A Leadership Initiative to Enhance Employee Engagement amongst Engineers at a Gold Mining Plant in South Africa

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Abstract—Employee engagement mainly consists of three dimensions, namely emotional engagement, cognitive engagement and physical engagement. The aim of the current research was to determine whether a leadership initiative such as a leadership orientation workshop had a positive influence on the engagement of engineers at a gold mining plant in South Africa. A qualitative research method was utilized by conducting group interviews with engineers. Six focus group interviews with engineers from the plant were conducted. The interviews were recorded and transcribed. The narrative data was broken down into smaller units, coded and named according to the content represented. The recurring themes were then categorized and described. Categories such as bottom-up leadership, transformational leadership, charismatic leadership, authentic leadership, change leadership, mind-set training, values, strategic alignment, two-way feedback, recognition, trust, diversity, safety, relationships, job profiles, performance management and career development were identified. The charismatic leadership style of the plant manager and his commitment to engaging the engineers were strong themes throughout the research. The importance of enabling managers to become leaders was also clear. The overall perceptions were that the leadership workshop initiated employee engagement amongst the engineers.

I. INTRODUCTION

There is a growing awareness that employee engagement is increasingly required for organizations to function optimally. “The aspiration to involve, engage and win commitment from employees has long been on the agenda of a select portion of enlightened management” [36:126]. Engagement begins when supervisors treat workers with dignity and respect [18]. It appears to be a positive strategy. In simple terms, employee engagement can be regarded as the combination of a positive psychological contract and the willingness to offer discretionary behavior [9].

The purpose of this study was to determine if a leadership initiative can enhance employee engagement amongst engineers at a gold mining plant in South Africa.

II. LITERATURE REVIEW

The discussion of the concepts ‘employee engagement’ and ‘leadership’ below will lead to the research question. The ‘KeyStone Project’ will be discussed thereafter.

A. Employee engagement

Employee engagement is not an easy concept to define [28]. The following comprehensive definition of employee engagement is formulated, which enjoys widespread support in the literature [34:4]

… work engagement is a positive, fulfilling, work-related state of mind, characterized by three dimensions, namely vigor, dedication and absorption. Rather than a momentary state of mind, engagement refers to a more persistent and pervasive affective-cognitive state, that is not focused on any particular object, event, individual or behavior.

Since the emergence of the Human Relations Movement in the 1930s [30], emphasis has been placed on good communication and information sharing. Sharing information with employees and management communication are only the first part of employee engagement [7]. Employee participation in decision-making, employee autonomy, teamwork, employee survey research and regular employee/supervisor meetings are of essence to engage employees [1].

The three sub-dimensions of work engagement, namely vigor, dedication and absorption [34. From a different perspective, engagement is the level of energy and decision-making that an employee invests in order to solve work-related issues [29]. Engaged employees who are committed to their job enjoy the challenge of their daily work, feel their talents are utilized and look for innovative ways of achieving outcomes [15].

Companies in which 60 percent of the workforce is engaged have an average five-year return on investment to shareholders of more than 20 percent. That compares to companies where only 40 to 60 percent of the employees are engaged, which have an average total return to shareholders of about 6 percent [5]. There are three different levels at which engagement is manifested, namely emotional engagement (meaning being highly involved emotionally with the work), cognitive engagement (meaning concentrating hard on doing the work), and physical engagement (which refers to being willing to ‘go the extra mile’ for the employer) [12]. Employee engagement is about the capturing the hearts and minds of people and realizing that people are any organization’s greatest asset [13]. The
relationship between employee engagement and performance is evident in the following empirical findings. A sense of identification with the company and generating a sense of business improves the engagement of employees [27], and leadership improves the social climate for engagement [34].

B. Leadership

Leadership improves the social climate as seen above, and should therefore be developed where necessary. Leadership development is often related to leadership styles [7]. In this section, leadership styles such as bottom-up leadership, transformational leadership and charismatic leadership, authentic leadership and change management will be discussed.

Bottom-up leadership focuses on gaining trust by shifting the focus from a top-down distribution of information to a bottom-up exchange of ideas and answering questions [19]. Bottom-up leadership is found where employees become innovative and questioning, making suggestions and pushing boundaries [6] [32]. Top-down leadership may lead to disengaged employees, and the three main reasons for the decrease in engagement are a lack of learning opportunities, a lack of growth opportunities and not feeling valued by the organization [22].

