

Total rewards: A study of artisan attraction and retention within a South African context

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Orientation: The shortage of artisan skills remains a serious challenge in South Africa and is forcing employers to investigate which total reward factors contribute to the attraction and retention of this critical skills segment, as undifferentiated retention strategies are no longer useful or even appropriate.

Research purpose: The aim of this study was to further develop understanding of the total reward factors and the ideal combination and relative amount of total rewards that attract and retain artisans, including artisans from various race groups and age cohorts, using a novel approach.

Motivation for the study: Limited research is available on the total reward factors and the ideal combination and relative amount of total rewards that attract and retain artisans. Further knowledge in this area will allow organisations to develop reward models that better attract and retain artisans.

Method: The study followed both a quantitative and qualitative research approach, whilst adopting a descriptive research design. Using this mixed method, primary data were collected from individuals by means of two focus groups discussions: (1) a group of human resource and remuneration managers ($n = 4$) and (2) a group of artisans ($n = 7$). These results were used to develop two questionnaires that were distributed to artisans ($n = 143$). Data from Questionnaire 1 were analysed using descriptive statistics and factor analysis. Conjoint analysis was employed to identify an ideal total rewards composition based on responses from Questionnaire 2.

Main findings: The results of the choice-based modelling (conjoint analysis) revealed that three total rewards attributes were consistently deemed to be important in the retention of artisans. These were (in order of priority): environment (work-life balance), compensation (level) and compensation (variable). Environment (work-life balance) was considered 14.64% more important than compensation (level) within the overall sample as well as within the race and age cohorts.

Practical/managerial implications: The identification of both the combination and relative amount of total rewards that attract and retain artisans will allow organisations to create differentiated retention strategies.

Contribution: The current study succeeded in identifying the total rewards and the ideal composition of total rewards that attract and retain artisans, including artisans from various demographic groups (race and various age cohorts). This was done using a method that assessed the psychological trade-offs people make when choosing between options rather than just asking them how desirable each of these factors are. This novel approach and the outcomes thereof add to the body of literature on total reward and talent management.

Introduction

Problem statement

Key focus

The retention of artisans is becoming an increasingly difficult task for organisations to manage. The attrition of scarce skills is viewed as a major cause of the so-called war for talent which is characterised by a scarcity of skills where demand outweighs supply (Hay Group, 2002). In a study by Adcorp, the artisan job family was identified as the number one category of concern when filling vacancies in South Africa. An ageing workforce, negative perceptions regarding this job family due to the nature of the blue-collar work environment, a decline in apprenticeship student numbers, the closure of artisan training centres, poaching of artisans from rival companies, international recruitment of artisans and the overall training cost to obtain a successfully qualified artisan all have to be creatively managed in order to address

the current shortage and the limited short and medium term supply of artisans (Joint Initiative on Priority Skills Acquisition [JIPSA], 2008).

Background

There are hundreds of thousands of job vacancies in South Africa and yet the country has a 25% unemployment rate, indicating a mismatch in the demand and supply of skills (Centre for Development and Enterprise [CDE], 2011). Although the official unemployment rate (the number of unemployed people expressed as a percentage of the labour force) is high by international standards, it understates the magnitude of the crisis because it includes only those adults who are not employed and are actively looking for work. Given the poor state of the job market, millions of adults who want to work have given up looking for jobs and are therefore not counted as unemployed. A more revealing statistic is that only 41% of the population of working age (everyone aged 16–64) have any kind of job, both in the formal and informal sectors of the economy (CDE, 2011).

Technical skills shortages remain a serious constraint in South Africa, even though increasing amounts of public and private resources are being committed to address the needs of infrastructure projects due to a growing economy and a growing population (Hall & Sandelands, 2009). A critical component of competitiveness is having the appropriate skills complement across a range of occupations and professions as well as the skills to drive economic growth and organisational success (Bussin, 2011).

It is imperative that South Africa becomes globally competitive. The World Competitiveness Report listed South Africa 53rd in a ranking of the competitiveness of 144 nations, a decline from previous years (IMD, 2008). Over the past 10 years, economic growth has relied heavily on rapid growth in government spending, which is unsustainable in the long run. Local markets are relatively small which means that accelerated economic growth will require a dramatic increase in exports, supported by the fact that industry will need to have the appropriate skills complement to meet the current and future demand (CDE, 2011).

Since the 1980s organisations across the globe have been focusing on increasing profitability. This has been accomplished by increasing throughput on existing investments and by decreasing costs. The reduction in costs often focused on the reduction of fixed costs which led to a decrease in the training and skills development budget of organisations as well as in some cases, retrenchments (Food and Beverage Sector Education Training Authority [FoodBev SETA], 2011). Due to the laying off of staff, a surplus of artisans was available in South Africa, which meant that new artisans no longer needed to be trained. This led to the discontinuation of established training programmes for artisans (Jordaan & Barry, 2009). Since there was an oversupply at the time, organisations also did not have to increase artisan salaries to keep up with inflation, in order to retain artisans.

In the past two decades the environment in South Africa has changed dramatically. A significant increase in the cost of living has forced many skilled artisans to find other employment prospects (Jordaan & Barry, 2009). Artisan skills are rapidly becoming so scarce that organisations will go to extraordinary lengths to keep artisans. South African organisations in 2007 already began to pay artisans salaries of up to R30 000 per month in an attempt to retain them (Kleynhans, 2007). Large firms are no longer making meaningful contributions to skills development in the industry; instead they are being accused of poaching trained artisans (Ogbeifun, 2011). A low apprenticeship graduation rate further contributes to the current shortage of artisans.

One can expect the demand for artisans to increase in the future as fewer new graduates come through the system. The industry wide demand for artisans also sees the shift of artisans to higher paying sectors of the economy. A continuation of this trend may lead to the need to import artisans in the future. Such a strategy is, however, often characterised by high cost (Morris & Reed, 2008).

The under-supply of artisans is compounded by an ageing workforce. In one report it was estimated that more than 70% of currently employed artisans will exit the labour force over the next 5–6 years, and that the average age of artisans is 54 (Erasmus, 2008). Furthermore, JIPSA (2008), a high-level task team initiated by government, stated that South Africa produced about 5000 artisans a year, and that this figure would have to rise to 12 500 a year for the next 4 years to meet demand for a projected increase of 30 000 over the period 2007–2010. In JIPSA's view this was both a conservative estimate of needs and a stretch target in terms of South Africa's capacity to produce artisans.

It is therefore important to conceptualise and understand artisan scarcity and to investigate and interpret which attributes of the artisan value proposition will hopefully lead to the successful attraction and retention of artisans.

Research purpose

The aim of this study was to further develop an understanding of the total reward factors and the ideal combination and relative amount of total rewards that attract and retain artisans, including artisans from various race groups and age cohorts.

Trends from research literature

According to the Centre for Development and Enterprise (CDE, 2007), an artisan is any person who works as a millwright, electrician, plumber, boilermaker, mechanic, fitter and turner, pattern maker or injection moulder.

