
MA RESEARCH REPORT

Organisational
Psychology

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Environmental concern as an important value in the choice of organisation in the South African context

A research project submitted in partial fulfillment of the requirements for the degree of MA by coursework and Research Report in the field of Organisational Psychology in the Faculty of Humanities, University of the Witwatersrand, Johannesburg, dated 13 April 2012.

I declare that this research report is my own, unaided work. It has not been submitted before for any other degree or examination at this or any other university.

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Date: _____

Word Count: 27 136 (*excluding cover, title page, abstract, acknowledgements, index page, tables, references and appendices*)

ABSTRACT

Employer attractiveness is defined as the envisioned benefits that a potential employee sees in working for a specific organisation (Berthon, Ewing and Hah, 2005). Attracting employees with superior skills and knowledge comprises an important source of competitive advantage. Added to this, young workers are now looking to work for organisations that do not harm the environment. This study attempted to validate an existing scale, the Employer Attractiveness Scale (EmpAt), and extend this scale to include a new self-developed 'green' value subscale to measure the importance that a sample of second-to-last and final year university students ($N = 276$) placed on various values, when choosing an organisation for which to work. The environmental consciousness of the sample of students was thus investigated. The likelihood of finding a job in the ideal organisation was also investigated. The results indicated that the current sample was indeed environmentally conscious on two different ecological scales, including the self-developed green subscale of the new revised EmpAt, and that the likelihood of finding a job in an ideal organisation was indeed considered likely in the current South African context. Significant differences were found between race and gender groups. The Employer Attractiveness scale retained most of its original factorial structure providing validity to the scale, with the green subscale loading as the main factor.

ACKNOWLEDGEMENTS

Praise and thanks to my Heavenly Father and Lord Jesus Christ.

Special thanks to my husband Ian for your unwavering love, support and belief in me throughout this challenging endeavour, and to my children Jade, Keagan and Kelly for your understanding.

Kind thanks to Professor Andrew Thatcher for your wisdom, knowledge and expertise, and your willingness to teach and provide insight.

Thanks to Mom and Dad for your interest, support and prayers when I needed it most.

Thanks to Colleen Bernstein for your support and constant encouragement throughout the year.

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1. INTRODUCTION

There has always been a very complex and challenging relationship between humans and nature. We have adapted ourselves to the environment and harnessed its many resources to sustain ourselves. We have not always done this in a manner to continue this relationship indefinitely. Whereas in mankind's earliest explorations, we found ourselves in rural settings, we now live and work primarily in an urban setting, where a multifaceted relationship exists between where we live and work, between nature, our cities and urban areas. Part of this relationship is the ability to work to sustain ourselves and fulfill certain needs such as shelter, security or social standing. But a new generation is rising; a generation of new employees that is looking to "enter the green arena" (Market News, 2007, par. 7), where the need for a job is more than its prospective economic value. Market News (2007) asserted that "as young people are getting increasingly worried about environmental problems like global warming...many want jobs that make the world a better place" (par. 9). They emphasise how young workers are looking to find careers with both financial and personal rewards, where "talented employees are attracted to green companies" (Market News, 2007, par. 17).

University students are apparently looking for more than just a first job or an internship. They are looking to work for organisations that help the environment, according to a survey conducted by MonsterTRAK (Market News, 2007). Current and prospective employees are "making their preferences known based on a company's reputation in corporate responsibility" (Senge, Smith, Kruschwitz, Laur and Schley, 2010, p.111). Senge et al. (2010) discussed an Ipsos MORI survey, providing thought-provoking results where "80 percent of those surveyed said they are interested in a job that has a positive impact on the environment and 92 percent would prefer to work for an environmentally friendly organization" (p.111). Jeroen van der Veer, chief

executive of Royal Dutch Shell, says “In my view, the successful companies of the future will be those that integrate business and employees’ personal values. The best people want to do work that contributes to society with a company whose values they share, where their actions count and their views matter” (Senge et al., 2010, p.111). Esty (2011) discussed how employees were more loyal to companies that do the right thing and communicated their environmental plans in a transparent manner, and that organisational environmental initiatives could resonate with employees (or prospective employees). Esty (2011) concurred that despite the current economic crisis, the facts do suggest that sustainability programs will realise cost savings and harness employee passion. Senge et al. (2010) further indicated that the cost savings involved in being a more sustainable organisation are crucial for external credibility and the bottom line, both improving competitive edge as an organisation and also reducing risks. Senge et al. (2010) argue that it is a powerful motivator for younger employees today to know that an organisation is working in the right areas, and doing the right things.

Companies like Dell are ‘green’ advertising to the masses to demonstrate their commitment to the environment, as well as highlighting their green ranking (*Newsweek names Dell Greenest Company in America*, 2011) compared to their competitors. Axxess, a South African internet provider, emailed their clients (Axxess – Your digital playground, Personal communication, February 25, 2011) and included a specific advertisement for going ‘green’ by using ‘Fax2Email’, thereby saving our trees and helping to save the planet (*See Appendix A*). These advertisements attest to the growing awareness by an emergent population of organisations about the importance of proving to their clients (or prospective employees) that they are environmentally conscious. According to CNN (*Green is a way of life in Europe’s eco capital*, 2011), Germany’s second largest city, Hamburg, is “becoming a model for major metropolises

around the world” (par. 2), and that local businesses see being green as “embedded in their culture” (par. 5), and where many local restaurants use only local produce. The *Green Traveller* is a business that helps travelers plan vacations that keep carbon emissions to a minimum, and a local hotel in Hamburg, Hotel Atlantic, uses eco-friendly cleaning products and even offers employees “financial incentives to use public transport” (par. 23-25).

This study intended to discover just how important these perceptions of ‘green’ values were to prospective young employees when choosing an organisation for which to work. The research therefore focused on organisational choice based on a comparison of the various values that underscored these decisions, which included a new ‘green’ value added to an existing measurement, the Employer Attractiveness Scale (Berthon, Ewing and Hah, 2005). This measurement is discussed in more detail in the Literature Review.

The overarching aim of the study based on the research questions to follow was to extend a measure called the Employer Attractiveness Scale (EmpAt) by adding an additional subscale to this measurement. The subscale was added to this measure in the form of ‘green’ items as an emerging additional consideration for prospective employees when making a choice in terms of an organisation for which to work. Based on the preceding discussion, and from the results of the surveys that were briefly discussed, it would seem that environmental sustainability issues are potentially extremely important to prospective employees in the choice of organisation, particularly in developed countries. Due to the apparent importance of environmental sustainability to prospective employees, it was felt to be an important value to add to the current EmpAt measure that did not allude to any form of environmental consciousness in the existing measure. The current values of the EmpAt provide definitions on the current values as they

stand, as well as clarifying the history and development of the measurement. Because the EmpAt was adapted and extended, a necessary step in this study included the construct validation of the new revised EmpAt scale in terms of its reliability and construct validity, as well as comparing the psychometric properties obtained in this study to the original results obtained by Berthon et al. (2005). The surveys discussed previously were conducted in developed countries and their results showed how important environmental sustainability issues were, but there is a possibility that this may not be true for prospective employees in South Africa; this was an exploratory aspect of this study.

The relative importance to prospective employees of the existing EmpAt values was investigated, as well as how they related to the new self-developed 'green' value component of the extended EmpAt. The environmental consciousness of the research sample was investigated separately using the New Environmental Paradigm Scale (NEPS) (Dunlap, Van Liere, Mertig and Jones, 2000). The NEPS was compared to the 'green' value component of the extended EmpAt scale to determine convergent validity, and discriminant validity was determined by comparing the remaining subscales of the EmpAt with the NEPS. Finally, the perceived likelihood of finding a job in an individual's ideal organisation, which subjectively matches the individuals' values with regards to organisational choice, was examined. Considering the current economic and political environment in South Africa, despite the need for prospective employees to want to work in a particular organisation based on specific beliefs, values or interests (in a 'green' organisation for example), this might not be possible due to factors out of the control of prospective employees. A theoretical framework will now be provided. Theories around organisational choice and person-organisation fit as a component of career psychology, the development of the original EmpAt scale, and the emerging perceived importance of 'green'

values to prospective employees when making an organisational choice, including organisational image, are discussed.

2. LITERATURE REVIEW

2.1. Organisational Choice

Research and various theoretical frameworks have largely focused on occupational or vocational choice, whereas organisational choice has received less attention. Limited research has therefore focused on organisational choice. In society today, many jobs can apply across organisations e.g. an accountant can work at any organisation where there is a need for that occupation, and therefore the choice is with the *organisation* and not necessarily with the specific vocation.

Schreuder and Coetzee (2006) defined organisational choice (OC) as “an individual’s choice of a specific organisation for which to work” (p.184) and describe it as an event and not a process as with occupational choice. They asserted that “although there are many tests and instruments available to assist individuals in making a career choice, there are few available to assist people in choosing an organisation” (p.184). Moreover Schreuder and Coetzee (2006) claimed that career counsellors devoted minimal attention on advising jobseekers about OC. This is disconcerting since essentially OC is a “matching process” (Schreuder and Coetzee 2006, p.184) between the individual and the organisation; where individuals “evaluate different organisations to determine which one will best meet their career aspirations, needs and values” (p.184).

Glueck (1974) discussed the decision making process around OC as a non-routine decision.

Perhaps the most interesting or important decisions that we make are those that significantly affect our lives, such as choosing an occupation or organisation for which to work. Coetzee and Roythorne-Jacobs (2007) asserted that value-based career anchors focussed particularly on

service and dedication to a cause, such as working for the greater good of organisations and/or communities and improving the world in some manner. Thus individuals who held this type of career anchor would prefer to work for and in an organisation where these personal preferences could be met. Schneider (1987) indicated that positive job attitudes for people in an organisation can be presupposed when the “natural inclinations” (p.450) of the employees there can be reflected in their behaviour by the kinds of processes or structures in the organisation. Schneider (1987) was of the firm belief that as psychologists we should seek to find explanations for behaviour *in* people, not in the results of their behaviour and that people in essence then, make the place, not the other way around.

Glueck’s (1974) research examined how students went about choosing or were chosen by an organisation for which to work. He asserted also that there was limited literature on OC and how an individual chooses an organisation for which to work within a chosen occupation, as opposed to the more researched topic of occupational or vocational choice. Commenting on Vroom’s (1966) research on students’ preferences for various types of organisations from the perspective of goal achievement, Glueck (1974) noted that Vroom’s research indicated that there was a high correlation between the ranking of an organisation and the perceived likely satisfaction of the individuals’ goals. Vroom (1966) examined the organisational choices of graduate students by exploring the attractiveness of organisations from which they were expected to make their choices and measured the instrumentality of these organisations with regards to the graduates’ perceptions of obtaining their subjective goals. As explained by Festinger’s theory (1957, as cited by Glueck, 1974; Vroom, 1966) of cognitive dissonance, after the initial choice was made, the perceived likely satisfaction for the companies not chosen decreased, whilst the perceived likely satisfaction of the companies that were chosen, increased. The study wished to add values

as a construct to this perception of dissimilarity, where the values of the organisations differed in their attractiveness to the job seeker and which subsequently may or may not cause cognitive dissonance within the jobseekers.

Vroom's (1966) research strongly supported the notion that the attractiveness of an organisation to a prospective job seeker was directly related to his or her beliefs concerning its instrumentality for the attainment of their goals. Chapman, Uggerslev, Carroll, Piasentin and Jones (2005) researched applicant attraction to organisations and job choice. Predictors included job-organisation attraction and actual job choice. The results indicated that applicant attraction outcomes were indeed predicted by job-organisation characteristics and perceived fit, among others. Applicant attitudes also mediated the predictor-job choice relationship.

Glueck (1974) described research by Soelberg (1967, as cited in Glueck, 1974) where decision-makers develop a set of expectations of the 'ideal' type of organisation that they would like to work for. The researcher contended that these expectations in contemporary South Africa consisted of green values as well as the more established social and financial expectations. Glueck (1974) argued that OC may be seen as a variation of occupational choice decisions, where an individual searches the environment and chooses an organisation which would maximise possible future income, but agreed that money alone may not be the only factor involved in an individual's utility function. In fact, Glueck (1974) asserted that an individual would choose an organisation that maximised his or her set of preferences. He continued to discuss how some authors e.g. Simon (1957, as cited in Glueck, 1974) maintained that if an individual did not find a satisfactory organisation, the person would reduce his or her goal level until he or she did find one. This kind of theorising might well explain the South African situation where individuals are not always able to find a job in their organisation of choice, and

are forced to re-evaluate their goals to align them with the organisations that were available for them to choose from. Glueck (1974) explained how individual differences such as past job experience was a useful predictor in decision patterns, as someone who has held several jobs, part-time or otherwise, would likely have become aware of the differences between organisations and how they (mis)matched their own preferences. He concluded that people behaved in congruence with their preconceived perceptions about organisations and the world of work, and that the behaviour of people could change as their perceptions changed. Bretz and Judge (1994b) showed that the fit between individual characteristics and organisational settings were important determinants of eventual job acceptance.

As mentioned, theories of organisational choice are not as abundant as theories of occupational choice (Schreuder and Coetzee, 2006; Vroom, 1966). Various authors (Schreuder and Coetzee, 2006; Sheard, 1970; Vroom, 1966) have mentioned how literature tended to focus on behaviour and attitudes after an individual joins an organisation, and not with the process by which people choose and are chosen for membership in an organisation. A popular theory in OC is Vroom's expectancy theory (Vroom, 1964, as cited in Schreuder and Coetzee 2006). Vroom's theory can be thought of as a general theory of motivation applied to OC. According to the expectancy model, "the selection of an organisation is based on its motivational force" (Schreuder and Coetzee, 2006, p.185), which can be summarised as the extent to which individuals believe that they will get a job offer from the organisation (expectancy), the perception that the organisation may provide certain important outcomes (instrumentality), and the extent to which these outcomes then attract individuals (valence) (p.185). Other researchers such as Osborn (1990, as cited in Schreuder and Coetzee, 2006) critiqued Vroom's expectancy theory and argued that other non-compensatory strategies are followed to simplify the decision-making process when

they were faced with a real-world organisational choice. However, Wanous, Keon and Latack (1983) investigated expectancy theory as a primary theory in occupational and organisational choices. These authors described how expectancy theory was used by individuals to decide to enter (or leave) an organisation or occupation. Expectancy theory has received critique over the years around its practical usefulness, but the theory has proven useful in helping to specify how an individual chooses from among several courses of action (or organisations). When expectancy theory is applied to organisational choice, Wanous et al. (1983) argued that it is important to distinguish among: a) the attractiveness of each organisation to an individual, b) the amount of effort that has to be expended toward joining each organisation, and c) the organisation that is actually chosen from among those that are offering placements. This is a slight variation in the theory's application as posited by Schreuder and Coetzee (2006). This theory can be algebraically represented as follows (Vroom, 1964; Wanous et al., 1983):

Attractiveness of an organisation = Σ Desirability of each outcome x Belief about each outcome associated with membership

or,

Effort expended to try to join an organisation = Expectancy of being admitted to the organisation x Attractiveness of the organisation.

Wanous et al. (1983) pointed out that expectancy theory (ET) predicted that the chosen organisation is the one highest in 'attractiveness'. This would imply a reasonably high expectancy of being admitted into the organisation. In this context it was put forward by Wanous et al. (1983) that ET may be more appropriate for explaining organisational or occupational choice rather than explaining work motivation or perhaps job performance due to

the inherent contextual differences between the latter and OC. They explained that OC was probably more under the control of an individual, more so than job performance, given that in job performance there are many factors outside the control of the individual, e.g. production line workers who work according to time constraints and set production schedules. Secondly, OC was ‘cleaner’ since there are “naturally occurring discrete choices” (p.68) when selecting among various job offers at different organisations, as compared to the operational measures of motivation or effort. Also, the criterion of OC itself may be more reliable, since the measure of what organisation a person chooses basically has perfect reliability (no random error), as it is easily verifiable. The decision is dichotomous in nature – the individual either chooses to work for an organisation or not (Chapman et al., 2005). Wanous et al. (1983) argued conversely that an individual’s job performance is not as easy to measure reliably. This would mean that the decreased measurement error in the criterion (OC) could attest to a greater strength of relationship between the expectancy theory predictors and OC (Wanous et al., 1983).

2.2. Person-Organisation Fit (P-O)

In other literature, Behling, Labovitz, and Gainer (1968) described three different theories under the banner of ‘position selection theories’. Most relevant to this research is the Subjective Factor theory which explained how jobseekers selected a position based on their own personal and emotional needs, and whether the organisational image *matched* their own needs. This matching is an important concept in that it alludes to the fit theories of organisational and occupational choice (Behling et al., 1968; Chapman et al., 2005; Judge & Bretz, 1992). The jobseekers are proposed to interpret the characteristics of the job, organisation, and even the recruiter, in light of their own subjective needs and values to determine a degree of fit (Chapman et al., 2005).

Objective factor theory as described by Behling et al. (1968) referred to the choices made by applicants based on their critical evaluation of the job attributes or characteristics of the vacancy, as well as the attributes of the type of organisation (e.g. work environment, company image) in question. These attributes were then weighed against the type of attributes that the jobseeker sought in an organisation. According to Super (1952), “work is a way of life” (p.189) and inherent in this concept is the belief that “aptitudes, interest and values of the person” (p.189) must be congruent to the situation in which the person works. He asserted that work and life satisfaction were dependent on the extent to which people found adequate outlets for their abilities, interests, personality traits, and *values*; that they depended on the type of work, and *work situation* that people found themselves in (Super, 1952). This would be denoted by the type of organisation eventually chosen by the jobseeker. Commenting on Super’s theory, Schreuder and Coetzee (2006) were of the opinion that “an important career decision would then be to find a *fit* between the self-concept of the individual and the image of the organisation” (Schreuder and Coetzee, 2006, p.188).

According to Tom (1971), the results of his study indicated that “Super’s theory of vocational choice may be extended to include organizational choice” (p.573) and that “subjective factors do play an important role in the recruiting process (p.573). Tom (1971) explained how Super’s theory could be extended in that the choice of a particular organisation could be a means whereby an individual implemented their self concept, and that organisational preferences may be determined by the possible relationship between the individual’s self concept and the image of the organisation. An individual’s task was not complete until he or she decided on a particular organisation for which to work (Schneider, 1987). People seem to prefer environments that have the same kind of ‘personality’ profile as they do (Schneider, 1987; Tom, 1971). Person-

environment fit then was an important focus in this research study because the organisation, as a type of environment within which the individual works, is the environment that he or she must be congruent with based on these subjective or perceived values, beliefs and interests. This circles back to the ‘matching’ process as described earlier. According to Bretz and Judge (1994a), individuals should apparently be very concerned with the degree to which they will or do ‘fit’ in an organisation, especially since ‘fit’ leads to “higher levels of both satisfaction and intrinsic success” (p.49), and that those who “find themselves in organizations where they do not fit should consider the potentially limiting effects this might have on their career prospects (Bretz and Judge, 1994a, p.49).

Rynes and Gerhart (1990) agreed with the notion that it is desirable for people to ‘fit’ their environments has become a basic principle in psychology and human resource management. They maintained that fit extended beyond the typical knowledge, skills and abilities (KSA’s) of applicants, and included traits such as personal values and personality, and from a selection point of view, these factors could become important when determining who gets a job offer among similarly qualified individuals. It makes logical sense that ‘fit’ is determined by both the individual, through selecting an organisation for which to work, and the organisation that extends an offer of employment to an individual, based on KSA’s and various values, beliefs and interests of the individual. The process is thus a two-way collaboration. Adkins, Russell and Werbel (1994) argued that work value congruence as an underlying construct of P-O fit, has been shown to be related to organisational and individual outcomes – including individuals’ preferences for jobs.

Schneider (1987) as described by Bretz and Judge (1994a) delineated person-organisation fit in the sense that it “addresses the suitability or propriety of certain types of people in particular

types of organizational environments, with the implication that the match has long term implications” (p.531), and the underlying nature of an organisation therefore provides an environmental context for determining a level of fit.

Schneider (1987) emphasised that organisations are functions of the kinds of people they contain. He adapted Kurt Lewin’s theory that suggested that behaviour is a function of the person and the environment, by instead declaring that environments are a function of people behaving in them, i.e. $E = f(P, B)$ (Schneider, 1987, p.438). His perspective is one influenced by cognitive psychology and developmental epistemology, and he argued that the person and situation are inseparable. Schneider (1987) asserted that the kind of people in a specific environment determined the kind of human environment that it becomes. He discussed Holland’s (1976) perspective that the “career environments people join are similar to the people that join them” (Schneider, 1987, p.441). Bretz and Judge (1994b) affirm that the accepted theories of person-environment fit are indeed relevant in the organisational choice context, and that it does account for some of the variance in organisational choice decisions.

