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Saxby, Peter

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Peter Saxby



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Abstract

The mining industry is experiencing challenges in attracting and retaining sufficient skilled employees to meet strategic aims and production objectives, despite offering relatively high financial incentives. Human resources management theory indicates that many factors contribute to employee motivation and job satisfaction, and that these in turn influence performance and employee turnover. Although financial rewards are recognised as major motivating factors in mining employee job satisfaction, non-financial motivators are also desired. This paper examines the use of non-financial incentives to improve performance and productivity in mine operational employees and identifies incentives that could achieve these goals. With few studies focusing on non-financial methods of improving personnel performance in mining, studies from other industries are considered and applied to the mining industry. The paper finds non-financial incentives are likely to increase the motivation of employees in the mining industry, and that incentives which improve the employee's workplace experience are particularly desired.

Key words

Non-Financial Incentives, Motivation, Productivity, Mining, HR Management

Author

Peter Saxby is a Chartered Mining Engineer with industry experience across four continents. He holds a BEng Mining Engineering from Camborne School of Mines, University of Exeter and is interested in resource development, operational leadership and technology implementation.

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1. Introduction

The mining industry is struggling to attract and retain the workers it requires to meet production targets and strategic objectives, despite little competition in terms of remuneration for similar job types in most regions (Abenov, et al., 2023). It is therefore clear that finding ways to improve job satisfaction, encourage employee motivation, and therefore increase performance and productivity is an important issue for the mining industry at current. A survey of mine employees scored compensation below flexibility, meaningful work, and colleagues as a reason to stay in a mining job; and also reported a lack of development opportunities as the main reason employees are likely to leave their current job (McKinsey & Company, 2022). This indicates that non-financial incentivisation may be an important area for the industry to focus on.

Non-financial incentives have been shown to increase staff retention and job satisfaction in numerous industries and countries including for example the Hong Kong retail industry (Tang, 2023), Kenya's public sector employees (Wangombe & Minja, 2018) and the Tanzanian banking industry (Msisiri, 2018). Research strongly indicates links between job satisfaction, motivation, and work performance by employees (Abdullah & Wan, 2013). Furthermore, it has been shown that younger generations are motivated less by monetary reward (Mahmoud, et al., 2020), and more by working environments involving collaboration, challenge, task meaning and development opportunities (Calk & Patrick, 2017). With an aging workforce in the mining industry (Nel & Bravo, 2023), a change from relying on higher payment to supplementing this with more non-financial incentives may be required.

This paper investigates how non-financial incentives can be utilised by the mining industry to improve employee motivation and performance. Firstly, a high-level overview of the main theories on employee motivation and performance drivers is presented to provide some basis for the discussion of motivating factors. This is followed by an examination of different non-financial incentives and their link to the theories previously introduced, along with a look at the differences between monetary and non-monetary incentives. The differences between incentivisation in different industries and cultures is also touched upon. Finally, the application of the above in the mining industry is investigated. The final section will also consider what unique characteristics the mining industry possesses with regards to employee motivation and whether they are challenges or opportunities.

2. Overview of Drivers of Performance and Productivity

There exist several prominent theories on employee motivation and workplace performance which are regularly referred to in literature discussing the topic. A very brief overview of six of the most important of these is provided below in order to introduce the theoretical basis for further discussion on encouraging motivation of employees in the mining industry. The theories summarised below are Maslow's Hierarchy of Needs, Herzberg's Two-Factor Theory, Expectancy Theory, Self-Determination Theory, Goal-Setting Theory and Equity Theory.

Maslow's Hierarchy of Needs suggests that motivation is rooted in the drive to fulfil unmet needs which are hierarchical in order. A person's motivational drive will be based upon the currently unfulfilled need in the hierarchy and until it is satisfied, the higher-level needs are of less influence (Maslow, 1943). The needs, in hierarchical order, are Physiological Needs, Safety Needs, Love and Belonging, Esteem, and Self-Actualisation; with each acting as a group of broader need types (McLeod, 2023). This has been a highly influential theory since publication; however, some studies indicate that humans are not driven to meet the needs sequentially and require a more balanced strategy in their satisfaction (Rojas, et al., 2023).