Previous research has identified a variety of rewards as being successful in the retention of employees in general (Hay Group, 2002). However, developing and implementing a total rewards approach that recognises individual differences may be difficult, but highly beneficial (Armstrong & Murlis,

2004). The benefits of a total rewards approach that focuses on an individual's needs and preferences include:

- **Deeper impact:** The combined effect of financial and non-financial rewards could have a positive impact on the motivation and commitment of employees, enhancing the employee relationship.
- **Increased engagement as part of the process:** Involving people in their own reward package design gives them strong positive messages about the organisation and its values.
- **Flexibility to meet individual needs:** Relational rewards may bind individuals more strongly to the organisation because they recognise and can answer special individual needs.
- **Winning the war for talent:** Relational rewards help to deliver a positive psychological contract. The organisation can become an employer of choice, thus attracting and retaining the artisans it needs.

Objectives

The successful retention of artisans in the workplace has been affected by extensive changes in workforce demographics, as organisations are required to manage diverse groups. In particular, changes in the age profile of artisans have emerged. The introduction of employment equity legislation in South Africa has exacerbated the difficulties organisations face in retaining black employees in particular. In an effort to meet equity targets, companies often seek quick fix solutions, such as poaching equity candidates, resulting in these employees being highly marketable and mobile (Mauer, 2000).

The empirical objective of the study was to identify the ideal composition and the desired amount of total rewards that attract and retain artisans from various race groups and age cohorts within the context of the South African workplace. The research questions that were answered include:

- What is the ideal rewards composition that will attract and retain artisans?
- What is the ideal rewards composition that will attract and retain artisans from various age cohorts?
- What is the ideal rewards composition that will attract and retain artisans from various race cohorts?

The research questions were based on an integrated artisan retention model (see Figure 1), which is proposed as an approach that attempts to provide a framework for the current study.

Contribution to the field

Limited research is available on the total reward factors and the ideal combination and relative amount of the factors of total rewards that attract and retain artisans. The current study succeeded in identifying the total rewards and the ideal composition of total rewards that retain artisans, including artisans from various demographic groups (race and various age cohorts). This was done utilising choice-based conjoint analysis, which assesses the trade-offs people make when having to choose between factors and their relative levels rather than assessing the desirability of each factor and level

in isolation, as is typically done in survey research. The results of the study based on this approach do not support previous research, which found financial reward to be the most important retention factor for artisans. In contrast, the current research found environment (work-life balance) to be the most significant determinant of retention across race and age cohorts in the sampled population.

What will follow

A review of the literature follows in which the role of financial and non-financial reward elements in explaining artisan attraction and retention is investigated. A comprehensive description of the research methodology is then presented, followed by the results and a discussion thereof.

Literature review

Employee retention (total rewards model)

Employee retention entails a combination of activities that, when they work well together, result in employees choosing to stay with the organisation for a long time (Hendricks, 2006). According to Hendricks (2006), employee retention efforts should focus on both attracting employees to join the organisation through focused recruitment and ensuring that employees with crucial skills who are already in the organisation stay. For this to be successful there need to be underlying policies and structures that support employee retention. Some of the crucial retention factors that have been identified are that there should be clear and well-defined human resource planning, recruitment and selection processes (Berger, 1991).

The number of organisations implementing specially designed retention mechanisms is increasing. The need for organisations to adopt a purposeful attraction and retention strategy is therefore becoming increasingly imperative, specifically for engaging artisans to deliver maximum discretionary effort (Ngobeni & Bezuidenhout, 2011).

The Hay Group (2002) developed a total rewards model based on retention (see Figure 2), which describes not only the transactional and relational elements of reward, but also focuses on what employees defined as a compelling, high performance workplace. This total rewards model comprises six key elements, namely: quality of work, work and life balance, inspiration and values, enabling environment, future growth and opportunity and tangible rewards. The inspiration and values cluster followed by the future growth and opportunity cluster are what employees value most, with tangible rewards coming third or fourth in priority.

Financial reward for artisans

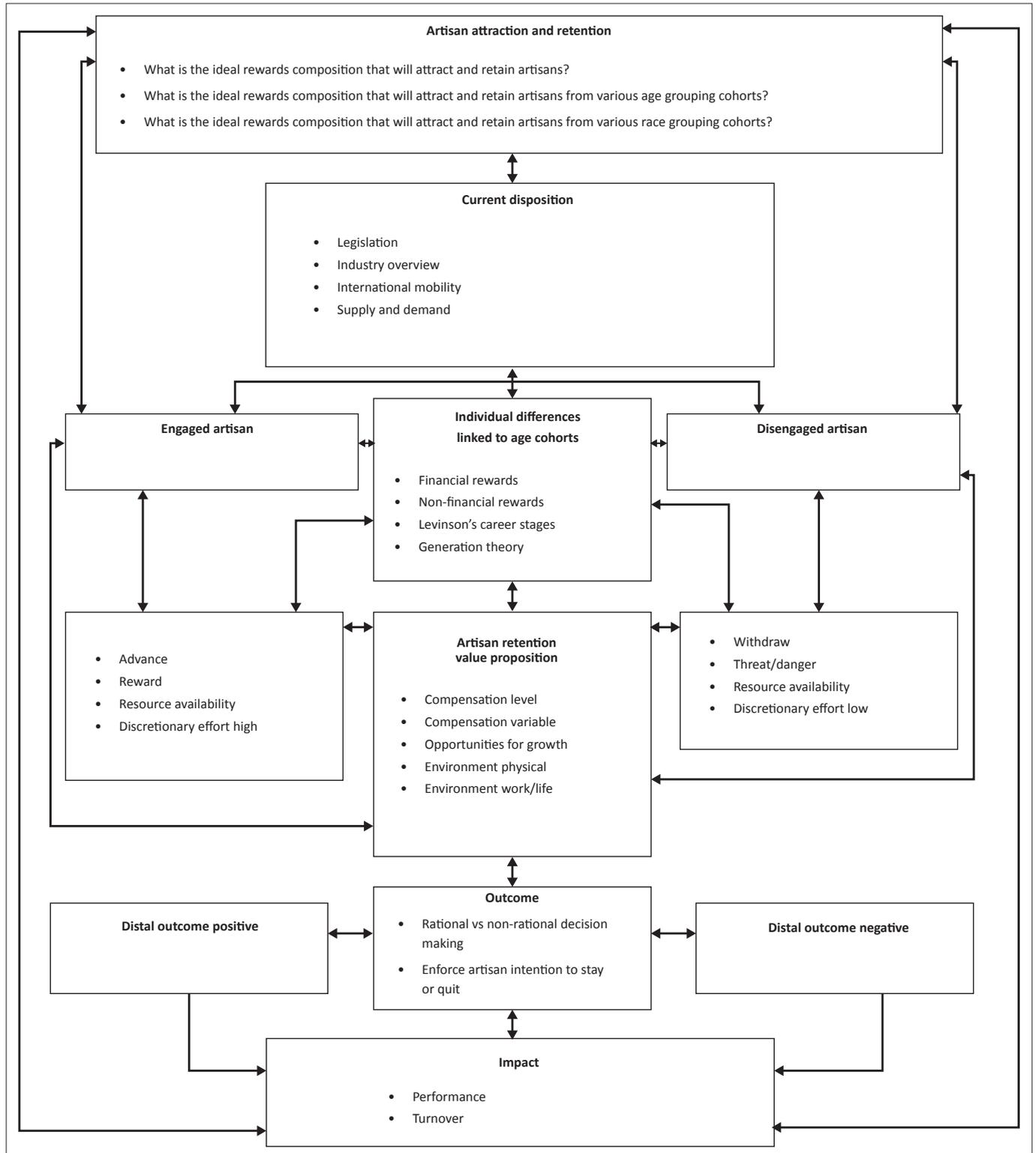
Rampfumedzi (2009) found that the primary reason artisans leave organisations is dissatisfaction with remuneration. In addition, Jordaan and Barry (2009) found that, across industries, salary levels for artisans are perceived to be low and that salary level is the most important retention factor for artisans.

