologies in a particular tradition (Mouton, 2002:203).*

Although there are three distinct ways in which the nature of science can be explained (Mouton, 2002); all of them aim to explain the way in which the elements or components of scientific knowledge relate to each other. In addition, of the four possible interpretations of the nature of scientific inquiry (epistemic model, sociological model, economic model and management model), for the purpose of this study, the researcher looked at them as complementary interpretations. Therefore, as per Figure 3.2 below:

*Although we shall argue that the epistemological dimension is the*

*research is a search for the truth, we will also argue that science is a social activity and that resource and management issues are important (Mouton, 2002:20).*

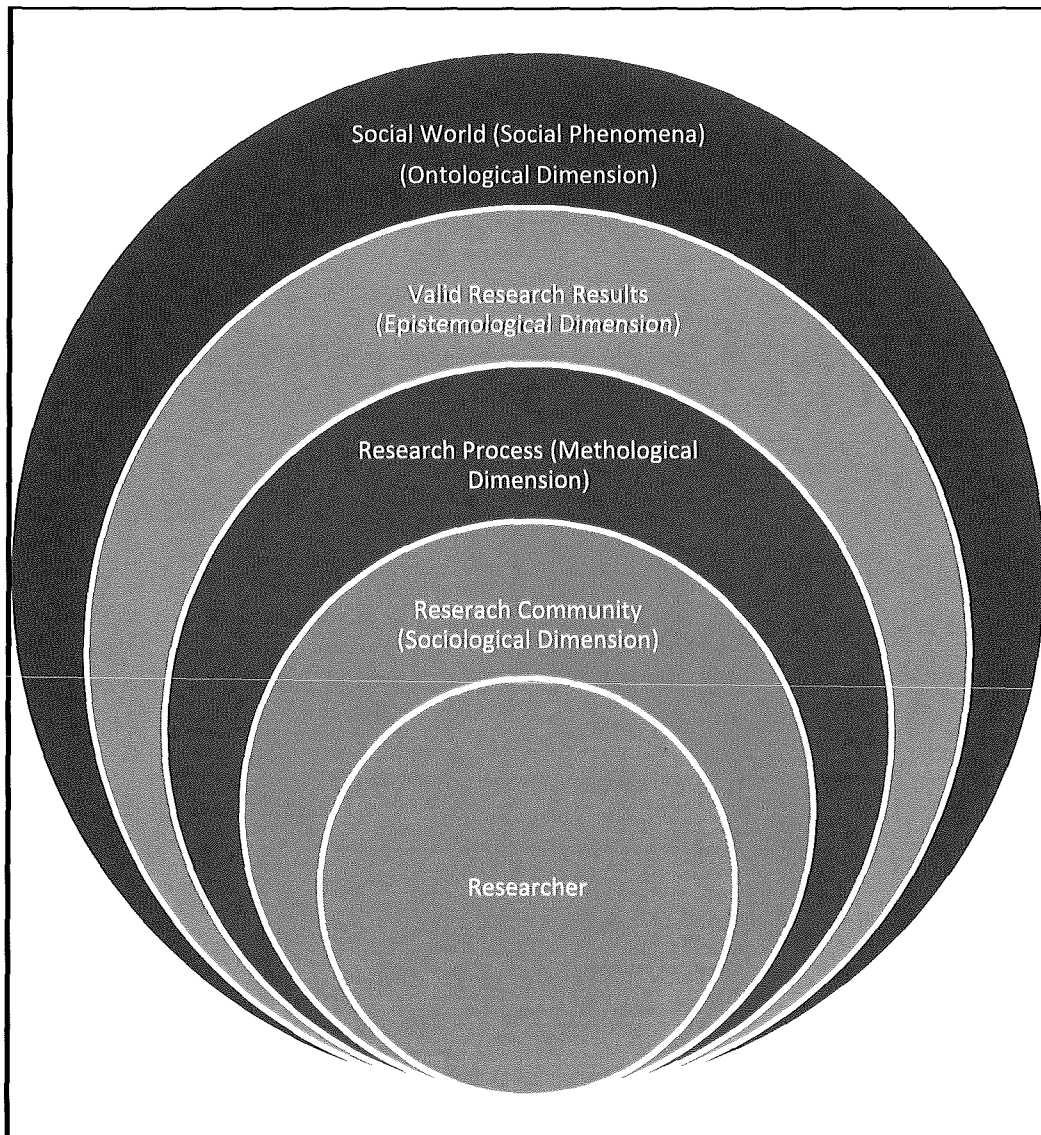


**Figure 3.2: The multidimensionality of science.**

**As adapted from Mouton, 2002.**

The hypothetico-deductive model was followed in understanding paradigms in social science research as explained by (Terre Blanch, *et al.*, 2006:4):

*A commonsense understanding of science – and one shared by some*

*leaving, over time, correct theories that stand for truth. In this understanding, scientific research is an objective, logical, and empirical activity, and scientists, in their research, should adhere to the logical and empirical procedures outlined by the hypothetico-deductive model of science.*

Furthermore Mouton (2002) indicates that survey research can be classified as empirical (as is typically the case with quantitative studies). This study can be classed as empirical research, whereby the researcher used surveys to collect and analyse the data. This study is specifically based on observer or measured phenomena and thus derives knowledge from direct observation or actual experience rather than theory (Ashmore, 2006 *cited by* Du Plessis, 2010:57). The study revolves around the individual employees' actual experience, confirms the reason for using empirical research. Further, the reason for following an applied research process is to attempt to improve human condition through application.

Theory was investigated and these truth statements were put to empirical test by deriving hypotheses about observations. This process followed a deductive logical principle to derive hypotheses. An inductive logical phase ensued, where the findings were interpreted and the theory adjusted to fit the newly discovered facts (Terre Blanche *et al.*, 2006).

See Figure 3.4 Distinguishing Characteristics of Quantitative and Qualitative Approaches – choosing the appropriate one. Adapted from Leedy, 1997 further below under Research Design/Strategy of Inquiry.

### 3.3.1 Methodological Paradigms

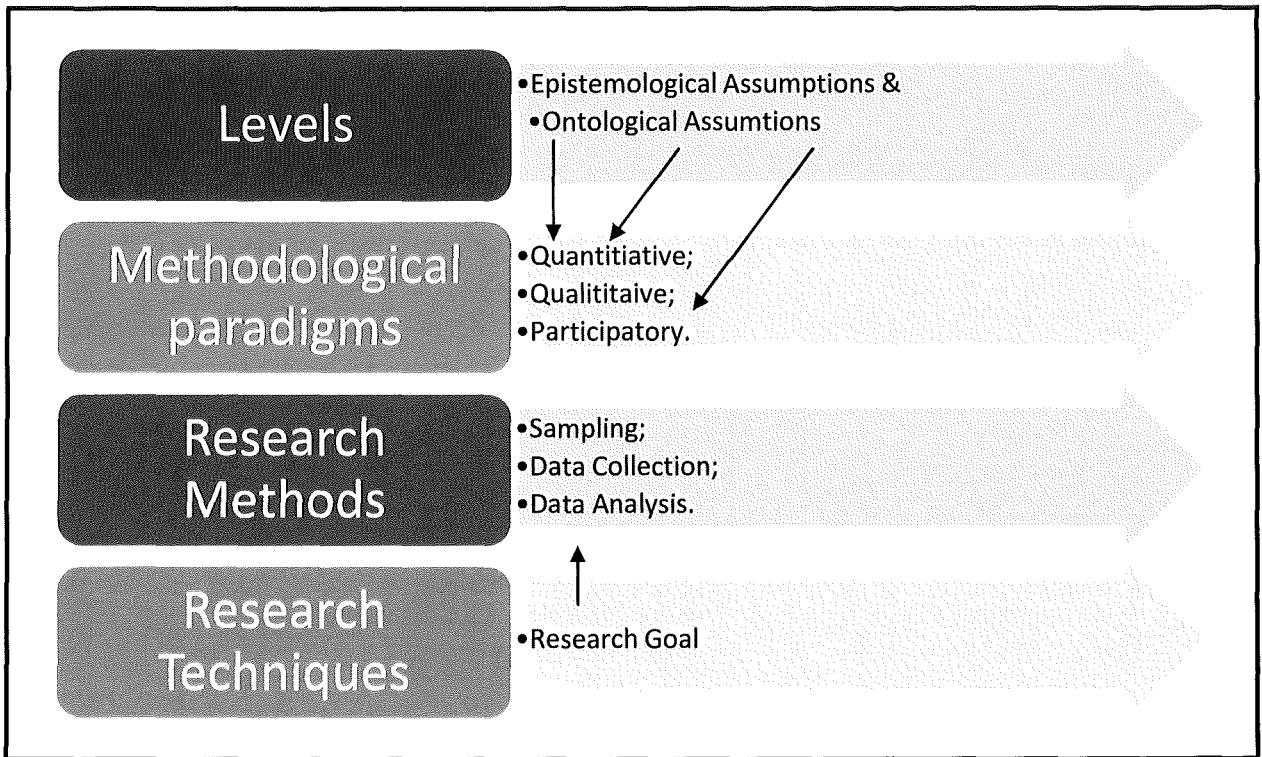


**Figure 3.3: Levels in the methodological dimension.**

**Adapted from Mouton, 2002.**

Various levels exist in the methodological dimension as depicted in Figure 3.3 above.

### 3.4 RESEARCH DESIGN/STRATEGY OF INQUIRY

*Everywhere, our knowledge is incomplete and problems are waiting to be solved* (Leedy, 1997:3).

Research design as defined by Babbie and Mouton (2002) *"is a plan or blueprint of how you intend conducting the research"*. A research design is a strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research (Terre Blanche *et al.*, 2006) and is concerned with the systematic gathering of information and good research design is not perfect, but they carefully reflect the questions being addressed (Robbins & Judge, 2009). Leedy

(1997) defines research as the systematic process of collecting and analysing data to increase our understanding of that which we are interested in or concerned about.

Further, according to Mouton (2002) the process of social research involves continuous interaction between the researcher and the social world; where the researcher has to make decisions to arrive at certain conclusions; the stages being: problem formulation (that is the research question – Chapter One of this study), conceptualisation (that is the underlying theoretical framework – Chapter Two – Literature review of this study), operationalisation (the measuring instruments of this study as explained in Chapter Three of this study), sampling (as explained in Chapter Three of this study), data collection (as explained in Chapter Three of this study), data analysis (as explained in Chapter Four of this study) and interpretation (as explained in Chapter Five and Six of this study). Mouton (2002:107) also defines research design as *“a set of guidelines and instructions to be followed in addressing the research problem”*.

Methodologies resolve into two major approaches to collecting and analysing data; that is, quantitative and qualitative. See Table 3.1 below.

*“Whereas the quantitative approach is typically used to answer questions about the relationship among measured variables with the purpose of explaining, predicting and controlling phenomena, the qualitative approach is typically used to answer questions about the nature of the phenomena with the purpose of describing and understanding the phenomena from the participants’ point of view”* (Leedy, 1997:104).

**Table 3.1: Distinguishing Characteristics of Quantitative and Qualitative Approaches – choosing the appropriate one. Adapted from Leedy, 1997**

| Question/Approach                                 | Quantitative                                                                                         | Qualitative                                                                                      |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| What is the purpose of the research?              | To explain, predict, confirm and validate; to test a theory; outcome-oriented.                       | To describe & explain; to explore & interpret; to build theory; process oriented.                |
| What is the nature of the research process?       | Focused with known variables; established guidelines; static design; context-free and detached view. | Holistic; unknown variables; flexible guidelines; emergent design; context-bound; personal view. |
| What are the methods of data collection?          | Representative, large sample; standardized instruments.                                              | Informative, small sample; observations; interviews.                                             |
| What is the form of reasoning used in analysis?   | Deductive analysis.                                                                                  | Inductive analysis.                                                                              |
| How are the findings communicated?                | Numbers; statistics; aggregated data; formal voice; scientific style.                                | Words; narrative, individual quotes; personal voice, literary style.                             |
|                                                   |                                                                                                      |                                                                                                  |
| If you believe that:                              | There is an objective reality that can be measured.                                                  | There are multiple constructed realities.                                                        |
| If your audience is:                              | Familiar with/supportive of quantitative studies.                                                    | Familiar with/supportive of qualitative studies.                                                 |
| If your research question is:                     | Confirmatory, predictive.                                                                            | Exploratory, interpretative.                                                                     |
| If the available literature is:                   | Relatively large.                                                                                    | Limited or missing.                                                                              |
| If your research focus:                           | Covers a lot of breadth.                                                                             | Involves in-depth study.                                                                         |
| If your time available is:                        | Relatively short.                                                                                    | Relatively long.                                                                                 |
| If your ability/desire to work with people is:    | Medium to low.                                                                                       | High.                                                                                            |
| If your desire for structure is:                  | High.                                                                                                | Low.                                                                                             |
| If you have skills in the area(s) of:             | Statistics and deductive reasoning.                                                                  | Attention to detail and inductive reasoning.                                                     |
| If your writing skills are strong in the area of: | Technical, scientific writing.                                                                       | Literary, narrative writing.                                                                     |

Further, the quantitative research approach aim is to classify features, count them and construct statistical models to possibly explain observations (Neill, 2007). In this study the researcher knew in advance what she was looking for but was only going to make recommendations later on in the research project, the researcher designed the study carefully before data collection and tools such as questionnaires were used to collect numerical numbers that was analysed in the form of numbers and statistics (Neill, 2007).

The research design selected for this study considered allowance for research objective validity, reliability, accuracy, objectivity and cost-effectiveness. The data was then analysed in an attempt to look at the impact of generations on the dependable variables. Thus, this study's purpose was explanatory, aiming to assist in understanding different generations as it relates to perceived organisational support, self-efficacy and productive organisational energy.

This study will follow a i) descriptive, ii) quantitative, non-experimental design with a iii) cross-sectional survey approach.

Where:

i) Descriptive survey refers to the measurement of the characteristics of a sample at one point in time.

ii) Non-experimental quantitative research is defined as:

*A methodology that relies largely on a statistical investigation of the data. The prime aim is to determine how closely the data of the study approach ideal data as established by the normal curve and whether the divergence, if any, is "significant" within certain prescribed statistical parameters" (Leedy, 1997:111).*

iii) Cross-sectional survey approach refers to a sample of elements from a population of interest and characteristics of the elements or sample where members are only measured once. Therefore, participants will complete the three questionnaires at one single point in time. Primary research is the collection of data about a given topic, directly from the real world; that is, the distribution of surveys (Purdue University, 2010).

The units of analysis (described as the "what" of the investigation, that is the entity to which one's conclusions apply) were individuals within the independent pharmacy that is, the organisation (Mouton, 2002). A further unit of analysis was the generational groups the individuals fall within. Quantitative measurement also allows the researcher to statistically analyse the degree of relationships or differences

between constructs (Bryman & Bell, 2007). This is explanatory research as defined by Babbie and Mouton (2002) as the relationship between variables.

### **3.4.1 Bias in the research design**

Bias can be found in all types of research design, but it is especially concerning in the descriptive survey. The researcher acknowledges that although all care has been taken to limit bias, it may have distorted data.

Bias can be defined as:

*Any influence, condition, or set of conditions that singly or together distort the data from what may have been obtained under the conditions of pure chance. Furthermore, bias is any influence that may have distorted the randomness by which the choice of a sample population has been selected (Leedy, 1997:219).*

### **3.4.2 Limitations**

Several limitations were considered during the research design:

- i. A disadvantage of a cross-sectional study is the difficulty in establishing time order when collecting data, as data is collected at a single point in time, possibly restricting the ability to measure changes taking place over time. A longitudinal study may provide more confident data, but was not considered by the researcher due to time limitations;
- ii. Survey questionnaires remain subjective;
- iii. Survey participants may not feel comfortable that the data will remain confidential and their identity unknown;
- iv. Rating scales reflect the individual's personal opinion and are therefore relative and not absolute.

### 3.5. RESEARCH METHOD

*Methodology is merely an operational framework within which the data are placed so that their meaning may be seen more clearly* (Leedy, 1997:104). The research methodology process, according to Leedy (1997:5) has eight distinct characteristics, indicated below:

1. Research originates with a question or problem;
2. Research requires a clear articulation of a goal;
3. Research follows a specific plan of procedure;
4. Research usually divides the principal problem into more manageable subproblems;
5. Research is guided by the specific research problem, question or hypothesis;
6. Research accepts certain critical assumptions;
7. Research requires the collection and interpretation of data in attempting to resolve the problem that initiated the research;
8. Research is, by nature, cyclical; or more exactly, helical.

#### **Literature review:**

A methodological review of past literature is a crucial endeavour of any academic's research and facilitates theory development, it also closes areas where a plethora of research exists and uncovers areas where research is needed, as explained by (Webster & Watson, 2002).

#### **Research participants:**

A population of the independent pharmacy sector employees within independent pharmacies in South Africa was defined. Widespread access to the population was secured and approval granted by the following independent pharmacy sector stakeholders:

- CJ Pharmaceutical Enterprises Group of Companies, including access to over 400 independent pharmacies on their supplier list;

- Independent Community Pharmacy Association of South Africa (ICPA) members;
- Community Pharmacist Sector of PSSA (CPS) members.

### 3.6 SAMPLING

In social research sampling refers to (probability) sampling procedures which involve some form of random selection of elements from a target population with the aim of producing representative selections of population elements (Mouton, 2002). Sampling is all about representativeness.

The target population in this study consisted of individuals working at an independent pharmacy; the sample of the individuals refers to the selection of the elements. Thus, in selecting the target population (individuals working at an independent pharmacy) it is made operational through the construction of the sampling frame, i.e. the *“operational definition of the population that provides the basis for sampling”* (Mouton, 2002:135).

Sampling can be divided into two types: nonprobability sampling and probability sampling. In the former, the researcher has no way of forecasting, estimating or guaranteeing that each element of the population will be represented in the sample; and with the latter, the researcher can specify beforehand that each segment of the population will be represented in the sample (Leedy, 1997).

Nonprobability sampling consists of convenience/accidental sampling and quota sampling.

#### 3.6.1 Convenient Sampling

Convenient sampling was used for this study with the addition of snowball sampling.

Convenient sampling is to *“select cases based on their availability of the study”* (Burton, 2000:312) and refers to the use of a population easily available (Maree & Pietersen, 2012).

In this study the aim was to include as many as possible individuals in the independent pharmacy sector of South Africa. Representation was increased by not only allowing for online submissions but also manual submissions.

This method was convenient, cost-effective and made logical sense given the geographical distance between independent pharmacies in South Africa.

Disadvantages included concerns about the sample representing the entire population as well as generalisation and inferences made about the entire population that could lead to external validity issues.

### **3.6.2 Snowball Sampling**

Snowball sampling, as anticipated, was added as the survey gained momentum and the passion for the independent pharmacy sector and advancing knowledge within spurred others to participate as well. Exponential non-discriminatory sampling was used with the advantage of reaching more participants that may not have been accessible previously; the process was cost and resource-effective and quick.

Disadvantages and limitations were, that the researcher had little control over the process and representation, although the combination of the true convenient sampling assisted in limiting this effect. Finally sampling bias (that is participants nominating those they know well) could have led to participants sharing similar traits and characteristics.

### **3.6.3 Survey Participation**

In addition, the introduction of two competitions with monetary prizes for participation spurred further interest in the survey. Also, an article was written in The Script Magazine, distributed to over 400 independently owned community pharmacies in South Africa. This further added to the increase in participation.

### **3.6.4 Sampling Size**

Considering best practice sampling size principles, the larger the sample size, the higher the reliability and the lower the risk of rogue results, indicating that once a sample size has reached 200, the gains in reliability from an increasing number of participants are minimal (SAFERPAK, 2007).

The sample for this study was derived from various pharmacies within the independent pharmacy sector. The expected sample size was around 1000, but a representative sample of 581 was secured in the end.

## **3.7 DATA COLLECTION**

Data collection is the application of the measuring instrument to the sample selected for investigation and whereby new information about the world is produced that requires further processing (Mouton, 2002). This processing involves data reduction and data analysis. Data analysis includes both qualitative and quantitative (statistical) analysis; followed by the interpretation of the data.

### **3.7.1 Measuring Instruments**

*The tools of research are merely ancillary to the ultimate goal of research itself: to derive conclusions from a body of data to discover that which was hitherto unknown (Leedy, 1997:17).*

Survey research is usually conducted where a sample of respondents is selected from a population and a standardised questionnaire is administered to them (Colorado State University, 2010 *cited by* Du Plessis, 2010).

Survey data was gathered by using three existing questionnaires. *“A commonplace instrument for observing data beyond the physical reach of the observer is the questionnaire”* (Leedy, 1997:191). The existing questionnaires used clear language and were designed to fulfil the specific research objectives it was designed for.

The advantages of using surveys in this study included: high representation of a large population; cost-effectiveness (low costs); convenience; data collection from across South Africa; good statistical significance as a result of multiple variables; limited, if any, observer subjectivity and greater precision in data measuring.

Disadvantages of surveys could include: the inability to change the design during the data gathering process (this could also be a positive given that this inflexibility leads to preciseness and fairness); not ideal for controversial issues or the presence of inappropriate questions.

Permission has been granted from all the authors personally to use the following measurements (See Annexure F):

- 8-Item Survey of Perceived Organisational Support (SPOS) – developed by (Eisenberger, Huntington, Hutchison, & Sowa, 1986) – *“POS is a distinctive construct that the SPOS measures with high reliability”* Rhoades and Eisenberger (2002:699) - See Annexure A.
- 8-Item New General Self-Efficacy Scale (NGSE) – developed by Chen, Gully and Eden (2001) – See Annexure B.
- 14-Item Productive Energy Measure (PEM) – developed by Cole, Bruch and Vogel (2011) – See Annexure C.

*Measurement is limiting the data of any phenomenon – substantial or insubstantial – so that those data may be examined mathematically and, ultimately, according to an acceptable qualitative or quantitative standard (Leedy, 1997:26).*

- i. Closed-ended questions - All three of the above measuring instruments used closed ended-questions to limit the response options provided in the questionnaires. Further advantages of using closed ended-questions include time-effectiveness; easy coding and interpretation of responses that are ideal for this type of quantitative research. Disadvantages remain that participants

have to choose a response that may not entirely reflect their answer. Closed ended-questions can further be classified as scaled questions.

- ii. Scaled questions – Make use of rating scales (whereby more than two options are given and the participant can choose a neutral answer) such as the Likert Scale; in the questionnaires used in this study, both the five-point Likert scale and seven point scales were used.
- iii. Matrix questions are also closed-ended questions that are arranged under one another as to create a matrix or table with identical responses placed on top.

### **3.7.2 Validity and Reliability**

The key validity criterion for data collection is reliability; that is *“the use of a valid measuring instrument to different groups under different sets of circumstances should lead to the same observations”* (Mouton, 2002:144). Does the survey measure what it is supposed to measure? This is achieved by checking the representativeness of the sample and the precision of the questions.

The four types of validity are briefly touched on:

- i. Face validity – are the questions reasonable to acquire the desired data?
- ii. Content validity – are the questions about the issue and subjects related to it? Content validity of the measuring instruments is the extent to which the instrument provides coverage of the investigative questions guiding the study (Zandberg, 2013).
- iii. Criterion validity – refers to the success of the measures used for prediction and is judged in terms of relevance, freedom of bias, reliability and availability (Zandberg, 2013).
- iv. Construct validity – construct validity in terms of the measuring instruments used relates to the problem that there are a number of phenomena, which are not directly observable, for example, motivation, satisfaction and anxiety (Collins & Hussey, 2003).
- v. Internal validity – are the questions implying the outcome wanting to be achieved?

vi. External validity – are the questions generating answers that are generalizable?

Is the measurement instrument used valid? Does the study measure what it is supposed to or claims to?

Reliability is a precondition for measurement validity and refers to whether the questions elicit similar information even if the words/structures of the questionnaire are changed.

Is the measurement instrument used reliable? Referring to the consistency of the measurement, that is, will the study consistently get the same results (Robbins & Jude, 2009). Reliability is also referred to as “trustworthiness” and is concerned with the findings of the research (Collins & Hussey, 2003:186).

There are numerous potential sources of error (classified in three categories, namely researcher effects, participant effects and context effects) in the data collection process that could result in unreliable data (Mouton, 2002).

- i. Researcher effects can be divided into researcher characteristics (like affiliation, image and distance) and researcher orientations (prejudges, expectations, attitudes, opinions and beliefs);
- ii. Participant effects includes participant characteristics (memory decay; omniscience syndrome and interview saturation) and participant attitudes (role selection; level of motivation and response patterns);
- iii. Context effects can be described as broader spatio-temporal factors (that is, period of the study, cultural and political factors) and the narrower research setting.

In this study the following strategies (Mouton, 2002) were planned for and used to ensure maximum reliability in the data collection phase:

- i. Triangulation – the inclusion of multiple sources and techniques of data collection. The researcher was not able to include other methods than the questionnaires used in this study;

- ii. Anonymity – during the study, the confidentiality and anonymity of participants were stressed and re-assurance provided in all correspondence and survey collection. It was clearly stated that individual responses will not be disclosed;
- iii. Rapport – establishing rapport with each participant was not practical but anonymity was strived for;
- iv. Covert research, replication studies and the use of a control group was not considered during this research;
- v. Selection and training of fieldworkers – Four Customer Service Representatives/Customer Liaison Officers (CLO's) were used in the field to create interest in the survey and also to manually distribute some of the questionnaires. In-depth training was presented to the team by the researcher. The CLO's were designated to field areas where they already have an existing customer base and excellent rapport with the pharmacy employees.

Cooper and Schindler (2006) describe the concepts of validity and reliability referring to an archer's bow and target.

*High reliability means that repeated arrows shot from the same bow would hit the target in essentially the same place. If we had a bow with high validity as well, then every arrow would hit the bull's eye (Cooper & Schindler, cited by Zandberg, 2013:71).*

### **3.7.3 The 8-Item Survey of Perceived Organisational Support (SPOS)**

The 8-item SPOS scale follows the initial recommendations of Rhoades and Eisenberger (2002:699). *"Because the original scale is unidimensional and has high internal reliability, the use of the shorter versions does not appear problematic".* The shorter versions produced similar levels of internal consistency reliability.