Kristof (1996) provided some clarification on the definition and multiple conceptualisations of P-O fit. Typically P-O fit is defined broadly as the compatibility between people and organisations. One of the distinctions made in the definition of P-O fit by Kristof (1996) is that P-O fit occurs when an organisation satisfies the needs, desires or preferences of *individuals*. Conversely, P-O fit can also be achieved when an individual has the KSA’s to meet an organisation’s demands. When there is similarity between an organisation and an individual on various characteristics (e.g. values, goals or norms), then fit is said to exist (Kristof, 1996).

Chatman (1989) compared individual value profiles to organisational value profiles to determine a measure of fit and to predict possible changes in values, norms and behaviours. She described

how higher levels of P-O fit existed when there was congruence between the values of organisations and the values of individuals. In this context, individual values were described by Rokeach (1973, as cited in Chatman, 1989, p.339) as “enduring beliefs through which a specific mode of conduct or end-state is personally preferable to its opposite”. In the context of this study, some jobseekers may hold the values of environmental consciousness in high regard and expect the same of the organisations for which they work, or for which they want to work.

Chatman (1989) went on to define P-O fit as the “congruence between the norms and values of organisations and the values of persons” (p.339). It would seem to be imperative then from a congruency perspective for an individual to determine the level of agreement between their own values and those of the organisation. Chatman (1989) deemed it important to know the level of P-O fit as it increases our ability to predict the extent to which an individual’s values will change as a function of organisational membership and the extent to which the individual will adhere to organisational norms.

Sauermann (2005) discussed the importance of the person-environment approach under the banner of behavioural decision making, as applied to vocational choice, which included both occupational and specific job choice in their research. Of particular interest was the preferences used by a decision-maker to assess the attributes and alternatives available to him or her (e.g. the various organisations available to choose from). Preferences were divided into three components, namely: *core preferences*, a *situational component*, and *random error*. Sauermann (2005) clarified these components as follows:

Core preferences were reflected in the relatively stable values associated with attributes e.g. more pay is preferred to less pay; in this research for some an organisation that was ‘more green’ would be preferred to an organisation that was ‘less green’. The *situational component* was a

result of systematic effects that task and environmental factors in a specific decision situation could have on spoken preferences. Payne, Bettman and Johnson (1993, as cited in Sauermann, 2005) distinguished between two types of situational factors leading to the construction of preferences. First, *Task factors* were “associated with the general structure of the decision problem, including the number of alternatives, the representation of the information, time pressure and the evaluation mode” (p.289). Second, *Context factors* referred to “the particular values of the attributes in the specific choice set, including the similarity of the alternatives and attributes and the overall attractiveness of the alternatives” (p.289). These expressed preferences may also reflect *random error* as the third component, which was not fully investigated by Sauermann (2005). He continued to discuss how decision makers tended to prefer occupations, or jobs offered, that were superior on very important dimensions e.g. attributes that were relevant to an individual’s self concept. These could allude to attributes in the self-concept that included attitudes and values towards the preservation of the environment and working for an organisation that also shared these values or attitudes.

Sheard (1970) investigated the choices made by college/university students as to the type of organisations that they preferred to work for. He discussed how thousands of university students each year began their careers on graduation, searching for an organisation that would best satisfy their needs through a complex matching process. Mirroring a theme which has constantly emerged throughout the literature, Sheard (1970) stated that traditionally attention had been focused on the process by which organisations selected employees, but little attention had been focused on studying the nature of the process by which prospective employees selected an organisation for which to work, or the choice of a “position-in-an-organization by an individual as he seeks employment” (p.299). Central to his discussion was the issue around the opinions

and *preferences* of students for working in certain types of organisations. Large corporate organisations were found to generally be the most preferred organisation for which to work, while the military was always the least preferred type of organisation, and the second least preferred type was always the Government (Sheard, 1970).

Judge and Bretz (1992) discussed the effects of work values on job choice decisions, including organisation choice decisions. They believed that when faced with a choice, an individual possessing certain value structures may seek out organisational environments that allowed for their own personal value expression and to avoid organisations that might repress their values. Judge and Bretz (1992) further discussed how it seemed plausible that jobseekers may seek out jobs where their specific values fit the organisational environment. Their research indicated how individuals matched their personality to an organisation or vocation through the choices that they made and that this same matching process occurred with values. Judge and Bretz (1992) then asserted that people preferred jobs in organisations which displayed value preferences similar to their own. They discussed how P-O fit literature had in the past been based on the assumption that individual and organisational characteristics interacted in such a way that the individual 'fits' certain environments and not others; most of the literature has focused on post-hire contexts though. Judge and Bretz (1992) confirmed that their results supported the notion that perceptions of P-O fit were important for pre-hire decisions also. As per Vroom's expectancy theory, Judge and Bretz (1992) believed that the valence of a particular value in a job would depend on how important that value was to them. It is posited that the valence of a value could be extended to an organisation and how important it was for an organisation to possess a particular value for a jobseeker to find that organisation attractive. Research conducted by Judge and Bretz (1992) concluded that individual value orientations influenced jobseekers' decisions

when they had information about an organisation's value systems, and that values were an important determinant of P-O fit. They expressed the importance of organisations considering the messages that they conveyed to recruiters in the recruiting process. They also advised that it was possible that jobseekers' perceptions of organisational values may be influenced by the environmental protection policy of the organisation.

Foxcroft and Roodt (2005) critiqued the validity of the P-O fit approach, and posited that it "assumes that people are free to choose from a variety of available career options" (p.172).

Likewise, "in many developing countries such as South Africa, job opportunities are scarce and few individuals have the privilege to choose a career from the available options" (p.172).

Although this draws from the person-environment-fit approach, it can be assumed that in some instances person-organisation fit could not be obtained due to circumstances beyond the control of the jobseeker; nevertheless, knowing what your values, beliefs and interests were could enable better decision-making when the opportunity presented itself. Foxcroft and Roodt (2005)

highlighted the fact that "values and interests will remain important, because workers will probably still seek to find working environments that satisfy their psychological needs" (p.175).

Judge and Bretz (1992) noted that it would be important to examine the role of values in the recruitment process as this would be the primary means through which P-O fit or congruence could be achieved. An organisation's culture or image is usually tied in closely with the value perspective that an organisation wishes to convey and as such it makes sense that the individual value orientation of employees, or prospective employees, would become increasingly important.

P-O fit as an extension of person-environment fit is therefore an important focus for an individual when choosing an organisation for which to work. The values, beliefs and interests of an individual seeking employment should therefore ideally match with those of a chosen

organisation as closely as possible. Judge and Bretz (1992) agreed that literature around P-O fit suggested that individuals, who matched job or organisational values to their own, may be more satisfied and also less likely to leave the organisation. These values in particular were explored in this study and the Employer Attractiveness Scale with its various value constructs will now be discussed.

2.3. Employer Attractiveness (EmpAt) Scale

The EmpAt was developed by Berthon, Ewing and Hah (2005) who identified and operationalised employer attractiveness values from the “perspective of potential employees” (p.151), as well as with the purpose of hiring of employees in terms of the degree to which an organisation is considered an organisation or employer of choice. Their study set out to develop and validate a scale to assess employer attractiveness, which is defined by Berthon et al. (2005, p.156) as “the envisioned benefits that a potential employee sees in working for a specific organisation”. Berthon et al. (2005) approached the development of this scale particularly from the perspective of Employer Branding and Employer Attractiveness for existing and new employees, as well as internal advertising and internal branding for existing employees. They described Employer Branding as the “sum of a company’s efforts to communicate to existing and prospective staff that it is a desirable place to work” (Lloyd, 2002, as cited in Berthon et al., 2005, p.153). It is this desirability that influences the decisions that prospective employees make when choosing an organisation for which to work. The specific construct values that underpin this desirability will be delineated later in this discussion. Employer branding is related to advertising as a tool for firms to identify and acquire skilled employees, and it is this same advertising that prospective employees use to make value-based employment decisions. Ambler and Barrow (1996, as cited in Berthon et al., 2005) described employer branding as “the package of functional, economic and psychological benefits provided by employment, and identified with the employing company” (p.187). Berthon et al. (2005) suggested that an employer brand has both positioning and personality. This personality and positioning sets the organisation apart from other organisations by virtue of its own unique desirable qualities.

Organisational choice introduced earlier in this discussion alluded to the fit between the prospective employees' personality, values, beliefs or interests, and those of the organisation. Employer branding according to Ewing, Pitt, de Bussy and Berthon (2002) is thus about building an image in the minds of prospective employees about an organisation; an image that makes the organisation a desirable and attractive place for which to work. Internal advertising and internal branding is addressed by Berthon et al. (2005) but because these components deal with employees already within the organisation, it did not form part of the framework of this study which dealt with new potential employees making decisions as to whether they want to enter an organisation or not. As to mainstream advertising these could possibly influence future employees (Ewing et al., 2002) and impact on decision-making processes.

Employer attractiveness, as defined previously, is closely related to employer branding and has according to Berthon et al. (2005), been broadly discussed in fields such as vocational behaviour, applied psychology and management. They operationalised it as a construct that was an “antecedent of the more general concept of employer brand equity” (Berthon et al., 2002, p.156) in that the more attractive an employer is perceived to be by future or prospective employees, the stronger that particular organisation's brand equity was estimated to be. The study by Berthon et al. (2005) sought to identify these dimensions of employer attractiveness.

In the research study by Berthon et al. (2005), a strong deductive approach was built on using three dimensions obtained from research done by Ambler and Barrow (1996), namely functional, psychological and economic dimensions. The study by Berthon et al. (2005) yielded five factors which will now be explained briefly. According to Berthon et al. (2005) the first factor was the *Interest Value* that evaluated the degree to which an individual was attracted to an employer that provided an exciting work environment with potentially novel work practices, and made use of

its employees' creativity to assist in producing high quality, creative products and services. Factor two was described as the *Social value* and assessed the degree to which an individual was attracted to an employer that provided a working environment that was enjoyable and happy and provided good mutually respectful relationships with a team atmosphere. Factor three was the *Economic value*, which assessed the degree to which an individual was attracted to an employer that provided above-average salary and compensation packages, with job security and future promotional opportunities. Factor four, the *Development value*, determined the degree to which an individual was attracted to an employer that provided acknowledgment, sense of worth and self-belief, combined with a career-enhancing experience and a launch pad to future employment. The final factor, *Application value*, determined the degree to which an individual was attracted to an employer that provided an opportunity for the employee to apply what they had learned as well as to teach others, in an environment that was both client orientated and caring. See *Appendix J* for a succinct description of these values.

2.4. Green Values

The five values as described above did not incorporate green or environmental values. According to the surveys briefly discussed in the Introduction, prospective employees are apparently very passionate about environmental sustainability issues and are seeking organisations that share this important value (Senge et al., 2010). The amount of websites and articles on the internet discussing green organisations and green employees, or the importance of green issues in the lives of employees or those seeking employment, attests to the growing awareness of the importance of environmental consciousness in the contemporary workplace. Yet, there is a lack of research into sustainable organisations (Dixon and Clifford, 2007).

Bauer and Aiman-Smith (1996) acknowledged the lack of knowledge around organisations and what influence 'going green' had on attracting potential employees. They stated that organisations that operated in environmentally sustainable ways were often recognised by media or the press, but that it was unclear how jobseekers would react to these organisations using this kind of information to attract them. Their study supported the idea that an organisation's ecological stance could influence prospective employees' reactions toward an organisation. They found that individuals who read a brochure containing information on an organisation's environmental consciousness rated the organisation as more attractive (Bauer and Aiman-Smith, 1996). These individuals were also more likely to pursue job opportunities and accept job offers from these organisations. Therefore organisations that are "proactive in preserving and protecting the environment may reap positive benefits from communicating those values to potential recruits early in the recruiting process" (Bauer and Aiman-Smith, 1996, p.456).

Stringer (2010) mentioned that although green recruiting was about using an organisation's green practices to attract and retain employees, it had to be done in a manner that was also sustainable. Thus organisations had to find green-friendly venues for recruiting, offer green job descriptions, provide green benefits and also 'green' the recruitment process itself (Stringer, 2010). It becomes imperative for organisations to essentially 'practice what they preach' to prove to potential recruits that the organisation is committed to sustainability, which is achieved by instilling green values and practices, and promoting them (Stringer, 2010). Organisations in South Africa such as Discovery, Old Mutual and Liberty only use online recruitment systems for their hiring needs, thus streamlining the recruitment procedure and using less paper in the process. These organisations only accept electronic resumes uploaded to their web-based databases or through electronic email. Liberty (n.d) also targets graduates on their website through their *Graduate Involvement Programmes* which outlines Liberty's corporate social

investment activities, “creating sustainability long after the penny has been spent” (par. 2).

Liberty encouraged their graduates to become involved in various projects to create awareness and give back to society. In this way the organisation’s commitment to the environment becomes more visible and credible to recruits and may increase the attractiveness of working for the organisation (Stringer, 2010). HOK, an architectural organisation that has long embraced sustainable design, declared how they were continually on the look-out for candidates with an interest in the environment (Stringer, 2010). So not only are potential employees looking for organisations with an invested interest in the environment, but organisations are looking at recruiting individuals who share this value also. Students are becoming smarter about what questions they ask and are watching out for organisations that practice what they preach (Stringer, 2010) and thus it is crucial for organisations to maintain congruency between the image that they are projecting publically and their actual organisational practices.

Bauer and Aiman-Smith (1996) further suggested that organisations should actively publicise any positive articles about themselves or awards received during the recruiting process to positively influence recruits’ perceptions about the organisation. Turban and Greening (1997) affirmed that corporate success is deemed important on the premise of a high quality workforce, and as such organisations are realising the need to attract the best workers to their organisations.

The stakes are high; the environmental issues of today are real and pressing, and increasingly all stakeholders, including potential employees, care deeply about how organisations act, and are not afraid to pressure these organisations to do more (Esty and Winston, 2009). Linn (n.d), a senior business writer for Life Inc., wrote that if you want to impress your prospective employees, you should not only try to impress with the organisation’s balance sheet, but also with the organisation’s sustainability report. She continued to discuss how a recent telephonic

survey of 504 employees found that 60% of full-time workers thought that an employer's impact on the environment was vital when evaluating whether they wanted to continue to work at the organisation. Interestingly, the same survey found a gender disparity around attitudes towards environmental issues, with 78% of females saying an organisation's impact on the environment was important, while only 52% of males said the same thing. In the United States of America, the Center for Corporate Citizenship and Sustainability, reported that 78% of the 198 multi-national organisations surveyed described corporate citizenship and sustainable practices as very or extremely important in attracting and retaining employees (The Conference Board, 2006, as cited in Stringer, 2010). As mentioned, competition for talent is getting more fierce, which means that organisations need an edge that makes them more desirable as an employer (Esty and Winston, 2009). Esty and Winston (2009) confirmed that what employees needed from a workplace is shifting exponentially, and particularly in the developing world. This shift or trend may be somewhat slower and less dramatic in South Africa where other socio-economic and political factors are more important at present. However, organisations want committed employees, and employees still want organisations that they can commit to (Esty and Winston, 2009). In 2004, Stanford University surveyed MBAs to gauge how important different aspects of the employer really were (Esty and Winston, 2009). It was reported that a staggering 97% of students would forego some of their salary (on average 14% of their expected income) to work for an organisation that cared about employees and sustainability (Esty and Winston, 2009). Jack Welch, CEO of General Electric, commented that "Good people won't want to work for us if we don't get on the right side of this" (Esty and Winston, 2009, p.90) when discussing environmental issues around their toxic waste materials.

Sea Forever (2010) argued that a greener organisation may gain practical advantage in the competitive business market, and that green employers are 'attractive' employers, thereby attracting higher calibre prospective employees. Stringer (2010) posed that in a volatile economic climate, saving money through green initiatives could be a big driver for change. Furthermore, green jobseekers were likely to be more committed, more educated, and eager to move towards sustainability in a workplace where other like-minded co-workers had similar interests and values. Sea Forever (2010) also advised that employers ignoring sustainability issues would lag behind, and that employees with progressive social views would want to work toward common goals with their employers and make a difference in the world. Esty and Winston (2009) declared that the business world was waking up to the inevitable truth that the economy and the environment were profoundly intertwined. Products that are manufactured are dependent on natural resources and that without careful stewardship these natural resource restraints would encroach on a growing number of organisations and industries (Esty and Winston, 2009). According to Esty and Winston (2009) concern for the environment (and perhaps how these issues would affect business, profits and the labour market) ranked as a micro-issue in tandem with other major concerns such as globalisation and the impact of the internet on contemporary business. Thus environmental strategies are emerging as a critical point of competitive differentiation amongst organisations (Esty and Winston, 2009) and prospective employees may be realising that the organisations that are going to survive are those that can differentiate themselves in the marketplace through strategies that adopt a pro-environmental position.

Kjerulf (2007) mentioned various reasons why green workplaces make their employees happy. These included the belief that a green workplace gave employees a sense of pride, created a

stronger bond between employees within the company, employees were able to take action with environmental initiatives and that employees felt like they were making a positive difference by actively contributing to worthy causes. Stringer (2010) advised that there were various drivers behind the current change in human behaviour towards sustainability, beyond that of the triple bottom line. Stringer (2010) mentioned reasons why individuals were taking environmentally friendly actions, which included *saving money* and just '*doing the right thing*'. Furthermore, Stringer (2010) commented on work done by Dr. Robert Cialdini, who found that the idea of 'social proof' was influential in changing human behaviour. Social proof, or informational social influence, occurred in ambiguous social situations where people were unable to determine an appropriate mode of behaviour, and as a consequence assumed that those around them possessed more knowledge about the situation, and then followed suit. Thus it is possible that individuals are starting to follow the example of those in the know about environmental and sustainability issues, which by their very nature are highly complex. People are also very much influenced by those who are similar in demographic to themselves (Stringer, 2010).

Prashant (2008) related how research conducted by the Kenexa Research institute had suggested that organisations that supported green initiatives, had a positive influence on employees' engagement levels, as well as their views of senior management. The worker opinion survey was conducted across 13 countries. Commenting on those organisations that are openly committed to the environment, Ann Herman, research consultant at the Kenexa Research Institute said, "This sets them apart from their competition by creating a positive employment brand, and established an emotional tie between the employee and organization" (Prashant, 2008). Research indicated that where employees viewed green initiatives positively, they were more likely to recommend the organisation as a place to work. Herman further elucidated that

the employees of today were considering the reputation of an organisation in their decision to *join*, and that the green policy of an organisation could result in a more favourable reputation (Prashant, 2008). Thus, numerous authors are in agreement that green initiatives increase an organisation's competitive advantage when hiring employees.

JobGuide (n.d), an online Australian recruitment website, pointed out that there were many ways for individuals to pursue a green career, and that as environmental issues continued to impact on the way people lived and worked, it would become increasingly important for people to consider the 'sustainability value' of their career paths. *JobGuide* encouraged jobseekers to critically reflect on whether their career decisions fit in with the globally emerging 'green economy'.

Market News (2010) mentioned how the "emerging clean energy economy" (par.1) was creating well paying jobs for people of all skill levels and education, citing a growth rate of 9.7% between 1998 and 2007, while traditional jobs only grew by 3.7%. Market News (2011) related how recent data showed that jobs in the green sector grew more than three times faster than total employment. Apparently the rate of growth of green jobs had been similar to that of information technology software jobs since 2005 (Market News, 2011).

Companies are unquestionably catching on to the fact that prospective employees use a type of green value in their decision-making process when choosing an organisation for which to work.

Google (2011), in an online document outlining the benefits of working for Google, had a heading described as *Giving and Being Green* as one particular benefit of working at Google.

Google is branding itself as an employer that gives back to the environment, as well as an organisation that encourages this quality in their own employees. Organisations are thus increasingly finding that green benefits also play a major role in the process of attracting, hiring and retaining the best employees (Stringer, 2010). Green workplace services, such as free

sustainable learning events, and subsidies for alternative transportation methods, may also have an impact on personal health and wellness (Stringer, 2010).

Helmut Jahn, a German-American architect, was quoted by Stringer (2010) as saying, “I think the younger generation, the people poised to dominate the workforce, is [*sic*] more socially conscious. They are more demanding in terms of the environment and how that environment contributes to their life” (p.101). According to Stringer (2010) an organisation that is looking to recruit and retain bright and motivated employees, will have to offer more than just a competitive salary to win over and attract these potential employees. Organisations need to connect with employees on multiple levels, and when hiring new talent, a company’s approach to sustainability could either be a powerful attraction, or a repellent to these recruits (Stringer, 2010). Thus green recruiting could be a powerful mechanism for differentiating one organisation from another. These organisations understand that the youngest generation in the workforce, the Millennials, grew up with a heightened environmental awareness and are now actively seeking green employment opportunities (Sullivan, 2007).

