



Effect of employee recognition and flexible working arrangement on Generation Z retention



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Orientation: There is limited literature on talent retention framework constructs for Generation Z (Gen Z) in the Platinum Group Metals' (PGM) mining sector of South Africa.

Research purpose: The purpose of this study was to determine the relationship between employee recognition, flexible work arrangements and professional development opportunities as retention strategies and the ability of these strategies to influence retention of Gen Z in PGM's mining sector.

Motivation for the study: This research was motivated by the difficulties encountered by PGM's miners in retaining the Gen Z in the industry.

Research approach/design and method: A sequential explanatory mixed-methods approach was used in unison with a case study strategy. The quantitative data were collected through online questionnaires, with qualitative data collected through online interviews with participants from PGM. Structural equation modelling technique and thematic analysis were utilised to examine the quantitative and qualitative data, respectively.

Main findings: The findings revealed that employee recognition and flexible work arrangements were positively related to Gen Z talent retention. Professional development opportunities were not found to be positively related to Gen Z talent retention.

Practical/managerial implications: Human resource management professionals in the mining sector must be prepared for the future pool of employees by reviewing and aligning their talent management practices with the unique workplace preferences of the Gen Z cohort to retain Gen Z talent.

Contribution/value-add: This research study identified a significant mismatch between current mining industry retention strategies and the factors that Gen Z employees deem essential for remaining with their employers.

Keywords: Generation Z; retention; employee recognition; flexible working arrangements; professional development opportunities; mining sector.

Introduction

The mining industry in South Africa has not been without challenges. Among others, the industry encounters declining performance, reduced capital flows and ageing infrastructure (Cassim et al., 2019). At the centre of these issues is the crucial need to modernise the mining sector by embracing emerging digital technologies to improve the sector's cost competitiveness and sustainability. What is significant to this industry's digital transformation journey is the retention of talented employees, particularly from Generation Z (Gen Z). Generation Z are individuals who are born between year 1995 and 2010 (Böhlich & Axmann, 2020; Francis & Hoefel, 2018). This cohort or group of individuals grew up in a highly digital and connected world (Luttrell & McGrath, 2021). The challenge, however, is that the mining sector currently lacks full knowledge of the strategies to effectively optimise the retention of this valuable talent pool. This research study aimed to address this gap by contributing towards human resource strategies to enhance Gen Z talent retention in the mining industry. The Herzberg's two-factor motivation-hygiene theory as well as Maslow's hierarchy of needs theory were used to serve as the theoretical foundations for the study.

Orientation

The Mineral Council of South Africa (2019) has developed an approach to update and improve the mining industry by promoting autonomous technologies that are mechanised. Although this

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technology transformation is deemed necessary by the Mineral Council of South Africa (2019) to improve the industry's competitive position and sustainability, it has at times resulted in an inadvertent negative impact, particularly among low-skilled workers (Leeuw & Mtegha, 2018). It is, therefore, important for the mining sector to exercise care and introduce training opportunities to all employees affected by technological advancements to reduce the direct negative effects of unemployment and/or retain those 'high-tech savvy' employees to expedite the needed technological advancements in the sector.

The effect of technological advancements in the mining sector was not the focus of this study; rather, the focus was on the Gen Z's early attraction and retention for the purpose of advancing the required technological advancements in the mining sector. Generation Z becomes the most attractive generation to retain in the mining sector because it is the only generation raised with a strong sense of connectivity, and living in a period of advanced technology, which allowed it to use social media extensively and lead high-tech lives (Gaidhani et al., 2019).

In addition, research has shown that the attitudes of employees and their rate of technology adoption directly impact the effectiveness of technology implementation and the overall business performance (Oh et al., 2019). It is, therefore, a further rationale for the mining sector to retain Gen Z talent as this can be pragmatic for the industry to expedite the sector's digital transformation.

There is, however, a problem in that the mining sector currently lacks a full understanding of the strategies to optimise the retention of the Gen Z talent. In addition, the arrival of Gen Z in the labour market brings with it not only new skills and innovative ideas, but also new expectations and ways of working (Mina et al., 2021). However, limited literature exists to guide the human resource professionals in the mining sector to align their talent retention strategies to meet the Gen Z's workplace preferences. The researcher saw this lack of talent retention strategies for Gen Z talent in mining sector as problematic and a gap for research.

Underpinning theories

As outlined by Bhatt et al. (2022), the two-factor hypothesis of motivation and hygiene factors theory, broadly outlines the elements that their unavailability will lead to workplace discontent (hygiene), and the elements through which employees remain motivated to be within the organisation (motivator factors). The Herzberg's two-factor motivation-hygiene theory proposes that organisations need to make adequate investments that typically centre on their employees' physiological demands and requirements to effect the desirable impact. Organisational policy, such as flexible

work arrangements, is an example of a hygiene factor, while employee recognition and professional development opportunities exemplify motivator factors (Bhatt et al., 2022).