Many mining houses in South Africa have allocated significant amounts of money to artisan retention strategies in order to

try and retain those skills within their organisations. These retention strategies usually take the form of sign-on bonuses that are contingent on the employee committing to stay for a certain period of time. Many companies also pay a scarcity allowance. (Rampfumedzi, 2009). The general benchmark is based on 10–12 years' experience for which the allowance is approximately R3000. In some cases it is based on a sliding scale (Rampfumedzi, 2009).

Bussin (2011) identified a remuneration treatment for scarce skills that included:

- **Base pay (guaranteed pay):** In order not to distort the salary scales within an organisation, employees with scarce skills should be paid within the applicable grade range. The guaranteed portion should be in line with the appropriate levels of employees within the same grade.



Source: Authors' own creation

FIGURE 1: Integrated artisan retention model.

- **Variable pay:** This part of the employee's total remuneration includes variable pay components such as a performance incentive scheme or a reward and recognition scheme. Measurable targets should be in place and pay-outs of these schemes should be in line with the rest of the organisation's remuneration policy.
- **Market premiums and allowances:** A scarce skill premium may be paid over and above the guaranteed pay. Market premiums are not guaranteed. The premium is usually expressed as a percentage of the midpoint of the organisation's pay scale and the same level of premium is paid to individuals irrespective of their position within that scale.

Bussin and Spavins (2009) further highlight the point that remuneration should not be based on a one-size-fits-all strategy and that there should be flexibility in the structuring of the pay for different employees. They investigated employees of different age groups and established how they would like their pay to be structured. The results are presented in Table 1 below. The table summarises the responses (on a response scale of 1 to 7) of the various age cohorts.

From Table 1 it can be seen that different age groups value different remuneration structures. Although base pay is considered to be important for all age cohorts, variations

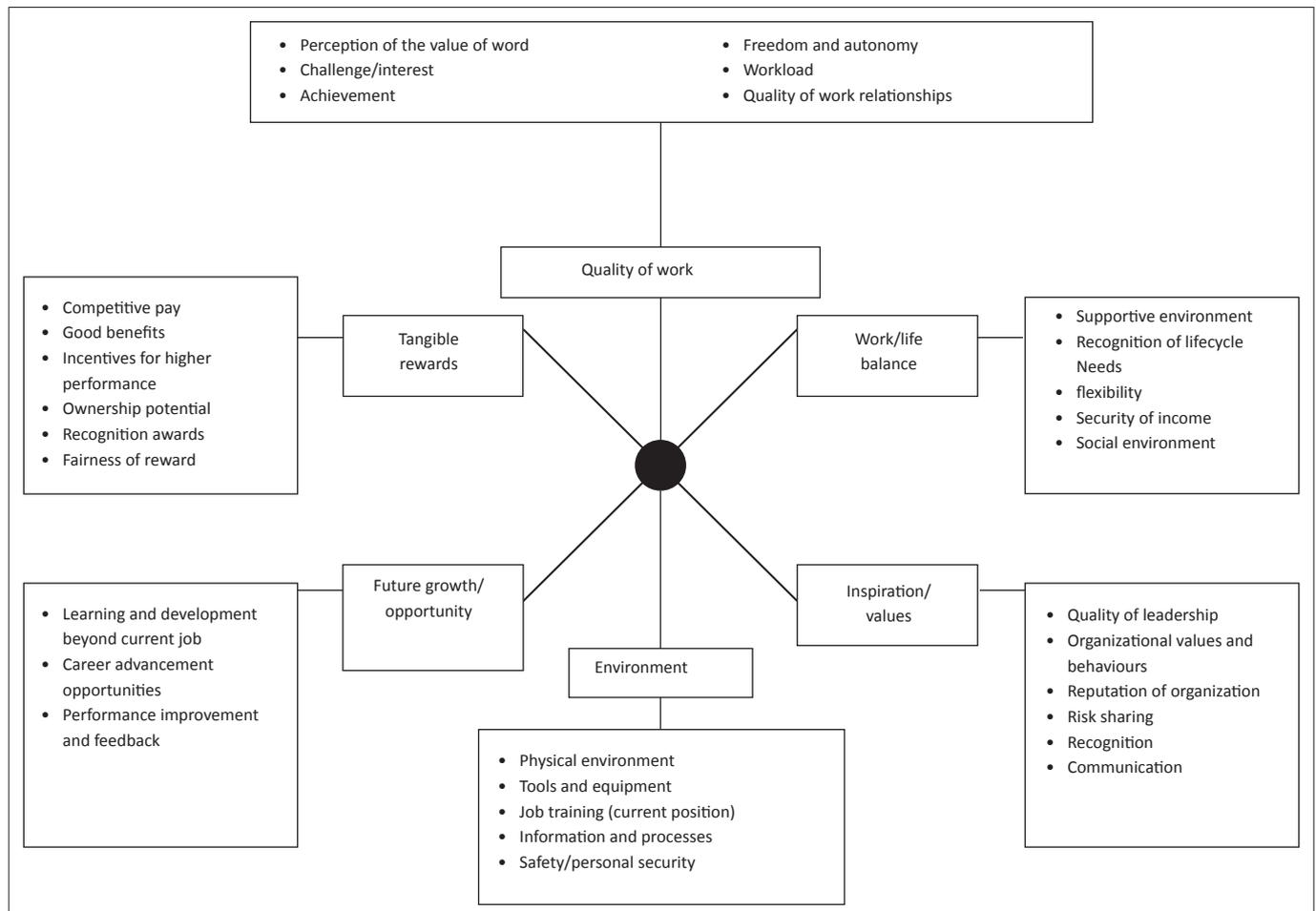
between the age cohorts are evident, for example variable pay is considered to be important for the age cohort 18–29 years but not so for the age cohort over 55 years. One explanation for this variation could be that employees in the age cohort of over 55 years are nearing retirement and value stability of income more as this would optimise their financial planning capability (Bussin & Spavins, 2009).

With benefit cost absorbing up to 40% of total payroll cost, employers are reevaluating their total benefit packages. There also needs to be an alignment between compensation and benefits for employees. However, many retention packages do not include non-financial elements or needs, and for this reason these retention packages have little effect on employee retention (Grobler, Wärmich, Carrell & Elbert, 2002).

TABLE 1: Ranking of remuneration preferences by different age groups.

Option	18–29 years	30–44 years	45–54 years	55+ years
Base salary	1	2	1	2
Variable pay	2	4	4	6
Shares	3	5	6	5
Medical aid	5	1	5	3
Retirement funding	6	6	3	1
Deferred compensation	4	3	2	4

Source: Bussin, M., & Spavins, R. (2009). *Engaging talent: Why retention and remuneration is one of the top issues in HR*. Retrieved March 22, 2012, from <http://www.workinfo.com/free/downloads/222.htm/>



Source: Hay Group. (2002). *Engage employees and boost performance*. London, England: Hay Group

FIGURE 2: The Hay model.

Non-financial reward for artisans

Jordaan and Barry (2009) attempted to identify non-financial needs and found that most artisans were not preparing themselves for career advancement by obtaining formal qualifications or training. Employers were seemingly not encouraging artisans to become better skilled, as evidenced by the general lack of personal development plans. Similarly, Rampfumedzi (2009) found that the reasons that artisans leave organisations include the lack of career advancement.

