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Organisational energy and performance: relevance and implications among knowledge workers

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Abstract

Organisations seek methods to maximise performance in order to be successful. The purpose of this study was to examine and empirically quantify the drivers of organisational energy in relation to driving organisational performance. Organisational energy can be seen as the power source that ignites all aspects of organisational climate and behaviour. Most importantly, this study sought to develop the existing theory further and to operationalise the variables for organisations.

A quantitative analysis was conducted on data collected from 292 knowledge workers across a wide range of industries. A questionnaire was used to measure respondents' observations on the drivers of organisational energy and performance in the workplace. Statistical techniques including factor analysis, regression analysis and analysis of variance were applied to determine whether significant relations exist amongst the variables.

In complementing and expanding on preceding research, this study provided empirical evidence of the relationship between organisational energy and organisational performance. It also demonstrated the most statistically significant drivers of organisational energy to be that of innovation followed by collective identity and engagement.

Key Words

Knowledge Worker

Organisational Energy

Organisational Performance

Innovation

Declaration

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

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'*Fear not for I am with you;*

Be not dismayed, for I am your God.

I will strengthen you. Yes, I will help you.

I will uphold you with My righteous right hand.'

(Isaiah 41:10)

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1. CHAPTER ONE: INTRODUCTION TO THE RESEARCH PROBLEM

1.1. The Research Problem

A review of relevant literature reveals a positive link between organisational energy and organisational competitiveness and performance (Cole & Bruch, 2006; Quinn & Dutton, 2005). These authors' purport that high levels of energy within an organisation can enhance business productivity. Therefore, organisations would presumably seek to increase this energy. In order to do so, additional knowledge is sought on the constituent drivers and predictors of organisational energy, as well as the possible correlation between these drivers.

Preliminary research has revealed that knowledge of the drivers and attributes of productive organisational energy is limited. Moreover, there is a lack of empirical investigation to deduce predictions and correlations sufficiently. The dearth of research in this field, as noted by Cameron and Caza (2004), is due to the complexity of measuring and quantifying organisational energy.

Furthermore, the correlation of organisational energy with performance requires further validation. The body of knowledge to date has reflected a broad assumption that organisational energy translates into productivity. Thus far, however, this inference has not been made explicit or validated through empirical study.

It is the central premise of this dissertation, therefore, that the drivers and attributes of organisational energy warrant further clarification and

measurement. It also attempts to demonstrate the connection between organisational energy and performance.

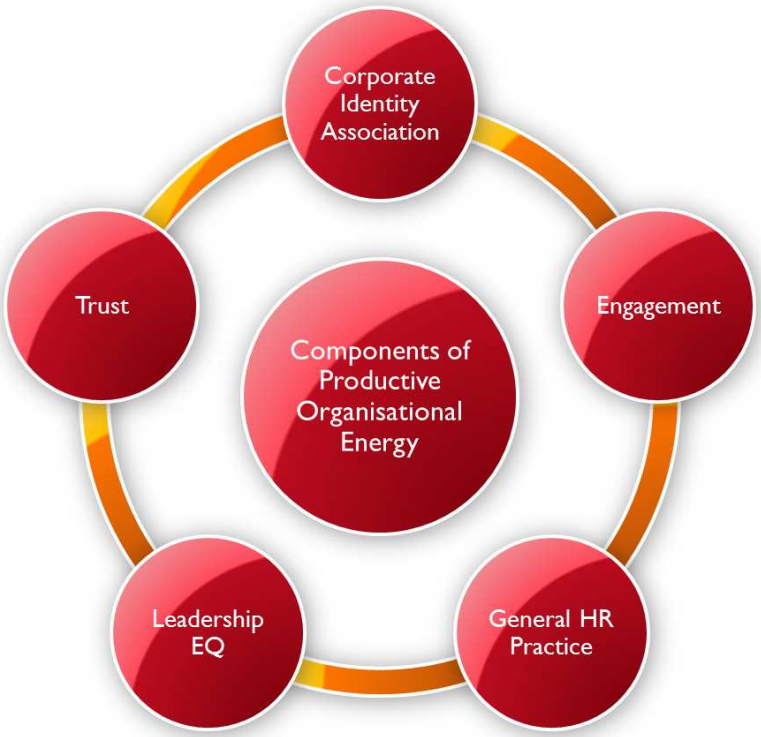
1.2. Background to the Research

In an attempt to obtain clarification on the drivers of organisational energy, an overview was conducted of existing literature dedicated to examining the landscape of organisational energy. Two key empirical studies were identified that focused on the measurement of organisational energy. These were the works of Lamberti (2010) and Derman (2008). The Lamberti (2010) study formed the primary foundation for this dissertation, whilst the Derman (2008) study contributed further postulations for inclusion.

The study conducted by Lamberti (2010) sought to clarify the key drivers of productive organisational energy among knowledge workers. Knowledge workers are defined as educated individuals, possessing specialist skills, and those working directly with information (Drucker, 1999).

Lamberti (2010) utilised the scales of intensity and quality as key measures which were developed by Bruch, Vogel and Morhart (2005). Based on qualitative interview enquiries, Lamberti (2010) identified five broad drivers of productive organisational energy that mimicked earlier research by Bruch *et al* (2005). These drivers are reflected in Figure 1. Each driver comprised independent variables which were then empirically tested.

Figure 1: Drivers of productive organisational energy



Source: Lamberti, 2010.

Of the five factors, Lamberti's (2010) findings revealed that trust, corporate identity association, and engagement were the most significant in driving organisational energy. This investigation employed all five factors as the foundational categories for research. The factors were further extrapolated to create meaningful working definitions in the form of independent variables. The independent variables were used to solicit responses in the research survey which sought to augment the existing knowledge of the drivers of organisational energy that drive performance.

1.3. Objectives of the Research

The Lamberti (2010) study contributed to an improved understanding of organisational energy but did not probe nor reveal any significant correlations amongst the drivers and attributes of organisational energy of the dependent and independent variables. Lamberti (2010) used the concepts of components, factors and drivers as working definitions interchangeably throughout the study. This resulted in ambiguity in theoretical and statistical definitions. To establish clarity, this study will use a single definition of these concepts, herein classified as drivers, both theoretically and empirically.

Furthermore, the independent variables were not categorised according to the five identified factors. This resulted in a disproportionate interrogation which exceeded the quantity required for the utilised sample size of 200. Future research would need to scrutinise the identified factors for empirical relevance and applicability. It would also have to refine, amend and adapt the quantitative questionnaire used by Lamberti (2010), focusing on the constitution, wording, consistency and length.

The Derman (2008) study measured organisational energy within a financial institution, more specifically with regard to individual well-being. Based on the restricted analytical segment, the results of the study could only be generalised to the target audience of similar environments. The author recommended that a comparison study be undertaken amongst a broad range of organisations. Following the recommendation by Derman (2008), this research also included new constructs such as the size of an organisation, the type of organisation,

and the type of industry. The dual purpose of this was to generalise the findings amongst various industries and to determine potential correlations between the key drivers of organisational energy and organisational size, organisational type and industry type.

Derman's (2008) research methodology solicited responses to the questionnaire via key managers in the financial institution. This was listed as a limitation of the study; a more direct approach would have resulted in a higher, and potentially more authentic, response rate. Following the findings by Derman (2008), this research solicited responses directly from the sample group and did not rely on third party agents.

This study aimed to address the limitations of the research cited above by refining and improving both the dependent and the independent variables used in the analysis of organisational energy. More specifically, this study sought to quantify those attributes that create high levels of energy and to robustly test the correlation amongst these attributes in order to determine the linkage between organisational energy and performance.

This dissertation, however, is not an attempt to find evidence of direct causality between the drivers of organisational energy and organisational performance. Rather, it sought to clarify the drivers of organisational energy, the relation between this dependent variable and the output variable of organisational performance, and finally to assess the strength of these relationships.

1.4. Research Scope

This study has complemented and expanded on Lamberti (2010). It consisted of three segments: firstly, a review of the drivers and attributes of organisational energy, a refinement of the dependent and independent variables and a restructuring of the questionnaire design.

The second segment introduced new research topics and explored the correlation between the drivers of organisational energy, organisational size, industry, organisational type or locality, and organisational performance.

The third segment was a quantitative study. A questionnaire was designed and administered to 295 knowledge workers in order to record their views on the state of organisational energy in their respective industries and organisations. Statistical analysis was thereafter applied in order to identify the most important driver variables that propel organisational energy based on their inter-correlations.

Knowledge workers were selected as the target sample as their levels of intellectual sophistication needed to understand the attributes of organisational energy, as reflected in the questionnaire.

1.5. Motivation for the Research

1.5.1. Implications of the Research

The outcome of this study was a strengthened empirical investigation which will add to the body of knowledge on the drivers of organisational energy and the

relationships amongst them. It will present new theory that can be applied to business problems. The intention is that organisations will utilise the findings to predict, cultivate and extend the key drivers of organisational energy that will ultimately enhance performance and competitiveness.

To the academic community, this study will provide further clarification on the drivers and attributes of organisational energy, the correlation among the independent and dependent variables, and the impact, if any, of organisational size, industry and locality. It has pioneered an attempt to assess the relationship between organisational energy and performance.

1.5.2. Relevance of Research to Business

Given the rapid changes in the current global economy, the success of businesses depends to a large extent on their ability to adapt and to remain competitive (Jamrog, Vickers, Overholt & Morrison, 2008). This agility, in part, depends on the efficiency of the workforce and the human capital within any organisation. Organisational energy is a key driver of workforce efficiency and engagement.

Hence, if the attributes of organisational energy can be further clarified and empirically proven, these can be employed and driven by organisations. A greater understanding of the correlation between organisational energy and performance will serve to equip businesses with fresh knowledge with which they can leverage organisational energy to ensure success.

The findings on organisation size can be generalised and applied to various institutions in order to ascertain the applicable drivers of organisational energy that may be most suitable for that business.

The level of intellectual sophistication among knowledge workers will facilitate a greater awareness of the attributes of organisational energy which they will be exposed to in the questionnaire. Due to their levels of influence within organisations, particularly within the specialist and managerial levels, they will be best positioned to identify and drive the applicable organisational energy drivers for greater performance.

1.6. Conclusion

Hamel (2007) asserts that knowledge workers individually contribute both tacit and explicit intellectual property to an organisation, as well as determining their own contributions towards performance. Thus, they collectively influence the organisational level of performance. Higher performing organisations contain higher levels of productive organisational energy and are able to return greater shareholder value (Bierema, 2008). Hence, it is to an organisation's advantage to harness and drive higher organisational energy levels.

By understanding the key attributes that create a productive and energised environment, organisational leaders will be able to diagnose and remedy the organisational energy issues that may exist within an organisation. Such proactive actions will ensure that it can perform to its full potential.

This research has produced an empirical foundation of organisational energy and its key drivers as they relate to performance. The study therefore deepens the understanding of the relevance and implications of organisational energy among knowledge workers.

2. CHAPTER TWO: LITERATURE REVIEW

An historical overview of management and organisational literature, pertaining to organisational energy, reveals an academic and business disregard for its significant role and relevance in driving performance within the knowledge worker environment.

2.1. Theory and Concept of Organisational Energy

The construct of organisational energy has been prevalent in both the academic and business environments since the 1980s. The construct emanated from the work of Drucker (1959, 1999) whose work on management and leadership theories laid the foundation that stimulated future research. The concept of organisational energy gained greater attention, by both theorists and practitioners, in recent times.

Amongst the early theorists on organisational energy, Smith and Tosey (1999) introduced the framework of a dynamic, learning organisation. Within this framework, they conceived organisations as being an energy system and developed an early theoretical model of organisational energy based on an holistic approach. The model defined seven dimensions, namely; inspiration, integration, meaning, community, control, activity and existence. The authors postulated that the dimensions exist in all organisations and become apparent in different circumstances.

This holistic approach was further developed by Tosey and Llewellyn (2002) when they applied the model in an organisational consultancy project that influenced the areas of coaching and education.

Dutton (2003) described organisational energy as the "fuel that makes great organizations run", viewing it as a resource within organisations that could be regenerated and activated when required. Quinn and Dutton (2005) also described energy as "a type of positive affective arousal, which people can experience as emotion – short responses to specific events – or mood – longer lasting affective states that need not be a response to a specific event".

Bruch and Ghoshal (2003) maintained that companies differed in both the intensity and quality of energy within four energy zones, namely; aggression zone, passion zone, resignation zone and comfort zone. Their definition of intensity refers to the strength of organisational energy as seen in the level of activity, the amount of interaction, the extent of alertness, and the extent of emotional excitement. Their definition of quality refers to organisational energy characterised as positive energy such as enthusiasm, joy and satisfaction; or negative energy such as fear, frustration or sorrow. Symptoms of lower energy were apathy and inertia, tiredness, inflexibility and cynicism. They maintain that at any given point in time an organisation is usually in a particular energy state.

Bruch and Ghoshal (2003) developed a tool to measure intensity and quality. Intensity of organisational energy measured the relative strength of emotional climate that is latent within the organisation during day-to-day operations or

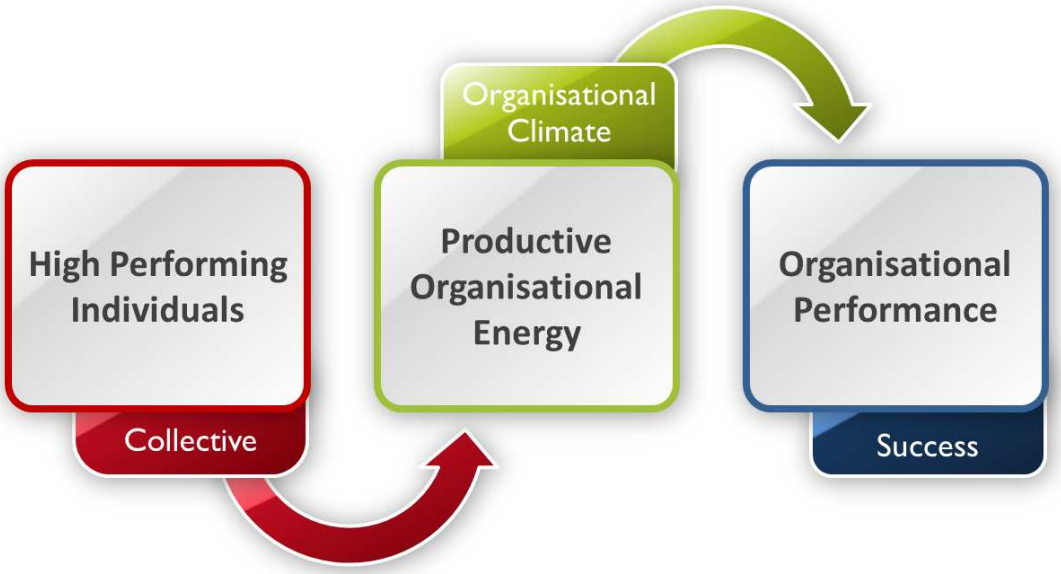
production. The quality of energy related to how efficiently organisations harnessed the organisational energy present within it. While their study was not based on empirical evidence, Bruch and Ghoshal (2003) are considered the prominent classic theorists in the field of organisational energy.

Shirom (2005) conducted research on vigour within organisations and asserted that organisational climate had an impact on an individual's vigour (well-being), which then impacted on various factors such as the individual's performance and organisational effectiveness. This alludes to the interaction between the organisational culture and climate and its impact on the individual.

Literature has broadly revealed that definitions of organisational energy are linked to the output of organisational performance. Whilst the concept of organisational energy is implicit, empirical evidence does point to a definite correlation between the presence of organisational energy and organisational performance.

This study will investigate the assumption that collective internal energy within high performing individuals lead to a climate of organisational energy, which in turn leads to improved organisational performance, as reflected in Figure 2.

Figure 2: The potential impact of organisational energy on organisational performance



2.2. Organisational Performance

2.2.1. Performance and Productivity

A review of literature relating to organisational energy observes that the terms 'productivity' and 'performance' are used interchangeably to define a form of organisational output. Lamberti (2010) provides an analysis of the drivers of 'productive' organisational energy. Bruch and Ghoshal (2003), however, identified the link between individual emotions, organisational behaviour and targeted 'performance'. The ability to harness and channel or release organisational energy in the workplace to achieve goals is perceived as a measure of performance.

For the purposes of this study, it is imperative to lucidly categorise the distinction between 'productivity' and 'performance' as an output of

organisational energy. Even though these terms are deployed interchangeably, the terms semantically denote different interpretations. This study accepts the universal business application of the term 'performance' within a broad understanding. It considers the deployment of human capital as an output consequence of organisational input. This is in contrast to the terminology of 'productivity', which is perceived as a technical and economic notion that connotes yield, output, efficiency and production.

The generally accepted economic definition of productivity is simplified to assume the outcome or output of an organisation's utilisation of inputs (Organisation for Economic Co-operation and Development, 2001). Rogers (1998), notes that productivity implies efficiency. At an operational or economic level, productivity can be measured as the relationship between outputs and inputs within an operational production environment. Within this definition, productivity is perceived as a direct influence on levels of efficiency.

Literature to date regards the term 'performance' within a much broader context. Performance, as perceived in a universal business management context, is considered as the all encompassing result of a mobilised organisational system (Richard, Yip, Devinney & Johnson, 2009). This includes all indicators relating to organisational effectiveness that are measurable using different methodologies.

2.2.2. Organisational Effectiveness

Richard *et al* (2009) provided a general working definition in management theory of 'organisational performance'. This pertains to the relationship

between three elements: time, participating invested parties, and a variety of contributing situational factors of a product and its market positioning. This performance may be measured using differing methodologies and dependent theory constructs. Organisational performance therefore may be gauged by its organisational effectiveness, namely the relationship between the organisation and its ability to achieve its goals.

Bruch and Ghoshal (2003) noted that there was a contemporary shift away from a technical understanding of the concept of performance to the 'soft-factors'. These 'soft-factors' included individual emotional states that contribute to organisational energy states. These factors have begun receiving specific attention in recent decades. Bruch and Ghoshal (2003) further explain that the imperative rests with organisational leadership to capture and channel positive emotions. This creates productive organisational energy which in turn leads to the achievement of overarching targeted performance.

2.2.3. Organisational Success

Flamholtz and Askehirli (2000) measured organisational success empirically against the achievement of set targets and goals. Organisations were regarded as successful if key objectives were met and if they were generally satisfied with their overall performance.

