TIME PRESSURE, LIFE SATISFACTION AND ABSENTEEISM OF EMPLOYEES OF SHIFT WORK WITHIN THE MINING INDUSTRY IN SOUTH AFRICA

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–Abstract–

The potency of time pressure and complacency derived from work and life raises important questions about employees’ tendency to be absent from work. Their significant influence is more pronounced with an understanding of the nature and dynamics of the work in question, such as shift work. While the changes accompanied by the ascending influence of labour market flexibility has engendered different employment types with increased time pressure and decreased life satisfaction, what remains largely unclear is the nexus between time pressure, life satisfaction and absenteeism.

Relying on quantitative data, the paper examines the relationship between time pressure, life satisfaction and absenteeism. It also unpacks how time pressure and life satisfaction predicts absenteeism. Using the descriptive survey, a total of 341 (N=341) randomly selected shift workers of the mining industry participated in this
study. The Pearson–Moment Product Correlation and Regression Analysis were used to analyse the retrieved data. The findings revealed that time pressure positively correlates with shift workers’ absence from work, while life satisfaction and absenteeism of shift workers shows a weak negative relationship. While time pressure predicted workers’ absenteeism from the organisation, life satisfaction does not show any prediction of work absenteeism. It is concluded that a critical evaluation of work time pressure with emphasis on shift workers will decrease the rate of absenteeism in the mining industry. This suggests the need for appropriate policies and strategies for the restructuring of the work time schedule to a more flexible, worker-friendly and less strenuous work environment for a reduction in shift workers’ absence from work.

**Key Words:** Work pressure, life satisfaction, shift work, absenteeism, mining industry

**JEL Classification:** C12, I31, J28, O15

1. **INTRODUCTION**

The potency of time pressure and life satisfaction raises important question(s) about employees’ tendency to be absent from work. Their significance, however, is more pronounced with a robust understanding of the nature and trends of work in question, such as shift work type. The changes accompanied by the increasing trend of labour market flexibility has provoked different employment types with ascending time pressure and waning life satisfaction (Schade, Burger & Radlinger, 2018). Particularly, these modifications have altered the existing traditional employment relationship for increased atypical employment types such as shift and part-time employment, with evidence of increased time pressure and low life satisfaction (Beckers, Kompier & Kecklund, 2012). While evidence abounds in the literature with regards to extant studies on the relationship between time pressure and employees’ absence from work, what remains largely unknown is the link between time pressure, life satisfaction and absenteeism. With this in mind, the current study seeks to establish the nexus between time pressure, life satisfaction and absenteeism from work.
The discourse of time pressure and life satisfaction are important indicators for employees to achieve balance in other areas of their lives (Loewe et al., 2014). This analysis has offered an increasing number of literature suggesting the impact time pressure and life satisfaction could have on employees’ well-being and happiness (Loewe et al., 2014; Jahn, 2013). Yet, the mammoth number of these arguments have offered sparse commentaries on the influence work time pressure, and the extent of one’s life satisfaction could have on work absenteeism.

The configuration of the mining industry is characterised with work time pressure that have consequently denied employees ample opportunities to derived satisfaction from other spheres of their life activities (Asare, Schmitt & Bernhagen, 2013). One of the crucial factors that has been argued to affect employees’ life satisfaction, is the quantity of time invested to work-related activities and the amount of job descriptions (Unanue, et al., 2017). In essence, excessive work pressure can undeniably put employees in a stance of fatigue, illness, reduced work and life satisfaction (Ose, 2005), with little evidence to show for employees’ absence from work. A growing number of empirical studies have only recounted that employees’ absence from work could be a function of organisational restructuring and changed programmes, redundancy and job insecurity (Unanue, et al., 2017; Beckers, Kompier & Kecklund, 2012). Other studies have investigated the consequences of time pressure and the causes of decreased life satisfaction (Vignoli, Guglielmi, Bonafiglioli, & Violante, 2016; Schade, Burger & Radlinger, 2018).

However, there is a paucity of research work on the relationship between time pressure, life satisfaction and absenteeism. The absence research literature demonstrates a lack of empirical position on how time pressure and life satisfaction of employees’ affect their absence from work. To address this gap, this study shows a departure from existing studies with the primary objective of uncovering a robust discussion on the relationship between time pressure, life satisfaction and absenteeism in the mining industry. It also seeks to understand how time pressure and life satisfaction predicts employees’ absenteeism in the mining industry. To achieve this aim, the article is divided into sections. While the first part has distilled the background
of the study, the second part provides empirical discussions on the relationship between time pressure and absenteeism on the one hand, and life satisfaction and absenteeism on the other. The third clarifies the methodological approaches employed in this study. While the fourth sets out results and interpretation of findings, the last part provides conclusions and recommendations.

