

## Attributes Utilised By Knowledge Workers in Identifying Employers of Choice: Focus on Accountants and Information Technology (IT) Specialists in South Africa

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**ABSTRACT** Most employers seem to know the importance of knowledge workers, yet they still have difficulties in attracting, retaining and predicting the future needs of this group of human resources. This study intended to identify the attributes regarded as important by Accountants and IT specialists from the banking, automobile and retail sectors when identifying employers of choice. The sample consisted of 70 Accountants and 53 IT specialists, purposefully selected. A quantitative research approach was used to analyse the collected data. Results indicated that common attributes utilised by both IT specialists and Accountants, in order of importance, are competitive pay, career progression, challenging and interesting work, freedom to plan independently, training and development. The study provides a starting point, not only in understanding what Accountants and IT specialists view as the most important attributes of their ideal employer, but also in providing strategies that organisations can use to attract and retain Accountants and IT specialists and other knowledge workers in future.

### INTRODUCTION

The turbulent nature of the business environment and the existence of the new psychological contract - which views the relationship between the employer and employee as changing from strong long-term connectivity to one of short-term massive instability, have both witnessed highly skilled knowledge workers, such as Accountants and IT specialists, move from one organisation to the next in search for the best business environment that will meet their needs. While organisations are trying to provide the best working conditions in order to attract and retain highly skilled knowledge workers to curtail such movement, evidence (Sutherland 2007) shows that the movement of highly skilled employees is here to stay. The question

that remains then is, do employers really know and understand the specific needs of the different highly skilled knowledge workers? Such knowledge is important in terms of designing HR practices to attract and retain them.

In the present business environment, where growth is largely a product of creative and technological advancements, human capital is one of a company's most valuable assets. To obtain a competitive advantage, companies must attract, retain, and engage talented or highly skilled knowledge workers. However, this task is becoming increasingly difficult because of shortage of talented knowledge workers, that is, "smart, sophisticated highly skilled people who are technologically literate, globally astute and operationally agile" across all industries (Nodangala et al. 2008). In addition to this general lack of talent, research evidence (Tulgan 2001) shows that highly talented knowledge workers are demanding a mutual balance of power between them and their employers; employment relationships based on mutual commitment between employer and employee are no longer the norm in the marketplace (Birt et al. 2004), and that in-

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stead of a predictable linear rise up in an organisation's hierarchy, careers are now characterised by a non-linear model of movement between many organisations during the course of individuals' working life (Sullivan and Arthur 2006). It is this non-linear movement that has become a huge challenge for organisations in the quest to attract and retain talented knowledge workers.

### **Theoretical Framework**

The notion of knowledge workers and employers of choice can best be understood in the context of the emergent institutional knowledge-based theory (Thompson and Heron 2002). The theory states that knowledge information organisations manage employees critical to knowledge creation by ensuring that HR practices enable the creation and appropriation of knowledge. Strategic choices of core competencies needed to enhance differentiating competitive capabilities are important features of knowledge organisations. Knowledge organisations have different design forms, with flatter, networked structures, cultures, HR systems and practices. These are likely to interact to attract, motivate and retain knowledge workers. Relating to these changing forms, Hertzberg et al. (2000) argue that such organisations require high-level skills, such as abstract reasoning and high cognition. This means that the type of people that are required to work in these organisations are people with the ability to observe, synthesise and communicate new perspectives and insights, leading to more effective decisions, solutions and processes. Knowledge-based theory offers a starting point in understanding that knowledge-based organisations require work to be done relatively independently, with flexible work arrangements. They also require occupationally specialised workers (Hertzberg et al. 2000), with a desire to share knowledge or information (Vogt 1995), and with high technological literacy and continuous learning (Dessler 2000). These are the needs and attributes used by most knowledge workers when selecting employers of choice, as cited in literature (Sutherland et al. 2002).

### **The Concept of Knowledge Worker(s)**

Highly talented and skilled employees are referred to as knowledge workers. The term

'knowledge worker' was coined by Peter Drucker (1989) who points out that knowledge workers are employees with much-needed qualifications and the ability to acquire and apply theoretical and analytical knowledge. Knowledge workers use knowledge to add value to a business process (Tulgan 2001). They carry knowledge as a powerful resource which they, rather than the organisation, own. With knowledge work increasingly becoming popular, intellectual capital has become the most well appreciated asset of an organisation (Alvesson 2000). A knowledge worker might be someone who performs any of the tasks of planning, acquiring, searching, analysing, organising, storing, programming, distributing, marketing, or otherwise contributing to the transformation of information and using the knowledge so produced.

While any worker might be able to do the above tasks, what distinguishes knowledge workers is that they do these tasks with high motivation and capacity to co-create new insights and the capability to communicate, coach and facilitate the implementation of new ideas. Their work is non-repetitive and results-oriented, using both 'traditional' scientific methods and the need for continuous learning, intuition, new mindsets and imagination (Vogt 1995). Thus, this group of workers possesses particular skills that are in high demand. They are autonomous people who enjoy occupational advancement and mobility and resist a traditional command and control culture, with their commitment more occupationally than organisationally oriented. Since they often work in teams dealing with problems and issues as opposed to tasks, they are more critical to the long-term success of an organisation in this information-based age as much of an organisation's core competencies reside in them (Horwitt 2003). What this means is that knowledge workers have individual and personal knowledge, and employers must increasingly seek ways of attracting and, most importantly, retain them. Literature (Crafford et al. 2007) identifies professionals who can fit the above description of knowledge worker. Examples are accountants, information technology specialists, engineers, technicians, human resource specialists, production specialists and marketing managers. Our research investigates specific attributes that are utilised by two groups of knowledge workers, that is, IT specialists and Accountants in identifying and choosing employers of choice.