According to Senge et al. (2010), “In the rush to join an obviously surging trend, many organizations are making small improvements and marginal efforts to make themselves look green to their customers and other constituents” (p.110), and prospective employees are one of these constituents, because employees are “making career choices based on a company’s reputation in corporate responsibility” (p.111). Walsh and Sulkowski (2010) discussed in their article how greener companies make for happier employees. Their research explored how employee satisfaction was positively impacted when the organisation was perceived as performing well environmentally. Victor (2008) reported on a survey by the Society for Human Resource Management conducted on human resource professionals and employees to determine

attitudes towards sustainability in the workplace. It was reported that many employees realised the benefits of sustainable practices, with the two main outcomes of sustainability purported to be improved employee morale, and a stronger public image (Victor, 2008). This same survey found that when employees working for organisations that did not subscribe to environmentally responsible programs were asked if these programs were important, 73% of them agreed (Victor, 2008). Walsh and Sulkowski (2010) suggested that environmental performance should be an integral part of an organisation's human resource management strategy to *recruit*, motivate and retain human capital. They went on to posit that "common sense may lead one to believe that employees who place value on environmental performance may be happier working for companies whose perceived performance in this area is congruent with their beliefs" (Walsh and Sulkowski, 2010, p.275). Walsh and Sulkowski (2010) defined environmental performance as "the collective reputation of a company among stakeholders, including, but not limited to, customers, *employees* and members of society in general" (p.275). These authors also suggested that corporate responsibility (CR) reporting might play an important role in influencing and shaping employee perceptions of the organisation, and that a "greener company leads to happier employees, which, in turn, potentially may benefit the company" (Walsh and Sulkowski, 2010, p.280).

Turban and Greening (1997) discussed the limited amount of research that has investigated the factors influencing applicant's initial attraction to a particular organisation, which in turn would influence the decision to interview with that particular organisation. However, Fombrun and Shanley (1990) suggested that initial attractiveness of an employee to an organisation was based on perceptions of the organisation's image which was influenced by the organisation's corporate social performance. Turban and Greening (1997) argued that organisations that engaged in

socially responsible behaviour would develop more positive reputations and in doing so would be perceived as being more attractive to prospective employees, which in turn would provide these companies with a competitive advantage over other organisations. Furthermore, an organisation's social policies and programs might attract potential employees by serving as a signal of the organisation's working conditions. This implied that organisational attributes may well provide applicants with information of what it could be like to be a member of an organisation because these attributes were interpreted as providing information about the possible working conditions in the organisation (Turban and Greening, 1997). Therefore, an organisation's environmental consciousness or policies around corporate responsibility could provide signals about working conditions in the organisation by indicating certain organisational values or norms that the applicant identified with. According to Turban and Greening (1997) corporate social performance may influence applicants' perceptions of working conditions and therefore influence the attractiveness of an organisation as a potential employer. Esty and Winston (2009) maintained that values-driven employees created values-driven organisations, and infusing an organisation with 'larger' principles could improve morale and commitment. Currently new values-centred executives are creating organisations that inspire employees and customers, and that being environmentally conscious, or eco-aware, was about a new way for inspired people such as employees, to build organisations and industries that were not just innovative and powerful, but 'good' too (Esty and Winston, 2009). Sea Forever (2010) wrote that green employers were attractive employers, and thus had a competitive edge in finding high-calibre employees. 'Greening' could be a powerful part of branding; customers and employees are expecting it, and being environmentally and socially responsible makes an organisation stand apart from others and could be an integral part of a business' marketing and PR strategy (Sea Forever, 2010). In essence, "the old earth-plundering ways of doing business are no longer

viable and in fact, are downright counter-productive and being eco-friendly can make a business or employee very unattractive in the competitive market” (Sea Forever, 2010, par.1).

Turban and Greening (1997) also confirmed how little research had been done on how corporate social performance (e.g., how ‘green’ an organisation is) may influence prospective employees’ attractiveness to an organisation. Their own work had demonstrated how companies with a positive external reputation were more likely to attract higher-calibre applicants. Turban (2001) discussed how, based on signal theory, recruitment activities would influence an organisation’s attractiveness through influencing perceptions of the organisation’s attributes. According to Turban (2001) some scholars like Rynes (1991) have suggested that, based on signal theory, because some jobseekers had incomplete information about organisations, they interpreted information they received as ‘signals’ about what it would be like to be employed at a particular organisation. It is difficult for jobseekers at the start of the recruitment process to know what it will be like to work at a particular organisation and these signals helped jobseekers to interpret what working conditions may be like at the organisation (Turban, 2001).

Bauer and Aiman-Smith (1996) discussed how ecological issues are becoming a growing concern to organisations and that “a proactive company stance on the environment would be positively related to perceived company attractiveness, intentions to pursue employment with that company, and acceptance of a job offer” (p.445). They further discussed how an individual’s personal environmental stance influenced the intent to pursue employment and that this suggested that if a positive environmental stance is communicated to jobseekers via for example, advertising or brochures, that it could positively affect potential jobseekers, even if an individual isn’t necessarily personally pro-environmental (Bauer and Aiman-Smith, 1996).

Bauer and Aiman-Smith (1996) mentioned how “the present environmental revolution has not

gone unnoticed by present day industry” (p.446) and that there are many texts and books advising businesses on how to develop their own green strategy and how to communicate it to the market and potential employees, and that once programs are established, executives may see many positive outcomes of pro-environmental behaviour. Laabs (1992) quoted Andrew Goresh, the vice president and director of human resources of T. Rowe Price Associates, Inc, who indicated that even if management didn’t have a high level of environmental consciousness, he found that in their case, the employees did. He continued on by saying that employees felt a lot better about the organisation, knowing that it was concerned about the environment, and also doing something about it. Goresh said, “I think one of the reasons our employees feel good about working for us is that they know we’re tuned into important concerns, such as the environment, and I would rate that as being as important as the more standard employee relations issues, such as benefits, pay and so on” (p.61). Laabs (1992) discussed how the most powerful push for organisations to establish in-house environmental programs was coming from their own employees. Employees are said to be gaining a greater awareness of how their individual jobs impact the environment.

An employee satisfaction survey conducted by Marriott Residence Inn in Bethesda, USA, had indicated a strong interest in recycling, and not in earning more money, as had been the case in previous years (Laabs, 1992). Employees felt that they could make the organisation a better place to work in if they engaged in pro-environmentalist behaviours, for example, by recycling. Another example of employees initiating environmental efforts was at Nordstrom, a Seattle-based fashion retailer. This organisation’s in-house recycling program got started through worker suggestions. A specific appointed Green Team made up of voluntary employees in the organisation oversaw environmental efforts in their stores and distribution centres. Nordstrom

also initiated a new employee environmental awards program labeled *Lean and Green* where employees could win money by submitting their environmental suggestions in writing. The suggestion would need to contribute to the organisation's bottom line and the earth's wellbeing. A winning suggestion that was awarded a cash prize was to switch off office lights when going to lunch, to a meeting or going home – a really simple idea, but one that had an impact on the organisation's bottom line and would save on raw electricity resources (Laabs, 1992).

Rupp, Ganapathi, Aguilera and Williams (2006) highlighted a case at the New Belgium Brewery in Colorado, USA, where employees had unanimously sacrificed their own year-end bonuses to afford the organisation the financial resources it needed to invest in wind power as a sustainable energy source to power up its own manufacturing operations. Similarly, Laabs (1992) pointed out how E.I. du Pont de Nemours & Co, Inc in Delaware, USA, linked senior executives' pay partly to how well they managed their environmental responsibilities – their annual salary and incentive compensation was directly linked to their environmental performance. Other employees were also encouraged and rewarded actively for participating in pro-environmental behaviour (Laabs, 1992).

The studies above clearly indicated the possible importance of environmental concerns in the minds of university students when choosing an organisation for which to work.

2.5. Organisation Image

Lemmink, Schuijf and Streukens (2003) acknowledged the fact that Western organisations in particular are looking for new ways to attract highly qualified jobseekers and that there were unanswered questions as to those variables that influenced jobseekers' attraction to an organisation. They agreed that organisations were becoming more aware of the importance of

their image, and that it seemed very likely that individual perceptions of an organisation's image would influence applicants' intentions to pursue employment with that organisation. Lemmink et al. (2003) pointed out that some organisations were not only promoting themselves among current jobseekers in the marketplace, but also to future jobseekers, i.e. students who were not yet fully engaged in the job seeking process, but who would be at a later stage. Although there is no generally accepted definition of image in the literature (Pruyn, 1999, as cited by Lemmink et al., 2003), they refer to image in their own research as described by Aaker and Myers (1982) as "a set of meanings by which an object is known and through which people describe, remember and relate to it...the net result of the interaction of a person's beliefs, ideas, feelings and impressions about an object". In this research report the object was the organisation and the various factors described here influenced the behaviour of individuals towards the organisation.

Due to the compelling reasons as discussed above, as well as the preceding discussions around the results of various surveys, green values were seen as an important factor in the choice of organisation for which to work, a value that was clearly lacking in the EmpAt scale. It was therefore deemed imperative to extend the original EmpAt scale to include the green value subscale items. The following research questions were formulated bearing in mind the findings around green values in the literature and organisational choice as a construct based on individual value preferences.

2.6. Research Questions

The research questions that were explored in this study will now be outlined. The study aimed to investigate general research questions and not specific hypotheses.

The psychometric properties of a measurement are important in determining the measurement's usefulness and applicability. Two of the primary research questions therefore focused on the psychometric properties of the extended EmpAt.

Q1) How reliable is the revised Employer Attractiveness scale (EmpAt) as a measurement of organisational choice based on employer attractiveness values in the South African context?

Q2) To what extent does the revised Employer Attractiveness scale (EmpAt) demonstrate construct validity as a measurement of organisational choice based on employer attractiveness values in the South African context?

It was deemed important to determine, using an independent and established pro-environmental scale, how environmentally conscious the chosen sample was.

Q3) What is the relative environmental consciousness of the sample of Final Year University of the Witwatersrand students as indicated by the NEP scale?

Next, as a necessary step in the research, the results of the NEP scale was compared with the results from the new 'green' value sub-items as developed for the study.

Q4) How do the 'green' value sub-items of the revised EmpAt compare to the New Ecological Paradigm Scale (NEPS) in determining the environmental consciousness of the sample of Final Year University of the Witwatersrand students (i.e. concurrent validity)?

Lastly, it was deemed necessary to determine (based on previous discussions of the economic reality in South Africa) jobseekers' attitudes towards the possibility of finding their ideal organisation for which to work.

Q5) What do the Final Year University of the Witwatersrand students think the likelihood is that they will find a job in their ideal organisation and does this perceived likelihood moderate the relationship between the EmpAt and NEP scales?

3. METHODS

This section aims to present the manner in which the study set out to answer the specific research questions. The research design for this particular body of work will be discussed, the participants of the study will be presented, the specific data collection and procedure as employed by the researcher will be explained, the measurements as used by the researcher will be delineated, various statistical analyses will be revealed, and finally ethical considerations will be discussed.

3.1. Research Design

The objective in psychological science according to Rosenthal and Rosnow (2008) is to “describe and explain how and why people behave the way they do, including how and why they feel and think about things the way they do” (p. 21). In this study the researcher aimed to determine how young jobseekers felt about the ideal organisations for which they want to work, based on predetermined employer attractiveness values and an additional new ‘green’ subscale.

The study was non-experimental quantitative research using two current measurements, the Employer Attractiveness Scale (EmpAt) and the New Ecological Paradigm Scale (NEPS). The EmpAt was extended as previously discussed (and explained in detail in section 3.5.2) to include a new Environmental Values subscale, namely self-developed ‘green’ value items.

Non-experimental research can be divided into two broad categories, namely descriptive and relational research (Tredoux and Smith, 2006). Descriptive statistical techniques were used to analyse the sample with the use of frequency and table analysis. “The business of relational research ...is the description of how changes in one variable correspond to changes in another variable (Tredoux and Smith, 2006, p.170). The study was primarily a correlation study which

determines the degree of relationship that exists between variables or factors (Hair, Anderson, Tatham and Black, 1995) as well as an Exploratory principal component factor analysis which can be used to analyse the interrelationships among variables and to explain these variables in terms of their common underlying dimensions or factors (Hair et al., 1995). These factors are the predicted values the researcher posits young jobseekers could potentially use to make organisational choice decisions.

3.2. Sample

Durrheim (2006) defined sampling as “the selection of research participants from an entire population, and involves decisions about which people, settings, events, behaviours and/or social processes to observe” (p.49), and often sample size “is determined in part by practical constraints” (p.49). The type of sampling method that was used was non-probability sampling (Durrheim and Painter, 2006, p.139) as the element of statistical randomness was not applied. It is a convenient way of sampling and popular in the social sciences and among student researchers. “Surveys use representative samples to ensure that descriptions of samples can be used to describe populations” (Van der Riet and Durrheim, 2006, p.91) and in this study, second-last and final year students from the University of the Witwatersrand were approached to voluntarily complete the relevant questionnaires.

The sample consisted of students across various academic disciplines: Engineering, Psychology, Business management, Accounting and Economics. This was the ideal sample for the study because the second-last and final year students were possibly embarking on the quest for employment in the near future, which was approximately six to eighteen months in the future at the time the questionnaires were completed. The sample method used was a combination of

convenience and purposive sampling. Durrheim and Painter (2006) described purposive sampling as sampling that depends on the availability and willingness of respondents to participate, and that selected samples are typical or representative of the population. Berthon et al. (2005) used a similar sample in the original development of the EmpAt.

According to Christensen (2007, p.388) few guidelines exist for determining how large a sample size should be, and that the “reliability of the results of any study is partially dependent on the number of participants involved” (p.208). Christensen (2007) postulated that as sample size increased, the power increased, but as the sample size increased, the cost in terms of both time and money also increased. The sample size thus needed to be a realistic trade- off between cost and power. The assumptions for using Exploratory principal component factor analysis are that data must be normally distributed, that there has to be at least three items per hypothesised factor (the value items in the EmpAt scale), and in this case there were a minimum of five items, and lastly that the sample should have three times the number of participants as the number of items (Hair et al., 1995).

After refining the EmpAt scale, there were to remain 30 items with a projected six factor loading, thus based on the previous assumptions that this particular research design needed three times as many participants as there were items, the sample should have consisted of at least 90 participants. The sample for this particular study peaked at $N = 276$ participants.

3.3. Descriptive statistics and biographical description of sample

A summary of the biographical descriptors is presented in Table 1. The students that participated in the study were either second-to- last year undergraduate students, final year undergraduate

students, honours students, or Masters Degree students. All these students were ultimately considered to be included in the study to increase the sample size. 150 of the participants were male, and 126 were female (N=276). 169 participants were black, 6 were Coloured, 38 were Indian, 52 were white, 9 were Asian and 2 indicated Other. The average age of the participants was 21.96 years (Range: 19-35 years, SD = 2.07). 108 of the participants spoke English as a first language. First languages spoken included, Afrikaans (N = 2), Ndebele (N =3), Tsepedi (N = 15), SiSwati (N = 13), Sotho (N =13), Tonga (N = 10), Tswana (N = 23), Venda (N = 11), Xhosa (N = 7), Zulu (N = 44), and Other (N = 26). Participants were studying towards various degree disciplines, including Business Management (N = 31), Engineering (N = 139), Psychology (N = 54), Law (N = 3), and Other (N = 49). The English proficiency of the sample was determined as Excellent (N = 143), Very good (N = 94), Average (N = 37) and Poor (N = 2). Participants were asked about the timeframe within which they would possibly start looking for employment, which was determined as follows: < 6 months (N = 59), 6-12 months (N = 50), 12-18 months (N = 107), and > 18 months (N = 60). Lastly, the participants indicated their immediate plans for the following academic year. These were indicated as, Continue with current degree (N = 147), Start post graduate degree (N = 75), Look for employment (N = 42), Travel (N = 8) and Other (N = 4).

Table 1. Biographical descriptors

Biographical descriptor	N's N=276	Percent %
AGE:		
19-21	137	49.64
22-24	121	43.84
25-27	12	4.35
28-30	2	0.72
31-33	2	0.72
34-35	2	0.72
Mean: 21.96 years		
GENDER:		
Male	150	54.35
Female	126	45.65
POPULATION GROUP:		
Black	169	61.23
Coloured	6	2.17
Indian	38	13.77
White	52	18.84
Other	2	0.72
Asian	9	3.26
LANGUAGE:		
Afrikaans	2	0.73
English	108	39.27
Ndebele	3	1.09
Tsepedi	15	5.45
SiSwati	13	4.73
Sotho	13	4.73
Tonga	10	3.64
Tswana	23	8.36
Venda	11	4.00
Xhosa	7	2.55
Zulu	44	16.00
Other	26	9.45
DEGREE:		
Business Management	31	11.23
Engineering	139	50.36
Psychology	54	19.57
Law	3	1.09
Accounting	0	0
Other	49	17.75
ENGLISH PROFICIENCY:		
Excellent	143	51.81
Very good	94	34.06
Average	37	13.41
Poor	2	0.72
EMPLOYMENT SEARCH:		
Less than 6 months	59	21.38
6-12 months	50	18.12
12-18 months	107	38.77
More than 18 months	60	21.74
FUTURE PLANS:		
Continue with current degree	147	53.26
Start post graduate degree	75	27.17
Look for employment	42	15.22
Travel	8	2.90
Other	4	1.45

3.4. Data collection and procedure

The relevant department heads and course coordinators at the University of the Witwatersrand were approached via electronic mail to obtain permission to have access to their students. The purpose of the research was explained to these individuals and minimum disruption of lectures was ensured. Once permission was obtained, appointments were made to hand out the participant questionnaires either at the start or the end of a lecture period. Second-last and final year students across various disciplines of the University of the Witwatersrand were invited orally by the researcher during the appointed lecture time to participate in the study and for the respondents to indicate their willingness to complete the questionnaires. The research rationale and study was briefly explained and instructions provided on completing the relevant measurements, taking care not to bias the possible answers of the students by indicating that there was no correct answer to any of the measurement questionnaires to prevent, for example, pro-social behaviour responses. Van de Vijver and Rothmann (2004) discussed types of bias in their article regarding the assessment of participants in multicultural groups, particularly item, method and construct bias. Although bias cannot be completely removed, the researcher took care to administer the questionnaires in a way to minimise these affects, for example, by not asking ambiguous questions or by giving unclear instructions to the respondents. No sample selection decisions were made using the results of this study; therefore the study was not biased or unfair toward the participants. Respondents were invited to read the Participant Information Sheet before commencing the completion of the questionnaires (See *Appendix G*).

Questionnaires were handed out to the students and collected immediately after completion by the researcher for safekeeping and data capturing. Completion of the questionnaires by participants took on average between 15 to 20 minutes. The participants were asked to place their completed questionnaires into a sealed box that was provided by the researcher. Informed

consent was indicated by the completion and handing in of the completed questionnaires and this was communicated to the participants.

When a sample total was estimated that surpassed the required amount needed for this study, the researcher felt it prudent to cease collecting any further data and commence with data capturing. Data was encoded and read out loud by the researcher to a data-capturer for entry into the electronic system. The data-capturer employed text-to-voice software that repeated the entered data back to the data-capturer and researcher to ensure that the data entered was the same as the data that was read out loud, and this method minimised the possibility of incorrect entries significantly.

3.5. Measurements

The study centred on the extension and validation of a scale to assess employer attractiveness to assist jobseekers with the task of organisational choice. The questionnaires aimed to tap into general values of those who were possibly embarking on the world of work. The scales employed in the study were the original Employment Attractiveness scale (EmpAt) – see *Appendix B*, the additional self-developed ‘green’ value items as a new sub scale of the revised EmpAt (see *Appendix D*), and the New Ecological Paradigm Scale (NEPS) – see *Appendix C*. A biographical questionnaire was also developed in addition to these measurements for descriptive statistical purposes (See *Appendix F*). The measurements as far as could be deduced from their psychometric properties were not “culturally and sexually biased so as to discriminate unfairly against racial and ethnic minorities, women and the poor” (Gregory, 2007, p.268), nor were the measurements unfair as there were no “social consequences” (p.269) in using the measurements, nor were the measurements used for selection purposes.

Foxcroft (1997) commented on the need to establish language proficiency when a test is administered, thus a question with regards to the level of proficiency in English was also included in the biographical questionnaire to determine if any variance might arise due to differences in language, particularly due to the diversity of language in the South African context.

The instruments used in this particular study will now be demarcated in terms of their psychometric properties, including validity and reliability.

3.5.1. Employer Attractiveness Scale (EmpAt)

Foxcroft and Roodt (2005) discussed the assessment of values, and that “values may be considered as important motivators of behaviour, because people strive to achieve or obtain the things that they value and to move away from the things that they do not” (p.170). The original EmpAt measured five value constructs. Briefly, the EmpAt identified and operationalised employer attractiveness values from the “perspective of potential employees” (Berthon et al., 2005, p.151). The study by Berthon et al. (2005) set out to develop and validate a scale to assess employer attractiveness as previously defined and defend the use of student subjects which was critiqued as possibly affecting the external validity of their measurement, in that those students “were in fact the subjects of measurement...being less than six months away from entering the job market themselves” (p.157). The original EmpAt consisted of 25 items and five subscales. The items were measured on a seven-point Likert-type scale, ranging from 1 = *Least Important* to 7 = *Most Important*. The coefficient alpha for the original EmpAt was determined to be $r = .96$ with all the items contributing to the internal consistency of the scale, providing strong evidence for its reliability in measuring employer attractiveness. Berthon et al. (2005) further discussed

nomological, convergent, discriminant, criterion, and content validity of the EmpAt scale, providing strong and compelling evidence for all of these psychometric properties.

