

Millennial engineers: talent management expectations and needs in an African mining corporation

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Abstract

The continuous recession in Africa, and the influence it has on the mining industry, has many challenges due to the inimitable conditions in Africa.

The purpose of the study was to identify the unique talent management expectations of millennial engineers in an African mining company. The population for this included all engineers employed in the company. Different commodities are mined and consist of copper, cobalt, coal, platinum, fluorspar, bauxite and other non-ferrous divisions. The countries under study were Malawi, the Democratic Republic of the Congo, Zimbabwe, Zambia, Mozambique and South Africa.

A total of 487 questionnaires were distributed to the different mines via the SurveyMonkeyTM website with a response rate of 51%. 56% were employees under the age of 36 years old which are considered as the millennial generation.

A principal axis factor analysis was conducted to determine the most important factors regarding the needs and expectations of the millennial generation. An analysis of variance (ANOVA) was used to assess whether there were differences between subgroups on the different factors.

The results specified the importance of work values, motivation and retention in the company under study. Suggestions are drawn to address the needs and expectations as identified by the millennial generation.

Key phrases

Engineers; millennial generation; retention; work values

1. INTRODUCTION

Unremitting skills shortages, the shifting demographics of the labour force, its ever-increasing multiplicity, work-life balance schemas and the continuous recession have steered an extremely inflexible labour market. This resulted in increased competition from organisations for individuals who are capable of making the greatest of differences to organisational performance. Various research projects and reports (Lim 2012a:25; Osae, Faunconnier & Webber-Youngman 2011:864; Price Waterhouse Coopers 2011:12) indicate that although the mining industry is a technologically demanding industry, investment in employees is the actual key to sustainable organisational growth.

This contemporary relationships in the African mining industry necessitates urgent attention, as its focus is predominantly on production of natural resources rather than on relationships with employees (Chartered Institute of Personnel & Development 2013:6).

The research objectives for this study are to determine the talent management (TM) expectations and needs of millennial engineers in an African mining corporation.

2. LITERATURE REVIEW

The focal objective of the literature review is to ascertain talent management factors, which are professed as expectations and needs of millennial engineers. To address this issue the definition of millennials, work values, work motivation, attraction and retention will be outline.

2.1 Definition of millennials

Retaining the best employees is a dynamic component to organisational success (Luscombe, Lewis & Biggs 2013:272). The millennial generation, also referred to as Generation Y, dot.com generation, nexter's and echo boomers (Broadbridge, Maxwell & Ogden 2007:528; Martin 2005:41) has been denoted as totally different from previous generations (i.e. generation X, baby-boomers).

For the purpose of clarification on the various generations Lim (2012a:282) identified five generation groups according to the years they were born in: Traditionalists (1925-1945), Baby boomers (1946-1964), Generation X (1965-1979), Millennials (1980–1999).

The millennial generation's wants, needs and expectations are very different from the previous generations. According to Luscombe, Lewis and Biggs (2013:275) as well as Raymond and Yeng (2016:84), the millennial generation's goal expectations in the workplace relate to job flexibility. They do not see themselves as keeping a job for a lifetime, for many of them a long term position at one organisation is maximum a year.

This typically stems from their risk-taking characteristics and the tendency of continued parental support. Bolton, Parasuraman, Hoefnagels, Migchels, Kabadayi, Gruber, Loureiro and Solnet (2013:252) agree, and add that the millennial generation are also referred to as the "Peter Pan Generation", as they tend to postpone entering adulthood.

Broadbridge *et al.* as cited by Luscombe *et al.* (2013:275) are of the opinion that this generation needs significant responsibility and challenges in a workplace, with openness to creativity, clear directions and an open management style - where they are not micromanaged – and with praise on a continuous basis (Bolton *et al.* 2013:253). Millennials value and expect mentoring and career development, partly because of flexibility and they want to remain marketable in their respective industries (Guillot-Soulez & Soulez 2014:324).

2.1 Work values

Lindquist, as cited by Luscombe *et al.* (2013:274), emphasises that the policies and procedures used to employ the best candidates from previous generations are likely to be relatively ineffective with millennials. The most important work values as indicated by Lim (2012b:26) are that the millennials prefer a work environment where they have opportunities for training and development, maintenance of a work-life balance and high responsibility.