Maslow's theory of motivation can be used to investigate the needs of employees, and how these needs will guide an employee's decision-making during employment within the organisation. Should employees' base needs not be met, they could be overcome with feelings of inadequacy, as well as a sense of not fitting into the existing organisation. This can quickly result in a decision not to stay within the organisation, and thus exit at the earliest convenient opportunity.

Literature review

Generation Z and their workplace preferences

Individuals born between year 1995 and 2010 constitute the Gen Z (Böhlich & Axmann, 2020; Francis & Hoefel, 2018). This cohort is described as interested in modern technologies and prefers simplicity, encourages and promotes safety, often likes to escape world reality, has raised expectations and exerts efforts in exceptional experiences (Tunsakul, 2020). Generation Z are recognised by research as the inaugural generation in history to be socially conscious and adept at technology (Desai & Lele, 2017). Stanley (2019) expects the Gen Z cohort to have the largest living population by 2034, at 78 million globally. Arar and Öneren (2018) sum up that Gen Z prefer a workplace that has the following attributes: flexibility and possible mobility in the workplace; organic structure rather than hierarchy; a healthy balance between work and life; possibilities for both vertical as well as horizontal career advancement; and performance assessment that emphasises production over input hours at work, meaningful work, distance from routine, creative and innovative based tasks, technological devices, individual office occupancies where possible and job opportunities that bring both monetary and psychological satisfaction. Lettink (2019) predicts that there will be an increase of Gen Z in the workforce over the next decade and beyond, and as a result, organisations need to prepare for this influx to retain the required skills and expertise of young talent.

Retention

Employee retention has become a big concern for corporations in the current global competitive environment (Prakash, 2022; p. 245). While the word 'employee retention' has been used in a number of ways, it basically means that organisations are investigating and implementing different strategies to motivate their skilled workers so that they stay with them for longer (Singh, 2019). It is important for organisations to understand this phenomenon. According to Ganguli et al. (2022), understanding the talent retention phenomenon will assist organisations to engage further

with the subject to retain employees in the workplace. To the extent that research exists, there is not much knowledge on how to attract and retain the Gen Z, including in the mining sector (Anggapradja et al., 2024).

Employee recognition

Recognition concerns the regard or stance that one takes on others. Employees who feel appreciated for their work are more likely to be happy and productive, and less likely to leave their jobs (Shayrine & Venugopal, 2023). Shayrine and Venugopal further provide examples such as public praise and awards as forms that organisations can use to demonstrate recognition and gratitude for their employees' efforts. Generation Z is intrinsically motivated when their supervisor recognise their contributions and implement their ideas (Silinevica & Meirule, 2019).

Flexible work arrangements

To ensure high productivity for both the organisation and its personnel, organisations must maintain a healthy balance between work and personal life (Garg & Yajuverdi, 2016). Further research by Kumar and Velmurugan (2018) explains that striking a work-life balance could be facilitated by an organisation through creating a flexible working schedule, telecommuting facility and family-friendly working environment. It is also determined that employees who are being facilitated properly will tend to stay in the organisation and that the company image will also be formed as a company that supports its employee welfare, thus attracting the future workforce as a preferable company to work for (Tirta & Enrika, 2020). The creation of a hybrid workplace in the digital era is important because highly skilled talent prefers hybrid work modes (Dabic et al., 2023). Companies that value a good work-life balance and offer flexible working options are what the Gen Z is looking for (Sánchez-Hernández et al., 2019).

Professional development opportunities

One of the principal factors of talent retention are the development opportunities offered within the workplace (Kamalaveni et al., 2019). The training obtained within a workplace that is related to a specific job improves the ability of employees to problem-solve. In addition, the extent to which the employees perceive the organisation to be caring about their professional development and well-being influences their decision to stay in the organisation (Lin et al., 2022). Generation Z employees value clear professional routes and opportunities for advancement (Rampen et al., 2023).

Mining sector

Mining sectors remain a major employer globally (Oshokoya & Tetteh, 2018), although challenged. From the many challenges that the sector faces, the skills shortage issue is still its major worry, and inevitably requires the sector to

review, develop and/or optimise talent retention and be ready to adjust, tap from the available workforce pool and accommodate varying generational workplace requirements. Currently, literature on talent retention strategies lacks detail that incorporates the significant preferences of Gen Z in the mining sector.