3.5.2. The additional 'green' value subscale as an extension of the EmpAt

The study set out to develop a new 'green' subscale to measure respondents' subjective or perceived orientation towards 'green' values. The statements followed the format of the EmpAt scale, also measured on a seven-point Likert-type scale. As the aforementioned discussions showed, jobseekers are interested in how environmentally conscious organisations are and this subjective view of a jobseeker may play a vital role in how attractive a particular type of organisation is to a jobseeker. This idea of how environmental consciousness may be part of a jobseeker's self concept as explained in the literature review may impact on the eventual organisational choice a jobseeker makes.

Milfont and Duckitt (2010) and the OECD (2011) were consulted for possible environmental question ideas and wording examples for the development of the subscale items. Foxcroft and Roodt (2005) suggested that once a pool of items has been developed, "it should be submitted to a panel of experts for review and evaluation" (p.51). A panel of nine subject matter experts (SME) was ultimately consulted to review the researcher's items for the new 'green' subscale. The nine SMEs were presented with the draft subscale items that were adapted from Milfont and Duckitt (2010) and OECD (2011) to evaluate in terms of the dimensions related to a person wanting to work for a green organisation, based on their experience and knowledge in pro-environmentalist behaviour. These expert reviewers were asked to determine if the "items sufficiently tap the content domain or dimensions of the construct being assessed" (Foxcroft and Roodt, 2005, p.51). The SMEs were diverse in designation, such as environmental consultants, a

geographer, chemical engineer, and a sustainability consultant, a member of the Green Building Council of SA, and various qualified and accredited assessment and test construction specialists. Twelve initial questions were developed by the researcher and presented to the SMEs for critical review and feedback. Based on the feedback of these reviewers by way of suggestions for re-wording, elimination or possible item additions, the green subscale was preliminarily refined. Themes that emerged from the various SMEs were taken into consideration, and all SME feedback was collated in a systematic and coherent manner to determine the most suitable items and their subsequent wording. Based on revisions from SME feedback, nine questions were used in the revised questionnaire that was administered to the sample of students. The psychometric properties of the green subscale and subsequent items are discussed in the Results chapter. The nine green questions were added to the original EmpAt in a random fashion to create the new revised EmpAt.

3.5.3. New Environmental Paradigm Scale

The NEPS consists of 15 items measuring pro-environment orientation (Dunlap, Van Liere, Mertig and Jones, 2000). The scale was first published in 1978, and revised in 2000. The nature of environmental problems had evolved since the scale was originally published and the NEPS was adapted to include new items that were indicative of “the emergence of global environment problems as major policy issues” (p.426). The scale included eight pro-environmental responses as well as seven reversed-scored anti-environmental responses. The items were rated on a five-point Likert-type scale ranging from Strongly Agree to Strongly Disagree (Dunlap et al., 2000, Table 1.).

The NEPS items “appear to constitute a fundamental component of people’s belief systems vis-à-vis the environment” (p.428), and a pro-ecological orientation is revealed by a high score on the NEPS. The scale has been used in numerous studies over the past three decades across various samples, including college students (Dunlap et al., 2000, p.428), and “numerous studies have found significant relationships between the NEPS and various types of behavioral intentions as well as both self-reported and observed behaviors” (p.429). Dunlap et al. (2000) discussed the NEPS possessing criterion and content validity, as well as construct validity. They reported a coefficient alpha for the NEPS of .83

3.5.4. Likelihood of finding a matching organisation as a check item

At the conclusion of the questionnaires above, including the Biographical Questionnaire, a final question was asked of the respondents in the form of a check item:

“In your opinion, what do you think the likelihood is that you will get a job in your ideal organisation?” Although jobseekers would like to work for a specific organisation that matches their values, beliefs and interests as described in terms of person-organisation fit, the reality of our current economic situation might not make this possible (Foxcroft and Roodt, 2005). This question was used to evaluate respondent attitudes towards the likelihood of actually being able to find a job in their ideal organisation. A five-point Likert-type scale was used to measure this question, ranging from Very Unlikely to Very Likely (See *Appendix E*).

3.6. Data Analysis

Each of the research questions will now be discussed in terms of the data analysis procedures that were used.

For *Q1*, a correlation study, namely internal consistency, was performed on the various subscales of the EmpAt, including the new extension component of the EmpAt, namely the 'green' value items which will be discussed below. Foxcroft and Roodt (2005) advised that "any psychological measure must meet two standard technical requirements, namely, reliability and validity" (p. 28). Reliability refers to the consistency with which a measurement measures whatever it is meant to measure (Foxcroft and Roodt, 2005), and according to Christensen (2007), "refers to consistency, stability or repeatability" (p.206). When determining the reliability and validity, or statistical robustness of a questionnaire scale, or for new scale development, various techniques can be used. Foxcroft and Roodt (2005) mentioned various techniques to test reliability, e.g. test-retest, alternate-form, split-half and Cronbach's Coefficient Alpha. Coefficient Alpha was used in this study, which measures inter-item consistency, and coefficient alpha is most often used in "personality and attitudes scales...which have no right or wrong answers" (p.30-31). "Cronbach's coefficient alpha is an estimate of consistency of responses to different scale items" (Tredoux and Durrheim., 2002, p.213) and "this measure of internal consistency, which varies between 0 and 1, is an index of the extent to which each item on a scale correlates with every other item on the scale" (Devlin, 2006, p.94). Generally a Cronbach coefficient alpha that is $>.70$ is desirable.

For *Q2*, Exploratory principal component factor analysis (PCFA) can be used to test the underlying constructs of a measure or scale by looking for groups of variables that share common variance. The Pearson product-moment correlation coefficient can also be used (Foxcroft and Roodt, 2005), but reliability must first be established as the "validity of a measure is directly proportional to its reliability...and has a limiting influence on its validity" (p.37). "Factor analysis helps in understanding the nature of the dimensions that underlie the original

variables” or items...”by inspecting the nature or meaning of the variables grouped together in the dimension or factor” (Foxcroft and Roodt, 2005, p.156), and the EmpAt was tested by means of exploratory PCFA to investigate if the items loaded according to the various values (factors) as they were supposed to according to Berthon et al. (2005), but within the South African context. Factor analysis as described by Hair et al., (2010) is a general term for a class of multivariate statistical methods whose purpose is to define the underlying structure of a data matrix. It analyses the interrelationships or correlations among a large set of variables by determining a set of common underlying dimensions referred to as factors. The inter-correlations between various subscale components or factors were explored as these should not be too high as each subscale is theoretically tapping into a different factor of overall employer attractiveness.

“The validity of a measure concerns what the test measures and how well it does so” (Foxcroft and Roodt, 2005, p.33) and a test is said to be valid for a specific *purpose*. The construct and concurrent validity of the revised EmpAt was explored. Construct validity refers to the extent to which a set of variables actually represents the theoretical construct they are designed to measure (Hair, Black, Babin and Anderson, 2010). This can be done by using Factorial Validity using Factor Analysis as a statistical technique (Foxcroft and Roodt, 2009). The aim was thus to determine the underlying structure of the set of variables because identifying the common variance between the variables, it becomes possible to reduce a large set of variables to a smaller number of factors (Foxcroft and Roodt, 2009). The factors thus describe the factor composition of the measurement and assisted the researcher in determining the subscales. Factorial validity (Allen and Yen, 1979, as cited in Foxcroft and Roodt, 2009) refers to the underlying factors tapped by a measurement, as determined by the process of PCFA, and “analyzes the

interrelationships of variables” (Foxcroft et al, 2005, p.35). This type of procedure is used when a new measure is developed, or when an existing measure is applied in a different context (Foxcroft and Roodt, 2009), in this case the South African context.

Concurrent validity involves the accuracy with which a measure can identify the current behaviour regarding specific characteristics of an individual, which implies the correlation of two or more sets of behaviours or constructs (Foxcroft and Roodt, 2009).

Convergent and discriminant validity refers to when a measure correlates highly with other variables with which it should theoretically correlate” (Foxcroft and Roodt, 2005, p.36), and correlates low with variables that it should not. For convergent validity, the items that are indicators of a specific construct should essentially converge or share a high proportion of variance in common (Hair et al., 2010). This can also be determined by using factor loadings, as the size of a factor loading is an important consideration (Hair et al., 2010). At a minimum, factor loadings should be statistically significant (Hair et al., 2010). Although the rule of thumb is that standardised loading estimates should be .50 or higher, loading estimates can vary according to sample size (Hair et al., 2010). Factor loadings in the range of $\pm .30$ to $\pm .40$ are considered to meet the minimum level for the interpretation of structure (Hair et al., 2010). Hair et al. (2010) advised that in a sample of 250 respondents, a factor loading of .35 and above are significant, based on a .05 significance level (α), a power level of 80%.

For discriminant validity, the ‘green’ value subscale was also correlated with the NEPS. Those participants that scored higher on the NEP scale were predicted to score higher on the ‘green’ value subscale. A mean score >3 for responses on the NEPS was considered pro-environmental,

and a mean score of >4 for responses on the green subscale of the EmpAt was considered pro-environmental.

These techniques can be used if you are interested in the relationships between factors such as the factors that form part of the revised EmpAt. The correlation (r) can be interpreted by its effect size. According to Table 11.2 in Tredoux and Durrheim (2002, p.184), Guilford's informal interpretation of the magnitude of r indicates that a moderate correlation of 0.4 – 0.7 indicates that a substantial relationship exists, whereas <0.2 indicates a “slight, almost no relationship”. Validity coefficients should typically be high enough to be statistically significant at the .05 and .01 levels (Urbina, 2004).

The magnitude of the mean results of the green subscale as compared to the other EmpAt subscales was indicative of the importance that the sample placed on the ‘green’ value when making an organisational choice in the current sociopolitical and economic climate in South Africa. Mean (M) scores for the various subscales were thus compared to each other to determine the ranking order of the various EmpAt subscales to determine their subjective importance to the sample of students.

For $Q3$, the sample of University of the Witwatersrand students completed the NEP scale. A higher score was indicative of a higher pro-environmental orientation. The Mean (M) scores of the NEPS sample were used to determine the average score across the sample to determine the environmental stance of the students. This average score was correlated with the green value subscale *and* individual green items as discussed below.

For *Q4*, the concurrent validity of the new ‘green’ value subscale was measured by correlating it to the NEPS as theoretically they are both meant to measure pro-environmental attitudes or constructs. If a participant rated highly on the NEPS, theoretically the same participant should have a higher score on the ‘green’ value subscale items. The convergent validity therefore of the green value subscale with the NEPS was explored using Pearson product-moment correlation coefficients. Variables such as gender and age may affect the validity coefficient if the differences were significant (Foxcroft and Roodt, 2005). Thus *t*-tests and ANOVA analyses were used to investigate any possible group differences.

Q5: The subjective likelihood of finding employment within an organisation of choice can predict the relative importance of the various subscales of the EmpAt, as well as possibly moderate the relationship between the NEP and EmpAt. A moderator effect according to Hair et al. (1995) is the impact of a third independent variable on the relationship between a dependent and independent variable. In this case the moderator variable is the subjective likelihood of finding a job in the ideal organisation, and the effect that this has on the relationship between the EmpAt and NEP scales. Multiple moderated linear regression analysis is a technique used to analyse the relationship between a single dependent variable and several independent variables and was used to explore the moderator relationship as posited by the research question.

3.7. Ethics

It is important for a researcher to give special consideration to possible ethical issues during all phases of research. Wassenaar (2006) makes mention of practical principles that apply to ethics and that will “enhance the ethical standing...and scientific value of research” (p. 69). The rights and dignity of all participants were respected, participants were not harmed in any way by the

study, and there were no associated physical, social or psychological risks to participants in taking part in the study (Wassenaar, 2006, p.67-68). Other important aspects discussed by Wassenaar (2006) are that participation must be voluntary, anonymous and confidential. These principles were adhered to in this study. Anonymity was assured as the questionnaires did not ask for any identifying information such as names, electronic mail addresses or cellphone numbers. Confidentiality was assured as the responses were anonymous and only grouped data was reported. Each questionnaire was given a unique participant identification number by the researcher for data capturing purposes only. Participants were briefly informed verbally of the purpose of the study during each lecture, taking care not to influence the responses of participants in any way. The process was brief and concise to ensure minimum disruption to lectures. Informed consent was discussed with the participants, explaining that handing in the completed questionnaire constituted consent. No coercion was used to persuade individuals to participate in the study and individuals had the right to withdraw at any point before handing in the questionnaires. The questionnaires were handed out and collected in such a way so as to also minimise any possible disruption to lectures. Questionnaires were placed into a sealed box by the researcher or participants upon completion of the questionnaires. A participant information sheet was attached to the questionnaires briefly reiterating the purpose of the study, that participation was voluntary, confidential and anonymous, that all information was for research purposes only, that they could withdraw or decline participation before handing the questionnaires in, as well as instructing participants to keep the participant sheet for future reference; particularly to contact the researcher regarding the results of the study. According to Wassenaar (2006), results of a study should be made known to the study population in an approved format. The results of this study were made available online. When a participant emailed the researcher for information on the results of the study, the researcher emailed the

participant the relevant web link which contained information relating to the results of the study. The specific sample in this study was not sensitive or vulnerable, and the target sample as set out above in section 3.2 applied directly to the relevant research questions discussed heretofore. No vulnerability issues should thus have been present. See *Appendix I* for the researcher's Ethics Clearance Certificate.

4. RESULTS

4.1. Introduction to results

The purpose of this section is to discuss and display the results of the various research questions as derived from the statistical analyses used and described in the methodology section. The distribution analyses of variables will be presented, and the manner in which the green value items were refined and ultimately selected will be described and presented. The results of each research question will then be presented.

4.2. Distribution analysis

Based on the use of Likert-type scales for the EmpAt and the NEPS scales, interval data were obtained. The only items that were reversed scored were the even numbered NEPS items outlined before. Distribution analyses were conducted on the various interval variables to ascertain the nature of the data. These analyses enabled the researcher to determine whether parametric or non-parametric analyses should be used. Skewness and Kurtosis coefficients of the unrevised average of the nine EmpAt green subscale item (-.72; .41), the revised average of the five EmpAt green subscale items (-.64; .089), the unrevised EmpAt as a whole (-.76; 1.05), the NEPS (-.09; -.31) as well as distribution analysis histograms demonstrated relatively normal distributions for both the unrevised and revised EmpAt green subscale and the NEPS scores for the present sample. The Likelihood check item presented with skewness and kurtosis coefficients of -.32 and -.44. Although the composite average of the unrevised EmpAt displayed a kurtosis slightly out of normal range, it was decided to not use transformation logs on the data for the current study. Parametric assumptions were therefore met which permitted the use of parametric tests. A summary of distribution analysis summary statistics is presented in Table 2.

Table 2. Distribution Analysis summary statistics

Variable	Mean	Median	Skewness	Kurtosis
Original Green	5.155	5.33	-0.72	0.41
Final Green 5	5.091	5.20	-0.64	0.08
Neps Average	3.41	3.411	-0.09	-0.31
EmpAt Average	5.79	5.86	-0.76	1.05*
Likelihood	3.62	4	-0.32	-0.44

*Slightly out of normal range

4.3. Research Question Results

Question 1:

The first step in answering this particular question was to reduce and refine the original nine green value item questions to the most appropriate and statistically significant five. All nine self-developed green items were checked item by item for normality by computing skewness and kurtosis coefficients. Next, the green subscale items were correlated individually with the NEPS overall score. Finally, the green subscale items were correlated individually with each individual NEPS item.

A summary of the distribution statistics for all nine green subscale items is represented in Table 3. Only one item, EmpAt Item 30 was flagged for a possible non-normal distribution with skewness and kurtosis of -1.01 and .88.

Table 3. Distribution Analysis summary statistics for nine green subscale items

Variable	Mean	SD	Skewness	Kurtosis
EmpAt Item 4	4.95	1.53	-0.52	-0.18
EmpAt Item 8	4.93	1.56	-0.56	-0.33
EmpAt Item 10	5.22	1.56	-0.73	0.28
EmpAt Item 15	4.98	1.43	-0.48	-0.17
EmpAt Item 19	5.41	1.37	-0.78	0.34
EmpAt Item 24	5.17	1.46	-0.89	0.66
EmpAt Item 25	4.90	1.51	-0.58	-0.07
EmpAt Item 30	5.64	1.34	-1.01*	0.88
EmpAt Item 33	5.16	1.50	-0.77	0.17

*Item flagged for possible non-normal distribution

All nine green subscale items were subsequently correlated with the NEPS scale as a whole.

Table 4 presents the results of the Pearson Correlation Coefficients of the green items with only the highest *or statistically most significant* Pearson Correlation coefficients (*r*).

Table 4. Pearson Correlation Coefficients of Green subscale items and NEPS

Variable	Empat_4	Empat_8	Empat_15	Empat_19	Empat_33
NepsAvg	0.17**	0.20**	0.20**	0.14*	0.19**

* Significant at $p < .05$ ** Significant at $p < .01$

Next the individual nine green subscale items were correlated using the Pearson's Correlation coefficient (*r*) with each individual item of the NEPS scale. Table 5 represents the main relationships and significant findings between the individual NEPS items and individual EmpAt items.

Based on the distribution analyses and various correlation coefficients as presented in the preceding tables, five items were chosen to include in the final and revised green value subscale for reliability and validity analysis. These were EmpAt Items 4, 8, 15, 19 and 33. The five remaining items were analysed for inter-item consistency using Cronbach Alpha coefficients. Table 6 represents these findings. Cronbach alpha was computed at .93, showing substantial inter-item reliability with the individual correlations of each item being $>.80$ which was more than adequate for the purpose of this study.

Cronbach coefficient alpha was performed on each of the remaining five subscales of the EmpAt to determine the reliability of these subscales. Table 7 summarises the Alpha coefficients for each of the subscales of the EmpAt. In order of magnitude, the self-developed Green subscale $r = .93$, the Interest scale $r = .80$, the Social scale $r = .80$, the Economic scale $r = .76$ raw, and $.77$ standardised, the Application Scale $r = .75$, and lastly, the Development subscale $r = .70$. No significant changes would result if any of the items on these scales were removed. All the subscales thus show results indicative of good inter-item consistency and reliability.

Table 5. Pearson's Correlations between individual NEPS items and individual Green EmpAt items for item reduction analysis

Variable	Empat_4	Empat_8	Empat_10	Empat15	Empat_19	Empat_24	Empat_25	Empat_30	Empat_33
Item 2 (R)	0.15	0.22**	-	0.13	0.15	0.15	0.15	-	0.22**
Item 3	-	-	-	0.12	-	-	-	-	-
Item 4 (R)	-	-0.11	-	-	-	-	-	-	-
Item 5	0.13	0.17	0.12	0.22**	0.15	-	0.16	-	0.15
Item 6 (R)	-	-	-	-0.14	-	-	-	-	-
Item 7	0.20**	0.18	0.23**	0.28**	0.19	0.24**	0.20**	0.18	0.29**
Item 9	0.24**	0.18	-	0.22**	0.24**	-	0.20**	0.21**	0.18
Item 10 (R)	0.17	0.20**	-	0.20**	0.12	-	0.11	0.17	0.15
Item 13	0.16	0.24**	-	0.16	-	-	0.12	-	0.12
Item 15	0.19	0.19	0.13	0.22**	0.19	0.14	0.17	0.20**	0.21**

No significant relationships were found between various EmpAt green items and NEPS items 1, 8, 11, 12 and 14 and therefore they are not shown on this table

(R) = Reversed scored items

* Significant at $p < .05$ for $r \geq .20$

** Significant at $p < .01$ for $r \geq .20$

Table 6. Cronbach Coefficient Alpha for individual EmpAt Green value subscale items

Item Variable	Correlation with Total	Alpha if deleted
Item 4	.80	.92
Item 8	.80	.92
Item 15	.87	.90
Item 19	.81	.92
Item 33	.81	.92

*Cronbach Coefficient Alpha for all five items computed at .93

Table 7. Cronbach Coefficient Alpha for each subscale of the EmpAt scale

Subscale Variable	Standardised
Green	.93
Interest	.80
Social	.80
Economic	.77
Application	.75
Development	.70

Question 2 results:

Exploratory Principal Component Factor Analysis (PCFA) was used as a main analysis technique for this question to determine if groups of items or variables shared common variance. For all 25 items of the original EmpAt scale the coefficient alpha was computed raw at .89 and standardised at .90, which is acceptable and attests to the internal reliability of the EmpAt as a measurement of employer attractiveness. Berthon et al. (2005) reported a coefficient alpha of .96 for their final 25 items. Item 3 in the scale presented with a corrected item-to-total correlation of less than .40, at .38, and Item 22 presented with a corrected item-to-total correlation of .30. However, to maintain the integrity of the original EmpAt, these items were retained to determine all the item loadings using the PCFA. PCFA was first performed on the original EmpAt to determine if the items would load in a similar manner on the various factors as

purported by Berthon et al. (2005) and to determine the underlying structure of the original EmpAt.