Chen and Choi (2008:601) agrees and also adds that millennials thrive on challenging work, goals are driven, expecting rapid promotion, have high expectations of employers and they challenges the status quo. According to Lim (2012b:284), general life experiences of millennials are a contributing factor to their work values.

Fernandes, Hyde, Ives, Fleischer, Evoy and Van Marrum (2011:5-6) give insight into the changed work values of millennials from previous generations are because of their family's influence in work values. The millennials understanding of work values are influenced by their parents' employment and economic situation. Kaufmen (2004:105) adds that the

generation under study's perceptions of parental work attitudes and experiences greatly influence the development of their own work beliefs and attitudes.

2.2 Work motivation

Theories of work motivation provides a framework for organisations to ensure their employee's "drive to work" and to increase their enthusiasm to perform their jobs thoroughly and well. Cran (2010:6-7) identified factors which relate to work motivation factors for millennials, these include: personable and friendly relationships within the working environment; team activities; being part of activities in which the company supports the society; green projects are motivating and inspiring for these employees.

According to Kultalahti and Viitala's (2014:572) research it clearly emphasised that millennials prosper on both intrinsic (performing a job because the employee finds it stimulating, interesting and satisfying) and extrinsic motivators (performing an activity for instrumental reasons e.g. remuneration).

Empirical research specifies that millennials rated engagement, job satisfaction and organisational commitment to be ominously lower than groups of other generations (Solnet, Kralj & Kandampully 2012:38). College as cited by Acar (2014:14) defines extrinsic motivation as something that employees do that leads to a distinct outcome, for example outside inspiration of rewards are earned from *performing well* on a job, rather than the actual gratification of the job.

Catania and Randall (2013:34) and Kultalahti and Viitala's (2014:572) found that younger employees are more concerned with extrinsic rewards, especially financial factors. Supported by Acar (2014:16), the top criteria for the millennial age group, to apply and accept a position, are salary, benefits and potential for advancement. Similar studies that support the notion of extrinsic motivational factors being important to the millennium generation are Anantuatmula and Shrivastav (2012:14); Kian and Yusoff (2012:13); Luscombe and Biggs (2013:274); Masibigri and Nienaber (2011:6);

2.3 Attraction

According to Bolton *et al.* (2013:247-248) and Huybers (2011:26) a large number of the baby boom and traditionalist generations are in the position to retire at an early age over the next few years. The millennials are still more a less a decade away of filling these gaps in management. Which leaves organisations in a predicament of less workers available to replace the retired employees. Companies will continue to fail financially, if they are not proactive in their recruitment policies and systems to attract this dynamic generation (Dupre 2013:Internet).

Millennials were exposed to technology from birth, living in both a human and technological world. Huybers (2011:27); Lim (2012b:26) indicate that advertisements for this generation should have a foot in both of these worlds. Recruitment must be driven by a marketing strategy; only advertising positions on an organisational website only will not be sufficient.

A recruitment strategy should involve social media such as a “blogosphere” and even “internet-games”. Millennials are a “digital native” group who wants to apply and receive immediate feedback. Online-application processes (e-recruitment), should be streamlined and to the point. Tulgan (2009:23) postulates that millennials are looking at several things when applying for a job which includes the following: “performance based compensation; flexible work schedules; flexible work locations; marketable skills; access to decision makers; personal credit for results achieved; a clear area of responsibility and the chance for creative expression”. By incorporating these eight factors, organisations should have a better chance of recruiting talented millennials.

2.4 Retention

Retention of talented staff is a key feature in an organisation and is often overlooked. Losing talented individuals is a significant cost for every organisation, as companies invest in developing skills, competencies and knowledge. As mentioned before there is an agreement that the millennial generation’s needs are different from those of previous generations in terms of their work-related characteristics, therefore to secure this generation in the organisation, policies and procedures that are previously used to recruit and retain employees, will not be successful (Luscombe & Biggs 2012: 273).

According to the 2013 survey in the mining and industrial sector (Hay Group 2013), a key challenge regarding extremely talented employees is to keep their interest and motivation levels high, to encourage them to perform and to generate new ways of working that will have a powerful impact on the bottom line of the business. Mining organisations must identify and retain internal talent by providing training and development and launching succession and professional development programmes (Dickie & Dwyer 2011:337).