The 8-item SPOS was chosen for this study, instead of the original 36-item Survey of Perceived Organisational Support. Factor analysis of the original SPOS measure is supportive of the original finding that the SPOS is unidimensional and correlations

among factor scores and the SPOS scale scores suggest that either 8-item or 16-item versions can be just as effectively used as the 36-item version, but with more efficiency (Worley *et al.*, 2009). In addition, convergent validity results also indicate similar proportions of variance in all version scores accounted for by the specific organisation variable (Worley *et al.*, 2009).

The SPOS measures the “employees’ perception of the organization’s attitude towards them” (Shore & Tetrick, 1991, *cited by* Du Plessis, 2010:65).

The 8-item SPOS requires participants to indicate the extent of their agreement with each one of the 8 items on a 7-point Likert-type scale ranging from (0) strongly disagree to (6) strongly agree. An example of the values of the scale used follows in Table 3.2 as well as an example of an item used in the SPOS in Table 3.3. For the full version of the SPOS, see Annexure A.

**Table 3.2: Values of the Scales Used in the SPOS**

| 0                    | 1                      | 2                    | 3                                   | 4                 | 5                   | 6                 |
|----------------------|------------------------|----------------------|-------------------------------------|-------------------|---------------------|-------------------|
| Strongly<br>Disagree | Moderately<br>Disagree | Slightly<br>Disagree | Neither<br>Agree<br>nor<br>Disagree | Slightly<br>Agree | Moderately<br>Agree | Strongly<br>Agree |

**Table 3.3: An example of an Item Used in the SPOS**

1. The pharmacy values my contribution to its well-being.

| 0                    | 1                      | 2                    | 3                                   | 4                 | 5                   | 6                 |
|----------------------|------------------------|----------------------|-------------------------------------|-------------------|---------------------|-------------------|
| Strongly<br>Disagree | Moderately<br>Disagree | Slightly<br>Disagree | Neither<br>Agree<br>nor<br>Disagree | Slightly<br>Agree | Moderately<br>Agree | Strongly<br>Agree |

#### **3.7.4. The 8-Item New General Self-efficacy Scale (NGSE)**

The NGSE is an 8-item instrument designed by Chen, Gully and Eden to evaluate

Development of the scale was based on the social cognitive theory and measures work-related self-efficacy as *“a trait-like generality dimension”* (Chen *et al.*, 2001:63) which is different to the task or state like constructs of other self-efficacy instruments.

The NGSE *“captures differences among individuals in their tendency to view themselves as capable of meeting task demands in a broad array of contexts”* (Chen *et al.*, 2001:63). The NGSE also gave the researcher a short and reliable tool for harvesting the potential benefits of general self-efficacy to organisational research (Chen *et al.*, 2001).

The NGSE is self-administered or administered through an interview, items are rated on a 5-point Likert type scale ranging from (1) strongly disagree to (5) strongly agree. The NGSE is the mean/average of the 8-items.

Chen *et al.*, (2001) assessed the psychometric qualities of the NGSE in 3 separate studies, finding evidence of internal consistency and temporal stability. The NGSE also showed evidence of construct validity (convergent and discriminant).

An example of the values of the scale used follows in Table 3.4 as well as an example of an item used in the NGSE in Table 3.5. For the full version of the NGSE, see Annexure B.

**Table 3.4: Values of the Scales Used in the NGSE**

| 1                    | 2        | 4       | 5     | 6                 |
|----------------------|----------|---------|-------|-------------------|
| Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |

**Table 3.5: An example of an Item Used in the NGSE**

1. I will be able to achieve most of the goals that I have set for myself.

| 1        | 2        | 4       | 5     | 6        |
|----------|----------|---------|-------|----------|
| Strongly | Disagree | Neutral | Agree | Strongly |

### 3.7.5 The 14-Item Productive Energy Measure (PEM)

The 14-item PEM measures organisational energy as conceptualised by Cole *et al.*, (2005) was selected for use by the researcher in this study. The PEM uses three broad dimensions, that is, the Behavioural Dimension, the Affective Dimension and the Cognitive Dimension to measure productive organisational energy.

Although positive organisational energy is seen as a collective construct, the PEM was designed to measure individual perceptions of organisational energy (Cole *et al.*, 2005).

Research indicated that three separate international studies were conducted to validate content validity, overall reliability and inter-item consistency of the PEM, specifically in the countries of France, Sweden, Switzerland, UK and the USA (Cole *et al.*, 2011). This research evolved into the need to validate the PEM in a South African context as done by Cuff (2011).

In the recent study by Cuff (2011) the overall reliability and internal consistency reliability of the PEM in South Africa was adequate on both the individual and collective level as illustrated in the table below, using the Cronbach's Alpha values. In addition, high content validity, as well as both discriminate and predictive validity was established for the PEM. Table 3.6 below further illustrates the reliability values of the PEM in the South African context.

**Table 3.6: Reliability Values of the PEM in South Africa as adapted from Cuff, 2011:60**

|                          | Cronbach's $\alpha$<br>Study 1 | Cronbach's $\alpha$<br>Study 2 | Cronbach's $\alpha$<br>Study 3 |
|--------------------------|--------------------------------|--------------------------------|--------------------------------|
| Overall PEM              | .88                            | .89                            | .87                            |
| Affective Dimension      | .90                            | .89                            |                                |
| Cognitive Dimension      | .77                            | .74                            |                                |
| Behavioural<br>Dimension | .61                            | .73                            |                                |

The overall reliability of the PEM, the Cronbach's Alpha is 0.920 for the 14 items indicating excellent reliability (Cuff, 2011).

The reliability analysis of the sub scales, that is, the inter-item analysis for the 3 scales are (Cuff, 2011):

- i. Affective dimension – the overall value of the Cronbach's Alpha is 0.918 for 5 items, indicating a high level of reliability;
- ii. Cognitive dimension – the overall value of Cronbach's Alpha is 0.822 for 4 items, indicating a good level of reliability;
- iii. Behavioural dimension—the overall value of Cronbach's Alpha is 0.829 for 4 items, indicating a good level of reliability.

To conclude this section, the overall value of Cronbach's Alpha in the study by Cuff (2011) indicated an excellent level of reliability for the PEM, and that the reliability statistics for all the sub-scales of the PEM were good.

An example of the values of the scales used in the three dimensions used follows in Tables 3.7; 3.9 and 3.11 as well as an example of an item used in the three dimensions in the PEM in Tables 3.8; 3.10 and 3.12. For the full version of the PEM, see Annexure C.

### PEM Section 1 – Affective Dimension

**Table 3.7: Values of the Scales Used in the Affective Dimension of the PEM**

| Never | Rarely | Sometimes | Often | Frequently if Not Always |
|-------|--------|-----------|-------|--------------------------|
| 1     | 2      | 3         | 4     | 5                        |

**Table 3.8: An example of an Item Used in the Affective Dimension of the PEM**

|                                                    | Never | Rarely | Sometimes | Often | Frequently if Not Always |
|----------------------------------------------------|-------|--------|-----------|-------|--------------------------|
| People in my work group feel excited in their job. | 1     | 2      | 3         | 4     | 5                        |

## PEM Section 2 – Cognitive Dimension

**Table 3.9: Values of the Scales Used in the Cognitive Dimension of the PEM**

| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree |
|-------------------|----------|-----------------|-------|----------------|
| 1                 | 2        | 3               | 4     | 5              |

**Table 3.10: An example of an Item Used in the Cognitive Dimension of the PEM**

|                                                  | Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree |
|--------------------------------------------------|-------------------|----------|-----------------|-------|----------------|
| My work group is ready to act at any given time. | 1                 | 2        | 3               | 4     | 5              |

## PEM Section 3 - Behavioural Dimension

**Table 3.11: Values of the Scales Used in the Behavioural Dimension of the PEM**

| Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree |
|-------------------|----------|-----------------|-------|----------------|
| 1                 | 2        | 3               | 4     | 5              |

**Table 3.12: An example of an Item Used in the Behavioural Dimension of the PEM**

|                                                                          | Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree |
|--------------------------------------------------------------------------|-------------------|----------|-----------------|-------|----------------|
| People in my work group are always on the lookout for new opportunities. | 1                 | 2        | 3               | 4     | 5              |

## 3.8 RESEARCH PROCEDURE

The three measurement instruments used for data collection were administered on-line as an electronic questionnaire that was delivered through a secure on-line method. In addition, hard copies were also distributed upon request and by the field workers and thereafter entered into the on-line system manually by the researcher.

Also, an article was written, titled "The Future of Independence" that was publicized in The Script Magazine to peak interest and solicit further responses. See Annexure D.

The website required a secure login and unique survey link for all participants through a self-report format. The survey on-line, covering 30 items in total, did not take longer than 15-20 minutes on average to complete.

It was expected that respondents could potentially be quite large, that is, in excess of 500. This aided in ensuring reliability and validity.

3127 individuals (employees) were contacted in the independent community pharmacy sector of South Africa; 20 of those opted out of the survey, 528 contact emails could not be verified and therefore were excluded, leaving a population of 2579. Thus, the 581 responses received resulted in a 22.5% participation rate, which could be seen as fair. Of those 581 responses, 525 could be used in the statistical analysis.

Considering the independent pharmacy sector consist of approximately 2000 pharmacies across South Africa, the participation rate could be seen as good and the representation to the larger population, fair.

### **3.9 STATISTICAL ANALYSIS**

Statistics is a tool of research and helps the researched to understand what the data indicate; that is, it is a language that speaks where other tongues cannot; it takes numerical facts and translates them meaningfully (Leedy, 1997).

Furthermore, analysis involves reducing the data to more manageable portions and thereafter identifying patterns and themes (Mouton, 2002).

The survey was introduced by SurveyMonkey, an internet web-based survey company (SurveyMonkey, 2013). SurveyMonkey was utilised to generate email

invitation responses (of which 209 completed surveys were received) and MailChimp was introduced to generate responses via a web-link (of which 177 completed surveys were received). Manual Entries via SurveyMonkey amounted to 196 completed surveys. Manual entries on the web-based survey company were conducted personally by the researcher. In total 581 individual responses were received by participants and considered for statistical analysis. Of these 581 responses, 525 were completed in full and used in the final analysis. See Annexure G.

Data was analysed and statistical analysis was performed with the help of the SPSS program (SPSS Inc., 2012). The SPSS-program will be for statistical analysis regarding reliability and validity of the measuring instruments, descriptive statistics, t-tests, analysis of variance, correlation coefficients, predictive bias and multiple regression analyses.

SAFERPAK (2007) confirms that statistically the accuracy of the sample is based on the absolute size of the sample and a larger sample will always be more reliable than a smaller sample.

### **3.9.1 Statistical analysis techniques**

For the purpose of this study the measuring instruments were the SPOS, NGSE & PEM and Factor Analysis was done on each. The reliability and validity of the measuring instruments to record the data were assessed with factor analysis and Cronbach's alpha coefficients and descriptive statistics were conducted on the variables and included means, standard deviation, skewness and kurtosis. Linear and Multiple Regression Analyses were used to analyse the relationship between the dependent variables and the independent variables.

In order to attempt to answer the main and sub-research questions of the study, descriptive statistics were used. Multiple research objectives as indicated above were identified, and the data analysis was aligned to meet these objectives. The statistical analysis was carried out with the assistance of the SPSS-program,

specifically the frequency of the analysis, reliability and validity of the measuring instruments, descriptive statistics (that is means, standard deviation, and more.) and analysis of variance. The data responses from the completed questionnaires were entered by either the researcher from the manual questionnaire or online by the individual and then the required statistical analysis on the SPSS-program was performed.

*The branch of statistics that describes what the data looks like – where their center is, how broadly they are spread, and how they are related in terms of one aspect to another aspect of the same data – is called descriptive statistics (Leedy, 1997:252).*

Inferential statistics are used to draw inferences about a population from a sample.

The quantitative researcher analyses data by looking at the particular elements, first in isolation (univariate statistics) and then in various combinations with other elements (bivariate and multivariate statistics) (Mouton, 2002).

*A crucial question in generalising studies is whether the results obtained from the sample data are representative of the population characteristics. This question leads to the use of inferential statistics to either estimate population parameters (such as the population mean or proportion) or test hypotheses (by using chi-square tests and analysis of variance techniques (Mouton, 2002: 169).*

Exploratory Factor Analysis was used to assess the structure of the measuring instruments. In this study, Factor Analysis was done on each of the measurement instruments, that is, SPOS, NGSE and PEM. The reliability and validity of the measuring instruments to record the data were assessed with factor analysis and Cronbach's alpha coefficients (Smith, 2012). Descriptive statistics were conducted on the variables and included means, standard deviation, skewness and kurtosis (Maree, 2010 cited by Smith, 2012:70).

Linear and Multiple Regression Analyses were used to analyse the relationship between the dependent variables and the independent variables.

A value at a 95% confidence interval level ( $p \leq 0.05$ ) was used for statistical significance. Effect sizes indicate whether obtained results are important (while statistical significance may often show results which are of little practical relevance). A cut-off point of 0.50 was set for the practical significance of differences between means (Field, 2005).

### **3.9.2 Reliability and Validity**

#### **3.9.2.1 Validity**

Validity is concerned with the soundness and the effectiveness of the measuring instrument (Leedy, 1997).

There are several types of validity as explained by Leedy (1997:33):

- i. Face/Content Validity – does the instrument measure what it is supposed to measure and is the sample being measured representative of the behaviour or trait measured?
- ii. Criterion Validity – does the instrument have a standard against which to measure the results of the instrument doing the measuring?
- iii. Construct Validity – refers to the degree to which the construct itself is actually measured.
- iv. Internal Validity – refers to the freedom of bias in forming conclusions in view of the data. By the nature of the researcher's choice of a non-experimental research design, it invariably had a possible negative impact on the internal validity of the study. Possible threats included (Cuff, 2011): Causality (causal relationships were not investigated in this study) and Third Variable Problems (due to the non-experimental nature of the research design, it is impossible to control all possible nuisances).
- v. External Validity – can the conclusions drawn from the sample be generalised to the population? Two specific considerations (that is, population validity and transferability) that may impact the external validity in this study is briefly

outlined. Population validity refers to the generalisability of the group results to the total population (Welman & Kruger, 2001) and where transferability refers to the degree to which the results can be transferred (generalised) to other contexts (Welman & Kruger, 2001 *cited by* Cuff, 2011).

### **3.9.2.2 Reliability**

Reliability is the consistency with which a measuring instrument performs, that is, to be reliable, each instrument used in the study must consistently measure the factors for which it was designed for (consistently yields similar results) (Leedy, 1997). In the case of this study, reliability refers to the extent to which the three questionnaires produced consistent and dependable results and subsequently the degree of generalisability across the items.

## **3.10 Descriptive Statistics**

2579 individuals (employees) were contacted in the independent community pharmacy sector of South Africa; resulting in 581 responses (n=581) received resulted in a 22.5% participation rate, which could be seen as fair. Of those 581 responses received, 525 were completed in full and used for statistical analysis.

According to Babbie and Mouton (2001) descriptive statistics is a method used to present quantitative data in a manageable format.

To further explain descriptive statistics, it is useful to look at a parameter (a numerical quantity measuring some aspect of a population of scores). A mean, as an example is a measure of central tendency.

Greek letters are used to designate parameters that are of great importance in statistical analysis. As an aside, parameters are rarely known as illustrated in Table 3.13 below, but usually estimated by statistics computed in samples.

**Table 3.13: Quantity – illustrated relevant parameter and statistic**

| Quantity                  | Parameter | Statistic |
|---------------------------|-----------|-----------|
| <u>Mean</u>               | $\mu$     | M         |
| <u>Standard deviation</u> | $\sigma$  | s         |
| <u>Proportion</u>         | $\pi$     | p         |
| <u>Correlation</u>        | $\rho$    | r         |

To start, the descriptive statistics that will be utilised in this study is that of frequency analysis (sample description that represents by means of frequency tables the simplest form of data analysis).

Definitions commonly used in descriptive statistics will follow below.

*“Statistics can indicate the central point around which data revolve”* (Leedy, 1997:253).

Three kinds of measures of central tendency are:

- i. Mean – The mean is the precise centre of all the amalgamated values in the array (Leedy, 1997). The mean is thus the arithmetical average, calculated by adding up all the responses and dividing them by the total number of responses (Mouton, 2002).
- ii. Mode – The mode is not established through calculations but can be derived from just looking at the set of scores to establish which score occurs most frequently (Leedy, 1997). The mode is the value with the highest frequency (Mouton, 2002).
- iii. Median –The median is the numerical centre of the array of data, with the same scores above as below and derived from the Latin word, meaning “middle” and is explained as the score precisely in the middle of a series (Leedy, 1997). The median is the midpoint in a distribution, or the value of the precise middle response, with half above and half below it (Mouton, 2002).

The other class of properties that provides a statistical summary of data is the degree of variability or dispersion in the set of values, of which the simplest measure is the range set (Mouton, 2002).

- iv. The standard deviation (sd or s) is the measure of the average spread of observations around the mean (Mouton, 2002). The standard deviation is the standard measure of variability in most statistical operations and is an expression of variability from the arithmetic mean, accepted as the measure of dispersion (Leedy, 1997). Simply put, it is the square root of the variance and most commonly used as the measure of spread. If the standard deviation and mean of a normal distribution are known, it is possible to compute the percentile rank associated with any given score. The standard normal distribution is a normal distribution with a mean of 0 and a standard deviation of 1.
- v. The shape of the distribution is apparent from the graphic presentation called a frequency or percentage polygon (Mouton, 2002). Frequencies refer to the number of observations within an interval.
- vi. Kurtosis is the measure of the relative concentration of the data values in the central point of a frequency distribution.

### **3.10.1 Sample Statistics - Frequency Analysis**

Frequency tables represent the simplest kind of data analysis and aims to describe the sample by means of counts and percentages (Hill & Lewicki, 2007 *cited by* Du Plessis, 2010).

Univariate analysis refers to the first step in the analysis chain and is images or pictures of data that can come in various forms, like frequency or percentage tables or graphs (Mouton, 2002).

### **3.11 RESEARCH ETHICS**

#### **3.11.1 Ethics Process**

The following have been adhered to:

- i. Research Presentation (Proposal);
- ii. Title Registration;
- iii. Ethics Application (including approval from Ethical Committee) and Student Statement on Research Ethics;
- iv. Executive Research.

#### **3.11.2 Ethical considerations**

Confucianism as defined by Collins English Dictionary (n.d.) states *“the ethical system of Confucius, emphasizing moral order, the humanity and virtue of China’s ancient rites, and gentlemanly education”* dictates the spirit of this dissertation and forms the ethical basis of the research. This research study was thoroughly planned to minimise misleading results, ensuring it met ethical acceptability and to protect and ensure the dignity and welfare of all participants. Appropriate credit is given through citations and no work was copied or used as original (plagiarism).

##### **i. Risk of Harm**

Protection from mental and physical harm, confidentiality, sensitivity and respect were maintained at all costs. Information gathered was accurately and objectively recorded, analysed and interpreted and all participants had the ability to gain access to the findings at no extra costs to the individual employees or participating pharmacies.

##### **ii. Informed Consent**

The individual pharmacies were contacted and informed consent secured from the employees in the pharmacy prior to the research commencing. Employees participated voluntarily and had the ability to retract their participation at any stage during the research time span.

Translation and support was provided when the need arose. In addition, although the survey and questionnaire were predominantly administered on-line, hard copies were available for those participants that chose to not submit on-line. Findings in this study is reported in general terms as trends identified and individual participants' identity remained confidential, regardless of the biographical data gathered to facilitate the analysis of the data in terms of the research question.

Permission for data collection was obtained by contacting pharmacies and companies' senior management directly for approval and securing sign-off and authorisation (See Annexure E).

### **iii. Recording and storing of data collected**

The data collected by means of the on-line survey via SurveyMonkey for all three questionnaires as well as the biographical questions are securely stored on-line on the electronic database and could be kept indefinitely. The manual responses, although captured securely on-line, will be kept securely for a minimum period of five years.

### **iv. Right to privacy**

Any research conducted should at all times respect the participants' and competition winners' right to privacy. The nature, details of and quality of the respondents' performance and the names of the competition winners, must be kept strictly confidential.

### **v. Professional Honesty**

Research must be reported in an honest, complete and transparent way, without any misinterpretations or intentional misleading taking place. Research must not be fabricated but reported as observed.

### **vi. Other considerations**

Special care was given to the fact that the pharmacy employees fall under the auspices of the statutory body; Health Professionals Council of South Africa (HPCSA), established to serve and protect the public and guide registered health

practitioners (Health Professions Act, No. 56, 1974) and guide registered healthcare practitioners. This study was guided by the Ethical Code of Conduct stipulated by the Health Professions Council of South Africa. The ethical code of conduct provides clear guidelines to the research in terms of ethical practices for the research process, from inception to publication (Babbie & Mouton, 2002).

### **3.12 CHAPTER SUMMARY**

Chapter Three – Research Method – reviewed in detail the research approach and paradigm followed in this research study, followed by the broad research design and strategy of the study. The research method was discussed; followed by a discussion of the sampling and data collection methods. The measuring instruments used for this study, the SPOS, NGSE and PEM, were reviewed and explained. The research procedure followed was highlighted followed by the statistical analysis used in this study. The chapter conclude by reviewing the research ethics.

## 4. CHAPTER FOUR – RESULTS

The quantitative approach to the empirical research process involves the researcher focusing on the specific variables in the data by means of statistical and mathematical techniques.

*Interpretation refers to the stage in the research process where the researcher tries to “bring it all together”, either by relating the various individual findings to an existing theory or hypothesis, or by formulating a new hypothesis that would best account for the data (Mouton, 2002:165).*

### 4.1 Chapter Introduction

This chapter will deal with the interpretation of the results obtained via the statistical analysis and procedures described in the previous chapter. Specifically, it will highlight the descriptive statistics used and results gathered regarding the reliability and validity of the instruments used and the data gathered as well as the possible impact different generations could have on the other variables. The demographics and biographical information is reviewed by means of the frequency tables, followed by a description of the dependent variables, Perceived Organisational Support, Self-efficacy and Productive Organisational Energy.

This chapter is structured in three distinct phases as follows:

**Phase 1:** The presentation of the sample demographics and descriptive statistics;

**Phase 2:** Analysis of the data measurement instruments;

**Phase 3:** Research Questions.

## 4.2 Chapter Four Overview

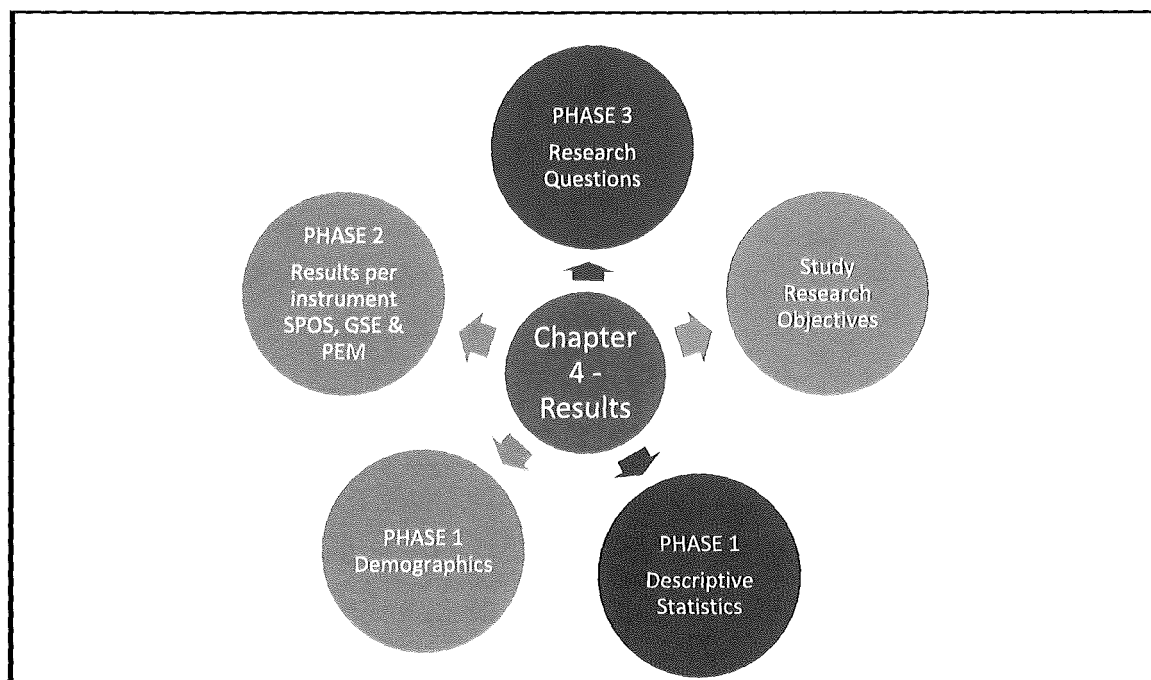


**Figure 4.1: General Chapter 4 Overview**

## 4.3 STUDY RESEARCH OBJECTIVES

The main research question and objective of this study is to determine: Perceived Organisational Support; Self Efficacy and Productive Energy across different Generations in the Independent Pharmacy Sector of South Africa.

The sub-research questions of this study are:

1. Is perceived organizational support a significant predictor of self-efficacy across generations?
2. Is perceived organisational support a predictor of productive organisational energy across generations?
3. Is self-efficacy a predictor of productive organisational energy?

Demographic frequencies are explained and illustrated in more detail hereafter.

## 4.4. PHASE ONE – SAMPLE DEMOGRAPHICS

The section following represents the frequency demographics of the sample group used in this study with regards to the biographical information supplied by the respondents.

Different generational employees working within the independent pharmacy sector were identified as the units of analysis. The researcher was able to determine various biographical data of the unit of analysis. The sampling techniques used in this study ensured a representative sample of the target population. In total 581 individual responses were received by participants and considered for statistical analysis. Of these 581 responses, 525 were completed in full and used in the final analysis. Below follows the detailed biographical composition of the sample group.