Principal Component Factors Analysis with Varimax rotation and a factor extraction according to the MINEIGEN criterion (all factors with eigenvalues greater than 1) was employed. Hair et al. (2010) advise that only factors having eigenvalues greater than 1 are considered significant and all those less than 1 are considered non-significant and are discarded. An initial unrotated PCFA was performed to determine initial eigenvalues greater than 1. Six factors emerged instead of five. Item 27 originally from the Application Value consistently loaded on its own factor and as such was removed from the subsequent Varimax rotated version of the PCFA. Hair et al. (2010) presented guidelines for identifying significant factor loadings based on sample size. For a sample of 250, an acceptable factor loading of .35 is considered significant, at a power level of 80% and alpha of .05. The sample consisted of 276 participants, thus factor loadings of .35 and above were considered significant. Five factors emerged from this analysis. The five factors accounted for 60% of the variation in the data. Within the ambits of the social sciences where information is often less precise, Hair et al. (2010) maintained that it is not uncommon to consider a solution that accounts for 60% of the total variance as satisfactory. From the rotated factor matrix in Table 9 it can be seen that Items 11, 2, 12, 31 and 9 loaded on Factor 1. Items 20, 34, 32, 28 and 29 loaded on Factor 2. Item 29 however cross-loaded with Factor 4 as well. Items 18, 17, 16, 14 and 13 loaded on Factor 3. Additionally, Item 13 cross-loaded with Factor 1. Item 23, 22, and 21 loaded onto Factor 4. Item 27 which theoretically belonged to this group was removed from the analysis. Item 26 which also theoretically belonged to this group, did not load on Factor 4 as expected, but cross-loaded on two other factors. Items 5 and 6 loaded onto Factor 5. Items 7, 1 and 3, which theoretically should have loaded on Factor 5, loaded onto

Factor 2 instead. For clarity, Factor 1 is labelled the *Interest value*. Factor 2 is labelled the *Economic value*, Factor 3 the *Interest value* and Factor 4 the *Application value* (less Item 27 which was removed, and less Item 26 which cross-loads). Factor 5 is the Development value, but three of the five items of this subscale cross-loaded on Factor 2. It would appear that although the structure of the EmpAt remains mostly intact as per the original EmpAt structure, there are problematic items that cross-load across other Factors for this sample of university students. These items belong to the Development and Application value subscales.

On analysis, Factor 1 (*Social*) contributed 32% of the variance, which is more than half of the total variance explained by all of the factors combined. See Table 8 and 9 for a summary of these findings.

Table 8. Factor analysis of the original 25 EmpAt items

Rotated Component Matrix						
Component	Initial Eigenvalues			Rotated sums of squared loadings*		
	Total	% variance	Cumulative %	Total	% variance	Cumulative
1	7.91	31.67	31.67	3.78	31.92	31.92
2	2.09	8.39	40.06	3.44	8.61	40.52
3	1.98	7.96	48.02	2.75	8.20	48.72
4	1.35	5.43	53.45	2.35	5.53	54.25
5	1.30	5.21	58.66	1.97	5.42	59.66
6	1.02	4.12	62.78	-	-	-

* Item 27 removed in Varimax rotation

Table 9. Factor loadings of the original 25 EmpAt items

			Rotated Component Matrix				
			Factor				
			1	2	3	4	5
Item 11	Social 1	Having a good relationship with your colleagues	0.75				
Item 2	Social 2	A fun working environment	0.73				
Item 12	Social 3	Supportive and encouraging colleagues	0.72				
Item 31	Social 4	Happy work environment	0.68				
Item 9	Social 5	Having a good relationship with your superiors	0.52				
Item 20	Economic 1	Good promotion opportunities within the organisation		0.75			
Item 34	Economic 2	An attractive <i>overall</i> compensation package		0.70			
Item 32	Economic 3	An above average basic salary		0.69			
Item 28	Economic 4	Job security within the organisation		0.67			
Item 29	Economic 5	Hands-on inter-departmental experience		0.38		0.43	
Item 18	Interest 1	The organisation produces innovative products and services			0.75		
Item 17	Interest 2	The organisation produces high-quality products and services			0.72		
Item 16	Interest 3	The organisation both values, and makes use of your creativity			0.71		
Item 14	Interest 4	Innovative employer – novel work practices/forward-thinking			0.59		
Item 13	Interest 5	Working in an exciting environment	0.74		0.34		
Item 23	Application 1	Opportunity to teach others what you have learned				0.76	
Item 22	Application 2	Opportunity to <i>apply</i> what was learned at a tertiary institution				0.76	
Item 21	Application 3	Humanitarian organisation – gives back to society				0.64	
Item 26	Application 4	Acceptance and belonging	0.53				0.44
Item 5	Development 1	Feeling good about yourself as a result of working for a particular organisation					0.85
Item 6	Development 2	Feeling more self confident as a result of working for a particular organisation					0.80
Item 7	Development 3	Gaining career enhancing experience		0.61			
Item 1	Development 4	Recognition / appreciation from management		0.48			
Item 3	Development 5	A springboard for future development		0.47			

Item 27 = 'The organisation is customer-oriented' from the Application Value removed from rotated factor analysis

Factor loadings below .30 are suppressed

Items sorted by loading

Next, the coefficient alpha was computed for the revised EmpAt scale which included the green subscale items. The result was an internal reliability of .91, which is acceptable and attests to the internal reliability of the revised EmpAt as a measurement of employer attractiveness. An unrotated PCFA was performed on the extended EmpAt, which included the green subscale items. Seven factors emerged instead of six. Item 27 again consistently loaded on its own factor and as such was removed from the subsequent Varimax rotated version of the PCFA. Six factors emerged from this analysis. The six factors accounted for 64% of the variation in the data. Theoretically Item 7, 1 and 3 should also have loaded on Factor 5, but instead loaded on Factor 3. Item 27 which was removed should theoretically have loaded on this factor, but did not and was removed from the Varimax rotated PCFA. Item 26, which theoretically is also grouped with Factor 6, did not load on Factor 6, but instead cross-loaded with Factor 2 and 5. It would appear that the expected structure of the revised EmpAt remains mostly intact as per the underlying value factor constructs, there remain problematic items that cross-load across other factors for this sample of university students. These problematic items belong to the Development and Application value subscales. See Table 10 and 11 for summaries.

Table 10. Factor analysis of the extended EmpAt including green subscale items

Rotated Component Matrix						
Component	Initial Eigenvalues			Rotated sums of squared loadings*		
	Total	% variance	Cumulative %	Total	% variance	Cumulative
1	9.43	31.44	31.44	9.13	31.49	31.49
2	3.05	10.20	41.64	3.04	10.50	41.99
3	2.02	6.75	48.39	2.02	6.98	48.96
4	1.79	5.98	54.37	1.78	6.14	55.11
5	1.35	4.52	58.89	1.32	4.57	59.68
6	1.31	4.37	63.26	1.31	4.52	64.20
7	1.02	3.42	66.68	-	-	-

* Item 27 removed during Varimax rotation

Table 11. Factor loadings of the extended EmpAt including green subscale items

			Rotated Component Matrix						
			Factor						
			1	2	3	4	5	6	
Item 15	Green 1	The organisation manages its impacts on the natural environment as part of its regular business processes	0.88						
Item 33	Green 2	The working environment of employees allows for green initiatives such as recycling, the sustainable use of office space and the like	0.86						
Item 4	Green 3	The organisation subscribes to environmentally sustainable ideas and considers the sustainable use of natural resources	0.85						
Item 8	Green 4	The organisation actively contributes to reducing their environmental and carbon footprint and has policies to monitor and measure these	0.85						
Item 19	Green 5	The organisation manages energy and other resources in a sustainable manner	0.83						
Item 11	Social 1	Having a good relationship with your colleagues		0.75					
Item 2	Social 2	A fun working environment		0.74					
Item 12	Social 3	Supportive and encouraging colleagues		0.71					
Item 31	Social 4	Happy work environment		0.68					
Item 9	Social 5	Having a good relationship with your superiors		0.50					
Item 20	Economic 1	Good promotion opportunities within the organisation			0.76				
Item 34	Economic 2	An attractive <i>overall</i> compensation package			0.71				
Item 32	Economic 3	An above average basic salary			0.70				
Item 28	Economic 4	Job security within the organisation			0.67				
Item 29	Economic 5	Hands-on inter-departmental experience			0.40				
Item 18	Interest 1	The organisation produces innovative products and services				0.78			
Item 17	Interest 2	The organisation produces high-quality products and services				0.73			
Item 16	Interest 3	The organisation both values, and makes use of your creativity				0.71			
Item 14	Interest 4	Innovative employer – novel work practices/forward-thinking				0.60			
Item 13	Interest 5	Working in an exciting environment		0.75		0.34			
Item 5	Development 1	Feeling good about yourself as a result of working for a particular organisation						0.84	

Item 6	Development 2	Feeling more self confident as a result of working for a particular organisation			0.79
Item 7	Development 3	Gaining career enhancing experience		0.59	
Item 1	Development 4	Recognition / appreciation from management		0.48	
Item 3	Development 5	A springboard for future development		0.47	
Item 23	Application 1	Opportunity to teach others what you have learned			0.67
Item 22	Application 2	Opportunity to <i>apply</i> what was learned at a tertiary institution			0.76
Item 21	Application 3	Humanitarian organisation – gives back to society	0.53		0.49
Item 26	Application 4	Acceptance and belonging		0.55	0.42

Item 27 = 'The organisation is customer-oriented' was removed from rotated factor analysis

Factor loadings below .30 are suppressed

Items sorted by loading

Additionally, Hair et al. (2010) advise that communality estimates for variables should not typically be less than .50. On analysis of the final communality estimates for this particular PCFA, EmpAt Item 1, 9 and 29 presented with communalities <0.50. This indicated that although the variables were possibly loading significantly, they were still poorly accounted for by the factor solution (Hair et al., 2010). Only Item 9 of these three items was not loading as expected and was a possible candidate for deletion. An optimal structure exists when all variables have high loadings only on one single factor, but this is not the case with six out of the 30 items.

Also, Factor 1 (*Green*) contributed 31.50% of the variance, which is slightly less than half of the total variance explained by all of the factors combined.

Summated or averaged subscales should be analysed for reliability to ensure appropriateness before proceeding to an assessment of validity. As such the reliability of the various subscales were determined using Cronbach's coefficient alpha as discussed in the preceding section. All the subscales presented with acceptable reliability coefficients (See *Table 7*).

Validity is the extent to which a scale accurately represents the concept being measured (Hair et al., 2010). Factor validation could also be achieved by confirmatory factor analysis using structural equation modeling but is outside the scope of the current research study. Factorial validity was achieved through factor analysis that provided an empirical means of assessing the inter-relationships among the variables (Hair et al, 2010). Most of the items loaded correctly on their value factors, although six of the items as discussed were problematic with cross-loading. Convergent and discriminant validity as delineated prior in this report, was explored. The green subscale was the only subscale to correlate with the NEPS as both measures are purporting to

measure environmental consciousness. See Table 12 for a summary of the EmpAt subscale correlations with the NEPS.

Table 12. Pearson Correlation coefficients of subscales with NEPS

Subscale Variable	NEPS (<i>r</i>)
Green	.20
Interest	- .04
Social	- .01
Economic	.01
Application	.02
Development	- .02

$p < .05$

The convergent validity of the green subscale is further discussed in the results section of *Q4*.

Discriminant validity was determined by correlating the various subscales of the EmpAt with the NEPS scale. Conceptually all the subscales of the EmpAt, except for the green subscale, should not correlate with the NEPS scale as these subscales measure separate distinct concepts.

Consequently, none of these subscales correlated with the NEPS scale, thus demonstrating discriminant validity of the EmpAt subscales with the NEPS.

The scores for each subscale were averaged to determine the relevant importance that the sample placed on each separate EmpAt subscale value when making an organisational choice within the current South African organisational choice climate, namely, *Green, Interest, Social, Economic, Application* and *Development*. See Table 13 for a summary of these findings.

Table 13. Subscale Mean scores for the EmpAt

Subscale Variable	Mean (<i>M</i>)	<i>SD</i>	Min	Max	<i>N</i>
Green	5.09	1.31	1	7	276
Interest	6.13	0.75	1.6	7	276
Social	6.04	0.79	3	7	276
Economic	6.27	0.73	1.6	7	276
Application	5.60	0.98	1.6	7	276
Development	6.06	.77	1.8	7	276

The mean scores indicated that the green subscale ranked the lowest in importance of all the value subscales. Not surprisingly, the Economic value subscale ranked first ($M = 6.27$), closely followed by the Interest and Development subscales ($M = 6.13$ and 6.06). Although the green subscale ranked lowest with respect to the relative subjective importance of these subscales in choosing the ideal organisation for which to work, the green value subscale still maintained a pro-environmental mean in a positive direction, obtaining a mean score of $M = 5.09$ out of a possible 7, indicating the sample was indeed environmentally conscious, but other value factors still remained more important universally in decision-making for this sample.

Question 3 results:

The mean score of the NEPS scale for all the respondents was 3.44 ($SD = 0.59$, $N = 271$) out of a possible 5. This indicates a relatively positive environmental consciousness for the sample of university students. See Table 14 for the frequency distributions and item-total correlations for the NEPS Items. Although the NEPS presents with a reliability coefficient of .78 for this study, some items had low item-total correlations. The structure of the scale is such that agreement with the eight odd-numbered items *and disagreement with the 7 even numbered items indicated pro-NEPS responses and a higher environmental consciousness*. Certain items enjoyed higher agreement responses, for example, Item 7 ($N = 159$ for strongly agree, and $N = 60$ for mildly

agree), Item 9 ($N = 126$ for strongly agree, and $N = 109$ for mildly agree), Item 6 ($N = 124$, and $N = 93$ for mildly agree) and Item 15 ($N = 115$ for strongly agree, and $N = 88$ for mildly agree). These odd numbered items that were expected to yield a higher agreement response rate than the even numbered items which were expected to yield a lower agreement response rate. Item 12 yielded the identical agreement and disagreement response rate ($N = 59$) for strongly agree and strongly disagree, as did Item 14 ($N = 30$) for both strongly agree and strongly disagree. Item 4 had a higher agreement rate ($N = 34$) than disagreement rate ($N = 16$), when in fact it was expected that this item would yield a higher disagreement rate as a negatively worded item. This is akin to Item 6 with a higher agreement rate ($N = 124$) and lower disagreement rate ($N = 9$), when it was expected that this item would yield a higher disagreement rate.

Table 14. Frequency distributions and item-total correlations for the NEPS Items.

	Do you agree or disagree* that:	SA	MA	U	MD	SD	N	r
1	We are approaching the limit of the number of people the earth can support	43 (16%)	99 (36%)	62 (23%)	44 (16%)	24 (8%)	272	.44
2	Humans have the right to modify the natural environment to suit their needs	25 (9%)	99 (36%)	31 (11%)	68 (25%)	49 (18%)	272	.44
3	When humans interfere with nature it often produces disastrous consequences	101 (37%)	103 (38%)	28 (10%)	28 (10%)	12 (4%)	272	.34
4	Human ingenuity will insure that we do NOT make the earth unlivable	34 (12%)	86 (31%)	97 (36%)	38 (14%)	16 (6%)	271	.11
5	Humans are severely abusing the environment	112 (41%)	103 (38%)	20 (7%)	29 (11%)	8 (3%)	272	.43
6	The earth has plenty of natural resources if we just learn how to develop them	124 (45%)	93 (34%)	19 (7%)	27 (10%)	9 (3%)	272	.23
7	Plants and animals have as much right as humans to exist	159 (58%)	60 (22%)	16 (6%)	18 (7%)	19 (7%)	272	.30
8	The balance of nature is strong enough to cope with the impacts of modern industrial nations	14 (5%)	41 (15%)	52 (19%)	99 (37%)	65 (24%)	271	.49
9	Despite our special abilities humans are still subject to the laws of nature	126 (46%)	109 (40%)	24 (9%)	8 (3%)	4 (1%)	271	.18
10	The so-called 'ecological' crisis facing human-kind has been greatly exaggerated	10 (4%)	52 (19%)	62 (23%)	79 (29%)	68 (25%)	271	.55
11	The earth is like a spaceship with very limited room and resources	43 (16%)	110 (41%)	46 (17%)	52 (19%)	20 (7%)	271	.46
12	Humans were meant to rule over the rest of nature	59 (22%)	62 (23%)	31 (11%)	60 (22%)	59 (22%)	271	.36
13	The balance of nature is very delicate and easily upset	77 (29%)	113 (42%)	45 (17%)	29 (11%)	6 (2%)	270	.41
14	Humans will eventually learn enough about how nature works to be able to control it	30 (11%)	90 (33%)	58 (22%)	62 (23%)	30 (11%)	270	.34
15	If things continue on their present course, we will soon experience a major ecological catastrophe	115 (43%)	88 (33%)	40 (15%)	21 (8%)	6 (2%)	270	.60

*Agreement with the 8 odd-numbered items and disagreement with the seven even-numbered items indicate pro-NEP responses

**SA = Strongly agree, MA = Mildly agree, U = Unsure, MD = Mildly disagree, and SD = Strongly disagree

Question 4 results:

The revised Green value subscale as a whole (five items) was correlated with the NEPS scale as a whole (fifteen items) with $r = .20$, statistically significant at $p < .01$ (See Table 12). Although this relationship was weaker than anticipated, the NEPS scale does not share a relationship with any of the other five EmpAt subscales, as expected. The only subscale with which the NEPS does have a relationship is the Green value subscale, both measuring environmental identity. Both the NEPS and Green Subscale average mean scores indicated pro-environmental attitudes. The Green subscale presented with a mean of $M = 5.09$ ($SD = 1.31$, $N = 276$) out of a possible score of 7, indicating a relatively positive environmental consciousness for the sample of university students. Individual Green subscale items were correlated with the NEPS measurement as a whole to determine specific item correlations with the NEPS.

The finalised five individual Green subscale items were correlated with the NEPS scale as a whole. These findings were presented in Table 4. Next each individual Green item of the finalised green subscale was correlated with individual NEPS items. Item wording of the NEPS and green EmpAt Subscale items is included for an expansive understanding of the relationships between the items.

Negative correlations were found between various reversed scored NEPS items and the EmpAt items. Items were reversed scored before analysis. These relationships were expected. Lower agreement with reversed NEPS items would indicate higher agreement with a pro-environmental EmpAt item. These findings are presented in Table 15.

Table 15. Green subscale item correlations with NEPS items

Scale item variables	EmpAt Item 4 The organisation subscribes to environmentally sustainable ideas and considers the sustainable use of natural resources	EmpAt Item 8 The organisation actively contributes to reducing their environmental and carbon footprint and has policies to monitor and measure these	EmpAt Item 15 The organisation manages its impacts on the natural environment as part of its regular business processes	EmpAt Item 19 The organisation manages energy and other resources in a sustainable manner	EmpAt Item 33 The working environment of employees allows for green initiatives such as recycling, the sustainable use of office space and the like
Neps Item 1 We are approaching the limit of the number of people the earth can support	-	-	-	-	-
Neps Item 2 (R) Humans have the right to modify the natural environment to suit their needs	0.15	0.21**	0.13	0.15	0.22**
Neps Item 3 When humans interfere with nature it often produces disastrous consequences	-	-	0.12	-	-
Neps Item 4 (R) Human ingenuity will insure that we do NOT make the earth unlivable	-	-0.11	-	-	-
Neps Item 5 Humans are severely abusing the environment	0.13	0.17	0.22**	0.15	0.15
Neps Item 6 (R) The earth has plenty of natural resources if we just learn how to develop	-	-	-0.14	-	-
Neps Item 7 Plants and animals have as much right as humans to exist	0.20**	0.19	0.28**	0.19	0.29**
Neps Item 8 (R) The balance of nature is strong enough to cope with the impacts of modern industrial nations	-	-	-	-	-
Neps Item 9 Despite our special abilities humans are still subject to the laws of nature	0.24**	0.18	0.22**	0.24**	0.18
Neps Item 10 (R) The so-called 'ecological' crisis facing human-kind has been greatly exaggerated	0.17	0.20**	0.20**	0.12	0.15
Neps Item 11 The earth is like a spaceship with very limited room and resources	-	-	-	-	-
Neps Item 12 (R) Humans were meant to rule over the rest of nature	-	-	-	-	-
Neps Item 13 The balance of nature is very delicate and easily upset	0.16	0.24**	0.16	-	0.12
Neps Item 14 (R) Humans will eventually learn enough about how nature works to be able to control it	-	-	-	-	-
Neps Item 15 If things continue on their present course, we will soon experience a major ecological catastrophe	0.20**	0.19	0.23**	0.19	0.21**

(R) = Reversed Scored items * Significant at $p < .05$ for $r \geq .20$ ** Significant at $p < .01$ for $r \geq .20$

No significant relationships were found between NEPS Item 1, 8, 11, 12 and 14 with any of the individual green EmpAt items.