### Knowledge Workers in South Africa

Since joining the global arena, South African organisations found themselves competing for knowledge workers in order to become competitive (Kleynhans et al. 2006). With its history of inequality, the country finds itself with a huge shortage of skills necessary to make the country become globally astute and compete with other organisations from other countries or continents. Although there is ambiguity and ongoing debate in the country pertaining to whether the country has skills shortage or not, existing evidence (Sutherland 2007) points out that in terms of demand and supply of knowledge workers, there is a growing gap between the knowledge and skills required by many jobs and those possessed by employees and applicants (Mathis and Jackson 2003). Specifically, there is a high demand for mathematical, sciences and information technology (IT) related skills (Daniels 2007). The demand for such skills cuts across most of the sectors. According to Statistics South Africa (2008), there is a comparatively high exodus of knowledge workers in all sectors where knowledge workers seem to be in high demand.

According to the Human Sciences Research Council (HSRC) report by Pretorius (1999), 76% of the 273 organisations surveyed did not have adequate skilled human resources. Similarly, 54% of 113 organisations that employ engineers have problems in recruiting professionals – especially mechanical, electrical, civil and industrial engineers. Furthermore, 25% of 65 of the organisations surveyed experienced shortages in engineering technicians. The report also revealed shortages in IT professionals, accountants, economists, financial analysts, investment specialists, medicine, actuarial practitioners, managers and artisans. In addition, Deloitte and Touche's National Remuneration Guide Survey (2009) reports that about 81% of organisations experience difficulty in recruiting highly skilled staff due to either perceived critical skills shortage, or lack of knowledge in terms of what this group of employees really require to be attracted and retained in an organisation. The difficulties are experienced in recruiting from the accounting, IT, sales and marketing, lecturing and science fields (Clark 2009). The Department of Labour's 2007 National Master Scarce Skills List at the end of 2008 indicates that the ICT sector has been unable to fill 37,565 positions; and in

the 2008 IT Web-JCSE Skills Survey, it was found that failing to recruit, motivate and retain highly skilled IT specialists was either having a major impact on businesses or was affecting their viability (Clark 2009).

### Attributes and Expectations of Knowledge Workers

Knowing the attributes used by knowledge workers in selecting employers of choice is an important step in helping improve HR practices that will enable the attraction and retention of this group of workers. (Kinnear and Sutherland 2000). Using a sample of postgraduates to represent knowledge workers, Sutherland et al. (2002) found that knowledge workers consider career growth opportunities and a challenging work environment as important attributes when choosing employers of choice. Similarly, using factor analysis, Gaylard et al. (2005), identified three factors to be the most important in retaining knowledge workers in three different countries. These were equity and enablement for high performance; a liberated and empowered culture; as well as interactive and effective communication. Though both studies offer some direction in terms of the general attributes and expectations of knowledge workers, they can be criticised for not using samples that represent true knowledge workers, and lack of specificity in terms of the type of the knowledge workers they were dealing with, respectively. The fact that the second study was done among three different contexts also raises questions of validity of the results when contextual differences are considered for specific types of knowledge workers.

A study on the factors perceived to influence the retention of information technology workers by Copeland (2000) pointed out a corporate culture of career growth and challenging work, equity and enablement of high performance, interactive and effective communication as the most important factors in retaining knowledge workers. Issues such as social interaction and standard employment were seen as relatively unimportant in retaining knowledge workers. Similarly, a study on job satisfaction of knowledge workers identified pay, the nature of work and employability prospects as the most important job satisfaction variables (Economic Intelligence Unit and Andersen Consulting/

Accenture 2001). Other contributing factors were decision-making and peer relationships. These factors are consistent with the findings by Alvesson (2000), Kinnear and Sutherland (2000) and Thompson and Heron (2002). Alvesson (2000) refers to different and changing bases for organisational identification and loyalty. Alvesson distinguishes between institutional and communitarian loyalty, the former referring to the culture, norms and stories, organisational symbols and practices which create institutional loyalty of individuals. In the context of a changing psychological contract (Thompson and Heron 2002), communitarian-based loyalty refers to identification with a group relying strongly on interpersonal relations and perceived common interests. Institutional loyalty type may arguably be more instrumental to organisational needs. The combination of these measures of control is referred to as social-integrative management (Alvesson 2000). Both are important in motivation and retention of knowledge workers, although they themselves may more strongly identify with occupationally based peer relations of a communitarian loyalty type.

### **Best HR Practices of Employers of Choice**

Referring to a cluster of HR practices that are effective in attracting, motivating and retaining knowledge workers, Baron and Hannan (2002) argue that organisations that need to attract and retain knowledge workers should perfect their external and internal talent acquisition, develop talent through special assignments, job rotation and action learning. However, Thompson and Heron (2002) posit that traditional employment contracts may no longer be effective in bonding knowledge workers and retaining loyalty. A new psychological contract requires a different employment relationship, organisational design and HR practices. Loyalty still has to be managed in knowledge-intensive companies to avoid unwanted exits (Alvesson 2000). Factors put forward as important in motivating and retaining knowledge workers include challenging work, creating a work culture, permitting relative autonomy, celebrating achievement and developing a sense of purpose, direction and excitement. Other practices include willingness to share gains, effective communications, concern for people by respecting the dignity of the individual, providing enabling resources

(such as new technology) and enabling employees to acquire skills to increase their employability in both internal and external labour markets (Robertson and O'Malley Hammersley 2000; Ulrich 1998). The last practice is gaining prominence through self-development and involvement in interdisciplinary and cross-functional projects, in support of the idea of a learning organisation. This may lead to new psychological contracts, with individuals seeking market sustainable employability and organisations requiring high work.