Armstrong (2012:245); Bairi, Manchar and Kundu (2011:154); Berger and Berger (2011:536); Gbervbie (2010:63-64), indicate various factors that have an influence on retention but focus on the most important as the role of the employee's immediate manager, engagement, remuneration, succession planning as well as developmental opportunities and the need for challenging and meaningful work. Bairi *et al.* (2011:49) believe that making employees happier and healthier (e.g. healthcare benefits and free employee assistance programmes) increases their effort, contributions and productivity.

Berger and Berger (2011:299) emphasise that organisations should not underestimate the value of health care, paid vacation and retirement plans as retention factors. Huybers (2011:30) agrees and adds that millennials can be retained with mentors that is provided to them, at least for the first six months after employment. They expect from the mentor to take responsibility during the induction programme and initials training.

A mistake that employers make, is that they spend a lot of time and effort into hiring a new employee, and then immediately thereafter let them jump into a new depressing, non-supportive environment. A further contribution by Deery, Jabo and Fredline (2012:65) is the important role that a psychological contract between the employee and employer, plays in retention of millennials.

According to a researched study done by Marais (2013:43) on generation Y engineers in South Africa, it was found this generation "value gaining practical engineering experience on actual engineering sites, involvement in engineering design, learning, training and development, mentoring, work-life balance and the ability to manage their own career development.

Travelling, making a contribution and making a difference in the organisation were also seen as important". Gruber's (2008:58-59) study among engineers working in a South African

consulting company found that respondents were more likely to stay at the company when they were motivated at work, they were satisfied, aligned with the corporate culture and value system, adequately remunerated, able to enjoy sound relationships with superiors, learning in a learning organisation, challenged at work, autonomous and able to satisfy higher order needs outside their work life.

3. RESEARCH METHODOLOGY

The research questions were:

- What are the main need and expectations of millennial engineers in an African mining corporation?
- What are the main factors contributing to the retention of millennial engineers in an African mining corporation?

3.1 Type of research

In the underlying research, a quantitative research approach was used. Berger and Berger (2011:288) define quantitative research as "... research within the primary aim of establishing casual relationships between variables".

The research was conducted in the social world. The advantages of quantitative research are as follows: "Researchers can gather data from a large quantity of people concurrently and from various places or sites; comparisons can easily be made, since standardised wording and order of questions mean responses can be compared and respondents can answer from their point of view by selecting what is applicable to their situation" (Lawler 2008:104).

3.2 Measuring instrument

To obtain relevant information regarding the needs and expectations of millennial engineers in a mining company in Africa, it was decided to make use of a questionnaire to gather data. An integration of the literature review, the international organisational strategy and the business plan of the mining group under study led to the design of the questionnaire.

It was decided to make use of a 4-point forced Likert scale, to “force” definite choices from the respondents; consequently, the researcher was able to make scientific meaning out of the data as there are no neutral responses (Filipowich 2011:Internet).

The initial questionnaire consisted of 29 questions to determine factors that influence recruitment and retention. The Cronbach’s alpha was utilised to measure the reliability of the questionnaire. Input was given by ten human resources experts in the management field to ensure face validity.

3.3 Population and sampling

The African mining is of great interest to the researcher due to its diverse and interesting nature. Contact was made with the director of HR: Africa, where the potential study was discussed and approved.

The population for this study included electrical, civil, mechanical, geotechnical, architectural and chemical engineers at 14 sites in the natural resources mining company in Africa. Different commodities are mined, such as copper, cobalt, coal, platinum, fluorspar, bauxite and other non-ferrous metals. The countries under study were Malawi, the Democratic Republic of Congo, Zimbabwe, Zambia, Mozambique and South Africa.

A census (non-probability) sample of 487, which included only engineers at all the mining sites in Africa was selected. The sample included engineers of diverse age groups. With the company being in operation less than 6 years and the various bursary schemes and internships offered to students, the assumption was made that most engineering employees would fall into the millennial age group. This was verified in the results were 56% of respondents were under the age of 36 years old. Questionnaires and letters of consent were distributed via the SurveyMonkey™ website. After two weeks, 396 completed questionnaires were received back from the participants, indicating a response rate of 51%.