The direct supervisor plays an essential role in the development of an employee with specific reference to knowledge, skills and abilities [7]. In the past 20 years, it has become popular to separate leadership into two types: transactional and transformational. Transactional leadership refers to a leader who identifies what followers want or prefer and helps them achieve a level of performance that results in rewards that satisfy the followers [17]. A transformational leader, on the other hand, has the ability to inspire and motivate followers to achieve results greater than originally planned [17].

There is an overlap between charismatic leadership and transformational leadership, and charisma is therefore an important attribute in transformational leadership [10]. Transformational leaders are charismatic leaders with a vision, who are self-confident, enthusiastic and able to win followers’ respect [16]. Ideal leaders have vision, charisma, integrity, emotional intelligence, inspiring delivery and a sterling character [31]. Charismatic leaders clearly communicate their vision to their followers with enthusiasm and they have high levels of self-confidence, which encourages others to respect them [31].

Authentic leaders are people of extraordinary integrity who lead with purpose, meaning and values with strong people relationships [14]. Authentic leadership involves insight, initiative, impact, influence and integrity [20]. The most important skill a leader can master is the ability to listen in a way that surfaces the underlying concerns of another and finds the intersections between seemingly opposing points of view [35]. Authentic leaders instill work values that are personal convictions about the outcomes that are expected from work and the type of behavior of followers [16]. Understanding work values will not only assist with operational leadership as mentioned above but also with change leadership [8]. Change management refers to a set of basic tools or structures intended to keep any change effort under control [23]. Change leadership, on the other hand, concerns the driving forces, visions and processes that fuel large-scale transformation [23]. A guiding coalition (GC) comprises selected representatives from different departments and levels whom the leadership trusts and which assists the process of participative management in order to improve change in an organization [24].

From the above literature review the research question arises: What leadership initiatives will enhance employee engagement? KeyStone People Strategic Solutions consultants developed a three-phased project to assist with this leadership initiative to enhance employee engagement.

The objective of this study was to determine if a leadership initiative such as leadership orientation workshop might enhance employee engagement, specifically amongst engineers at a metallurgical plant of a gold mining company in South Africa.

III. THE KEYSTONE PROJECT OVERVIEW

The mining company studied had developed a comprehensive business framework, which consisted of the organizational mission, vision, values, strategy and management framework. The objective of the management framework was to engage people in getting the work done, and it consisted of a business systems element and a ‘people’ element. KeyStone Strategic People Solutions (KSPS) developed the ‘One Team’ (leadership and engagement) project from the gold mining company’s business strategy for the metallurgical division. Accordingly, the organizational values of a company are a guide for all its employees. These values frame all of the other subsystems, particularly the managerial leadership practices by which managers instill the values into the organization with a view to promoting required organizational behaviors and the creation of a trust-inducing culture across the organization.

The guideline in South Africa for corporate ethics is the King 3 report, which allows inter alia for the governance of ethics (as opposed to the ethics of governance), which concerns the management of an ethics program in a company by means of a corporate ethics-management programme [21]. It requires the codification of organizational values into a code of ethics/conduct to provide the foundation and direction for business practice, to guide staff in terms of desired conduct and to formally express standards to all stakeholders. Through the code values must permeate the organization and should become an integral part of the company’s identity (‘who we are’) and culture (‘how we do things’).
Whilst the central theme of the project is engagement, it fully involves and includes aspects such as leadership, communication, values and transformation. Leadership is a key prerequisite and process driver of an engagement program, whilst the involvement of organized labor through project teams totally and radically redefines working relations and decision-making. Therefore, the objective of the ‘One Team’ project is to engage the people of the metallurgical division into the business journey by means of its value propositioning, through a combination of interventions, and the institutionalization of the change dynamics. Institutionalization in this context refers to aspects of capacity building, supported by business systems/mechanisms. A critical component of any organizational change initiative is to institutionalize the change by integrating it with organizational life and thereby affecting change in the organizational culture. In this regard, there is also an expected ‘push back’ from the current culture, which must be expected and managed.