There is a growing body of knowledge pointing out that certain HR practices lead to increased or better performance by knowledge workers. For example, Thompson and Heron (2002) found that the importance of job design as an important dimension of fulfilling the psychological contract, is associated with higher levels of knowledge creation, affective commitment and organisational citizenship behaviour. Some researchers have identified standard HR practices that are important is retaining and reducing voluntary turnover of knowledge workers (Lee and Maurer 1997; Kinnear and Sutherland 2000). Others, specifically referring to the issue of compensation, note that traditional approaches to work remuneration and reward are no longer appropriate in a post-industrial knowledge economy (Despres and Hiltrop 1995). Thus, according to Kinnear and Sutherland (2000), Thompson and Heron (2002), the most favoured retention strategies for knowledge workers should focus on a portfolio of practices which include the freedom to act independently, appropriate job design, certain types of financial rewards based on recognition of achievements, development opportunities, and access to leading edge technology.

Horwitt (2003) compared HR practices for effective attraction, motivating and retention of knowledge workers among organisations in South Africa and Singapore, and found that popular strategies in South Africa and Singapore include developing talent within the company and developing career plans. Considering that the old career ladder is no longer the norm in the life of knowledge workers (Thurow 2000), and that the lifetime employees are gone, such findings from the two countries may be regarded as not worth considering. Beck (2000) argues that HR policies and practices designed for career development need to shift from conventional

training and development to an integrative, continuous process of capability development, with the responsibility shifting increasingly to the individual. Similarly, Butler and Waldrop (2001) argue that, while traditional career paths may be based primarily on an organisation's interests, there is now a shift to sculpting jobs based on the deeply embedded life interests of knowledge worker professionals. Knowledge workers need to re-tool and develop a portfolio of careers over time to remain employable. Indeed, Despres and Hiltrop (1995) characterise knowledge workers as having careers external to an organisation through years of education, rather than internal training and career scheme.

From the above, one can confidently say that in order to succeed in the war for talent, many organisations need to brand themselves as employers of choice using appropriate HR practices and strategies (Sutherland et al. 2002; Sullivan 1998). This means that they should position themselves so that they are always the first choice (or at least on the short list) of world class candidates. Organisations need to have the knowledge of what makes the best talent in the world want to join them. Thus, they have to outperform their competitors in attracting, developing, and retaining people with the business-required talent (Copeland 2000). An employer of choice is therefore an organisation which those who are highly talented aspire to work for as a result of its reputation and employer brand message, both of which are tailored to appeal to the target audience.

### **Problem Statement**

In common with findings in other parts of the world such as the US (Despres and Hiltrop 1995) and other African countries (Dessler 2000), the attraction, motivation and retention of knowledge workers in South Africa seems to be a problem compared to other employee groups. In the presence of a high exodus of such group of employees, designing HR strategies that meet their needs is proving to be difficult and costly for many organisations. Frost (2001) points out that, during this current period of economic downturn characterised by downsizing and layoffs, while many South African organisations are positioning themselves as employers of choice and

knowledge – based, they find themselves in a dilemma, because as they grow and train their knowledge workers, they make them more marketable to competitors. Moreover, not providing knowledge workers with opportunities to grow and advance will simply result in this group of employees leaving. The challenge for many knowledge-based organisations today therefore is how to come up with a working formula for attracting and retaining these employees considered as core to the purpose and continued success of the organisation. Evidence from studies on employee retention by Birt et al. (2004) shows that employers seem to know the importance of knowledge workers, yet they have difficulties in predicting the future needs of these mobile knowledge workers. The fundamental issue for employers is not only to know but also to keep track of the ever changing attributes that knowledge workers use to identify preferable employers. Failure to know knowledge workers' ever-changing attributes may undermine the competitive capability, intellectual capital, cultural fabric and institutional memory of organisations. Knowledge of the attributes promotes improvements in meeting HR policies and practices and needs with those of the skilled talent. This research, therefore, aimed at comparing attributes utilised by Accountants and IT specialists (as examples of knowledge workers high in demand and in constant exodus), when identifying employers of choice by focusing on the following questions:

- What are the attributes regarded by accountants and IT specialists as important in identifying employers of choice?
- Do accountants and IT specialists utilise the same attributes when choosing employers of choice?

In view of the above questions, the major objectives of the research study were to identify attributes that Accountants and IT specialists from three different sectors regard as important when identifying employers of choice and, to determine whether Accountants and IT specialists from the three sectors utilise the same or different attributes when choosing employers of choice. The study made the assumption that Accountants from the three sectors selected for the study utilise different attributes from IT specialists when identifying employers of choice.