Research purpose and hypotheses

The study's main purpose was to contribute towards human resource strategy to optimise the retention of Gen Z talent within the mining sector, focussed on determining the relationship between employee recognition, flexible work arrangements, and professional development opportunities as human resource retention strategies and the ability of these strategies to influence retention of Gen Z in Platinum Group Metals' (PGM) mining sector.

The following hypotheses are listed for the study:

- H1:** A direct positive correlation exists between employee recognition and talent retention.
- H2:** A direct positive correlation exists between flexible work arrangements and talent retention.
- H3:** A direct positive correlation exists between professional development opportunities and talent retention.

The Gen Z will continue to be a significant proportion of the workforce over the next decade and beyond (Lettink, 2019). Thus, understanding the Gen Z will help organisations prepare better to engage and retain them (Ganguli et al., 2022).

Research design

Research approach

The abductive research approach was used to determine the relationship between employee recognition, flexible work arrangements, and professional development opportunities as human resource retention strategies and the ability of these strategies to influence retention of Gen Z in PGM's mining sector. The researcher aimed to uncover the best explanations for the observed challenges in retaining Gen Z talent in mining organisations. This was achieved through a sequential explanatory mixed-methods design, combining quantitative and qualitative data collection and analysis.

Research strategy

The research strategy adopted was a case study. According to Schoch (2020), this approach entails conducting a thorough and in-depth examination of a specific incident (e.g. talent turnover and prolonged ability to fill mining vacancies), circumstance (e.g. mining sector is uncompetitive, requires efficient adoption of technological advancements, and lacks strategies to retain Gen Z) or social unit's structure (e.g. emergence of Gen Z as the growing pool of talent) within its real-life context. The organisation in study is a

multinational organisation, operating across various regions with multiple mining processes that covers end-to-end mining value chain. The strategy was to be clinical and obtain deep knowledge on the phenomenon. The case study strategy allowed the researcher to investigate in-depth the talent retention in a selected multinational mining organisation (the phenomenon) within the Gen Z population (the context). This was achieved through determining the relationship between variables, that is, employee recognition, flexible work arrangements and professional development opportunities, and the ability of these variables to influence the retention of Gen Z in PGM's mining sector.

Research method

For this investigation, a sequential explanatory mixed-methods research design was used. There are two separate stages to the mixed-methods sequential explanatory design: the quantitative stage and the qualitative stage (Clark & Watson, 2019). In this study, the researcher gathered and examined the numerical (or quantitative) data first. As a second stage, the quantitative results from the first stage were explained and/or expanded upon using the qualitative (text) data gathered and processed sequentially. The study's intermediate point connected the two stages, with the qualitative phase building upon the quantitative phase.

Research process

Research participants and sampling methods: The target population of this study consisted of employees of the Anglo-American PGM's business who formed part of the Gen Z cohort. For the initial phase of the study, the researcher used proportionate random sampling. According to Anglo-American Platinum's (AAP) employee listing of August 2022 (AAP, 2022), the researcher determined that the proportion of gender in the entire population was 34% female and 66% male. The required minimum size of the sample for the study's quantitative method was determined to be 339 participants, and 356 participants was the final sample size in the study.

For the second phase of the study, purposive sampling was used to identify a sample of participants who matched the specific inclusion criteria – employee born between 1995 and 2010, permanently employed in the mining organisation during the period when the research was conducted and works in a technical department. In other words, this approach was used by the researcher to intentionally select employees within the employee listing that fell within the age range of the Gen Z. Purposeful random sampling also allowed the researcher to increase the credibility of the results (Palinkas et al., 2015). In addition, purposeful sampling facilitated the inclusion of participants in a sample based on their relevance to the research objectives as perceived by the researcher (Makwana et al., 2023).

As an important emphasis, the researcher wanted to achieve credibility through purposeful sampling. According to Obilor (2023), the credibility of results through purposeful random sampling is achieved through filtering out irrelevant responses that do not fit into the context of the study. The study followed such a process and ended with data saturation reached with the 15th participant, after which data collection was concluded. Thus, qualitative data were collected from a sample of 15 participants. According to Hennink and Kaiser (2022), a saturation point refers to the point in data collection process when no additional issues or insights are identified and that data begin to repeat such that further data collection becomes redundant, signifying that an adequate sample size is reached.

Data collection tools and methods: The data collection method for this study was an online adaptive questionnaire (for the quantitative study) and semi-structured interviews conducted online using Microsoft Teams at the behest of the participants (for qualitative study). As per Bachmann et al. (2024), the former approach minimised survey fatigue and enhanced response quality by showing each participant the most pertinent questions, hence optimising data collection. The questions were structured to collect specific data on the subject matter. For example, the Likert scale was used, wherein participants were asked to rate the extent to which retention strategies that is, employee recognition, flexible working arrangements and professional development opportunities influenced their decision to remain employed within the mining sector. Participants were asked questions that resembled various human resources strategies and determined the extent of influence, for example, (1) Negligible; essentially no influence, (2) Minor influence, (3) Moderate influence, (4) Strong influence and (5) Direct; traceable influence.