2. LITERATURE REVIEW

The discourse of time pressure influence on employees’ turnaround time at work no doubt has continued to engender different commentaries from researchers in the field of psychology and other related disciplines. While this position to an extent, is non-contestable, what remains largely unknown is the degree of time or work pressure that can bring about work absence. Widely accepted as one of the main banes of sickness and fatigue in the context of an organisation, time pressure has also been identified as one of the main movers of organisational productivity (Vignoli, Guglielmi, Bonafiglio, & Violante, 2016; Schade, Burger & Radlinger, 2018). For instance, related studies have identified that employees seem to put in their best for the growth of the organisation when working under pressure (Tucker & Rutherford, 2005; Pasupuleti, Allen, Eric, & Cluse-Tolar, 2009). Therefore, time pressure can be described as somewhat possessing a twin discourse for employees’ absence from work. Similarly, the extent of complacency derived from life by employees, cannot only be entirely explained by rewards and outputs from the organisation, but a constellation of other non-organisational factors. Thus, this assertion clearly supports the popular axiom that ”a happy worker is a productive worker”. Given the above background, this section of the paper through empirical account seeks to unpack the discourse of time pressure and employees’ absenteeism on the one hand, and the debate of life satisfaction and employees’ absenteeism on the other.

Time pressure and employees’ absenteeism from work

Changes accompanied by the fast sprawl of globalisation have been marked by a somewhat complete trend of increased work time pressure (Anttila et al., 2015). Thus, the discourse of work time pressure is no doubt an important criterion of working conditions and
determine to a great extent, the possibilities of employees balancing the conflicts between work and life. Specifically, this line of arguments has been recounted in the literature with commentaries on the extent of the effect that work time pressure could have on employees’ well-being and work-life balance (Hauret & William, 2017). However, extant literature to an extent offers sparse arguments on how work time pressure affects absenteeism in particular (Absenger et al., 2014). One of the recent studies conducted by Greubel et al., (2016) offers a contrasting position by asserting that the pressure emanating from work has shown to engender several complications for the working people, particularly in their social dealings and an increased possibility of being absent from work.

An examination of the literature on time pressure and employees’ health revealed that employees working under extensive pressure showed worse health conditions than those who are not working under time pressure (Darr & Johns, 2008). Aligning this position to the mining industry where the working conditions are not only exposed to intensive pressure, but a more hazardous working environment, employees working under duress and poor work environments, might likely exude poorer health conditions than those who only work in hazardous work settings without being exposed to time pressure (Rantanen & Tuominen, 2011). However, the impact of time pressure on absenteeism has been further explained by the disparity in employees’ demographic data. To be sure, the extent at which work time pressure engender absence from work is greatly explained by demographics such as age, sex and the nature of work (either part-time or full-time) (Weeden, 2005). In terms of gender, related studies have shown that women possess a higher possibility than men to be absent from work due to time pressure (Diraz, Ortlepp & Greyling, 2003), while the rate of absenteeism is higher in atypical than full time employment (Kantak, Futrell & Sager, 1992). Specifically, these findings aptly justify the rational that absenteeism could become rifer among shift workers, not just because of the mammoth of time and pressure required in executing their work, but in addition to the varying work timing (Allen et al., 2000).

Other studies have also tried to report the link between work time pressure and work absenteeism (Gill & Smith, 2007; Erkutlu &
Charfra, 2006). Erkutlu and Charfra’s (2006) study highlighted that the context and demand of work can result in pressure and stress for the individual employee. Hence, stress arising from work pressure has also been shown as a crucial concern for the organisation, particularly as the snag of employees’ absenteeism possesses a great puzzle for the overall performance of the organisation (McHugh, 2001). Increase in work time pressure can also be explained by organisational change and restructuring (Ala-Mursula, Vahtera, & Linna, 2005). Organisational demands relating to the adoption of new and contemporary technologies, layoffs and increased level of job insecurity can as well provoke increase work time pressure (Natti, Oinas & Anttila, 2015). However, studies have also shown that organisations’ quest to remain relevant amidst increasing demands have engendered ascending stress levels, burnout, fatigue and employees’ absence from work (Darr & Johns, 2008; Rehkopf, Kuper & Marmot, 2010). While these accounts have been identified, within the mining industry, however, little research evidence are available to support the assumption that work time pressure is correlated with shift workers’ absence from work.