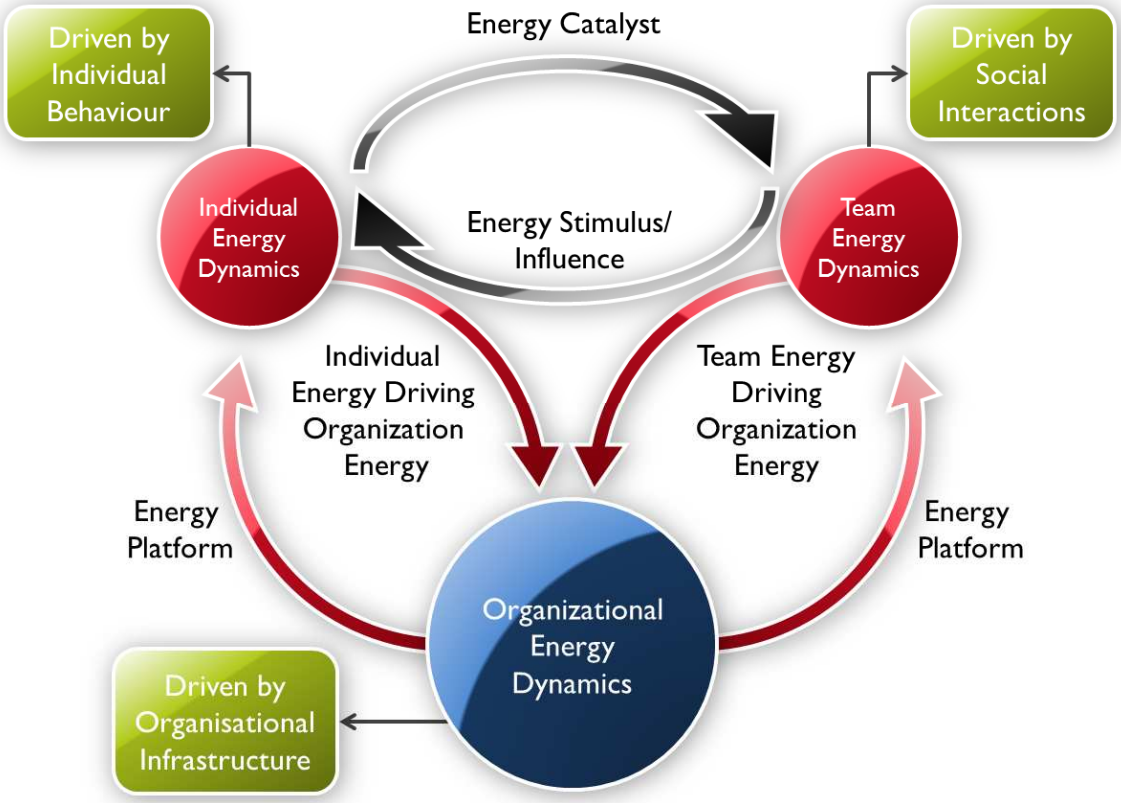
Bruch and Ghoshal (2003) also observed organisational energy as a critical contributing element to success and high performance stating that "without a

high level of energy, a company cannot achieve radical productivity improvements, cannot grow fast and cannot create major innovations".

2.2.4. Organisational Energy and Performance

Schuima, Mason and Kennerly (2007) recognised the relationship between individual and organisational energy and business performance. They identified three main sources of energy interplay within an organisation, namely organisational infrastructure, social interaction and individual behaviour, as reflected in Figure 3.

Figure 3: Energy dynamics in organisations



Source: Schuima *et al*, 2007.

Schuima *et al* (2007) concluded that organisational energy is a dependent rather than an independent variable, in the analysis of organisational success and competitiveness. This therefore reveals a direct correlation between organisational energy and performance. This energy comprises a cognitive, physical and emotional contribution which primarily serves as a behavioural impetus that motivates. This in turn impacts on the organisational performance.

Cole, Bruch and Vogel (2011) empirically validated the relationship between the collective energy of individuals in an organisation and the performance of those companies. In two surveys conducted in 92 organisations, the authors validated

a hypothesis of 'productive measured energy (PME)'. They also assessed the correlation between internal criteria such as commitment to goals, organisational commitment and job satisfaction. This was then measured against the unit of productive energy. The survey results proved a catalyst link between the internal variables of the organisations and its performance output in units of 'PME'.

2.3. Knowledge Workers

Drucker (1959) first conceptualised and coined the notion of the 'knowledge worker'. The changing landscape of the post-industrialist age of business saw a shift from the emphasis on the factory worker, or 'blue collar' worker, to a new type of human resource to integrate with the information age. This definition led to his later work on knowledge worker productivity in 1999.

Spira (2005) created a working definition of the knowledge worker as employees that have a specialised area of knowledge. Donnelly (2008) also refers to the higher skill levels of knowledge workers within the broad environment of the knowledge economy. The knowledge economy is a contemporary consequence of the onset of globalisation and the power of the information age (Skoog, 2009).

The concept of knowledge worker is also built on Snowdon's (2000) Cynefin framework of knowledge management and organisational theory. The model conceptualises complex systems within the knowledge economy. It assists in

decision-making processes among knowledge workers dealing with different contexts, information and choices.

Information is regarded as the key commodity within the knowledge worker economy. Hence, the complexity of the knowledge worker environment requires the refined, more sophisticated skills of decision-making, critical thinking and vision (Cross, Baker & Parker, 2003).

Cross, Baker and Parker (2003) also identified relationships between knowledge workers as a 'social network' or a web of active agents. They defined contributors within this network who they termed as 'energizers' or 'de-energizers'. These contributors were, hence, actively able to contribute to the energy levels and to channel performance within the knowledge worker environment.

An important underlying construct of this study is to examine the role of organisational energy within the knowledge worker environment. This is due to the preceding literature which states that knowledge workers have attained a level of sophistication within organisations to serve as energy catalysts.

2.4. The Drivers of Organisational Energy

2.4.1. Review of the Key Drivers of Organisational Energy

A review of the most relevant literature on organisational energy was conducted. The most recent empirical study on organisational energy was conducted by Lamberti (2010) and formed the basis for further research in this

dissertation. Lamberti's (2010) study was founded on the theory of trust (Morgan & Hunt, 1994) and emotional intelligence (Goleman, 2004). He collated constructs from literature and further expounded on the various factors or drivers that contributed to a state of organisational energy.

Lamberti (2010) found that productive organisational energy was influenced by people and organisational influences. At the individual level, this behaviour is manifested as a positive emotional response to the individual's task.

Productive energy can create positive perceptions in the individual which can constructively influence their ability to address challenges within an organisation (Donnelly, 2008; Cherniss, Extein, Goleman & Weissberg, 2006). These positive emotions result in an increase in creativity in knowledge workers and ultimately in a greater degree of worker retention (Bierema, 2008).

The link to performance in organisations has also been attributed to emotion in organisational life. Shirom (2005) stated that "positive emotions have been linked to several performance-related behaviours, including enhanced creativity, more effective decision-making, sales-related pro-social behaviours, and the use of more successful negotiation strategies".

A positive emotional climate also has a significant impact on job satisfaction and employee engagement (Downey, 2008). The interpersonal relationship environment and the organisational environment can positively influence individual behaviour.

Productive organisational energy that is driven by the organisational output results in optimistic individual outputs. Hence, the drivers of productive organisational energy include the worker attitudes, emotional responses and behaviours toward their daily work life (Lamberti, 2010).

According to Schuima *et al* (2007), organisational energy is greater than the sum total of individual energy. The authors suggest that the high levels of individual energy do not necessarily lead to organisational energy. This study intends to investigate organisational energy as an holistic construct.

2.4.2. The Five Factors of Organisational Energy: The Lamberti Study

As a result of his review on people and organisational influences, Lamberti (2010) identified five factors, or drivers, as contributing to organisational energy and arguably, therefore, to organisational performance: general human resource practice, corporate identity association, leadership emotional intelligence, organisational trust and employee engagement, as reflected in Figure 4. The five factors formed his key independent variables. He then derived 54 independent sub-variables aligned to each factor or driver and proceeded with an assessment to empirically validate the relationships amongst the drivers.

Figure 4: Independent drivers of productive organisational energy

Source: Lamberti, 2010.

2.4.3. Determination of the Key Hypothesised Drivers and Independent variables

The key drivers of organisational energy for this study were based on Lamberti's (2010) five factors. Taking into account Lamberti's (2010) limitations, the five drivers were subjected to further research and scrutiny. The drivers evolved, as follows, for the purposes of a more thorough investigation.

2.4.3.1. Hypothesised Driver and Independent Variable 1: Leadership

Organisational energy is described as the interplay between a company's emotional, cognitive and physical states and that individual energy, especially that of leaders, influences organisational energy (Aronson & Pines, 1998).

2.4.3.1.1. Emotional Intelligence

An underlying concept of leadership is the principle of emotional intelligence, also known as EQ. Goleman (2004) is seminal in describing the precise leadership styles or behaviours that enhance organisational performance. He identified six major styles or 'drivers of climate' that are able to be adapted, enhanced or ameliorated. These are based on what he originally devised as his theory of emotional intelligence, or EQ. (Goleman, 1995).

Goleman (2004) defined the five predictor variables of emotional intelligence as self-awareness, self-regulation, motivation, empathy and social intelligence. He found that EQ influenced the ability to be an effective leader. He presented his theory of emotional intelligence as the platform for leadership diagnostics and identified six styles; coercive, authoritative, affiliative, democratic, pacesetting and coaching. A balance and mix of all six styles and their relationship with 'drivers of climate' which includes flexibility, responsibility, standards, rewards, clarity and commitment, all contribute to organisational leadership and as such, performance.

Goleman (2004) cautioned that only four of the six styles positively contributed to raising performance, and the others were detrimental. He noted a correlation between leadership style, what drives the organisational climate or energy, translating into effective performance results.

Örtenblad (2004) observes that in today's uncertain financial climate, the ability of an organisation and its leader is not measured by what they know but

rather by how they learn. This influences the process of learning and the product of learning which leads to change. This demonstrates the relationship between effective leadership, learning and organisational performance.

2.4.3.1.2. Leadership and Innovation

Hamel (2007) observes the changing face of leadership and organisational management. He purports that future organisational sustainability will depend on the level of innovation in management in the future, in both the practice and the process of management. He concluded that it is by virtue of the power of management innovation that organisations will retain strategic advances, a competitive edge and sustained greatness in performance. This again emphasises the important correlation between organisational energy, leadership and performance.

Tushman and O'Reilly III (1996) suggest that the best leaders first mobilise organisational energy, and then focus it within the organisation. Given the contribution and importance of leadership, EQ and accountability to facilitating organisational energy, its inclusion as a variable is justified in the statistical analysis of this study.

2.4.3.2. Hypothesised Driver and Independent Variable 2: Collective Identity

Lamberti (2010) noted that there are two types of organisational citizen behaviour; compliance behaviour, whereby employees abide by the rules and regulations of the organisation; and altruistic behaviour, whereby employees

optimise task execution for the sake of the organisational whole. Lamberti (2010) thus inferred that organisational citizen behaviour leads to higher organisational performance and hence, correlates closely with organisational energy (Cole & Bruch, 2006). He termed this driver as corporate identity association.

An institution or organisation can be defined as a group of individuals co-operating towards a common purpose or organisational goal (Koster & Sanders, 2006). Similarly, Cross and Parker (2004) allude to the 'invisible' social networks that have a significant impact on performance and innovation. Hence, internal organisational networks and internal collaborations play a powerful role in determining organisational brands and performance. Analysis of such groups of belonging can also assist in identifying those groups which have a 'de-energising' effect on organisations.

2.4.3.2.1. Collective Identity and Organisational Values

Ogbor (2001) views corporate culture as a source of organisational harmony and positive self-identity, which represents the "shared philosophies, ideologies, values, assumptions, beliefs, expectations, attitudes, and norms that knit a community together". Hence, a corporate set of values can thus be viewed as a contributor to the organisational climate. Schwartz and McCarthy (2007) also suggest that an organisation should practice its core values in order to increase organisational energy.

2.4.3.2.2. Collective Identity and Branding

The only sub-factor Lamberti (2010) identified as leading to employee citizenship is that of branding. The organisational brand is defined by Kottler and Keller (2009) as the image of the organisation in the market.

Boyd and Sutherland (2006) further asserted that organisations with strong brands can elicit strong positive behavioural responses from employees who align their behaviours and values in a work context with that of the brand. It follows then that a powerful organisational brand can contribute to the organisational performance through an increase in organisational energy.

Hofstede (1998) describes culture as “created, acquired or learned, developed, and passed on by a group of people, consciously or unconsciously, to subsequent generations. It includes everything that a group thinks, says, does and makes – its customs, ideas, mores, habits, traditions, languages, material artefacts, and shared systems of attitudes and feelings – that help to create standards for people to coexist.”

Within an organisation, Hofstede (1998) identified different dimensions of culture such as the power distance between positions, individualism itself, masculinity, uncertainty avoidance, and short-term versus long-term orientation which might include time, space and task orientation. These dimensions differentiate where an organisation might be cultural and can be rated as high or low. The ratings would impact on the energetic levels in that a high power

distance rating between social structure and position in a company could be detrimental to unleashing creativity and imposing limitations on authority.

Organisationally, this culture can be distilled down to organisational values, beliefs and traditions which slowly permeate throughout the organisation as it is passed from one individual to the next through socialisation and 'acculturisation'. (Grobler, Wärnich, Carrell, Elbert & Hatfield, 2006).

Organisational culture also reflects the internal and external priorities of the organisation and how they differ from competitors. The organisational culture is the inherent values as translated from a strategic vision and mission. Research reflects the strong relationship between mission, vision and value statements, and that of performance. These values, positioned strategically, may enhance correlations between organisational energy and performance (Ireland, Hoskisson & Hitt, 2011).

The consensus that emerged from an assessment of the contributions discussed in this section reveal the justification for the inclusion of collective identity, branding and values as a variable in the statistical analysis of this study.

2.4.3.3. Hypothesised Driver and Independent Variable 3: Trust

Morgan and Hunt (1994) set the theoretical groundwork for investigating the role of trust in organisational effectiveness. They examined trust within the organisation as a psychological perception around integrity, and their

experience of caring or competency within a system. Morgan and Hunt (1994) correlated the relationship between trust and other organisational outcomes such as engagement, collaboration, conflict resolution, communication, cooperation, job satisfaction, organisational citizenship and staff retention.

Their research encapsulated efficacy through a marketing lens, but built on the notion of trust as a key contributor to the earliest business management theories of success (Thomas, Zolin & Hartman, 2009). Thomas *et al* (2009) emphasised interpersonal trust between individuals in the workplace as well as its constitution of intra-organisational trust.

Alston and Tippett (2009) postulated that trust is an output from an individual's perceptions and attitudes of the integrity, caring and competence of another individual or an organisation. The virtue of trust is honed from experience with that individual or organisation.

The notion of trust will comprise the area of ethics, autonomy, transparency and fairness. The consensus that emerges from an assessment of the contributions discussed in this section reveal the justification for the inclusion of trust as a variable in the statistical analysis of this study.

2.4.3.4. Hypothesised Driver and Independent Variable 4: Employee Engagement

Employee engagement is the emotional involvement of the workforce with the outcomes of the organisation (Hamel, 2007). Employee engagement is

demonstrated by a willingness that goes beyond the norm, to contribute knowledge to the organisation. Such commitment creates employee engagement and therefore a high level of productive organisational energy (Dewhurst, Guthridge & Mohr, 2010).

Rijamampianina (1996) discusses employee motivational processes that reflect common needs or shared values and observes that all people want to be 'productive, to be recognised and rewarded, have fairness attributed to them, feel secure in their workplace and have a shared sense of belonging'. He concluded a direct relationship between enhanced performance, the ability of an employee, their competence, opportunities offered, and motivation in the workplace.

Lamberti's (2010) findings revealed no correlation amongst the independent variables comprising employee engagement. The use of fewer variables regarding employee engagement would have allowed for multi-variate analysis. Whilst employee engagement tested for a number of sub-factors, such as job control, autonomy and communication, the sub-factors did not correlate strongly to the driver of employee engagement. The weak correlations that emerged from the analysis of employee engagement lead to the search for new sub-drivers.

2.4.3.4.1. Collaboration

Bruch and Vogel (2011) observed the relationship between organisational energy and the group collective. This was the extent to which an organisation,

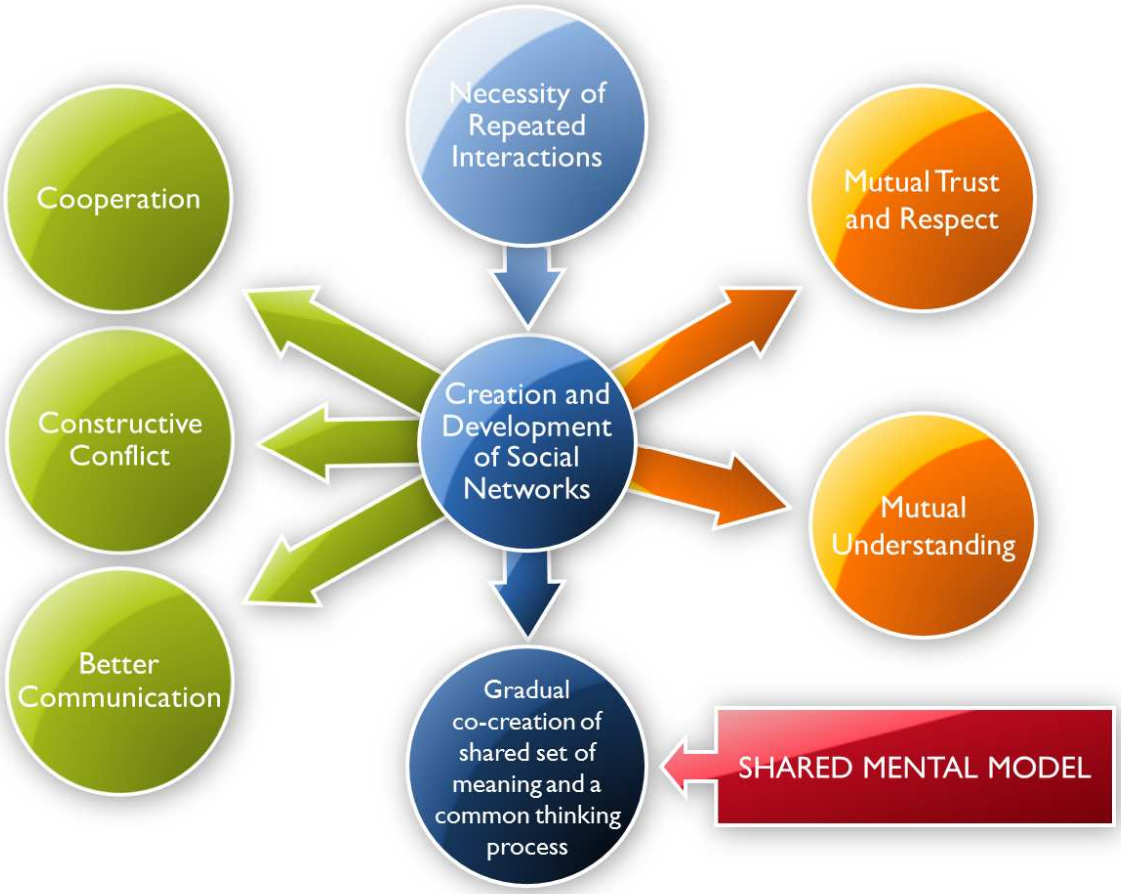
a unit or a team has collectively mobilised. Teamwork is thus a form of collaboration and engagement.