Loughlin and Barling (2001) postulate that changes in the workplace and emerging issues of importance to the youth will shape future research agendas in management and organisational practices. These emergent issues include:

- **Non-standard work and work quality:** Globally the proportion of non-standard jobs (temporary, part-time or contract positions) has continued to rise.
- **Leadership:** The information age, intense global competition and the need to manage an increasingly diverse workforce are all placing new demands on leadership in organisations.
- **Workplace safety and health:** Young people are inexperienced and eager to please. They are typically given little or no on-the-job training and are vulnerable.
- **Work-family conflict:** The challenge of the coming decade is how best to meet the multiplicity of needs that includes organisational practices, policies and programmes as well as a philosophy that actively supports employees' efforts to be successful within and outside the workplace.

Engaging artisans on their financial and non-financial needs could further enable the understanding of the total reward factors and the ideal combination and relative amount of total rewards that attract and retain artisans. This information can then in turn be used to plan and implement reward models that attempt to deal with the critical shortage of artisans.

Method

Research approach

The study followed both a quantitative and a qualitative research approach whilst adopting a descriptive research design. Using this mixed method, primary data were collected from individuals by means of two focus group discussions and two questionnaires. A key feature of mixed methods research is its methodological pluralism or eclecticism, which frequently results in a holistic research approach, as opposed to mono-method research. In addition, it allows researchers to mix and match design components that offer them the best chance of answering their specific research questions (Johnson & Onwuegbuzie, 2004).

Choice-based modelling, also referred to as conjoint analysis, was utilised to address the research question. Choice-based modelling is one of many techniques for analysing situations in which a decision-maker has to deal with options that simultaneously vary across two or more attributes (Green, Krieger & Wind, 2001). In a typical choice-based study respondents are asked to choose an alternative from a set of alternatives (a choice set), each of which is a different

combination of levels of a set of various attributes (DeSarbo, Ramaswamy & Cohen, 1995). Each attribute is therefore made up of various levels or specific values describing a factor or attribute. Attributes are general features of a concept, product or service. Conjoint analysis captures the predicament of choice: the perfect combination is rarely available, but lesser alternatives are. Conjoint analysis is a technique typically used to assess the different contributions aspects of a product or service make to individuals in the purchasing decision. In this study it was used to determine how artisans would choose between reward factors and various levels of these factors and the trade-offs they would make amongst them.

Conducting choice-based modelling necessitates two phases: a first phase in which the attributes and levels are identified, and a second in which conjoint tasks are designed. In this second phase, random combinations of attributes and levels are presented to respondents and they are repeatedly asked to choose one combination out of a series of combinations.

Measures

Participants

The artisan target population was defined as any person who worked as a millwright, electrician, plumber, boilermaker, mechanic, fitter and turner, pattern maker or injection moulder (CDE, 2007) within an identified holdings limited company within the fast moving consumer goods (FMCG) environment, as well as any qualified artisan who at one stage during 2011 or 2012 applied for any artisan vacancy at the identified company.

A non-probability sampling method, namely judgement sampling, was used. Also known as purposeful sampling, this is a sampling technique in which the researcher actively selects the most productive sample to answer the research question (Marshall, 1996).

Measuring instruments

Focus group discussions: A focus group discussion was held with a sample of remuneration and human resources managers from a holdings limited company within the FMCG industry ($n = 4$). The purpose of the focus group was to elicit expert opinion on remuneration practices and the ideal rewards composition for the attraction and retention of artisans. A second focus group discussion was held with a sample of artisans to elicit their opinions on remuneration practices and the ideal rewards composition for artisans ($n = 7$). Information from both of these focus group discussions was used to determine the attributes and levels to be used in the conjoint analysis software questionnaire (Questionnaire 2).

The duration for each of the focus group discussions was on average 3 hours and the results and definition for each of the five attributes were decided by a democratic vote.

Questionnaire 1 (total rewards): The first questionnaire was developed using principles of the Hay model and the

WorldatWork total rewards model, and was designed to determine which of the total rewards elements respondents deemed most important when deciding whether to stay with or leave their current organisation (Hay Group, 2002; Pregolato, 2010). Responses were recorded on a five-point Likert-type response scale where 1 represented 'Not at all important' and 5 'Very Important'. The scale comprised 20 questions covering six total rewards elements, namely: (1) quality of work, (2) work-life balance, (3) future growth opportunities, (4) tangible rewards, (5) inspirational values and (6) environment.

Questionnaire 2 (conjoint task): The second questionnaire contained the computer-generated conjoint tasks, which was used to assess the trade-offs respondents make and so establish employee preferences for the ideal composition of total rewards.

Design

Two electronic questionnaires were developed and used to develop the choice-based conjoint task in Questionnaire 2. Conjoint tasks were initially presented followed by 20 Likert-type scale questions (Questionnaire 1). Demographic information was captured in a separate section at the end of the questionnaire and consisted of eight items covering race, age, qualification confirmation, job title, number of years with current employer and division in which artisans were employed.

Both questionnaires were submitted to the University of Cape Town's Commerce Faculty Ethics in Research Committee and ethical approval was granted. The questionnaires were subsequently presented to the executive and human resources managers of a holdings limited company within the FMCG environment and consent was granted to distribute both questionnaires. A hyperlink to the electronic questionnaire was placed in an email and distributed to divisional human resources managers at the FMCG company with a request for them to forward this to the artisans within their respective divisions.

Simultaneously the questionnaire was distributed via email to artisans who during 2011 and 2012 applied for artisan vacancies with the FMCG company. Instructions for completion were included in the body of the questionnaire and directed respondents to click on the hyperlink embedded in the email. Given that online surveys are prone to low response rates (often below 7%) an incentive to participate was offered. A lucky draw was used to encourage participants to complete the survey. To participate in the lucky draw respondents were required to capture their personnel number on the questionnaire. Confidentiality was maintained by ensuring that the respondent's personnel number was not linked to the response data and was only used for the purpose of the lucky draw.

The questionnaire was administered over an 8-week period and took approximately 18 minutes to complete.

Analysis

For analysis purposes the total sample of responses ($n = 154$) was cleaned, resulting in a clean sample of 143 completed questionnaires. The outcomes of Questionnaire 1 were analysed using descriptive statistics and exploratory factor analysis. The outcomes of Questionnaire 2 were analysed using conjoint analysis software. The utilities and part-worths calculated from the estimation process formed the basis of the data analysis. These were used to assess the attractiveness of the various attribute level combinations in order to ultimately determine the ideal total rewards composition for artisans.

Results

Focus groups

Details of the (1) remuneration and HR manager focus group sample and (2) artisan focus group sample are provided in Tables 2 and 3.

Responses provided by focus groups were combined and the results for each of the five attributes were interpreted, as shown in Table 4.

Questionnaire 1 (total rewards)

Descriptive statistics: The race distribution of the sample is summarised in Table 5.

The following groups were combined to ensure a more balanced sample: African, mixed race and Indian employees were combined to form one category – black employees – to indicate race (i.e. creating a black comparison group); see Table 6.

Age groups were combined into adult life development cohorts as defined by Levinson (1986), namely cohort 29 and younger, cohort 30–39, cohort 40–49 and cohort 50+. Details of the age cohorts of the sample are provided in Table 7.