The debates of life satisfaction and employees’ absenteeism

The concept of life satisfaction is a reflection of an individual complete cognitive evaluation of the degree of complacency with one’s life (Hart, 1999). Life satisfaction specifically connotes many positive assumptions. For instance, one of the positive benefits can be explained by how people feel good about themselves and other events in their lives, which consequently impacts the level of their well-being. In other words, people with high life satisfaction are more likely to be happier and deal effectively with problems of life and work (Unanue, et al., 2017). In contrast, people with low life satisfaction are often encumbered with stress and also tend to be unhappy with issues of life and work respectively (Jahn, 2013). Studies have established a link between job dissatisfaction and employees’ absence from work, with little research exertions on how life satisfaction affect employees’ absence from work (Hombrados-Mendieta & Cosano-Rivas, 2013; Michie & Williams, 2003). However, it is assumed that low satisfaction about life can stimulates
employees’ intention to quit a job, with the belief that a new job can give him or her the desired satisfaction in life (Haar et al., 2014).

Similarly, the belief that employees’ absence from work is a result of life’s dissatisfaction, is generally expected (Michie & Williams, 2003). The assumption from this belief is conceived in such a way that absence from work and how satisfied people are with events in their lives have been used as a measure of their work-attitude and organisational growth (Siu, 2002). Other related studies have particularly challenged the notion that there is a strong relationship between life satisfaction and absenteeism. For instance, Lau, Au and Ho (2003) study on antecedents of counterproductive behaviour in organisations invalidate the widely shared notion that dissatisfaction in life is a major predictor of absence from work. In contrast, however, the authors acknowledged that life satisfaction might predict absenteeism in rare situational circumstances (Lau, Au & Ho, 2003). For instance, absenteeism might become more evident in mining shift work than non-shift work. To be sure, the nature and trends of shift work in the mining industry are characterised with stress and hazardous working conditions, with the health implication resulting into work absence (Haar et al., 2014).

3. RESEARCH DESIGN

The descriptive survey was employed to understand the relationship between time pressure, life satisfaction and absenteeism of shift workers in the mining industry. Specifically, the descriptive survey enjoys the collection of large amounts of data from a study population, through questionnaire administration for establishing relationship between two or more variables (Saunders, Lewis & Thornhill, 2009). Its application is more suitable in a study involving vast number of population or events (Wilson, 2010). To be sure, the supposition of the descriptive survey is to collect a representative sample from a large population of study, within which results can be generalized on the complete population. For this study, the descriptive survey was utilised to gather quantitative data from sample representatives of shift workers and results engrossed on the entire shift workers population. For clarity, the entire shift workers in the organisation under study cannot be sampled for this study, hence a descriptive survey becomes appropriate where the representative
sample can be used as a description of the entire shift workers population. In addition, the use of descriptive survey in this study justifies the possibility of ensuring correlational relationship (Creswell, 2012) between time pressure and absenteeism on the one hand, and life satisfaction and absenteeism on the other, as well as how both time pressure and life satisfaction predicts absenteeism.

**Population and Sample Size**

The population of the study comprised of selected shift workers in a mining company in South Africa. This population of shift workers captures different cog of employees in the company including the mining store, health and safety, security guard, support workers, mine engineers, change house and others who work in shifts. Questions contained in the questionnaire were all phrased for the least literate shift worker to comprehend and answer. A total of 341 shift workers were randomly selected across the different strata of the organisation, specifically with emphasis on shift workers.

**Sampling Technique**

The simple random probability sampling technique was employed in the selection of participants among the cohorts of shift workers for this study. The simple random sampling allows every element in a population an equal chance of being a representative sample without bias, as no element is to be selected intentionally, except otherwise by chance (Sekaran & Bougie, 2016; Collins & Hussey, 2013). Participants were randomly selected from the population of mining shift workers without giving any element a superior chance to be selected as a representative sample (Easterby-Smith, Thorpe, Jackson & Lowe, 2008). However, the selection of shift workers was not predicated on any predetermined interval counts, as participants were randomly selected based on accidental judgement. In other words, the selection of any element was strictly based on first contact among the population of shift workers.

**Instrument and Data Collection**

Time pressure was measured by using the Ergomax questionnaire (2013). The time pressure questionnaire consists of four questions such as “Time pressure due to heavy workload”, “Is work fast paced?”, “Is work intensive?” and “Vary work pace and task as desired?”.
These items used a 5-point Likert-type scale with 1 (strongly disagree), 3 (neither agree nor disagree); and 5 (strongly agree).