Based on the work of Cross *et al* (2003), the construct of the social network is noted as an energising tie among team members. Within an organisation, this can refer to organisational structure, work role synchronisation and social groupings.

2.4.3.4.2. Communication

Maslow (1940) noted the four levels of human communication, from delivering a message to having a learning conversation, or growing from unconscious incompetence to unconscious competence. Cannon-Bowers, Salas and Converse (1993) label this as an interaction process where diverse mental models eventually distil through a visionary process to a shared mental model. This thus enables social networking, better communication, mutual understanding, mutual respect and trust, constructive conflict resolution and healthy co-operation. Cannon-Bowers *et al* (1993) describe this as the 'gradual co-creation of shared sets of meaning and a common thinking process'. In this manner, shared mental models lead to increased communication flows which in turn lead to invigorated organisational energy and enhanced performance. The model can be illustrated as follows in Figure 5.

Figure 5: Shared mental model



Source: Cannon-Bowers, Salas and Converse (1993)

Internal communication, both top-down and bottom-up was emphasised by Hamel (2007) as a crucial driver of employee engagement. This level of engagement is significant in relation to mapping organisational strategy. It is therefore able to leverage organisational energy and organisational performance (Hamel, 2007).

Following from this, the sub-drivers of communication and collaboration were included as independent variables within employee engagement.

2.4.3.5. Hypothesised Driver and Independent Variable 5: Employee Investment

Employee investment is the value of building employees careers through motivational processes (Rijamampianina, 1996). Organisational frameworks have to support employee investment that incorporates succession planning and retention schemes. This goes into managing talent and skills and matching these with transparency, clarity and responsibility in the form of authority. This is known as an outcomes sharing process (Rijamampianina, 1996) and is essential in aligning the employee's interests with those of the organisation. These systems incorporate both models of compensation and reward and employee involvement, and are geared towards reinforcing identity, and employee commitment. It is always noted as a two-way interactional and motivational process, leading to enhanced performance.

Grobler *et al* (2006) noted that the success of any organisation's career management processes must be planned and supported by executive management. Programmes such as coaching, mentoring and training must not be overlooked by human resources practitioners. Finally, and most importantly, career matching, where an employer and employee match their career expectations should be included. These tools all contribute to successful motivation and enhanced performance in the workplace (Grobler *et al*, 2006).

Lamberti (2010) classified the bulk of this driver as 'general human resources practices'. However, a limitation of its inclusion among the independent variables was that it was too broadly defined. It had accounted for a fairly large

scope of practices which was overly encompassing for this study. This resulted in an overlap of independent variables amongst the key drivers.

The variables within this driver were therefore refined and re-categorised more accurately into the various drivers. The independent variables which remained were directly attributed to organisational investment in employees and employee investment was introduced as a new driver of organisational energy. The sub-drivers of employee investment comprised training, career development, promotion, incentive and recognition.

2.4.3.6. Hypothesised Driver and Independent Variable 6: Innovation

Investigation by Fisk (2009) into factors that build organisational energy for engagement and performance revealed a compelling need for organisations to immerse themselves in innovation and creativity. This involved an open approach that solicited suggestions from all stakeholders. Such an approach allowed work teams the freedom to contribute while simultaneously providing constant guidance, support and maintaining interest. Nurturing of creativity ensured that talent was transferable and allowed the organisation to work more quickly and in a more connected way.

Voelpel, Leibold, Eckhoff and Davenport (2006) highlighted the shift from an industrial economy to an innovation economy in the 21st century. The innovation economy is dominated (similarly to the knowledge economy) by abstract notions such as information and innovation capacity within organisations. Given this latest scenario, organisations recognised that

innovation is a major contributor to organisational sustainability. They also recognised that employees, who were energised, produced creative and beneficial innovations in contrast to those employees who lacked drive and enthusiasm in the workplace.

Cross, Linder and Parker (2007) illustrated the significance of the internal energetic dynamics on innovation. They investigated various methods in which energy boosting practices were able to encourage innovation.

Obeng (1997) postulated that the credit crunch and global financial crisis created a world in which a 'new normal' exists wherein new rules have been formulated to counter this new environment. He termed this as a 'World After Midnight'. Post-financial crisis literature points to organisations having to harness their internal energies in order to compete and remain sustainable. This requires working harder, increasing productivity, prioritising through working smarter and identifying new ways of processing traditional organisational internal and external needs.

Obeng (1997) refers to humans in the workplace as having to evolve to survive. He labelled it 'The Third Law of Change', when individuals in organisational crisis, are forced through necessity, to harness creativity and innovation and maintain new levels of energy in order not to become 'extinct'. This law postulates that 'people create change, just as they are able to constrain change'. When individuals are encouraged within the organisation to harness new forms of energy, in order to create and innovate, then the process of idea

generation is motivated, leading to greater productivity, increased performance, and ultimately company survival within this harsh new environment.

Obeng (1997) encourages organisations to go about the process of arriving at innovation and idea generation, and then to 'unlearn everything'. This is in order to competitively survive through innovation and not to focus on the 'what' but the 'how' which is the purpose; and to ignore all realities that have gone before. He also encourages organisations to create energetic interdependence, rather than dependence, and become user-centric, to avoid 'over-engineering' innovation.

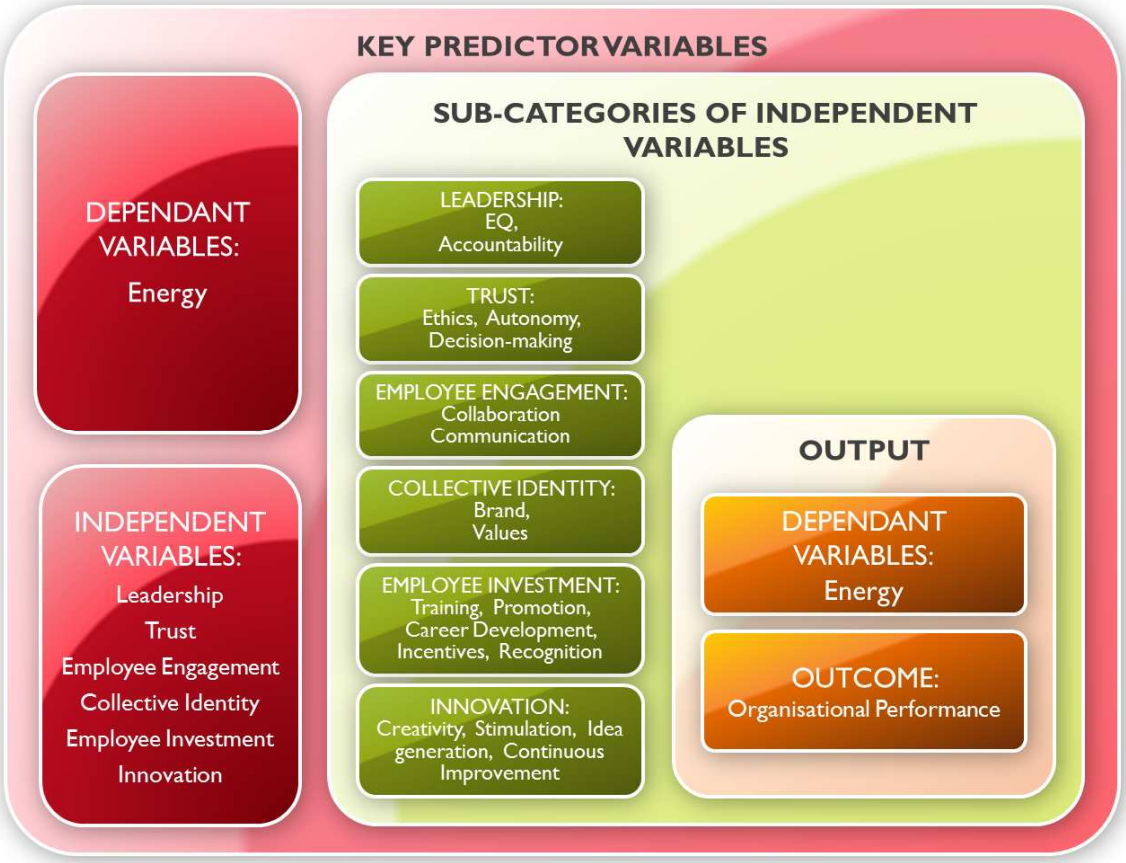
Essentially, necessity will drive the change required in order to nurture the wellspring of energetic resource which is required to drive innovation. Individuals should be encouraged to process manage new rules in a shifting and strongly competitive environment in order to be sustainable and remain highly adaptive to change.

Organisational energy is seen as a driving force behind an organisation's intensity, pace and endurance in its work, change and innovation processes. It is seen to require new idea generation and ongoing stimulation. In light of the above postulations, innovation was added as a new hypothesised driver and independent variable to this study.

2.5. The Key Drivers

In light of the preceding research, this study considered and included those variables that were most strongly related to the concept of organisational energy. Many of the variables, as identified by Lamberti (2010), were retained and expanded. Based on this literature review, new driver variables were included due to its relevance for the construct of organisational energy. Furthermore, sub-drivers were identified based on the central role they play in driving organisational energy on a micro level. The key driver variables that form the independent variables for this study can therefore be summarised as depicted in Figure 6.

Figure 6: Potential predictor variables and outputs of productive organisational energy



2.6. Organisational Size, Industry Type and Organisational Type

Further addition to this study is the investigation of organisational size, organisational type and industry type with respect to differences on the predictors of organisational energy. Thus the intention was to assess the relationship between organisational energy and these three demographics.

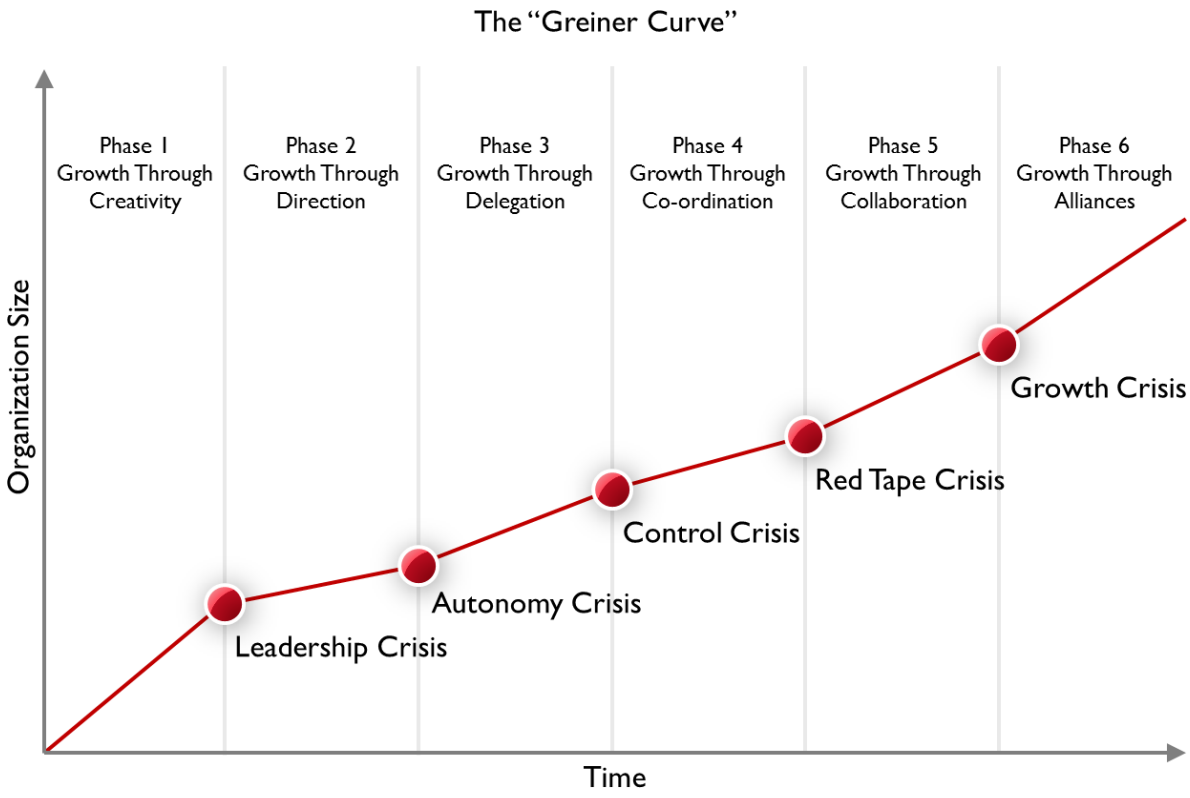
Nollen and Newman (1996) observed that the structure of organisational cultures are both visible and invisible and are core to the company, and thus are either easy or difficult to change. Within an organisation's culture, cultural diversity in the workplace is understood not only by people's cultural groups

within an organisation, but also by the invisible distances between them. This will include intangible factors such as trust, status and hierarchy.

Cox and Beale (1997) concur with this definition of diversity as the mix of 'human differences and similarities' within a context. In relating diversity management to organisational energy and performance, the literature points to the importance of managing culture and diversity for sustained employee performance. Organisations need to create systems and environments that welcome and stimulate organisational climates in which diversity and cultural differences that conceal performance is decreased, and value differences are enhanced. (Cox & Beale 1997).

Greiner (1972), noted at an early stage that organisations evolve and revolve through phases of growth, as reflected in Figure 7. Evolutionary stages are the growth phases of organisations, while revolutionary stages are those in which it experiences crisis. In order to create compatibility between organisation size, its age and varying levels of energy, leaders need to be cognisant of the stage or phase of that organisation. An evolutionary stage is one at which it is best to increase energy and harness creativity, direction, delegation, co-ordination and collaboration. These phases correlate to leadership, autonomy, control and bureaucracy.

Figure 7: Greiners five stages of growth



Source: Greiner (1972)

Swanepoel, Erasmus and Schenk (2008) defined an organisation's structure as the framework, typically hierarchical, within which an organisation arranges its lines of authority and communications, and allocates rights and duties. The organisational structure determines the manner and extent to which roles, power, and responsibilities are delegated, controlled, and co-ordinated, and how information flows between levels of management.

A structure depends entirely on the organisation's objectives and the strategy chosen to achieve these. Swanepoel *et al* (2008) distinguished between a centralised and decentralised structure. In a centralised structure, the decision-making power is concentrated in the top layer of management and tight control

is exercised over departments and divisions. In a decentralised structure, the decision-making power is distributed and the departments and divisions have varying degrees of autonomy.

Both small and large organisations contain a variety of sub-factors that may correlate differently in different sized organisations. Moreover, within different types of industries, certain sub-factors may differ from entrepreneurial enterprises to evolving companies to mature organisations.

A company's output and productivity may be impacted by its size. As such, the correlation between drivers and levels of organisational energy amongst various sized organisations and sectors requires further analysis. Productivity and profitability are also not uniform across industry and will affect the relationship between identified variables and organisational energy.

This study will investigate the possible (significant) correlations between the variables identified and cross-tabulate these by some of the additional factors identified, such as organisational size, organisational type and industry type. It attempted to analyse and make recommendations pertaining to the relationship between organisational energy and organisational performance.

The above literature indicates that organisational culture may be affected by organisational size, organisational type and industry type. When pulled together, the literature indicates that it would be worthwhile to investigate the

differences in organisational energy amongst the factors of organisational size, organisational type and industry type.

2.7. Conclusion

A literature review of the concept of organisational energy has revealed a gap in recorded theory and research. This relates to the predictor drivers of organisational energy, the correlation between organisational energy and performance, and the relationship between organisational energy and organisation size, industry and organisational type or locality.

As a supplementary study, this research aimed to further delve and examine the underlying drivers of productive organisational energy. It sought to provide a more concise framework for its predictor variables and it to provide justification for these. These driver variables were then independently tested against the broader drivers sourced from the literature, in order to determine the most significant ones that best influence productive organisational energy.

This is expected to lead to a better understanding of the most significant variables required to alter the state of organisational energy positively. It also sought to provide a model that can be published and used by academia, as well as by management within an organisation, to alter the organisational energy state positively for better organisational performance.

Organisational energy, by its definition, has the potential to create and align an environment that combines the cognitive, emotional implementing capabilities

with the driving force to achieve business goals. High levels of organisational energy can assist an organisation to exceed productivity, innovation and growth. It is in the interest of organisational leaders to know how to unleash this energy in order to achieve highly competitive performance for future sustainability.

According to Vogel and Bruch (2011), “leaders who learn to boost and leverage the productive energy of their organisations can inspire their workforce around common goals — while those who do not pay specific attention to these human forces may drive their organisation into complacency, resignation, burnout, or corrosion.”

3. CHAPTER THREE: RESEARCH QUESTIONS

3.1. Research Question 1

a) Do the five organisational energy variables form one coherent factor?

In order to establish a single valid and reliable measure of organisational energy (the dependent variable in this study), it was first necessary to assess the correlations among the five measures of organisational energy. By investigating the correlations among these measures via factor analysis, the study aimed to derive a single measure of the outcome variable based on a combination of the five measures, thus providing some evidence of the construct validity of the scale. Furthermore, by investigating the internal consistency of the five items, the research sought evidence of the reliability of the organisational energy scale.

b) Do the three organisational performance variables form one coherent factor?

In order to establish valid and reliable measures of organisational performance (the hypothesised outcome of the dependent variable of the study), it was first necessary to assess the correlations and internal consistency among the various measures of organisational performance. By investigating the correlations between these measures via factor analysis, a single measure of the outcome variable was derived based on a combination of the three measures. This provided some evidence of the construct validity of the

measures. Furthermore, by investigating the internal consistency of the items, evidence of the reliability of the organisational performance scale was obtained.

3.2. Research Question 2

Is there a relation between organisational energy and organisational performance?

Organisational success refers to the attainment of performance targets and achievements. An organisation can be considered successful if it is satisfied with its performance.

Literature to date has inferred a positive link between organisational energy and performance; however this conjecture has not been supported by empirical evidence. The major premise of this study is to demonstrate a correlation between the dependent variable of organisational energy and that of organisational performance.

Thus the survey was structured to include performance measures as a category termed ‘output’. The concept of organisational performance was added as an outcome or output of organisational energy.

The measures of organisational performance or success were intimated as follows:

1. My organisation has a distinctive, competitive edge.
2. My organisation drives work excellence and output.
3. My organisation is a successful organisation.

3.3. Research Question 3

Which independent variables best predict organisational energy?