3.4 Data analysis

A principal axis factor analysis was utilised to reduce the large number of variables to a smaller number of factors for the purpose of identifying the needs and expectations of millennial engineers. Although engineers of various age groups were included in the

research, the focus was mainly on the millennial engineers. The factor loadings are the correlation coefficients between the variables (rows) and factors (columns).

An oblique rotation was performed, and pattern and structure matrixes were provided. The pattern matrix was used to investigate the factors for the study; thus, only unique contributions of coefficients were identified. The analysis of variance (ANOVA) was used to determine whether differences exist between two or more population means (Keller 2012:93).

This method analyses the variance of the data to determine whether it can be conditional that the population means differ. A *post hoc* procedure was used to explore the data to determine whether there are any differences between means. *Post hoc* tests consist of pairwise comparisons that are designed to compare all different combinations of groups (Field 2012:Internet). A t-test was done in the cases where only one independent variable was available. A correspondence analysis was completed to determine systematic relations between different independent variables.

4. RESULTS

The descriptive and inferential statistics will now be discussed.

4.1 Biographical information

In terms of the age distribution 56% were employees under the age of 36 years old. The majority of respondents were males (77.3%), while 22.7% females. The majority (50.5%) of the respondents were black, 35.9% were white followed by 9.1% Indian and 4.0% coloured. Various engineering qualification were obtained as follows: 39.8% acquired a National Diploma; 32.9% obtained a degree and 27.3% has post-graduate qualification. The majority of workers were employed on a permanent basis (60.9%), 30.3% were full-time expatriate employees and 8.1% were employed on fixed-terms contracts.

A total of 36.4% are citizens from the Democratic Republic of the Congo (DRC), 17.3% from Zimbabwe, 13.0% from Zambia, 15.3% from Mozambique and 10.5% from Malawi. Of the respondents, 7.5% was citizens from other countries such as Britain, Russia and France.

At the time of the study the mining company was less than 6 years in operation – this was substantiated by the fact that 75.1% of respondents had two years or less service within this mining company.

4.2 Factorial structure of the questionnaire

The four factors are identified by the principal factor analysis as: factor 1: work values; factor 2: motivation; factor 3: retention and factor 4: recruitment (Table 1).

TABLE 1: Factorial structure for 4 factors

	Fact 1 Work values	Fact 2 Moti- vation	Fact 3 Reten- tion	Fact 4 Recruit- ment
On the job I have sufficient opportunity to use my personal talents and initiatives	0.785			
At work there seems to be an honest interest in my personal life	0.640			
We can criticise the work regulations and our criticisms are heard	0.516			
At work I am doing stimulating work	0.408			
For a large part I determine how I work	0.585			
We have a lot of freedom of choice when it comes to the tasks we have to do	0.790			
When doing my work I use a lot of creativity and inventiveness	0.832			
In the company they believe in me		0.650		

Our ideas and interests are taken seriously by executive staff		0.500		
I know very well what my strong points are		0.409		
In the company a lot of the time the focus is on my strengths		0.708		
When I want to learn something that can be useful in the workplace, I take initiative		0.844		
I am allowed to take my own initiatives in the work I do		0.790		
I am allowed to accept complex and challenging tasks		0.840		
I will be able to advance in my career			0.810	
I am positive about the future of the organisation			0.528	
I get the feeling of achievement from doing my job			0.403	
I am fairly paid for the work I am doing			0.720	
I am satisfied with my working conditions			0.697	
My colleagues are willing to share information			0.559	
I get recognition for the work I do			0.695	
I have the opportunity to gain personal growth and development doing my job			0.699	

Rewards are given when certain milestones is achieved			0.840	
I have the opportunity to work independently			0.482	
I have been consistently informed of the various interviewing/hiring steps throughout the recruitment process				0.406
I have been given the results of my interview in a timely manner				0.606
The brand of the mining company attracted me to apply for the position				0.842
The position's responsibilities and requirements were effectively communicated to me				0.621
I was treated respectfully and fairly during the recruitment process				0.820

Source: Calculated from survey results

A principal axis factor analysis with a direct oblimin rotation was performed on the 29 closed-question items to investigate the grouping of items and their correspondence to the original theoretical scales.