Life satisfaction scale of Guest and Conway (1998) scale was used to measure life satisfaction. This scale consists of six items. These items used a 5-point Likert-type scale with 1 (strongly disagree), 3 (neither agree nor disagree); and 5 (strongly agree). The type of questions on the questionnaire are “Your life in general”, “Your family life”, “Your leisure time” and “Your state of health and well-being”.

Absenteism was measured by using the Psychological Contract Across Employment Situation (Psycones) Questionnaire (2003). This questionnaire on absenteeism consists of four items. Typical questions in this questionnaire are “How often have you been absent from work due to your state of health over the last 12 months?” and “How often have you gone to work despite feeling that you really should have stayed away due to your state of health over the last 12 months?”

**Reliability and Validity of Research Instrument**

The issue of validity and reliability remains fundamental in the quest to engendering quality research outputs. In ensuring that the instrument utilised for data gathering in this study is valid and reliable, two distinct procedures were undertaken. First, the validity of the research instrument was ensured through face validity. To do this, the contents and items contained in the questionnaire were thoroughly checked by experts to ensure the items cover the domain of the constructs being measured.

Secondly, the reliability of the instrument was assessed through the Cronbach Alpha. There have been several contentions on the accepted Cronbach Alpha Value as a limit of reliability. For instance, Pallant (2011) argues for index value above 0.7 as accepted reliability index, while Konting (2004) acknowledges reliability index value above 0.6 as reliable. However, the two predictor variables in this study (time pressure and life satisfaction) both exudes reliability index value of 0.74 and 0.78 respectively. Making sense from this, the items contained in the instruments utilized in this study can be considered as reliable with high probability of producing consistent results.
Data Analysis

The Statistical Package for the Social Sciences (SPSS version 24) was employed to analyse the data. The demographic data of respondents were analysed with descriptive statistics where means and frequency distributions were employed to summarize the different observations of demographic characteristics without employing inferences (Bryman & Bell, 2011; Quinlan, 2011). On the other hand, inferential statistics with the aid of Pearson Product Moment Correlation (PPMC) and Simple Regression Analysis were utilised to test the research objectives.

The PPCMC was employed to test the significant relationship between time pressure and absenteeism on the one hand, and the relationship between life satisfaction and absenteeism on the other hand. The simple regression analysis was, however, employed to compare which either of time pressure or life satisfaction shows higher prediction of absenteeism.

Ethical considerations

The collection and analysis of data in this study strictly follows conventional ethical principles. For instance, one of the ethical considerations was to ensure the items contained in the questionnaire are phrased in a way that would not contravene the privacy of respondents. Similarly, it was ensured that before the commencement of the study, participants were briefed about the objective of the study in order to have prior knowledge with regards to the nature of the study they are participating in. In addition, all participants were protected with anonymity as their names or other vital details were not either asked or included in the study. Lastly, the confidentiality of participants were ensured to the latter, as the questionnaire was stored in a protected manner to guide against unauthorised access to their responses.

Results

Table 1 shows a relationship between time pressure and absenteeism, which reveals a direct positive statistical correlation between these variables. This result reflects a marker that pressure from work arising from time can bring about workers’ absence from work. In other words, it is sufficed to argue that the configuration of the mining
industry characterised high job demands correspondingly requires much time for job execution. To be sure, the demand for increased time can as well be argued as an indicator of pressure engendering possible employees’ absenteeism behaviour as shown from this study. Although the finding does not show to what extent time pressure seems to provoke absenteeism behaviour, yet the South African mining industry must institute a policy framework for effective management of time pressure. While extant studies have hardly been able to clearly establish the nexus between time pressure and absenteeism (Greubel et al. (2016; Absenger et al., 2014; Gill & Smith, 2007), this study has been able to convey fresh insights into the discourse of time pressure and absenteeism, specifically from the perspective of the mining industry.