Lamberti (2010) found that the most statistically significant factors influencing productive organisational energy were engagement, corporate identity association, and trust. Given the limitations of the study, as mentioned earlier, the results of the statistically significant factors as identified by Lamberti (2010) were potentially flawed. It was therefore necessary to re-examine the composition of the key drivers of organisational energy empirically, so as to reconstitute the independent variables and to arrive at a fresh set of significant predictors of organisational energy based on statistical methodology.

The intention was to discover the most highly correlated predictors of productive organisational energy. If the linkages between the independent variables can be better understood, then organisations will be able to improve their predictions of productive organisational energy and drive these main driver predictors.

3.4. Research Question 4

a) What is the relation between organisational energy and the size of an organisation?

The inclusion of organisation size was a new area of investigation within the field of organisational energy, as no empirical literature or research was found to exist. A one-way ANOVA test was used to determine the association between the size of an organisation and organisational energy.

b) What is the relation between organisational energy and the industry type?

Industry type was requested and collected in previous studies; however there was no investigation into the differences between industry types on the hypothesised predictors of organisational energy. Thus a one-way ANOVA test was used to investigate differences between the types of industry on the predictive independent variables of organisational energy.

c) What is the relation between organisational energy and the type of an organisation?

The inclusion of organisation type or locality such as global and multi-national, was a new area of investigation within the field of organisational energy, as no empirical literature or research was found to exist in this area. A one-way ANOVA was used to determine the association between the type, or locality, of an organisation and organisational energy.

4. CHAPTER FOUR: RESEARCH METHODOLOGY

4.1. Methodology

A quantitative survey was conducted utilising the constructs espoused by Lamberti (2010) as reflected in Figure 1 as well as the reviewed hypothesised drivers of organisational energy, as reflected in Figure 5. A three-step approach was followed as depicted in Table 1.

Table 1: Three-step research approach

Step	Methodology	Purpose
1	Review and amendment of the key drivers and predictors of organisational energy	▪ Review of the constructs ▪ Refinement of the dependent and independent variables
2	Refinement of the survey design and structure	▪ Restructuring of the Lamberti (2010) questionnaire design
3	Quantitative Survey	▪ To assess the cohesion among the measures of the dependent variables ▪ To assess the prediction or drivers among the dependent variable of organisational energy ▪ To assess the correlation between the dependent variables and organisational performance ▪ To assess the differences between organisations of different sizes, industries and localities in terms of their organisational energy

4.2. Population

The population included all knowledge worker employees from a variety of industries. Knowledge workers are defined as educated individuals who often work with complex constructs and operate with some level of sophistication within organisations.

Using the above definition of knowledge workers, the respondents were selected based on the presence of tertiary qualifications and working experience. They had to possess specialist and/or general skills as required by their various industries. This level of competency ensured that the respondents were capable of understanding and assessing the indicators of organisational energy as required by the questionnaire.

A key metric that the framework tested was the size of the organisation, as listed in the research questionnaire (Appendix 1).

4.3. Sampling

A judgemental sample was used. This approach targeted and used an element of the population that was selected in a controlled manner (Blumberg, Cooper & Schindler, 2008). Admission criteria require the respondents to possess tertiary qualifications and adequate working experience utilising leadership competencies.

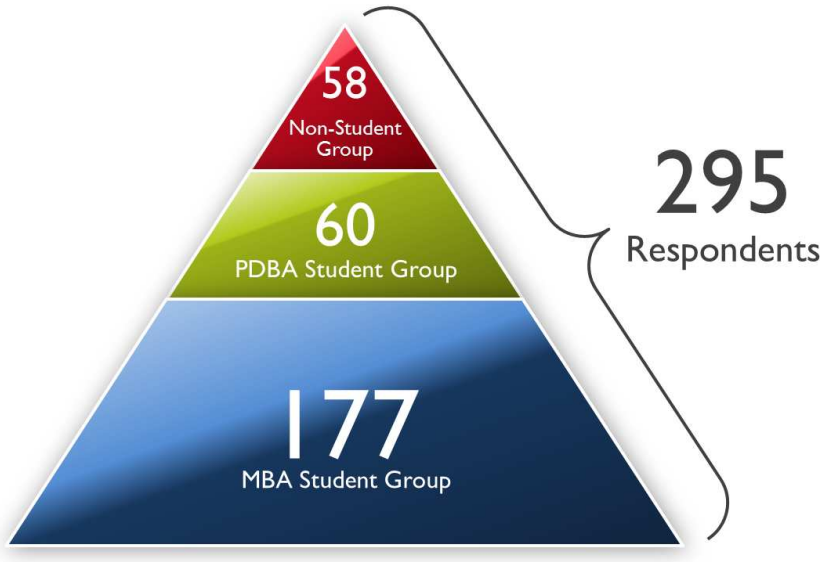
The sample comprised three groupings of respondents that provided an adequate sample size necessary for multi-variate analysis. The first grouping

comprised the first year full and part-time MBA students. The second grouping comprised the part time PDBA students. These two groups represented a closed segment of the population found in the Gordon Institute of Business Science (GIBS) post-graduate first year classes.

A third group of non-student respondents was selected from the researcher's professional network. This grouping was largely open-ended and formed a convenience sample. The non-student group comprised industry specialists and senior managers in their respective organisations. The entire sample covered a range of industries and organisational sizes.

Based on the number of independent variables, the minimum sample size required was 200 in order to be of adequate size for statistical testing of relevant relationships between the dependent and independent variables. The final number of responses collected was 295 as reflected in Figure 8.

Figure 8: Survey respondents



4.4. Unit of Analysis

The unit of analysis was the knowledge workers who comprised the sample groups as reflected in Figure 8. Statistical analysis was based on their responses. Their opinions were physically recorded on the questionnaire.

4.5. Process of Data Analysis

4.5.1. Research Instrument: Questionnaire Design

The questionnaire was reformulated from the Lamberti (2010) study to include well-defined measures of dependent variables, well-distributed predictor variables, the introduction of refined and new independent variables, and the introduction of measures of performance outputs. The demographic variables were classified as categorical and, at best, ordinal in nature as it was not intended for any mathematical analysis to be conducted on the data in the questions (Albright, Winston & Zappe, 2009).

The measures of organisational energy and performance were assessed using seven-point Likert-type scales. It was assumed that the data derived from these Likert-type scales was equal interval in nature to allow for parametric data analysis.

The questions were in English and formulated in an accessible style. The questions were phrased in the positive style to eliminate ambiguity and to ensure that negative responses were intended as such. The structure and layout was clear, legible and consistent as per the guidelines suggested by Zikmund (2003).

Data was collected by means of a face-to-face interaction. Questionnaires were administered for self-completion. This was a fast, effective and inexpensive means of collecting data. The questionnaire used a closed format as it permitted prescribed responses as delineated on the questionnaire. The respondents' maintained anonymity and the questionnaires did not request personal information. The questionnaires were collected post-completion at the same session. This methodology was selected to ensure a higher response rate and comprehensive completion since respondents were able to clarify queries immediately.

The questionnaire consisted of five sections. The first section comprised an introductory note on the topic and objective of the research as well as an acknowledgement of voluntary participation.

The second section was brief and solicited demographic information such as academic course and industry. Newly added demographic information included the size of the organisation and the type of industry as reflected in Table 2.

Table 2: Additional demographic data

Size of organisation in which you are currently employed:

<100 employees	100 – 499 employees	500 – 999 employees	1000 – 4999 employees	5000+ employees
1	2	3	4	5

Type of organisation in which you are currently employed:

Local Only (South African)	Multi-national (Global)
1	2

The third contained five questions on the dependent variables. These questions focused on levels of organisational energy and commitment.

The fourth section contained 32 questions to provide data on the independent variables categorised by the six key drivers or predictors of organisational energy as identified within the literature review. The fifth and final section contained three questions on organisational performance which was designed to reflect the output of productive organisational energy. The questionnaire variables are shown in Table 3 below. It lists the dependent and independent variables as identified in Figure 6.

Table 3: Questionnaire format

Key Driver Variables	Question Number
Energy (Dependent Variable)	1, 2, 3, 4, 5
Engagement	6,7,9,10,11,40
Trust	14, 15, 16, 17, 33, 37
Collective Identity	18, 19, 20, 23
Innovation	8, 24, 25, 27
Employee Investment	26, 28, 29, 31, 32, 38
Leadership	12, 13, 34, 35, 36, 39
Organisational Performance (Dependent Variable and Output Variable)	21, 22, 30

4.5.2. Measurement Scale

A further amendment to the Lamberti (2010) study included the introduction of a seven-point Likert scale (Appendix 1) in the self-administered questionnaire. These attitudinal variables were expressed numerically on a 1-to-7 Likert scale. Polarising the scale was '1' which represented 'strongly disagree and '7' which represented 'strongly agree'. The numbers represented codes for the categories 'strongly disagree', 'disagree', 'somewhat disagree', 'neither agree nor disagree', 'agree', 'somewhat agree' and 'strongly agree'.

A seven-point scale was preferred to a five-point scale as it was expected that it would provide more variance in the responses of the respondents and enhance the reliability of the scales. The complexity of the task of responding on the seven-point scale was appropriate for the sample of the research. The respondents were requested to rank the impact of the various independent variables on the seven point Likert scale.

4.5.3. Questionnaire Pre-Test

A pre-test was conducted with a group of five managers to check for quality, question ambiguity, readability and ease of completion. It was timed to ascertain sufficient timeframes for completion. The pre-test highlighted errors, biases, and ambiguities in the wording that was corrected prior to final data collection. The pre-testing effect has been shown to dramatically increase the validity of the data captured (Swift, 2001).

4.5.4. Data Collection

Permission was sought from the relevant heads of departments and lecturers for a proportion of work and academic time to conduct this task within their classes. Verbal permission was sought from the non-students for their willingness to participate in the survey on a voluntary basis.

A questionnaire (Appendix 1) was physically distributed in hard copy format during modular classes to the first year MBA and PDBA students. For the non-students, the questionnaire was physically handed to them at a scheduled time at their work premises. All respondents were introduced to the topic and the nature of the study was explained to them. Upon completion, the questionnaires were manually collected.

4.5.5. Data Analysis

Following the data collection phase, the data was then edited, coded and presented using descriptive statistics. Leedy and Ormrod (2005) expand on descriptive, quantitative research as that focusing on identifying the

characteristics or observations and the correlations amongst them without effecting a change in the situation. Thereafter, inferential and multivariate statistics were used to interrogate the relationships between the dependent and independent variables. Factor analysis was used to investigate the factor structure of the scales. Stepwise regression analysis was used to examine the relative importance of the predictor variables in driving organisational energy and in predicting organisational performance. Finally, one-way analysis of variance was used to compare the drivers of organisational energy in different industries, organisational sizes and organisational types.

The statistician, who has assisted with the previous Lamberti (2010) study, was retained to assist with the necessary computerised statistical analysis. The methodology lessons learned from the Lamberti (2010) study were applied in constructing the design and structure of the research questionnaire. This ensured the consistency of the data collected with the requirements of the research questions.

4.5.5.1. Research Question 1

Factor analysis, using the principal component extraction method was used to analyse the inter-correlations of the five organisational energy variables to see whether they reflected a single underlying factor. As factor analysis summarises the variance in the responses to items in terms of their common underlying dimensions or factors (Blumberg *et al*, 2008), the factor analysis was expected to yield a single factor if all five organisational energy variables were measures of a single dimension. Thus the objective was to condense the

information contained in the original five organisational energy variables into a smaller set of variables (or factors) with a minimal loss of information (Hair, Black, Babin & Anderson, 2010). By providing an empirical estimate of the structure of the variables considered, factor analysis was an objective basis for creating summated scales.

Furthermore, the internal consistency reliability of the five items was measured by the Cronbach's Alpha test (Albright, Winston & Zappe, 2009). This revealed the item-total correlations and as such, how closely related the set of items were as a grouping of independent variables. High reliability of the scale composed of these variables would not restrict its potential correlation with the dependent variable. Statistical solidity amongst the dependent variables allows for all the variables to be utilised onwards in regression analysis. On the other hand, an individually stronger, unique dependent variable allows for that variable to be exclusively used in regression analysis.

4.5.5.2. Research Question 2

A correlation coefficient matrix was created to determine the presence of a relationship between organisational energy and organisational performance. The correlation was deemed to be significant and accepted at the 0.05 level. This allowed for further analysis of the sub-categories within the dependent variable that were shown to be most influential in driving organisational success. It also allowed for the nature of the relationships to be further probed.

4.5.5.3. Research Question 3

Multiple stepwise regression analysis was used to determine the relationship between the variables and to identify the strongest and most significant independent variables which predict and drive productive organisational energy. Multiple regression analysis also allowed for several explanatory variables to be included in the analysis (Albright *et al*, 2009). Stepwise regression analysis produced the most important independent variable predictors. The variances amongst these were thereafter analysed and accounted for.

A correlation matrix was also used in this analysis in order to determine the relative importance and ranking of the key drivers of organizational energy.

4.5.5.4. Research Question 4

In order to assess the influence of organisational size, organisational type and industry type on productive organisational energy, three one-way ANOVAs were performed. ANOVA is used to test for significant differences between groups (Albright *et al*, 2009). This type of analysis compared the variances between the groupings relative to the variance within the groupings of company size, company type and industry type and revealed differences in organisational energy amongst them.

4.6. Limitations of the Research

The limitations of this study included the following:

- The outcome of the research was dependent on the information provided by the respondents.

- A small number of respondents did not provide responses to some of the questions. The non-responses did not overwhelmingly affect the outcomes and analysis. However, the responses required review and editing prior to the data entry and analysis.
- Potential bias of the data analysis process and the types of tests to be used, based on the researcher's own perspective, assumptions and interpretations was mitigated based on setting out the researcher's point of view *a priori*.
- The use of a large grouping of students, who were knowledge workers, at the same tertiary institution reduced the diversity in the sample. This sample grouping was studying towards advanced management qualifications, possessed a similar frame of reference, and was fairly homogeneous in nature. This sample is more highly educated, possibly all having managerial experience and have been exposed to complexity and problem-solving at a middle to senior management level in the workplace. Responses from such a sample are therefore likely to be biased or skewed. This sample may thus reduce the extent to which the findings can be generalised.
- The drivers used cannot presume to be all-inclusive or an exhaustive set.

5. CHAPTER FIVE: RESULTS

5.1. Introduction

Following the research methodology as outlined in Chapter 4, this chapter seeks to record and describe the results of the quantitative survey. The data was collated from the survey and analysed using the methodologies as described previously. To reiterate, this study was an attempt to assess the hypothesised drivers of organisational energy and the relation between organisational energy and organisational performance. Further to that, it aimed to assess the correlations among the various drivers of organisational energy.

Data results were captured in the sample description, demographic questions, the questionnaire, and the research questions. This chapter presents the results separately for each research question, as established in Chapter 3. These are illustrated using tables, charts and statistics.

5.2. Sample Description

The quantitative research questionnaire solicited responses from a sample of 295 respondents. Due to incomplete and partially complete data, three responses were discarded. This resulted in a final sample of 292 respondents which was of an adequate sample size for purposes of this investigation.

The initial section of the questionnaire requested demographic data from respondents. The results of the demographic data received are presented in the next section using counts and percentages.

5.3. Demographic Data

The following question excerpts were extracted from the questionnaire (Appendix 1).

5.3.1. Demographic Question 1

The first question, as listed in Table 4 below, requested the category of academic study of the respondents. This question contained three sample groupings, namely MBA and PDBA students and non-students. It was completed by all the respondents.

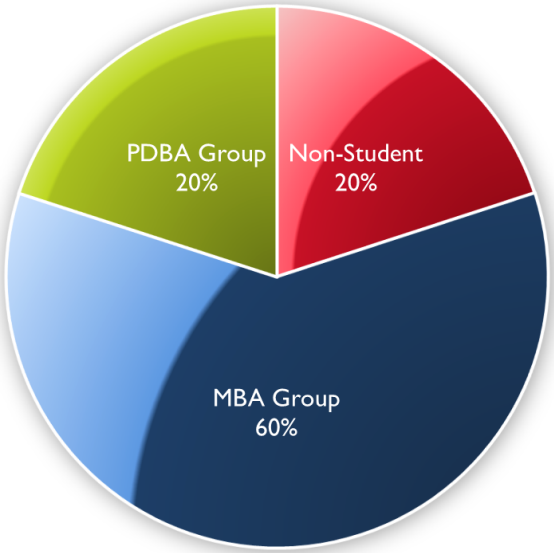
Table 4: Academic course

Your Academic Course:

MBA Group	PDBA Group	Non-student

Figure 9 displays the number and percentage of respondents, within the three sample groupings. The majority of respondents were from the MBA classes and constituted 60 percent of the sample. The remaining two groupings, the PDBA and non-students, accounted for 20 percent each of the sample.

Figure 9: Sample grouping (n = 292)



5.3.2. Demographic Question 2

The second question, as reflected in Table 5 below, requested data on the type of industry within which the respondent worked. This question was answered by 99 percent of the respondents as three respondents did not complete this information.

A total of eight categories was listed, the last being classified as 'Other'. This category was included to cover any potential industries that were omitted. Post data collection and during the data codification process, the 'Other' category was expanded to cover additional industries as indicated by the respondents on the questionnaire.