Herzberg's Two-Factor Theory states that experience of satisfaction and dissatisfaction are not opposites and are controlled by different influences, and that just because an employee is not dissatisfied does not mean they are satisfied (Herzberg, 1968). Herzberg identifies Motivating Factors (for example rewards, promotions, development) as leading to satisfaction or no satisfaction; and Hygiene Factors (company policies, workplace conditions, supervision) as leading to states of dissatisfaction or no dissatisfaction. Studies continue to assess the applicability of the two-factor theory to today's employees, with some literature reviews finding it to hold true (Mitsakis & Galanakis, 2022), while other studies indicate it is less applicable to younger generations (Bhatt, et al., 2022).

Expectancy Theory is based on the relationships people believe exist between the effort put into their work, the performance that results for their effort, and the rewards that are received due to this effort and performance (Lunenburg, 2011). The theory is based upon four assumptions (Vroom, 1964): People hold expectations relating to their needs, motivation and experience when they start in a job; People have (and make) choices about how they behave; People desire different things from the employer/organisation; People will select from a range of alternatives in order to achieve the best outcome for them personally. The theory suggests that people are more motivated when the rewards for effort and performance match their

existing expectations. The theory also states that there are three components of employee decision making in the lead up performance to achieve a reward (Ogundare & Omotosho, 2023): Expectancy - employee expectations about what they can achieve; Valence – how the person values the rewards offered; and Instrumentality – employee belief in whether they will get the reward/outcome if they perform as expected.

Self-Determination Theory suggests that there are basic psychological needs such as competence, autonomy, and relatedness, which play critical roles in a person's experience of wellness, growth, and integrity (Ryan & Deci, 2022). Furthermore, the theory distinguishes between two types of motivations; autonomous (acting with choice, endorsement, and volition) and controlled (externally compelled by reward, fear or other external influences). Numerous studies support the theory and have shown intrinsic or internalised extrinsic autonomous motivation leads to people showing greater interest, confidence, better performance, and well-being in their work (Ryan & Deci, 2017).

Goal Setting Theory, developed by Locke and Latham (1990), is based upon the relationship between goal directed action and task performance. The theory states that it is a person's performance goals that determines whether they perform better or worse than others. Locke and Latham suggest that goal setting enhances task-based performance in four ways: Firstly, through the focussing of effort that a specific goal encourages; secondly by pushing the individual to direct effort towards the goal; thirdly, by driving persistence meaning more effort is put towards more difficult goals; and finally by facilitating the development of strategies to achieve the goal (Locke & Latham, 2002). Furthermore, goal setting theory also describes five goal characteristics which control the impact of goal setting: Goal difficulty, specificity, proximity, source, and type (Jeong, et al., 2021).

Equity Theory proposes that individuals experience distress if they perceive themselves to be either under- or over-rewarded for performance, and that this leads the individual to try to restore equity between their inputs and received outcomes (Huseman, et al., 1987). An important aspect of this theory is that of the individual's perception of their own input/outcome ratio compared to social referents (Fortes-Ferreira, 2014). It is the expectations of a person when comparing their input/outcome ratio to others which generates the feeling of tension, and therefore drives a person to restore equity (Adams, 1963).

These important theories are highly relevant to the discussion of how non-financial incentives can impact employee motivation. For example, Maslow's theory suggests it would be important

to select incentives carefully, with consideration for the actual need level the employee is experiencing. Equity theory and expectancy theory point towards the idea that non-financial incentives must be carefully balanced not only to the magnitude of the effort required, but also to the specific perceptions of the employee(s); too small or too large a reward may stifle motivation. Finally, from self-determination theory and goal setting theory it is suggested that productivity and performance can be encouraged through developing self-driven and clear development goals, and structuring rewards programmes to support these autonomous motivations.

3. Non-Financial Incentive Programs

Many studies indicate positive relationship between employee motivation and work performance (Cerasoli, et al., 2014) (Jalagat, 2016) (Chintaloo & Mahadeo, 2013). Literature and studies also show strong links between rewards of a non-financial nature and improved employee motivation (Haider, et al., 2015). It must be noted however that there is also strong evidence for the link between financial incentives and increased work performance (Barends, et al., 2022), but quality of performance has been found to suffer in some situations, especially with high monetary incentivisation (Beilock, et al., 2004). Furthermore, some studies indicate that rewards of a financial nature can undermine motivation and negatively impact performance; especially in more complex or self-rewarding tasks (Himmelstein, et al., 2014). Owing to the above, it seems that the implementation of non-financial rewards as part of a balanced incentivisation structure can be an effective means of improving employee motivation and performance.