Qualitative data were collected using an interview guide dominated by open-ended questions relating to the perceived professional development opportunities. By definition, an interview guide is a research document consisting of research topics or discussion points the researcher wishes to collect data on (DeJonckheere & Vaughn, 2019). Given the quantitative study findings, participants were asked why Gen Z saw professional development opportunity not to have direct positive correlation to retention. Full transcriptions of the interviews were made. The use of the recorded interviews and transcripts provided the researcher with a comprehensive understanding of the lived experiences of the participants.

Data recording: The online feedback from questionnaires and interviews were recorded and securely stored for record-keeping purposes. All the interviews were recorded via Microsoft Teams. Before the interviews, the researcher explained the research in detail and consent was received from all participants to participate in the study and to record their interviews.

Strategy to ensure data quality and integrity

For the quantitative phase, Cronbach's alpha and composite reliability (CR) were used to assess construct reliability. The recommended thresholds for both Cronbach's alpha and CR are values of 0.7 and above (Cheung et al., 2023). In addition, the construct validity was established through the convergent validity and discriminant validity. The convergent validity is established using Average Variance Extracted (AVE), with a recommended threshold of 0.5 and above, while the discriminant validity is assessed through cross-loading, Heterotrait-Monotrait (HTMT) ratio (Fauzi, 2022). Using the cross-loading criterion, discriminant validity is established if factor loading of the items on their underlying construct is greater than their cross-loadings on the other construct (Clark & Watson, 2019). The HTMT criterion, on the other hand, requires the HTMT value to be below 0.9 to establish discriminant validity between the two constructs (Purwanto 2021). The structural model, on the other hand, assesses the structural relationship between the variables as well as hypothesis testing (Pagadala et al., 2023).

For the qualitative phase, this study promoted data quality and integrity by adopting the trustworthiness techniques as indicated by many researchers (i.e., Enworo, 2023; Eryilmaz, 2022; Riazi et al., 2023), namely credibility, transferability, dependability and confirmability. The credibility of the findings was established by ensuring that the findings were a representation of the information obtained from the interviewees and that this information was the correct interpretation of the interviews conducted. With regards to transferability, the researcher described the research context in detail so that the conclusions of this study could be transferred to other studies in a similar context. The dependability of the findings included the evaluation of the findings by the participants, as well as their recommendations. The confirmability of the findings relates to the possibility of other researchers confirming the findings of this study, by using the same or similar data collection methods used in this study. As overall, the extensive literature research that is conducted, as well as the data collection and analysis methods which were used in this study, secures the trustworthiness of the data.

Data analysis

The study applied a sequential explanatory mixed-methods design, making it necessary for the analysis of the data using methods that were quantitative and qualitative as well. The study employed a combination of inferential and descriptive statistics to analyse quantitative data. The latter was used to describe the data variables in the sample and provide a description of the Gen Z population. In addition, inferential statistics were used as an additional method. The data collected from the sample were inferred from the population. The researcher described and drew conclusions regarding the entire Gen Z population using data from a randomly selected sample.

Thematic analysis was used for the data analysis component of the qualitative study. According to Kiger and Varpio

(2020), thematic analysis is a technique for assessing qualitative data that comprises looking for, analysing and reporting recurring patterns within a data collection.

Ethical considerations

Ethical approval for this study was granted by MANCOSA's Human Research Ethics Committee (M-HREC), reference number M-HREC/187967/2023. The permission to conduct the study was sought and obtained from the Senior General Manager, Executive Head Corporate Affairs and Sustainable Impact, and Executive Head Human Resources of AAP. The participants were notified that their participation in this study was voluntary. No participants were harmed during the study. Furthermore, participants' confidentiality was maintained throughout the data collection and reporting components of the study, with adequate measures taken to ensure the credibility and trustworthiness of the data collected.

Results and discussion

Introduction

The study is a mixed method sequential explanatory and as a result, the findings and discussions are sequenced in this section.

Descriptive statistics

The data collected using an online questionnaire from mine employees at AAP consisted of 119 (33.4%) female workers and 237 (66.6%) male workers between the ages of 22 and 27 years, with an average of 24.61 years. In the collected data, the experience within the mining sector was determined and in which 3.9% had less than a year, 35.2% between 2 and 3 years, 51.3% between 4 and 5 years, and 9.6% between 6 and 7 years of experience in mining sector.

Factor analysis

Factor analysis was used to identify the underlying factors measured by each item. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) test and Barlett's test of sphericity were run to assess the appropriateness to conduct factor analysis. The results are depicted in Table 1.