The 'Other' category comprised the following industries:

- Distribution/Logistics/Transportation

- Petroleum
- FMCG
- Agriculture
- Telecoms
- Advertising/Media

Table 5: Current industry

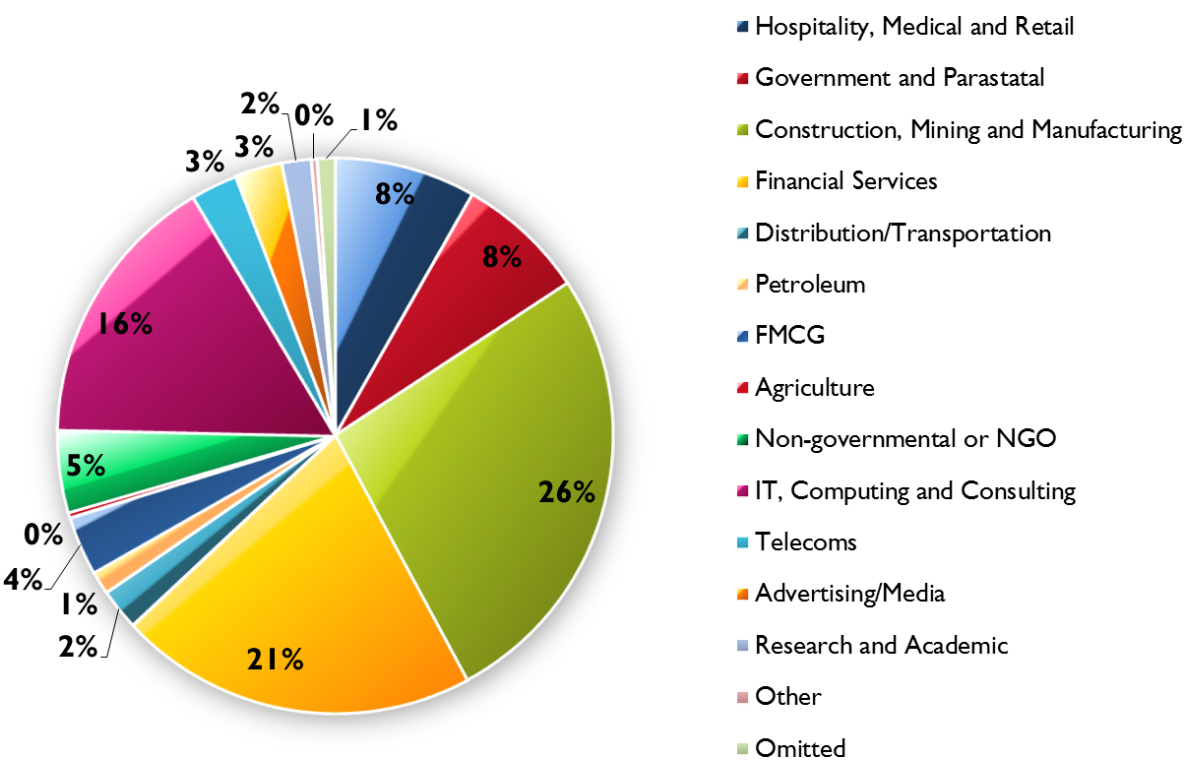
Industry in which you are currently employed:

Construction, Mining and Manufacturing	Financial Services	Hospitality, Medical and Retail	IT, Computing and Consulting	Research and Academic	Government and Parastatal	Non-governmental or NGO	Other - Please Specify

Figure 10, below, displays a graphical breakdown of the data into the percentage of respondents per industry type. The sample was representative of a wide range of industries. The majority of respondents who worked in the non-governmental or NGO sector; Financial Services sector; and the IT, Computing and Consulting sector, collectively accounted for 68 percent of industries of the respondents.

Of the majority industries represented, five percent of respondents worked in the non-governmental or NGO sector; 21 percent worked in the Financial Services sector; 16 percent worked in the IT, Computing and Consulting sector, and 26 percent worked in the Construction, Mining and Manufacturing.

Figure 10: Respondents per industry



5.3.3. Demographic Question 3

The third question, as reflected in Table 6 below, requested data from respondents on the size of the organisation within which they were employed.

Table 6: Current industry

Size of organisation in which you are currently employed:

<100 employees	100 – 499 employees	500 – 999 employees	1000 – 4999 employees	5000+ employees

Figure 11, below, displays a breakdown of the data according to the size of the organisation per respondent. Three respondents did not answer this question. A third of the respondents (34 percent) worked for the largest organisations

(5000 employees or more), and 25 percent worked for the smallest organization (under 100 employees).

Figure 11: Organisation size of respondents

5.3.4. Demographic Question 4

The final demographic question, as reflected in Table 7, requested data on the type or locality of the organisation within which the respondent was employed. This question was answered by all but three of the respondents.

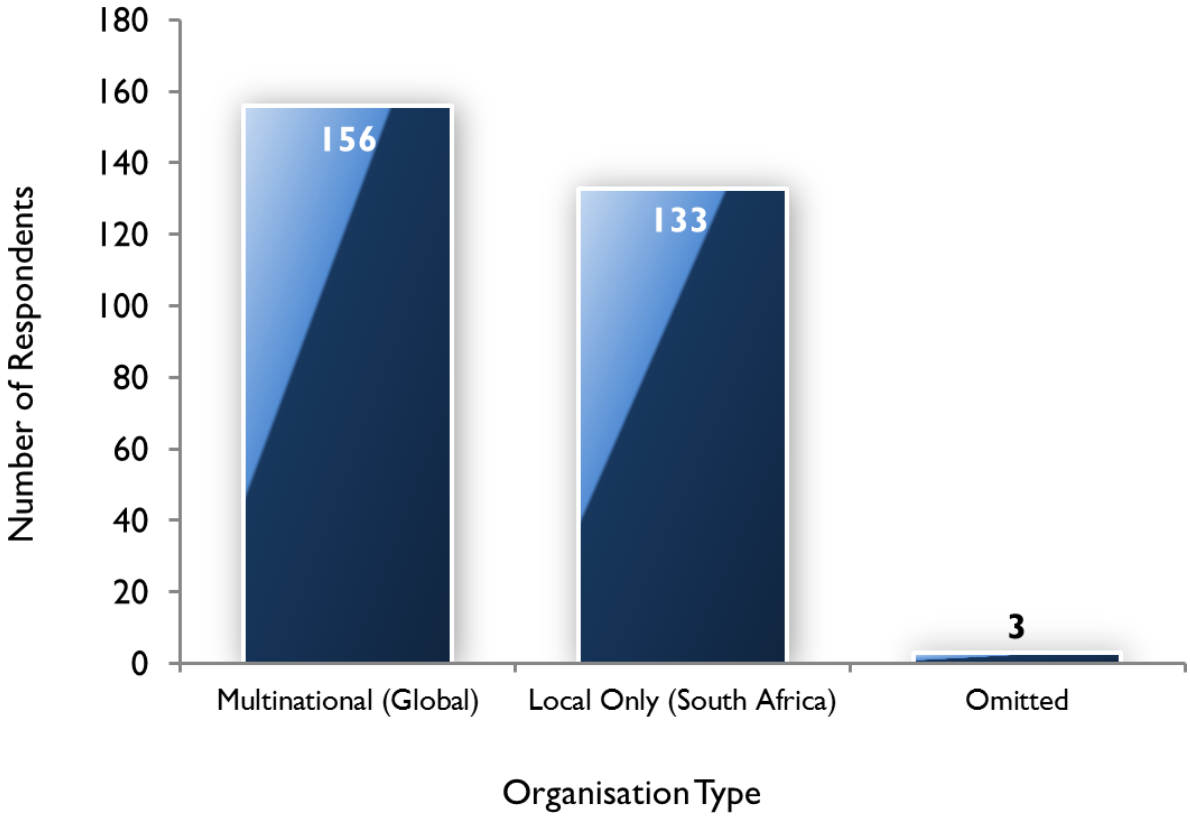
Table 7: Type of organisation

Type of organisation in which you are currently employed:

Local Only (South African)	Multi-national (Global)

Figure 12 displays a breakdown of the data according to the type or locality of the organisation that the respondent worked for. Over half of the respondents (53 percent) worked in multinational organisations while 45 percent worked in solely South African organisations.

Figure 12: Type of organisation per respondents



5.4. Questionnaire

The quantitative survey comprised a questionnaire with five items measuring the dependent variable of organisational energy, 32 items measuring the six drivers of the independent variable of organisational energy and three output variables on organisational performance (refer to Chapter 4 for definitions of these concepts).

Table 8, below, depicts the questions grouped within the drivers of organisational energy, rather than sequentially numbered. It presents a frequency distribution using percentages of responses. The colour scale was used in conjunction with response percentages. The colour scale codes the questions with the highest number of endorsements in green, the colouring moving towards amber, and then red, with a decrease in endorsement percentages. Dark green is the modal category with red being the lowest.

Table 8: Modal responses

KEY DRIVERS	QUESTIONS	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
ENERGY [DV]	1: Employees in my organisation are highly committed to their work.	0%	4%	9%	8%	38%	29%	13%
	2: Employees in my organisation display high levels of productive organisational energy.	0%	7%	15%	13%	32%	26%	7%
	3: Employees in my organisation are voluntarily willing to work additional time.	3%	10%	15%	7%	26%	27%	13%
	4: Employees in my organisation enjoy the work that they do.	0%	3%	10%	15%	37%	27%	8%
	5: My organisation is a high energy organisation.	3%	10%	16%	13%	25%	25%	8%
ENGAGEMENT	6: My organisation effectively communicates its goals and strategic intent internally.	5%	9%	14%	10%	28%	24%	10%
	7: Cooperation and sharing of information and resources is common practice in my organisation.	2%	11%	16%	12%	29%	23%	7%
	9: Management in my organisation value the opinions of employees like me.	3%	8%	10%	15%	24%	27%	12%
	10: There is a high level of positive interaction amongst colleagues and teams in my organisation.	3%	6%	12%	15%	31%	25%	9%
	11: There is frequent collaboration amongst the different departments/business units in my organisation.	2%	11%	17%	13%	28%	23%	6%
	40: I think I will still be working at my organisation in five years time.	29%	13%	7%	14%	10%	14%	13%
TRUST	14: I have the autonomy to make decisions in my organisation	4%	9%	11%	9%	29%	25%	13%
	15: I am allowed the freedom to reach my work deliverables in my own way in my organisation.	2%	5%	12%	10%	26%	28%	16%
	16: I trust my colleagues' ability to execute their roles effectively.	1%	4%	10%	11%	29%	37%	9%
	17: My organisation is ethical.	2%	3%	5%	9%	20%	32%	29%
	33: My organisation uses performance measurements effectively.	11%	11%	20%	16%	21%	16%	4%
	37: I have honest and frank discussions with my manager.	5%	7%	7%	9%	23%	30%	20%
COLLECTIVE IDENTITY	18: Employees feel a sense of pride in working for my organisation.	1%	4%	7%	18%	27%	27%	17%
	19: My organisation's brand is perceived positively in the market.	1%	4%	5%	7%	25%	32%	26%
	20: I identify with the values of my organisation.	2%	2%	4%	12%	17%	36%	26%
	23: My organisation optimises the integration of new employees.	3%	12%	17%	17%	31%	15%	5%

KEY DRIVERS	QUESTIONS	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
INNOVATION	8: My organisation has new projects and initiatives that make the workplace exciting.	2%	7%	14%	11%	27%	26%	13%
	24: My organisation encourages creativity and new suggestions.	3%	8%	10%	15%	29%	26%	9%
	25: My organisation is a fun place to work in.	4%	9%	12%	20%	25%	19%	10%
	27: My organisation rewards continuous improvement of work processes.	6%	10%	11%	21%	26%	19%	7%
EMPLOYEE INVESTMENT	26: My organisation allows me to build on my strengths.	5%	10%	7%	13%	24%	27%	14%
	28: My organisation helps me to manage my career path.	8%	11%	15%	11%	21%	22%	12%
	29: My organisation is committed to training of staff.	2%	5%	9%	14%	22%	28%	19%
	31: My organisation gives financial rewards based on company performance.	7%	6%	7%	8%	21%	32%	19%
	32: My organisation gives financial rewards based on individual performance.	7%	9%	10%	11%	22%	28%	14%
	38: My organisation promotes employees based on merit.	9%	11%	11%	23%	17%	20%	10%
LEADERSHIP	12: Management in my organisation is approachable.	2%	4%	9%	7%	26%	36%	16%
	13: Leadership in my organisation is effective	7%	7%	8%	14%	33%	23%	8%
	34: My organisation sets performance measurements correctly.	10%	15%	19%	15%	25%	12%	4%
	35: I am regularly given feedback on how I am performing in my organisation.	10%	13%	14%	13%	25%	19%	7%
	36: My organisation effectively deals with non-performers	12%	21%	20%	18%	16%	9%	4%
	39: My manager is fair and understanding.	4%	4%	8%	13%	21%	33%	17%
ORGANISATIONAL PERFORMANCE [Output]	21: My organisation has a distinctive, competitive edge.	1%	4%	10%	11%	26%	28%	20%
	22: My organisation drives work excellence and output.	0%	5%	8%	14%	26%	29%	16%
	30: My organisation is a successful organisation.	2%	2%	4%	8%	24%	34%	26%

5.5. Research Questions

The statistical results used to answer the research questions are presented below. Each research question is stated upfront. It is presented with its applicable research methodology, the statistical response results and an explanation of the results.

5.5.1. Research Question 1

Research question 1 comprises two sub-questions which both followed the exact same statistical methodology as they both sought to establish the same objective.

a) Do the five organisational energy variables form one coherent factor?

This analysis sought to determine the interrelations among the dependent variables. Factor analysis with principal component extraction method was utilised to investigate the factor structure of the five variables.

Table 9 displayed below reflects the sample response percentages per independent variable.

Table 9: Response percentages of the five measures of the dependent variable of organisational energy

DV	QUESTIONS	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
ENERGY	1: Employees in my organisation are highly committed to their work.	0%	4%	9%	8%	38%	29%	13%
	2: Employees in my organisation display high levels of productive organisational energy.	0%	7%	15%	13%	32%	26%	7%
	3: Employees in my organisation are voluntarily willing to work additional time.	3%	10%	15%	7%	26%	27%	13%
	4: Employees in my organisation enjoy the work that they do.	0%	3%	10%	15%	37%	27%	8%
	5: My organisation is a high energy organisation.	3%	10%	16%	13%	25%	25%	8%

5.5.1.1. Factor Analysis

Table 10 below reflects the results of the factor analysis of the five organisational energy items. The factor analysis gives the items slightly different weights as indicated by the marginal variations in the factor loadings. Computation of a factor score for each respondent would thus be based on these marginally different weights according to their contribution to the factor score.

Table 10: Factor Analysis of the five organisational energy items

FACTOR ANALYSIS	Factor Loadings
1: Employees in my organisation are highly committed to their work.	-0.86
2: Employees in my organisation display high levels of productive organisational energy.	-0.89
3: Employees in my organisation are voluntarily willing to work additional time.	-0.80
4: Employees in my organisation enjoy the work that they do.	-0.82
5: My organisation is a high energy organisation.	-0.84
Explained Variance	3.57
Proportion of Total Variance	0.71

The factor loadings reveal the correlation between the organisational energy items and the underlying factor. All the factor loadings in Table 10 are high (negative) ranging from -0.80 to -0.89. This indicates that all the items correlate highly negatively with the same factor. As such, the high correlations reveal that there is one single construct and that all the organisational energy items are measuring this same construct. This is evidence of convergent validity as all the items are correlating strongly with the same underlying dimension or construct.

The proportion of total variance (0.71) reveals that the factor of organisational energy accounts for 71 percent of the total variance in the scores of the respondents on the five items considered.

For simplicity, as all the loadings are similar and of the same order, the average score of the five items was used as the summary score of organisational energy for purposes of this research, without having to sacrifice any variance.

5.5.1.2. Correlation Matrix of the Five Organisational Energy Items

Table 11 below displays the Pearson Product Moment Correlations matrix for the five organisational energy items. A correlation matrix displays the inter-correlations among variables. Based on the highly significant correlations in the matrix of the Pearson Product Moment Correlations (all correlations significant at the 0.1% level of significance), it appears that all items are expected to load highly on the same underlying dimension.

Table 11: Correlation Matrix of the five organisational energy items

DEPENDENT VARIABLE	1: Employees in my organisation are highly committed to their work.	2: Employees in my organisation display high levels of productive organisational energy.	3: Employees in my organisation are voluntarily willing to work additional time.	4: Employees in my organisation enjoy the work that they do.	5: My organisation is a high energy organisation
1: Employees in my organisation are highly committed to their work.	1.00				
2: Employees in my organisation display high levels of productive organisational energy.	0.75	1.00			
3: Employees in my organisation are voluntarily willing to work additional time.	0.60	0.65	1.00		
4: Employees in my organisation enjoy the work that they do.	0.65	0.65	0.57	1.00	
5: My organisation is a high energy organisation.	0.63	0.72	0.59	0.61	1.00

Based on the factor loadings (Table 10), and the inter item correlation matrix (Table 11), it was decided to use the average score of the five items as a single measure of organisational energy for purposes of this research. The average was obtained by simply combining the scores of the five items reflected in Table 10 and dividing by five. Summing the scores provided a summated scale which combines

several individual variables into a single composite measure (Hair *et al*, 2010). This provides a single concept of multiple measures.

5.5.1.3. Cronbach's Alpha of the Organisational Energy Scale

The Cronbach alpha for the scale composed of the five organisational energy related items, as listed in Table 12, is 0.89. Cronbach's alpha is a measure of reliability that ranges from 0 to 1, with values of 70 deemed the lower limit of acceptability in cases of exploratory research (Hair *et al*, 2010). It is a type of diagnostic measure called the reliability coefficient, which assesses the consistency of the entire scale. Generally, reliability is an assessment of the degree of consistency between multiple measurements of a variable. Cronbach is the most widely used reliability measure. An important consideration of Cronbach is its positive relationship to the number of items in the scale. As increasing the number of items, even if they have the same degree of inter-correlation, will automatically increase the reliability value, researchers must place more stringent requirements for scales with large numbers of items.

This coefficient of 0.89 reveals high internal consistency reliability of the scale, and thus lack of random error. Relative to the generally accepted lower limit of 0.70 for Cronbach's alpha, this scale was considered to be a reliable criterion against which predictors of organisational energy would be correlated.

Table 12: Cronbach's alpha for scale of the dependent variable, organisational energy

ORGANISATIONAL ENERGY (Dependent Variables)	Cronbach alpha
Question 1-5 Organisational Energy	0.89

5.5.1.4. Item to Total Correlations for the Organisational Energy Scale

The item to total correlations were also analysed as depicted in Table 13. The table indicates what the Cronbach alpha would have been if an item was deleted. The alpha if deleted reveals scores in very close proximity which indicates that an absence of any item would not have improved the reliability of the scale substantially. Table 13 below reveals high item to total correlations. Each item is highly correlated with the total organisational energy scale score.

Table 13: Item Total Correlation for the organisational energy items

ITEM ANALYSIS	Item Total Correlation	Alpha (if deleted)
1: Employees in my organisation are highly committed to their work.	0.77	0.87
2: Employees in my organisation display high levels of productive organisational energy.	0.82	0.85
3: Employees in my organisation are voluntarily willing to work additional time.	0.69	0.89
4: Employees in my organisation enjoy the work that they do.	0.72	0.88
5: My organisation is a high energy organisation.	0.75	0.87

The statistical analysis thus revealed that all five organisational energy variables reflect one stable coherent construct. Due to the close alignment, the mean of all five dependent variable items was used for purposes of clarity in future research.

In conclusion, the results of this analysis clearly showed a single underlying factor with high loadings ranging from 0.80 to 0.90 that explained 71.5 percent (Table 10) of the total variance in the items. In view of the similarity of the factor loadings, the mean of the five item scores was used in preference to the factor score. By using the mean, all the variance in the item responses is retained which is easier for replication studies.

b) Do the three organisational performance variables form one coherent factor?

This analysis sought to determine the interrelations among the measures of the output variable of organisational performance. Factor analysis with principal components extraction method was used to investigate the factor structure of the three output items of organisational performance. Table 14, below, reflects the sample response percentages per item.