While not hypothesised, an independent t-test was run to determine if any differences existed between male and female participants in their responses to the Green value subscale items as an exploratory question. Homogeneity of variance indicated that Satterthwaite results should be used as the assumption of homogeneity was not supported. Results for the t-test were $t(274) = -3.45; p = .04$. As $p < .05$, this indicated a significant difference in the environmental consciousness of male and female participants in their responses to the green subscale items. The mean for the female participants ($M = 5.38$) was higher than for male participants ($M = 4.84$). Using Cohen's d effect size was calculated to be a moderate 0.41. Table 16 summarises the means, standard deviation and number of male and female participants of the green scale.

Table 16. Summary statistics for male and female participants for Green value subscale

Gender	Mean (M)	SD	N
Male	4.84	1.38	150
Female	5.38	1.17	126

A t-test was also run to determine if any differences existed between male and female participants in response to the NEPS scale. Homogeneity of variance indicated that Pooled variances should be used as homogeneity of variance was supported. The results were $t(269) = -4.64, p < .0001$. The mean for the female participants ($M = 3.62$) was higher than for male participants ($M = 3.30$). Using Cohen's d effect size was calculated to be a moderately high 0.57. It was thus possible to conclude that the female participants in this study have a higher environmental consciousness than male participants as indicated by significant differences in

both the NEPS and green value subscale responses. Table 17 summarises the means, standard deviation and number of male and female participants of the NEPS scale.

Table 17. Summary statistics for male and female participants for NEPS scale

Gender	Mean (<i>M</i>)	SD	N
Male	3.30	0.54	146
Female	3.62	0.54	125

Next as an exploratory question, it was investigated whether significant differences were present between the race groups in their responses to the Green subscale items and NEPS scale respectively using ANOVA analyses.

Levene's test of homogeneity indicated that homogeneity of variance was supported for the Green subscale and race groups. The results were $F(3, 261) = 6.28, p = .0004$. Using Tukey's HSD test, pairwise comparisons significant at the .05 level indicated that significant differences exist between the Black and White groups, and between the Indian and White groups in their environmental consciousness on the green subscale. The highest environmental consciousness lies with the Coloured group, followed by the Indian group. The Indian and Black groups shared similar sentiments. The mean of the White group was the lowest of all the groups, indicating that the White group possessed the lowest environmental consciousness between the four groups. Table 18 presents summary statistics for green subscale means and standard deviations for the race groups.

Table 18. Table of Means and Standard Deviations for race groups on Green Subscale

Population Group	Mean (<i>M</i>)	SD	N
Black	5.16	1.22	169
Coloured	5.77	0.99	6
Indian	5.70	1.17	38
White	4.59	1.42	52

Levene's test of homogeneity indicated that homogeneity of variance was supported for the NEPS scale and race groups. The results were $F(3, 256) = 15.95, p < .0001$. Using Tukey's HSD test, pairwise comparisons significant at the .05 level indicated that significant differences exist between the Black and White groups, and between the Black and Indian groups in their environmental consciousness on the NEPS scale. The highest environmental consciousness on the NEPS scale was found with the Indian group, followed by the White group. The mean differences were small however and these two groups shared similar sentiments. In this analysis, the mean of the Black group was the lowest of all the population groups, indicating that the Black group possessed the lowest environmental consciousness between the four race groups for the NEPS scale. Table 19 presents summary statistics for NEPS means and standard deviations for the race groups.

Table 19. Table of Means and Standard Deviations for race groups on NEPS scale

Population Group	Mean (<i>M</i>)	<i>SD</i>	<i>N</i>
Black	3.28	0.50	166
Coloured	3.60	0.49	5
Indian	3.81	0.44	38
White	3.69	0.61	51

ANOVA was used to determine any significant differences in responses to the green subscale and NEPS responses with regards to the sample's level of English proficiency.

Significant differences were found between English proficiency levels for responses on the green subscale scale, $F(3, 272) = 3.77; p = .01$. Homogeneity of variance was upheld. Using Tukey's HSD test, pairwise comparisons significant at the .05 level indicated that significant differences exist between the English proficiency of the 'very good' and 'poor' groups for responses to the green subscale. Table 20 summarises these findings.

Table 20. Table of Means and Standard Deviations for English Proficiency Groups on Green subscale

English Proficiency	Mean (<i>M</i>)	<i>SD</i>	<i>N</i>
Excellent	4.93	1.40	143
Very good	5.33	1.14	94
Average	5.19	1.28	37
Poor	2.90	0.98	2

Significant differences were also found between English proficiency levels for responses on the NEPS, $F(3, 267) = 5.63; p = .0009$. Homogeneity of variance was upheld. Using Tukey's HSD test, pairwise comparisons significant at the .05 level indicated that significant differences exist between the English proficiency of the 'excellent' and 'very good' groups for responses to the NEPS. These findings are summarised in Table 21.

Table 21. Table of Means and Standard Deviations for English Proficiency Groups on NEPS

English Proficiency	Mean (<i>M</i>)	<i>SD</i>	<i>N</i>
Excellent	3.58	0.57	140
Very good	3.30	0.55	93
Average	3.34	0.47	36
Poor	3.00	0.56	2

No significant differences were found for those groups seeking Employment at various times in the future, for either the green subscale or NEPS responses. No significant differences were found for the different types of Plans the sample had for the upcoming year, for either the green subscale or NEPS responses. No significant differences were found between the various age groups and their responses to the NEPS or green subscale respectively.

As a conclusion to this particular research question, a frequency table for the responses to the green subscale items is presented in Table 22.

Table 22. Frequency distributions and item-total correlations for the Green subscale Items of the EmpAt

Statements rated in importance*		1	2	3	4	5	6	7	N	r
4	The organisation subscribes to environmentally sustainable ideas and considers the sustainable use of natural resources	8 (3%)	12 (4%)	23 (8%)	54 (20%)	74 (27%)	49 (18%)	54 (20%)	274	.80
8	The organisation actively contributes to reducing their environmental and carbon footprint and has policies to monitor and measure these	8 (3%)	15 (5%)	26 (9%)	52 (19%)	60 (22%)	67 (24%)	48 (17%)	274	.80
15	The organisation manages its impacts on the natural environment as part of its regular business processes	4 (1%)	14 (5%)	19 (7%)	60 (22%)	73 (26%)	61 (22%)	45 (16%)	274	.87
19	The organisation manages energy and other resources in a sustainable manner	3 (1%)	7 (3%)	14 (5%)	40 (15%)	68 (25%)	73 (27%)	71 (26%)	274	.81
33	The working environment of employees allows for green initiatives such as recycling, the sustainable use of office space and the like	7 (3%)	13 (5%)	13 (5%)	49 (18%)	64 (23%)	72 (26%)	58 (21%)	274	.81

* Wording: Please rate the following statements in importance from 1 to 7 when choosing the ideal organisation to work for, with 1 being 'least important' to you, and 7 being 'most important' to you.

Question 5 results:

A distribution analysis was performed on the Likelihood variable to determine the frequencies of the various responses. A mean (M) of 3.62 ($SD = .94$, $N = 275$) was determined for this specific sample of university students, indicative of a mean response in a positive direction between unsure and likely for this particular sample. Thus the sample was leaning towards 'likely' in terms of the likelihood of finding a job in their ideal organisation. Table 23 summarises the frequency responses for this item. No significant differences between gender groups were found in the responses to this variable, $t(273) = 0.43$, $p = .66$.

Table 23. Frequency distribution for Likelihood variable

Likelihood variable	<i>N</i>	%
1 (Very unlikely)	3	1
2 (Unlikely)	32	12
3 (Unsure)	80	29
4 (Likely)	111	40
5 (Very likely)	49	18

Next it was investigated whether significant differences were present between race groups in their responses to the Likelihood item using ANOVA analyses.

Levene's test of homogeneity indicated that homogeneity of variance was supported for the Likelihood item and population groups. The results were $F(3, 260) = 5.64$, $p < .01$. Using Tukey's HSD test, pairwise comparisons significant at the .05 level indicated that significant differences exist between the Black and Indian groups in their perceptions of finding a job in their ideal organisation. The highest likelihood perception (very likely) was found to be the Black group, followed by the White group. The mean of the Indian group was the lowest of all

the groups. Table 24 presents summary statistics for the Likelihood means and standard deviations for the race groups.

Table 24. Table of Means and Standard Deviations for race groups Likelihood item

Population Group	Mean (<i>M</i>)	<i>SD</i>	<i>N</i>
Black	3.79	0.88	168
Coloured	3.33	1.03	6
Indian	3.18	0.83	38
White	3.44	1.05	52

In this particular question, the means scores of the items belonging to the individual EmpAt subscales were used to create Subscale variables specific to this question. Normality of each of the individual EmpAt subscales was essential for parametric analyses in answering this question. Distribution analyses showed that some of the subscales as newly created averaged variables were non-normal, but not the self-developed green subscale as discussed previously. The EmpAt as a whole was slightly non-normal as discussed previously, but for this particular analysis a new EmpAt variable was created which contained only the five refined items of the green subscale as determined in Question 1. This variable was also determined to be non-normal (-.85 and 1.35). Transformation logs were performed on the non-normal subscales, including the newly created EmpAt mean variable. Unfortunately the proposed dependent variables (DV) (revised EmpAt as a whole, and four out of the five the original EmpAt subscales) for the linear regression models remained non-normal.

On further exploratory analyses, Likelihood as the proposed moderator variable (second independent variable) did not correlate well with the proposed DVs (whole EmpAt $r = .03$ or individual subscales, e.g. $r = .02$ on the Green subscale) or the other IV (mean NEPS scores $r = -.10$). From the analyses it was evident that Likelihood as an independent or possible moderator

variable did not have a significant relationship with the proposed DV (s) and as such it seemed sensible not to attempt the moderated linear regression (Baron and Kenny, 1986).

However, a preliminary R-squared linear regression was run with the *Green* subscale as DV and the NEPS scale as IV. R^2 indicated initial values of 4% as variance explained by the IV on the DV. The variance thus explained by the relationship between the DV and IV was very low.

Despite the non-significant result, a secondary R-squared multiple linear regression was run with Likelihood as a second IV. Likelihood as an IV only accounted for an additional 0.09% of variance in the model, with the interaction effect increasing the original R^2 from 4 to 4.26%, and adjusted- R^2 decreasing from 3.64 to 3.54%. With only 3.64% of the variance explained by the IV (NEPS) on the DV (*Green*), and only an additional 0.09% explained by the second IV (Likelihood) as a possible moderator variable, it would seem from this preliminary linear regression model that no moderator relationship was present and running a moderated multiple linear regression did not serve a purpose in the context of this study. Table 25 summarises these findings. The non-normality problem of the revised EmpAt scale as a summated scale (-.85 and 1.35), including the non-normality of the four of the six subscales (*Interest, Social, Economic & Development*) presented a problem for doing linear regression.

Table 25. Regression analysis with *Green* subscale as the Dependent Variable

Model		R^2	<i>Adjusted- R²</i>
Step 1	NEPS scale	0.04	0.036
Step 2	Likelihood	0.0009	-0.00028
Interaction effect	NEPS * Likelihood	0.04	0.0354

N = 270

5. DISCUSSION

In this section, the results of the various research questions are discussed. The purpose of the discussion is to derive possible meaning from the results obtained. From this discussion it will emerge if any practical significance is warranted within the findings of the research, as well as any possible overlaps or links between the various research questions. Any emergent questions or findings are also delineated.

Reliability of the revised Employer Attractiveness scale (EmpAt) in the South African context

The purpose of this question was to refine the Green subscale and to assess the reliability of the EmpAt. Based on the results discussed previously, the five most statistically appropriate items were retained for inclusion in the Green subscale. Based on the significant Cronbach alpha coefficient for the Green subscale (.93), it was determined to have high inter-item consistency and therefore high reliability as a measurement of green values for employer attractiveness in assisting jobseekers in their pursuit of making organisational choices.

Cronbach alpha coefficients were also determined for the original five EmpAt subscales, the highest being the Interest and Social subscales, with a coefficient of .80 respectively. This would indicate that the items in these subscales more consistently measured the relevant constructs across various samples. The lowest coefficient alpha was the Development subscale, with a coefficient alpha of .70 which is the minimum acceptable level of overall reliability for a measurement scale (Foxcroft and Roodt, 2005).

Random sampling error and systematic non-sampling error may affect reliability (Foxcroft and Roodt, 2009). Systematic non-sampling error can originate from two broad sources, namely respondent error or administrative error. Respondent error can further be categorised into non-response errors / self-selection bias, response bias, and purposive falsification (Foxcroft and Roodt, 2009). There were two cases in which respondents did not complete the NEPS questionnaire although this probably did not influence the results in any way due to the large sample size. Some of the respondents may have felt positive about the research subject while others may have felt negative or indifferent about the topics (Foxcroft and Roodt, 2009). It is problematic to determine if any of the respondents felt either negatively or positively about the research topic. Extremity bias was possibly problematic in the current study where responses were mostly very positive for the EmpAt scale but this was most likely due to the scale being developed in such a way as to invite respondents to respond in a particular way. Likert-type scales also amplify extreme responses (Swart, Roodt and Scheper, 1999, as cited in Foxcroft and Roodt, 2005). Acquiescence bias also occurred in some cases where respondents were in agreement or rated positively with all the statements of the EmpAt scale. It is possible that due to factors such as boredom or indifference, respondents may also have decided to respond through purposive falsification, by choosing one option for all the items of the EmpAt or randomly responding to all the questions (Foxcroft and Roodt, 2009). Variations in instructions, assessment conditions, and scoring were all kept constant where possible to prevent any additional bias.

Despite these possible biases, as discussed previously, statistically no significant improvement would result if any of the items were removed from the various subscales, and results indicated that the removal of any items would lower the overall alpha which reiterated the importance of

retaining the items within these subscales. Inter-item consistency refers to the consistency of responses to all the items within each subscale, and Smit (1996, as cited in Foxcroft and Roodt, 2009) encouraged a reliability coefficient of .80 to .85 for measures specifically of interest or personality, thereby the various statistics demonstrated each subscale's reliability and good inter-item consistency as found by Berthon et al. (2005). In the study by Berthon et al. (2005) the alpha for the original 25-item EmpAt was found to be .96. The coefficient alpha for the revised EmpAt which included only five of the nine green subscale items, was determined to be $r = .91$ with all the items contributing to the internal consistency of the scale, thus providing strong evidence for its continued reliability in measuring employer attractiveness.

Construct and concurrent validity of the EmpAt in the South African context

As mentioned, organisations are increasingly competing to attract highly skilled employees in various professions (Mahroum, 2000) and future competition for the best employees will be equal in ferocity as those for customers (Berthon et al., 2005). Employment branding, corporate citizenship behaviour and organisational environmental consciousness behaviours are growing in importance to organisations, customers and employees, and Berthon et al. (2005) advised organisations to integrate the value factors into their employer brand in the hope of successfully attracting highly skilled employees. In turn, this level of employer attractiveness will allow prospective employees to make high-stakes informed choices in deciding for which organisations they want to work. This new thrust of green recruiting is proactive and focused on making 'greenness' a significant element of employer and employment branding (Sullivan, 2007). Sullivan (2007) further explains how College graduates are demanding green recruiting in that

their campus life leaves a minimal environmental footprint, and that business and the environment be integrated. Sullivan (2007) explains that sustainability has become so important to college graduates that even starting salaries take a back seat behind ‘greenness’ when students evaluate potential employers. Sullivan (2007) warns that to date no one has quantified the impact that being environmentally friendly has on recruits. However, Stringer (2010) commented that it is not just younger applicants that are interested in green recruiting, but that job candidates of all ages are simply starting to prefer green jobs overall. It is not that an organisation’s environmental policy is the *only* factor in a potential employee’s choice – but all things being equal, it is a big differentiator (Stringer, 2007).

The present study aimed to determine whether the same factors of employer attractiveness could be extracted as the study by Berthon et al. (2005) before extending the scale to include the green subscale items. It appeared that for the current sample of university students the study yielded similar results but not all items of employer attractiveness loaded similarly on components or factors relative to the study by Berthon et al. (2005). One item consistently loaded onto its own component or factor. This item belonged to the *Application* value as described by Berthon et al. (2005). The *Application* value as demarcated previously, determines the degree to which an individual is attracted to an employer that provides an opportunity for the employee to apply what they have learned as well as to teach others, in an environment that is both client-orientated and caring. The problematic item, Item 27, “The organisation is customer oriented” did not appear to load with this particular factor. Historically, South Africa has had a reputation for poor service delivery and low customer orientation (Russell and Bvuma, 2001). The unexpected finding was indicative of a culture where capitalism as a commodity is to be obtained at all costs and possibly through as little customer service or satisfaction as possible (Russell and Bvuma,

2001). What is surprising is that the sample of university students as potential employees who may have been subjected to and experienced poor customer orientation or customer service at some point, would not deem this a more valuable trait in the organisation that they would consider working for. Possibly this item taps into a separate construct from that proposed by Berthon et al. (2005) and needs to be more fully investigated. It is also possible that the current sample does not value or understand the implication of an organisation possessing this trait to its continued economic survival. The current sample may also not see themselves as 'customers' at present, but rather from the position of possible 'employees' and as such may have been disengaged from the item and may not have identified with it in the sense that the current study was particularly about organisation choice from the subjective perspective of these potential employees.

When this particular problematic item was removed from the Varimax rotated PCFA, five factors emerged as expected. This provides support for the validity of the factorial structure as obtained by Berthon et al. (2005) and the current structure accounted for 60% of the variation of the data, leaving 40% unaccounted for. In the study by Berthon et al. (2005), 74% of the variance in their data was explained by the five factors in their study. Hair et al. (2010) maintained that in the social sciences 60% of total variance was satisfactory.

Although the structure remained mostly intact, there were problematic items that cross-loaded with other factors. Item 13 was considered by Berthon et al. (2005) to belong to the *Interest* value that evaluated the degree to which an individual is attracted to an employer that provides an exciting work environment with potentially novel work practices, and makes use of its employees' creativity to assist in producing high quality, creative products and services. This

item cross-loaded with the *Social* value, which assessed the degree to which an individual is attracted to an employer that provides a working environment that is enjoyable and happy, provides good mutually respectful relationships with a team atmosphere. The specific item, “Working in an exciting environment” could very well be similar in structure to the items belonging to the factor with which it was cross-loading, such as “Happy working environment” or “Fun working environment” because the item loading of .74 was the second highest in this particular factor group. To the respondents, ‘exciting’ may very well have subjectively implied ‘fun’ or ‘happy’. This item could thus possibly be moved under the heading of *Social* factor or alternatively be revised or removed completely.

Similarly, Item 26 also cross-loaded on the *Social* factor. This item is worded as follows: ‘*Acceptance and belonging*’ and the results indicated that perhaps this item was more suitable for the *Social* factor instead of the *Application* value as purported by Berthon et al. (2005) particularly since this item by nature of its discourse is steeped in social premise. This item could thus possibly also be revised or removed completely.

Item 29, “Hands-on inter-departmental experience” loaded on its own factor, *Economic*, but also cross-loaded with the *Application* value as discussed previously. Although the factor loading of .38 loaded on the correct factor, a higher factor loading of .43 was observed on the *Application* value. The factor loadings were similar in magnitude, with not much difference observed between the two, but both were above the .35 minimum significant loading cut-off. Inter-departmental experience may thus imply more of an *Application* value item, and less of an *Economic* value item. ‘Experience’ may not directly translate into an *Economic* value item as subjectively perceived by the sample, but rather as an *Application* item where employees are able

to gain invaluable experience that cannot be equated with an economic monetary value. Perhaps Berthon et al. (2005) were of the opinion that experience on the job would translate into higher income at some future date and as such warranted the item to be grouped with the *Economic* value, but this is a conjecture that requires further investigation.

The *Development* value was divided in the factorial structure under two different factors. Item 5 and 6, loaded best on Factor 5, but three of the items theoretically belonging to this value, loaded on Factor 2, which embodied the items belonging to the *Economic* Factor, with loadings ranging from .47 to .61. The *Development* value determines the degree to which an individual is attracted to an employer that provides acknowledgment, sense of worth and self-belief, combined with a career-enhancing experience and a launch pad to future employment. Items 7, 1 and 3 did not load with the other two items that had higher loadings on Factor 5. Thus the *Development* value appeared to be fractured as a construct and would need to be revisited as a subscale of employer attractiveness as defined by Berthon et al. (2005) for the South African context. The *Application* value, with Item 27 removed, and Item 26 cross-loading on the *Social* value, concomitantly needs further refinement also.