Right from the beginning of the project, various mechanisms were built into the project as ‘pillars’ to settle it and to build towards sustaining the change over time, independent from external support.

The ‘pillars’ can be summarized as follows:
1. site-specific code of behavior (COB) – company’s values embodied;
2. ‘one-team’ meeting (OTM) methodology applied – OTM is the vehicle for workplace communication and team engagement;
3. ‘workplace improvement plan’ (WIP) – site-specific project plan to improve culture, work conditions, concerns, etc.;
4. properly constituted permanent ‘one-team’ committee (OTC) as vehicle to co-ordinate the further process;
5. leadership support/training as OTM discussion leaders;
6. training and evaluation of OTM coaches;
7. leadership coaching at individual level;
8. phased team development to establish high-performing teams; and
9. scorecard development to measure the plant’s performance.

The pillars are illustrated in the following diagram below.

The intent of the above-mentioned pillars is to solidify the required behavioral changes and to ensure that the intent of ‘One’ is given practical expression, in a participative and interactive manner. Change must, however, be proactively planned, managed and monitored over time. The focal point of this project was to get the employees to engage at an affective (emotional/relational) level and at a cognitive (intellectual) level with their leaders and each other.

The project phases and activities are illustrated in table 1 and table 2.
The focus of this paper was on the leadership orientation workshop of phase 1 (yellow section). This workshop consisted of modules such as understanding the functioning of the brain, changing of mindsets, becoming a catalysts, emotional maturity, open communication, leadership styles and understanding business.

IV. METHODOLOGY

The researchers decided not to use a mixed strategy due to the vast array of information received from the qualitative data in this study. A quantitative design and qualitative design were used for phases 2 and 3 in Table 2. In the current study, a qualitative research method was used. Purposive sampling was used as sampling procedure. The units (individuals) that were observed, were selected based on the researcher’s judgment about which individuals would be able to provide the most useful or representative information [3].

Six separate focus groups with engineers who attended the leadership orientation workshop were conducted to investigate the research question: What leadership initiatives will enhance employee engagement? A vast amount of information about the engineers’ experiences of the leadership orientation workshop was provided [3]. The focus group method is referred to as group interviewing [2]. For the purposes of this study, each focus group consisted of not more than seven engineers. Focus groups provide rapid information at a low cost, and the researcher has the opportunity to clarify some aspects of the questions put to the respondents easily [38]. The focus group method is a quick and effective method of collecting qualitative data as inputs can be obtained from several people at the same time. During discussions, the synergistic group effort produces a large number of ideas, which stimulate the generation of new ideas. Furthermore, data of a broad range, depth, detail and personal background is generated, and during the focus group process, the researcher is in the minority and the participants interact with their peers [4]. “A qualitative interview is essentially a conversation ... Ideally, the respondent does most of the talking” [2:336]. During the interviews, field notes were also obtained by the researchers.

All qualitative methods in the range, from symbolic interactionism to phenomenology, can be grouped under the heading of ‘interpretational analysis’ because these methods all share at least ten basic principles or practices of data analysis [37]. Krueger’s principles of data analysis show a large degree of overlap with Tesch’s view [25]:

- Analysis is not the last phase in the research process; it is concurrent with data collection or cyclic.
- The analysis process is systematic and comprehensive but not rigid.
- Attending to data includes a reflective activity that results in a set of analytic notes that guide the process.
- Data are ‘segmented’ i.e. divided into relevant and meaningful ‘units’.
- The data segments are categorized according to an organizing system that is predominantly derived from the data.
- The main intellectual tool is comparison.
- Categories for sorting segments are tentative and preliminary in the beginning and remain flexible.
- Manipulating qualitative data during analysis is an eclectic activity; there is no single ‘right way’.
- The procedures are neither ‘scientific’ nor ‘mechanistic’.

\[\text{TABLE 1: PROJECT PHASES}\]

<table>
<thead>
<tr>
<th>PHASE ONE: PREPARATION</th>
<th>PHASE TWO: DESIGN &amp; EXECUTE</th>
<th>PHASE THREE: SUSTAIN &amp; MONITOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding of context, creating climate, sharing information and collecting data.</td>
<td>Designing the change process from input received; and phased project execution.</td>
<td>Sustaining and monitoring (measuring) the change process.</td>
</tr>
</tbody>
</table>

\[\text{TABLE 2: PROJECT ACTIVITIES}\]