As per Table 2, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.919. The KMO should be 0.60 or higher in order to proceed with factor analysis. Bartlett's test of sphericity with 0.000 is significant ($p < 0.05$) and indicates sampling adequacy (Salkind 2014:195-196).

TABLE 2: Results of the Kaiser-Meyer-Olkin measure of sampling adequacy and Barlett's test of sphericity

KMO and Bartlett's test		
KMO measure of sampling adequacy		0.919
Bartlett's test of sphericity	Approx. chi-square	4278.804
	Df	465
	Significance	0.000

Source: Calculated from survey results

All individual items contributed well to the overall reliability of the instrument. In Table 3, the Cronbach's alpha for each of the identified factors (alpha = 0.815) indicates high reliability.

TABLE 3: Cronbach's alpha item analysis for the 4 factors

Factor description	Cronbach alpha if item deleted
Work values	0.809
Motivation	0.815
Retention	0.816
Recruitment	0.820
Cronbach alpha for combination of factors	0.815

Source: Calculated from survey results

Figure 1 indicates the importance of the four recognised factors. According to the respondents the most important factor is work values (3.93), followed by retention (3.40). Motivation (3.04) is important but recruitment (2.05) is less important.

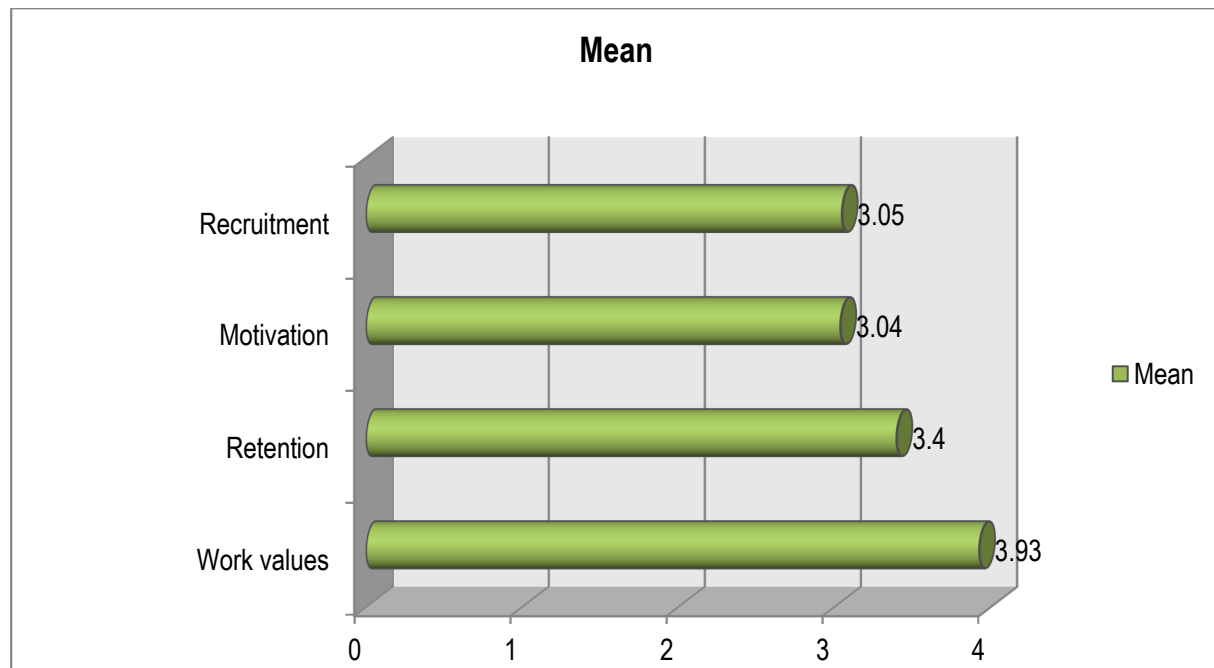


FIGURE 1: Mean score per factor

Source: Calculated from survey results

4.3 Analysis of variance (ANOVA)

The subgroups were formed by the different demographic variables. Interesting results are discussed with reference to the four identified factors and the importance thereof.