Table 4.1 below represents the biographical information summary of the sample group.

**Table 4.1: Frequency summary of the sample demographics**

| Statistics |         |        |          |           |            |                    |                   |          |      |
|------------|---------|--------|----------|-----------|------------|--------------------|-------------------|----------|------|
|            |         | Gender | Language | Ethnicity | Generation | Occupational Level | Highest Education | Province | Area |
| N          | Valid   | 525    | 525      | 525       | 525        | 525                | 525               | 525      | 525  |
|            | Missing | 0      | 0        | 0         | 0          | 0                  | 0                 | 0        | 0    |

#### 4.4.1 Frequency Distribution of Gender

Table 4.2 represents the gender distribution of the sample group. It is clear that male respondents are the minority (41.1%), with female respondents accounting for the majority (58.9%) of the sample group.

**Table 4.2: Frequency Distribution of Gender**

| Gender |        |           |         |               |                    |
|--------|--------|-----------|---------|---------------|--------------------|
|        |        | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid  | Female | 309       | 58.9    | 58.9          | 58.9               |
|        | Male   | 216       | 41.1    | 41.1          | 100.0              |
|        | Total  | 525       | 100.0   | 100.0         |                    |

Below in Figure 4.2 is a bar graph that figuratively represents the gender composition of the sample group.

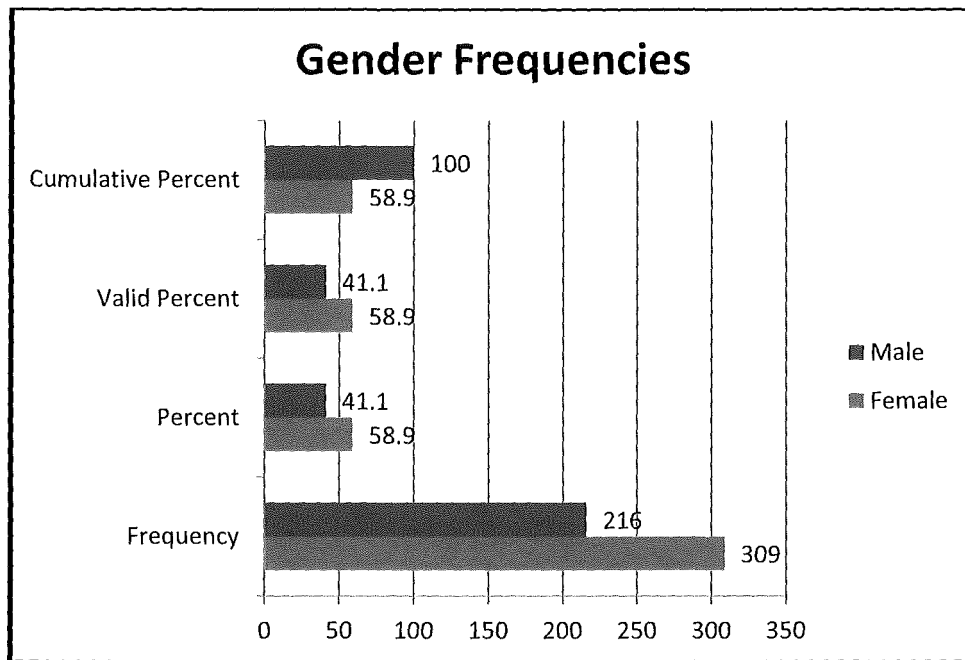


**Figure 4.2: Bar Graph Illustration of Gender Frequencies**

#### 4.4.2 Frequency Distribution of Language

Home language was considered in the biographical frequencies of the sample group. 11 Official languages are recognised in South Africa. It is clear from Table 4.3 below that the largest percentage of the group spoke Afrikaans (59.6%) followed in second by English (24.2%). The remainder of the nine South African languages were grouped into an Indigenous category and amounted to 16.2% of the sample group.

**Table 4.3: Frequency Distribution of Language**

| Language |            |           |         |               |                    |
|----------|------------|-----------|---------|---------------|--------------------|
|          |            | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid    | Afrikaans  | 313       | 59.6    | 59.6          | 59.6               |
|          | English    | 127       | 24.2    | 24.2          | 83.8               |
|          | Indigenous | 85        | 16.2    | 16.2          | 100.0              |
|          | Total      | 525       | 100.0   | 100.0         |                    |

The language frequency is illustrated in the bar graph, Figure 4.3 below.

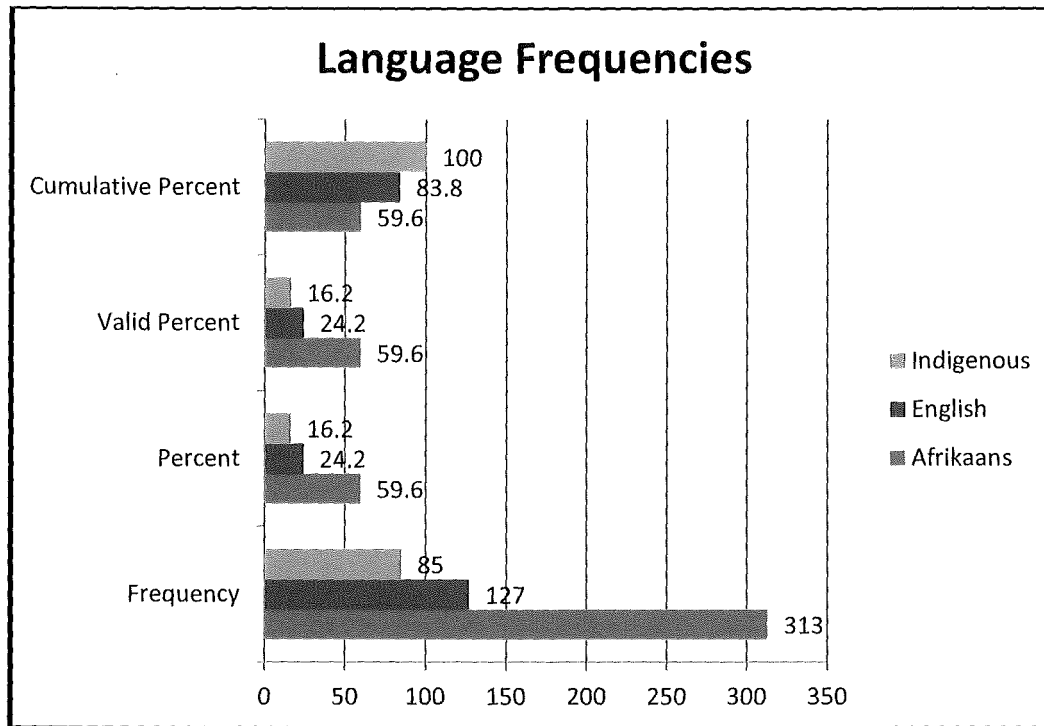


**Figure 4.3: Bar Graph Illustration of Language Frequencies**

#### 4.4.3 Frequency Distribution of Ethnicity

Various South African ethnicities were represented in this study with White (70.7%) the largest in the sample group, followed by African (19.8%), Indian (5.3%) and Coloured (4.2%) as depicted in Table 4.4 below.

**Table 4.4: Frequency Distribution of Ethnicity**

| Ethnicity |          |           |         |               |                    |
|-----------|----------|-----------|---------|---------------|--------------------|
|           |          | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid     | African  | 104       | 19.8    | 19.8          | 19.8               |
|           | Coloured | 22        | 4.2     | 4.2           | 24.0               |
|           | Indian   | 28        | 5.3     | 5.3           | 29.3               |
|           | White    | 371       | 70.7    | 70.7          | 100.0              |
|           | Total    | 525       | 100.0   | 100.0         |                    |

The pie chart below in Figure 4.4 illustrates the ethnicity frequencies of the sample group.

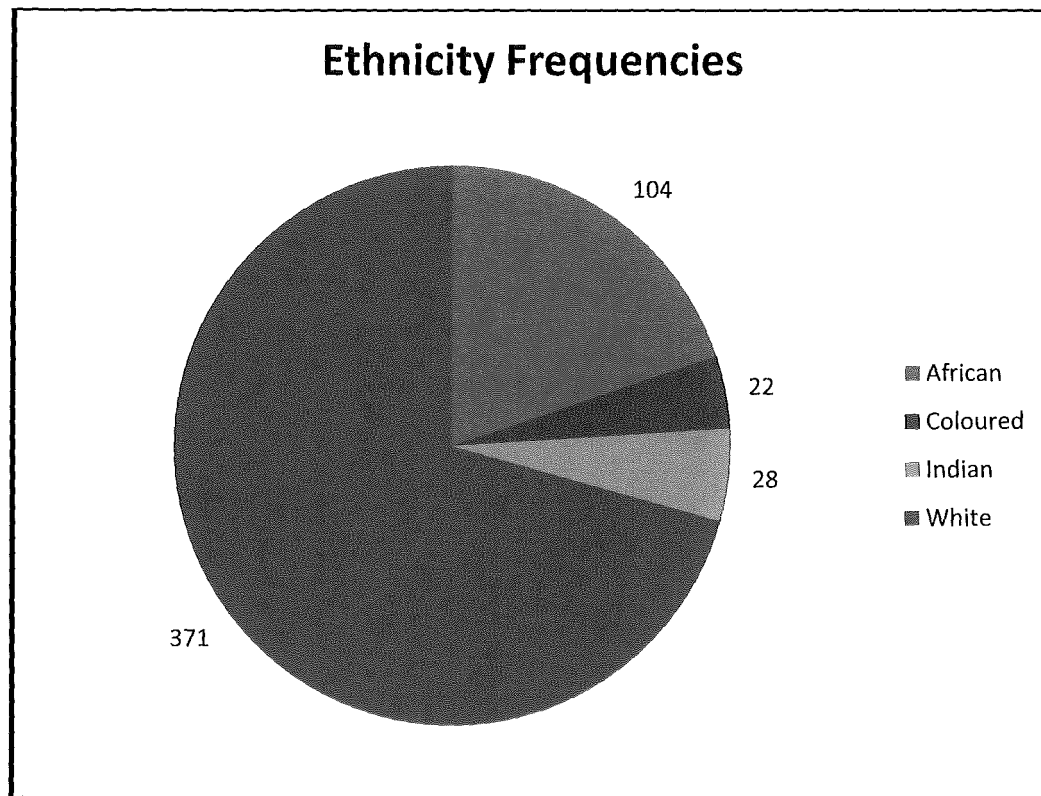


**Figure 4.4: Pie Chart Illustration of Ethnicity Frequencies**

#### 4.4.4 Frequency Distribution of Generation

The biographical information also considered the age of the respondents in order to group the individual responses into the five different generation groups. The majority of the respondents (40%) fell into Generation X; followed closely by Baby Boomers (31%). Generation (17.1%) came thereafter followed by Generation Z (9%) and Traditionalists were the minority at 2.9% depicted in Table 4.5 below.

**Table 4.5: Frequency Distribution of Generation**

| Generation |                                            |           |         |               |                    |
|------------|--------------------------------------------|-----------|---------|---------------|--------------------|
|            |                                            | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid      | Between 1901-1945( <i>Traditionalist</i> ) | 15        | 2.9     | 2.9           | 2.9                |
|            | Between 1946-1964( <i>Baby Boomers</i> )   | 163       | 31.0    | 31.0          | 33.9               |
|            | Between 1965-1985( <i>Generation X</i> )   | 210       | 40.0    | 40.0          | 73.9               |
|            | Between 1986-1990( <i>Generation Y</i> )   | 90        | 17.1    | 17.1          | 91.0               |
|            | Between 1990-2007( <i>Generation Z</i> )   | 47        | 9.0     | 9.0           | 100.0              |
|            | Total                                      | 525       | 100.0   | 100.0         |                    |

The pie chart below in Figure 4.5 illustrates the generation frequencies of the sample group.

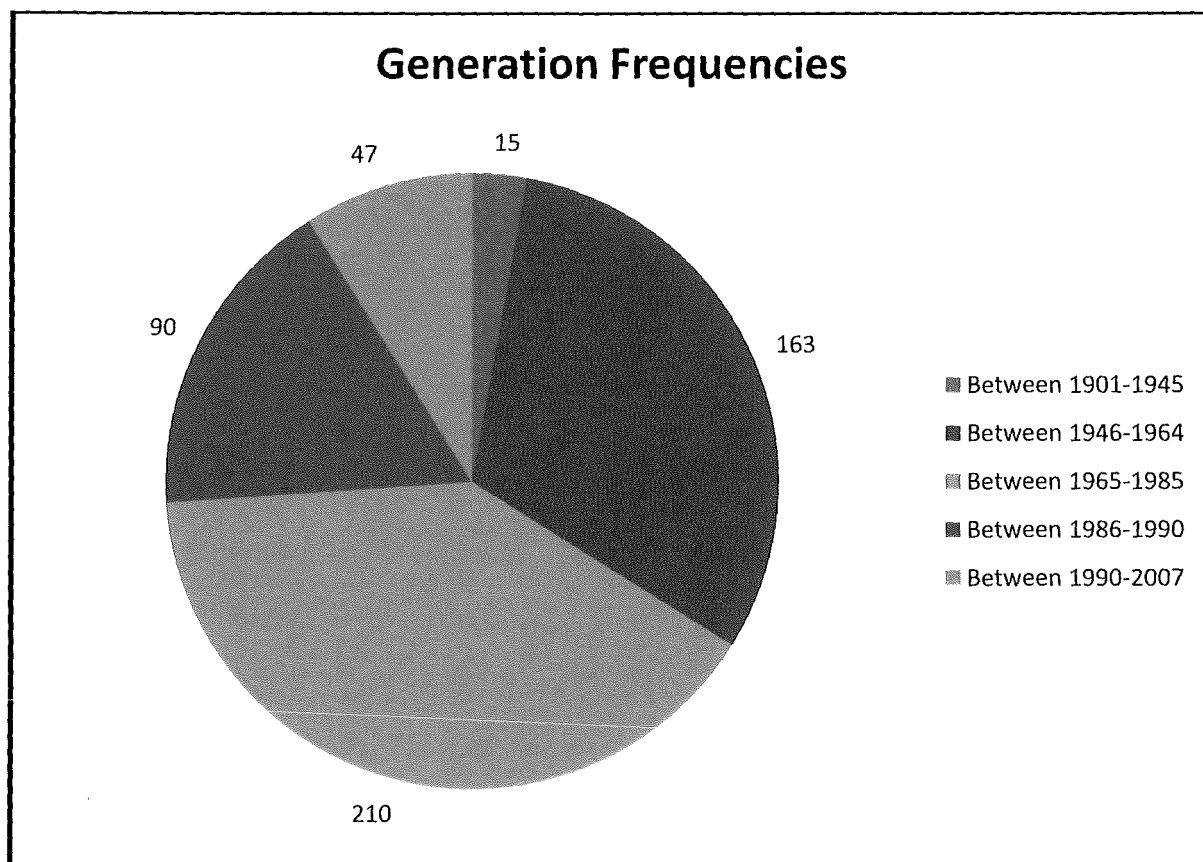


**Figure 4.5: Pie Chart Illustration of Generation Frequencies**

#### **4.4.5 Frequency Distribution of Occupation Level**

The distribution of participants according to the occupational level in the pharmacy revealed that the majority of respondents (29.3%) were semi-skilled or non-managerial and 26.1% of the respondents were professionally qualified, were specialists or in a middle management role. Top management comprised 18.5% of the sample group and senior management 11.2%. The remainder of the participants were Unskilled (6.1%) as depicted in Table 4.6 below

**Table 4.6: Frequency Distribution of Occupation Level**

|       |                                                          | Occupational Level |         |               |                    |
|-------|----------------------------------------------------------|--------------------|---------|---------------|--------------------|
|       |                                                          | Frequency          | Percent | Valid Percent | Cumulative Percent |
| Valid | Professionally Qualified or Specialist or Mid Management | 137                | 26.1    | 26.1          | 26.1               |
|       | Semi-skilled, non managerial                             | 154                | 29.3    | 29.3          | 55.4               |
|       | Senior Management                                        | 59                 | 11.2    | 11.2          | 66.7               |
|       | Skilled Technical, junior management or supervisors      | 46                 | 8.8     | 8.8           | 75.4               |
|       | Top Management                                           | 97                 | 18.5    | 18.5          | 93.9               |
|       | Unskilled                                                | 32                 | 6.1     | 6.1           | 100.0              |
|       | Total                                                    | 525                | 100.0   | 100.0         |                    |

The bar graph below in Figure 4.6 illustrates the occupation frequencies.

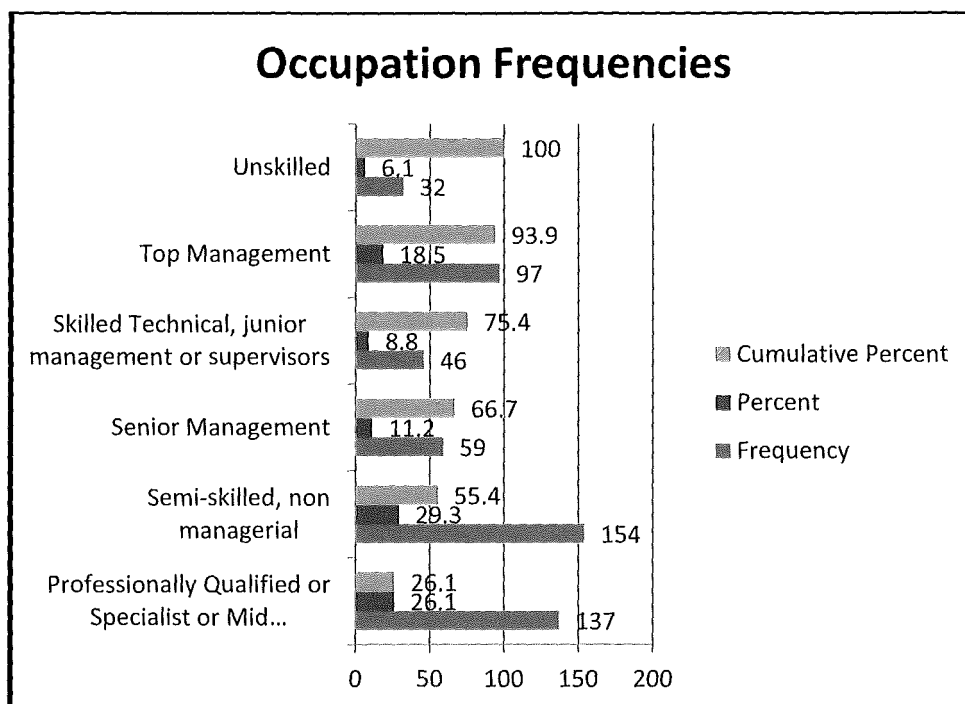


**Figure 4.6: Bar Graph Illustration of Occupation Frequencies**

#### 4.4.6 Frequency Distribution of Highest Education Level/Qualification

The distribution of participants according to their highest level of education or qualification revealed that the majority of respondents (35.4%) were in possession of a Bachelor's Degree; followed closely by those having Matric (Grade 12 or below) at 33.7% participants with a Certificate or Advanced Diploma were at 24.4% and the minority of respondents had a Master's Degree or above (6.5%) as depicted in Table 4.7 below.

**Table 4.7: Frequency Distribution of Education**

| Highest Education |                                 |           |         |               |                    |
|-------------------|---------------------------------|-----------|---------|---------------|--------------------|
|                   |                                 | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid             | Bachelor's Degree               | 186       | 35.4    | 35.4          | 35.4               |
|                   | Certificate to Advanced Diploma | 128       | 24.4    | 24.4          | 59.8               |
|                   | Grade 12/ Matric or below       | 177       | 33.7    | 33.7          | 93.5               |
|                   | Master's Degree or above        | 34        | 6.5     | 6.5           | 100.0              |
|                   | Total                           | 525       | 100.0   | 100.0         |                    |

The bar graph below in Figure 4.7 illustrates the education frequencies of the sample group.

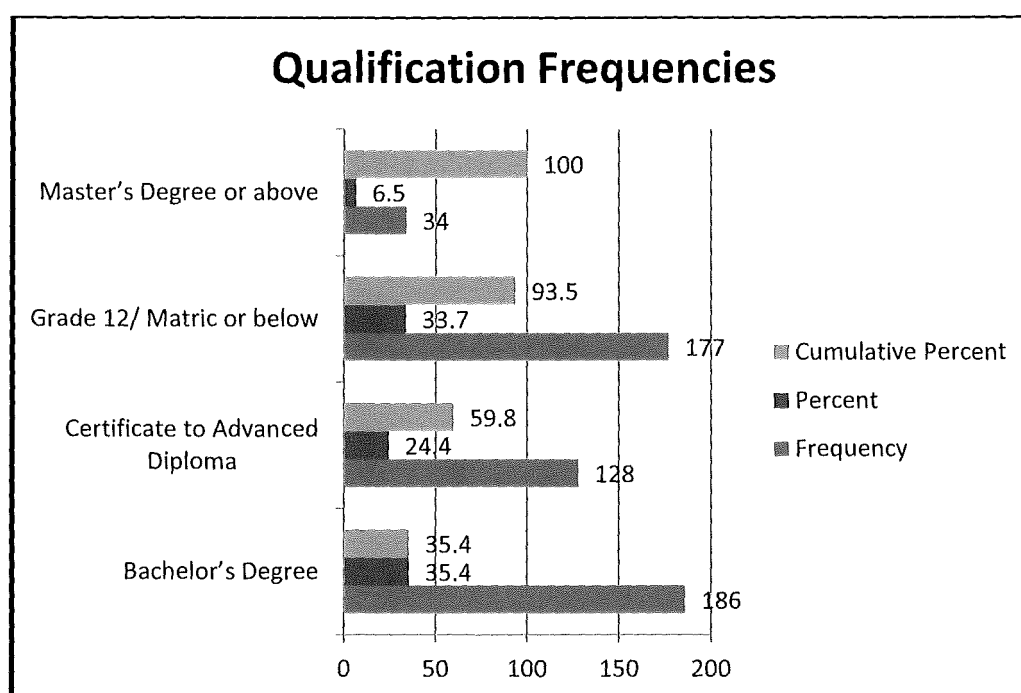


**Figure 4.7: Bar Graph Illustration of Education Frequencies**

#### 4.4.7 Frequency Distribution of Province

The distribution of participants according to province where the pharmacy they work for is located, revealed that the majority of participants worked for independent pharmacies in Gauteng (57.3%) followed by Mpumalanga at 17.5%. Limpopo came in at 7.8% followed by KwaZulu-Natal at 6.1%. The minorities were the Free State and Eastern Cape at 2.1% and 0.9% respectively as depicted in Table 4.8 below.

**Table 4.8: Frequency Distribution of Province**

| Province |               |           |         |               |                    |
|----------|---------------|-----------|---------|---------------|--------------------|
|          |               | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid    | Eastern Cape  | 10        | 1.9     | 1.9           | 1.9                |
|          | Free State    | 11        | 2.1     | 2.1           | 4.0                |
|          | Gauteng       | 301       | 57.3    | 57.3          | 61.3               |
|          | KwaZulu-Natal | 32        | 6.1     | 6.1           | 67.4               |
|          | Limpopo       | 41        | 7.8     | 7.8           | 75.2               |
|          | Mpumalanga    | 92        | 17.5    | 17.5          | 92.8               |
|          | North West    | 8         | 1.5     | 1.5           | 94.3               |
|          | Northern Cape | 2         | .4      | .4            | 94.7               |
|          | Western Cape  | 28        | 5.3     | 5.3           | 100.0              |
|          | Total         | 525       | 100.0   | 100.0         |                    |

The pie chart below in Figure 4.8 illustrates the provincial frequencies very well.

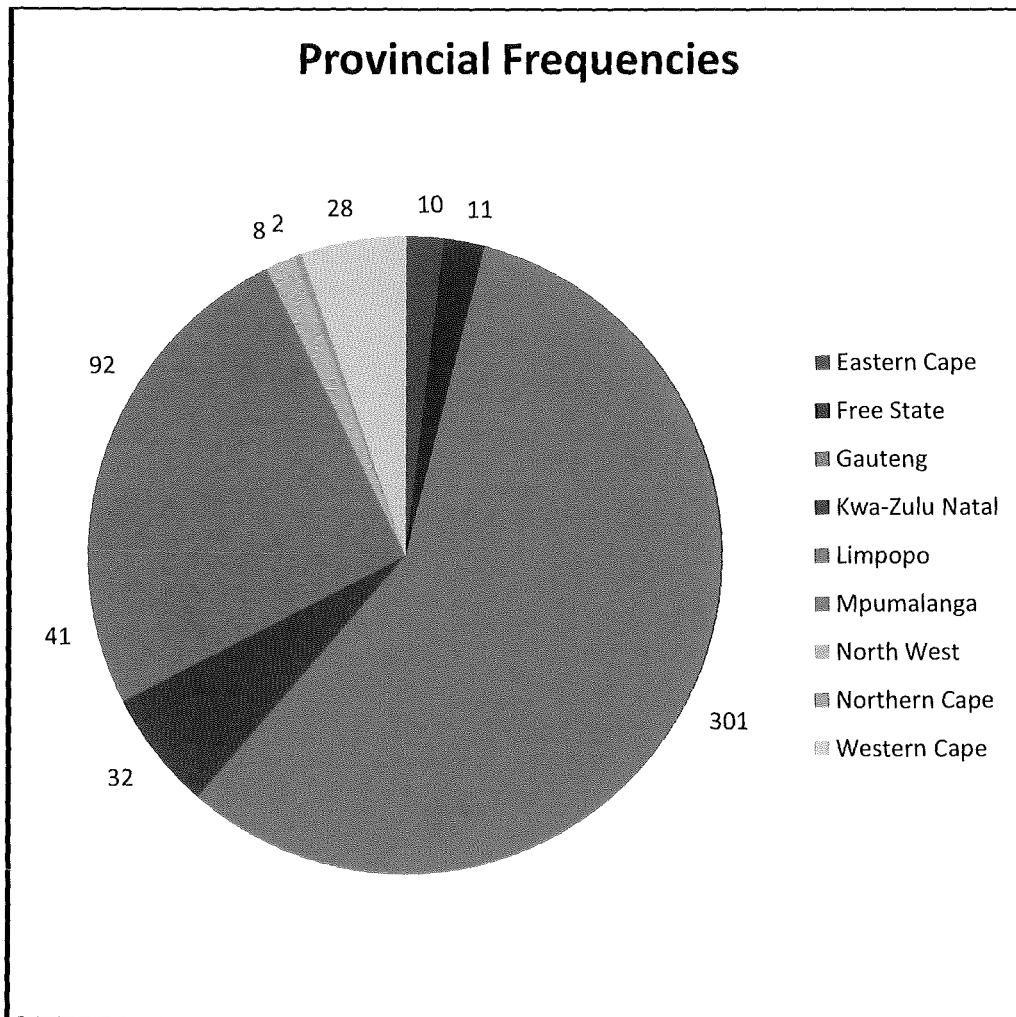


**Figure 4.8: Pie Chart Illustration of Provincial Frequencies**

#### **4.4.8 Frequency Distribution of Pharmacy Department**

Respondents were asked to indicate the area of the pharmacy they work in. It is evident from Table 4.10 that the large majority of participants (292) worked in the independent pharmacy dispensary (55.6%). 127 Participants worked in the Front Shop of the pharmacy and 51 in the Administrative Office. The Pharmacy Support function had 36 respondents (6.9%) and the minority respondents were in the Receiving Department (3.6%).