The results show that the KMO statistic is 0.890 (above the threshold of 0.5), indicating that the sampling is adequate. The results of the Barlett's tests of sphericity show a statistically significant result, with a p -value of 0.000 (p -value < 0.05), indicating that there is enough correlation between the items. Thus, the data are appropriate for factor analysis.

TABLE 1: Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) test and Barlette's test of sphericity.

Test	Variable	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	-	0.89
Bartlett's Test of Sphericity	Approx. Chi-Square	17655.80
	df	595.00
	Significance	0.00

Source: Kgarimetsa, T.S., & Naidoo, C. (2024). *Effect of employee recognition and flexible working arrangement on Generation Z retention*, unpublished paper. MANCOSA df , degrees of freedom.

Structural equation modelling

As per Díez-Mesa et al. (2018), the structural equation modelling (SEM) technique was employed in the study for purposes of establishing the interrelationship among the observed and unobserved constructs. Owing to the fact that the study aimed at establishing the factors that influence talent retention and the mediating effect of organisation factors and the moderating effect of gender, three model assessments were conducted – the male, the female and the overall model. Table 2 presents the reliability and convergent validity of the construct under all three models.

The Cronbach alpha values and CR for all the constructs were above 0.9 (higher than the recommended value of 0.7) for all the models. These results thus validate construct reliability. The AVE for the constructs was higher than 0.5 for all the models. These results validate convergent validity. It is also important to identify that the measures were better for males compared to females on the overall (complete) model.

The discriminant validity was assessed through cross-loadings. The results, as indicated in Table 1-A1, Table 1-A2 and Table 1-A3 in the Appendix, show that the factor loading of items on their underlying construct was greater than their cross-loadings on the other construct in each sample (male, female, complete). Furthermore, the maximum HTMT estimates were all below the threshold value of 0.9. Thus, establishing discriminant validity.

Structural model

The structural relationships between the independent variables and the dependent variable were assessed in the structural model of the study. The results depicted in Table 3 indicate that flexible work arrangements (FWA) and employee recognition (ER) have a direct relationship on talent retention except professional development opportunities (PDO) ($\beta = -0.006$, T-statistic = 0.127, p -value = 0.899).

In addition, the relationship between ER and talent retention (TR) was supported in the complete model ($\beta = 0.144$, T-statistic = 2.595, p -value = 0.009, respectively), but not supported among the female ($\beta = 0.093$, T-statistic = 0.989, p -value = 0.323) or the male ($\beta = 0.135$, T-statistic = 1.907, p -value = 0.057) employees.

From the above findings, the following is determined about the hypothesis:

- H1:** A direct positive correlation exists between employee recognition and talent retention.
- H2:** A direct positive correlation exists between flexible work arrangements and talent retention.
- H3:** A direct positive correlation does not exist between professional development opportunities and talent retention.

The qualitative study constituted the second stage of the explanatory research design, which is a mixed-methods research approach where quantitative data were initially collected and analysed, providing insights for further investigation. Subsequently, from the findings that were drawn from the study's initial stage, an additional investigation to unpack the meaning and significance of some of the findings was required. The finding from the quantitative study that required further investigation was:

For Gen Z, PDO do not have a direct relationship with talent retention.

Research question

From this finding, a qualitative research question was developed to further investigate why for Gen Z, PDO did not have a direct relationship with talent retention. Formally stated, the qualitative research question was:

Why do Gen Z consider PDO not to have a direct positive relationship with talent retention in the mining industry?

The following qualitative data, gathered through interviews with Gen Z participants, helped to clarify and interpret the statistical finding from phase A above.

TABLE 2: Reliability and convergent validity of the constructs.

Items	Complete			Female			Male		
	Cronbach's alpha	CR	AVE	Cronbach's alpha	CR	AVE	Cronbach's alpha	CR	AVE
ER	0.98	0.99	0.95	0.98	0.98	0.93	0.99	0.99	0.97
FWA	0.92	0.94	0.80	0.92	0.94	0.81	0.92	0.94	0.81
PDO	0.97	0.98	0.91	0.95	0.97	0.88	0.97	0.98	0.93
TR	0.94	0.96	0.86	0.93	0.95	0.84	0.95	0.96	0.87

Source: Kgarimetsa, T.S., & Naidoo, C. (2024). *Effect of employee recognition and flexible working arrangement on Generation Z retention*, unpublished paper. MANCOSA

Note: Relationships are significant at $p < 0.05$. The p value informs about whether an effect, relationship, or difference might exist in reality.

ER, employee recognition; FWA, flexible work arrangements; PDO, professional development opportunities; TR, talent retention; AVE, average of variance extracted; CR, composite reliability.