Effective non-financial rewards can take many forms including ‘gifts’ such as extra holiday, reduced working hours, team events or subsidised meals or services as vouchers for restaurants, cinemas or shops (Whitaker, 2010). Employees have been shown not only to exhibit increased motivation upon the offer of potential non-financial rewards, but also to be more productive after receiving such gifts (Thompson, 2021). The selection of these types of rewards must however be carefully considered to ensure they are what the employee(s) would like to receive, not what the manager would like to receive (People Management, 2004). Furthermore, regular reviews should be conducted to ensure they remain current in their ability to promote motivation and improved productivity, especially where vouchers or reward activities require an amount of associated spending by the employee (Fisher, 2017). It is notable however that the study by Thompson (2021) found a significant association between the reward received and

reward desired, which was linked to the psychological feeling of having their efforts appreciated. In the design of gift type non-financial incentives, it can be seen how important theories such as Equity Theory and Expectancy Theory might be, for example in understanding the risk of offering too small an incentive to produce motivation; exceeding expectations and creating a goal the employee feels must be unachievable; or generating high levels of stress in an employee where the reward creates an excessive imbalance in the perceived equity between employee and employer.

Another significant form of non-financial incentive is the provision of training and education as part of career development, which as a means of increasing motivation and performance has been found to be highly successful (Khan, 2012). Furthermore, the higher the quality of training provided, the greater the resulting motivation and productivity (Hairo & Martono, 2019). Provision of training has even been shown to be able to incentivise older employees to continue working past retirement age, with the motivation for continued training being a stronger factor than the actual participation in training (Thieme, et al., 2015). Despite the strong evidence for the offer of training as a positive motivator, training is sometimes not offered by employers due to fear of losing better trained employees (Betcherman, et al., 1998). Staff are however no more likely to leave a company following training (Brabson, et al., 2019) and turnover rate of employees within an organisation following training can actually reduce sufficiently to offset the cost of training (Choi & Dickson, 2009). One potential method of utilising training as an incentive is by supporting employees in setting their own professional development goals, with training offered as a reward to aid them on their journey. Goal-Setting Theory supports this methodology due to the development of a personal goal in the employee. Additionally, the use of training as an incentive can also be linked to Vroom's Self Determination Theory as the employee can develop their own autonomy in building an increasing sense of competence through their own efforts.

Non-financial recognition can also be provided in the form of simple acknowledgement of the efforts and successes of the employee(s) through verbal or written communication, public appreciation in newsletters or at organisation events, or through practices such as 'employee of the month' displays (Silverman, 2004). However, as also noted by Silverman, the basic 'thank you' should be a part of any good management practice anyway and so perhaps should not be classed as a 'reward'. Looking at motivational theory, the benefits of recognition and praise as rewards would be represented by Maslow's 'Belonging' and 'Esteem' levels of needs (Soto, 2014). Therefore, it must be considered whether the preceding needs have been sufficiently

met in the individual before this can be relied upon as an effective incentive. Furthermore, based upon both Equity Theory and Expectancy Theory, recognition and praise alone as rewards may be insufficient if the individual or team expected something more substantial, or feel that the effort and results warrant a greater reward. Research seems to indicate mixed results from the giving of praise, thanks and recognition as motivators, but overall, it seems to be highly beneficial (Washakowski, 2015).