**Table 4.9: Frequency Distribution of Pharmacy Department**

| Area  |            |           |         |               |                    |
|-------|------------|-----------|---------|---------------|--------------------|
|       |            | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Admin      | 51        | 9.7     | 9.7           | 9.7                |
|       | Dispensary | 292       | 55.6    | 55.6          | 65.3               |
|       | Front Shop | 127       | 24.2    | 24.2          | 89.5               |
|       | Receiving  | 19        | 3.6     | 3.6           | 93.1               |
|       | Support    | 36        | 6.9     | 6.9           | 100.0              |
|       | Total      | 525       | 100.0   | 100.0         |                    |

The Pie Chart below in Figure 4.9 indicates the area of pharmacy participants worked in.

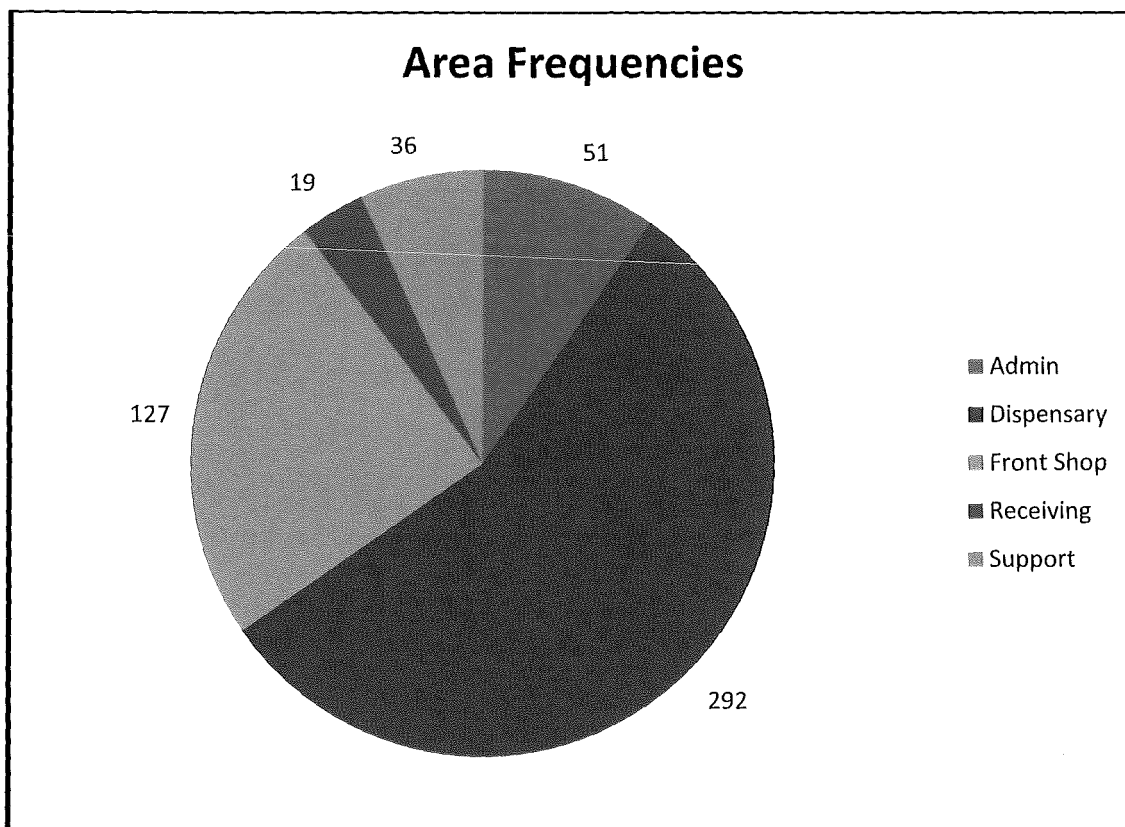


**Figure 4.9: Pie Chart Illustration of Area Frequencies**

#### **4.5: PHASE 2 - RESULTS PER MEASURING INSTRUMENT**

Descriptives based on total scores and mean scores were calculated according to the requirements provided in the measuring instrument guidelines, whereby the score is the mean/average of the relevant items in each scale used.

Following, the results will be presented from each measurement instrument, that is, SPOS, SE & POE. Each measure is discussed in terms of its adequacy for analysis, factor analyses, reliability and descriptive statistics of the subscales.

#### **4.5.1 Sample adequacy and sphericity**

In order to determine the suitability of data for factor analysis, the sample size in terms of absolute number of cases and subject-to-variable (STV) ratio and the strength of the inter-correlations between items should be taken into consideration. Appropriateness for data for factoranalysis can be determined using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's Test of Sphericity to the inter-item correlation matrix of measurement instruments. KMO thus measures the inter-correlations between variables and a KMO measure of 0.6 or above is considered acceptable for factor analysis (Hair, Black, Babin & Anderson, 2010).

Bartlett's Test of Sphericity evaluates the probability of significant correlations amongst variables of the measurement instrument (Hair *et al.*, 2010). Bartlett's Test of Sphericity is significant at ( $p < 0.05$ ), and shows there are acceptable correlation amongst variables.

#### **4.5.2 Factor Analysis**

Factor analysis is used to determine the construct validity of a measurement instrument, thus the degree to which the variable measured represents the construct on which it is based. It assesses the degree to which items in a measurement instrument relate (Field, 2005). In this study, exploratory models of Factor Analysis were used.

Exploratory Factor Analysis (EFA) can be used to reveal the underlying structure of a set of items on a questionnaire without imposing predetermined ideas on the data. In this study an exploratory factor analysis was used to determine the ideal number of underlying factors by identifying Eigenvalues which were larger than 1.

An exploratory factor analysis using the Principle Component Analysis was performed.

#### **4.5.3 Reliability Analysis**

For this study, Cronbach's Alpha was used to measure internal consistency. The closer the value of Cronbach's Alpha is to 1.0, the more reliable the measuring instrument (Field, 2005).

George and Mallery (2003) summarise the interpretation of the Cronbach's Alpha values as follows in Table 4.10 below:

**Table 4.10: Cronbach's Alpha Value Interpretation**

| <b>Value of Cronbach's Alpha</b> | <b>Interpretation</b> |
|----------------------------------|-----------------------|
| >9                               | Excellent             |
| >8                               | Good                  |
| >7                               | Acceptable            |
| >6                               | Questionable          |
| >5                               | Poor                  |
| >4                               | Unacceptable          |

An explanation of the results per measuring instrument follows.

#### **4.5.4 Results of 8-item Survey of Perceived Organisational Support (SPOS)**

The emphasis of this section is placed on the statistical analysis of the SPOS data. This is used to determine the reliability of the instrument and data received from using the instrument. To achieve this outcome the following statistical techniques were implemented:

#### 4.5.4.1 Sample adequacy and sphericity – SPOS

The Sample Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the SPOS. The results of the KMO and Bartlett's Test are depicted in Table 4.11 below.

**Table 4.11: KMO and Bartlett's test of inter-item correlation**

| KMO and Bartlett's Test                          |                    |          |
|--------------------------------------------------|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .846     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 1513.676 |
|                                                  | df                 | 28       |
|                                                  | Sig.               | .000     |

As evidenced in Table 4.11 above, the KMO measure verified the sampling adequacy for factor analysis and the value of KMO is 0.846 which is above the 0.6 cut off point set by Pallant (2001) and Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ( $p < 0.05$ ), indicating correlations between items were sufficiently large for a factor analysis. This indicates the sample is suitable for further analysis by means of factor analysis.

#### 4.5.4.2 Factor Analysis – SPOS

The SPOS measures the participants' perception of the pharmacies' attitude towards them.

The exploratory factor analyses were run on the 8 items of the SPOS and it was determined upon closer examination of the Principal Axis Component Analysis that the factor matrix loaded into one main factor. The one main factor (Perceived Organisational Support) had 46.361% of the cumulative variances as per the table below. The item loadings are acceptable for the one factor. The results of the Factor Analysis and Component Matrix for SPOS follow in Tables 4.12 and 4.13.

**Table 4.12: SPOS Total Variance Explained**

| Total Variance Explained |                     |               |              |                                     |               |              |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component                | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|                          | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1                        | 3.709               | 46.361        | 46.361       | 3.709                               | 46.361        | 46.361       |
| 2                        | 1.435               | 17.935        | 64.295       |                                     |               |              |
| 3                        | .636                | 7.945         | 72.241       |                                     |               |              |
| 4                        | .550                | 6.871         | 79.112       |                                     |               |              |
| 5                        | .496                | 6.206         | 85.318       |                                     |               |              |
| 6                        | .433                | 5.418         | 90.736       |                                     |               |              |
| 7                        | .401                | 5.009         | 95.745       |                                     |               |              |
| 8                        | .340                | 4.255         | 100.000      |                                     |               |              |

**Table 4.13: Component Matrix for SPOS**

| Component Matrix <sup>a</sup> |           |
|-------------------------------|-----------|
|                               | Component |
|                               | 1         |
| SPOS1                         | .633      |
| SPOS2                         | .591      |
| SPOS3                         | .670      |
| SPOS4                         | .655      |
| SPOS5                         | .702      |
| SPOS6                         | .730      |
| SPOS7                         | .734      |
| SPOS8                         | .718      |

#### 4.5.4.3 Descriptive statistics and reliability of SPOS

Descriptive statistics were used to explore the data gathered. Following is the descriptive statistics of the SPOS, providing valid cases (N) per group for the 1-grouped item (perceived organisational support) with the measure of central tendency and dispersion. The sample group consists of a total of 525 respondents as evident in Table 4.14 below.

**Table 4.14: Descriptive Statistics - SPOS**

| Descriptive Statistics    |           |           |                |           |            |           |            |
|---------------------------|-----------|-----------|----------------|-----------|------------|-----------|------------|
|                           | N         | Mean      | Std. Deviation | Skewness  |            | Kurtosis  |            |
|                           | Statistic | Statistic | Statistic      | Statistic | Std. Error | Statistic | Std. Error |
| <b>SPOS</b>               | 525       | 4.1340    | 1.03926        | -.400     | .107       | -.467     | .213       |
| <b>Valid N (listwise)</b> | 525       |           |                |           |            |           |            |

Table 4.14 above gives an overview of the number of valid cases ( $N= 525$ ), measures of central tendency and dispersion for SPOS, and Table 4.15 indicates the Cronbach's Alpha.

**Table 4.15: Cronbach's Alpha – Reliability Statistics - SPOS**

| Cronbach's Alpha | N of Items |
|------------------|------------|
| .828             | 8          |

A 7-point response scale ranging from "Strongly Disagree" to "Strongly Agree" was used. The mean value for the respondents was 4.1340 and indicates that respondents' answers tended to fall toward the neutral (middle) of the answer range. This suggests many were neutral towards the statements and experienced a relatively neutral perception towards the organisations attitude towards them, or were very slightly positive in their perception of the pharmacy's attitude towards them.

Standard Deviation values for the group was 1.03926, indicating a small degree of dispersion. The skewness value was -0.400, indicating a negative skewed distribution. The kurtosis value was -0.467.

The Cronbach's Alpha Coefficient for SPOS is 0.828 which suggests that the overall value is at a good level of reliability, therefore it can be said that POS is at a good level of reliability.

In summary, the KMO measure of Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test. The exploratory factor analyses were run and it was determined that there was one main factor. The main factor had 46.361% of the cumulative variances. The overall value of Cronbach's Alpha indicates a good level of reliability.

#### 4.5.5 Results of the 8-item New General Self-Efficacy (SE) Scale (NGSE)

The emphasis of this section is placed on the statistical analysis of the SE data. This is used to determine the reliability of the instrument and data received from using the instrument. To achieve this outcome the following statistical techniques were implemented:

##### 4.5.5.1 Sample adequacy and sphericity – SE

The Sample Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the SE. The results of the KMO and Bartlett's Test are depicted in Table 4.16 below.

**Table 4.16: KMO and Bartlett's test of inter-item correlation**

| KMO and Bartlett's Test                          |                    |          |
|--------------------------------------------------|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .926     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 2482.515 |
|                                                  | df                 | 28       |
|                                                  | Sig.               | 0.000    |

As evidenced in Table 4.16 above, the KMO measure verified the sampling adequacy for factor analysis, since the value of KMO is 0.926 which is above the 0.6 cut off point set by Pallant (2001) and Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ( $p < 0.05$ ), indicating correlations between items were sufficiently large

for a factor analysis. Thus the sample is suitable for further analysis by means of factor analysis.

#### 4.5.5.2 Factor Analysis – SE

The NGSE measures the differences amongst respondents in their tendency to view themselves as capable of meeting the task demands in the pharmacy. The exploratory factor analyses were run on the 8 items of the NGSE and it was determined upon closer examination of the Principal Axis Component Analysis that the factor matrix loaded into one main factor. The one main factor (Self-efficacy) had 62.495% of the cumulative variances as per the table below. The item loadings are acceptable for the one factor. The results of the Factor Analysis and Component Matrix for SPOS follow in Tables 4.17 and 4.18.

**Table 4.17: SE Total Variance Explained**

| Total Variance Explained |                     |               |              |                                     |               |              |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component                | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|                          | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1                        | 5.000               | 62.495        | 62.495       | 5.000                               | 62.495        | 62.495       |
| 2                        | .784                | 9.800         | 72.295       |                                     |               |              |
| 3                        | .542                | 6.777         | 79.072       |                                     |               |              |
| 4                        | .416                | 5.194         | 84.266       |                                     |               |              |
| 5                        | .354                | 4.426         | 88.692       |                                     |               |              |
| 6                        | .335                | 4.191         | 92.884       |                                     |               |              |
| 7                        | .295                | 3.685         | 96.568       |                                     |               |              |
| 8                        | .275                | 3.432         | 100.000      |                                     |               |              |

**Table 4.18: Component Matrix for SE**

| Component Matrix <sup>a</sup> |           |
|-------------------------------|-----------|
|                               | Component |
|                               | 1         |
| SE1                           | .618      |
| SE2                           | .834      |
| SE3                           | .831      |
| SE4                           | .825      |
| SE5                           | .839      |
| SE6                           | .806      |
| SE7                           | .746      |
| SE8                           | .801      |

#### 4.5.5.3 Descriptive statistics and reliability of SE

Descriptive statistics were used to explore the data gathered. Following is the descriptive statistics of the SE, providing valid cases (N) per group for the 1 grouped item (perceived organisational support) with the measure of central tendency and dispersion. The sample group consists of a total of 525 respondents.

**Table 4.19: Descriptive Statistics - SE**

| Descriptive Statistics |           |           |                |           |            |           |            |
|------------------------|-----------|-----------|----------------|-----------|------------|-----------|------------|
|                        | N         | Mean      | Std. Deviation | Skewness  |            | Kurtosis  |            |
|                        | Statistic | Statistic | Statistic      | Statistic | Std. Error | Statistic | Std. Error |
| SE                     | 525       | 4.2697    | 4.53314        | -1.009    | .107       | 3.437     | .213       |
| Valid N (listwise)     | 525       |           |                |           |            |           |            |

Table 4.19 above gives an overview of the number of valid cases ( $N=525$ ), measures of central tendency and dispersion for SE and Table 4.20 indicates the Cronbach's Alpha.

**Table 4.20: Cronbach's Alpha – Reliability Statistics – SE**

| Reliability Statistics |            |
|------------------------|------------|
| Cronbach's Alpha       | N of Items |
| .908                   | 8          |

A 5-point response scale ranging from “Strongly Disagree” to “Strongly Agree” was used. The mean value for the respondents was 4.2697 and indicates that respondents' answers tended to fall toward the higher end of the answer range, suggesting many were positive towards the statements and experienced a tendency to view them as capable of meeting task demands in the pharmacy.

Standard Deviation values for the group was 4.53314, indicating a medium degree of dispersion. The skewness value was -1.009, indicating a negative skewed distribution. The kurtosis value was 3.437.

The Cronbach's Alpha Coefficient for SE is 0.908 which suggests that the overall value is at an excellent level of reliability, therefore it can be said that SE is at an excellent level of reliability.

In summary, the KMO of the Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test. The exploratory factor analyses were run and it was determined that there was one main factor. The main factor had 62.495% of the cumulative variances. The overall value of Cronbach's Alpha indicates an excellent level of reliability.

#### **4.5.6 Results of the 14-item Productive Energy Measure (PEM) of Productive Organisational Energy (POE)**

The emphasis of this section is placed on the statistical analysis of the POE data. This is used to determine the reliability of the instrument and data received from

using the instrument. To achieve this outcome the following statistical techniques were implemented:

#### 4.5.6.1 Sample adequacy and sphericity – POE

The Sample Adequacy and Sphericity of the inter-item correlation matrix was determined by applying the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity to the inter-item correlation matrix of the POE. The results of the KMO and Bartlett's Test are depicted in the Table 4.21 that follows.

**Table 4.21: KMO and Bartlett's test of inter-item correlation**

| KMO and Bartlett's Test                          |                    |          |
|--------------------------------------------------|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .936     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 4369.456 |
|                                                  | df                 | 91       |
|                                                  | Sig.               | 0.000    |

As evidenced in Table 4.21 above, the KMO measure verified the sampling adequacy for factor analysis, since the value of KMO is 0.936 which is above the 0.6 cut off point set by Pallant (2001) and Hair *et al.* (2010). Bartlett's Test of Sphericity was significant ( $p < 0.05$ ), indicating correlations between items were sufficiently large for a factor analysis. Thus the sample is suitable for further analysis by means of factor analysis.

#### 4.5.6.2 Factor Analysis – POE

The Productive Energy Measure (PEM) measures organisational energy using three broad dimensions, that is, Behavioural, Affective and Cognitive to measure productive organisational energy (POE).

An exploratory factor analyses were conducted on the 14 items of the Productive Energy Measure (PEM); resulting in two factors after using the Direct Oblimin Rotation to specify the two factors. The other factors were excluded due to low and

problematic factor loadings. The two factors were labelled Behavioural (Factor 1) and Affective (Factor 2). These two factors explained 62.359% of the variance. The results of the Factor Analysis and the Component Matrix follow in Tables 4.22 and 4.23. The item loading was acceptable for the two factors.

**Table 4.22: POE Total Variance Explained**

| Total Variance Explained |                     |               |              |                                     |               |              |                                                |
|--------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|------------------------------------------------|
| Component                | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings <sup>a</sup> |
|                          | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total                                          |
| 1                        | 7.114               | 50.813        | 50.813       | 7.114                               | 50.813        | 50.813       | 6.224                                          |
| 2                        | 1.616               | 11.546        | 62.359       | 1.616                               | 11.546        | 62.359       | 5.612                                          |
| 3                        | .772                | 5.517         | 67.876       |                                     |               |              |                                                |
| 4                        | .740                | 5.288         | 73.163       |                                     |               |              |                                                |
| 5                        | .595                | 4.252         | 77.416       |                                     |               |              |                                                |
| 6                        | .504                | 3.598         | 81.013       |                                     |               |              |                                                |
| 7                        | .475                | 3.392         | 84.405       |                                     |               |              |                                                |
| 8                        | .424                | 3.032         | 87.437       |                                     |               |              |                                                |
| 9                        | .387                | 2.768         | 90.205       |                                     |               |              |                                                |
| 10                       | .350                | 2.499         | 92.705       |                                     |               |              |                                                |
| 11                       | .306                | 2.187         | 94.892       |                                     |               |              |                                                |
| 12                       | .271                | 1.935         | 96.827       |                                     |               |              |                                                |
| 13                       | .241                | 1.725         | 98.552       |                                     |               |              |                                                |
| 14                       | .203                | 1.448         | 100.000      |                                     |               |              |                                                |

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**Table 4.23: Component Matrix for POE**

| Pattern Matrix <sup>a</sup>                                                                             |             |              |
|---------------------------------------------------------------------------------------------------------|-------------|--------------|
|                                                                                                         | Component   |              |
|                                                                                                         | 1           | 2            |
| AF1                                                                                                     | -.011       | <b>-.865</b> |
| AF2                                                                                                     | .042        | <b>-.865</b> |
| AF3                                                                                                     | .077        | <b>-.822</b> |
| AF4                                                                                                     | .042        | <b>-.862</b> |
| AF5                                                                                                     | -.035       | <b>-.820</b> |
| CD1                                                                                                     | <b>.747</b> | -.055        |
| CD2                                                                                                     | <b>.715</b> | -.073        |
| CD3                                                                                                     | <b>.667</b> | -.200        |
| CD4                                                                                                     | <b>.626</b> | -.149        |
| BD1                                                                                                     | <b>.604</b> | .036         |
| BD2                                                                                                     | <b>.772</b> | -.088        |
| BD3                                                                                                     | <b>.742</b> | .120         |
| BD4                                                                                                     | <b>.690</b> | -.118        |
| BD5                                                                                                     | <b>.848</b> | .130         |
| Extraction Method: Principal Component Analysis.<br>Rotation Method: Oblimin with Kaiser Normalization. |             |              |
| a. Rotation converged in 5 iterations.                                                                  |             |              |

#### 4.5.6.3 Second Order Factor Analysis – POE

A second order Factor Analysis (EFA) was conducted via Principal Axis Component Analysis to specify overall POE (Affective and Behavioural). Affective and Behavioural was loaded onto one factor, Productive Organisational Energy (POE). This factor was explained by 80.986% of the variance as per Table 4.24 below. Factor loadings were acceptable for this one factor.

**Table 4.24: Second Order Factor Analysis - POE**

| Second Order Factor Analysis - Total Variance Explained - POE (Affective & Behavioural) |                     |               |              |                                     |               |              |
|-----------------------------------------------------------------------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|
| Component                                                                               | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              |
|                                                                                         | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % |
| 1                                                                                       | 1.620               | 80.986        | 80.986       | 1.620                               | 80.986        | 80.986       |
| 2                                                                                       | .380                | 19.014        | 100.000      |                                     |               |              |
| Extraction Method: Principal Component Analysis.                                        |                     |               |              |                                     |               |              |

#### 4.5.6.4 Descriptive statistics and reliability of POE

Descriptive Statistics were used to explore data gathered. Following is the descriptive statistics of the POE, providing valid cases (N) per group for the 1 grouped item (productive organisational energy) with the measure of central tendency and dispersion. The sample group consist of a total of 525 respondents.

For the original scales, the following was used: a 5-point response scale ranging from "Never" to "Frequently, if not always" for the Affective dimension of POE; for the Cognitive dimension a 5-point scale ranging from "Strongly Disagree" to "Strongly Agree" and for the Behavioural dimension a 5-point scale ranging from "Strongly Disagree" to "Strongly Agree".

The mean value for the respondents ranged as follows: Affective scored 3.3962; Behavioural was 3.7598 and POE was 3.5780 and indicates that respondents' answers tended to fall toward the neutral (middle) and slightly positive end of the answer range. This suggests many were neutral towards the statements and experienced a relatively neutral or were very slightly positive response in their individual perception towards productive organisational energy in the pharmacy.

Standard Deviation values for Affective was 0.85014; Behavioural 0.70823 and POE 0.70189 indicating a small degree of dispersion. The skewness values were -0.270 for Affective; -0.588 for Behavioural and -0.407 for POE; indicating a negative skewed distribution for all. The kurtosis values was at -0.018 for Affective; 0.716 for Behavioural and 0.366 for POE.

The Cronbach's Alpha Coefficient for Affective was 0.913 (excellent) and Behavioural 0.892 (good) and POE at 0.757 (acceptable).

In summary; the KMO of the Sampling Adequacy and Sphericity inter-item correlation was at a great level and there was a significant correlation between the items according to the Bartlett's test. The exploratory factor analyses were run and it was determined that there was one main factor. The main factor had 80.986% of the

cumulative variances as per Table 4.25 below. Table 4.26 indicates the Cronbach's Alpha.

**Table 4.25: Descriptive Statistics – POE**

| Descriptive Statistics - POE |           |           |                |           |            |           |            |
|------------------------------|-----------|-----------|----------------|-----------|------------|-----------|------------|
|                              | N         | Mean      | Std. Deviation | Skewness  |            | Kurtosis  |            |
|                              | Statistic | Statistic | Statistic      | Statistic | Std. Error | Statistic | Std. Error |
| Affective                    | 525       | 3.3962    | .85014         | -.270     | .107       | -.018     | .213       |
| Behavioural                  | 525       | 3.7598    | .70823         | -.588     | .107       | .716      | .213       |
| POE                          | 525       | 3.5780    | .70189         | -.407     | .107       | .366      | .213       |
| Valid N (listwise)           | 525       |           |                |           |            |           |            |

**Table 4.26: Cronbach's Alpha – Reliability Statistics – Affective, Behavioural and POE**

| Reliability Statistics - POE - Affective |            |
|------------------------------------------|------------|
| Cronbach's Alpha                         | N of Items |
| .913                                     | 5          |

| Reliability Statistics - Behaviour |            |
|------------------------------------|------------|
| Cronbach's Alpha                   | N of Items |
| .892                               | 9          |

| Reliability Statistics - POE |            |
|------------------------------|------------|
| Cronbach's Alpha             | N of Items |
| .757                         | 2          |

## 4.6 PHASE 3 - RESEARCH QUESTIONS

The main research question and objective of this study is to determine: The impact of Perceived Organisational Support on Self Efficacy on Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.