According to Figure 2, the most important factor for the millennials is work values (4.3), this age group are of the opinion that retention (3.8) is also imperative to them. Motivation (2.6) tends toward being central, but it is interesting to note that recruitment (1.9) shows a far lesser part of importance.

For the age group of 31-40 years the most important factor is motivation (3.5) and the least important factor is again recruitment (1.8). The group with ages between 41 and 50 years values the importance of retention (3.2). Motivation (3.4) and work values (.9) were identified as important to the age group above 50.

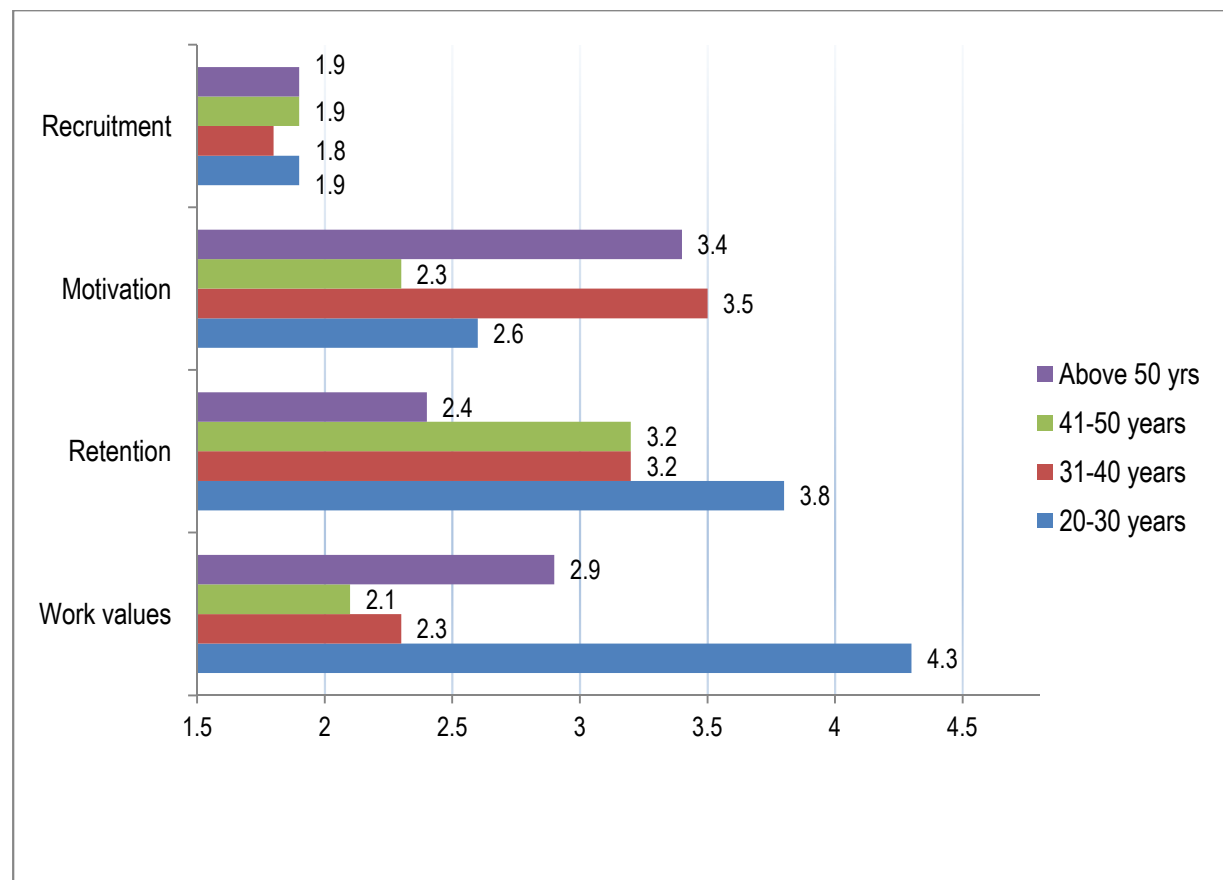


FIGURE 2: Means plot for 4 factors among the different age groups

Source: Calculated from survey results

There is a high correlation between the literature review and the results regarding age groups. Millennial employees find work values (such as a work environment where they have opportunities for training and development, maintenance of a work-life balance and high responsibility, challenging work, goals driven, expecting rapid promotion, high expectations of employers) highly valuable (Chen & Choi 2008:601; Lim 2012b:26 & 284).