TABLE 3: Structural relationships between variables.

Hypothesis	Complete				Females				Males			
	β	T	p	Results	β	T	p	Results	β	T	p	Results
ER \rightarrow TR	0.14	2.59	0.009	Supported	0.09	0.99	0.323	Not supported	0.13	1.91	0.057	Not supported
FWA \rightarrow TR	0.21	3.46	0.001	Supported	0.30	2.64	0.008	Supported	0.16	2.43	0.015	Supported
PDO \rightarrow TR	-0.01	0.13	0.899	Not supported	-0.04	0.46	0.644	Not supported	0.04	0.64	0.524	Not supported

Source: Kgarimetsa, T.S., & Naidoo, C. (2024). *Effect of employee recognition and flexible working arrangement on Generation Z retention*, unpublished paper. MANCOSA

ER, employee recognition; FWA, flexible work arrangements; PDO, professional development opportunities; TR, talent retention.

Analysis

Table 4 presents the key themes, sub-themes, and demonstrative excerpts that were derived from the evaluation of the interviews and structured around each study topic.

Discussion

Following an in-depth examination of the feedback from Gen Z, the following major themes emerged: lack of supervision, programme pathway and purpose; development opportunity as a trap; contrast between values and company culture; desire for autonomy; supportive leadership; and economic and social factors.

Theme 1: Lack of supervision, programme pathway and purpose

Generation Z identified the lack of supervision, programme purpose and pathway as factors accounting for why PDO do not have a direct relationship with talent retention in the mining industry. Generation Z explained that they are usually sent out without orientation, mentorship or supervision. This is compounded by the lack of clear direction about what needs to be achieved at the end of the programme.

Participants 4 and 13 captured this perception by stating:

‘You are sending me out into a space where no one asked for me, no one needs me. When I get there, you are going to get lost in the system, especially if you do not try to make friends with the

people in the right places.’ (Participant 4, Female, Mining Engineer)

‘There is no clear direction to say what is it that you are trying to achieve at the end of the programme. It becomes a ‘you figure it out’ type of situation in the process.’ (Participant 13, Female, Mining Engineer)

Theme 2: Development opportunity as trap

It was found that several Gen Zs perceive development opportunities as a trap that attaches Gen Z to an organisation. As such, many are eager to complete their contractual years to free themselves and explore new opportunities elsewhere, as, and when the time and convenience allows. Participant 2 captured this sentiment in these words:

‘There has been a very big talk or discussions amongst us young people saying, this development thing seems like a trap to stay in the organisation for long now because you have to be here ... There is much more flexible ways of getting certifications and qualifications than doing it within the organisation. So, you can even do it in your personal capacity and not through the organisation.’ (Participant 2, Female, Strategy Specialist)

Theme 3: Contrast between values and company culture

The contrast between value and company culture was seen by Gen Z as a reason justifying why PDO do not have a direct relationship with TR. This was expressed by the value of flexibility treasured by Gen Z against the rigidity

TABLE 4: Qualitative findings – key themes.

Factors affecting talent retention in the mining industry

Question	Themes	Illustrative quotes
Why do Gen Z consider professional development opportunities not to have a direct relationship with talent retention in the mining industry?	1. Lack of supervision, programme pathway and purpose	<ul style="list-style-type: none"> ‘You are sending me out into a space where no one asked for me, no one needs me. When I get there, you are going to get lost in the system, especially if you do not try to make friends with the people in the right places.’ (Participant 4, Female, Mining Engineer) ‘There is no clear direction to say what is it that you are trying to achieve at the end of the programme. It becomes a “you figure it out” type of situation in the process.’ (Participant 13, Female, Mining Engineer)
	2. Development opportunity as trap	<ul style="list-style-type: none"> ‘There has been a very big talk or discussions amongst us young people saying, this development thing seems like a trap to stay in the organisation for long now because you have to be here ... There are much more flexible ways of getting certifications and qualifications than doing it within the organisation. So, you can even do it in your personal capacity and not through the organisation.’ (Participant 2, Female, Strategy Specialist)
	3. Contrast between values and company culture	<ul style="list-style-type: none"> ‘It has its own culture, as much as I can come and find that I am not comfortable, firstly maybe in the male-dominated industry. If you are not comfortable, you are not comfortable.’ (Participant 5, Female, Geologist) ‘If the people in the environment are making your work difficult, either they are not working, there is no collaboration, you cannot work together. So, it is one of the things that can make one leave the mining industry.’ (Participant 5, Female, Geologist)
	4. Desire for autonomy	<ul style="list-style-type: none"> ‘I believe the leadership has taught me a great deal. Hence, I feel the need to go and explore or implement most, if not all, of the things that I have learned here.’ (Participant 6, Female, Social Scientist)
	5. Supportive leadership	<ul style="list-style-type: none"> ‘If you and your leader do not relate with one another, then irrespective of whatever happens, you would want to leave as soon as possible because you feel like you are not in a productive working environment ... The leadership is basically where you see yourself in a certain number of years. If we have a proper working relationship, then it would push me to be at that level based on the leadership style.’ (Participant 1, Male, Geotechnical Engineer) ‘I think it does influence the retention because the type of leadership that you work under also does influence the experience that you have within a particular organisation.’ (Participant 7, Female, Metallurgist) ‘It does and does not have a direct relationship because how one actually leads the subordinates can also contribute to why people can actually want to leave.’ (Participant 6, Female, Social Scientist)
	6. Economic and social factors	<ul style="list-style-type: none"> ‘In the climate of South Africa, if I leave for no apparent reason, I will be disadvantaged. So, whether or not that leadership affects me positively or badly, I will not just up and leave because of the social climate ... One is staying due to social and economic factors, and one is leaving just because they do not necessarily link to the organisation and has nothing to do with the leadership.’ (Participant 2, Female, Strategy Specialist)