Table 14: Response percentages of the three output items of organisational performance

VARIABLE	QUESTIONS	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
ORGANISATIONAL PERFORMANCE [Output]	21: My organisation has a distinctive, competitive edge.	1%	4%	10%	11%	26%	28 %	20%
	22: My organisation drives work excellence and output.	0%	5%	8%	14%	26%	29 %	16%
	30: My organisation is a successful organisation.	2%	2%	4%	8%	24%	34 %	26%

5.5.1.5. Factor Analysis

Table 15 below reflects the results of the factor analysis of the three organisational performance items. The analysis gives the items slightly different weights as indicated by the slightly different factor loadings. The factor score is based on weightings and the items are slightly differently weighted according to their contribution to the factor score.

Table 15: Factor Analysis of the organisational performance items

FACTOR ANALYSIS	Factor Score
21: My organisation has a distinctive, competitive edge.	0.85
22: My organisation drives work excellence and output.	0.87
30: My organisation is a successful organisation.	0.75
Explained Variance	2.06
Proportion of total variance	0.68

The factor loadings reveal the correlations between the organisational performance items and the underlying factor. All the factor loadings in Table 15 are fairly high

ranging from 0.75 to 0.87. This indicates that all the items are correlating highly with the same factor. Such a high correlation reveals that there is one single construct so that all the organisational performance items are measuring the same construct. This is evidence of convergent validity as all the items are correlating strongly with the same underlying dimensions or construct.

The proportion of total variance (0.68) reveals that the factor of organisational energy accounts for 68 percent of the variance.

As all the loadings are similar and of the same order, the average score of the three items was used instead of the factor score for purposes of this research, for the sake of simplicity and without having to sacrifice any variance in the underlying three scores. The average was obtained by simply combining the scores of the three items reflected in Table 15 and dividing by three. Summing the scores provided a summated scale which combines several individual variables into a single composite measure (Hair *et al*, 2010). This provided a single measure of the construct of organizational performance.

5.5.1.6. Correlation Matrix of the Three Output Variables

Table 16 below displays the Pearson Product Moment Correlations between the three output variables. The highly significant correlations in the matrix of the Pearson Product Moment Correlations (all correlations significant at the 0.1% level of significance), provides further evidence that all items are expected to load highly on the same underlying dimension.

Table 16: Correlation Matrix of the three output variables

OUTPUT (Organisational Performance)	21: My organisation has a distinctive, competitive edge.	22: My organisation drives work excellence and output.	30: My organisation is a successful organisation.
21: My organisation has a distinctive, competitive edge.	1.00		
22: My organisation drives work excellence and output.	0.67	1.00	
30: My organisation is a successful organisation.	0.43	0.49	1.00

5.5.1.7. Cronbach's Alpha for the Scale of Organisational Performance

Cronbach's alpha for the scale composed of the three organisational performance related items, as listed in Table 17 below, is 0.77. The score of 0.77 reveals satisfactory internal consistency reliability of the scale relative to the generally accepted lower limit of 0.70 for Cronbach's alpha. As Cronbach's alpha values are related to the number of items in the scale, with increasing values as scales are lengthened, it would be expected that a scale composed of only three items would have lower reliability. Thus the average item inter-correlation should be used in preference to the alpha coefficient for short scales as this measure is independent of the number of items.

For this scale, the average item inter-correlation was 0.54 which is considered high and indicative of high internal consistency reliability (Hair *et al,* 2010). This scale was considered to reflect organisational performance reliably.

Table 17: Cronbach's alpha for organisational performance items (output)

ORGANISATIONAL PERFORMANCE (Output Variables)	Cronbach alpha
Questions 21 22 30 Organisational Performance	0.77

5.5.1.8. Item Total Correlation

The results of this analysis provide further evidence of high internal consistency reliability within the scale. It reveals a single underlying factor with fairly high loadings ranging from 0.75 to 0.87 which explained 68 percent (Table 15) of the variance in the items.

The item to total correlations are depicted in Table 18 indicates the value of Cronbach alpha if an item were deleted. Of the three items, item 3 (question 30) was the least strongly correlated with the others. However, it still correlated sufficiently to consider it as a valuable contributor to the indicator of organisational performance. The alpha coefficient, if any item were deleted, reveals scores in fairly close proximity which indicates that an absence of any item would not have improved the reliability of the scale.

Table 18: Output item total correlation

ITEM ANALYSIS	Item Total Correlation	Alpha (if deleted)
21: My organisation has a distinctive, competitive edge.	0.63	0.66
22: My organisation drives work excellence and output.	0.68	0.60
30: My organisation is a successful organisation.	0.50	0.80

The statistical analysis thus revealed that all three organisational performance variables reflect one fairly stable and coherent variable. Due to the close item alignment, the mean of all three output variable items was used for purposes of repetition and clarity.

In conclusion, the results of this analysis clearly showed a single underlying factor with fairly high loadings ranging from 0.50 to 0.68 that explained 68 percent (Table 15) of the variance in the items. In view of the similarity of the factor loadings, the mean of the three item scores was used in preference to the factor score. Once again, by using the mean, all the variance in the item responses is retained and is easier for replication studies.

5.5.2. Research Question 2

Is there a relation between organisational energy and organisational performance?

The dependent variables measured the organisational energy within respondents' organisations. The measures of the drivers of organisational energy comprised five variables that were assessed on a seven-point Likert type scale. A key proposition of this study was the investigation of the relation between organisational energy and organisational performance. In order to assess this, an inter-item correlation matrix was used to determine the extent of the correlation at the item level (Table 19).

5.5.2.1. Correlation Matrix between Organisational Energy and Organisational Performance Items

All the correlations in Table 19 below are significant at $p<0.001$.

Table 19: Correlation Matrix for organisational energy and organisational performance items

ORGANISATIONAL ENERGY VARIABLES	ORGANISATIONAL PERFORMANCE (Output Variables)		
	21: My organisation has a distinctive, competitive edge	22: My organisation drives work excellence and output	30: My organisation is a successful organisation
1: Employees in my organisation are highly committed to their work.	0.37	0.51	0.32
2: Employees in my organisation display high levels of productive organisational energy.	0.42	0.53	0.39
3: Employees in my organisation are voluntarily willing to work additional time.	0.30	0.44	0.27
4: Employees in my organisation enjoy the work that they do.	0.31	0.46	0.30
5: My organisation is a high energy organisation.	0.48	0.63	0.47

Following the item analysis, the mean scores of the organisational energy items and the organisational performance items, from Questions 1 (a) and 1 (b), were used as single scale scores and correlated to produce Table 20.

Table 20: Correlation between organisational energy and organisational performance scale scores

Correlations: p < .05000 (N=292)	
	Performance (Output)
Energy	0.6003
	P<0.001

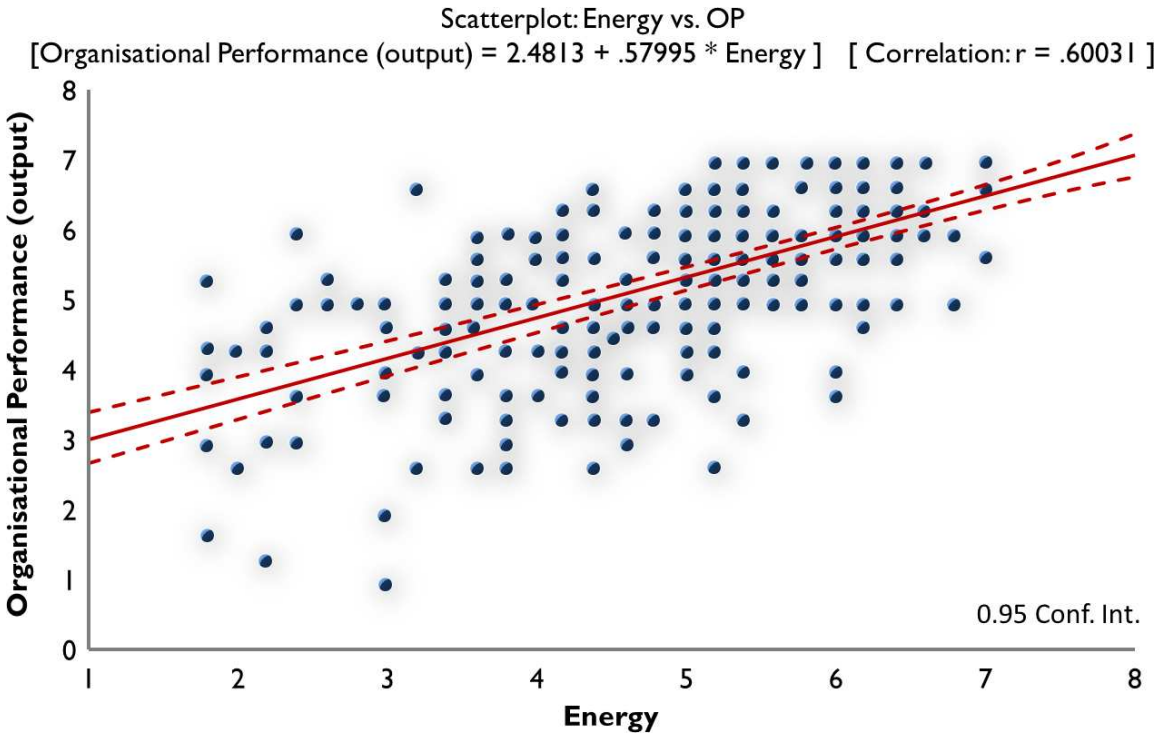
5.5.2.2. Scatter Plot of Organisational Energy and Organisational Performance Scale Scores

Figure 13 presents a scatter plot of the relation between organisational energy and organisational performance. Scatter plots visually reveal the relationships between variables. They provide a means for visual inspection of data that a list of values for two variables cannot. The direction, magnitude and shape of a relationship are conveyed in a plot.

All points on the scatter plot in Table 13 represent the 292 responses. The straight line characterises a linear relationship. The scatter plot clearly reveals a positive linear relation between the mean energy scores and mean organisational performance scores for the respondents (r=0.60, p<0.001).

The r value of 0.6003 in Table 20 indicates that 36 percent of the variance in organisational performance is explained by the level of organisational energy.

Figure 13: Scatter plot depicting the bi-variate relationship between organisational energy and organisational performance mean scores



5.6. Research Question 3

Which independent variables best predict organisational energy?

5.6.1. Cronbach Alpha

Table 21 depicts the Cronbach alpha coefficients for each of the six drivers of organisational energy. All six drivers had high internal consistency reliability as measured by the Cronbach alpha as all scores were above 0.7. This reveals that the scales of all six drivers were internally and consistently stable.

Table 21: Cronbach alpha for the scales of each driver (IVs) of organisational energy

DRIVER	VARIABLES (Questions)	Cronbach alpha
Engagement	6 7 9 10 11 40	0.80
Trust	14-17 33 37	0.77
Collective Identity	18-20 23	0.79
Innovation	8 24 25 27	0.81
Employee Investment	26 28 29 31 32 38	0.84
Leadership	12 13 34-36 39	0.84

5.6.2. Correlation Matrix of the Drivers of Organizational Energy Scale Scores

Table 22 below displays the Pearson Product Moment Correlations. Based on the highly significant correlations in the matrix of the Pearson Product Moment Correlations (all correlations significant at the 0.1% level of significance), all scale scores appear correlated.

Table 22: Correlations among the scales reflecting the predictor constructs

CORRELATIONS Marked correlations are significant at p<0.001) (N=292)						
	Engagement	**Trust**	**Collective Identity**	**Innovation**	**Employee investment**	**Leadership**
Engagement	1					
Trust	0.74	1				
Collective identity	0.67	0.64	1			
Innovation	0.75	0.73	0.67	1		
Employee investment	0.72	0.73	0.59	0.72	1	
Leadership	0.80	0.82	0.64	0.71	0.78	1

The inter-correlation matrix (Table 22) shows a high correlation among the predictors for example, Employee Investment and Leadership correlate highly at r=0.78 (p<0.001). Furthermore, all the above scales were consistent and were used in the regression analysis which follows.

5.6.3. Regression Analysis

Stepwise multiple regression was used to identify the order of the predictors in terms of the variance in organisational energy that they accounted for. A stepwise regression model was used as the test included two or more independent variables and the aim of the analysis was to produce a reduced predictor set.

As seen from Table 23, the three independent variables that best predict energy are Innovation, Collective Identity and Engagement. Together they account for 56 percent of the variance. The stepwise regression revealed Innovation to be the most significant correlated predictor followed by Collective Identity and then by Engagement.

The regression model that included these three predictors was significant at $F(3,288) = 122.88$ ($p<0.01$). No other predictor contributed significant variance when these three predictors were present in the model. The R squared value of 0.56 is a significant amount of variance accounted for by the three drivers. Jointly these three predictors explained 56 percent of the variance in organisational energy.

Table 23: Regression analysis on the independent variables

Regression Summary for Dependent Variable: Energy R^2= .56 F(3,288)=122.88 (p < 0.01)						
	b*	**Std.Err. - of b***	**b**	**Std.Err. - of b**	**t(288)**	**p-value**
Intercept			0.893622	0.224963	3.972303	0.00009
Innovation	0.360597	0.063314	0.343509	0.060314	5.695375	0
Collective identity	0.234047	0.055849	0.253509	0.060493	4.190694	0.000037
Engagement	0.240094	0.062819	0.239955	0.062783	3.821982	0.000162

5.7. Research Question 4

Analysis of variance (ANOVA) was used to assess the relation between organisational energy and the three factors of organisational size, organisational type and industry type. ANOVA is a univariate procedure as it is used to assess group differences on a single metric dependent variable (Hair *et al*, 2010). This statistical technique is concerned with differences between groups. It is used to determine whether samples from two or more groups are derived from populations with equal means or whether the group means differ significantly.

a) What is the relation between organisational energy and the size of an organisation?

In order to investigate if organisational energy is related to organisational size, in other words that organisations of different sizes have different mean energy levels, a one-way analysis of variance was computed. This analysis was preferred to a regression as organizational size was measured as a categorical variable.

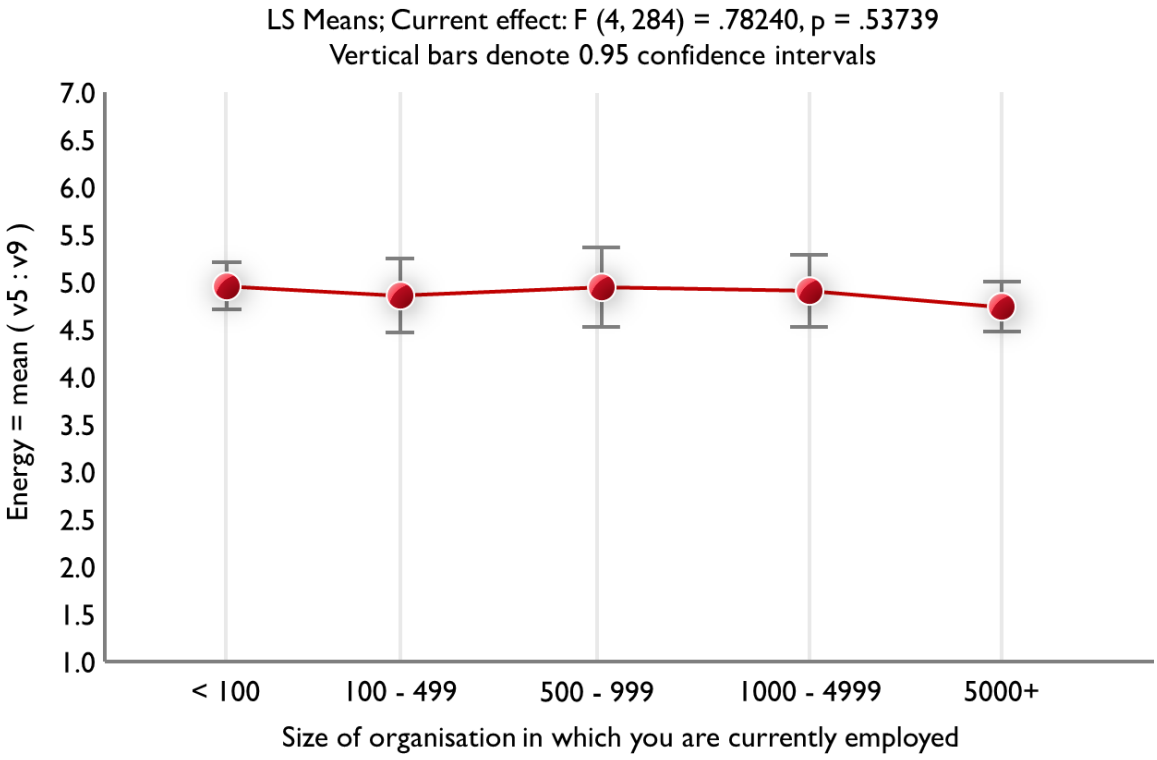
The test for significance in Table 24 revealed no significant difference in organisational energy $F(4,284) = 0.782$, $p>0.05$.

Table 24: Test of significance of organisational size

Univariate Tests of Significance for Energy					
	SS	**Degr. of - Freedom**	**MS**	**F**	**p**
Size of organisation in which you are currently employed:	4.467	4	1.117	0.782	0.537388
Error	405.395	284	1.427		

Figure 14 below displays the organisational energy means for organisations of different sizes and shows that all these means are close to 5 on the Likert scale.

Figure 14: Organisational energy by size of organisation



b) What is the relation between organisational energy and the industry type?

In order to investigate whether organisational energy is related to the type of industry, in other words, whether organisations within different industry sectors have different mean energy levels, a one-way analysis of variance was computed. This test used the five largest groupings of industry type with response rates above 20 which is the accepted norm. The test for significance in Table 25 revealed a significant difference in organisational energy $F(4,284) = 5.712$, $p<0.05$.