<table>
<thead>
<tr>
<th>PHASE ONE: PREPARE</th>
<th>PHASE TWO: DESIGN &amp; EXECUTE</th>
<th>PHASE THREE: SUSTAIN &amp; MONITOR</th>
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</thead>
<tbody>
<tr>
<td>• Leadership and engagement survey (base line cultural).</td>
<td>• Draw up workplace intervention plan (WIP).</td>
<td>• Leadership coaching (leadership support group – LSG).</td>
</tr>
<tr>
<td>• Strategic alignment.</td>
<td>• Develop code of behavior (COB).</td>
<td>• Continuous monitoring of effectiveness of OTMs.</td>
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<tr>
<td>• Mindset workshop.</td>
<td>• ‘One-team’ meeting (OTM) design and OTM facilitation skills training (workplace communication).</td>
<td>• Phased team development.</td>
</tr>
<tr>
<td>• Leadership orientation workshop.</td>
<td>• OTM evaluation and coaching.</td>
<td>• Performance scorecard (team and organizational level) &amp; ‘base line’ survey follow-up.</td>
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<td>• Preparation of appointed and elected leaders (OTC).</td>
<td>• Establish permanent ‘one-team’ committee (OTC), comprising of representatives from appointed and elected leaders.</td>
<td>• Focus groups and monitoring.</td>
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The purpose of coding is therefore to understand the raw data by putting names to events, incidents, behaviors and attitudes [38]. In the current study, this involved breaking down the narrative data into smaller units and coding and naming the units according to the content represented. The coded material was grouped based on shared concepts and meanings. The themes were then categorized and described. Following that, the field notes and the transcripts were analyzed [2].

V. RESULTS

The specification of the major findings is summarized in Table 4. These findings were categorized to answer the research question: What leadership initiatives will enhance employee engagement?

It is clear from the above table that a specific leadership intervention, namely a leadership orientation workshop, enhanced employee engagement amongst engineers at the plant under study and therefore answers the research question. The engineers indicated that the categories in Table 4 are definite outcomes of the workshop that enhanced their engagement. The eight recurring categories from the focus group data below were strong indicators of specific development areas to create an employee-engaging culture amongst engineers at the plant under study. The engineers indicated that the following issues should be in place to enhance employee engagement amongst them:

A. Leadership

The following issues regarding leadership were raised during the focus groups conducted with the engineers:

- commitment to engagement processes;
- dedication to the values of the mining company;
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### TABLE 4: A LEADERSHIP INTERVENTION AND EMPLOYEE ENGAGEMENT OUTCOMES

<table>
<thead>
<tr>
<th>Leadership intervention</th>
<th>Employee engagement outcomes</th>
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<tbody>
<tr>
<td>Leadership orientation workshop</td>
<td>Autonomy allowed amongst engineers was emphasized; management would only interfere in the case of a breakdown at the plant</td>
</tr>
<tr>
<td></td>
<td>Workshops assisted with the alignment of personal values of the engineers with the mining company’s values</td>
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<tr>
<td></td>
<td>Understanding of the importance of values improved</td>
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<tr>
<td></td>
<td>Positive attitudes towards the management, colleagues and the job itself occurred as a result of the workshops</td>
</tr>
<tr>
<td></td>
<td>Understanding the changing of mindsets</td>
</tr>
<tr>
<td></td>
<td>Safety is the responsibility of everyone; not only of the safety department</td>
</tr>
<tr>
<td></td>
<td>The understanding of how the brain functions led to an increased perception of the engineers’ potential</td>
</tr>
<tr>
<td></td>
<td>Patience was emphasized to allow the engagement of all team members</td>
</tr>
<tr>
<td></td>
<td>Recognition from management led to a higher motivation level amongst engineers</td>
</tr>
<tr>
<td></td>
<td>Creating an environment of trust created an openness amongst all staff</td>
</tr>
<tr>
<td></td>
<td>Instilling open communication at the plant</td>
</tr>
<tr>
<td></td>
<td>Patience from management’s side led to the effective engagement of staff</td>
</tr>
<tr>
<td></td>
<td>Instilling an open door policy motivated staff to raise concerns and ideas</td>
</tr>
<tr>
<td></td>
<td>Change leadership was encouraged where a need for guiding coalition (“one-team” meetings) was identified.</td>
</tr>
<tr>
<td></td>
<td>Understanding emotional maturity</td>
</tr>
<tr>
<td></td>
<td>Becoming a catalyst in change processes</td>
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<tr>
<td></td>
<td>Understanding which leadership styles will enhance employee engagement</td>
</tr>
<tr>
<td></td>
<td>Understanding the world of business in the gold mining industry</td>
</tr>
<tr>
<td></td>
<td>Managers leading by example encouraged engineers to work harder</td>
</tr>
</tbody>
</table>
• following a thorough strategic alignment approach;
• the need for managers to be trained as coaches and facilitators;
• bottom-up leadership – input and decision-making from all levels;
• transformational leadership;
• charismatic leadership;
• authentic leadership;
• two-way feedback between management and employees;
• constant recognition to employees;
• an environment of trust and openness; and
• subordinates’ opinions should be valued and not just listened to action needed.