Non-financial rewards may be more or less effective based upon factors such as gender, race, culture and age. Non-financial rewards have been found to be more attractive to women than men as part of job applications (Schlechter, et al., 2015), whereas men are more likely to be motivated by increased income, promotion and responsibility (Hitka, et al., 2020). Sources of motivation change as people age, with older employees tending to be more motivated by intrinsically rewarding job features than extrinsic ones (Inceoglu, et al., 2011). However, this may be more related to older people's needs being less connected to factors such as employment (Wang, 2012). Other research suggests that younger people are more likely to be motivated by prospects for career advancement (Bonsdorff, 2011), and therefore non-financial rewards relating to training and professional development. Race and culture, as part of social identity, can be important factors in determining what incentives will be effective in motivating an employee or team (Kafka, et al., 2021). However, it has also been demonstrated that although culture is important, other factors such as economic and organisational influences are more significant drivers of reward preferences and resulting performance (Chiang & Birtch, 2011). Considering the above, it is clearly extremely important to understand the targets of any non-financial incentivisation, in order to ensure that not only is the resulting increase in motivation is sufficiently positive, but also that negative results are not produced.

An important consideration in the use of non-financial incentives is whether they are used in addition to or in replacement of financial incentives. It is clear that non-financial incentives cannot circumvent the need of individuals to meet their basic physiological or security needs, and it has been demonstrated that financial rewards are at the very least a moderating factor in the success of non-financial incentives (Appelbaum & Kamal, 2000). As per Herzberg's Two Factor Theory, rewards and incentives are a Motivating Factors, whilst pay is a Hygiene Factor (Mansaray-Pearce, et al., 2019). Therefore, the two must be treated as separate and not interchangeable. Rewards may be able to lead to increased job satisfaction, but they are not able to reduce the level of dissatisfaction felt if pay does not meet needs or expectations.

4. Application of Non-Financial Incentives to the Mining Industry

As noted previously (Abanov, et al. 2023), the mining industry is regarded as a highly competitive payer, with extensive usage historically of financial incentives to attract and retain talent. In addition to relatively high basic pay rates, financial bonuses are commonly used in mining operations world-wide to drive safe and increased productivity; and these production bonuses have been shown to successfully motivate employees (Du Plessis, 2020). However, despite this the industry is struggling to attract and maintain a sufficient workforce to meet production goals and therefore must look at other sources of motivation and job satisfaction for employees. Mining is often carried out in remote locations, with many employees working on long fly-in fly-out (FIFO) rosters of several days (and up to several months in some operations) working time away from home. This presents some unique stresses which, despite the high pay levels, can lead to employee turnover due to organisational factors (rosters, work culture, management, etc.) and personal factors such as family circumstances (Brown, et al., 2014). With pay levels already relatively high, and financial incentives in place, non-financial incentives may be the solution to increasing motivation and satisfaction, reducing dissatisfaction, and improving productivity.

Several studies have been conducted investigating motivation and performance in the mining industry in several different countries and varying types of mines. A study looking at the Ibarski Rudnici mines in Serbia indicates that the primary motivator there for employees is financial through pay, but that non-material incentives are important (Bozovic & Bozovic, 2019). This finding is supported by a study on mine workers in Ghana which identified pay as the best motivating factor for mining industry employees (Kuranchie-Mensah & Amponsah-Tawiah, 2016). Conversely, a study on employee job satisfaction in a South African coal mine found that salary did not contribute towards satisfaction, with employees instead highlighting the importance of work-life balance, growth potential and support of management (Tshivhase & Vilakazi, 2018). Another study on engagement and job satisfaction in South African mines found that job satisfaction was increased when job resources and challenging work types were increased, and that satisfaction reduced when hindering job demands were removed (de Beer, et al., 2016). Similarly, a study in a coal mine in Australia found that for its employees, job satisfaction provided a stronger effect on their overall satisfaction than that from their private life (Iverson & Maguire, 2000). A common theme running through the results of all the studies was the importance of the work itself, and that difficulty and challenge make up an important

part of the satisfaction with the job for mine workers. These findings suggest that as with other industries, and perhaps even more so, that pay is likely to be a fairly fundamental baseline motivator in the mining industry, but that other incentives which relate to improving the working experience itself would be beneficial in improving motivation and productivity.