## METHODOLOGY

### Research Approach

A quantitative research approach using questionnaires was used to solicit data to understand attributes utilised by Accountants and IT specialists to identify employers of choice. A quantitative methodology abstracts data from the participants into statistical representations rather than textual pictures of the phenomenon. The entire research process is objectively constructed and the findings are usually representative of the population being studied (Babbie and Mouton 2003). A quantitative approach was, therefore, appropriate because it allowed the researchers to deal with a large number of respondents and use numbers to generalise comparisons and conclusions about populations. In the present study, a fairly large number of IT specialists and Accountants were involved, making interviews a time consuming process.

### Research Participants

The sample consisted of 123 knowledge workers. 70 Accountants and 53 IT specialists working in the Banking, Automobile, and Retail sectors in the Buffalo Municipality area of the Eastern Cape Province, South Africa. A judgement sampling method was used to select the participants. This method is most often used when no sampling frame exists and no parameters are known and when the researcher selects sample members to conform to some or other criterion (Leedy and Ormord 2010). Haslam and McGarty (2003) point out that the use of judgment sampling involves obtaining a sample with a population that has a particular characteristic, experience or understanding. In this study, the researchers wanted to gain an understanding of what Accountants and IT specialists view as the most important attributes of their ideal employer, hence the selected sample targeted this group of respondents.

### Measuring Instrument

Based on literature review and research objectives, a structured questionnaire was used to collect data. The philosophical thinking of positivism (Newman 2000) which argues that information can be quantified and make interpreta-

tions justified the use of a questionnaire to collect data from the sample of Accountants and IT specialists. As all participants were literate, they were able to complete the questionnaires unassisted. The questionnaire consisted of five sections. Section A consisted of demographic variables, that is, gender, race, marital status, nationality, tenure, highest educational qualification obtained, sector, position and department of the respondents. The items were measured on a nominal scale, using nine categorical variables. Section B, C, D and E sought information on employees' attributes of employer of choice. Section B consisted of items relating to the respondent's job and development. The items were related to the job's meaning, degree of freedom and creativity, opportunities for career growth, and training and development. Section C consisted of items relating to the organisational environment. Items were related to fairness in the workplace, diversity, information sharing, organisational support, organisational size and economic stability. Section D consisted of items relating to the compensation and benefits offered by the employers. The items were related to the work-life balance of employees. Lastly, Section E consisted of items related to the rewards given to the employee. All the variables in these sections were measured on a numerically 5-point Likert scale. The verbal scale utilised in each section differed according to how the main instructions were worded. Using Cronbach-alpha coefficients, high internal consistency reliabilities of (>0.7) for each section, that is B to E, were obtained. A Cronbach-alpha level of 0.5 and above is regarded as acceptable

### Research Procedure

In administering the questionnaire, the following procedure was followed;

- ♦ The researchers personally discussed the administration of the questionnaire with the human resource person from each organisation. 95% of the human resource personnel wanted the questionnaires left so that they could distribute the questionnaires themselves. The idea was that if the researcher had distributed the questionnaires, there was going to be some disturbances in the work process;

- ♦ Visits were made to each organisation by the researchers to leave the questionnaires with the human resource official. A total number of 150 questionnaires were distributed (in banking, automobile and retail sector), 50 in each sector. Discussions were held with the human resource officials to stress the anonymity and confidentiality of the information and how each official was supposed to stress these issues to the respondents as well;
- ♦ To achieve a possible high response rate, it was agreed that the data collection period be a maximum of two months;
- ♦ A follow-up strategy was discussed with each respective human resource official. It was agreed that the officials would make internal follow ups every week and the researcher would go and collect the completed questionnaires after every two weeks. Out of 150 distributed questionnaires in the three sectors, 123 were returned (giving a response rate of 82%).

### **Statistical Analysis**

A quantitative approach was used to analyse data for this research. Babbie and Mouton (2003) define quantitative analysis as the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect. The research made use of statistical techniques to enable generalisations of the research findings.

### **Descriptive Statistics**

Descriptive statistics were used to analyse demographic variables and determine the attributes regarded as important by both Accountants and IT specialists when identifying employers of choice. According to Goodwin (2004), descriptive statistics provide a summary of the main features of a set of data collected from a sample of participants.

### **Factor Analysis**

Factor analysis is a statistical approach that can be used to analyse interrelationships among a large number of variables and to explain these variables in terms of their common underlying dimensions (factors). The statistical approach

involves finding a way of condensing the information contained in a number of original variables into a smaller set of dimensions (factors) with a minimum load of information (Rummel 2003). A review of factor analysis reveals that it entails four basic steps (Rummel 2003). These are (1) data collection and generation of correlation matrix (2) extraction of initial factor solution (3) rotation and interpretation, and (4) construction of factor scales to use in further analyses.

Reese and Lochmuller (2003) conclude that the main applications of factor analytic techniques are (1) to reduce the number of variables, and (2) to detect structure in the relationships between variables, that is, to classify variables. In the present study, factor analysis with the varimax rotation and item analysis was applied as a data reduction or structure detection method group attributes into common factors.

### **T-test**

Using the factor analysis results, at t-test for independent samples was used to test whether Accountants and IT specialists utilise the same attributes or factors when choosing employers of choice. This analysis was appropriate in order to determine whether the sample means for each group differed significantly for the identified factors.

### **Ethical Considerations**

Permission was sought and granted by the authority of each of the participating organisations. Voluntary informed consent was sought from the participants. In addition, confidentiality was maintained at all times and participants were informed through a letter sent via email from HR office which communicated essential information about the research.

## **RESULTS**

The results of the study are presented in line with the research questions as indicated below.