The sub-research questions of this study are:

1. Is perceived organisational support a significant predictor of self-efficacy across generations?
2. Is perceived organisational support a predictor of productive organisational energy across generations?
3. Is self-efficacy a predictor of productive organisational energy?

#### **4.6.1 Correlations**

Correlation studies examine the *“degree to which variables or differences in one variable are related to variances or differences in another variable”* (McMillan, 1997: 171 *cited by* Leedy, 1997).

Correlation coefficients are calculated to determine the correlation and describe the strength of the relationship between one variable and another. The statistical process by which researchers attempt to discover relationships between different types of data is correlation (Leedy, 1997). The most common of all correlation techniques, the Pearsonian  $r$ , is used in this study.

The Pearson Correlation Coefficient ( $r$ ) is used to qualify the strength and direction of a possible linear relationship between two variables (Pallant, 2001).

The strength of the relationship between variables is explained by the size of the Pearson value, and the direction of the relationship is depicted but what precedes the ( $r$ ) value, that is, either negative or positive (Cuff, 2011). A negative correlation signifies a negative relationship, that is, a high score in one and low score in the other variable. A positive relationship signifies high scores in both variables (Cuff, 2011).

Guidelines for interpreting the Pearson Correlation Coefficient follow (Cohen, 1988 *cited by* Pallant, 2001) in Table 4.27 that follows.

**Table 4.27: Guideline for Pearson Correlation Coefficient Interpretation as adapted from Cuff, 2011**

| Correlation Coefficient | Strength of the Relationship | Direction of the Relationship |
|-------------------------|------------------------------|-------------------------------|
| $r = .10$ to $.29$      | Small                        | Positive                      |
| $r = -.10$ to $-.29$    | Small                        | Negative                      |
| $r = .3$ to $.49$       | Medium                       | Positive                      |
| $r = -.3$ to $-.49$     | Medium                       | Negative                      |
| $r = .5$ to $1$         | Large                        | Positive                      |
| $r = -.5$ to $-1$       | Large                        | Negative                      |

Correlations can vary in magnitude from  $-1$  to  $1$ , with  $-1$  indicating a perfect negative linear relationship, (as one variable increases, the other decreases)  $1$  indicating a perfect positive linear relationship (as one variable increases, the other decreases and the inverse) and  $0$  indicating no linear relation between two variables. As statistical significance of this value is largely influenced by sample size, Cohen (1988) suggested that a correlation of  $0.5$  is large,  $0.3$  is moderate, and  $0.1$  is small (Cohen, 1988). The usual interpretation of this statement is that anything greater than  $0.5$  is large,  $0.5-0.3$  is moderate,  $0.3-0.1$  is small, and anything smaller than  $0.1$  is insubstantial as illustrated below in Table 4.28.

**Table 4.28: Correlation Interpretations**

|             | trivial | small | moderate | large | very large | nearly perfect | perfect |
|-------------|---------|-------|----------|-------|------------|----------------|---------|
| Correlation | 0.0     | 0.1   | 0.3      | 0.5   | 0.7        | 0.9            | 1       |

#### 4.6.2 Regression Analysis

Regression analysis aims to predict the dependent variable from knowledge which the research has one or more independent variable (Hair *et al.*, 2010). Regression

analysis is used in this study to explore the forms of the possible relationship between the dependent variable and independent variable (Cuff, 2011). Simple regression is used due to the fact that in each analysis one independent variable (generations) is used.

Hair *et al.*, (2010) *cited by* Cuff (2011) provide explanations as to better understand the meaning of regression analysis statistics:

- i. The Significant Value ( $p$ ) represents the amount of unique contribution an independent variable makes towards the prediction of a dependent variable (Cuff, 2011). If the value of  $p$  is not significant, it can be concluded that the independent variable is not making a unique contribution to the prediction of the dependent variable (Hair *et al.*, 2010);
- ii. Multiple R represents the correlation coefficient for simple regression (Cuff, 2011); the higher the value of the multiple R, the stronger the relationship between two variables (Hair *et al.*, 2010);
- iii. R squared, the coefficient of determination, indicates the percentage of total variation in the dependent variable (Hair *et al.*, 2010);
- iv. Regression Coefficients ( $b$ ) and Standardised Coefficient (Beta) are a reflection of how the changes in the dependent measure for every unit change in the independent variable (Hair *et al.*, 2010).

The main research question and objective of this study is to determine: The impact of Perceived Organisational Support on Self Efficacy on Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.

The sub-research questions of this study are:

1. Is perceived organizational support a significant predictor of self-efficacy across generations?
2. Is perceived organisational support a predictor of productive organisational energy across generations?

3. Is self-efficacy a predictor of productive organisational energy?

#### **4.6.3 Sub Research Question 1 – Is perceived organisational support a significant predictor of self-efficacy across different generations?**

##### **Regression Analysis: SPOS Subscale and SE – Controlling for Generations**

Simple linear regression analysis was carried out on the data to assess if SPOS is a significant predictor of SE across each of the five generational groups, that is Traditionalist, Baby Boomer, Generation X, Generation Y and Generation Z.

The results of the regression analysis are presented in Table 4.29 listed below.

***Table 4.29 follows on next page***

**Table 4.29: Regression Analyses between SPOS and SE across different GEN**

| Model                          | Un-standardised Coefficients |       | Standardised Coefficients | t      | P - Sig | R                 | R <sup>2</sup> | ΔR <sup>2</sup> |
|--------------------------------|------------------------------|-------|---------------------------|--------|---------|-------------------|----------------|-----------------|
|                                | B                            | SE    | Beta                      |        |         |                   |                |                 |
| Generation = Between 1901-1945 |                              |       |                           |        |         | .007 <sup>b</sup> | .000           | -.077           |
| (Constant)                     | 35.436                       | 4.390 |                           | 8.073  | .000    |                   |                |                 |
| SPOS                           | -.023                        | .963  | -.007                     | -.024  | .981    |                   |                |                 |
| Generation = Between 1946-1964 |                              |       |                           |        |         | .325 <sup>b</sup> | .106           | .100            |
| (Constant)                     | 27.693                       | 1.526 |                           | 18.151 | .000    |                   |                |                 |
| SPOS                           | 1.510                        | .346  | .325                      | 4.366  | .000    |                   |                |                 |
| Generation = Between 1965-1985 |                              |       |                           |        |         | .305 <sup>b</sup> | .093           | .089            |
| (Constant)                     | 28.759                       | 1.195 |                           | 24.061 | .000    |                   |                |                 |
| SPOS                           | 1.313                        | .284  | .305                      | 4.618  | .000    |                   |                |                 |
| Generation = Between 1986-1990 |                              |       |                           |        |         | .121 <sup>b</sup> | .015           | .003            |
| (Constant)                     | 32.189                       | 2.011 |                           | 16.005 | .000    |                   |                |                 |
| SPOS                           | .546                         | .479  | .121                      | 1.139  | .258    |                   |                |                 |
| Generation = Between 1990-2007 |                              |       |                           |        |         | .026 <sup>b</sup> | .001           | -.022           |
| (Constant)                     | 33.107                       | 2.274 |                           | 14.560 | .000    |                   |                |                 |
| SPOS                           | .098                         | .566  | .026                      | .174   | .863    |                   |                |                 |

It can be derived from Table 4.29 above that Perceived Organisational Support (POS) is a significant predictor of the Self-efficacy (SE) dimension of the Baby Boomer Generation ( $r_{(df=525; p \leq .005)} = 0.000$ , small effect). The results also showed that

there is a positive relationship between POS and SE amongst Generation X ( $p=0.000$ , small effect). The results showed no significant relationship between the other generation groups, those being Traditionalist, Generation Y and Generation Z.

- Perceived Organisational Support had an  $R^2$  value of 0.106 for the prediction of Self-efficacy in the Baby Boomer Generation, indicating 10.6% of the total variance in the self-efficacy dimension for the Baby Boomer Generation was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.093 for the prediction of Self-efficacy in Generation X, indicating 9.3% of the total variance in the self-efficacy dimension for Generation X was explained by the regression model consisting of Perceived Organisational Support.

#### **4.6.4 Sub Research Question 2 – Is perceived organisational support a predictor of productive organisational energy across generations?**

##### **4.6.4.1 Regression Analysis: SPOS Subscale and POE – Affective Dimension – Controlling for Generations**

Simple linear regression analysis was carried out on the data to assess if SPOS is a significant predictor of POE – Affective Dimension, across each of the 5 generational groups, i.e. Traditionalist, Baby Boomer, Generation X, Generation Y and Generation Z.

The results of the regression analysis are presented in Table 4.30 below

**Table 4.30: Regression Analyses between SPOS and POE - Affective Dimension across different GEN**

| Model                          | Un-standardised Coefficients |       | Standardised Coefficients | t     | P - Sig | R                 | R <sup>2</sup> | ΔR <sup>2</sup> |
|--------------------------------|------------------------------|-------|---------------------------|-------|---------|-------------------|----------------|-----------------|
|                                | B                            | SE    | Beta                      |       |         |                   |                |                 |
| Generation = Between 1901-1945 |                              |       |                           |       |         | .495 <sup>b</sup> | .245           | .187            |
| (Constant)                     | 35.436                       | 4.390 |                           | 8.073 | .000    |                   |                |                 |
| SPOS                           | -.023                        | .963  | -.007                     | -.024 | .981    |                   |                |                 |
| Generation = Between 1946-1964 |                              |       |                           |       |         | .378 <sup>b</sup> | .143           | .138            |
| (Constant)                     | 2.167                        | .255  |                           | 8.484 | .000    |                   |                |                 |
| SPOS                           | .300                         | .058  | .378                      | 5.188 | .000    |                   |                |                 |
| Generation = Between 1965-1985 |                              |       |                           |       |         | .375 <sup>b</sup> | .141           | .136            |
| (Constant)                     | 2.158                        | .220  |                           | 9.802 | .000    |                   |                |                 |
| SPOS                           | .305                         | .052  | .375                      | 5.832 | .000    |                   |                |                 |
| Generation = Between 1986-1990 |                              |       |                           |       |         | .335 <sup>b</sup> | .112           | .102            |
| (Constant)                     | 2.118                        | .379  |                           | 5.585 | .000    |                   |                |                 |
| SPOS                           | .301                         | .090  | .335                      | 3.336 | .001    |                   |                |                 |
| Generation = Between 1990-2007 |                              |       |                           |       |         | .615 <sup>b</sup> | .378           | .364            |
| (Constant)                     | 1.497                        | .339  |                           | 4.418 | .000    |                   |                |                 |
| SPOS                           | .441                         | .084  | .615                      | 5.226 | .000    |                   |                |                 |

It can be derived from Table 4.30 that Perceived Organisational Support (POS) is a significant predictor of Productive Organisational Energy (POE) - Affective dimension of the Baby Boomer Generation ( $r_{(df=525; p \leq .005)} = 0.000$ , small effect). The Results also showed that there is a positive relationship between POS and POE (Affective

Dimension) amongst Generation X ( $p=0.000$ , small effect); Generation Y ( $p=0.001$ , small effect) and Generation Z ( $p=0.000$ , small effect). The results showed no significant relationship between POS on POE (Affective Dimension) and the Traditionalist Generation.

- Perceived Organisational Support had an  $R^2$  value of 0.245 for the prediction of Productive Organisational Energy – Affective Dimension in the Traditionalist Generation, indicating 24.5% of the total variance in the POE – Affective dimension for the Traditionalist Generation was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.143 for the prediction of Productive Organisational Energy – Affective Dimension in the Baby Boomer Generation, indicating 14.3% of the total variance in the dimension POE – Affective dimension for the Baby Boomer Generation was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.141 for the prediction of Productive Organisational Energy – Affective Dimension Generation X, indicating 14.1% of the total variance in the POE – Affective dimension for Generation X was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.112 for the prediction of Productive Organisational Energy – Affective Dimension in the Generation Y, indicating 11.2% of the total variance in the POE – Affective dimension for Generation Y was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.378 for the prediction of Productive Organisational Energy – Affective Dimension in Generation Z, indicating 37.8% of the total variance in the POE – Affective dimension for Generation Z was explained by the regression model consisting of Perceived Organisational Support.

#### 4.6.4.2 Regression Analysis: SPOS Subscale and POE – Behaviour Dimension – Controlling for Generations

Simple linear regression analysis was carried out on the data to assess if SPOS is a significant predictor of POE – Behavioural Dimension, across each of the five generational groups, those being Traditionalist, Baby Boomer, Generation X, Generation Y and Generation Z.

The results of the regression analysis are presented in Table 4.31 below

**Table 4.31: Regression Analyses between SPOS and POE – Behaviour Dimension across different GEN**

| Model                          | Un-<br>standardised<br>Coefficients |      | Standardise<br>d<br>Coefficients | t      | P<br>-<br>Sig | R                     | R <sup>2</sup> | ΔR <sup>2</sup> |
|--------------------------------|-------------------------------------|------|----------------------------------|--------|---------------|-----------------------|----------------|-----------------|
|                                | B                                   | SE   | Beta                             |        |               |                       |                |                 |
| Generation = Between 1901-1945 |                                     |      |                                  |        |               | .53<br>7 <sup>b</sup> | .28<br>9       | .23<br>4        |
| (Constant)                     | 1.578                               | .935 |                                  | 1.688  | .115          |                       |                |                 |
| SPOS                           | .471                                | .205 | .537                             | 2.298  | .039          |                       |                |                 |
| Generation = Between 1946-1964 |                                     |      |                                  |        |               | .32<br>8 <sup>b</sup> | .10<br>8       | .10<br>2        |
| (Constant)                     | 2.942                               | .206 |                                  | 14.287 | 2.942         |                       |                |                 |
| SPOS                           | .206                                | .047 | .328                             | 4.411  | .006          |                       |                |                 |
| Generation = Between 1965-1985 |                                     |      |                                  |        |               | .43<br>9 <sup>b</sup> | .19<br>3       | .18<br>9        |

|                                       |       |      |      |        |       |                   |      |      |
|---------------------------------------|-------|------|------|--------|-------|-------------------|------|------|
| (Constant)                            | 2.490 | .183 |      | 13.591 | 2.490 |                   |      |      |
| SPOS                                  | .307  | .044 | .439 | 7.045  | .307  |                   |      |      |
| <b>Generation = Between 1986-1990</b> |       |      |      |        |       | .259 <sup>b</sup> | .067 | .056 |
| (Constant)                            | 2.990 | .298 |      | 10.042 | .000  |                   |      |      |
| SPOS                                  | .178  | .071 | .259 | 2.513  | .014  |                   |      |      |
| <b>Generation = Between 1990-2007</b> |       |      |      |        |       | .222 <sup>b</sup> | .049 | .028 |
| (Constant)                            | 3.100 | .426 |      | 7.269  | .000  |                   |      |      |
| SPOS                                  | .163  | .106 | .222 | 1.531  | .133  |                   |      |      |

It can be derived from Table 4.31 above that Perceived Organisational Support (POS) is a significant predictor of Productive Organisational Energy (POE) - Behavioural dimension of the Traditionalist Generation ( $r_{(df=525; p \leq .005)} = 0.039$ , small effect). The results also showed that there is a positive relationship between POS and POE (Behavioural Dimension) amongst Generation Y ( $p=0.014$ , small effect). The results showed no significant relationship between POS on POE (Behavioural Dimension) across any of the other Generation groups.

- Perceived Organisational Support had an  $R^2$  value of 0.289 for the prediction of Productive Organisational Energy – Behavioural Dimension in the Traditionalist Generation, indicating 28.9% of the total variance in the POE – Behavioural dimension for the Traditionalist Generation was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.108 for the prediction of Productive Organisational Energy – Behavioural Dimension in the Baby Boomer Generation, indicating 10.8% of the total variance in the dimension POE –

Behavioural dimension for the Baby Boomer Generation was explained by the regression model consisting of Perceived Organisational Support.

- Perceived Organisational Support had an  $R^2$  value of 0.193 for the prediction of Productive Organisational Energy – Behavioural Dimension Generation X, indicating 19.3% of the total variance in the POE – Behavioural dimension for Generation X was explained by the regression model consisting of Perceived Organisational Support.

#### **4.6.4.3 Regression Analysis: SPOS Subscale and POE – Controlling for Generations**

Simple linear regression analysis was carried out on the data to assess if SPOS is a significant predictor of POE, across each of the 5 generational groups, those being Traditionalist, Baby Boomer, Generation X, Generation Y and Generation Z.

The results of the regression analysis are presented in Table 3.32 that follows:

**Table 4.32: Regression Analyses between SPOS and POE across different GEN**

| Model                          | Un-standardised Coefficients |       | Standardised Coefficients | t      | P - Sig | R                     | R <sup>2</sup> | ΔR <sup>2</sup> |
|--------------------------------|------------------------------|-------|---------------------------|--------|---------|-----------------------|----------------|-----------------|
|                                | B                            | SE    | Beta                      |        |         |                       |                |                 |
| Generation = Between 1901-1945 |                              |       |                           |        |         | .52<br>2 <sup>b</sup> | .27<br>3       | .21<br>7        |
| (Constant)                     | 1.453                        | 1.007 |                           | 1.442  | .173    |                       |                |                 |
| SPOS                           | .488                         | .221  | .522                      | 2.208  | .046    |                       |                |                 |
| Generation = Between 1946-1964 |                              |       |                           |        |         | .38<br>9 <sup>b</sup> | .15<br>1       | .14<br>6        |
| (Constant)                     | 2.555                        | .209  |                           | 12.238 | .000    |                       |                |                 |
| SPOS                           | .253                         | .047  | .389                      | 5.350  | .000    |                       |                |                 |
| Generation = Between 1965-1985 |                              |       |                           |        |         | .45<br>9 <sup>b</sup> | .21<br>1       | .20<br>7        |
| (Constant)                     | 2.324                        | .173  |                           | 13.447 | .000    |                       |                |                 |
| SPOS                           | .306                         | .041  | .459                      | 7.448  | .000    |                       |                |                 |
| Generation = Between 1986-1990 |                              |       |                           |        |         | .33<br>5 <sup>b</sup> | .11<br>2       | .10<br>2        |
| (Constant)                     | 2.554                        | .302  |                           | 8.456  | .000    |                       |                |                 |
| SPOS                           | .240                         | .072  | .335                      | 3.333  | .001    |                       |                |                 |
| Generation = Between 1990-2007 |                              |       |                           |        |         | .47<br>6 <sup>b</sup> | .22<br>6       | .20<br>9        |
| (Constant)                     | 2.298                        | .334  |                           | 6.883  | .000    |                       |                |                 |
| SPOS                           | .302                         | .083  | .476                      | 3.628  | .001    |                       |                |                 |

It can be derived from Table 3.32 above that Perceived Organisational Support (POS) is a significant predictor of overall Productive Organisational Energy (POE) across all the Generation groups. The following values apply: Traditionalist Generation ( $r_{(df=525; p \leq .005)} = 0.046$ , small effect); Baby Boomer Generation ( $r_{(df=525; p \leq .005)} = 0.000$ , small effect); Generation X ( $r_{(df=525; p \leq .005)} = 0.000$ , small effect);

Generation Y ( $r_{(df=525; p \leq .005)} = 0.001$ , small effect) and Generation Z ( $r_{(df=525; p \leq .005)} = 0.001$ , small effect).

- Perceived Organisational Support had an  $R^2$  value of 0.273 for the prediction of Productive Organisational Energy in the Traditionalist Generation, indicating 27.3% of the total variance in the POE for the Traditionalist Generation was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.151 for the prediction of Productive Organisational Energy in the Baby Boomer Generation, indicating 15.1% of the total variance in the dimension POE for the Baby Boomer Generation was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.211 for the prediction of Productive Organisational Energy in Generation X, indicating 21.1% of the total variance in the POE for Generation X was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.112 for the prediction of Productive Organisational Energy in Generation Y, indicating 11.2% of the total variance in the POE for Generation Y was explained by the regression model consisting of Perceived Organisational Support.
- Perceived Organisational Support had an  $R^2$  value of 0.226 for the prediction of Productive Organisational Energy in Generation Z, indicating 22.6% of the total variance in the POE for Generation Z was explained by the regression model consisting of Perceived Organisational Support.

#### **4.6.5 Sub Research Question 3 – Is self-efficacy a predictor of productive organisational energy?**

##### **4.6.5.1 Regression Analysis: SE Subscale and POE (Affective Dimension) – Controlling for Generations**

Simple linear regression analysis was carried out on the data to assess if SE is a significant predictor of POE (Affective Dimension) across each of the five generational groups, those being Traditionalist, Baby Boomer, Generation X, Generation Y and Generation Z.

The results of the regression analysis are presented in Table 4.33 below.

**Table 4.33 follows on next page**

**Table 4.33: Regression Analyses between SE and POE – Affective Dimension across different GEN**

| Model                          | Un-standardised Coefficients |       | Standardised Coefficients | t      | P - Sig | R                 | R <sup>2</sup> | ΔR <sup>2</sup> |
|--------------------------------|------------------------------|-------|---------------------------|--------|---------|-------------------|----------------|-----------------|
|                                | B                            | SE    |                           |        |         |                   |                |                 |
| Generation = Between 1901-1945 |                              |       |                           |        |         | .059 <sup>b</sup> | .003           | .073            |
| (Constant)                     | 2.933                        | 2.893 |                           | 1.014  | 2.933   |                   |                |                 |
| SE                             | .017                         | .081  | .059                      | .213   | .017    |                   |                |                 |
| Generation = Between 1946-1964 |                              |       |                           |        |         | .251 <sup>b</sup> | .063           | .057            |
| (Constant)                     | 1.984                        | .450  |                           | 4.404  | .000    |                   |                |                 |
| SE                             | .043                         | .013  | .251                      | 3.297  | .001    |                   |                |                 |
| Generation = Between 1965-1985 |                              |       |                           |        |         | .230 <sup>b</sup> | .053           | .048            |
| (Constant)                     | 1.918                        | .439  |                           | 4.369  | .000    |                   |                |                 |
| SE                             | .044                         | .013  | .230                      | 3.409  | .001    |                   |                |                 |
| Generation = Between 1986-1990 |                              |       |                           |        |         | .133 <sup>b</sup> | .018           | .006            |
| (Constant)                     | 4.260                        | .728  |                           | 5.851  | .000    |                   |                |                 |
| SE                             | -.026                        | .021  | -.133                     | -1.258 | .212    |                   |                |                 |
| Generation = Between 1990-2007 |                              |       |                           |        |         | .065 <sup>b</sup> | .004           | .018            |
| (Constant)                     | 3.620                        | .947  |                           | 3.823  | .000    |                   |                |                 |
| SE                             | -.012                        | .028  | -.065                     | -.438  | .664    |                   |                |                 |

It can be derived from Table 4.33 that Self-efficacy (SE) is a significant predictor of Productive Organisational Energy (POE) - Affective dimension of the Traditionalist Generation ( $r_{(df=525; p \leq .005)} = 0.017$ , small effect). The Results also showed that there

is a positive relationship between SE and POE (Affective Dimension) amongst Baby Boomers (0.001) and Generation X ( $p=0.001$ , small effect). The results showed no significant relationship between SE on POE (Affective Dimension) and Generation Y and Generation Z.

- Self-efficacy had an  $R^2$  value of 0.063 for the prediction of Productive Organisational Energy – Affective Dimension in the Baby Boomer Generation, indicating 6.3% of the total variance in the POE – Affective dimension for the Baby Boomer Generation was explained by the regression model consisting of Self-efficacy.
- Self-efficacy had an  $R^2$  value of 0.053 for the prediction of Productive Organisational Energy – Affective Dimension in Generation X, indicating 5.3% of the total variance in the POE – Affective dimension for Generation X was explained by the regression model consisting of Self-efficacy.

#### **4.6.5.2 Regression Analysis: SE Subscale and POE (Behavioural Dimension) – Controlling for Generations**

Simple linear regression analysis was carried out on the data to assess if SE is a significant predictor of POE (Behavioural Dimension) across each of the five generational groups, those being Traditionalist, Baby Boomer, Generation X, Generation Y and Generation Z.

The results of the regression analysis are presented in Table 4.34 below.