As the age of the employees increase, work values become less important but motivation more important. Older employees (especially above 50 years old) are near the end of their careers and therefore value other factors such as motivation as much more important.

In Table 4, Pearson's correlations are depicted for retention, motivation and work value factors. Correlations were found between age groups for retention ($r = 0.101$), work values ($r = 0.131$) and motivation ($r = 0.120$).

TABLE 4: Pearson correlation analysis for age groups

		Age groups
Retention	Pearson correlation	0.101
	Significance (2-tailed)	0.045
	N	389
Work values	Pearson correlation	0.131
	Significance (2-tailed)	0.010
	N	389
Motivation	Pearson correlation	0.120
	Significance (2-tailed)	0.351
	N	389

Source: Calculated from survey results

Table 5 indicates the significance of the difference between age groups. For a significant difference the value should be < 0.05 . Significant differences were detected between groups was work values ($p > 0.016$), retention ($p > 0.04$) and motivation ($p > 0.06$).

The eta square and partial eta squares are estimates of the degree of association for the sample. According to Cohen (1988:36), the eta square can be interpreted as follows: 0.01 is a small effect, 0.09 a medium effect and 0.25 a large effect. The partial eta square in table 5 for the four factors shows a large effect for both retention (0.210) work values (0.201), and motivation (0.09).

TABLE 5: ANOVA: significant discrepancy for age groups

ANOVA		Sum of squares	df	Mean square	F	Sig.	Partial eta squared
Motivation	Between groups	0.365	3	0.122	0.546	0.06	0.09
	Within groups	86.840	389	0.223			
	Total	87.206	392				
Retention	Between groups	4.662	3	1.554	4.546	0.004	0.210
	Within groups	132.958	389	0.342			
	Total	137.620	392				
Work values	Between groups	3.048	2	1.524	4.199	0.016	0.201
	Within groups	142.633	393	0.363			
	Total	145.681	395				
Recruitment	Between groups	0.320	3	0.107	0.455	0.714	0.003
	Within groups	91.280	389	0.235			
	Total	91.601	392				

Source: Calculated from survey results

A post hoc test comprising pair-wise comparisons (Table 6) was performed to compare all different combinations of the age groups.

There were important differences detected between the following groups regarding work values: 20-30 and 41-50 year age group (0.008); 20-30 and 50+ year age group (0.006). Regarding the factor on retention, significant differences were detected between the age group of 20-30 and 50+ years of age (0.005). Noteworthy variances were identified on the motivation factor, where the difference was between the age groups of 20-30 and 50+ years

of age (0.018). There were no statistical differences between indicated by the post hoc test regarding retention

TABLE 6: Multiple comparisons between different age groups (post hoc)

Pair-wise comparisons: post hoc							
Dependent variable			Mean difference (I-J)	Std. error	Sig.	95% confidence interval	
						Lower bound	Upper bound
Work values	20-30 years	31-40 years	0.0129	0.0686	0.983	-0.1558	0.1816
		41-50 years	0.0295	0.0525	0.008	-0.0996	0.1587
		50 + Year			0.006		
	31-40 years	20-30 years	-0.0129	0.0686	0.983	-0.1816	0.1558
		41-50 years	0.0166	0.0662	0.969	-0.1462	0.1796
	41-50 years	20-30 years	-0.0295	0.05256	0.854	-0.1587	0.0996
		31-40 years	-0.0166	0.0662	0.008	-0.1796	0.1462
	50 + years	20-30 Years	-0.0408	0.0653	0.006	-0.1690	0.3772
		41-50 Years	-0.2133	0.0677	0.230	-0.3665	0.1697
Retention	20-30 years	31-40 years	0.0408	0.0853	0.892	-0.1690	0.2506
		50 + years	0.2155*	0.0653	0.005	0.0549	0.3761
	31-40 years	20-30 years	-0.0408	0.0853	0.892	-0.2506	0.1690