### **Research Question One**

*What are the attributes regarded as important by Accountants and IT specialists when identifying employers of choice?*

One of the objectives of the research was to establish the attributes that Accountants and IT specialists regard as important in identifying employers of choice. Descriptive statistics were used to rank the attributes in their order of importance. Table 1 shows the mean scores with respect to respondents' choice of attributes they regard as important in identifying employers of choice.

**Table 1: Attributes by Accountants and IT specialists**

| <i>Attributes ranked in order of importance</i> |              |                  |
|---|--------------|------------------|
| <i>Variable</i>                                 | <i>Means</i> | <i>Std. devs</i> |
| Competitive pay                                 | 4.5856       | 0.626293         |
| Progression                                     | 4.5205       | 0.716888         |
| Challenging and interesting work                | 4.4635       | 0.643921         |
| Freedom to plan independently                   | 4.4480       | 0.939599         |
| Training and development                        | 4.4472       | 0.787328         |
| Reward  | 4.3904       | 0.685137         |
| Tools   | 4.3734       | 0.728780         |
| Networking opportunities                        | 4.3333       | 0.826475         |
| Global exposure                                 | 4.3333       | 0.855710         |
| Fairness  | 4.2923       | 0.649485         |
| Job security                                    | 4.2432       | 0.705267         |
| Business travel                                 | 4.1622       | 0.833460         |
| Economic stability of the organisation          | 4.1051       | 0.847494         |
| Support from organisation                       | 4.0240       | 0.740662         |
| Prestigious employer                            | 3.9674       | 0.877169         |
| Child care facilities                           | 3.9593       | 1.011397         |
| Flexible working hours                          | 3.8861       | 0.851260         |
| Geographical location                           | 3.7808       | 0.882773         |
| Information sharing                             | 3.7642       | 1.071855         |
| Diversity of employees                          | 3.7398       | 1.107629         |
| Share options                                   | 3.7235       | 1.058152         |
| Working conditions                              | 3.3904       | 1.149727         |
| Working from home                               | 3.3495       | 1.024165         |
| Extended leave days                             | 3.3414       | 1.122273         |
| Employment Equity Act                           | 3.1862       | 1.344994         |

Table 1 highlights the attributes regarded as important by both Accountants and IT specialists when identifying employers of choice. The attributes were ranked in their order of importance as indicated by respondents. The results indicated that competitive market related pay, challenging and interesting work, advancement opportunities (progression), freedom to plan independently, and training and development are the top five most important attributes regarded by both Accountants and IT specialists as important when identifying employers of choice. On the other hand, share options, working condi-

tions, working from home, extended vacations, and the influence of the Employment Equity Act (EEA) were attributes regarded by respondents as not very important when identifying employers of choice.

### **Factor Analysis**

A principal component analysis was carried out to group attributes into factors. Values with marked loadings above 0.4 were selected as important variables under each factor. Results of factor analysis are indicated in Table 2.

Scale purification through the use of item analysis was employed to assess the dimensionality of scale and to delete items with either low or multiple loading factor coefficients (Rummel 2003). Attributes appearing more than twice in different factors were removed. In this case, attributes such as support and fairness were removed since results indicated that these two attributes were measuring the same variable. The attributes under the same category with factor loadings of above 0.4 were then given one name. The results are shown in Table 3.

Table 3 shows that all the attributes were grouped into four distinct factors, that is, work/development, organisational environment, work life balance, compensation and benefits.

### **Research Question Two**

*Do Accountants and IT specialists in the three selected sectors utilise the same attributes in identifying employers of choice?*

It should be recalled that the second objective of the research was to determine whether Accountants and IT specialists in the selected sectors utilise similar attributes when choosing employers of choice. From this objective, it was hypothesized that Accountants and IT specialists utilise same attributes in choosing employers of choice. In order to test the hypothesis, inferential statistics, using T-test for independent samples, was employed. An alpha level ( $\alpha$ ) of 0.05 was set to test whether there was a significant difference between the mean scores of the respondents for each attribute. Generally, at 95% confidence interval level, the means between groups are said to be statistically different when the p-value is less than 0.05. Table 4 shows the results of the groups comparisons.

**Table 2: Factor analysis results**

*Factor Loadings (Varimax normalized) (Spreadsheet1.sta) Extraction: Principal components (Marked loadings are >.400000)*