Table 25: Test of significance for industry type

Univariate Tests of Significance for Energy					
	SS	**Degr. of - Freedom**	**MS**	**F**	**p**
Industry in which you are currently employed:	30.425	4	7.606	5.712	0.000214
Error	300.939	226	1.332		

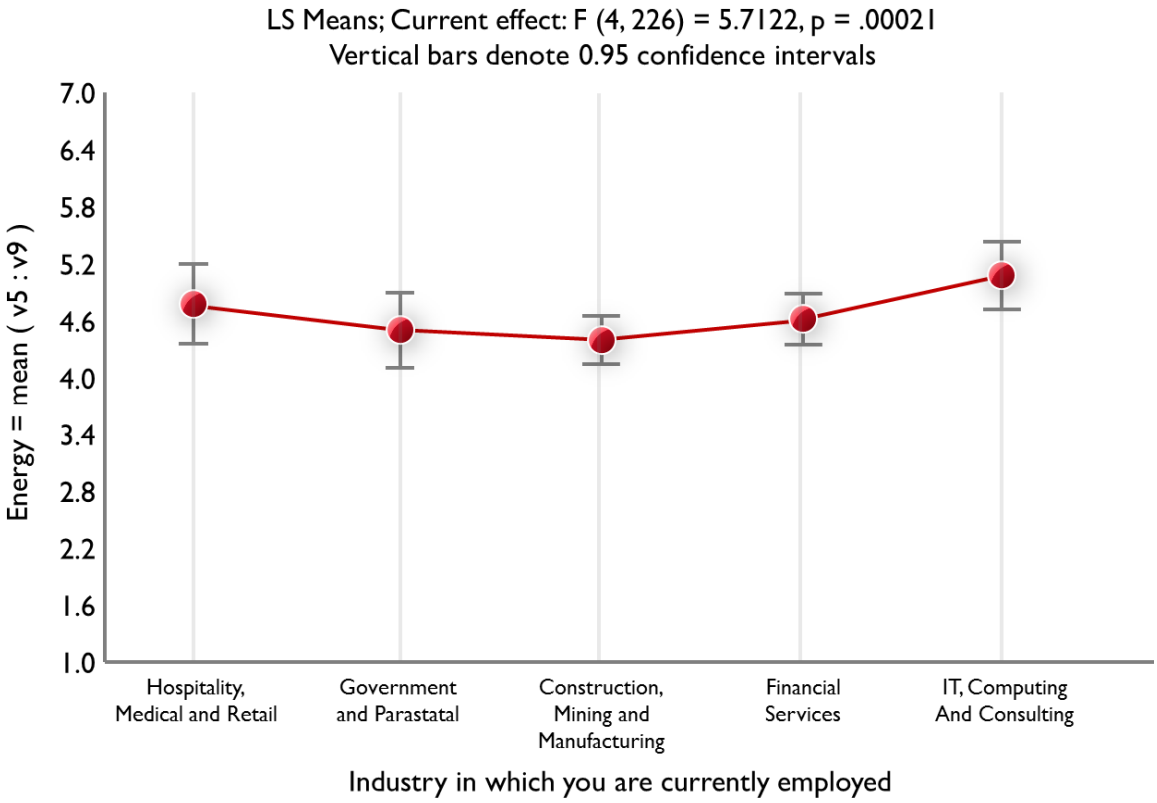
The post hoc Scheffe Test was used to investigate which industries differed significantly on organisational energy. The results depicted in Table 26 reveal the differences in the industry grouping for IT, Computing and Consulting compared to the industries of Government and Parastatal; Construction, Mining and Manufacturing; and Financial Services. The IT, Computing and Consulting industry group displayed the highest levels of organisational energy.

Table 26: Test of significance for industry type

SCHEFFE TEST: variable Energy Probabilities for Post Hoc Tests Error: Between MS = 1.3316, df = 226.00						
INDUSTRY IN WHICH YOU ARE CURRENTLY EMPLOYED		{1} 4.89	{2} 4.56	{3} 4.46	{4} 4.76	{5} 5.45
1	**Hospitality, Medical and Retail**		0.920	0.631	0.994	0.445
2	**Government and Parastatal**	0.920		0.998	0.976	0.068
3	**Construction, Mining and Manufacturing**	0.631	0.998		0.675	0.0004
4	**Financial Services**	0.994	0.976	0.675		0.053
5	**IT, Computing and Consulting**	0.445	0.068	0.0004	0.053	

Figure 15 below displays the organisational energy means for industries of different types. All the means are close to 5 on the Likert scale which indicates high organisational energy. However, the industry grouping of IT, Computing and Consulting is the highest.

Figure 15: Organisational energy by type of industry



c) What is the relation between organisational energy and the type of an organisation?

In order to see if organisational energy is related to the type or locality of organisation (global or local), in other words that organisations within different organisational types or localities have different mean energy levels, a one-way analysis of variance was computed.

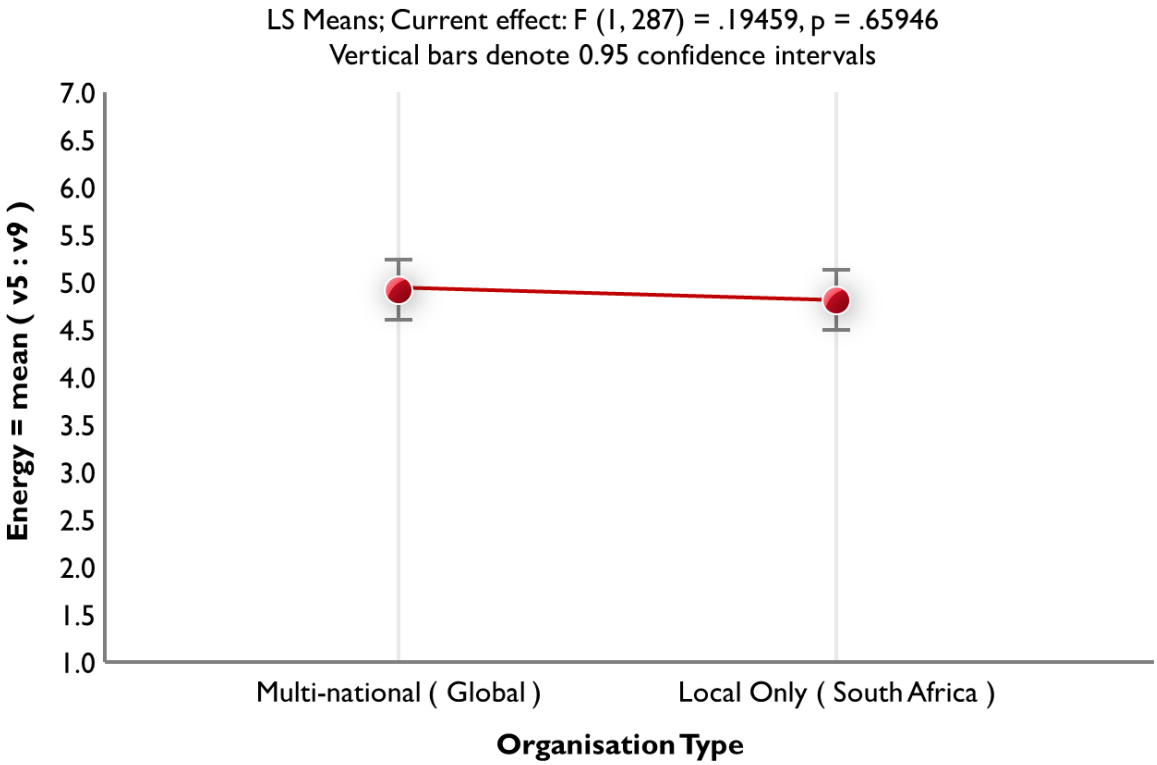
The test for significance in Table 27 revealed no significant difference in organisational energy F (4.284) = 5.712, p>0.05.

Table 27: Test of significance for organisation type

Univariate Tests of Significance for Energy					
	SS	**Degr. of Freedom**	**MS**	**F**	**p**
Type of organisation in which you are currently employed:	0.278	1	0.278	0.195	0.659458
Error	409.585	287	1.427		

Figure 16 below displays the organisational energy means for organisations by type or locality and shows that all these means are close to 5 on the Likert scale. This indicates no significant variance in organisational energy within global and local organisations.

Figure 16: Organisational energy by type of organisation



5.8. Conclusion

The results presented in the preceding chapter will be further discussed and elaborated and evaluated in the following chapter.

6. CHAPTER SIX: DISCUSSION OF RESULTS

The statistical results used to answer the research questions are interpreted and evaluated below. Preceding literature is examined insofar as it pertains to each research question for comparative analysis. Subsequently, the research results are discussed and conclusions are drawn for each question.

To reiterate, the central premise of this study, as stated in Chapter 1, was to refine the drivers and attributes of organisational energy in relation to organisational performance, and to ascertain the relevance and implications specifically among knowledge workers. Knowledge workers were selected as the target sample due to their importance in organisational performance.

This dissertation, is not, however, an attempt to prove direct causality between the drivers of organisational energy and organisational performance. Rather, the resulting data sought to determine if there is a relation between organisational energy and the output variable of organisational performance, and if so, to identify the strength of the between the two constructs of organisational energy and organisational performance.

6.1. Research Question 1

a) Do the five organisational energy variables form one coherent factor?

Previous studies, conducted by Bruch and Ghoshal (2003), Bruch, Vogel and Morhart (2005) and Lamberti (2010), looked at productive organisational energy. However none of these studies had established one quantitative, coherent factor to measure organisational energy. This research therefore focused on building a cohesive entity to serve as a composite item for the identification and measurement of organisational energy.

6.1.1. Statistical Analysis

The correlation matrix in Table 11 highlighted that all five organisational energy items, used in the investigation, were all highly and significantly correlated with each other. The five organisational energy variables used were:

1. Employees in my organisation are highly committed to their work.
2. Employees in my organisation display high levels of productive organisational energy.
3. Employees in my organisation are voluntarily willing to work additional time.
4. Employees in my organisation enjoy the work that they do.
5. My organisation is a high energy organisation.

The Cronbach alpha coefficient reported in Table 12 at 0.89 reflects a high internal consistency reliability of the scale. This indicates that all five items formed an internally consistent scale of energy in organisations.

6.1.2. Interpretation of Results

The five variables were revealed to be highly correlated aspects of the one construct termed 'organisational energy'. The historical literature was predominantly theory building. Lamberti's (2010) study revealed two separate factors of organisational energy comprised of the individual and the organisation. This study has, however, expanded on the Lamberti (2010) study to consolidate the two separate factors into one coherent factor.

6.1.3. Conclusion of Research Question 1a

The impact of this question and evidence-based result was that this study built a solid and cohesive set of composite drivers of organisational energy. To date, no such empirical evidence existed hence this particular composite item, underpinned by its unique item commonality, may be utilised for future consideration and applicability.

b) Do the three organisational performance variables form one coherent factor?

While the literature alludes to organisational energy driving organisational performance, there is very little empirical evidence for this. Most notable in this field are the works of Cole and Bruch (2006), and Quinn and Dutton (2005), who looked at the relation between organisational energy and organisational competitiveness. There is, however, no explicit body of literature to support this

assumption. Neither was this output investigated in either the Lamberti (2010) or the Derman (2008) studies. The intention of this study was therefore to investigate the relation between organisational energy and organisational performance, and if established, to ascertain a measure of concentration. This objective was completed by establishing three items of organisational performance for quantitative analysis.

6.1.4. Statistical Analysis

The correlation matrix in Table 16 highlighted that all three organisational performance items used in the investigation were significantly inter-correlated. The three organisational performance variables used were:

1. My organisation has a distinctive, competitive edge.
2. My organisation drives work excellence and output.
3. My organisation is a successful organisation.

The Cronbach alpha coefficient reported in Table 17 at 0.77 reflects fairly high internal consistency reliability of the scale. This indicates that all three items formed an internally consistent scale for performance in organisations. As such, they could be used as a reliable output variable for how levels of energy within organisations impacted on the performance within organisations.

6.1.5. Interpretation of Results

This study contributes significantly by introducing the concept of an output, that of organisational performance. It investigated the levels of energy leading to organisational performance, and then further in order to measure it.

The data revealed that the three organisational performance variables served as a reliable measure of organisational performance. Both the cohesion of these output items, and their relevance and applicability in serving as variables, were strongly supported.

The three variables were revealed to be highly inter-correlated aspects of 'organisational performance'. Very little preceding historical literature introduced an output construct such as that of organisational performance. They did however assume its presence in the absence of any quantification. This study attempted to introduce, build and validate the factor of organisational performance.

6.1.6. Conclusion of Research Question 1b

The introduction of this question and the significance of the data revealed that this study constructed a sound, solid platform for a cohesive framework for organisational energy and its relation to organisational performance. It reflected a good mix of composite drivers of organisational energy and showed that these variables predict better in combination than alone.

6.2. Research Question 2

Is there a relation between organisational energy and organisational performance?

The body of business management literature for several decades has alluded to organisational energy driving organisational performance. This was assumed to be an obvious linkage. Academic experts of business management have also postulated regarding the power of the energy force within the dynamics of successful, well-run organisations. Boyd and Sutherland (2006) did assert a link between powerful organisational brands contributing to organisational energy and in turn to organisational performance. Cole and Bruch (2006) linked organisational citizen behaviour to organisational performance which correlated closely to organisational energy.

However, this study revealed the scarcity in the body of knowledge in that, to date, no attempt has been made to demonstrate the relation between organisational energy and organisational performance empirically. Furthermore, the actual output of organisational performance was not measured in preceding studies. There were no empirical foundations constructed for arguments purporting correlations between organisational energy and performance. The significance of this question was paramount, therefore, to this study, as it served as the crux of the dissertation.

6.2.1. Statistical Analysis

For purposes of this statistical analysis, organisational energy became the independent variable and organisational performance becoming the dependent variable.

The results of the inter-correlation matrix in Table 19 revealed that all correlations amongst the organisational energy and organisational performance items were significant at the 0.1% level, that is, $p<0.001$. The correlation coefficient of 0.6 reveals that there is a positive relation between organisational energy and organisational performance. This finding is considered statistically significant and empirically valid.

Secondly, at least 64 percent of the variance in organisational performance is explained by the presence of organisational energy.

6.2.2. Interpretation of Results

This study sought not to prove direct causality between organisational energy and organisational performance but rather to establish if such a relation existed between the two constructs and if so, what the intensity and further implications of this relation were. Dramatically so, in this question, the results reflected a strong relation between the constructs.

In terms of preceding literature, this result again extends Lamberti's (2010) study by introducing organisational performance relationally to organisational energy. The same may be asserted *vis-a-vis* Bruch and Ghoshal (2003). By adding to the body of literature, this result fills the void in the empirical knowledge to date, and significantly substantiates the research question.

6.2.3. Conclusion of Research Question 2

The research result revealed an explicit and empirical relation between organisational energy and the output variable of organisational performance and as such significantly impacts on this topic of research. For the first time, the clear direct link between organisational energy and organisational performance has been empirically established and identified. This fully substantiates, therefore, the very kernel of this dissertation.

Furthermore, the relation between organisational energy and organisational performance was also found to be significantly positive, that is, the greater the concentration of organisational energy, the greater the output of performance.

This finding has major implications, both academically and pragmatically. Future research may now explicitly assert this interdependence between these constructs and use this knowledge as a foundation for further investigation. Likewise, organisations may now move forward with evidence-based knowledge to support any proposals to introduce and support business programmes and systems that

seek to deploy this knowledge construct into their strategy. Firms and organisations may now securely use this knowledge as a basis for future projection modelling and planning, in order to anticipate performance outcomes. It further validates the great need for organisations to recognise the relevance and implications of organisational energy and its contributing role to its performance.

6.3. Research Question 3

Which independent variables best predict organisational energy?

From the literature, various authors point to certain constructs as predictors of organisational energy. Bruch, Vogel and Morhart (2005) identified intensity and quality. Schwartz and McCarthy (2007) maintained that an organisation should practice its core values in order to increase organisational energy, however, this was somewhat broad. Dewhurst, Guthridge and Mohr (2010) acknowledged employee engagement in contributing to raising the levels of organisational energy. Lamberti's (2010) recent study also gave credence to employee engagement and furthermore revealed an assortment of somewhat disjointed components of organisational energy. Overall, very little literature existed to substantiate one cohesive framework of drivers for their relevance and representation as predictors of organisational energy. This research sought to validate which drivers best support, and serve, as predictors for the variable organisational energy item.

6.3.1. Statistical Analysis

As reflected in Figure 6, the questionnaire items, used to determine the best predictors of organisational energy, were categorised into sub-drivers of the key variables. This resulted in the deployment of six sub-categories that encompasses the full 32 questionnaire items as reflected in Table 21.

The Cronbach alphas of the six scales of the driver items, as reported in Table 21, all scored above 0.70. This reflects a high internal consistency reliability of the scale and a high correlation between the sub-drivers of organisational energy.

The regression analysis depicted in Table 23 reveals the concept of 'Innovation' emerging as the topmost and best predictor of organisational energy. Innovation explained almost half of the variance (49 percent) which is extremely high. The three top ranking sub-drivers were revealed to be innovation, collective identity and engagement. Jointly they accounted for 56 percent of the total variance in organisational energy.

6.3.2. Interpretation of Results

The results successfully ascertained both the existence of a ranking of influence, and also supplied a key driver of organisational energy: that of Innovation. In addition to being the highest ranked, Innovation also had a high strength value which indicates its great importance as an influential sub-driver.

The high correlation that exists among the predictors themselves could possibly allude to multi-collinearity. As they are independently highly concentrated in strength, all three highest ranking drivers, being innovation, collective identity and engagement, could each produce a successful result. The potential risk is that it could lead to a complication of the variables and their integration. This observation serves merely as a cautionary for future investigation.

The more practical impact, however, points to the significance of all three, and the compound effect of using them in combination, to raise the levels of organisational energy within organisations.

6.3.2.1. Innovation

The emergence of innovation as a key driver of organisational energy is distinctive. The introduction of the construct of Innovation into this study was a complementary extension on previous academia in this field. Its outstanding ranking endorses its inclusion in this study and fortifies its position as a key driver of organisational energy for future studies. Cross, Linder and Parker (2007) had also noted the significance of energy dynamics in influencing innovation. This was more recently supported by Fisk (2009) who found that nurturing creativity and innovation in organisations helped to build organisational energy which allowed organisations to work cohesively and more efficiently.

Innovation is characterised by creativity, idea generation, novelty, originality and transformation, all of which can enhance and rejuvenate organisations. The notion of a more inventive, resourceful and ingenious workforce draws parallel implications for employee drive, accountability and productivity. Hence organisations should strategise to embrace, invest and induct innovation into its organisational objectives.

6.3.2.2. Collective Identity

Collective identity was the second highest ranked predictor of organisational energy. Within this study, collective identity encompassed organisational branding, organisational values and organisational culture. This presents an expansion on the Lamberti (2010) study which identified only branding as leading to employee citizenship. The high ranking of this predictor lends credence to the significance of all sub determinants.

This finding provides further impetus for the fostering of a cooperative and united organisational environment to instigate organisational energy which could lead to increased organisational performance. Boyd and Sutherland (2006) have already determined the significant role played by strong organisational brands. Swartz and McCarthy (2007) emphasised organisational values in increasing organisational energy. In further support, Ireland *et al* (2011) provided a linkage between organisational values and organisational performance.

The significance of such a finding repositions an organisation's focus from collective identity being an intangible attribute to that of a definitive predictor of organisational energy which can be used to increase organisational performance.

6.3.2.3. Engagement

Engagement was the third highest ranked predictor of organisational energy. Engagement in its broadest definition encompasses commitment, passion, dedication, enthusiasm, allegiance and perseverance.

The body of evidence exists for employee engagement as a key driver of organisational performance. Literature points to the relationship between organisational energy and the group collective wherein teamwork is a form of collaboration and engagement (Bruch & Vogel, 2011). More recently, Dewhurst *et al* (2010) postulated that employee engagement demonstrated a commitment and a contribution of knowledge to the organisation that is in excess of the norm. This level of commitment further demonstrates high organisational levels that lead to increased organisational performance. Engagement has also been linked to an individual emotional involvement working towards organisational output (Hamel, 2007); the ultimate output being that of organisational performance.