Relatively few studies into non-financial incentives with a focus on the mining industry are available in the literature. One study (Nkanabo, 2022) assessing non-monetary rewards on mining employees at a gold mine in Tanzania highlighted the following as the most important non-monetary rewards positively impacting worker performance: Flexible working hours including annual leave, relaxation time, balanced shift work and openness to the needs of families; employee recognition schemes; provision of health insurance; training opportunities; free services such as travel, housing allocation and work clothing; and work environment related items such as the quality of food given to workers, workplace security and safety training. Another study, looking more broadly at the mining industry, highlighted motivators which included the following non-financial incentives: Dynamic and challenging job tasks, feedback on achieved results, increased responsibility, and opportunities to participate in decision making (Janovac, et al., 2021). These two studies do seem to support general findings of the previously discussed studies into mining employee motivation; that many desires of mine workers relate to the job itself, rather than rewards to be used for life outside of work. This presents an excellent opportunity for the mining industry to improve the workplace experience of its employees, while simultaneously benefiting the companies themselves through the wider benefits of a more content workforce.

Based upon the above studies, it can be seen that the potential for the use of non-financial incentives within the mining industry will differ between countries, cultures and mine operations. Some of these differences may well be explained by Maslow's Hierarchy of Needs theory, with mines operating in developing countries and in those with security risks being more likely to have employees working to meet lower-level needs such as physiological or safety and security, whilst those in developed nations may be focussed more on the higher-level needs. This can be seen clearly when viewing the results of the study by Nkanabo (2022) in Tanzania in which access to water (a physiological need) was recorded as a desired non-financial benefit, in comparison to a job satisfaction survey in the Australian mining industry which indicated intrinsic career rewards (a self-esteem need) as being most desired for motivation (Barclay, et al., 2016). Furthermore, cultural differences between countries influence motivation related values and therefore require different approaches to motivational

incentivisation (Osarumwense, 2009). Even within a single nation, cultural differences can lead to different levels of importance being applied to different hierarchical needs (and thus desirability of non-financial incentives) as shown for example in Iran across 6 different cultural groups (Mousavi & Dargahi, 2013).

Once these considerations are taken into account, along with the studies reporting the prime importance of pay, it is clear that before non-financial incentives are relied upon a mining company must first ensure that its workers' basic needs/hygiene factors are being met; with financial remuneration being an important baseline for this (Burlacu & Birsan, 2016). Once this foundational incentive exists, the literature indicates that non-financial incentivisation should primarily focus on incentives which improve the work experience of the employees, largely due to the length of time spent at work and the challenging nature of the job. Training and professional development opportunities can be highly successful and lead to improved performance through both increased motivation and the results of upskilling of the employee (Sharma & Shirsath, 2014). Furthermore, the provision of soft-skills training such as in communication and teamwork has been found to increase motivation and workplace engagement, while also reducing stress in employees in the mining industry, which all in turn led to improved health and safety in the company studied (Molek-Winiarska & Kawka, 2022).

5. Conclusion

In recent years, the mining industry has been struggling to attract and retain the talent needed to meet production and strategic goals, despite relatively high pay being offered. With financial incentives seemingly not sufficiently effective, non-financial incentivisation may be important to increase motivation and productivity of employees. A thorough understanding of motivational theory provides a basis upon which non-financial rewards and incentives can be developed. Of particular importance is the application of Maslow's hierarchy of needs, which can aid in correctly selecting potential incentives to apply to specific employee groups. Also of importance are theories such as expectancy theory and equity theory, which highlight the importance of considering the scale of the tasks being performed and ensuring that rewards and incentives are of an equal scale from the viewpoint of the employee.

Non-financial incentives are commonly used in various industries, and have been shown to positively influence employee motivation, performance, and productivity. Although, the effectiveness does vary based upon the specific scenario in which they are utilised. Non-

financial incentives can take the form of ‘gifts’ such as vouchers for use outside of the workplace, training and education relating to the employees job, or praise and acknowledgement through direct communication or other schemes and events. Literature regarding the use non-financial incentives in the mining industry specifically indicates similar findings to in other industries and scenarios. The importance of catering to the specific needs and desires of the employees is clear, along with understanding differences which may exist between cultures. Something which seems to be important to mining employees is to focus on rewards and incentives which can improve the day-to-day work experience itself, rather than on non-work-related rewards. However, the mining industry is extremely broad, and it is important to reiterate that tailoring the incentives to the employees themselves is perhaps the most important consideration.