From the qualitative analysis of the data, the impact of empowering leadership from the management at the plant clearly emerged. The charismatic leadership of the plant manager and his commitment to engaging the employees presented as a strong theme throughout the research: “Mr. X leads by example. He will take the hosepipe and he will clean. He will show the people how. He inspires people.”

The fact that supervisors experience a lot of pressure to cope with all the new processes is illustrated by responses from the participants such as: “There is a lot of stress for the supervisors … There are a lot of new processes … Supervisors feel overwhelmed.” Emotionally, the supervisors reported finding it difficult to master all the new processes and this lead to increased stress levels. The importance of enabling managers to become leaders was clear. “It is very, very difficult to teach engineers to become leaders … send managers on training courses, use mentorship and coaching” was an example of the need to develop leadership at the plant under study. Employees seemed to be uncertain about the seriousness of top management’s commitment to the process. “Those people on top. If they can just buy into things and let it work … then there will be no problem.” They perceived the process as ‘person-driven’ and they were worried about continuity, should the current manager be replaced by a new person.

B. Employees’ needs

The following issues regarding the employees’ needs were raised during the focus groups conducted with the engineers:
• how to cope with production pressures – frustration of middle management;
• how to cope with new production systems – frustration of middle management;
• availability of resources as a restraint;
• improving HR and training services;
• platform for continuous communication and participation; and
• coaching regarding how to change one’s mindset.

The fact that many of the employees in the plant struggled to cope with production pressures, manifested clearly. “The environment doesn’t allow you to apply what you have learnt. It is always crisis management in the plant.”

C. Processes

The following issues regarding the processes were raised during the focus groups conducted with the engineers:
• all processes should be based on safety, relationships, productivity;
• time for feedback/follow-up after workshops should be three months;
• implementation of interventions: follow through; and
• engagement champion at the site is needed.

In terms of relationships, an improved employee relations climate was evident. “We see a major improvement in the labor relations climate. We had a lot of labor problems … At the plant nearby there has also been a dramatic improvement.” A very strong sentiment toward follow-up and continuity was raised. “The things that have been done – it mustn’t stop. It must be a continuous thing … once it stops … those things don’t work … There must be a follow-up.”

D. Human resource (HR) practices

The following issues regarding the HR practices were raised during the focus groups conducted with the engineers:
• job analysis – job descriptions need to be compiled and revised;
• job evaluation – job grading, benchmarking;
• performance management system and training thereof;
• personal and career development; and
• talent management.

Employees felt strongly that personal development did not receive the necessary priority attention. This is illustrated by quotes such as, “It is never followed through. Especially PDP plans are never implemented. Nothing is implemented.”

E. Communication

The following issues regarding communication were raised during the focus groups conducted with the engineers:
• two-way feedback;
• freedom to express opinions and ideas; and
• listening skills.