The means and standard deviations of each of the 20 questions across the different demographic groups were assessed and the univariate sample measures of skewness and kurtosis were used. These statistics are generalised to test a hypothesis of multivariate normality. Results suggested that the responses were not normally distributed, describing negative skewness.

The Kolmogorov-Smirnov test for goodness of fit and the Shapiro-Wilk test were conducted. Results of the tests led to

TABLE 2: Focus group of remuneration and human resource managers.

Classification	Frequency	Percentage
Remuneration managers	2	50
Human resource managers	2	50

$n = 4$.

TABLE 3: Focus group of artisans.

Classification	Frequency	Percentage
Electricians	2	28.6
Maintenance fitters	2	28.6
Maintenance supervisors	2	28.6
Maintenance manager	1	14.3

$n = 7$.

the rejection of the null hypothesis (Hypothesis 0 = data was normally distributed for all items), due to the fact that p was less than 0.01 and there was support for the alternative hypothesis (Hypothesis 1 = data was not normally distributed).

The overall results from the descriptive statistics indicate that artisans regard all the elements within the total rewards composition as important (see Figure 3). The research purpose was to further develop the understanding of the total reward factors and the ideal combination and relative amount of total rewards that attract and retain artisans. In doing so, choice-based modelling (conjoint analysis) was conducted to determine the factors (called attributes in conjoint analysis) and the attribute levels that are most important for artisan retention.

Exploratory factor analysis

Exploratory factor analysis was performed to establish the underlying factor structure of the questionnaire that was based on the Hay Group total rewards model as well as the WorldatWork total rewards model (Questionnaire 1). Factor analysis is used to discover patterns amongst the variations in values of several variables. This is done through the generation of factors that correlate highly with several of the real variables and that are independent of one another (Babbie, 1995). In order to conduct a factor analysis the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy should be greater than 0.6 and the Bartlett's test of sphericity should be significant (Pallant, 2004). The KMO measure of sampling adequacy for the factor analysis was 0.83 and the Bartlett's test of sphericity was significant ($p < 0.01$). These results therefore indicated that it was appropriate to conduct an exploratory factor analysis on this data.

In order to determine how many factors should be extracted, only those factors with an eigenvalue greater than 1 were selected (the so-called Kaiser criterion). Most of the strategies that have been proposed to determine the number of components that account for the most variation in a principal components analysis of a correlation matrix rely on the analysis of the eigenvalues and on numerical solutions. Cattell's scree test is a graphical strategy with a non-numerical solution to determine the number of components to retain. Like Kaiser's rule, this test is one of the most frequently used strategies for determining the number of components to retain (Pallant, 2004). Using both Kaiser's rule and an inspection of the scree plot, using Cattell's scree test, confirmed the presence of three factors.

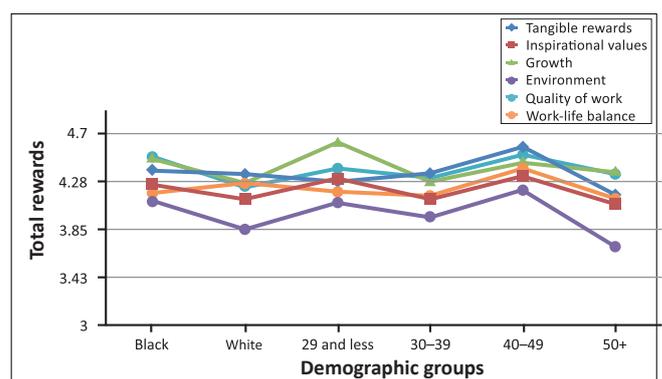
The inclusion criteria used for the factor analysis were that factor loadings needed to be greater than 0.400; if the

difference in factor loadings across factors was less than 0.25 then the item was considered to have cross-loaded. If an item did not meet these criteria it was excluded, and thereafter a new round of factor analysis was conducted. Considering the inclusion criteria, after the first round items Q11 ('The opportunities offered to you by your company for training within your current job, e.g. skills training'), Q1 ('Recognition provided to you by your employer, e.g. financial recognition such as a cash, paid travel'), Q20 ('The provision of recognition via non-financial means, e.g. certificates of recognition') and Q16 ('Your employer's provision of employee health and wellness programmes, e.g. employee assistance programmes, counselling services, fitness centres') were removed as they did not meet the inclusion criteria. After the second round Q10 ('Having supportive and like-minded colleagues') was deleted.

The third round of exploratory factor analysis was accepted as the final factor structure. Table 8 summarises the items within the scale that loaded on three factors and explained 56.56% of the total variance: factor 1 (eigenvalue = 5.11) explained 34.12% of the variance, factor 2 (eigenvalue = 1.78) explained 11.89% of the variance and factor 3 (eigenvalue = 1.47) explained 10.51% of the variance. The factors were labelled: job-related factors, remuneration-related factors and work-life-related factors.

A one-way analysis of variance (ANOVA) was then used to assess the statistical differences between the means of the three factors for race and age groups. Results for race are depicted in Table 9 and results for age are depicted in Table 10.

The results of the one-way ANOVA indicated that no statistically significant difference existed between the



Source: Authors' own creation

FIGURE 3: Means of total rewards for demographic groups.

TABLE 4: Conjoint task for artisans.

Attribute or factor	Level 1	Level 2	Level 3
Compensation (level)	Average market-related base pay	One and a half (1.5) times the average market-related base pay	Twice (two times) the average market-related base pay
Compensation (variable)	13th cheque	Short-term variable performance-related bonus	Long-term retention bonus
Opportunities for growth	On-the-job skills training	Bursaries for further studies towards a qualification	Supervisory or management or leadership training
Environment (physical)	Safe work environment	Safe work environment with the best tools available to do the work	Safe technology and advanced and ergonomically designed factory
Environment (work-life balance)	Shift cycles including weekends	Shift cycles excluding weekends	Regular work hours (8–5) excluding weekends

means for the different demographic groups (race) with respect to job-related factors [$F(2, 139) = 1.666; p = 0.161$], remuneration-related factors [$F(2, 139) = 0.036; p = 0.997$] or work-life-related factors [$F(2, 139) = 0.869; p = 0.484$]. Using the composite black and white groups (reported in Table 6) no significant differences were found when comparing the means for the two groups using independent samples t -tests.

The results of the ANOVA indicated that a statistically significant difference exists between the means for the different demographic groups (age cohorts) with respect to remuneration-related factors [$F(2, 141) = 5.444; p = 0.005$]. To determine where the significant difference was positioned, the Tukey honestly significant difference (HSD) post-hoc test was used. This entails finding the difference between the means of all the groups and comparing the difference in scores. The post-hoc test results indicated that remuneration-related factors were considered significantly more important for age cohort 30–39 and the age cohort 50+ (mean difference = 0.43946; $p < 0.01$). No other significant differences were found.

The overall results indicated that artisans regarded all the elements within the total rewards composition as largely equally important. This suggested that researchers would learn more by conducting a conjoint analysis to determine the reward elements (called attributes in conjoint analysis) that were most important for artisan retention.

Questionnaire 2 (conjoint task)

Choice-based modelling was used to determine which combination of total reward attributes would attract and retain artisans. The results of the choice-based modelling are outlined in the three sections below. The first section provides an overview of the reliability of the conjoint model whilst the second section outlines details of the validity of the model. The third section provides an overview of the relative attribute importance. The ideal composition of total rewards is then identified via the attribute level with the highest

TABLE 5: Categorisation of race of sample.