|                 | <i>Factor – 1</i> | <i>Factor – 2</i> | <i>Factor – 3</i> | <i>Factor – 4</i> |
|-----------------|-------------------|-------------------|-------------------|-------------------|
| Freedom         | 0.130323          | -0.121986         | 0.220512          | 0.472753          |
| Challenging     | 0.252983          | -0.206539         | -0.070243         | 0.423038          |
| Progression     | 0.229914          | -0.012292         | -0.118663         | 0.497152          |
| Prestigious     | 0.447305          | 0.225491          | 0.311894          | 0.067813          |
| Development     | -0.060591         | 0.161083          | 0.036763          | 0.725752          |
| Security        | 0.699126          | 0.163012          | 0.011035          | 0.211381          |
| Conditions      | 0.598710          | -0.168116         | 0.103329          | 0.367095          |
| Tools           | 0.487340          | 0.009494          | 0.075310          | -0.027435         |
| Networking      | 0.611403          | 0.083459          | -0.003553         | 0.095863          |
| EEA             | -0.273680         | 0.129795          | -0.021045         | 0.212941          |
| Support         | 0.466339          | 0.453766          | 0.089422          | 0.127468          |
| Diversity       | 0.665941          | 0.170682          | 0.155588          | -0.120282         |
| Fairness        | 0.459656          | 0.599107          | 0.012409          | 0.055011          |
| Exposure        | 0.611808          | 0.136251          | -0.101024         | 0.287307          |
| Eco stability   | 0.457037          | 0.376278          | 0.158355          | 0.130416          |
| Info sharing    | 0.792577          | -0.070517         | -0.058000         | 0.054803          |
| Business travel | 0.328797          | -0.190397         | 0.489985          | 0.124410          |
| Flexi hours     | 0.080412          | 0.251431          | 0.422535          | 0.045592          |
| Geo location    | 0.135830          | 0.155709          | 0.295000          | 0.357006          |
| Working home    | -0.027462         | 0.368039          | 0.605838          | -0.137279         |
| Leave days      | -0.042717         | 0.090699          | 0.755750          | 0.027969          |
| Facilities      | 0.178525          | -0.006357         | 0.604650          | -0.070626         |
| Pay             | -0.244807         | 0.529931          | 0.173443          | -0.121676         |
| Reward          | 0.093710          | -0.171312         | 0.211194          | 0.423763          |
| Shares          | -0.038884         | 0.650906          | 0.125028          | 0.181464          |

**Table 3: Factor groupings of attributes**

| <i>Factor</i>                     | <i>Attributes</i>                      | <i>Factor loadings</i> |
|-----------------------------------|--|------------------------|
| <i>Work/ Development</i>          | Challenging and meaningful work        | 0.423038               |
|                                   | Progression                            |                        |
| <i>Organisational Environment</i> | Freedom to work on your own initiative | 0.497152               |
|                                   | Global exposure                        | 0.472753               |
|                                   | Information sharing                    | 0.611808               |
|                                   | Prestige of the organisation           | 0.792577               |
|                                   | Job security working conditions        | 0.447305               |
|                                   | Tools                                  | 0.699126               |
|                                   | Diversity                              | 0.598710               |
| <i>Work-life Balance</i>          | Diversity                              | 0.487340               |
|                                   | Business travel                        | 0.665941               |
|                                   | Flexible working hours                 | 0.489985               |
|                                   | Geographical location                  | 0.422535               |
|                                   | Childcare facilities                   | 0.605838               |
|                                   | Extra vacation                         | 0.604650               |
| <i>Compensation and Benefits</i>  | Option to work from home               | 0.755750               |
|                                   | Share options                          | 0.605838               |
|                                   | Benefits                               | 0.529931               |
|                                   |  | 0.650906               |

As indicated in Table 4, there was no significant difference between IT specialists and Accountants from the three sectors on 18 attributes tested. However, significant differences were noted in six of the attributes across all the respondents irrespective of sector. These six attributes are freedom, progression, development,

which relate to the work and development factor; security and diversity, which relate to the organisational environment factor, and working from home, which relate to the work life balance factor. In terms of comparison based on the six factors factors, IT specialists preferred more freedom than Accountants (mean score 4.15 vs 3.97,

**Table 4: T-test results**

| <i>T-tests; Grouping: DEPT (Spreadsheet1.sta) Group 1: finance Group 2: IT</i> |                     |                  |                |           |           |
|--|---------------------|------------------|----------------|-----------|-----------|
|  | <i>Mean-finance</i> | <i>Mean - IT</i> | <i>t-value</i> | <i>Df</i> | <i>P</i>  |
| Freedom  | 3.971429            | 4.150943         | -1.04972       | 121       | 0.04900*  |
| Challenging  | 4.485714            | 4.433962         | 0.43994        | 121       | 0.660769  |
| Progression  | 4.671429            | 4.320755         | 2.75830        | 121       | 0.006713* |
| Prestigious  | 4.042857            | 3.867925         | 1.09618        | 121       | 0.275179  |
| Development  | 4.385714            | 4.018868         | 2.61972        | 121       | 0.009927* |
| Security   | 4.414286            | 4.018868         | 3.19314        | 121       | 0.001794* |
| Conditions   | 3.514286            | 3.226415         | 1.38020        | 121       | 0.170070  |
| Tools  | 4.414286            | 4.320755         | 0.70338        | 121       | 0.483168  |
| Networking   | 4.357143            | 4.301887         | 0.36588        | 121       | 0.715094  |
| EEA  | 3.371429            | 2.943396         | 1.76283        | 121       | 0.080454  |
| Support  | 4.071429            | 3.962264         | 0.80831        | 121       | 0.420499  |
| Diversity  | 3.557143            | 3.981132         | - 2.1326       | 121       | 0.034974* |
| Fairness   | 4.271429            | 4.320755         | -0.4156        | 121       | 0.678376  |
| Exposure   | 4.328571            | 4.339623         | -0.0706        | 121       | 0.943802  |
| Ecostability   | 4.085714            | 4.132075         | -0.2993        | 121       | 0.765215  |
| Info Sharing   | 3.771429            | 3.754717         | 0.08528        | 121       | 0.932181  |
| Business Travel  | 4.157143            | 4.169811         | -0.0831        | 121       | 0.933879  |
| Flexi Hours  | 3.871429            | 3.905660         | -0.2199        | 121       | 0.826250  |
| Location   | 3.857143            | 3.679245         | 1.10779        | 121       | 0.270148  |
| Working Home   | 3.114286            | 3.660377         | -3.0246        | 121       | 0.003041* |
| Leave Days   | 3.357143            | 3.320755         | 0.17736        | 121       | 0.859519  |
| Facilities   | 3.900000            | 4.037736         | -0.7466        | 121       | 0.456771  |
| Pay  | 4.614286            | 4.547170         | 0.58697        | 121       | 0.558321  |
| Reward   | 4.457143            | 4.301887         | 1.24736        | 121       | 0.214673  |