When employees were asked how they thought engagement could be improved, communication manifested as the most important, single theme. “From my opinion, the most important thing is communication … Meetings, access to information, pamphlets, gatherings. Open communication is the most important thing.” From the focus group discussions, there was a strong indication that communication had improved after the workshops. “It is starting to change now; after the workshop. It is not a one-way communication that comes from the top down anymore. My input is important.”
F. Diversity
The following issues regarding diversity were raised during the focus groups conducted with the engineers:
- age;
- diversity;
- language;
- race; and
- individual personality.

There is a strong indication that the program was successful in creating a more empathetic understanding among the employees, for example, “The way I see something is maybe not the way you see something. I must sit back and listen to the other person. We tend to react too fast …” (Interview 1). Also “… they don’t look you in the eye, they don’t mean it disrespectfully. It is just the way they were brought up.” Participants alluded to the differences between the different generations. “People that are older than 45 find it difficult to change their mindsets. You must be willing.” “Most of the older guys are illiterate … Some of the older guys couldn’t understand the English.” Sensitivity to the varying needs in terms of, for example, the different generations should be fostered.

G. Transparency
The following issues regarding transparency were raised during the focus groups conducted with the engineers:
- reasons for management decisions are essential;
- openness regarding production statistics and safety statistics; and
- vision and future of the plant under study.

The need for openness and honest communication presented as an important theme throughout the research. “We are from different cultures. Now you have to be from one team. We must be open to another … there must be that intercommunication … it has an effect on the whole company.” It seems that transparency is perceived as an important determinant of the shared organization culture.

H. Ownership
The following issues regarding ownership were raised during the focus groups conducted with the engineers:
- participate in decision-making;
- responsibility;
- do not shift blame; and
- innovative thinking skills are necessary to create ideas.

The results strongly indicated that the program fostered ownership among the participants. “People must have ownership. This is your section, you must take responsibility.” In terms of participation, this was expressed as, “People want a platform to participate. They want to be involved.” Comments from another focus group: “People know they are important. Before they were not interested. Now they feel that they are part of this plant.” Also in terms of production, “It is not for management to say that production is produced … Everyone must be involved. Each and everyone must be involved.” Hence, there is an indication that plant workers accepted the fact that they were responsible for high production levels. And, “… if the behavior is good, then production will go up. We are one team that can compete globally …”

VI. CONCLUSIONS AND RECOMMENDATIONS
The unique perceived practical contribution of this paper lies in the formulation of methods by which employees can be engaged within the gold mining industry. It is not an easy, nor a simplistic process, as the employee relations in the gold mining industry in South Africa are notoriously complex. This specific leadership intervention can improve employee engagement in terms of technology management. This may include areas such as the integration of instrumentation and robotics systems, manufacturing execution systems, production optimization, maintenance management and the management of large capital projects. Mining companies should build and operate plants in a reliable, safe, low-cost and sustainable manner. An understanding of the uniqueness of the gold mining industry should therefore be accentuated amongst the employees to improve their engagement levels. Strategy design is a function of organizational leadership and strategy execution is a function of operational leadership [33].

The academic contribution of this paper is emphasized by the specific leadership styles that were encouraged at the plant under study were bottom-up leadership, transformational leadership, charismatic leadership and authentic leadership. Change leadership, mind-set training, values, strategic alignment, two-way feedback, recognition, trust, diversity, safety, relationships, job profiles, performance management and career development were main themes throughout the study. A full 29 research studies show a correlation between engagement and service, sales, quality, safety, retention, sales, profit, Total shareholder returns and the role of front-line managers [26]. The empirical data derived from the qualitative analysis clearly showed that employees experienced freedom to express opinions and ideas at this plant. This served as evidence that effective leadership was present. There was also a strong indication that the workshop interventions were successful in creating a more empathetic understanding among the employees. The need for openness and honest communication presented as an important theme throughout the research. After the leadership interventions, engineers also showed that they were willing to accept ownership and be accountable within their specific job roles.

It is recommended that managers at this gold mining plant embark on a leadership intervention, similar to the one discussed in this paper, in order to engage employees specifically in terms of technology management. It is also
recommended that interventions be introduced to address the issues mentioned in section 5. Future research on the same study can be conducted at other mining industries in South Africa with an emphasis on improving technology management. Lastly, an analysis of the changing situation of leadership within the gold mining industry in South Africa can also be conducted.

REFERENCES