Classification	Frequency	Percentage
African	53	37.07
Mixed race	30	20.97
Indian	3	2.10
White	57	39.86

$n = 143$.

TABLE 6: Re-categorisation of race sample into black artisans and white artisans.

Classification	Frequency	Percentage
Black	86	60.14
White	57	39.86

$n = 143$.

TABLE 7: Re-categorisation of age sample into adult life development cohorts.

Classification	Frequency	Percentage
29 and younger	24	16.78
30–39	60	41.96
40–49	36	25.18
50+	23	16.08

$n = 143$.

utility. These results are presented on an overall basis as well as per demographic group.

Reliability of the conjoint model: A method of assessing the reliability of the conjoint model is to determine the goodness of fit of the estimation model, which in this study is the multinomial logit (MNL) model. Logit analysis is an iterative procedure to find the solution that is most likely to fit the MNL model to the data. For each iteration, the log-likelihood is reported together with a value of root likelihood (RLH). This is a measure of how well the model fits the choice data (Pregolato, 2010; Sawtooth Software, 2008). A respondent who answers inconsistently will have a low RLH value. The best possible value is 1.0, which means that all choices can be explained by the preference estimates. The worst value for this model would be 0.25 meaning that with four choice sets, a random model would predict 25% of the choices correctly (Eggers, Farsky & Gerber, 2009). An RLH below 0.25 was reported for one respondent. All other respondents were above this value with 0.92 being the highest RLH value. This indicates that there was a high level of reliability for this model.

Validity of the conjoint model: Since one must measure and control many variables in order to validate conjoint results, the validation process relies on hold-out stimuli. A typical hold-out task consists of two or more alternatives from which respondents must choose one. Hold-out stimuli must be designed to ensure that one choice does not dominate in that the characteristics of the task resemble marketplace choices as far as possible (Hair, Anderson, Tatham & Black, 1987).

In the current study validity was established by comparing the actual choice for each respondent in the hold-out task with the predicted choice. The ratio of correctly predicted choices is called the hit rate, which is a common validity measure. The hit rate was determined by using the estimation model to predict the actual choices in the hold-out stimuli, which were identical for each respondent and not used for estimation. The first step in this process entailed calculating the utilities of the three choices (four with the 'none' option) by summing up the utilities of each level within the task. For example: *Alternative 1: util (Average market-related base pay) + util (One and a half [1.5] times the average market-related base pay) + util (Twice [two times] the average market-related base pay) + util (None of these offerings is more attractive than my current employment).*

The predicted choice is the alternative with the highest utility. The ratio of correctly predicted choices is represented by the hit rate (Eggers *et al.*, 2009; Pregolato, 2010).

The hit rate for the conjoint model in this study was 66.4%, which means that the model was able to produce 66.4% correct predictions from the hold-out set. With four alternatives in the hold-out set, a chance model would have resulted in 25% of predictions being correct. As such, a 66.4% hit rate is considered to be good.

Relative attribute importance overall and per demographic group: The range of utilities within each attribute was calculated using the difference between the highest and lowest utilities per attribute, divided by the sum of the ranges across all attributes. Each attribute's utility range was expressed as a percentage of the sum of the utility ranges across all attributes. These percentages provided an indication of the importance artisans attach to the various total reward attributes in their ability to retain (Martins, Loubser & Van Wyk, 1996).

Overall results indicated that three total rewards attributes were consistently deemed to be important in retention. These are: environment (work-life balance), compensation (level) and compensation (variable). The environment (work-life balance) was considered 14.64% more important than compensation (level) within the overall sample, as well as in all the demographic groups, as the relative importance of environment (work-life balance) was on average 37.90% whilst compensation (level) was on average 23.26%.

Variations of the relative importance of attributes can be noted across demographic groups. The race groups indicated differences in the relative importance ascribed to attributes.

The environment (work-life balance) was noted as highest for both black respondents (37.23%) and white respondents (38.62%) in terms of its relative importance in attraction and retention. Few differences were noted across utilities, compensation (level) and compensation (variable), with black respondents indicating relative importance of compensation (variable) (23.75%) as opposed to compensation (level) (22.75%). White respondents indicated relative importance of compensation (level) (23.81%) as opposed to compensation (variable) (21.54%). In addition, few differences were noted across utilities, opportunities for growth and environment (physical), with black respondents indicating relative importance of opportunities for growth (10.34%) as opposed to environment (physical) (5.93%). White respondents indicated a relative importance of environment (physical) (9.17%) as opposed to opportunities for growth (6.86%).

The age group cohorts indicated differences in the relative importance ascribed to attributes. The environment (work-life balance) was noted as highest for age cohort 29 and younger (40.74%), age cohort 30–30 (39.11%), age cohort 40–49 (32.85%) and age cohort 50+ (41.88%) in terms of its relative importance in retention. Few differences were noted

TABLE 8: Factor analysis for total rewards scale.

Pattern mix description	Total rewards scale		
	1	2	3
The level of challenge and interest you derive from your job	0.738	-	-
The quality of performance feedback and performance discussions you have had with your supervisor	0.715	-	-
The opportunities offered to you by your company for career advancement (e.g. job advancement, promotions, internships and apprenticeships with experts, internal job posting)	0.654	-	-
The opportunities offered to you by your company for learning and career development outside of your current job (e.g. sabbaticals, coaching, mentoring, leadership training)	0.621	-	-
The extent to which you are provided with challenging targets	0.603	-	-
The extent to which you believe your contribution and work is valued	0.544	-	-
The provision of a competitive pay package (i.e. basic salary plus benefits, allowances or variable pay)	-	0.805	-
Your employer's provision of medical aid, retirement and pension benefits	-	0.73	-
Your employer's provision of incentive bonuses or variable pay	-	0.608	-
The degree to which your employer encourages and organises team building or other social networking activities amongst employees	-	-	0.634
Having social friendships at work	-	-	0.594
The extent to which your employer supports a balanced lifestyle (between your work and personal life)	-	-	0.57
Your employer's provision of work-life programmes such as flexible working arrangements and flexible hours	-	-	0.547
Having a manageable workload and reasonable work pace	-	-	0.523
The extent to which your employer respects differences in race, gender and age	-	-	0.399
Eigenvalues	5.11	1.78	1.57
Percentage variance	34.12%	11.89%	10.51%

TABLE 9: Analysis of variance: Race groups.

Factors	Groups	Sum of squares	df	Mean square	F	Significance
Job-related factors	Between groups	1.88	4	0.47	1.666	0.161
	Within groups	39.202	139	0.282	-	-
	Total	41.082	143	-	-	-
Remuneration-related factors	Between groups	0.056	4	0.014	0.036	0.997
	Within groups	53.055	139	0.382	-	-
	Total	53.11	143	-	-	-
Work-life-related factors	Between groups	1.54	4	0.385	0.869	0.484
	Within groups	61.564	139	0.443	-	-
	Total	63.104	143	-	-	-

across utilities, compensation (level) and compensation (variable), with age cohort 50+ indicating relative importance of compensation (variable) (36.32%) as opposed to compensation (level) (12.52%). All other age cohorts indicated relative importance of compensation (level) as opposed to compensation (variable).