$t=-1.04$ ,  $df=121$ ,  $p=0.049$ ). In terms of progression, Accountants preferred to work for an employer who offers advancement opportunities for their personal growth unlike IT specialists (mean score 4.67 vs 4.32,  $t=2.75$ ,  $df=121$ ,  $p=0.007$ ). As far as training and development is concerned, Accountants preferred to work for an employer who offers more training and development opportunities than IT specialists (mean score 4.38 vs 4.01,  $t=2.61$ ,  $df=121$ ,  $p=0.009$ ). In terms of job security, Accountants prefer to work for an employer who offers more job security than IT specialists (mean score 4.41 vs 4.01,  $t=3.19$ ,  $df=121$ ,  $p=0.002$ ). Results also indicate that IT specialists prefer more diversity in terms of employees than Accountants (mean score 3.55 vs 3.98,  $t=-2.13$ ,  $df=121$ ,  $p=0.035$ ).

## DISCUSSION

It will be recalled that the purpose of this study was to investigate whether there were any differences in the attributes utilised by two groups of knowledge workers, IT specialists and Accountants, in identifying and choosing employers of choice. It was hypothesised that IT specialists and Accountants in the three selected sectors utilise similar or different attributes in identifying employers of choice.

Attributes utilised by Accountants and IT specialists to identify employers of choice are important determinants of their organisational commitment. The attributes are also important in the identification of the best HR practices to attract and retain knowledge workers in general. Accountants and IT specialists possess particular skills that are in great demand by many organisations. They are autonomous people who enjoy occupational advancement and mobility and resist a traditional command and control culture. Their commitment is regarded as more occupationally than organisationally oriented (Kinnear and Sutherland 2000).

Findings from this research showed that challenging and interesting work, employee progression, training and development, and the freedom to plan independently were the most attributes regarded by Accountants and IT specialists as important in identifying employers of choice. The results are consistent with previous research findings. For example, Kinnear and Sutherland (2000) showed that independence, individualism and personal achievement are the fundamental needs of knowledge workers. Mengel (2001) and Davidson (2001) listed critical factors to employee retention to include career growth opportunities, learning and devel-

opment, exciting and challenging work, competitive pay and benefits, and recognition for work well done. Similarly, Kaye and Jordan-Evans (2000) found that career growth, learning and development are important factors considered by knowledge workers. What this seem to indicate is that, among other factors, knowledge workers are entirely pre-occupied with growth opportunities. This is especially true in the IT industry where technology is changing so fast that skills quickly become obsolete. This means that retention strategies for IT specialists and Accountants should be based on the freedom to act, financial rewards and recognition, development opportunities and access to leading edge technologies.

The above results also concur with Herzberg's two-factor theory which propounds that employees are attracted, retained, and motivated by intrinsic factors such as career progression, challenging and interesting work, and freedom to plan independently (Robbins et al. 2004). In line with Herzberg's two factor theory, a study by Birt et al. (2004) pointed out that focus on the provision of intrinsic variables will influence the employee's decision to leave. While organisations may not be able to completely control the employee's decision to leave by manipulating these variables, focusing on the provision of intrinsic variables may still have considerable influence. These variables have been found to impact positively on an employee's level of affective commitment. On the other hand, commitment has been postulated to increase attraction and retention, particularly amongst high performing employees like Accountants and IT specialists (DeConinck and Barchman 1994; Meyer and Allen 1997).

Findings from this research also revealed that Accountants and IT specialists are not retained as a result of factors relating broadly to personal comfort, but as a result of factors such as the provision of challenging work, career development opportunities, as well as payment of competitive market related remunerations. The data confirms the declining value of benefits such as share options, working from home, and longer vacations being offered by organisations in trying to attract and retain Accountants and IT specialists (Kinnear and Sutherland 2000). Findings from the present study also showed that Accountants and IT specialists were not much concerned with the recognition of the South Af-

rican Employment Equity Act (EEA) by employers. This may be attributed to the fact that Accountants and IT specialists possess scarce skills that are currently in demand by many organisations. Therefore, the provision of the Employment Equity Act as a strategy of attracting and retaining knowledge workers is not of much significance to them.

The findings of the study also indicated that all the Accountants and IT specialists in the banking, automobile and retail sector generally regard the same attributes as important when identifying employers of choice. Differences in actual attributes utilised to identify employers of choice were noted in only 6 out of 25 attributes. Accountants and IT specialists differ in weighing attributes such as freedom, progression, training and development, security, diversity and working from home. Thus, IT specialists seem to value more freedom than Accountants. Because of fixed working principles that are followed in the Accounting field, the degree of creativity and flexibility is very limited. It is therefore not surprising to find Accountants not rating freedom to work at their own initiatives or being creative as the most important factor. Accountants value growth advancement opportunities (progression) higher than IT specialists do when choosing employers of choice. As far as training and development is concerned, Accountants in all the three sectors showed that they prefer to work for an employer who offers more training and developmental opportunities than the IT specialists. This indicates that Accountants are much concerned with the level of their skills usage and training of new skills. However, this finding does not entirely mean that IT specialists are not concerned with development opportunities, but rather the difference is in the level of skill usage and preferences. As supported by Hay (2002), knowledge workers consider organisations that utilise their level of skills and offer new training and development opportunities.