Overall, it seems that non-financial incentives have strong potential for increased application within the mining industry, and that further research into the most appropriate way this could be done will be important in turning the tide on an industry struggling to meet its demand for productive workforces.

BIBLIOGRAPHY

- Abdullah, A. A. & Wan, H. L., 2013. Relationships of Non-Monetary Incentives, Job Satisfaction and Employee Job Performance. *International Review of Management and Business Research*, pp. 1085-1091.
- Abenov, T., Grabbert, T., Franklin-Hensler, M. & Larrat, T., 2023. *Has mining lost its luster? Why talent is moving elsewhere and how to bring them back*. [Online] Available at: <https://www.mckinsey.com>
- Adams, J. S., 1963. Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, pp. 422-436.
- Appelbaum, S. H. & Kamal, R., 2000. An analysis of the utilization and effectiveness of non-financial incentives in small business. *Journal of Management Development*, pp. 733-763.
- Barclay, M. A. et al., 2016. Geologists, FIFO work practices and job satisfaction. *Applied Earth Science*, pp. 221-230.
- Barends, E., Wietrak, E., Cioca, I. & Rousseau, D., 2022. *Financial incentives: an evidence review*, London: Chartered Institute of Personnel and Development.
- Beilock, S. L., Kulp, C. A., Holt, L. E. & Carr, T. H., 2004. More on the fragility of performance: choking under pressure in mathematical problem solving. *Journal of Experimental Psychology*, pp. 584-600.
- Betcherman, G., Leckie, N. & McMullen, K., 1998. *Barriers to Employer-Sponsored Training in Canada*, Ottawa: Canadian Policy Research Networks.
- Bhatt, N., Chitranshi, J. & Mehta, M., 2022. Testing Herzberg's two factor theory on millennials. *Cardiometry*, pp. 231-236.
- Bonsdorff, M. v., 2011. Age-related differences in reward preferences. *The International Journal of Human Resource Management*, pp. 1262-1276.
- Bozovic, J. & Bozovic, I., 2019. Research and Improvement of Employee Motivation in Mining Companies: A Case Study of "Ibarski Rudnici", Serbia. *International Review of Management and Marketing*, pp. 1-11.
- Brabson, L. A., Herschell, A. D., Kolko, D. J. & Mrozowski, S. J., 2019. Associations Among Job Role, Training Type, and Staff Turnover in a Large-Scale Implementation Initiative. *The Journal of Behavioral Health Services & Research*, pp. 399-414.
- Brown, A., Susomrith, P., Sitlington, H. & Scott, G., 2014. Determinants of employee-turnover intentions in atypical employment: The FIFO mining industry in Western Australia. *Australian Bulletin of Labour*, pp. 116-137.
- Burlacu, M.-I. & Birsan, A., 2016. *The Monthly Salary as a Motivational Factor from the Perspective of the Degree of Satisfaction and the Quality of Life*. Bucharest, s.n., pp. 418-427.
- Calk, R. & Patrick, A., 2017. Millennials through the looking glass: Workplace motivation factors. *The Journal of Business Inquiry*, pp. 131-139.