**Table 4.34: Regression Analyses between SE and POE – Behavioural Dimension across different GEN**

| Model                          | Un-standardised Coefficients |       | Standardised Coefficients | t     | P - Sig | R                 | R <sup>2</sup> | ΔR <sup>2</sup> |
|--------------------------------|------------------------------|-------|---------------------------|-------|---------|-------------------|----------------|-----------------|
|                                | B                            | SE    | Beta                      |       |         |                   |                |                 |
| Generation = Between 1901-1945 |                              |       |                           |       |         | .042 <sup>b</sup> | .002           | .075            |
| (Constant)                     | 3.276                        | 2.490 |                           | 1.316 | .211    |                   |                |                 |
| SE                             | .011                         | .070  | .042                      | .152  | .881    |                   |                |                 |
| Generation = Between 1946-1964 |                              |       |                           |       |         | .318 <sup>b</sup> | .101           | .096            |
| (Constant)                     | 2.354                        | .348  |                           | 6.755 | .000    |                   |                |                 |
| SE                             | .043                         | .010  | .318                      | 4.262 | .000    |                   |                |                 |
| Generation = Between 1965-1985 |                              |       |                           |       |         | .365 <sup>b</sup> | .133           | .129            |
| (Constant)                     | 1.719                        | .361  |                           | 4.765 | .000    |                   |                |                 |
| SE                             | .059                         | .010  | .365                      | 5.656 | .000    |                   |                |                 |
| Generation = Between 1986-1990 |                              |       |                           |       |         | .076 <sup>b</sup> | .006           | .005            |
| (Constant)                     | 3.320                        | .561  |                           | 5.918 | .000    |                   |                |                 |
| SE                             | .012                         | .016  | .076                      | .718  | .474    |                   |                |                 |
| Generation = Between 1990-2007 |                              |       |                           |       |         | .241 <sup>b</sup> | .058           | .037            |
| (Constant)                     | 2.177                        | .938  |                           | 2.321 | .025    |                   |                |                 |
| SE                             | .046                         | .028  | .241                      | 1.667 | .102    |                   |                |                 |

It can be derived from Table 4.34 above that Self-efficacy (SE) is a significant predictor of Productive Organisational Energy (POE) - Behavioural dimension of the Baby Boomer Generation ( $r_{(df=525; p \leq .005)} = 0.000$ , small effect). The Results also showed that there is a positive relationship between SE and POE (Behavioural

Dimension) amongst Generation X (0.000). The results showed no significant relationship between SE on POE (Behavioural Dimension) and the Traditionalist Generation and Generation Y and Generation Z.

- Self-efficacy had an  $R^2$  value of 0.101 for the prediction of Productive Organisational Energy – Behavioural Dimension in the Baby Boomer Generation, indicating 10.1% of the total variance in the POE – Behavioural dimension for the Baby Boomer Generation was explained by the regression model consisting of Self-efficacy.
- Self-efficacy had an  $R^2$  value of 0.133 for the prediction of Productive Organisational Energy – Behavioural Dimension in Generation X, indicating 13.3% of the total variance in the POE – Behavioural dimension for Generation X was explained by the regression model consisting of Self-efficacy.
- Self-efficacy had an  $R^2$  value of 0.058 for the prediction of Productive Organisational Energy – Behavioural Dimension in Generation Z, indicating 5.8% of the total variance in the POE – Behavioural dimension for Generation Z was explained by the regression model consisting of Self-efficacy.

#### **4.6.5.3 Regression Analysis: SE Subscale and POE – Controlling for Generations**

Simple linear regression analysis was carried out on the data to assess if SE is a significant predictor of POE across each of the 5 generational groups, those being Traditionalist, Baby Boomer, Generation X, Generation Y and Generation Z.

The results of the regression analysis are presented in Table 4.35 below.

**Table 4.35: Regression Analyses between SE and POE across different GEN**

| Model                          | Un-standardised Coefficients |       | Standardised Coefficients | t     | P - Sig | R                 | R <sup>2</sup> | ΔR <sup>2</sup> |
|--------------------------------|------------------------------|-------|---------------------------|-------|---------|-------------------|----------------|-----------------|
|                                | B                            | SE    | Beta                      |       |         |                   |                |                 |
| Generation = Between 1901-1945 |                              |       |                           |       |         | .052 <sup>b</sup> | .003           | -.074           |
| (Constant)                     | 3.104                        | 2.652 |                           | 1.171 | .263    |                   |                |                 |
| SE                             | .014                         | .075  | .052                      | .188  | .854    |                   |                |                 |
| Generation = Between 1946-1964 |                              |       |                           |       |         | .306 <sup>b</sup> | .094           | .088            |
| (Constant)                     | 2.169                        | .364  |                           | 5.964 | .000    |                   |                |                 |
| SE                             | .043                         | .011  | .306                      | 4.084 | .000    |                   |                |                 |
| Generation = Between 1965-1985 |                              |       |                           |       |         | .332 <sup>b</sup> | .110           | .106            |
| (Constant)                     | 1.819                        | .349  |                           | 5.216 | .000    |                   |                |                 |
| SE                             | .051                         | .010  | .332                      | 5.072 | .000    |                   |                |                 |
| Generation = Between 1986-1990 |                              |       |                           |       |         | .047 <sup>b</sup> | .002           | -.009           |
| (Constant)                     | 3.790                        | .584  |                           | 6.485 | .000    |                   |                |                 |
| SE                             | -.007                        | .017  | -.047                     | -.439 | .662    |                   |                |                 |
| Generation = Between 1990-2007 |                              |       |                           |       |         | .102 <sup>b</sup> | .010           | -.01            |

|            |       |      |      |       |      |  |  |   |
|------------|-------|------|------|-------|------|--|--|---|
|            |       |      |      |       |      |  |  | 2 |
| (Constant) | 2.899 | .834 |      | 3.474 | .001 |  |  |   |
| SE         | .017  | .025 | .102 | .689  | .495 |  |  |   |

It can be derived from Table 4.35 above that Self-efficacy (SE) is a significant predictor of Productive Organisational Energy (POE) of the Baby Boomer Generation ( $r_{(df=525; p \leq .005)} = 0.000$ , small effect). The results also showed that there is a positive relationship between SE and POE amongst Generation X (0.000). The results showed no significant relationship between SE on POE and the Traditionalist Generation and Generation Y and Generation Z.

- Self-efficacy had an  $R^2$  value of 0.094 for the prediction of Productive Organisational Energy in the Baby Boomer Generation, indicating 9.4% of the total variance in the POE for the Baby Boomer Generation was explained by the regression model consisting of Self-efficacy.
- Self-efficacy had an  $R^2$  value of 0.110 for the prediction of Productive Organisational Energy in Generation X, indicating 11.0% of the total variance in the POE for Generation X was explained by the regression model consisting of Self-efficacy.

#### 4.7 SUMMARY OF THE RESULTS

To conclude the results presented in the section above, the results of the statistical analysis of the relationship between Perceived Organisational Support (SPOS), Self-efficacy (SE) and Productive Organisational Energy (POE) across different generational groups can be summarised as follows:

- There is a statistically significant relationship between Perceived Organisational Support and Self-efficacy on the Baby Boomer Generation and Generation X, based on the results of a Simple Linear Regression analysis.

- There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (Affective Dimension) on the Baby Boomer Generation; Generation X, Generation Y and Generation Z based on the results of a Simple Linear Regression analysis.
- There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (Behavioural Dimension) on the Traditionalist Generation and Generation Y based on the results of a Simple Linear Regression analysis.
- There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (overall) on all of the Generations based on the results of a Simple Linear Regression analysis.
- There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (Affective Dimension) on the Traditionalist Generation, the Baby Boomer Generation and Generation X based on the results of a Simple Linear Regression analysis.
- There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (Behavioural Dimension) on the Baby Boomer Generation and Generation X based on the results of a Simple Linear Regression analysis.
- There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (overall) on the Baby Boomer Generation and Generation X based on the results of a Simple Linear Regression analysis.

#### **4.8 CHAPTER SUMMARY**

Chapter Four discussed the results of this study in great detail, reviewing the study's research objectives against the data gathered as well as describing in detail the statistical analysis techniques used in this study. Reliability and validity of the measuring instruments were assessed with the use of the Cronbach Alpha Coefficients and Factor Analysis. Descriptive Statistics (that is, Mean, standard Deviation, Skewness and Kurtosis) was used to analyse the data. Exploratory Factor Analysis was used to assess the structure of the measuring instruments.

Detailed attention was given to reliability and validity considerations in this study followed by the descriptive statistics utilised. Specifically, sample statistics whereby the frequency analysis was reviewed. Following, the frequency demographics was illustrated and the descriptive per subscale was discussed. The results per instrument were discussed in great detail.

In closing, the correlation and regression descriptive statistics was discussed and illustrated in this study.

In the next chapter follows the discussion of the results reported in this chapter.

## 5. CHAPTER FIVE - DISCUSSION OF RESULTS

*“The survival of community pharmacy is the broadest and most cited concern over dispensing fee legislation. These are small chains or independent retailers with no wholesaler’s license and a narrower product base than supermarker dispesnaries or large corporate chains....” (Andrews, 2009:5).*

### 5.1 CHAPTER INTRODUCTION

This chapter will deal with the discussion of the results obtained via the statistical analysis and interpretation described in the previous chapter. Specifically, it will provide an overview of the study and summarize key results obtained from the literature review. The key empirical findings are discussed followed by an evaluation of the main and sub-research questions.

### 5.2 CHAPTER FIVE OVERVIEW

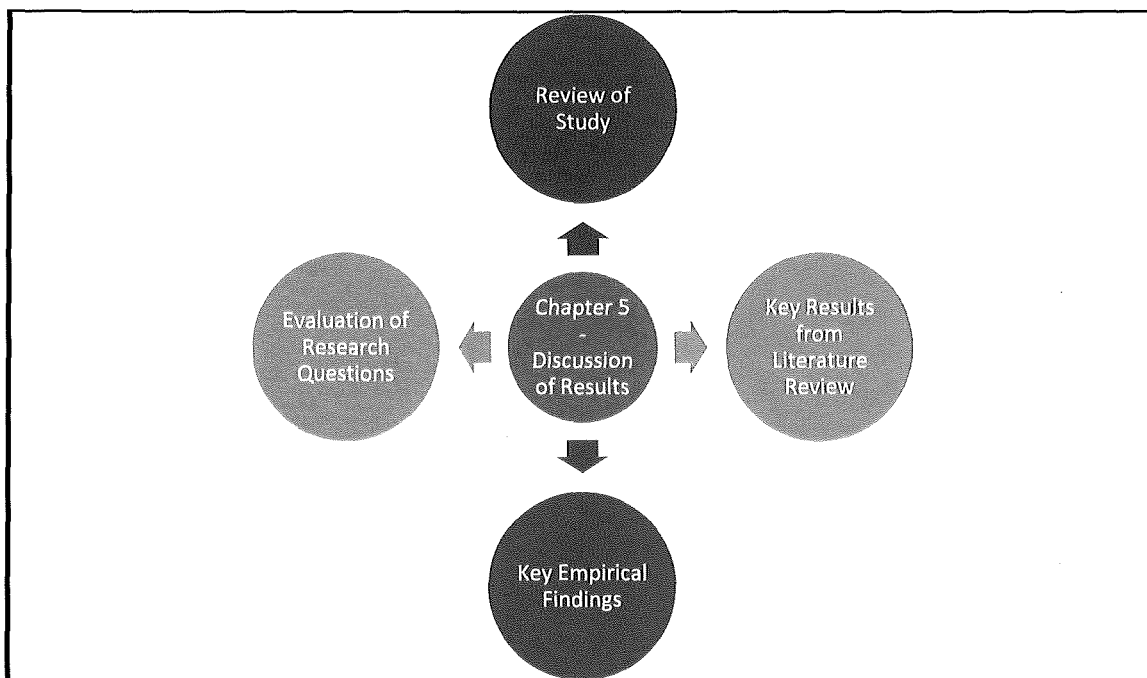


Figure 5.1: General Chapter 5 Overview

### 5.3 REVIEW OF THE STUDY

The main purpose of this study was to determine Perceived Organisational Support; Self-efficacy and Productive Energy across the five different generational groups in the independent pharmacy sector of South Africa.

Chapter One introduced the background to the study of the Independent Pharmacy Sector, perceived organisational support, self-efficacy, productive organisational energy and different generations. The problem statement was highlighted as well as the aim of the study, research questions, research objectives and an overview to the study was provided.

Chapter Two explained in detail the constructs of Perceived Organisational Support (POS); Self-efficacy (SE) and Productive Organisational Energy (POE) by means of a comprehensive literature reviews. In addition the construct of Generations (GEN) was defined and the five different generation groups explained.

POS was explained by reviewing Social Exchange Theory and Organisational Support Theory. SE was explained by looking at the foundation, that is Human Agency; followed by a review of general self-efficacy (GSE) and the efficacy expectations. POE was introduced by looking at the components of individual energy and reviewing the energy matrix. The collective nature of all three of the above constructs was investigated. GEN were broken down into five different generation groups, Traditionalist (TRAD); Baby Boomers (BOOMERS); Generation X (GEN X); Generation Y (GEN Y); Generation Z (GEN Z). In closing, a review of the literature on the relationships between the dependable variables took place.

Chapter Three reviewed in detail the research approach and paradigm followed in this research study, followed by the broad research design and strategy of the study. The research method was discussed; followed by a discussion of the sampling and data collection methods. The measuring instruments used for this study, the SPOS, NGSE and PEM, were reviewed and explained. The research procedure followed

was highlighted followed by the statistical analysis used in this study. The chapter conclude by reviewing the research ethics.

Chapter Four discussed the results of this study in great detail, reviewing the study research objectives against the data gathered as well as describing in detail the statistical analysis techniques used in this study. Reliability and validity of the measuring instruments was assessed with the use of the Cronbach Alpha Coefficients and Factory Analysis. Descriptive Statistics (Mean, Standard Deviation, Skewness and Kurtosis) was used to analyse the data. Exploratory Factor Analysis was used to assess the structure of the measuring instruments. Detailed attention was given to reliability and validity considerations in this study followed by the descriptive statistics utilised. Specifically, sample statistics whereby the frequency analysis was reviewed. Following, the frequency demographics was illustrated and the descriptive per subscale was discussed. The results per instrument were discussed in great detail. In closing, the correlation and regression descriptive statistics was discussed and illustrated in this study.

Chapter 5 entailed a discussion of the empirical results presented in Chapter 4. Each of the seven research questions of the research study are presented and are explained based on the evidence gathered from the research study.

Chapter 6 comprised an overview of the research findings of the study in regards to the literature reviewed conducted and the statistical analysis undertaken. The limitations of the study are addressed and selected recommendations for further study in the field of perceived organisational support, self-efficacy, productive organisational energy and specifically the five different generations in the workplace are made. In conclusion, final comments are made.

## 5.4 KEY RESULTS FROM THE LITERATURE REVIEW

### **Key Literature Review Learnings relevant for this study: Generations**

- Limited research done comparing different generations to variables;
- GEN is group sharing same birth years (Kupperschmidt, 2002);
- Work values seem to be unique for different GEN (Robbins & Judge, 2009);
- Perceptions of different values for different Gen not always true (Robbins & Judge, 2009)
- Now 5 GEN in workplace for first time (Gratton, 2011);
- Multi generational work done internationally, limited in African context (Srinivasan, 2012).

### **Key Literature Review Learnings relevant for this study: Perceived Organisational Support**

- POS relates positively to Job Performance (O'Driscoll & Randall, 1999);
- Social Exchange Theory (Rhoades & Eisenberger, 2002);
- Organisational Support Theory (Rhoades & Eisenberger, 2002);
- Demographics (like generations) often used as control variable (Rhoades & Eisenberger, 2002)
- POS increases Job Satisfaction & Organisational Commitment (Riggle, et al, 2009);
- POS increases team work attitudes (Linlin & Yinghong, 2014);
- POS relates positively to HPWP's (Kadops & Vafankhan, 2014).

### **Key Literature Review Learnings relevant for this study: Self-Efficacy**

- Efficacy Expectations – 4 ways to increase (Bandura, 1997; Robbins & Judge, 2009)
- SE can be divided into GSE & Social SE (Sherer & Adams, 1983);
- SE is related to positive motivation & behaviour (Bandura, 2005);
- SE will change over life span (age) (Bandura, 1994);
- SE is human agency and agentic (Bandura, 1999);
- NGSE help explain motivation & performance (Chen, et al, 2001)
- SE provides framework to study work design & enhancing organization functioning (Bandura, 2009);
- SE significant predictor of commitment (van Vuuren et al, 2008);
- High SE feelings can lead to high performance (Park & Roedder John, 2014).

### **Key Literature Review Learnings relevant for this study: Productive Organisational Energy**

- POE is the fuel tank that makes organisations work (Cole, et al, 2005);
- Key focus areas for increased POE is individual and personal (Shiuma, et al, 2007);
- POE is joint experience and demonstration of positive affect, cognitive activation & agentic behaviour & have positive relationship in HPWS (Bruch, et al 2009);
- Two states of organisational energy form energy matrix (Bruch & Vogel, 2011; Cole, et al 2011);
- Collective & productive energy is used interchangeably (Cole, et al, 2011);
- POE have collective nature (Cole, et al, 2011);
- POE most relevant for knowledge workers & can be build up & used in stressful times (Lamberti, 2012);

Figure 5.2 – Key Results from the Literature Review

## **5.5 KEY EMPIRICAL FINDINGS AND EVALUATION OF RESEARCH QUESTIONS**

Key Empirical Findings are presented in the section below. Sub-research questions 1-3 below support the main research question: Perceived Organisational Support; Self-efficacy and Productive Energy across different generational groups?

### **5.5.1 Is perceived organisational support a significant predictor of self-efficacy across generations?**

There is a statistically significant relationship between Perceived Organisational Support and Self-efficacy on the Baby Boomer Generation and Generation X, based on the results of a Simple Linear Regression analysis. No significant relationship was found between POS and SE on the Traditionalist Generation, Generation Y and Generation Z.

Simple Regression analysis is seen as significant at 95%, the p value needs to be smaller than or equal to 0.05 (Field, 2005). The result of  $p=0.000$  for the Baby Boomer Generation suggests that there is a significant relationship between SPOS on SE for Baby Boomers. Similar applies to Generation X with a result of  $p=0.000$ .

Research indicates (Field, 2005) that the greater the  $t$  value and the smaller the  $p$  value the greater the contribution of the predictor. Thus with  $t = 4.366$  for the Baby Boomer Generation and  $t = 4.618$  for Generation X; both being large values and the  $p$  values being smaller, it can be determined that SPOS is a great contributor as the predictor of SE for the two generation groups. As the  $t$  value is a positive value it can therefore be concluded that SPOS has a positive effect on SE for the Baby Boomer Generation and Generation X. From the research it is clear that SPOS has no effect on SE for the other generation groups.

It can be derived that for the Baby Boomer Generation and Generation X, their perception of the pharmacies attitude towards them (Shore & Tetrick, 1991) has a

positive effect on their belief that they are capable of performing a specific task (Eden, 2001).

### **5.5.2 Is perceived organisational support a predictor of productive organisational energy across generations?**

#### **5.5.2.1 Perceived organisational support as a predictor of productive organisational energy (Affective Dimension)**

There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (Affective Dimension) on the Baby Boomer Generation; Generation X, Generation Y and Generation Z based on the results of a Simple Linear Regression analysis. No relationship was found between POS and POE (Affective Dimension) for the Traditionalist Generation.

Simple Regression analysis is seen as significant at 95%, the p value needs to be smaller than or equal to 0.05 (Field, 2005). The result of  $p=0.000$  for the Baby Boomer Generation suggests that there is a significant relationship between SPOS on POE (Affective Dimension) for Baby Boomers. Similar applies to Generation X ( $p=0.000$ ), Generation Y ( $p=0.001$ ) and Generation Z ( $P=0.000$ ).

Research indicates (Field, 2005) that the greater the  $t$  value and the smaller the  $p$  value the greater the contribution of the predictor. Thus with  $t = 5.188$  for the Baby Boomer Generation;  $t = 5.832$  for Generation X;  $t = 3.336$  for Generation Y;  $t = 5.226$  for Generation Z; all being large values and the  $p$  values being smaller, it can be determined that SPOS is a great contributor as the predictor of POE (Affective Dimension) for the above generation groups. As the  $t$  value is a positive value it can therefore be concluded that SPOS has a positive effect on POE (Affective Dimension) on the above generation groups. From the research it is clear that SPOS has no effect on POE (Affective Dimension) on the Traditionalist Generation.

It can be derived that for all the Generation groups, with the exception of the Traditionalist Generation, their perception of the pharmacies' attitude towards them

(Shore & Tetrick, 1991) has a positive effect on their individual perception (specifically their positive emotions, mindset and intellect (Schiuma, *et al.*, 2007) – Affective Dimension) of the pharmacies' ability to reach its goals. In other words, the four different generation groups all believe that the way the pharmacy supports them would influence the ability for the pharmacy to reach goals and targets. Interestingly this belief only applies to all employees born after 1946.

#### **5.5.2.2 Perceived organisational support as a predictor of productive organisational energy (Behavioural Dimension)**

There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (Behavioural Dimension) on the Traditionalist Generation and Generation Y based on the results of a Simple Linear Regression analysis. No relationship was found between POS and POE (Behavioural Dimension) for the Baby Boomer Generation as well as Generation X and Generation Z.

Simple Regression analysis is seen as significant at 95%, the p value needs to be smaller than or equal to 0.05 (Field, 2005). The result of  $p=0.039$  for the Traditionalist Generation suggests that there is a significant relationship between SPOS on POE (Behavioural Dimension) for the Traditionalist Generation, yet not for the Affective Dimension. There is also a significant relationship between SPOS and POE (Behavioural Dimension) for Generation Y ( $p=0.14$ ). No relationship was found for any of the other Generation groups.

Research indicates (Field, 2005) that the greater the  $t$  value and the smaller the  $p$  value the greater the contribution of the predictor. Thus with  $t = 2.298$  for the Traditionalist Generation and  $t = 2.513$  for Generation X, all being larger values and the  $p$  values being smaller, it can be determined that SPOS is a good contributor as the predictor of POE (Behavioural Dimension) for the two generation groups. As the  $t$  value is a positive value it can therefore be concluded that SPOS has a positive effect on POE (Behavioural Dimension) on the two generation groups. From the

research it is clear that SPOS has no effect on POE (Behavioural Dimension) on the Baby Boomer Generation and Generation Y and Generation Z.

It can be derived that for the Traditionalist Generation and Generation Y that their perception of the pharmacies attitude towards them (Shore & Tetrick, 1991) has a positive effect on their individual perception (specifically their behavioural body action orientation (Schiuma *et al.*, 2007) – Behavioural Dimension) of the pharmacies' ability to reach its goals. In other words, the Traditionalist Generation as well as Generation Y believes that the way the pharmacy supports them would influence their own ability to kick into action and have a positive effect on the pharmacy reaching its goals and targets.

#### **5.5.2.3 Is POS a predictor of overall POE across different GEN?**

There is a statistically significant relationship between Perceived Organisational Support and Productive Organisational Energy (overall) on all of the Generations based on the results of a Simple Linear Regression analysis.

Simple Regression analysis is seen as significant at 95%, the p value needs to be smaller than or equal to 0.05 (Field, 2009). The results of generational groups ranged from  $p=0.000$  to  $p=0.046$  and that there is a significant relationship between SPOS on overall POE.

T-values for the generational groups ranges from  $t = 0.112$  to  $t = 0.273$  (smaller values). It can be determined that SPOS is a weak positive contributor as predictor of overall POE for all the generation groups.

It can be derived all Generation groups' perception of the pharmacies' attitude towards them (Shore & Tetrick, 1991) has a positive effect on their individual perception of the pharmacies' ability to reach its goals. They believe that the way the pharmacy supports them would influence the ability for the pharmacy to reach goals and achieve targets (Bruch *et al.*, 2005).

### **5.5.3 Is self-efficacy a predictor of productive organisational energy?**

#### **5.5.3.1 Is SE a predictor of POE (Affective Dimension) across different GEN?**

There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (Affective Dimension) on the Traditionalist Generation, the Baby Boomer Generation and Generation X based on the results of a Simple Linear Regression analysis. No relationship was found between SE and POE (Affective Dimension) for Generation Y and Generation Z.

Simple Regression analysis is seen as significant at 95%, the p value needs to be smaller than or equal to 0.05 (Field, 2005). The result of  $p=0.017$  for the Traditionalist Generation suggests that there is a significant relationship between SE on POE (Affective Dimension). There is also a significant relationship between SE and POE (Affective Dimension) for Baby Boomers ( $p=0.001$ ) and Generation X ( $p=0.001$ ). No relationship was found for any of the Generation groups born after 1985.

Research indicates (Field, 2005) that the greater the  $t$  value and the smaller the  $p$  value the greater the contribution of the predictor. Thus with T-Values respectively at  $t = 0.23$  for the Traditionalist Generation;  $t = 3.297$  for Baby Boomer Generation and  $t = 3.409$  for Generation X, all being larger values and the  $p$  values being smaller, it can be determined that SE is a good contributor as the predictor of POE (Affective Dimension) for the above generation groups. As the  $t$  value is a positive value it can therefore be concluded that SE has a positive effect on POE (Affective Dimension) on the two generation groups. From the research it is clear that SE has no effect on POE (Affective Dimension) on Generation Y and Generation Z.

It can be derived that for the Traditionalist Generation, Baby Boomer Generation and Generation X; their individual belief that they are capable of performing a specific task (Eden, 2001) is positively influenced by their perception (specifically their positive emotions, mindset and intellect (Schiuma, *et al.*, 2007) – Affective Dimension) of the pharmacies' ability to reach its goals.

### **5.5.3.2 Is SE a predictor of POE (Behavioural Dimension) across different GEN?**

There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (Behavioural Dimension) on the Baby Boomer Generation and Generation X based on the results of a Simple Linear Regression analysis. No relationship was found between SE and POE (Behavioural Dimension) for the Traditionalist Generation as well as Generation Y and Generation Z.

Simple Regression analysis resulted in  $p=0.000$  for the Baby Boomer Generation and  $p=0.000$  for Generation X; suggesting that there is a significant relationship between SE on POE (Behavioural Dimension). No relationship was found for any of the Generation groups born before 1946 or after 1985.

T-values for the Baby Boomer Generation is a  $t = 4.262$  and for Generation X at  $t = 5.656$ ; all being larger values and the p values being smaller, it can be determined that SE is a good positive contributor as the predictor of POE (Behavioural Dimension) for the two generation groups.

It can be derived that for the Baby Boomer Generation and Generation X; their individual belief that they are capable of performing a specific task (Eden, 2001) is positively influenced by their perception (specifically their behavioural body action orientation (Schiuma *et al.*, 2007) – Behavioural Dimension) of the pharmacies' ability to reach its goals.

### **5.5.3.3 Is SE a predictor of overall POE across different GEN?**

There is a statistically significant relationship between Self-efficacy and Productive Organisational Energy (overall) on the Baby Boomer Generation and Generation X based on the results of a Simple Linear Regression analysis. No relationship was found between SE and POE for the Traditionalist Generation as well as Generation Y and Generation Z.