This study also found that both Accountants and IT specialists differ in preference when it comes to factors such as job security when identifying employers of choice. Even though in this study job security was not one of the major factors considered as highly important, Accountants showed that they prefer to work for an employer who offers more job security than IT specialists.

A further analysis using a T-test for independent samples to determine whether the noted differences could be attributed to demographic variables showed that gender, nationality, and position of the Accountants and IT specialists affect their selection of employers of choice. In terms of gender, males from both groups prefer organisations that offer freedom to plan independently as opposed to females. Males prefer accountability and enjoy the discretion of planning and making decisions that affect their jobs. Females, on the other hand, want more support from the organisation in terms of both training provision and progression (Harpur 2002). The results showing that females from both sectors prefer the option of working from home than males is also supported by Shin (2003) who found out that working from home increases worker autonomy, productivity and creates new employment opportunities for various categories of workers, potentially without geographical limits. Ideally, the option to work from home was considered important by females (especially the married respondents) probably because it offers females the opportunity to take care of the children whilst doing office work at home. Working from home also provides females with an autonomous working environment.

In terms of nationality, respondents from all the three sectors and groups who are not South African citizens preferred working in organisations that have diverse employees than South Africans. By virtue of not being a South African citizen and at the same time working in a South African organisation, the issue of cultural diversity was not seen as a problem by non-South African knowledge workers. In fact, it was an important factor to them. The literature on international migration that often focuses on highly skilled migrants, highlights that factors such as costs of migrating, language and cultural barriers are probably less relevant for the mobility of talent with a high stock of human capital, knowledge of foreign languages and broader cultural backgrounds (O'Rourke and Williamson 2000; Borjas 2002).

In terms of the position occupied by the knowledge worker, Accountants and IT specialists in non-managerial positions from all sectors and groups preferred work that guarantees job security unlike respondents in managerial positions. Though literature indicates that job security is not a very important factor considered by

Accountants and IT specialists in identifying employers of choice, findings from this study indicate that knowledge workers occupying non-managerial positions prefer work that guarantees job security. The selection of job security as an important attribute used to identify employers of choice especially by non-managerial positions can be attributed to the fact that as non-managerial staff, lack of control of your own work and freedom of initiative will result in job insecurity. Therefore, non-managerial employees are likely to be attracted and retained by organisations that provide job security.

Accountants and IT specialists in non-managerial positions preferred training and development to a greater extent than respondents in managerial positions. The analysis shows that Accountants and IT specialists are pre-occupied with the need for career growth. Research shows that personal and professional growth are the strongest motivators of employees today, as employees concentrate on their future marketability (Robbins et al. 2004). In addition, Kaye and Jordan-Evans (2000) showed that the most important attraction factor for skilled employees is career growth, learning and development. Tulgan (2001) also emphasised that employees are entirely pre-occupied with growth opportunities.

## CONCLUSION

This research study provided some useful insights into attributes utilised by Accountants and IT specialists in identifying employers of choice in South Africa. From the discussion, it can be concluded that Accountants and IT specialists in the Banking, Automobile and Retail sectors utilise similar attributes in identifying employers of choice. Attributes utilised by Accountants and IT specialists to identify employers of choice are intrinsic in nature. Added to the provision of intrinsic factors, the study also found that employers who provide competitive remuneration packages stand a better chance of attracting and retaining Accountants and IT specialists.

## RECOMMENDATIONS

The transformation to the knowledge era and the consequent changes in the psychological contract between employer and employee has

resulted in the retention of knowledge workers being a key issue in contemporary management. Recommendations on retention that emerge from the findings of this study are listed below.

### Recommendations to Management

The literature review and the data from the sample indicate that managers in general and human resource managers, in particular, need to understand that high levels of knowledge worker mobility are a defining characteristic of the knowledge based economy. The cost associated with this mobility and the benefits of reducing labour turnover via employee commitment can be achieved but not for a long term. As Cappelli (2000) writes “you are managing a river not a dam”, that is, managers should adapt to a continual flow of people through the organisation. This implies that organisations should develop a high level of competence in attracting and selecting competent knowledge workers. They should also ensure the continual transfer and encoding of knowledge, so that, in the event of a knowledge worker leaving, their knowledge is retained by the organisation. The study results suggest that organisations need to develop and communicate compelling employee propositions that highlight the availability of challenging work, career development opportunities, as well as paying competitive market related salaries.

### Recommendations for Academics

This research has developed an understanding of the drivers that influence the mobility of knowledge workers. What is evident is that the new world of work is a fruitful ground for empirical research into the defining characteristics of knowledge workers. In particular, this research suggests to academics that the psychological contract has changed profoundly, with concomitant spin-offs that need to be fully researched. The data shows that knowledge workers have defined over-arching characteristics that can be further segmented into meaningful subgroups, each with its own defining characteristics. These factors need to be further researched so that management theories and practices for the current knowledge era could be built on an empirical basis.

### Recommendations for Knowledge Workers

This research has implications for the way knowledge workers might manage their careers. They need to understand that this is the age of self-determination. They can create their own future by continuously developing their employability through further education and developing new, labour-market related competences.

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