Source: Kgarimetsa, T.S., & Naidoo, C. (2024). *Effect of employee recognition and flexible working arrangement on Generation Z retention*, unpublished paper. MANCOSA

and culture of male dominance in the mining industry. This view can be summed up by the following two quotations:

'It has its own culture, as much as I can come and find that I am not comfortable, firstly maybe in the male-dominated industry. If you are not comfortable, you are not comfortable.' (Participant 5, Female, Geologist)

'If the people in the environment are making your work difficult, either they are not working, there is no collaboration, you cannot work together. So, it is one of the things that can make one leave the mining industry.' (Participant 5, Female, Geologist)

Theme 4: Desire for autonomy

It was found that Gen Z sees the desire for autonomy, outcome learning and experience accumulated, as a reason justifying why PDO do not directly affect talent retention in the mining industry. Participant 6 captured this perception as follows:

'I believe the leadership has taught me a great deal, hence I feel the need to go and explore or implement most, if not all, of the things that I have learned here.' (Participant 6, Female, Social Scientist)

Theme 5: Supportive leadership

Generation Z believe that if subordinates do not work hand in glove with their leader who supports them, it will have a negative impact on talent retention as it can contribute to young talent leaving the industry. This is expressed in the following quotes:

'If you and your leader do not relate with one another, then irrespective of whatever happens, you would want to leave as soon as possible because you feel like you are not in a productive working environment ... The leadership is basically where you see yourself in a certain number of years. If we have a proper working relationship, then it would push me to be at that level based on the leadership style.' (Participant 1, Male, Geotechnical Engineer)

'I think it does influence the retention because the type of leadership that you work under also does influence the experience that you have within a particular organisation.' (Participant 7, Female, Metallurgist)

Theme 6: Economic and social factors

Economic and social factors were used by some Gen Z to justify why PDO do not have a direct impact on talent retention. It was explained that these social and economic factors can affect talent retention positively or negatively, as some may want to leave the industry but cannot afford to make such a decision because of their economic conditions. Participant 2 summarised these views as follows:

'In the climate of South Africa, if I leave for no apparent reason, I will be disadvantaged. So, whether or not that leadership affects me positively or badly, I will not just up and leave because of the social climate ... One is staying due to social and economic factors, and one is leaving just because they do not necessarily link to the organisation and has nothing to do with the leadership.' (Participant 2, Female, Strategy Specialist)

Practical implications

These findings imply that the mining sector needs to adjust its talent retention framework constructs in practice to achieve the critical talent retention of Gen Z in the mining sector. Furthermore, the results of this study build on the existing theory blocks which indicate that various generations in the workplace require different approaches when it comes to talent management and retention of talent. It, therefore, can further be expected that the greater the extent to which the talent management dimensions are seen to be beneficial, the more likely that Gen Z talent will be retained in the organisation. The new information contributed by this study is the generational workplace requirements to retain Gen Z talent in the mining sector.

Limitations of the study

Despite the contribution to research on Gen Z talent retention discourse within the workplace, a few limitations were encountered, which provides scope for further research. Firstly, the findings focussed on a single multinational organisation in the mining sector, thus limiting their generalisability to the entire sector. Secondly, neither the voice of older generations within the mining sector, nor future Gen Z, who wish to work in mining were included in the study.

Future research

The data analysis of the questions in the study revealed the opportunity for further investigation in exploring the question of gender disparities and the perspective of the older generation in changing workplace through introductions of younger generations.