Factor 1 as summarised in Tables 8 and 9, identified those items as contributing most to employer attractiveness for the current sample of South African university students. Factor 1 (*Social*) contributed 32% of the variance, which is more than half of the total variance explained by all of the factors combined. Thus the *Social* items are at least as important as the other four factors together.

It can thus be concluded that within this sample of university students, the most amount of variance in this factor model is explained by the *Social* items.

Another PCFA was run to determine the factorial structure of the revised EmpAt, to determine if the green items loaded on a separate factor, and to determine the revised structural validity of the factors as already discussed in this section.

A similar procedure was followed for the factorial analysis of the revised EmpAt and analogous outcomes were found for the cross-loading items discussed previously on the revised factorial structure, with a few variations. This time the newly added *Green* subscale items loaded highest on Factor 1, followed by the *Social* items on Factor 2. During this analysis, Item 21 (*Humanitarian organisation – gives back to society*) cross-loaded with the *Green* factor. The nature of this item would make it logical for this item to cross-load with the *Green* value as this item's wording possibly deals with corporate social responsibility and possible 'green' activities. This item's wording possibly also alludes to Dyllick and Hockerts' (2002) triad definition of sustainability which includes economic, social and natural capital.

Factor 1, 2 and 3 loaded well, with items loading specifically on these factors. Item 13 once again cross-loaded with Factor 4 and 2 as explained previously. Again, the *Development* value appeared to be fractured as a construct and would need to be revisited as a subscale of employer attractiveness in the South African context. The *Application* value, with Item 27 removed, and Item 26 cross-loading on the *Social* value, concomitantly needs further refinement also.

Factor 1 as summarised in Table 10 and 11, identified those items as contributing most to employer attractiveness for the current sample of South African university students for the revised EmpAt. This time, Factor 1 (*Green*) contributed 31.50% of the variance, which is slightly less than half of the total variance explained by all of the factors combined. The *Green* and *Social* items explained the majority of variance between all six factors, explaining 42% of the variance combined. These two factors are thus at least as important as the other four factors together. By adding ‘green’ items, the most amount of variance is thus explained by employer attractiveness for this sample of university students.

The factorial structure of the revised EmpAt provides reasonable indication of the construct validity of the measure. However, two subscales, the *Development* and *Application* subscales, need to be revised to eradicate cross-loading. The fact that this sample caused the structure of the EmpAt to emerge differently, may be indicative of differences between the academic structures of the Australian and South African populations. The EmpAt was created and validated for an Australian sample of final year students, and differences in academic teaching content and methodologies may have affected the results for the South African student sample, as well as differences in the perceived labour and organisation market, and differences in the value systems attributed to various societies.

The *Green* subscale was the only subscale to correlate with the NEPS scale, thus providing evidence of convergent validity. However, the relationship was not as strong as expected, and this is discussed in the section to follow. Discriminant validity was also evident as the remaining subscales did not correlate with the NEPS scale, thus attesting to the dissimilar nature of the non-green items with the NEPS scale.

Although the PCFA indicated that the *Green* factor loaded on Factor 1, thus explaining the majority of variance in the factorial structure, the mean scores for the subscales indicated that the *Green* subscale appeared to be ranked lowest by respondents among the subscales in importance. However, the positive mean score of 5.09 still indicated that the sample of university students deemed the *Green* subscale relatively important when making organisational choices based on Employer attractiveness and that the sample was indeed environmentally conscious as explained in the following section.

What is the relative environmental consciousness of the sample of Final Year University of the Witwatersrand students?

The study indicated a coefficient alpha for the NEPS of .77, marginally lower than the .83 as purported by Dunlap et al. (2000).

The sample of second-last and final year university students indicated a mean score analogous with being environmentally conscious. The frequency Table 13 indicated that the item with the highest total of strong agreement between the respondents was Item 7, “*Plants and animals have as much right as humans to exist*”, and Item 9, which reads, “*Despite our special abilities, humans are still subject to the laws of nature*”.

Despite the obvious pro-environmental consciousness of the current sample, negatively worded items such as Item 4, “*Human ingenuity will insure that we do NOT make the earth unliveable*” received a high agreement response from the current sample. This indicated that even though the sample presented as being fundamentally environmentally conscious, the sample possibly

subjectively perceived the human race as being capable of overcoming the present global environmental crisis through innovation and creativity, or at least possessing the ingenuity to deal with any environmental problems we may face as a human race to continue inhabiting the earth. An alternative explanation may be a 'response set' or the respondents may have missed the negative wording of the question, particularly second-language English-speakers. This is in contrast to the responses for Item 9 as indicated above, whereby the human race is subject to the laws of nature. Responses to Item 4 seemed to indicate that despite these laws of nature, we would overcome the inevitable hardships that may arise due to the destruction of natural resources and other inevitable changes such as climate change. This may be an innate 'hope' or faith in the human race, to overcome challenges and adversity. This optimism is indicated in the positive responses to Item 6, also a negatively worded item, which reads "*The earth has plenty of natural resources if we just learn how to develop them*". Despite being environmentally conscious, and being aware of the problems facing us such as limited resources, the sample possibly feels that despite these limitations, we will somehow overcome them and find ways of cultivating previously untapped resources.

Because of the agreement responses to the specific negatively worded items discussed above, where disagreement responses were expected, the overall mean for determining the environmental consciousness for this sample of university students may possibly have been affected. Despite this, the sample is still indicated as being environmentally conscious, and perhaps even more so than indicated by the results due to possible naivety in response to certain items due to inexperience and youth, or a blind faith in the capabilities of humanity to overcome all obstacles.

How do the 'green' value sub-items of the revised EmpAt compare to the New Ecological Paradigm Scale (NEPS) in determining the environmental consciousness of the sample of Final Year University of the Witwatersrand students?

The mean scores for both the *Green* subscale and the NEPS indicated a pro-environmental attitude for the current sample of university students.

Green subscale items and NEPS items were correlated. The most significant relationships were determined to be those between the *Green* Item 15 and Item 7 of the NEPS (*Plants and animals have as much right as humans to exist*). This NEPS item was also discussed in the previous section. This item correlated .28 ($p < .0001$) with Item 15 of the *Green* subscale, which was “*The organisation manages its impacts on the natural environment as part of its regular business practices*”. Thus the sample possibly indicated that as plants and animals have as much right as humans to exist, it is important for organisations to manage their impact on the natural environment, where plants and animals reside.

Although some relationships between the items were deemed significant, the correlations were relatively low in magnitude. The overall correlation between the *Green* subscale the NEPS was .20 ($p = .0009$; $p < .05$). Both the NEPS and *Green* subscales measured pro-environmental attitudes, but on closer inspection, due to the variability in discourse of the two measures, including the amorphous wording and structure of the NEPS items, it seems plausible that the issue was not so much about the relationship between two questionnaires measuring environmental consciousness, but more about the expansive and often confusing definition of sustainability. Dunlap et al. (2000) agreed that judging content validity of the NEPS scale was

difficult because the construct of an ecological or environmental paradigm was inherently vague. The NEPS scale was also developed in the United States using a sample of residents from the Washington D.C. area. Cultural differences, racial diversity, English proficiency and gender differences inherent in South Africa may all have affected the response outcomes of the NEPS scale and the measurement may not be generaliseable to our unique South African population. The NEPS study claimed that younger people in their study were assumed to be less wedded to traditional worldviews and more supportive of the NEPS (Dunlap et al., 2000). Similarly, those with access to education were deemed better exposed to information about environmental issues and thus more capable of comprehending the ecological perspective implicit in the NEPS. Political ideology also played a part in NEPS responses, with those less committed to the status quo being labeled as liberals (Dunlap et al., 2000). Although the overall mean of the NEPS indicated a pro-environmental consciousness, the responses by the sample may have been affected by political ideologies and students who supported more traditional worldviews in line with the status quo, particularly since the NEPS measures a personal view of environmental consciousness, and is not specifically related to organisations or organisational choice.

The analysis of the frequencies of responses was impressive in their estimation of how environmentally conscious the sample is, and how important it was to the respondents that their potential employers were being sustainable. It would thus seem that the sample of university students indeed considered the sustainability of organisations as an important facet to their decision-making process when making employment choices.

Significant differences were indicated between male and female respondents on both the *Green* subscale and the NEPS. Females presented with a higher environmental consciousness on both

measures than males. This would indicate that females may possibly rate the environmental consciousness of the organisations for which they want to work as possibly more important than their male counterparts. This is similar to findings quoted earlier in this text by Linn (n.d), where a survey found a gender disparity around attitudes of environmental issues, with 78% of females saying an organisation's impact on the environment was important, while only 52% of males said the same thing.

Race group differences were also evident in the current sample. For the *Green* subscale, significant differences emerged between Black and White groups, and between Indian and White groups. The Coloured group attained the highest score for environmental consciousness, followed by the Indian group. Interestingly, the White group attained the lowest mean score for environmental consciousness on the *Green* scale, possibly indicating Western capitalistic ideologies where the subversion of nature and its resources are used to increase capital gains (Rigg, Stewart and Trehan, 2007). Differences in culture would thus most certainly play a role with relevance to the importance of sustainability and environmental issues in making organisational choices. For the NEPS scale, significant differences emerged between Black and White groups, and Black and Indian groups. This time the Indian group attained the highest mean score for environmental consciousness. The Black group attained the lowest mean score for environmental consciousness on the NEPS scale. This may be due to political ideology differences, or as discussed previously, how the *Green* and NEPS scales may also be especially different in their definition or capturing of the construct 'sustainability'. The *Green* subscale determined the attractiveness of an employer based on subjective value estimates by respondents, whereas the NEPS scale determined an overall worldview of environmental consciousness on which no decisions are ultimately based. A bias of Western culture and a focus on the individual

rather than the communal inhibits truly sustainable thinking (Austin, 2008, as cited in Stringer, 2010). This can be seen in the differences in environmental consciousness of White versus Black groups.

Significant differences in English proficiency levels were determined for responses to the *Green* subscale and NEPS respectively. The ‘very good’ English speaking and ‘poor’ English speaking groups for the *Green* subscale indicated the most significant differences. The ‘very good’ proficiency group had a significantly higher mean for the *Green* subscale than the ‘poor’ proficiency group. These results are particularly significant in that a higher level of English proficiency translated into a higher level of environmental consciousness responses. The two groups thus assigned differences in importance to environmental consciousness when making possible organisational choices, with the ‘poor’ proficiency group ascribing less importance to environmental consciousness. Because of the multiplicity of language groups within South Africa, English is not the first language for many of the race groups. For the majority of South Africa’s race groups, English is at best a second or third language, and this could have affected the results of this study a great deal as indicated by the mean responses for each proficiency group.

Surprisingly, the ‘very good’ English proficiency and ‘excellent’ English proficiency groups for the NEPS indicated the most significant differences. The ‘excellent’ proficiency group had a moderately higher mean for the NEPS compared to the ‘very good’ proficiency group.

Discourse as appropriated by the developers of the NEPS may very well have resulted in differences between language proficiency groups, particularly those respondents from Black groups who do not have English as a first language, but indicated a ‘very good’ or ‘excellent’

proficiency in English. The ‘poor’ group maintained the lowest mean score for the NEPS indicating that the ‘poor’ proficiency group was determined to possess a lower environmental consciousness than all the other proficiency groups. Language is a challenge within the context of the South African population, in a country with 11 official languages, and as such makes the testing of subjective attitudes problematic when testing is done only in English.

Likelihood of finding a job in their ideal organisation as moderator of the relationship between the EmpAt and NEPS

The current sample’s responses on the Likelihood variable indicated that the sample was leaning towards an overall response of ‘likely’ ($M = 3.62$; $SD = 0.94$). This meant that the sample thought it was ‘likely’ that they would find a job in their ideal organisation. ‘Likely’ as a response also received the highest amount of responses from the sample, totaling 40%, with an additional 18% of the sample indicating it ‘very likely’ that they would find a job in their ideal organisation. This was surprising considering the current recession and economic climate, around the world and within South Africa itself. Furthermore, no significant differences were found between the two gender groups in response to this item. This indicated that males and females answered this item comparatively similar to each other, thus sharing a similar opinion about the labour market within South Africa and the likelihood of finding a job in the ideal organisation.

Likelihood perceptions between population groups presented with significant differences. The Black group had the highest likelihood perception. In the current labour market within South Africa, Employment Equity policies and the Labour Relations Act, provide an avenue for

employment equity candidates or previously disadvantaged candidates to be recruited to organisations. Equipped with this knowledge, this group would be acutely aware of the benefits the labour legislation provides for them in the current labour market. Interestingly, the Black and Indian groups presented with significant differences, with the Indian group presenting with the lowest mean for this variable. Although forming part of the Employment Equity Act as a previously disadvantaged group, the Indian group may be influenced by other factors in their perceived likelihood of obtaining employment in their ideal organisation which the researcher is not privy to. Whites and Coloured as a group shared similar sentiments. Job opportunities are scarce and few individuals have the privilege to choose a career from available options (Foxcroft and Roodt, 2005) or choose their ideal organisation. The majority of employment-seekers may not have a choice in this regard, and may be forced to take any career and organisational opportunities that present themselves (Coetzee and Roythorne-Jacobs, 2007; Foxcroft and Roodt, 2005). Many people are faced with a situation where they have to compromise between their job (or organisational) requirements and what is actually available to them (Coetzee and Roythorne-Jacobs, 2007). In South Africa, individuals are often forced to find any employment (in any organisation) that is available, without considering how well the characteristics of the working environment can be integrated with their own interests, value and abilities (Foxcroft and Roodt, 2005). The subjective attitude of the sample towards the possibility of being able to choose or find a job in the ideal organisation is reflected in the race group differences and these differences are probably as a result of socio-political ideologies in the current South African context. However, from a person-organisation fit, or person-environment fit approach, it still remains salient that individuals find employment in organisations that reflect their own value system to increase employee wellness and job satisfaction as discussed. Values and interests will still remain important (even if it is only after finding employment) because workers will probably still seek

to find working environments that satisfy their own individual psychological needs (Foxcroft and Roodt, 2005), and that attention still needs to be given to human needs and differences (Hillier, Fewell, Cann and Shephard, 2005). Unfortunately, the promotion of an ideal fit between employee expectations and the characteristics of positions or organisations is not likely a possibility for all people (Coetzee and Roythorne-Jacobs, 2007) in South Africa.

As mentioned in the Results chapter, it seemed from the preliminary linear regression model that no moderator relationship was present and running a moderated multiple linear regression did not serve a purpose in the context of this study. The Likelihood variable did not correlate with any of the subscales of the EmpAt, nor with the revised EmpAt as a whole as a measurement of employer attractiveness, and therefore did not share a relationship. Within the South African context, this indicated that no relationship existed between the importance the sample placed on any of the EmpAt factors and how likely it was that they would find a job in their ideal organisation (Baron and Kenny, 1986). According to Statistics SA (2011) 2 million South Africans were new entrants into the labour market in the last year constituting 44.4% of the unemployed. University students accounted for the biggest share (41%) of the 'not economically active population'. Overall there was a decrease in the number of new entrants into the labour market (63 000) between April to September of this year (Statistics SA, 2011). The unemployment rate by population group saw the total unemployment rate decrease among Black workers from April to September of this year, while there was an increase in the unemployment rate among the White population and Coloured population groups (Statistics SA, 2011). Year-on-year comparisons show a similar pattern, with the unemployment rate decreasing among Black people, and all the other population groups increasing in unemployment rates (Statistics SA, 2011). Interestingly, the number of unemployed women increased by 74 000 for year-on-

year comparisons between 2010 and 2011, whilst the unemployment rate among men actually decreased by 28 000 (Statistics SA, 2011). A disparate gender gap in the labour force is evident, and the difference in the environmental consciousness between males and females in this study is similarly evident. Between 1995 and 2005, the unemployment rate the graduate age group of 20 to 24 was a staggering 31.1% (Banerjee, Galiani, Levinsohn, McLaren and Woolard, 2006). South Africa is currently ascending to critical unemployment levels indicative of the current 25% unemployment rate (Statistics SA, 2011). Statistics like these will most surely hamper the efforts of graduates and new entrants to the labour force, encroaching on their ability to make career and organisation choices that are congruent with their own value-system and ideals.

Since career guidance at school is minimal, and the private career information systems that have been developed are expensive and mostly not accessible to previously disadvantaged youths, there is a crucial lack in the availability of information on the types of jobs that the labour market provides at any given time (Du Toit, 2003). As the need for more sustainable organisations, greener jobs, and being environmentally conscious or possessing green values increases, it is imperative for these youths to be given access to labour market information based on current trends and occupations, to afford them the opportunity to make informed career and organisation choices that creates 'fit' with their own unique value systems. Similarly, it would be important for environmental education at the school level to inculcate pro-ecological behaviour and attitudes from an early age, and as Gruenewald (2004) aptly stated, this education needs constant critiquing to challenge the assumptions of the relationships between culture and environment, to include political, economic and cultural dimensions to the environment when performing ecological analyses.

5.1. Limitations

Berthon et al. (2005) cautioned that there are likely to be cross-cultural differences in employer attractiveness, and as such the EmpAt could not necessarily be extended to all populations without further psychometric testing. These differences were indicative of the present study as South Africa has a multiplicity of cultures and sub-cultures which may affect the validity of the EmpAt.

The external validity and generaliseability of the results are dependent on the participants on which the EmpAt, NEPS and other questions were based. The EmpAt can thus only be generalised towards the types of students within this study, namely second-last and final year university students. Undergraduate and graduate students are also likely to have had limited job-seeking experience (Rynes, 1980). Similarly, these students may also have a lack of experience in various job searching activities (Oswick, Barber and Speed, 1994, as cited in Berthon et al., 2005).

This particular study was only carried out in the Johannesburg, Gauteng region, at a single University, and as such, according to Berthon et al. (2005) cultural differences in the respondents as well as within organisations may have important implications for how respondents may subjectively measure employer attractiveness. The original study by Berthon et al. (2005) was carried out primarily within a business school environment, and cautioned that their results may not have been applicable to other students, such as those within engineering. In this particular study the majority of students were in the field of engineering and therefore generaliseability to other groups is questioned.

Although the current sample of university students was intentional, these results may not generalise to the current generation of workers, and future studies could engage with workers who are familiar with the employment-seeking process and have experience working for various organisations, and thus may be able to differentiate those organisations who are more attractive than others based on personal experience.

Dunlap et al. (2000) determined that there was an issue of dimensionality with the NEPS and that in future this may warrant the creation of two or three subscales measuring distinct dimensions of the NEPS. This may account for the heterogeneity of responses on various items of the NEPS scale. Due to the concerns around the incorrect response patterns of the NEPS in terms of agreement and non-agreement with reversed-scored items, in retrospect a less amorphous measure of environmental consciousness could have been used.

Instead of using only subject matter experts, focus groups could have been used to develop the green subscale items and a pilot study could have been conducted to gauge the initial suitability of these items. Items could have been administered to a small number of individuals from the target sample to obtain qualitative information regarding items that they may have had difficulty in understanding (Foxcroft and Roodt, 2005). Quantitative and qualitative information on the items and format of the experimental version of the self-developed questionnaire could have been used before administering the final questionnaire to the target sample.

5.2. Practical Implications

Berthon et al. (2005) believe that because of the increasingly globalised economy, organisations have to constantly attempt to recruit the best talent globally. It is thus important for these organisations to understand the possible impact of cultures and nationalities on the perceptions of

potential employees with regards to their employer branding. The author posits that this would include an organisation's green values and these issues will become increasingly important in years to come.

The 'brain-drain' in many countries, including South Africa, has had a serious impact on available skilled labour, particularly seeing a mass-exodus of young graduates and professionals (Berthon et al., 2005). It remains imperative for organisations to remain attractive to these individuals to continue providing South Africa with a competitive edge globally. The subjective values for keeping graduates and other young professionals homebound could thus be investigated.

It may be helpful for the career counsellors of the future to be cognizant of changing attitudes towards the environment, and how important this value is becoming to potential recruiters. The role of the career counsellor may include an attempt to maximise the employee's fit with a job and organisational requirements (Coetzee and Roythorne-Jacobs, 2007) and this would include knowledge of a recruit's attitude towards the environment. Although people are not bounded by culture, and are first and foremost individuals, career counsellors should be mindful of the effect of gender and cultural differences on vocational behaviour (Tang, 2003, as cited in Coetzee and Roythorne-Jacobs, 2007) and organisational choices, particularly within the South African context where population group and language differences seem to affect the choices people make in terms of the organisations for which they want to work.