Simple Regression analysis is seen as significant at 95%, the p value needs to be smaller than or equal to 0.05 (Field, 2005). The result of the Baby Boomer Generation at  $p=0.000$  and Generation X at  $p=0.000$  indicates a significant relationship between SE for these two generational groups and overall POE.

T-values for the Baby Boomer Generation at  $t = 4.084$  and Generation X at  $t = 5.072$  (large values) determines that SE has is strong positive contributor as predictor of overall POE for these two generation groups.

It can be derived that for the Baby Boomer Generation and Generation X; their individual belief that they are capable of performing a specific task (Eden, 2001) is positively influenced by their individual perception of the pharmacies' ability to reach its goals. They believe their view of capability to perform tasks would influence the ability for the pharmacy to reach goals and achieve targets (Bruch, *et al.*, 2005).

## **5.6 CHAPTER SUMMARY**

Chapter Five discussed the results obtained via the statistical analysis and interpretation described in the previous chapter. Specifically, it provided an overview of the study and summarized key results obtained from the literature review. The key empirical findings were discussed followed by an evaluation of the main and sub-research questions.

In the following chapter the conclusions, recommendations and limitations will be discussed.

## **6. CHAPTER SIX - CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

*“The private retail pharmacy sector is an important source of healthcare for millions of people in low-income countries. Further detailed study and documentation of the impact of legislative and marketplace changes on the pharmacy sector in countries such as South Africa, India, Pakistan and Latin America would be valuable in assisting low- and middle-income countries improve the quality of the retail pharmacy” (Lowe & Montagu, 2009:35).*

### **6.1 CHAPTER INTRODUCTION**

This chapter will deal with the overview of the study and final conclusions of the study. Limitations of the study will be discussed in detail and further recommendations for future studies in the areas of Perceived Organisational Support, Self-efficacy, Productive Organisational Energy and different Generations are highlighted.

## 6.2 CHAPTER SIX OVERVIEW

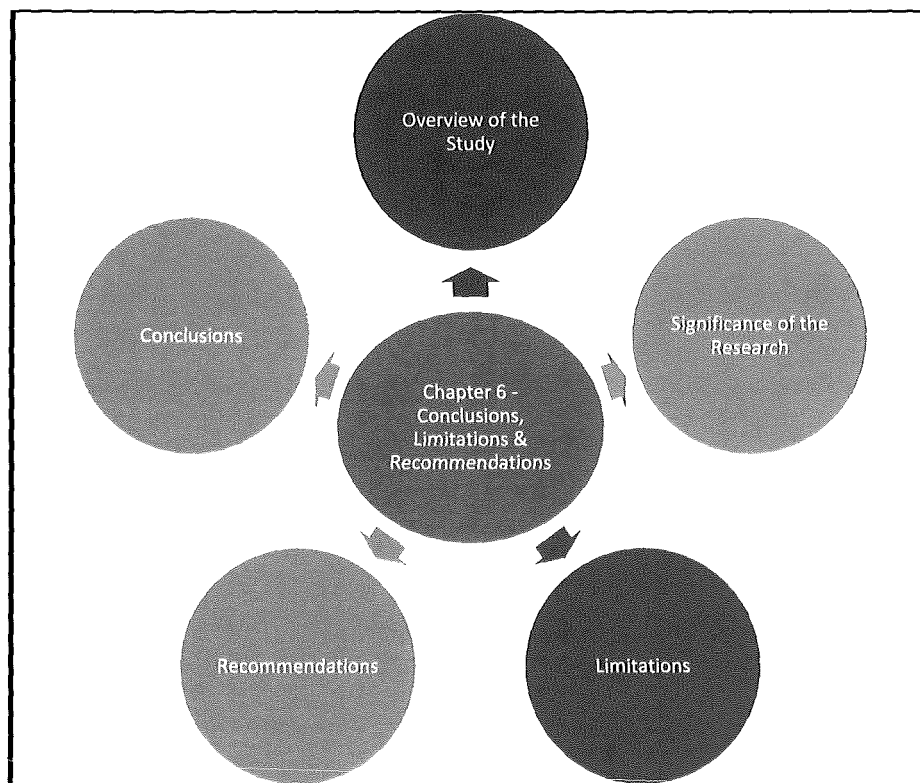


**Figure 6.1: General Chapter 6 Overview**

## 6.3 OVERVIEW OF THE STUDY

This study addressed the problem statement identified in the Independent Pharmacy Sector of South Africa, more specifically it attempted to assess the impact of Perceived Organisational Support on Self-efficacy and Productive Organisational Energy across the five different generations currently in the South African workplace.

## 6.4 SIGNIFICANCE OF THE RESEARCH

The independent pharmacy sector in South Africa is under pressure from the lack of resources, government legislation and the historical composition of the pharmacy sector. This is a sector where leaders and owners are predominantly from the Traditionalist and Baby Boomer generation and find themselves needing to manage Generation X, Y and even Z employees. In other words, the employee complement in a typical pharmacy is literally made up of five generations. Any additional insights

into understanding the constructs and the diverse generational composition of the independent pharmacy would be beneficial in a South African context.

Gratton (2011) elaborated on the need for generational cohesion and the challenge organisations face to shape the world of work to make the best of the skills and aspirations of all five different generations; highlighting the potential opportunities and conflicts arising between the different generations are a recent phenomenon. These types of conflict can easily erupt in the workplace and impact performance of employees, teams and organisations.

The literature review indicated that an employee's perceived level of support they receive from management, including different generation leadership, has an impact on general self-efficacy (Burgess, n.d.; Du Plessis, 2010). This was supported by the current research, in particular for the Baby Boomer Generation and Generation X.

This in turn may impact on the overall productivity in the business, indicated as seen through organisational energy. It appears as if limited research has been done combining different generations with perceived organisational support, self-efficacy and productive organisational energy. This study provided valuable insights into all three of the above constructs across the five different generations currently in the South African workplace.

## **6.5. LIMITATIONS**

Like any other research study conducted, this study is not free from limitations. As per Collins and Hussey (2003) limitations aims to identify weaknesses in the current research whilst delimitations clarifies how the scope of the study was focused on one specific area as opposed to a wide, broader area.

Delimitations of this study is described as the research being focused on the independent community pharmacy sector of South Africa, limited to those employees working within the independent pharmacies.

Delimitations will be looked in regards to the context, constructs and the theoretical perspective of this research. A discussion follows below.

#### **6.5.1 Limitations as a Result of Research Design Used**

Several limitations were considered during the research design:

- i. A disadvantage of a cross-sectional study is the difficulty in establishing time order when collecting data, as data is collected at a single point in time, possibly restricting the ability to measure changes taking place over time. A longitudinal study may provide more confident data, but was not considered by the researcher due to time limitations;
- ii. Survey questionnaires remain subjective;
- iii. Survey participants may not feel comfortable that the data will remain confidential and their identity unknown;
- iv. Rating scales reflect the individual's personal opinion and are therefore relative and not absolute.

#### **6.5.2 Limitations as Result of Data Collection Method Used**

Data collection is the application of the measuring instrument to the sample selected for investigation and whereby new information about the world is produced that requires further processing (Mouton, 2002).

Survey data was gathered by using three existing questionnaires. Disadvantages of surveys could include the inability to change the design during the data gathering process (this could also be a positive given that this inflexibility leads to preciseness and fairness); not ideal for controversial issues or the presence of inappropriate questions.

#### **6.5.3 Limitations as a Result of the Sampling Method Used**

Non probability sampling consists of convenience/accidental sampling and quota sampling.

#### **6.5.3.1 Convenient Sampling**

Convenient sampling was used for this study with the addition of snowball sampling.

Disadvantages included concerns about the sample representing the entire population as well as generalisation and inferences made about the entire population that could lead to external validity issues.

#### **6.5.3.2 Snowball Sampling**

Snowball sampling, as anticipated was added as the survey gained momentum and the passion for the independent pharmacy sector and advancing knowledge within spurred others to participate as well.

Disadvantages and limitations was that the researcher had little control over the process and representation, although the combination of the true convenient sampling assisted in limiting this effect. Finally sampling bias (that is, participants nominating those they know well) could have led to participants sharing similar traits and characteristics.

#### **6.5.4 Limitations as a Result of the Sample Size and Characteristics Used**

Sample was an important consideration due to the use of factor analysis and this study met the minimum requirement of 300 respondents (N=525).

#### **6.5.5 Limitations Associated with the Lack of Literature Available**

A further limitation this study presented was the lack of literature available and empirical research on the constructs of organisational energy, particularly in the South African context as well as the combination of five generations in the workplace.

To the best knowledge of the researcher, this present study is the first to research five generations in the workplace in a South African context. The lack of available literature and empirical research made it challenging to substantiate the findings.

## **6.6 RECOMMENDATIONS**

Furthermore, additional studies to further explore the multi-cultural rainbow nation facet of South African workplaces and generations would be encouraged. In this study, generations was only looked at in terms of the different constructs, no added dimension of ethnicity (race) was added. It remains interesting that generational differences amongst employees, although cultures and perceptions are changing, may not be as evident and profound as commonly thought. Further research to explore this further would be recommended.

In addition, it is also recommended that a larger sample would include not only the independent pharmacy sector, but would include other retail and hospital pharmacies as well to further understand differences amongst generations in relation to perceived organisational support, self-efficacy and productive organisational energy. Specifically the independent pharmacy and owner environment may be very different to public sector hospital pharmacies and large corporate pharmacy chains.

The value of this study on a theoretical and practical level aimed to contribute additional information to the body of knowledge with regards to different generations in the workplace. Perceived organisational support and self-efficacy have been researched to some extent whereas productive organisational energy in the South African environment has not been widely researched and this study aims to further add to that database of knowledge.

The study also aimed to provide insights into the generational composition of the Independent Pharmacy Sector of South Africa that could potentially assist in cross-generational understandings and addressing critical skills shortages and training gaps within the Independent Pharmacy Sector of South Africa. Evidence in research shows that a failure to acknowledge and adjust to different generations in the

workplace could have an impact on employee productivity, corporate citizenship and innovation, that may lead to higher turnover (Westerman & Yamamura, 2007; Kupperschmidt, 2000; Jokela, 2012).

#### **6.6.1 Theoretical contribution**

It appeared from the preliminary literature review that the combination of perceived organisational support across different generations along with self-efficacy and productive organisational energy have not been researched in this way; therefore this research aimed to contribute in a unique and fresh way.

#### **6.6.2 Methodological contribution**

The 14-item POE measure has not been widely used in a South African context and this research study will further validate this instrument in a South Africa context. In addition research seems to indicate that the 8-item NGSE has as yet not been used in a South African context.

#### **6.6.3 Practical contribution**

On a practical level this research was aimed to add value to the pharmacy sector in South Africa, and not just the independent pharmacy environment. Better understanding of the generational composition of the independent pharmacy sector could assist to align human resources practices, policies and policies, and also assist in understanding the relationships between perceived organisational support, self-efficacy and productive organisational energy across the different generations.

### **6.7 CONCLUSIONS**

The results of this research study have provided valuable insights into the relationship between Perceived Organisational Support, Self-efficacy and Productive Organisational Energy. Highlighting that for each one of these constructs, significant differences exist between all of the different generational groups. Stressing how important understanding and managing generations in the workplace have become

and will continue to be as more and more Generation Z employees enter workplaces across the world.

## **6.8 CLOSING REMARKS**

For the first time in history people work alongside each other that are both as young as their children and as old as their parents, and more interestingly, competing for the same leadership roles that were historically designated to veteran employees due to job descriptions and hierarchy (Gursoy, Maier & Chi, 2008).

This chapter dealt with the overview of the study and final conclusions of the study. Limitations of the study were discussed in detail and further recommendations for future studies in the areas of Perceived Organisational Support, Self-efficacy, Productive Organisational Energy and different Generations were offered.

*“One of the overwhelming aspects of the future of work is the need to work collaboratively across boundaries — be these boundaries generational, national, functional, or business boundaries. This is as true for the HR function as it is for any other part of the business”*

(Gratton, 2011:253)

It is hoped that the empirical evidence presented in this research study has demonstrated the importance of understanding the future of work as it pertains to the diverse generational composition of the South African workplace, specifically in the independent pharmacy sector.

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## LIST OF ANNEXURE

### ANNEXURE A

#### Survey of Perceived Organisational Support – SPOS

#### FORMAT FOR THE 8-ITEM SURVEY OF PERCEIVED ORGANIZATIONAL SUPPORT

Listed below and on the next several pages are statements that represent possible opinions that YOU may have about working at \_\_\_\_\_. Please indicate the degree of your agreement or disagreement with each statement by filling in the circle on your answer sheet that best represents your point of view about \_\_\_\_\_. Please choose from the following answers:

| 0                 | 1                   | 2                 | 3                          | 4              | 5                | 6              |
|-------------------|---------------------|-------------------|----------------------------|----------------|------------------|----------------|
| Strongly Disagree | Moderately Disagree | Slightly Disagree | Neither Agree nor Disagree | Slightly Agree | Moderately Agree | Strongly Agree |

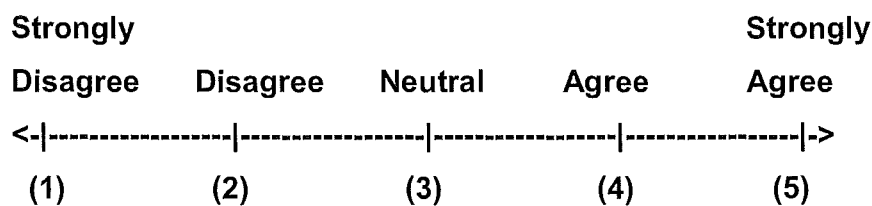
1. The organization values my contribution to its well-being.
2. The organization fails to appreciate any extra effort from me. (R)
3. The organization would ignore any complaint from me. (R)
4. The organization really cares about my well-being.
5. Even if I did the best job possible, the organization would fail to notice. (R)
6. The organization cares about my general satisfaction at work.
7. The organization shows very little concern for me. (R)
8. The organization takes pride in my accomplishments at work.

## ANNEXURE B

### New General Self-Efficacy Scale – NGSE

#### NEW GENERAL SELF-EFFICACY SCALE

Please use the scale below to rate your agreement (or disagreement) with each of the following statements about yourself.



1. \_\_\_\_\_ I will be able to achieve most of the goals that I have set for myself.
2. \_\_\_\_\_ When facing difficult tasks, I am certain that I will accomplish them.
3. \_\_\_\_\_ In general, I think that I can obtain outcomes that are important to me.
4. \_\_\_\_\_ I believe I can succeed at most any endeavour to which I set my mind.
5. \_\_\_\_\_ I will be able to successfully overcome many challenges.
6. \_\_\_\_\_ I am confident that I can perform effectively on many different tasks.
7. \_\_\_\_\_ Compared to other people, I can do most tasks very well.
8. \_\_\_\_\_ Even when things are tough, I can perform quite well.

## ANNEXURE C

### Productive Organisational Energy Measure – PEM

#### Section 1 – Affective Dimension

|   |                                                         | Never | Rarely | Sometimes | Often | Frequently<br>if Not<br>Always |
|---|---------------------------------------------------------|-------|--------|-----------|-------|--------------------------------|
| 1 | People in my work group feel excited in their job.      | 1     | 2      | 3         | 4     | 5                              |
| 2 | People in my work group feel enthusiastic in their job. | 1     | 2      | 3         | 4     | 5                              |
| 3 | People in my work group feel energetic in their job.    | 1     | 2      | 3         | 4     | 5                              |
| 4 | People in my work group feel inspired in their job.     | 1     | 2      | 3         | 4     | 5                              |
| 5 | People in my work group feel ecstatic in their job.     | 1     | 2      | 3         | 4     | 5                              |

#### Section 2 – Cognitive Dimension

|   |                                                       | Strongly<br>Disagree | Disagree | Sometimes<br>Agree | Agree | Strongly<br>Agree |
|---|-------------------------------------------------------|----------------------|----------|--------------------|-------|-------------------|
| 6 | My work group is ready to act at any given time.      | 1                    | 2        | 3                  | 4     | 5                 |
| 7 | People in my work group are mentally alert.           | 1                    | 2        | 3                  | 4     | 5                 |
| 8 | In my work group there is a collective desire to make | 1                    | 2        | 3                  | 4     | 5                 |

|   |                                                                     |   |   |   |   |   |
|---|---------------------------------------------------------------------|---|---|---|---|---|
|   | something happen.                                                   |   |   |   |   |   |
| 9 | People in my work group really care about the fate of this company. | 1 | 2 | 3 | 4 | 5 |

### Section 3 – Behavioural Dimension

|    |                                                                                  | Strongly Disagree | Disagree | Sometimes Agree | Agree | Strongly Agree |
|----|----------------------------------------------------------------------------------|-------------------|----------|-----------------|-------|----------------|
| 10 | People in my work group are always on the lookout for new opportunities.         | 1                 | 2        | 3               | 4     | 5              |
| 11 | People in my work group will go out of their way to ensure the company succeeds. | 1                 | 2        | 3               | 4     | 5              |
| 12 | People in my work group often work extremely long hours without complaining.     | 1                 | 2        | 3               | 4     | 5              |
| 13 | There has been a great deal of activity in my work group.                        | 1                 | 2        | 3               | 4     | 5              |
| 14 | People in my work group are working at a very fast pace.                         | 1                 | 2        | 3               | 4     | 5              |

## **ANNEXURE D**

### **Article – The Future of Independence**

#### **The future of Independence – unpacking some interesting concepts.**

**Belinda Botha – October 2013**

The Independent Pharmacy Sector in South Africa is experiencing numerous challenges, ranging from government legislation and changes to resource challenges. In addition; skills shortages also add to a challenging and dynamic environment. A recent study conducted by (The Professional Provident Society of South Africa, 2013) (PPS) noted that in line with many skilled professionals in South Africa, the shortage of qualified people in pharmacies remains a huge problem.

Joubert (2013) indicates a key challenge still remaining for pharmacists is the regulation of the sector. Impacting on the resource challenges, and further complicating the issues, comes the historical composition of the pharmacy sector. This is a sector where leaders and owners are predominantly from the Traditionalist and Baby Boomer generation and find themselves needing to manage Generation X, Y and even Z employees. In other words, the employee compliment in a typical pharmacy is literally made up of five generations.

How do we overcome these challenges to help secure a bright future for Independent and Community pharmacy? Life, and therefore business is about constant change and as we approach the future; the only constant will be our attitude and feelings towards continuous learning and managing change.

Let us unpack some interesting and relevant concepts.

#### **What about this “Generation” thing?**

Although much debated, discussed, theorised, ignored, jargoned and speculated, the construct of generations received little research attention since the concept was first formed and defined. Online definitions range from (Merriam-Webster.com, n.d.) “a group of individuals born and living contemporaneously”; (Oxford Dictionaries, n.d.) “*all of the people born and living at about the same time, regarded collectively; a group of people of similar age involved in a particular activity*” and (Collins Dictionary, n.d.) as “*all the people of approximately the same age, especially when considered as sharing certain attitudes....*” .

(Meister & Willyerd, 2010) explains **that in the 2020 workplace three forces will shape the future; globalisation, social web and generations (demographics)**. Therefore the understanding and study of the different generations will become increasingly important in today's day and world.

What is known from research conducted in the business world, is what one generation sees as a positive move might appear threatening to another generation because upbringing varies by age bracket, shaping not only personality but also job performance, relations to co-workers and dealings with superiors (CFO Publications, 2013). This also applies to the pharmacy environment.

Furthermore, an employees' perceived level of support they get from management, including different generation leadership, has an impact on general self efficacy (Burgess, n.d.); (du Plessis, 2010). This in turn may impact on the overall productivity in the business, indicated as seen through lower organisational energy.

#### **Perceived Organisational WHAT?**

Perceived organisational support, as explained by (du Plessis, 2010: 44) *"suggests that employees pay attention to the manner in which the organisation treats them in order to discern the extent to which the organisation is supportive and values their contribution"*. Therefore high organisational support should strengthen employees' beliefs that the organisation recognises and rewards increased performance and therefore should have favourable outcomes both for employees and for the organisation (Rhoades & Eisenberger, 2002). Perceived organisational support has been found to have important consequences for employee performance and well-being.

#### **So what do we make of Self efficacy?**

Self efficacy appears from studies as a constructive self-belief related to positive motivation and behaviour (Bandura A. , 2005). *"General self-efficacy can be defined as one's belief in one's overall competence to effect requisite performance across a wide variety of achievement situations"* (Eden, 2001: 75). Early literature reviews indicates a potential relationship between (general) self-efficacy and productive organisational energy.

### **Where does Productive Organisational Energy fit into all of this?**

*“Most leaders have experienced the ebb and flow of different states of energy in their own organisations. This energy belongs to the intangible but very powerful, so-called soft factors of human potential that lie at the core of all companies. We call this phenomenon organisational energy....”*

(Bruch & Vogel, 2011: 9)

Energy is the ability to do work, in whatever format it is presented. Originating in the mid 16<sup>th</sup> century (denoting force or vigour of expression) from French “energie”, or via late Latin from Greek “energeia” combined as “en”- in and ergon – “work”. As defined in (Oxford Dictionaries, n.d.) “energy is the strength and vitality for sustained physical or mental activity”.

Organisational energy as explained by Schiuma *et al.* states that energy is dynamic and changing, and managing energy encompasses managing energy dynamics that are related to both structural and contingent factors (organisational infrastructure, social interaction and individual behaviour). It can therefore be construed that organisational performance is founded in energy.

Further, (Cole, Bruch, & Vogel, 2005) explain that organisational energy is *“the fuel tank that makes organisations run”*.

### **Where to from here then with Independence?**

It seems like more needs to be done to secure a bright future for the Independent and Community Pharmacy Sector in South Africa to combat the numerous challenges facing the sector. It appears as if limited local research has been done combining different generations with perceived organisational support, self efficacy and productive organisational energy. One such study, titled *“The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa”* aims to investigate the impact of the above and contribute not only to the existing body of knowledge on the above constructs in a South African context but also combine them in a unique way.

**You can participate in this study by accessing the link below:**

<https://www.surveymonkey.com/s/G9X5RFZ>

*The value of this study on a theoretical and practical level will aim to contribute additional information with regards to different generations in the workplace. Perceived organisational support and self efficacy have been researched to some extent; whereas productive organisational energy in the South African environment has not been widely researched. The study is also expected to provide insights into the generational composition of the Independent Pharmacy Sector of South Africa that could potentially assist in cross-generational understandings and addressing critical skills shortages and training gaps within the Independent Pharmacy Sector of South Africa.*

*For more information, to get the results of this study or to get personally involved, contact our Group Human Resources Manager, Belinda Botha on [belinda.b@cipharm.co.za](mailto:belinda.b@cipharm.co.za) or call her on 076 373 2964.*

## **References**

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Pharmacy Magazine

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Cancers

DIABETES  
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YOU DO?



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THE SURVEY  
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TRY OUR  
CHRISTMAS  
CUISINE





# The future of Independence

## Survey Participation

Belinda Botha – October 2013

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## ANNEXURE E

### Company Permissions

#### CJ Pharmaceutical Enterprises Group of Companies

Mr. Christopher Williams  
Chief Executive Officer  
CJ Pharmaceutical Enterprises Group of Companies  
# 12 4<sup>th</sup> Street, Delmas  
Mpumalanga  
2200

Re: Consent – access to pharmacy employee, warehouse & customer database  
Date: 17 October 2013

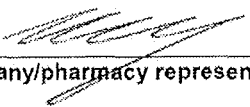
To whom it may concern;

Confirmation of Consent for Proposed Research Study on The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa By Belinda Botha to be conducted at the CJ Pharmaceutical Enterprises Group of Companies

By means of this letter we would like to confirm to North West University that the CJ Pharmaceutical Enterprises Group of Companies will be one of the companies/pharmacies through which Belinda Botha will be conducting research for her thesis to be submitted in full completion of the requirements for the Master of Commerce degree in Industrial Psychology through North West University.

This consent is given under the following conditions:

- The company/pharmacy name will not appear at any point in the research;
- No employee participating in the study should be named in the study;
- The company/pharmacy will receive information on the final results of the study.

  
Company/pharmacy representative signature

18/10/13  
Date

Christopher Williams  
CEO, CJ Pharmaceutical Enterprises Group of Companies  
[christopher@cjpharm.co.za](mailto:christopher@cjpharm.co.za)  
013 665 1011  
082 900 9656

## ANNEXURE E

### Company Permissions

#### CJ Pharmaceutical Enterprises Group of Companies

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Chief Executive Officer  
CJ Pharmaceutical Enterprises Group of Companies  
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Mpumalanga  
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Company/pharmacy representative signature

18/10/13  
Date

Christopher Williams  
CEO, CJ Pharmaceutical Enterprises Group of Companies  
[christopher@cjpharm.co.za](mailto:christopher@cjpharm.co.za)  
013 665 1011  
082 900 9656

## Leading Pharmacy Franchise Group

Mr. Jaco du Plessis  
Managing Director  
Leading Pharmacy  
# 7 4<sup>th</sup> Street, Delmas  
Mpumalanga  
2200

Re: Consent – access to pharmacy employee & franchise database  
Date: 17 October 2013

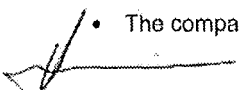
To whom it may concern;

Confirmation of Consent for Proposed Research Study on The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa  
By Belinda Botha to be conducted at Leading Pharmacy

By means of this letter we would like to confirm to North West University that Leading Pharmacy will be one of the companies/pharmacies through which Belinda Botha will be conducting research for her thesis to be submitted in full completion of the requirements for the Master of Commerce degree in Industrial Psychology through North West University.