- Cerasoli, C. P., Nicklin, J. M. & Ford, M. T., 2014. Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psychological Bulletin*, pp. 980-1008.
- Chiang, F. F. T. & Birtch, T. A., 2011. The Performance Implications of Financial and Non-Financial Rewards: An Asian Nordic Comparison. *Journal of Management Studies*, pp. 538-570.
- Chintaloo, S. & Mahadeo, J. D., 2013. *Effect of Motivation on Employees' Work Performance at Ireland Blyth Limited*. London, s.n., pp. 1-16.
- Choi, Y. & Dickson, D. R., 2009. A Case Study into the Benefits of Management Training Programs: Impacts on Hotel Employee Turnover and Satisfaction Level. *Journal of Human Resources in Hospitality & Tourism*, pp. 103-116.
- de Beer, L. T., Tims, M. & Bakker, A. B., 2016. Job crafting and its impact on work engagement and job satisfaction in mining and manufacturing. *South African Journal of Economic and Management Sciences*, pp. 400-412.
- Du Plessis, L., 2020. Investigate the relationship between production bonuses and productivity of employees in different wage categories. *Economic and Management Sciences*.
- Fisher, J. G., 2017. Who benefits from benefits?. *Strategic HR Review*, pp. 117-124.
- Fortes-Ferreira, L., 2014. Equity. In: *Encyclopedia of Quality of Life and Well-Being Research*. Dordrecht: Springer.
- Haider, M., Aamir, A., Hamid, A.-B. A. & Hashim, M., 2015. A literature Analysis on the Importance of Non-Financial Rewards for Employees' Job Satisfaction. *Abasyn Journal of Social Sciences*, pp. 341-354.
- Hairo, A. M. & Martono, S., 2019. The Effect of Environment, Training, Motivation, and Satisfaction on Work Productivity. *Management Analysis Journal*.
- Herzberg, F., 1968. One More Time: How Do You Motivate Employees?. *Harvard Business Review*, pp. 53-62.
- Himmelstein, D. U., Ariely, D. & Woolhandler, S., 2014. Pay-For-Performance: Toxic to Quality? Insights from Behavioral Economics. *International Journal of Health Services*, pp. 203-214.
- Hitka, M. et al., 2020. Factors related to gender and education affecting the employee motivation. *Entrepreneurship and Sustainability Issues*, pp. 3226-3241.
- Huseman, R. C., Hatfield, J. D. & Miles, E. W., 1987. A New Perspective on Equity Theory: The Equity Sensitivity Construct. *Academy of Management Review*.
- Inceoglu, I., Segers, J. & Bartram, D., 2011. Age-related differences in work motivation. *Journal of Occupational and Organizational Psychology*, pp. 300-329.
- Iverson, R. D. & Maguire, C., 2000. The Relationship between Job and Life Satisfaction: Evidence from a Remote Mining Community. *Human Relations*, pp. 807-839.

- Jalagat, R., 2016. Job Performance, Job Satisfaction, and Motivation: A Critical Review of their Relationship. *International Journal of Advances in Management and Economics*, pp. 36-42.
- Janovac, T. et al., 2021. THE Influence of Employee Motivation Factors on Job Satisfaction in Mining Companies. *Polish Journal of Management Studies*, pp. 224-238.
- Jeong, Y. H., Healy, L. C. & McEwan, D., 2021. The application of Goal Setting Theory to goal setting interventions in sport: a systematic review. *International Review of Sport and Exercise Psychology*.
- Kafka, K., Kanzola, A. M. & Petrakis, P. E., 2021. Cultural Perspectives of Financial and Non-Financial Incentives. *Journal of Business, Accounting and Financial Perspectives*.
- Khan, M., 2012. The Impact of Training and Motivation on Performance of Employees. *Business Review*, pp. 84-95.
- Kuranchie-Mensah, E. B. & Amponsah-Tawiah, K., 2016. Employee motivation and work performance: A comparative study of mining companies in Ghana. *Journal of Industrial Engineering and Management*, pp. 255-309.
- Locke, E. A. & Latham, G. P., 1990. *A theory of goal setting and task performance*. s.l.:Prentice Hall.
- Locke, E. A. & Latham, G. P., 2002. Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, pp. 705-717.
- Lunenburg, F. C., 2011. Expectancy Theory of Motivation: Motivating by Altering Expectations. *International Journal of Management, Business, and Administration*, pp. 1-6.
- Mahmoud, A. B., Reisel, W. D., Grigoriou, N. & Mohr, L. F. I., 2020. The reincarnation of work motivation: Millenials vs older generations. *International Sociology*, pp. 1-22.
- Mansaray-Pearce, S., Bangura, A. & Kanur, J. M., 2019. The Impact of Financial and Non-Financial Rewards on Employee Motivation: Case Study NRA Sierra Leone. *International Journal of Research in Business Studies and Management*, pp. 32-41.
- Maslow, A. H., 1943. A theory of human motivation. *Psychological Review*, p. 370–396.
- McKinsey & Company, 2022. *Great Attrition, Great Attraction 2.0: "McKinsey Global Survey Results*, s.l.: McKinsey & Company.
- Mcleod, S., 2023. *Maslow's Hierarchy of Needs*. [Online] Available at: <https://www.simplypsychology.org>
- Mitsakis, M. & Galanakis, M., 2022. An Empirical Examination of Herzberg's Theory in the 21st Century Workplace. Organizational Psychology Re-Examined. *Psychology*, pp. 264-272.
- Molek-Winiarska, D. & Kawka, T., 2022. Reducing Work-Related Stress Through Soft-Skills Training Intervention in the Mining Industry. *Human Factors: The Journal of the Human Factors and Ergonomics Society*.
- Mousavi, S. H. & Dargahi, H., 2013. Ethnic Differences and Motivation Based on Maslow's Theory on Iranian Employees. *Iranian Journal of Public Health*, pp. 516-521.