5.3. Future Research

Berthon et al. (2005) suggests also that post-employment dissonance could be investigated. This directly relates to person-organisation fit, and how this congruency is affected after job-seekers are employed. How important do their subjective value-systems become once these individuals are employed and spend their working lives in organisations that may or may not provide them with the environments they need to flourish and be satisfied employees. Berthon et al. (2005) suggested a longitudinal study of pre- and post-entering of the workplace. It could be determined whether certain factors become more or less important once these individuals have entered the workforce and if their value-systems change after spending time in the workforce and having gained more experience of work-life.

As found by Van Heerden and Puth (1995) perceptions measured through a semantic differential scale subsequently revealed that the following factors contributed to the corporate image of South African banking institutions: dynamism, credibility/stability, customer service, and visual identity. The research results from this study confirmed the assumption that corporate behaviour and corporate visual identity contributed to corporate image. Visual cues were not used in this particular study as was employed in the original study by Berthon et al. (2005) and may have been useful in comparing one organisation with another, to possibly gauge the employer attractiveness of one organisation versus another, particularly around the differences in organisational green values as perceived by respondents.

Furthermore, how jobseekers' upbringing, social environment, education status and influential family, community or political leaders influence individuals' green values and how this affects organisational, or even job choices, could also be investigated. Many celebrities are advocating

greener living and better environmentally-focused decision-making, and the influence of these individuals could also be determined in how jobseekers feel about the environment and the part it plays in their decision-making process.

No in-depth research on the unemployed youth in South Africa has been undertaken since 1988 (Du Toit, 2003) and this could provide an avenue to determine what the actual values and drivers for career and organisation choices are for youths and graduates seeking employment and what role, if any, these values play in decision-making post-employment.

6. CONCLUSION

The results of this study indicated that the current sample was indeed environmentally conscious on two different ecological scales, including the self-developed green subscale of the new revised EmpAt, and that the likelihood of finding a job in an ideal organisation was indeed considered likely in the current South African context. Significant differences were found between race, gender and English proficiency groups. The Employer Attractiveness scale retained most of its original factorial structure providing validity to the scale, with the green subscale loading as the main factor when it was concluded.

An individual's choice of employment in the South African context may not always be within his or her sphere of influence (Hatcher, 2007), but a sense of awareness is needed by everyday citizens, particularly jobseekers, of the products and services that organisations offer and develop. Hatcher (2007) elucidates that this requires a commitment to eradicating those organisations that produce or provide products that possibly cause environmental damage. Hatcher (2007) stresses that this does not necessarily translate into jobseekers seeking employment in 'good' organisations only, particularly because this is a personal and ethical choice, affected and influenced by many variables. What Hatcher (2007) does suggest is that individuals commit to a goal of reducing and eliminating their use, manufacture and sale of those products or services that cause environmental damage, and that organisations should provide support to those individuals that choose not to 'aid' these 'bad' organisations. Des Jardins (2001, as cited in Hatcher, 2007) advised that this ultimately becomes a question of "What kind of person do I want to be", which puts individuals on the path of becoming part of nature and not conquerors of it. Stringer (2010) has advised however that a common motivating factor amongst all employees is the need for green behaviour to also benefit them personally, particularly if

green strategies save them time and money. Yet little has been written about the role of the environment and ecosystems within the organisational psychology or human resource development field (Hatcher, 2007). As a profession we need to realise that nature is not a product to be used for the sole purpose of humankind. It is imperative that we employ a discourse of stewardship, particularly among the youth of South Africa, to instill in them the rubric of sustainability and eco-centricity. Critical thinking is needed by all of us, within our professions, to enhance the plight of sustainability, particularly in putting forward the notion as purported by Hatcher (2007), that “what we do to ourselves we do to nature that sustains us” (p.54). Kuhn (1962) and Barker (1992, as cited in Hatcher, 2007) also warn that professionals need to be cognizant of the long struggle that involves the deconstruction of current schools of thought or paradigms, such as the competing paradigms of business and nature. For employees, meaning in the form of values is important (Hatcher, 2007), and these values have moved past the purely economic to include humanistic concerns.

In the future, there will be an expectation and demand from employees, labour unions and perhaps even local governments that all workplaces be significantly greener (Stringer, 2010). Workers will likely come to expect energy and emission targets, carbon neutral organisations, better indoor working environments that are healthier and more conducive to productivity, as a *given* and not as a luxury (Stringer, 2010). The goal of the green workplace of the future should be to facilitate creative ideas, allow for rich and rewarding work and personal life, accommodate intense thinking time, and be more stimulating than the environments most people work in today (Stringer, 2010). A green workplace in its truest sense according to Stringer (2010) enables a happier, healthier, and more environmentally aware workforce with the smallest ecological footprint possible.

The results of this study indicate that there may be value in organisations producing goods and services in such a way as to minimise harm to the environment, to increase environmental sustainability and thereby increase their own financial sustainability, ensuring economic viability for the future, thereby attracting those employees who share the sense of burden of caring for the environment that sustains humankind. However, organisations more often than not pursue environmentalism and sustainability only if it is in their own self-interest, to avoid litigation, retain shareholder value and increase profits (Hatcher, 2007). A blind faith exists among some organisations that technology will continue to provide an infinite source of raw materials and natural resources, akin to the egocentric mentality that ‘man is above nature’ (Hatcher, 2007), a similar attitude found among some of the respondents in this study. What is needed is “economic development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” (Brundtland Report, 1987, as cited in Hatcher, 2007, p.49). People cannot imagine the impacts of climate change, and cannot imagine an alternate reality than what exists today (Austin, 2008, as cited in Stringer, 2010). Austin (2008, as cited in Stringer, 2010) explains how environmental issues would not be resolved through technological solutions, but through political decisions. It is the leaders of the future that will need to engage in conversation about issues to move us forward (Austin, 2008, as cited in Stringer, 2010).

What concerns employer attractiveness, is that jobseekers do not expect their future employers to be perfect but it seems they expect a certain amount of commitment and resources to be dedicated to understanding, developing and implementing green strategies (Stringer, 2010) for the organisation to be more attractive to up and coming recruits. These younger jobseekers of today are surprisingly knowledgeable and should be viewed as a resource to any organisation

(Stringer, 2010) to increase employer attractiveness and thereby increase competitive advantage in a global marketplace.

Going green comes down to individual behaviour and psychology can make vital contributions to understanding the behaviour of individuals towards greener alternatives, both personally and in the workplace (Bartlett, 2011). The results of this study indicate that jobseekers are becoming more aware of environmental issues and how these transcend to their workplace.

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8. APPENDICES

- A:** Dell and Axxess email Adverts
- B:** Employer Attractiveness Scale – original
- C:** NEPS Scale
- D:** Green values
- E:** Likelihood of finding a matching organisation
- F:** Biographical questionnaire
- G:** Participant information sheet
- H:** Revised EmpAt with Green value subscale
- I:** Ethics clearance certificate
- J:** Employer Attractiveness (EmpAt) Scale values defined

APPENDIX A

**Green is
the new
black!**



At Dell, we love
to get
our hands dirty
if it helps keep
our planet clean.

► EXPLORE



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**Bamboo
Packaging
from Dell**

Nature's
blueprint for
renewable
growth.

APPENDIX A continued

Judy Bush

From: Axxess - Your Digital Playground [axxess2010@adsl.co.za]
Sent: 25 February 2011 02:10 PM
To: admin@reptilecity.co.za
Subject: Axxess Goes Green for March



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APPENDIX B

Original Employer Attractiveness Scale (EmpAt)

The subscales are indicated as follows by Berthon et al. (2005), with items in order of their loading:

- a) Interest value: Questions 14, 11, 12, 13, 10
- b) Social value: Questions 8, 7, 9, 2, 23
- c) Economic value: Questions 25, 24, 21, 15, 22
- d) Development value: Questions 5, 4, 6, 3, 1
- e) Application value: Questions 18, 17, 20, 16, 19

Please rate the following statements in importance from 1 to 7 ***when choosing the ideal organisation to work for***, with 1 being 'Least Important', and 7 being 'Most Important'.

	Least important						Most important
1. Recognition / appreciation from management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. A fun working environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A springboard for future development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Feeling good about yourself as a result of working for a particular organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | Least important | | | | | | Most important |
|-----|--|-----------------|---|---|---|---|---|----------------|
| 5. | Feeling more self confident as a result of working for a particular organisation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | Gaining career enhancing experience | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | Having a good relationship with your superiors | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | Having a good relationship with your colleagues | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | Supportive and encouraging colleagues | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | Working in an exciting environment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | Innovative employer – novel work practices/forward-thinking | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. | The organisation both values, and makes use of your creativity | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. | The organisation produces high-quality products and services | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

14. The organisation produces innovative products and services

1	2	3	4	5	6	7
---	---	---	---	---	---	---
15. Good promotion opportunities within the organisation

1	2	3	4	5	6	7
---	---	---	---	---	---	---
16. Humanitarian organisation – gives back to society

1	2	3	4	5	6	7
---	---	---	---	---	---	---
17. Opportunity to *apply* what was learned at a tertiary institution

1	2	3	4	5	6	7
---	---	---	---	---	---	---
18. Opportunity to teach others what you have learned

1	2	3	4	5	6	7
---	---	---	---	---	---	---
19. Acceptance and belonging

1	2	3	4	5	6	7
---	---	---	---	---	---	---
20. The organisation is customer-oriented

1	2	3	4	5	6	7
---	---	---	---	---	---	---
21. Job security within the organisation

1	2	3	4	5	6	7
---	---	---	---	---	---	---
22. Hands-on inter-departmental experience

1	2	3	4	5	6	7
---	---	---	---	---	---	---

23. Happy work environment

1	2	3	4	5	6	7
---	---	---	---	---	---	---

24. An above average basic salary

1	2	3	4	5	6	7
---	---	---	---	---	---	---

25. An attractive *overall* compensation package

1	2	3	4	5	6	7
---	---	---	---	---	---	---

APPENDIX C

New Ecological Paradigm Scale (NEPS)*

Listed below are statements about the relationship between humans and the environment. For each one, please indicate whether you **Strongly Agree, Mildly Agree, are Unsure, Mildly Disagree, or Strongly Disagree** with the statement.

Questions:

1. We are approaching the limit of the number of people the earth can support

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

2. Humans have the right to modify the natural environment to suit their needs

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

3. When humans interfere with nature it often produces disastrous consequences

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

4. Human ingenuity will insure that we do NOT make the earth unlivable

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

5. Humans are severely abusing the environment

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

* Agreement with the eight odd-numbered items and disagreement with the seven even-numbered items indicate pro-environmental responses

6. The earth has plenty of natural resources if we just learn how to develop them

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

7. Plants and animals have as much right as humans to exist

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

8. The balance of nature is strong enough to cope with the impacts of modern industrial nations

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

9. Despite our special abilities humans are still subject to the laws of nature

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

10. The so-called 'ecological' crisis facing humankind has been greatly exaggerated

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

11. The earth is like a spaceship with very limited room and resources

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

12. Humans were meant to rule over the rest of nature

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

13. The balance of nature is very delicate and easily upset

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

14. Humans will eventually learn enough about how nature works to be able to control it

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

15. If things continue on their present course, we will soon experience a major ecological catastrophe

Strongly Agree	Mildly Agree	Unsure	Mildly Disagree	Strongly Disagree
----------------	--------------	--------	-----------------	-------------------

APPENDIX D

'Green' Values – A new value (factor) dimension for the EmpAt Scale

This subscale was added to the EmpAt scale as a new dimension and not as a separate questionnaire scale. This Appendix is for information purposes only in terms of the questions that were tested and refined to add to the EmpAt scale as a new 'green' factor subscale.

Scale wording:

Please rate the following statements in importance from 1 to 7 ***when choosing the ideal organisation to work for***, with 1 being 'Least Important', and 7 being 'Most Important'.

- | | Least important | | | | | | | Most important |
|----|--|---|---|---|---|---|---|----------------|
| 1. | The organisation subscribes to environmentally sustainable ideas and considers the sustainable use of natural resources | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | The organisation actively contributes to reducing their environmental and carbon footprint and has policies to monitor and measure these | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | The organisation actively encourages staff participation in ongoing development of environmental policies | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Least important

Most important

4. The organisation manages its impacts on the natural environment as part of its regular business processes
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
5. The organisation manages energy and other resources in a sustainable manner
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
6. Staff are advised of company environmental targets and motivated in order to achieve these goals
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
7. The organisation actively participates in 'green' rating programmes or awards
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
8. The organisation manufactures products using practices that reduce or avoid harm to the environment and people
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
9. The working environment of employees allows for green initiatives such as recycling, the sustainable use of office space and the like
- | | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

APPENDIX E

This is a check item to determine participants' subjective attitudes towards actually finding a matching organisation.

Please answer the following question by crossing the relevant box:

In your opinion, what do you think the likelihood is that you will find a job in your ideal organisation?

Very Unlikely	Unlikely	Unsure	Likely	Very Likely
---------------	----------	--------	--------	-------------

APPENDIX F

Biographical Questionnaire

Anonymity will be upheld with all questionnaires – including the biographical information questionnaire. A numerical user ID will be created by the researcher for statistical analysis purposes once the questionnaires are completed and handed in.

Questionnaire Instructions:

Please answer **all** of the questions below. The questions asked below are for statistical and research purposes only.

1. Age:

2. Gender:

Male	Female
------	--------

3. Population Group (for descriptive purposes only):

Black	Coloured	Indian	White	Other
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If other, please specify: _____

4. Home language:

Afrikaans	English	isiNdebele	Tsepedi	siSwati
seSotho	xiTonga	seTswana	tshiVenda	isiXhosa
isiZulu	Other			

If other, please specify: _____

5. Field of study / degree

Business Management	Engineering	Psychology	Law	Accounting	Other
---------------------	-------------	------------	-----	------------	-------

If other, please specify: _____

6. How would you rate your understanding of the English language?

Excellent	Very good	Average	Poor
-----------	-----------	---------	------

7. When do you expect to start looking for employment?

Less than six months	6-12 months	12-18 months	More than 18 months
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8. What are your plans for 2012?

Continue finishing current degree	Start post graduate degree	Look for employment	Travel	Other
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APPENDIX G



Psychology

School of Human & Community Development

University of the Witwatersrand

Private Bag 3, WITS, 2050

Tel: (011) 717 4500 Fax: (011) 717 4559



Dear Student

My name is Judy Bush. I am conducting research for the purposes of obtaining a psychology Masters degree at the University of the Witwatersrand. My area of focus is exploring the subjective values that an individual ascribes to when making decisions about an organisation for which to work, including how an individual feels about the environment and how this could possibly transcend to the decisions made about an organisation that they might want to work for.

I invite you to please participate in my research study. Participation in this research will entail completing the attached questionnaire. The questionnaire will take approximately 15 minutes to complete. Participation is voluntary, and no participant will be advantaged or disadvantaged in any way for choosing to complete or not complete the questionnaire. Please note that there are no right or wrong answers to the questions. The information that you provide will remain anonymous. No identifying information such as your name or contact details is asked for. Questionnaires will be kept safe and confidential and only grouped responses will be reported on. The anonymous responses will only be seen by myself and my supervisor and will not be shared with any party outside of the University.

If you choose to participate in the study please complete the attached questionnaire as carefully and honestly as possible. Once you have answered the questions, please place the questionnaire in the sealed box provided. This will ensure that no one will have access to the completed questionnaire, and will ensure your confidentiality. If you do return your questionnaire, this will be considered consent to participate in the study.

Your participation in this study would be greatly appreciated. You may keep this cover letter for your records. Please feel free to contact me via email at the end of this year if you would like information on the results of this study.

Kind regards

Judy Bush
Email: judyfbush@gmail.com

Supervisor: Professor Andrew Thatcher
Lecturer & Industrial Psychologist
Department of Organisational Psychology
University of the Witwatersrand
Email: Andrew.thatcher@wits.ac.za

APPENDIX H

Revised Employer Attractiveness Scale including 'Green' value scale:

Please rate the following statements in *importance* from 1 to 7 when **choosing the ideal organisation to work for**, with **1 being 'Least Important'** to you, and **7 being 'Most Important'** to you.

	Least important				Most important		
1. Recognition / appreciation from management	1	2	3	4	5	6	7
2. A fun working environment	1	2	3	4	5	6	7
3. A springboard for future development	1	2	3	4	5	6	7
4. The organisation subscribes to environmentally sustainable ideas and considers the sustainable use of natural resources	1	2	3	4	5	6	7
5. Feeling good about yourself as a result of working for a particular organisation	1	2	3	4	5	6	7
6. Feeling more self confident as a result of working for a particular organisation	1	2	3	4	5	6	7
7. Gaining career enhancing experience	1	2	3	4	5	6	7
8. The organisation actively contributes to reducing their environmental and carbon footprint and has policies to monitor and measure these	1	2	3	4	5	6	7
9. Having a good relationship with your superiors	1	2	3	4	5	6	7
10. The organisation actively encourages staff participation in ongoing development of environmental policies	1	2	3	4	5	6	7
11. Having a good relationship with your colleagues	1	2	3	4	5	6	7
12. Supportive and encouraging colleagues	1	2	3	4	5	6	7
13. Working in an exciting environment	1	2	3	4	5	6	7
14. Innovative employer – novel work practices/forward-thinking	1	2	3	4	5	6	7

	Least important				Most important		
15. The organisation manages its impacts on the natural environment as part of its regular business processes	1	2	3	4	5	6	7
16. The organisation both values, and makes use of your creativity	1	2	3	4	5	6	7
17. The organisation produces high-quality products and services	1	2	3	4	5	6	7
18. The organisation produces innovative products and services	1	2	3	4	5	6	7
19. The organisation manages energy and other resources in a sustainable manner	1	2	3	4	5	6	7
20. Good promotion opportunities within the organisation	1	2	3	4	5	6	7
21. Humanitarian organisation – gives back to society	1	2	3	4	5	6	7
22. Opportunity to <i>apply</i> what was learned at a tertiary institution	1	2	3	4	5	6	7
23. Opportunity to teach others what you have learned	1	2	3	4	5	6	7
24. Staff are advised of company environmental targets and motivated in order to achieve these goals	1	2	3	4	5	6	7
25. The organisation actively participates in 'green' rating programmes or awards	1	2	3	4	5	6	7
26. Acceptance and belonging	1	2	3	4	5	6	7
27. The organisation is customer-oriented	1	2	3	4	5	6	7
28. Job security within the organisation	1	2	3	4	5	6	7
29. Hands-on inter-departmental experience	1	2	3	4	5	6	7
30. The organisation manufactures products using practices that reduce or avoid harm to the environment and people	1	2	3	4	5	6	7
31. Happy work environment	1	2	3	4	5	6	7
32. An above average basic salary	1	2	3	4	5	6	7

33. The working environment of employees allows for green initiatives such as recycling, the sustainable use of office space and the like

Least important Most important

1	2	3	4	5	6	7
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34. An attractive *overall* compensation package

1	2	3	4	5	6	7
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APPENDIX I

Ethics Clearance Certificate:

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

HUMAN RESEARCH ETHICS COMMITTEE (SCHOOL OF HUMAN & COMMUNITY DEVELOPMENT)

CLEARANCE CERTIFICATE

PROTOCOL NUMBER: MORG/11/002 IH

PROJECT TITLE:

Environmental concern as an important value in the choice of organization in the South African context

INVESTIGATORS

Bush Judy

DEPARTMENT

Psychology

DATE CONSIDERED

15/05/11

DECISION OF COMMITTEE*

Approved

This ethical clearance is valid for 2 years and may be renewed upon application

DATE: 07 July 2011

CHAIRPERSON
(Professor M. Lucas)



cc Supervisor:

Andrew Thatcher
Psychology

DECLARATION OF INVESTIGATOR (S)

To be completed in duplicate and one copy returned to the Secretary, Room 100015, 10th floor, Senate House, University.

I/we fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure be contemplated from the research procedure, as approved, I/we undertake to submit a revised protocol to the Committee.

This ethical clearance will expire on 31 December 2013

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

APPENDIX J

Employer Attractiveness (EmpAt) Scale values defined:

Value:	Explanation:
Interest	Assesses the extent to which an individual is attracted to an employer that provides an exciting work environment, novel work practices and that makes use of its employees' creativity to produce high-quality, innovative products and services
Social	Assesses the extent to which an individual is attracted to an employer that provides a working environment that is fun, happy, provides good collegial relationships and a team atmosphere
Economic	Assesses the extent to which an individual is attracted to an employer that provides above-average salary, compensation package, job security and promotional opportunities
Development	Assesses the extent to which an individual is attracted to an employer that provides recognition, self-worth and confidence, coupled with a career-enhancing experience and a spring-board for future employment
Application	Assesses the extent to which an individual is attracted to an employer that provides an opportunity for the employee to apply what they have learned and to teach others, in an environment that is both customer orientated and humanitarian.

Adapted from Berthon et al. (2005), p.159 - 162