In addition, few differences were noted across utilities, opportunities for growth and environment (physical), with the age cohort 30–39 indicating relative importance of opportunities for growth (12.33%) as opposed to environment (physical) (5.40%). All other age cohorts indicated relative importance of environment (physical) as opposed to opportunities for growth. The results are summarised in Table 11.

The ideal composition of total rewards overall and per demographic group: To determine the total reward composition that was most preferred, the levels of attributes were evaluated for desirability by respondents (Smith & Albaum, 2005). Utilities were recalculated across levels 1–3 for each attribute. The level with the highest utility per attribute was regarded as the most preferred option in terms of its ability to retain. Once the highest utility had been identified, the ideal composition emerged per grouping.

The results indicated the following overall preference with respect to the ideal total rewards composition. Level 3 produced the highest utilities for the following attributes: environment (work-life balance): regular work hours (8–5) excluding weekends, compensation (level): twice (two times) the average market-related base pay, opportunities for growth: supervisory, management and leadership training, environment (physical): safe technology and advanced and ergonomically designed factory. Level 1 produced the highest utilities for the following attribute: compensation (variable): 13th cheque.

Variations of the ideal total rewards composition can be noted across demographic groups. The race groups indicated

differences for black respondents in relation to Level 3. They preferred Level 2 for attribute environment (physical): safe work environment with the best tools available to do the work.

The age cohort groups indicated differences for some age cohorts in relation to Level 3. Age cohort 50+ preferred Level 2 for attribute compensation (level): one and a half (1.5) times the average market-related base pay. Age cohort 29 and younger preferred Level 2 for attribute opportunities for growth: bursaries for further studies towards a qualification. Age cohort 30–39 and age cohort 50+ both preferred Level 2 for attribute environment (physical): safe work environment with the best tools available to do the work. The results are summarised in Table 12.

Discussion

Outline of the results

In the current study choice-based modelling produced an ideal composition of total rewards in which three reward elements were consistently classified as highly valued and important in the retention of artisans. The results indicated that environment (work-life balance) is perceived as most important for artisans (37.90%), followed by compensation (level) and then compensation (variable). In particular, 8–5 work hours and not working on weekends was consistently ranked highest across all cohorts.

These findings are not consistent with the findings of Jordaan and Barry (2009) and Van Rooyen, Du Toit, Botha and Rothmann (2010), who found remuneration to be the most important factor for artisan retention. According to the Corporate Leadership Council (2012), there have been major shifts in the drivers of attrition and retention during the last few years and employees are citing compensation much less. According to Chew (2005), traditional approaches that rely heavily on competitive remuneration often have limited success in employee retention in the medium to long term.

Compensation (level) as presented in the conjoint task was considered to be the second most valued reward element

TABLE 10: Analysis of variance: Age cohorts.

Factors	Groups	Sum of squares	df	Mean square	F	Significance
Job-related factors	Between groups	0.405	2	0.202	0.702	0.497
	Within groups	40.677	141	0.288	-	-
	Total	41.082	143	-	-	-
Remuneration-related factors	Between groups	3.807	2	1.904	5.444	0.005
	Within groups	49.303	141	0.35	-	-
	Total	53.11	143	-	-	-
Work-life-related factors	Between groups	0.425	2	0.213	0.478	0.621
	Within groups	62.679	143	0.445	-	-
	Total	63.104	143	-	-	-

TABLE 11: Ranked attributes overall and per demographic group.

Ranking	Overall	Black artisans	White artisans	Age cohort 29 and younger	Age cohort 30–39
1	Environment (work-life balance)				
2	Compensation (level)	Compensation (variable)	Compensation (level)	Compensation (level)	Compensation (level)
3	Compensation (variable)	Compensation (level)	Compensation (variable)	Compensation (variable)	Compensation (variable)
4	Opportunities for growth	Opportunities for growth	Environment (physical)	Environment (physical)	Opportunities for growth
5	Environment (physical)	Environment (physical)	Opportunities for growth	Opportunities for growth	Environment (physical)

in the total rewards composition, except for the black and 50+ groups, who chose compensation (variable) (i.e. 13th cheque). The groups chose the highest salary level (twice the average market salary) as the preferred level of the attribute. These findings partially support the literature, especially the findings of Jordaan and Barry (2009), who found that the salary levels for artisans across industries are perceived to be low and that salary levels are perceived to be an important employment factor that is linked to the retention of artisans.

The results of the current study could be ascribed to a number of factors, the first being the current economic recession in South Africa, which has been characterised by growing levels of unemployment and increasing numbers of retrenchments across various industries, leaving a workforce whose job stability is threatened. In this environment, it is likely that artisans may value those rewards that are tangible and sustain basic or life needs. Secondly, artisan skills are rapidly becoming so scarce that organisations will go to extraordinary lengths to attract and retain them. Anecdotal data suggests that artisans know that they are in demand and continuously shift to higher paying sectors in the economy.

Compensation (variable) as presented in the conjoint task was considered to be the third most valued reward element in the total rewards composition for all groups except the black and 50+ groups. These findings partially support the literature, especially the findings of the Hay Group's 2010 report (Hay Group, 2010), which found that variable pay programmes contributed significantly to employee commitment. Bussin (2011) also identified variable pay as a key component of a remuneration treatment for scarce skills that includes pay components such as a performance incentive scheme or a reward and recognition scheme. Despite various offerings defined within the compensation (variable) context of the conjoint task, the results of the study indicated that artisans prefer a 13th cheque above short-term variable performance-related or long-term retention bonuses. The results of the current study could also be ascribed to the current economic recession in South Africa where it is likely that artisans may value those rewards that are tangible and sustain basic or life needs.

Overall, opportunities for growth as presented in the conjoint task were considered to be the next most valued reward element

in the total rewards composition. These findings partially support the literature, especially the findings of the Corporate Leadership Council (2012), which ranked future career opportunity as the number four employee value proposition driver of attraction in their South African Workforce Insight 2012 report. This is contrary to much of the literature, for example the Towers Perrin (2003) report, which indicated that career advancement opportunities were amongst the top two reward elements that retained employees.

Lastly, overall the environment (physical), as presented in the conjoint task, was ascribed the least importance in the overall total rewards composition. These findings partially support the literature of Van Rooyen *et al.* (2010), who in their study on artisan retention also found the work environment to be the fifth ranked reward element. McCarthy and Schreyer (2000) state that employees want to work in clean, comfortable surroundings and that they are much happier and more satisfied if their surroundings are neat, orderly and clean. Kaye and Jordan-Evans (2002) found that a better working environment was important and that it is a factor worthy of investigation by organisations. Differences in the various cohorts were observed in terms of the fourth and fifth ranking of the attributes opportunities for growth and environment (see Table 11). In addition, differences for cohorts were observed in terms of the levels of these attributes (see Table 12).

Rewards that retain employment equity candidates

The drive to address employment equity in South Africa and thereby redress past imbalances has increased the need to retain artisans from designated groups (Bussin, 2011). In the current study, the conjoint task produced an ideal composition of total rewards (graphically represented in Figure 4) for black artisans.

The race groups indicated differences in the relative importance ascribed to attributes. The environment (work-life balance) is noted as highest for black respondents (37.23%) in terms of its relative importance in retention. Few differences were noted across utilities, compensation (level) and compensation (variable), with black respondents indicating relative importance of compensation (variable)

TABLE 12: Ranked levels of reward attributes overall and per demographic group.