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Company/pharmacy representative signature

12/10/13  
Date

Jaco du Plessis  
Managing Director  
Leading Pharmacy  
[jaco@leadingpharmacy.co.za](mailto:jaco@leadingpharmacy.co.za)  
013 010 0091  
079 890 6067

## Pharmacy Development Academy

Ms. Christine Venter  
Managing Director  
Pharmacy Development Academy  
# 7 4<sup>th</sup> Street, Delmas  
Mpumalanga  
2200

Re: Consent – access to student/pharmacy employee database  
Date: 17 October 2013

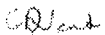
To whom it may concern;

Confirmation of Consent for Proposed Research Study on The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa  
By Belinda Botha to be conducted at Pharmacy Development Academy

By means of this letter we would like to confirm to North West University that the Pharmacy Development Academy will be one of the companies/pharmacies through which Belinda Botha will be conducting research for her thesis to be submitted in full completion of the requirements for the Master of Commerce degree in Industrial Psychology through North West University.

This consent is given under the following conditions:

- The company/pharmacy name will not appear at any point in the research;
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- The company/pharmacy will receive information on the final results of the study.

  
Company/pharmacy representative signature

2013-10-17  
Date

Christine Venter  
Managing Director  
Pharmacy Development Academy  
[training@cjpharm.co.za](mailto:training@cjpharm.co.za)  
013 010 0091  
082 067 8502

## ANNEXURE F

### Permissions to use Questionnaires

#### Permission - Survey of Perceived Organisational Support – SPOS

##### Research Interests

- > Perceived  
Organizational  
Support
- > Intrinsic  
Motivation and  
Creativity
- > Learned  
Industriousness

## Perceived Organizational Support

Information about assessing POS and downloadable articles are provided below. More information on POS can be obtained from the perceived organizational support website: <http://pos.psych.udel.edu/>

### Information Regarding Perceived Organizational Support

A link for a copy of the 36-item Survey of Perceived Organizational Support (SPOS) is given in the table below. The items indicated by an asterisk are a 16-item short form. The reference for the scale is:

- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500-507.

If a still shorter 8-item version of the scale is needed, another version selected from high loading items from the original SPOS may be used (please see the table below). This scale follows the recommendation of Rhoades and Eisenberger (2002, p. 699) that "Because the original scale is unidimensional and has high internal reliability, the use of shorter versions does not appear problematic. Prudence nevertheless dictates that both facets of the definition of POS (valuation of employees' contribution and care about employees' well-being) be represented in short versions of the questionnaire."

The above 1986 article should be referenced if you are going to use the 8-item version. Item numbers refer to the 1986 article.

|                                                                                             |                 |
|---------------------------------------------------------------------------------------------|-----------------|
| The 36-item Survey of Perceived Organizational Support (SPOS), in Microsoft Word (R) format | <b>Download</b> |
| The 36-item Survey of Perceived Organizational Support (SPOS), in Adobe Acrobat (R) format  | <b>Download</b> |
| The 8-item Survey of Perceived Organizational Support (SPOS), in Microsoft Word (R) format  | <b>Download</b> |
| The 8-item Survey of Perceived Organizational Support (SPOS), in Adobe Acrobat (R) format   | <b>Download</b> |

## Permission - New General Self-Efficacy Scale – NGSE

### Belinda

**From:** belinda botha [bothabelinda@hotmail.com]  
**Sent:** 22 August 2013 09:12 PM  
**To:** Belinda Botha Goldfish  
**Subject:** FW: Permission to use - NGSE  
**Attachments:** New General SE Scale.docx; Chen, Gully, & Eden (2001, ORM).pdf; Chen, Gully, & Eder (2004, JOB).ppt; Certification .htm

---

**From:** [belinda.b@cjpharm.co.za](mailto:belinda.b@cjpharm.co.za)  
**To:** [bothabelinda@hotmail.com](mailto:bothabelinda@hotmail.com)  
**Subject:** FW: Permission to use - NGSE  
**Date:** Sat, 10 Aug 2013 11:06:20 +0200

Kind Regards,

Belinda Botha

---

**From:** Gilad Chen [mailto:[giladchen@rhsmith.umd.edu](mailto:giladchen@rhsmith.umd.edu)]  
**Sent:** 09 August 2013 10:57 PM  
**To:** Belinda  
**Subject:** RE: Permission to use - NGSE

Dear Belinda,  
You can use the scale. See attached for more information.  
Good luck,  
Gilad

---

Gilad Chen, Ph.D.  
Ralph J. Tyser Professor of Organizational Behavior  
Chair of Management & Organization Department  
Associate Editor, *Journal of Applied Psychology* (through Dec 2013)  
Incoming Editor, *Journal of Applied Psychology* (effective Jan 2014)  
Robert H. Smith School of Business  
4530 Van Munching Hall  
University of Maryland  
College Park, MD 20742-1815  
301-405-0923 TEL.  
[giladchen@rhsmith.umd.edu](mailto:giladchen@rhsmith.umd.edu)  
<http://www.rhsmith.umd.edu>  
<http://www.rhsmith.umd.edu/management/faculty/gchen.aspx>

---

**From:** Belinda [mailto:[belinda.b@cjpharm.co.za](mailto:belinda.b@cjpharm.co.za)]  
**Sent:** Friday, August 09, 2013 2:28 PM

## Permission - Productive Organisational Energy Measure – PEM

Belinda

**From:** belinda botha [bothabelinda@hotmail.com]  
**Sent:** 22 August 2013 09:11 PM  
**To:** Belinda Botha Goldfish  
**Subject:** FW: Question on your 14-item measure on POE

---

**From:** m.s.cole@tcu.edu  
**To:** bothabelinda@hotmail.com; bernd.vogel@henley.ac.uk  
**Date:** Tue, 2 Apr 2013 12:42:08 -0500  
**Subject:** RE: Question on your 14-item measure on POE

Belinda –

When I sent my initial response, I was using my phone ...

Here's a link to the paper: [www.sbuweb.tcu.edu/mcole](http://www.sbuweb.tcu.edu/mcole) From here, click on Download Articles at left and then find the 2012 paper from JOB.

Good luck,

-Michael

---

**From:** belinda botha [mailto:bothabelinda@hotmail.com]  
**Sent:** Tuesday, April 02, 2013 11:48 AM  
**To:** Bernd Vogel  
**Cc:** Cole, Michael  
**Subject:** RE: Question on your 14-item measure on POE

Good day to you both!

Thanks so much for your prompt reply and great feedback. I will look at the paper ASAP, thanks Michael.

Bernd, regarding a meeting the week of 15-17 April, it would be absolutely fabulous! I will make myself available to fit your schedule and location, please just let me know what your availability looks like when you have an idea.

I sincerely appreciate it!

Thanks so much and have a great week!

Kind Regards,

Belinda Botha

---

> **From:** [bernd.vogel@henley.ac.uk](mailto:bernd.vogel@henley.ac.uk)  
> **To:** [bothabelinda@hotmail.com](mailto:bothabelinda@hotmail.com)  
> **CC:** [m.s.cole@tcu.edu](mailto:m.s.cole@tcu.edu)  
> **Subject:** RE: Question on your 14-item measure on POE  
> **Date:** Tue, 2 Apr 2013 07:35:49 +0000  
>

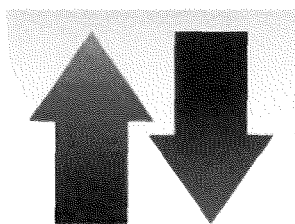
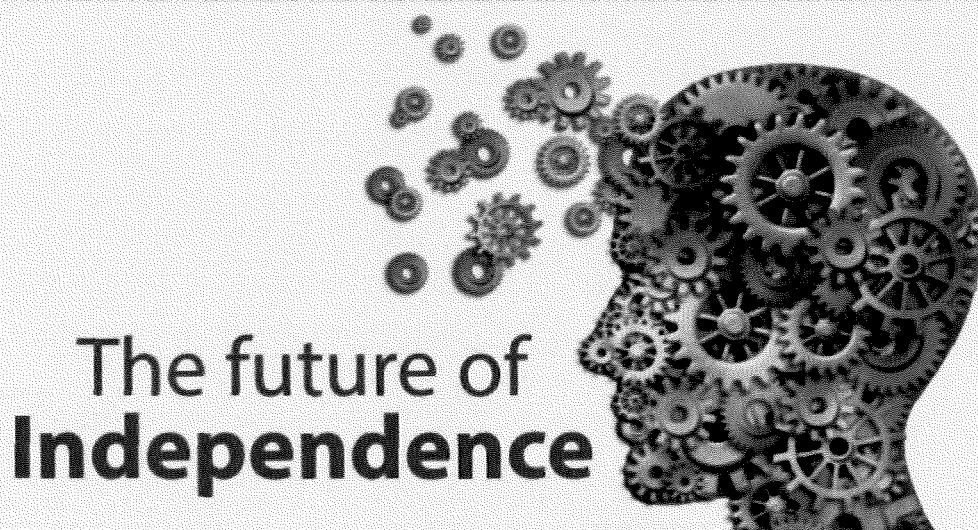


## ANNEXURE G

### Questionnaires – SurveyMonkey & MailChimp

Partake in the survey to help achieve insights into the generational composition of the Independent Pharmacy Sector

## Pharmacy Survey



### Survey Participation

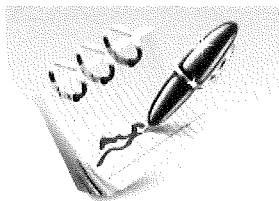
The Independent Pharmacy Sector in South Africa is experiencing numerous challenges, ranging from government legislation and changes to resource challenges. In addition; skills shortages also add to a challenging and dynamic environment. A recent study conducted by (The Professional Provident Society of South Africa, 2013) (PPS) noted that in line with many skilled professionals in South Africa, the shortage of qualified people in pharmacies remains a huge problem.

The value of this study on a theoretical and practical level will aim to contribute additional information with regards to different generations in the workplace. Perceived organisational support and self efficacy have been researched to some extent; whereas productive organisational energy in the South African environment has not been widely researched. The study is also expected to provide insights into the generational composition of the Independent Pharmacy Sector of South Africa that could potentially assist in cross-generational understandings and addressing critical skills shortages and training gaps within the Independent Pharmacy Sector of South Africa.

#### Online Survey



It seems like more needs to be done to secure a bright future for the Independent and Community Pharmacy Sector in South Africa to combat the numerous challenges facing the sector. It appears as if limited local research has been done combining different generations with perceived organisational support, self efficacy and productive organisational energy. This study: *"The Impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa"* aims to investigate the impact of the above and contribute not only to the existing body of knowledge on the above constructs in a South African context but also combine them in a unique way.



### Save it for later

If you are unable to do the survey right now, click on the link below and download the PDF version of the survey. Complete it at a more convenient time and send it to [belinda.b@cjpharm.co.za](mailto:belinda.b@cjpharm.co.za) when you're done.

[download PDF](#)

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*permission was given to Belinda Botes to send this survey to you. If this is not true, click on the unsubscribe link below*

**Our mailing address is:**

CJ Pharmaceuticals

4th St

Delmas, MP 2210

South Africa

**Add us to your address book**



**Important Academic Research Study - VOLUNTARY & ANONYMOUS**

***The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.***

Informed consent for participation in an academic research study through the Department of Industrial Psychology, North West University.

Dear Respondent:

You are cordially invited to participate in an academic research study conducted by Ms. Belinda Botha, a Master's student from the Department of Industrial Psychology at North West University, Mafikeng Campus.

The purpose of the study is to investigate the impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa. The final outcome of the study should provide important insights into the current state and future of the Independent Pharmacy Sector in South Africa as well as the generational composition of the industry. This could potentially assist in cross-generational understandings and addressing critical skills shortages and training gaps within the Independent Pharmacy Sector of South Africa

Kindly take note of the following important information:

The survey in this study will be anonymous. Neither your name: nor your specific company details will appear on the questionnaire or any other communication regarding the study. The response you give will be treated as strictly confidential. You cannot be identified in person based on the answers you give.

Your participation in this study is critical to the success of this study. You are, however, free to not participate at all or stop participating at any time during the survey process should you wish to do so.

The results of the study will be used for academic reasons only and could be published in an academic journal. Should you wish to receive a summary of the findings of this study, please contact Ms. Belinda Botha on the contact details provided further below.

The data collected online via SurveyMonkey below will be kept confidential with a unique survey link for each participant covering 30 items in total. Please answer all questions honestly; completion should not take longer than 20 minutes. The data will be interpreted and reflected in a truthful manner. The storage of data will be archived electronically and kept confidential as per stipulated periods.

Please contact the study supervisor, Prof. Sonia Swanepoel, Executive Dean, Faculty of Commerce and Administration via email on [sonia.swanepoel@nwu.ac.za](mailto:sonia.swanepoel@nwu.ac.za), should you have any questions or comments regarding the study.

By starting this survey you acknowledge the following:

You have read and understood the information provided above.

You give consent to participate in the study on a voluntary basis.

Thank you for your participation!

Research conducted by:

Ms. Belinda Botha (25160664)

Cell: 076 373 2964

Email: [bothabelinda@hotmail.com](mailto:bothabelinda@hotmail.com)

Next



**Important Academic Research Study - VOLUNTARY & ANONYMOUS**

***The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.***

**Part 1 – Biographical Information**

*Please answer the following biographical questions truthfully by clicking in the appropriate block or circle.*

**1. What is your gender?**

☐ Male

☐ Female

**2. What is the language you speak at home?**

☐ Afrikaans

☐ English

☐ Sepedi

☐ Sesotho

☐ Setswana

☐ isiSwati

☐ isiZulu

☐ isiNdebele

☐ isiXhosa

☐ isiTsonga

☐ Tshivenda

**3. What is your race?**

☐ African

☐ Coloured

☐ Indian

☐ White

Other (please specify)

---

**4. When were you born?**

- ☐ Between 1901-1945
- ☐ Between 1946-1964
- ☐ Between 1965-1985
- ☐ Between 1986-1990
- ☐ Between 1990-2007

**5. What is your occupational level?**

- ☐ Top Management
- ☐ Senior Management
- ☐ Professionally Qualified or Specialist or Mid Management
- ☐ Skilled Technical, junior management or supervisors
- ☐ Semi-skilled, non managerial
- ☐ Unskilled

**6. What is your highest education level/qualification?**

- ☐ Grade 12/ Matric or below
- ☒ Certificate
- ☐ Diploma
- ☐ Advanced Diploma
- ☐ Bachelor's Degree
- ☐ Master's Degree or above

**7. In which province is the pharmacy you work for?**

- ☐ Limpopo
- ☐ Gauteng
- ☐ Kwa-Zulu Natal
- ☐ Mpumalanga
- ☐ Western Cape
- ☐ Northern Cape
- ☐ Eastern Cape
- ☐ North West
- ☐ Free State

**8. In which area of your pharmacy do you work?**

- ☐ Front Shop
- ☐ Dispensary
- ☐ Receiving
- ☐ Admin
- ☐ Support

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### Important Academic Research Study - VOLUNTARY & ANONYMOUS

***The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.***

#### Part 2 - Survey of Perceived Organisational Support

*Listed below are statements that represent possible opinions that YOU may have about working at your pharmacy or about yourself. Please indicate the degree of your agreement or disagreement with each statement by clicking on the appropriate block or circle next to the number that best represents your point of view about your pharmacy.*

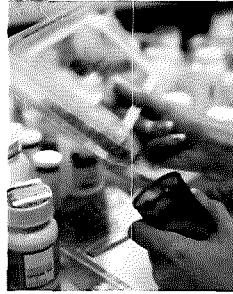
1. Please answer the following eight (8) questions in part two (2) of this questionnaire.

|                                                               | Strongly Disagree     | Moderately Disagree   | Slightly Disagree     | Neither Agree nor Disagree | Slightly Agree        | Moderately Agree      | Strongly Agree        |
|---------------------------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| 1. The pharmacy values my contribution to its well-being.     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. The pharmacy fails to appreciate any extra effort from me. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. The pharmacy would ignore any complaint from me.           | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

|                                                                            |                       |                       |                       |                       |                       |                       |                       |
|----------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 4. The pharmacy really cares about my well-being.                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Even if I did the best job possible, the pharmacy would fail to notice. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. The pharmacy cares about my general satisfaction at work.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. The pharmacy shows very little concern for me.                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. The pharmacy takes pride in my accomplishments at work.                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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**Important Academic Research Study - VOLUNTARY & ANONYMOUS**

***The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.***

**Part 3 - New General Self-Efficacy Scale**

*Listed below are statements that represent possible opinions that YOU may have about working at your pharmacy or about yourself. Please indicate the degree of your agreement or disagreement with each statement by clicking on the appropriate block or circle that best represents your point of view about your pharmacy.*

**1. Please use the scale below to rate your agreement (or disagreement) with each of the following eight (8) statements about yourself in part three (3) of this questionnaire.**

|                                                                             | Strongly Disagree     | Disagree              | Neutral               | Agree                 | Strongly Agree        |
|-----------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. I will be able to achieve most of the goals that I have set for myself.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. When facing difficult tasks, I am certain that I will accomplish them.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. In general, I think that I can obtain outcomes that are important to me. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

|                                                                           |                       |                       |                       |                       |                       |
|---------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 4. I believe I can succeed at most any endeavour to which I set my mind.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. I will be able to successfully overcome many challenges.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. I am confident that I can perform effectively on many different tasks. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Compared to other people, I can do most tasks very well.               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Even when things are tough, I can perform quite well.                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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### Important Academic Research Study - VOLUNTARY & ANONYMOUS

***The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.***

#### Part 4 - Productive Organisational Energy Measure

*Listed below are statements that represent possible opinions that YOU may have about working at your pharmacy OR about yourself. Please indicate the degree of your agreement or disagreement with each statement by clicking on the appropriate block or circle that best represents your point of view about your pharmacy.*

##### 1. Section 1 – Affective Dimension

|                                                            | Never                 | Rarely                | Sometimes             | Often                 | Frequently if Not Always |
|------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------|
| 1. People in my work group feel excited in their job.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    |
| 2. People in my work group feel enthusiastic in their job. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    |
| 3. People in my work group feel energetic in their job.    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    |

|                                                        |                       |                       |                       |                       |                       |
|--------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 4. People in my work group feel inspired in their job. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. People in my work group feel ecstatic in their job. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## 2. Section 2 – Cognitive Dimension

|                                                                            | Never                 | Rarely                | Sometimes             | Often                 | Frequently if Not Always |
|----------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------|
| 1. My work group is ready to act at any given time.                        | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    |
| 2. People in my work group are mentally alert.                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    |
| 3. In my work group there is a collective desire to make something happen. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    |
| 4. People in my work group really care about the fate of this pharmacy.    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>    |

## 3. Section 3 – Behavioural Dimension

|                                                                                      | Strongly Disagree     | Disagree              | Sometimes Agree       | Agree                 | Strongly Agree        |
|--------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. People in my work group are always on the lookout for new opportunities.          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. People in my work group will go out of their way to ensure the pharmacy succeeds. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. People in my work group often work extremely long hours without complaining.      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. There has been a great deal of activity in my work group.                         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. People in my work group are working at a very fast pace.                          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## VOLUNTARY AND ANONYMOUS RESEARCH QUESTIONNAIRE

The impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa.

Research conducted by:  
Ms. Belinda Botha (25160664)  
Cell: 076 373 2964  
Email: bothabelinda@hotmail.com

Dear Respondent;

Informed consent for participation in an academic research study through the Department of Industrial Psychology, North West University

You are cordially invited to participate in an academic research study conducted by Ms. Belinda Botha, a Master's student from the Department of Industrial Psychology at North West University, Mafikeng Campus.

The purpose of the study is to investigate the impact of Perceived Organisational Support on Self-Efficacy and Productive Organisational Energy across different Generations in the Independent Pharmacy Sector of South Africa. The final outcome of the study should provide important insights into the current state and future of the Independent Pharmacy Sector in South Africa as well as the generational composition of the industry. This could potentially assist in cross-generational understandings and addressing critical skills shortages and training gaps within the Independent Pharmacy Sector of South Africa

Kindly take note of the following important information:

- The survey in this study will be anonymous. Neither your name; nor your specific company details will appear on the questionnaire or any other communication regarding the study. The response you give will be treated as strictly confidential. You cannot be identified in person based on your answers.
- Your participation in this study is critical to the success of this study. You are, however, free to not participate at all or stop participating at any time during the survey process should you wish to do so.
- The results of the study will be used for academic reasons only and could be published in an academic journal. Should you wish to receive a summary of the findings of this study, please contact Ms. Belinda Botha on the contact details provided above.
- Please answer all questions honestly; completion should not take longer than 20 minutes. The data will be interpreted and reflected in a truthful manner. The storage of data will be archived electronically and kept confidential as per stipulated periods.
- Please contact the study supervisor, Prof. Sonia Swanepoel, Executive Dean: Faculty of Commerce and Administration via email on sonia.swanepoel@nwu.ac.za, should you have any questions or comments regarding the study.

By starting this survey you acknowledge that you have read and understood the information provided above and that you give consent to participate in the study on a voluntary basis.  
Thank you for your participation!

\_\_\_\_\_  
Respondent's signature

Day:

Month:

This voluntary survey consists of Part one (1) to five (5). Part one (1) will cover your biographic and demographic information and Part two (2) to Part five (5) covers the actual questionnaire, totalling 30 individual questions across all separate parts.

# Part 1

## Biographical Information

Please answer the following biographical questions truthfully by marking your answer with an "X" in the appropriate block above the applicable answer.

1. What is your gender?

- ☐ Male ☐ Female

2. What is the language you speak at home?

- ☐ Afrikaans ☐ English ☐ Sepedi ☐ Sesotho ☐ Setswana ☐ isiSwati  
☐ isiZulu ☐ isiNdebele ☐ isiXhosa ☐ isiTsonga ☐ Tshivenda

3. What is your race?

- ☐ African ☐ Coloured ☐ Indian ☐ White ☐ Other

4. In which year were you born?

- ☐ Between 1901 - 1945 ☐ Between 1946 - 1964 ☐ Between 1965 - 1985  
☐ Between 1986 - 1990 ☐ Between 1990 - 2007

5. What is your occupational level?

- ☐ Top Management  
☐ Senior Management  
☐ Professionally Qualified or Specialist or Mid Management  
☐ Skilled Technical, junior management or supervisors  
☐ Semi-skilled, non managerial  
☐ Unskilled

6. What is your highest education level/qualification?

- ☐ Grade 12/ Matric or below  
☐ Certificate  
☐ Diploma  
☐ Advanced Diploma  
☐ Bachelor's Degree  
☐ Master's Degree or above

7. In which province is the pharmacy you work for?

- ☐ Limpopo ☐ Gauteng ☐ Kwa-Zulu ☐ Natal ☐ Mpumalanga  
☐ Western Cape ☐ Northern Cape ☐ Eastern Cape ☐ North West ☐ Free State

8. In which area of your pharmacy do you work in?

- ☐ Front Shop ☐ Dispensary ☐ Receiving ☐ Admin ☐ Support

# Part 2

## Survey of Perceived Organisational Support

Listed below and on the next several pages are statements that represent possible opinions that YOU may have about working at your pharmacy or about yourself. Please indicate the degree of your agreement or disagreement with each statement by marking your answer with an "X" in the appropriate block next to the number that best represents your point of view about your pharmacy.

Please answer the following eight (8) questions in part two (2) of this questionnaire.

1. The pharmacy values my contribution to its well-being.
2. The pharmacy fails to appreciate any extra effort from me.
3. The pharmacy would ignore any complaint from me.
4. The pharmacy really cares about my well-being.
5. Even if I did the best job possible, the pharmacy would fail to notice.
6. The pharmacy cares about my general satisfaction at work.
7. The pharmacy shows very little concern for me.
8. The pharmacy takes pride in my accomplishments at work.

| Strongly<br>Disagree  | Disagree              | Neutral               | Agree                 | Strongly<br>Agree     |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
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| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

# Part 3

## New General Self-Efficacy Scale

Listed below and on the next several pages are statements that represent possible opinions that YOU may have about working at your pharmacy or about yourself. Please indicate the degree of your agreement or disagreement with each statement by marking your answer with an "X" in the appropriate block next to the number that best represents your point of view about your pharmacy.

Please use the scale below to rate your agreement (or disagreement) with each of the following statements about yourself.

1. I will be able to achieve most of the goals that I have set for myself.
2. When facing difficult tasks, I am certain that I will accomplish them.
3. In general, I think that I can obtain outcomes that are important to me.
4. I believe I can succeed at most any endeavour to which I set my mind.
5. I will be able to successfully overcome many challenges.
6. I am confident that I can perform effectively on many different tasks.
7. Compared to other people, I can do most tasks very well.
8. Even when things are tough, I can perform quite well.

| Strongly<br>Disagree  | Disagree              | Neutral               | Agree                 | Strongly<br>Agree     |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

# Part 4

## Productive Organisational Energy Measure

Listed below and on the next several pages are statements that represent possible opinions that YOU may have about working at your pharmacy or about yourself. Please indicate the degree of your agreement or disagreement with each statement by marking your answer with an "X" in the appropriate block next to the number that best represents your point of view about your pharmacy.

### Section 1 – Affective Dimension

1. People in my work group feel excited in their job.
2. People in my work group feel enthusiastic in their job.
3. People in my work group feel energetic in their job.
4. People in my work group feel inspired in their job.
5. People in my work group feel ecstatic in their job.

|                       |                       |                       |                       |                             |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------------|
| Never                 | Rarely                | Sometimes             | Often                 | Frequently if<br>Not Always |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>       |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>       |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>       |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>       |

### Section 2 – Cognitive Dimension

6. My work group is ready to act at any given time.
7. People in my work group are mentally alert.
8. In my work group there is a collective desire to make something happen.
9. People in my work group really care about the fate of this pharmacy.

|                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Strongly<br>Disagree  | Disagree              | Sometimes<br>Agree    | Agree                 | Strongly<br>Agree     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

### Section 3 – Behavioural Dimension

10. People in my work group are always on the lookout for new opportunities.
11. People in my work group will go out of their way to ensure the pharmacy succeeds.
12. People in my work group often work extremely long hours without complaining.
13. There has been a great deal of activity in my work group.
14. People in my work group are working at a very fast pace.

|                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Strongly<br>Disagree  | Disagree              | Sometimes<br>Agree    | Agree                 | Strongly<br>Agree     |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Submit  
Form**

**We thank you for your  
participation**