However, in comparison to previous research, this study included new sub-drivers within engagement, that of communication and collaboration. The introduction of these two constructs shifts from focusing purely on individual-led engagement to

that of organisational-led engagement since the organisation plays a distinct role in communication assimilation and team-task coordination.

The significance of this finding draws attention to the creation of organisational networks and associations, appropriate team arrangements, and meticulous communication approaches which will drive higher levels of organisational energy.

6.3.3. Conclusion of Research Question 3

Academically, further interrogation of the relationship between innovation and organisation should be further explored as a clarion call for new study. Pragmatically, the business and organisational environment should take cognisance of the impact and role that innovation plays in promoting and contributing to performance. With such high levels of influence, innovation should definitely be prioritised in the contemporary climate of change and financial uncertainty to ensure greater levels of performance output. In support of this, Hamel (2007) had also asserted that innovation organisations will retain strategic advances, competitive edge, and sustained performance.

6.4. Research Question 4

a) What is the relation between organisational energy and the size of an organisation?

Historically, the size of an organisation and its significance has not been researched empirically. As such, no body of literature exists in this regard. Hence the question was posed as a new potential area of exploration with the purpose of investigating the impact and relation of organisational size and organisational energy.

6.4.1. Statistical Analysis

The categories of organisation size selected for testing was based on the highest scoring industry type from the respondents. The organisational sizes under investigation were:

1. <100 employees
2. 100 - 499 employees
3. 500 – 999 employees
4. 1000 – 4999 employees
5. 5000+ employees

Figure 14 revealed that the organisational energy means for organisations of different sizes were not significantly different around a mean of 5. Furthermore,

the one-way analysis of variance in Table 24 revealed no significant difference in organisational energy at F(4.284) = 0.782 where p>0.05..

6.4.2. Interpretation of Results

The sample size of respondents who worked for small and large organisations was negligible in comparison with each other. This was important in that, at either end of the gradient scale of the size of the organisation, evidence revealed a negligible difference which is inconsequential and hardly warrants further scrutiny. This does not invalidate the size, however, and does not prove the influence on organisational energy whether positively or negatively.

Alternatively, this could be interpreted as insufficient data from which to draw firm results and therefore might require further scrutiny at an empirical level. It does, however, lend credence to the deployment and promotion of organisational energy across all sizes of organisations, as organisational energy can and should be applied within small start-up organisations to larger multi-national entities.

6.4.3. Conclusion of Research Question 4a

There are differences in small and large organisations that could influence which drivers of organisational energy can be driven internally. One such difference is that small organisations may not prioritise and possess budgetary allocations for branding and values awareness which can result in that organisation not being able to fully capitalise on its corporate identity which is one of the drivers of

organisational energy. However the possible moderating effect of organisation size on the relation between drivers of organisational energy and organisational energy was beyond the scope of the study.

b) What is the relation between organisational energy and the industry type?

As is the case with organisation size, the industry type of an organisation and its significance has not been empirically researched previously. As such no body of literature exists with regard to organisational energy. Derman (2008) recommended that the probe into organisational energy also cover industries other than her study of the financial environment. Hence, this question was posed as a potential new area of exploration depending on the outcome of the result.

6.4.4. Statistical Analysis

The analysis examined 13 types of industries as reflected in Figure 10. However, some of the categories were too small for fair representation. The variances were minimal and therefore only the five most frequently occurring industries were selected for study.

These were:

1. Hospitality, Medical and Retail
2. Government and Parastatal
3. Construction, Mining and Manufacturing

4. Financial Services
5. IT, Computing and Consulting

The above five categories of industries collectively represented 79 percent of the total number of responses.

Figure 15 revealed that the means of the five mentioned industry categories were all close to 5 on the seven-point Likert scale. This indicates high organisational energy. The test of significance revealed that IT, Computing and Consulting was the highest ranking industry in its relation to organisational energy.

6.4.5. Interpretation of Results

This study focused on identifying those industries that displayed the highest levels of organisational energy and to assess significant differences in organisational energy. The results were compared across the sectors to determine if certain ones exhibited patterns different to others.

The small variances make it challenging to formally interpret the results for a definitive finding. The variances between IT, Computing and Consulting, and Construction, Mining and Manufacturing as a lower ranking category, could be interpreted as the most prominent industries with high levels of organisational energy.

Inferences could be drawn between this finding and that of Innovation in Question 3 in that the IT, Computing and Consulting industry is often viewed as promoting constant creativity and innovation. This may add further impetus for the drivers of organisational energy.

6.4.6. Conclusion of Research Question 4b

Despite the minimal variances of organisational energy amongst the top five industry types, this finding is significant in that it provides a top ranking industry (IT, Computing and Consulting) that can be further interrogated for opportune drivers of organisational energy. The types of industries provide a recommended area for continued investigation in order to state empirical relevance and implications for organisational energy.

c) What is the relation between organisational energy and the type of an organisation?

The type of organisation, be it a local or domestic organisation or a multinational operation, and the significance of this, has not been previously empirically researched. As such, no body of literature exists in this regard. However, the question was posed as a new potential area of exploration depending on the outcome of the result.

6.4.7. Statistical Analysis

The two types of organisations investigated were:

1. Local only (South African)
2. Multi-national (Global)

Table 27 revealed no significance difference in organisational energy between these two organisation types with means close to 5 on the seven-point Likert scale. This indicates minimal variance in organisational energy within both local and global organisations.

6.4.8. Interpretation of Results

A finding of no significant differences between local and global organisation types could indicate that organisational energy occurs as a common construct regardless of the type, setting and location of an organisation. It could also indicate that organisational energy is independent of cultures that may differ in the different type of local and global organisations. Hence an organisation's culture may have no influence on its organisational energy.

6.4.9. Conclusion of Research Question 4c

It is difficult to assert the correlation of this research result of this category of interrogation due to the small variances. This could be interpreted either way and broad assumptions could be drawn either way. Hence this is a recommended area

of continued investigation before drawing relevance and implications for organisational energy.

6.5. Conclusion

The conclusions and recommendations are based on the preceding analysis and are further elaborated on in the next chapter.

7. CHAPTER SEVEN: CONCLUSION

7.1. Theoretical Contribution of this Study

The study attempted to further clarify and expound on previous research studies in order that more appropriate measures could be used for this empirical investigation. From a broad literature review perspective, the Lamberti (2010) empirical study of the key drivers of organisational energy served to facilitate and refine this investigation.

Most writings on organisational energy are theory building and there is little empirical evidence on quantitative study. This study extended and refined Lamberti's (2010) work to:

- develop a coherent measure of organisational energy,
- develop a coherent measure of organisational performance, and
- identify the key drivers or predictors of organisational energy.

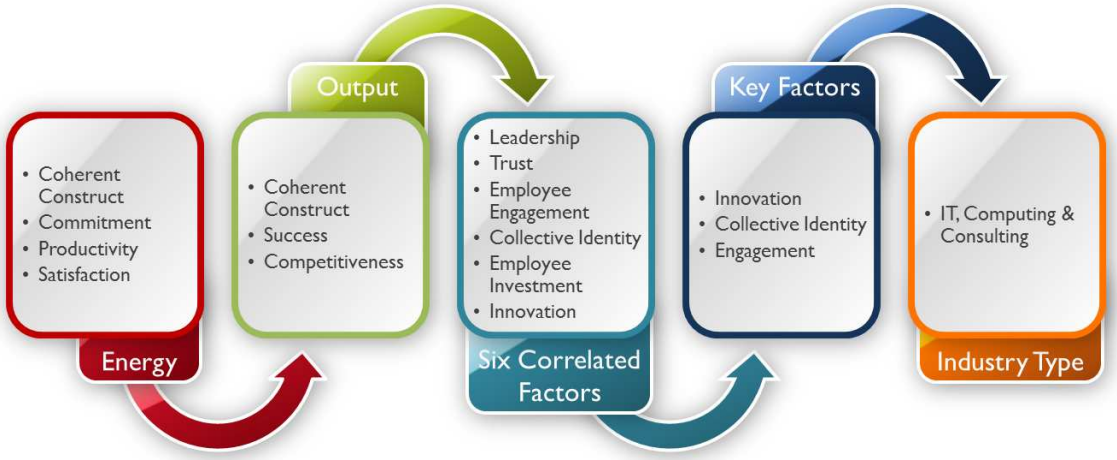
The study was also the first to introduce and demonstrate an output variable, that of organisational performance. It established that the three underlying items which were used to determine organisational performance were strongly correlated and adequately represented performance as an output.

Of importance is that this study has revealed a significant relation between organisational energy and organisational performance. The drivers of organisational energy were refined in order to determine their relation to organisational performance, and to ascertain the relevance and implications specifically among knowledge workers. This study has established the relation between the drivers of organisational energy and organisational performance and proceeded to assess the strength of that relationship.

In addition to previous investigations, this analysis interrogated the independent variables, or drivers of organisational energy, to reveal six factors, each of which were demonstrated statistically to be strongly coherent factors. This was critical to then further investigate the key predictors of organisational energy. Based on empirical evidence, the study proceeded to demonstrate, validate and rank the drivers which best predict organisational energy and its influence on organisational performance.

This research synthesised both the historical constructs and the more recent empirical research on organisational energy and its varying drivers, to build a framework (Figure 17) depicting the value and impact of organisational energy in relation to organisational performance, and its relevance and implications for knowledge workers.

Figure 17: Theoretical contribution of constructs



The theoretical framework reveals a summation of the various constructs determined and derived from this study. The contribution of each new factor provides numerous instances of learning and areas for further development and investigation.

7.2. Recommendations to Managers

This study yielded several opportunities for harnessing value-add recommendations for organisational leaders and managers, as well as potential areas of future academic research.

7.2.1. Organisational Energy as a Driver for Organisational Performance

This study empirically proved that levels of organisational energy within an organisation can be garnered to result in increased organisational performance. Organisational leaders and managers are encouraged to take cognisance of the

framework model and findings in order to capitalise on the benefits of instituting and advocating those drivers of organisational energy that will result in guaranteed greater performance levels.

Whilst the study highlighted the important variables that are associated with greater organisational energy, such as innovation, it is recommended that managers critically evaluate those drivers that will best align to their organisational strategy. A case in point is that organisations should be well equipped first in order to recognise and reward innovation prior to instilling this driver into its culture. Another would be to further consider their industry type when considering the priority deployment of one driver of organisational energy over another.

A novel and more convex approach when adding to the foundation of this study would be a replicated investigation. This proposed similar study could be replicated with two sample groupings, that of senior and executive managers and that of middle managers. This would serve to assess the congruence between those hierarchies of management that fundamentally should encourage those drivers of organisational energy and those that experience or have to execute implementation of it. Organisational energy matters. It drives organisational performance. Managers would need to consider ways in which to create energy. This study offers some guidelines for doing this.

7.2.2. Three Key Drivers of Organisational Energy

This study revealed the key drivers of organisational energy which are necessary for organisational performance. The ranking of the key factors provides focal fields of relevance for organisations in encouraging high energy levels towards raising the performance levels.

7.2.2.1. Innovation

Innovation as a driver of organisational energy demonstrated high importance as a key influence on organisational performance. This was a crucial empirical finding that should not be ignored. Proposed future research might closely examine this relation, the factors that contribute to this high correlation, more particularly the role of creativity, and to scrutinise the rationale and underlying forces that might subconsciously drive this link. Such results would yield invaluable data intelligence that would exercise high demand in the market place as well as the academic research space.

7.2.2.2. Collective Identity

Literature revealed that branding and values play a significant role in influencing collective identity and thereby raising the levels of organisational energy. This has implications for both large and small organisations in driving a fundamental value system that forms the DNA of an organisation. It is strongly asserted that the presence of a positive and reputable organisational image together with a shared set of work principles, will elicit a sense of pride and community that will increase the levels of organisational energy that collectively contribute to performance.

7.2.2.3. Engagement

Employee engagement is a strong form of emotional attachment. It plays close to the space of collective identity and could also largely foster trust. Emotional attachment to an organisation, in whatever form, can also serve to nurture internal advocates of all the factors that drive organisational energy. This finding is a significant proponent for interventions comprising teamwork, collaborative programmes and networking.

7.3. Recommendations for Future Research

The research findings, as detailed in Chapter 6, significantly expand on the literature, as expounded in Chapter 2. As such these findings contribute to the possibility of a broader knowledge base but could be reinforced by further distillation of the following areas of consideration:

7.3.1. Qualitative Research

The various constructs as revealed in this research provide a foundation for further interrogation. The key drivers of organisational energy can be expounded with an in-depth qualitative study.

7.3.2. Individual Energy

This study demonstrated the empirical relation between organisational energy and organisational performance. However, as Bruch and Ghoshal (2003) observed, individual energy does not necessarily translate into organisational energy.

Organisational energy is therefore greater than the sum total of individual energy (Bruch & Ghoshal, 2003) therefore this phenomenon merits its own further research.

7.3.3. Organisational Financial Performance

This study did not investigate the correlation between organisational energy and financial performance as demonstrated in financial results. Success in organisations was purely ascertained via three variables namely, questions 21, 22, and 30 (Table 14). Neither was cognisance given to the impact of current macro-economic impacts on the organisations current performance.

Future studies could assess the companies' performance in the form of financial performance. This could provide a backdrop linkage between audited success and organisational energy.

7.4. Conclusion

Ultimately, competitive organisations should be able to derive the best possible returns on their resources, both human and financial, when compared to other organisations (Cummings & Worley, 2008). This study has demonstrated that organisations with high levels of energy are also high performing organisations.

To date, it has been an underlying assumption in all business management theory that organisational energy and productive organisational performance are

interrelated. The uniqueness of this study is that for the first time, empirical results have positively confirmed the theoretical assumption. The implications are significant for both future academic research and organisational applicability.

This dissertation hopes to provide a foundation for future research and also to serve as a strategic leverage tool for organisations to integrate their human resource functionality fully. In doing so, they should achieve their objective in translating their organisational energy currency into optimum profitability results and exceptional organisational success.

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APPENDICES

Appendix 1: Questionnaire and Consent Form

SURVEY ON THE DRIVERS OF PRODUCTIVE ORGANISATIONAL ENERGY

I am an MBA student conducting research on the drivers of productive organisational energy. The concept of 'organisational energy' is defined as the level of intensity, positivism, enthusiasm and high energy in the workplace. High levels of these factors in an organisation may play a key role in enhancing an organisation's performance. Your input would be most valuable in determining the key drivers of productive organisational energy. Your participation in this survey is purely voluntary and you can withdraw at any time. The survey does not request your personal details and all response data will be kept confidential.

If you have any concerns or queries regarding this research and the survey, kindly contact:

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QUESTIONS

INSTRUCTION: Please mark your selected response with an "X" as indicated below

~~Correct Answer~~

Your Academic Course:

MBA Group	PDBA Group	Non-student
1	2	3

Industry in which you are currently employed:

Construction, Mining and Manufacturing	Financial Services	Hospitality, Medical and Retail	IT, Computing and Consulting	Research and Academic	Government and Parastatal	Non-governmental or NGO	Other - Please Specify
1	2	3	4	5	6	7	8

Size of organisation in which you are currently employed:

<100 employees	100 – 499 employees	500 – 999 employees	1000 – 4999 employees	5000+ employees
1	2	3	4	5

Type of organisation in which you are currently employed:

Local Only (South African)	Multi-national (Global)
1	2

Please indicate your level of agreement with each of the following statements:

No.	Question	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1	Employees in my organisation are highly committed to their work.	1	2	3	4	5	6	7
2	Employees in my organisation display high levels of productive organisational energy.	1	2	3	4	5	6	7
3	Employees in my organisation are voluntarily willing to work additional time.	1	2	3	4	5	6	7
4	Employees in my organisation enjoy the work that they do.	1	2	3	4	5	6	7
5	My organisation is a high energy organisation.	1	2	3	4	5	6	7
6	My organisation effectively communicates its goals and strategic intent internally.	1	2	3	4	5	6	7
7	Cooperation and sharing of information/resources is common practice in my organisation.	1	2	3	4	5	6	7
8	My organisation has new projects and initiatives that make the workplace exciting.	1	2	3	4	5	6	7
9	Management in my organisation value the opinions of employees like me.	1	2	3	4	5	6	7
10	There is a high level of positive interaction amongst colleagues and teams in my organisation.	1	2	3	4	5	6	7
11	There is frequent collaboration amongst the different departments/business units in my organisation.	1	2	3	4	5	6	7
12	Management in my organisation is approachable.	1	2	3	4	5	6	7
13	Leadership in my organisation is effective	1	2	3	4	5	6	7
14	I have the autonomy to make decisions in my organisation	1	2	3	4	5	6	7
15	I am allowed the freedom to reach my work deliverables in my own way in my organisation.	1	2	3	4	5	6	7
16	I trust my colleagues' ability to execute their roles effectively.	1	2	3	4	5	6	7
17	My organisation is ethical.	1	2	3	4	5	6	7
18	Employees feel a sense of pride in working for my organisation.	1	2	3	4	5	6	7
19	My organisation's brand is perceived positively in the market.	1	2	3	4	5	6	7
20	I identify with the values of my organisation.	1	2	3	4	5	6	7
21	My organisation has a distinctive, competitive edge.	1	2	3	4	5	6	7
22	My organisation drives work excellence and output.	1	2	3	4	5	6	7
23	My organisation optimises the integration of new employees.	1	2	3	4	5	6	7
24	My organisation encourages creativity and new suggestions.	1	2	3	4	5	6	7
25	My organisation is a fun place to work in.	1	2	3	4	5	6	7
26	My organisation allows me to build on my strengths.	1	2	3	4	5	6	7
27	My organisation rewards continuous improvement of work processes.	1	2	3	4	5	6	7
28	My organisation helps me to manage my career path.	1	2	3	4	5	6	7
29	My organisation is committed to training of staff.	1	2	3	4	5	6	7
30	My organisation is a successful organisation.	1	2	3	4	5	6	7
31	My organisation gives financial rewards based on company performance.	1	2	3	4	5	6	7
32	My organisation gives financial rewards based on individual performance.	1	2	3	4	5	6	7
33	My organisation uses performance measurements effectively.	1	2	3	4	5	6	7
34	My organisation sets performance measurements correctly.	1	2	3	4	5	6	7
35	I am regularly given feedback on how I am performing in my organisation.	1	2	3	4	5	6	7
36	My organisation effectively deals with non-performers.	1	2	3	4	5	6	7
37	I have honest and frank discussions with my manager.	1	2	3	4	5	6	7
38	My organisation promotes employees based on merit.	1	2	3	4	5	6	7
39	My manager is fair and understanding.	1	2	3	4	5	6	7
40	I think I will still be working at my organisation in five years time.	1	2	3	4	5	6	7