Ranking	Overall	Black artisans	White artisans	Age cohort 29 and younger	Age cohort 30–39	Age cohort 40–49	Age cohort 50+
1	Regular working hours (8–5) excluding weekends	Regular working hours (8–5) excluding weekends	Regular working hours (8–5) excluding weekends	Regular working hours (8–5) excluding weekends	Regular working hours (8–5) excluding weekends	Regular working hours (8–5) excluding weekends	Regular working hours (8–5) excluding weekends
2	Twice (two times) the average market-related base pay	13th cheque	Twice (two times) the average market-related base pay	Twice (two times) the average market-related base pay	Twice (two times) the average market-related base pay	Twice (two times) the average market-related base pay	13th cheque
3	13th cheque	Twice (two times) the average market-related base pay	13th cheque	13th cheque	13th cheque	13th cheque	One and a half (1.5) times the average market-related base pay
4	Supervisory or management or leadership training	Supervisory or management or leadership training	Safe technology and advanced and ergonomically designed factory	Safe technology and advanced and ergonomically designed factory	Supervisory or management or leadership training	Safe technology and advanced and ergonomically designed factory	Safe work environment with the best tools available to do the work
5	Safe technology and advanced and ergonomically designed factory	Safe work environment with the best tools available to do the work	Supervisory or management or leadership training	Bursaries for further studies towards a qualification	Safe work environment with the best tools available to do the work	Supervisory or management or leadership training	Supervisory or management or leadership training

(23.75%) as opposed to compensation (level) (22.75%). These findings partially support the study of reward elements drawn from the WorldatWork (2007) model, which indicated that black employees deemed performance and recognition (compensation, variable) to be more important in their retention than white employees.

Black respondents also preferred Level 2 for attribute environment (physical): safe work environment with the best tools available to do the work, as opposed to Level 3 for environment (physical): safe technology and advanced and ergonomic designed factory. Previous studies of total rewards that attract and retain black artisans in relation to work environment factors in South Africa could not be found to compare these results.

Rewards that retain employees of different age groups

The emphasis on work-life balance, as opposed to career advancement in the 29 and younger age cohort may be a result of the change in psychological contract that occurred in the post-1980's trends of recessions, downsizing and reorganisation. The current contingents of Generation Y employees are likely to have witnessed their parents being loyal to an organisation and placing their career first to the detriment of other aspects of their life. Generation Y employees may therefore wish to adopt a different work ethic to that of their parents (Pregolato, 2010). In addition, Hershatter and Epstein (2010) emphasise the value that Generation Y place on work-life balance and confirm that it comes from a societal shift towards more focus on families, which could be linked to the social environment.

The current literature corroborates Levinson's theory in that the artisan during this period of their life development is in the process of establishing a niche in adult society in the areas of life, namely (1) family, (2) work and (3) leisure. Opportunities for growth were considered to be the fourth most valued reward element in the total rewards composition for this age cohort. However, the percentage allocated to this attribute (12.33%) is the highest of all the age cohorts and

partially supports the literature on career advancement. In addition, Bussin and Spavins (2009) investigated employees of different age groups and established that this age group cohort valued base pay or compensation level to be the second most important element in a total reward composition, which supports the current literature.

The findings of the current study support previous research, which indicates that Generation X employees value work-life balance as a retention tool (Gursoy, Maier & Chi, 2008). The current study also corroborates the findings of the Towers Perrin (2003) survey, in which base salary and variable pay were identified as factors that retained Generation Y employees (Bussin, 2002).

Artisans within the 50+ age cohort placed different importance on the various rewards, relative to those in other career stages. With age, factors such as health, outside interests, family and other responsibilities may have a greater and more diverse effect on individual motivation than in earlier years. Greller and Simpson (1999) and Near (1984) examined the extent to which older individuals may develop a greater orientation towards improved work-life balance, the role played in this by spouses, particularly in relation to establishing a retirement date, and the role of external responsibilities and obligations such as providing financial support and care for older dependants or grandchildren.

Compensation (variable) was considered to be the second most valued reward element in the total rewards composition for the 50+ age cohort. These findings are not consistent with the findings of Bussin and Spavins (2009), which were that compensation (variable) is to be considered less important for this age cohort as opposed to compensation (level).

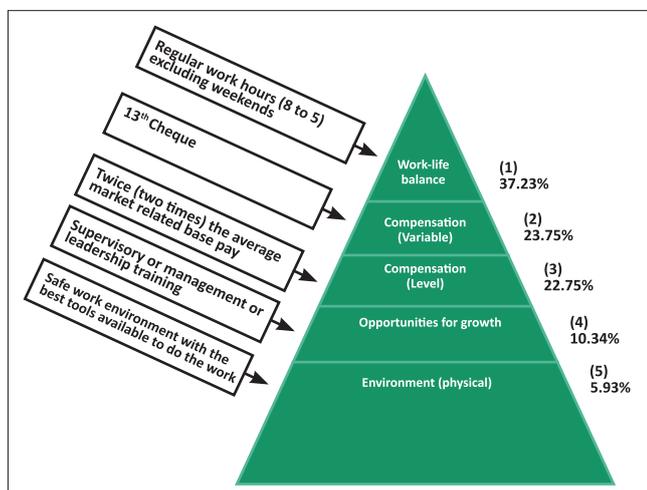
Consistent with the current research, a study by Warr and Fay (2001) found that older employees exhibited less education initiative than younger ones. Whilst it has traditionally been held that older managers must keep developing in order to remain promotable this may not act as a motivator for individuals if they perceive themselves as already plateaued or destined to soon become so (Warr & Fay, 2001).

Practical implications

The identification of both the combination and relative amount of total rewards that attract and retain artisans will allow organisations to create differentiated retention strategies. The findings of this research provide guidance to companies with respect to those factors that should be incorporated into differentiated retention strategies catering for the needs of specific demographic groups (race and age cohorts).

Limitations and recommendations

In terms of future research, it is recommended that artisans from various organisations and in different industries be studied in order to obtain a more representative sample.



Source: Author's own creation

FIGURE 4: The ideal composition of total reward elements for black artisans.

Future research should focus on the various cohorts as defined by the Hay model within the attribute environment (work-life balance) to better understand how these cohorts will impact on the total rewards composition.

Conclusion

Managers need to understand and incorporate individual differences in the workplace as these differences collide at the core elements of managing, recruiting and retaining the best employees, setting performance standards and expectations, motivating employees and constructing reward systems. It is no longer sufficient to approach the retention of artisans using one standardised retention strategy. When engaging with artisans, employers may find that these employees do not truly desire certain costly financial benefits and may rather have a greater need for non-financial benefits that may be less expensive (Grobler *et al.*, 2002).

The aim of the current study was to develop an understanding of the total rewards composition that attract and retain artisans across different demographic groups, including race and age cohorts within a South African context. The results of the study indicated that environment (work-life balance) is perceived as most important for artisans, followed by compensation (level) and then compensation (variable).

This research study adds to the body of knowledge by further facilitating differentiated retention strategies, which provide an indication as to the amount and the type of reward elements that are perceived to be most valued by artisans within a total rewards composition derived from a novel and useful method. This method is based on a more realistic approach, which has higher fidelity compared to the traditional approaches used to study this research question.

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Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Authors' contributions

A.S. (University of Cape Town) was the principle investigator and was responsible for the design and execution of the project, C.F. (University of Cape Town) was responsible for fieldwork and writing up the research and M.B. (University of Johannesburg) contributed to the preparation of the manuscript.

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