		41-50 years	0.1747	0.0824	0.107	-0.0278	0.3772
	50+ years	20-30 years	-0.2155*	0.0653	0.005	-0.3761	0.0549
		31-40 years	-0.1747	0.0824	0.107	-0.3772	0.0278
Motivation	20-30 years	31-40 years	-0.1507	0.0877	0.210	-0.3665	0.0649
		41-50 years	-0.1910*	0.0671	0.735	-0.3562	-0.0260
		50 +years	-0.0898	0.0721	0.018	-0.3421	-0.1217
	31-40 years	20-30 years	0.1509	0.0877	0.230	-0.0649	0.3665
		41-50 years	-0.0402	0.0843	0.893	-0.2485	0.1679
	41-50	20-30 years	0.1910*	0.0671	0.180	0.0260	0.3562
		31-40 years	0.0402	0.0847	0.893	-0.1679	0.2485
	50+ years	20-30 years			0.018		
Recruitment	20-30 years	31-40 years	-0.0859	0.0701	0.473	-0.2582	0.0864
		41-50 years	0.0898	0.0536	0.248	-0.2217	0.0421
	31-40 years	20-30 years	0.0859	0.0701	0.473	-0.0864	0.2582
		41-50 years	-0.0039	0.0676	0.998	-0.1702	0.1624
	41-50 years	20-30 years	0.0898	0.0536	0.248	-0.0421	0.2217
		31-40 years	0.0039	0.0676	0.998	-0.1624	0.1702
	50+ years	20-30 years	0.8523	0.0565	0.248	-0.1507	0.1542

Source: Calculated from survey results

From table 6, one can conclude that substantial variance between the millenniums and older employees exist.

With regard to recruitment all the age groups are in agreement that it does not play an important role in their day to day dealings within the organisation.

5. RECOMMENDATIONS

The nature and different values that the various age groups grew up with, plays an imperative role in the organisations overall success. From the results obtained the millennial age group has a unique perspective on what organisations can offer them and vice versa, which will be discussed below.

The most important factor that should be explored, in the mining company under study, is how imperative work values are to the millennial age group. This age group prefer a work environment where they have opportunities for the maintenance of work-life balance and high responsibility. The management cadre should address these in an inimitable way. A good starting point would be an environment where unique training and development programmes, for specific individuals in this age group, are available. To address their unique background, it would be of great value if training is web-based, with immediate feedback.

Although workers over 40 years of age are not grouped as millennials, it is of importance to note how their work values differ. Employees 40 years and older, grew up in a time when computers and cell phones were not yet commonplace in the business environment. It is important to develop training protocols that help older workers keep up with the latest advances in technology (Kooij, De Lange, Jansen & Dikkers 2008:368). This group will thrive on self-paced training opportunities and will further be motivated for the training of younger employees. The older workforce thrives on recognition of their previous achievement, and will still be motivated by opportunities to excel in the work environment (Oster 2015:Internet).

The millennial engineering generation embrace entrepreneurship, innovation, flexible schedules and career development which builds on retention. This is even more important due to the fact that millennials do not see themselves as keeping a job for a lifetime, for many of them a long term position at one organisation is maximum a year. To retain the millennial employees, management have to embrace areas in the workplace were the young

employees have the freedom to be innovative with work systems and the technical aspects thereof. Flexible work schedules and opportunities for societal involvement through projects in their communities are of utmost importance.

Although the millennial group did not value recruitment as an imperative factor, processes and procedures regarding recruitment should be aligned with the groups technologically advanced nature. They want fast feedback with detailed reasons why they have not being selected for a vacant position.

This research only focused on African countries in a natural resources mining company, although it forms part of an international company.

Future research could focus on the international talent management strategy to be compared with that of Africa and possible changes could be suggested to combine the strategies to accommodate the international and the African systems.

Research in other mining organisations (e.g. gold, copper, platinum) in Africa could be undertaken and compared with the natural resources mining industry, to identify whether the same or unique contributing dimension talent management applies.

6. CONCLUSION

In the light of the findings of this research, the mining industry needs to take note of the importance of work values to the millennial generation, with specific emphasis on of work-life balance and high responsibility levels. This age group thrives on unique training and development programmes, preferable web-based training. Younger employees prosper on entrepreneurship opportunities, innovation, flexible schedules and career development which builds on retention.

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