- Msisiri, P. R., 2018. Relationship Between Non-Financial Rewards and Retention of Employees in Banking Industry: Case of Commercial Rural Development Bank-Arusha. *Doctoral Dissertation, Jkuat-Cohred.*
- Nel, J. & Bravo, P., 2023. Rethinking external talent pathways - Solving complex workforce challenges through collaborative solutioning. In: *Tracking the trends 2023 - The indispensable role of mining and metals*. s.l.:Deloitte, p. 42.
- Nkanabo, C., 2022. The Assessment of Non-Monetary Rewards on Mining Industry Employees' Performance: A Case of Geita Gold Mining Company Limited in Geita. *Masters Thesis - Open university of Tanzania.*
- Ogundare, P. & Omotosho, B. J., 2023. The Relevance of Expectancy Theory in Explaining Employee Performance and Productivity. pp. 1-11.
- Osarumwense, I., 2009. Motivation-related values across cultures. *African Journal of Business Management*, pp. 141-150.
- People Management, 2004. Redeeming Features. *People Management Magazine*, 15 July.
- Rojas, M., Méndez, A. & Watkins-Fassler, K., 2023. The hierarchy of needs empirical examination of Maslow's theory and lessons for development. *World Development*.
- Ryan, R. M. & Deci, E. L., 2017. *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. New York: Guildford Publishing.
- Ryan, R. M. & Deci, E. L., 2022. *Self-Determination Theory*. [Online] Available at: <https://selfdeterminationtheory.org>
- Schlechter, A., Thompson, N. C. & Bussin, M., 2015. Attractiveness of non-financial rewards for prospective knowledge workers: An experimental investigation. *Employee Relations*, pp. 274-295.
- Sharma, V. & Shirsath, M., 2014. Training - A motivational tool. *IOSR Journal of Business Management*, pp. 27-35.
- Silverman, M., 2004. *Non-Financial Recognition - The Most Effective of Rewards?*, Brighton: Institute for Employment Studies.
- Soto, E., 2014. The impact of behaviour-specific praise on student engagement. *California State University Capstone Projects and Master's Theses*.
- Tang, W. C., 2023. The Relationship between Non-Financial Rewards and Employee Retention in the Retail Industry: A Case Study of a Supermarket Chain Group in Hong Kong. *International Research Journal of Economics and Management Studies*, pp. 229-237.
- Thieme, P., Bruschi, M. & Busch, V., 2015. The role of continuing training motivation for work ability and the desire to work past retirement age. *European Journal for Research on the Education and Learning of Adults*, pp. 25-38.
- Thompson, M., 2021. Financial vs non-Financial Gifts and Worker' Performance: An Experimental Analysis of Reciprocity in the Workplace. *Organisational Psychology*.

Tshivhase, T. & Vilakazi, L., 2018. Job Satisfaction: What Factors in the Coal Mining Industry will Lead to Higher Satisfaction?. *International Journal of Management Science and Business Administration*, pp. 17-25.

Vroom, V. H., 1964. *Work and Motivation*. San Francisco: Jossey-Bass.

Wangombe, N. M. & Minja, D., 2018. Non-Financial Rewards and Their Effects on Employee Retention in the Public Sector in Kenya; The Case of the National Treasury. *American Journal of Public Policy and Administration*.

Wang, Q., 2012. *The Needs of Older People in Later Life*, Gävle: Gävle University College.

Washakowski, A., 2015. The Moderating Effects of Praise on the Relationship between Autonomy and Work Motivation. *University of New Hampshire Honors Theses and Capstones*.

Whitaker, P., 2010. What non-financial rewards are successful motivators. *Strategic HR Review*.