The finding furthermore shows a negative statistical relationship between time pressure and life satisfaction indicating that time pressure at work does not explain employees’ life satisfaction. Again, this finding further supports the contention that satisfaction about life is largely predicted by issues outside the confines of the organisation than those within, such as time pressure (Gill & Smith, 2007). In addition, negative correlation also exists between shift workers’ life satisfaction and absenteeism from work. As shown previously in this section that life satisfaction is predominantly explained by external variables, this finding also clarifies that employees’ absenteeism behaviour cannot be explained by their life satisfaction measures. However, what is clear, is the verity that absenteeism can be explained by issues not related to how satisfied people are with events in their life. To be sure, this finding supports the contention of other studies that absenteeism behaviour can be explained by job dissatisfaction (Hombrados-Mendieta & Cosano-Rivas, 2013), employees’ counterproductive behaviour (Lau, Au & Ho, 2003), workplace stress and hazardous working conditions (Haar et al., 2014).
As seen from Table 2, Model 1, if a worker works night shift it does not predict absenteeism ($p > 0.05$). As shown previously, the categorization of day or night shift work might not explain employees’ absenteeism behaviour. Perhaps other factors will do so. In addition, however, Model 2 shows that time pressure of workers predicts their absence from work ($p < 0.05$). This results support the initial correlational output, where time pressure was positively related to employees’ absenteeism behaviour. As submitted earlier, the settings and demands of work in the mining industry, such as those characterised with consistent blasting of rocks, can be argue to attract more time pressure for job execution, that could likely result in work absence. Lastly, the result of the regression as shown in Model 3 of Table 2 explains that life satisfaction does not predicts work absenteeism ($p > 0.015$). Again, this result rehearse with the negative correlation established between time pressure and workers’ absenteeism. Put together, employees’ possible absence behaviour by life satisfaction measures have been clearly invalidated in this study, perhaps maybe this can be explained by other factors.
Table 2: Regression analysis with absenteeism as dependent variable, night shift, time pressure and life satisfaction as independent variables

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>t</th>
<th>Sig.</th>
<th>F</th>
<th>R</th>
<th>R^2</th>
<th>ΔR^2</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>7.826</td>
<td>.483</td>
<td></td>
<td>16.220</td>
<td>.000</td>
<td>2.562</td>
<td>.009</td>
<td>.005</td>
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<tr>
<td></td>
<td>Night shift</td>
<td>-.411</td>
<td>.257</td>
<td>-.093</td>
<td>-1.601</td>
<td>.110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>6.278</td>
<td>.685</td>
<td></td>
<td>9.162</td>
<td>.000</td>
<td>6.241</td>
<td>.041</td>
<td>.034</td>
</tr>
<tr>
<td></td>
<td>Night shift</td>
<td>-.414</td>
<td>.253</td>
<td>-.093</td>
<td>-1.637</td>
<td>.103</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time pressure</td>
<td>.122</td>
<td>.039</td>
<td>.179</td>
<td>3.137</td>
<td>.002*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>7.799</td>
<td>.920</td>
<td></td>
<td>8.476</td>
<td>.000</td>
<td>6.234</td>
<td>.060</td>
<td>.050</td>
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<td>Night shift</td>
<td>-.406</td>
<td>.251</td>
<td>-.091</td>
<td>-1.618</td>
<td>.107</td>
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<tr>
<td></td>
<td>Time pressure</td>
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<td>.039</td>
<td>.166</td>
<td>2.918</td>
<td>.004</td>
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<td></td>
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<tr>
<td></td>
<td>Life satisfaction</td>
<td>-.047</td>
<td>.019</td>
<td>-.139</td>
<td>-2.451</td>
<td>.015</td>
<td></td>
<td></td>
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</table>

*Statistically significant at p < 0.05

a. Dependent Variable: Absenteeism

**Conclusion, limitations and further study**

Overall, the findings suggest a spill over between time pressure, life satisfaction and absenteeism of employees. Furthermore, there is a suggestion that the effect of life satisfaction on employees could be more discerning from the frequency of work absence, rather than the total number of days absent from work (Loewe et al., 2014; Siu, 2002). This is sufficed to argue that an employee, apart from the likely influence of life satisfaction, might be absent from work due to other reasons including job satisfaction, stress, and hazardous working conditions, and other family responsibility demands (Unanue, et al., 2017; Hombrados-Mendieta & Cosano-Rivas, 2013;
Haar et al., 2014). The study concludes that a critical evaluation of time pressure with emphasis on shift workers, explain absenteeism behaviour. Put together, this study concludes with the position that the enigma of time pressure in the South African mining industry should be given prime consideration for a drastic reduction in workers’ absenteeism behaviour. This suggests the need for appropriate policies and strategies for the restructuring of work time schedule towards a more flexible, worker-friendly and less strenuous for a decrease in shift workers’ absence from work. This strand of recommendation is considered crucial given the working conditions of the mining industry. In this study several limitations should be taken into consideration. In the mine industry, workers are dominated by males and the study focusses only on employees within the Free State mining area. Moreover, the measurement instruments in the study were self-reported and might influence the results of the study. Future research would be needed to study the association between time pressure, life satisfaction and absenteeism of workers in different industries. Likewise, it is also important to look at the homogeneous groups of workers at different levels of life satisfaction, time pressure and their absenteeism behaviour.

REFERENCES