Conclusion

The results of this study extended the research conducted by earlier scholars on talent management and talent retention of different generations in the workplace. While previous research has explored generational differences in employee needs and motivations, this study uniquely applied those insights to the specific context of the mining sector, which is facing acute challenges in attracting and retaining the next generation of workers.

The literature indicates that the Gen Z cohort is interested in modern technologies, preferring simplicity, encouraging and promoting safety, often liking to escape world reality, having raised expectations and exerting efforts in exceptional experiences. Lastly, Gen Z is recognised by research as the first global generation to be technologically literate and socially empowered.

The findings clearly demonstrate a substantial disconnect between the current talent management practices in the mining industry and the unique workplace preferences of the Gen Z cohort. Employee recognition and flexible work

arrangements emerged as the primary constructs of Gen Z talent retention while professional development was seen as not critical. These are constructs that human resource professionals in the mining sector should incorporate in their talent retention frameworks.

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Competing interests

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Authors' contributions

T.S.K. conducted the research and C.N. was the supervisor.

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Data availability

The data that support the findings of this study are available upon reasonable request from the corresponding author, T.S.K.

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Appendix starts on the next page →

Appendix

TABLE 1-A1: Complete model cross-loadings.

Items	ER	FWA	PDO	TR
ER1	0.966	0.437	0.301	0.403
ER2	0.975	0.456	0.271	0.398
ER3	0.983	0.439	0.285	0.382
ER4	0.977	0.43	0.29	0.396
FWA1	0.455	0.925	0.224	0.443
FWA2	0.422	0.96	0.262	0.443
FWA3	0.448	0.906	0.307	0.465
FWA4	0.269	0.785	0.261	0.335
PDO1	0.288	0.381	0.931	0.293
PDO2	0.298	0.298	0.971	0.263
PDO3	0.24	0.224	0.956	0.25
PDO4	0.289	0.206	0.957	0.264
TR1	0.347	0.386	0.242	0.916
TR2	0.356	0.362	0.255	0.952
TR3	0.394	0.427	0.31	0.962
TR4	0.395	0.561	0.234	0.874

Source: Kgarimetsa, T.S., & Naidoo, C. (2024). *Effect of employee recognition and flexible working arrangement on Generation Z retention*, unpublished paper. MANCOSA

ER, employee recognition; FWA, flexible work arrangements; PDO, professional development opportunities; TR, talent retention.

TABLE 1-A2: Female model cross-loadings.

Items	ER	FWA	PDO	TR
ER1	0.952	0.483	0.324	0.446
ER2	0.964	0.49	0.267	0.455
ER3	0.974	0.482	0.301	0.411
ER4	0.971	0.487	0.309	0.444
FWA1	0.488	0.918	0.211	0.518
FWA2	0.454	0.959	0.282	0.505
FWA3	0.517	0.903	0.357	0.532
FWA4	0.328	0.803	0.246	0.406
PDO1	0.271	0.423	0.887	0.277
PDO2	0.316	0.296	0.97	0.235
PDO3	0.267	0.218	0.938	0.226
PDO4	0.309	0.217	0.953	0.241
TR1	0.379	0.479	0.233	0.901
TR2	0.391	0.423	0.208	0.955
TR3	0.437	0.465	0.307	0.949
TR4	0.452	0.623	0.21	0.856

Source: Kgarimetsa, T.S., & Naidoo, C. (2024). *Effect of employee recognition and flexible working arrangement on Generation Z retention*, unpublished paper. MANCOSA

ER, employee recognition; FWA, flexible work arrangements; PDO, professional development opportunities; TR, talent retention.

TABLE 1-A3: Male model cross-loadings.

Items	ER	FWA	PDO	TR
ER1	0.979	0.396	0.292	0.372
ER2	0.984	0.428	0.278	0.358
ER3	0.99	0.402	0.286	0.355
ER4	0.984	0.378	0.292	0.354
FWA1	0.43	0.93	0.243	0.389
FWA2	0.398	0.963	0.255	0.403
FWA3	0.381	0.913	0.292	0.408
FWA4	0.232	0.781	0.269	0.303
PDO1	0.31	0.368	0.954	0.315
PDO2	0.293	0.308	0.971	0.287
PDO3	0.231	0.234	0.965	0.272
PDO4	0.28	0.201	0.962	0.288
TR1	0.322	0.315	0.253	0.927
TR2	0.328	0.32	0.294	0.951
TR3	0.363	0.409	0.324	0.971
TR4	0.348	0.508	0.257	0.884

Source: Kgarimetsa, T.S., & Naidoo, C. (2024). *Effect of employee recognition and flexible working arrangement on Generation Z retention*, unpublished paper. MANCOSA

ER, employee recognition; FWA, flexible work arrangements; PDO, professional development opportunities; TR, talent retention.