

The Job Characteristics Associated with Burnout in The South African Construction Industry

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Abstract

The objective of this study was to investigate and compare Job Characteristics that are associated with job burnout among consulting and contracting construction professionals in South Africa. The respondents targeted were Consulting and Contracting Construction Professionals. Of the 120 questionnaires distributed, 105 were returned, which represent an 88% response rate. Data were analysed using the Mann-Whitney U test and One sample T-test. The findings revealed that tight schedules and long working hours are the most predominant Role Characteristics affecting both sets of professionals. The results revealed a difference in rankings, Unfavourable working conditions is ranked third for Consulting Professionals but ranked eleventh for Contracting Professionals. The implication of these findings pertaining to Job characteristics both Consulting and Contracting Construction Professionals are particularly crucial at the individual and organizational level because of burnout predictors powerful impact on different behavioural and attitudinal results. It is recommended that Organisations should evaluate the characteristics that have an adverse effect on dissatisfaction. This will have a positive impact on the job setting, improve boost productivity a thus improving the quality of the job and personal life in construction

Keywords (12 font)

Job Burnout, Consulting, Contracting, Construction Industry and Characteristic.

1. Introduction

Over the last few decades, the construction industry has witnessed tremendous institutional and organisational transformation globally (Ibem, et al., 2011). Wong, et al., (2010) regards the construction industry as one of the most demanding, labour-intensive and harmful operating settings. This causes frequent long irregular hours to result in strain-based conflict such as mental and physical exhaustion to the professionals in the industry. This is to meet project milestones sometimes faced with an unexpected turn of events such as labour unrests and unexpected cost increase. The construction professionals come across different job characteristics which lead them to a burned out. Furthermore, the job culture that promotes long working hours, a barrier to the work-life balance of its employees (De Cieri, et al., 2005).

Burnout is a word that was initially limited to human services, such as health care and education. It is defined as a syndrome of physical and emotional exhaustion, involving the creation of a negative self-concept and work attitudes and a loss of client interest and feeling (Yip & Rowlinson, 2009). Construction professionals suffer burnout due to the gradual occurrence of constant and daily exposure to stress over a long period of time (Yip & Rowlinson, 2009). Job dissatisfaction, constant absenteeism, job demands, and lack of job resources are identified as professional outcomes (Salvagioni, et al., 2017). Evidence suggests that job burnout can be mentally harming to professionals (Maslach & Leiter, 2016; Ibem, et al., 2011).

2. Literature Review

2.1 Job Burnout

Herbert Freudenberger, an American psychologist came up with the “burnout” terminology in the 1970s. This was after observing the emotional depletion, decrease in work commitment and lack of motivation among workers in the healthcare sector. This is because burnout is characterised by exhaustion, fatigue, headaches and sleeplessness among other side effects (Freudenberger, 1974). In a research work conducted by Ruiz & Odriozola-González (2017) indicates that job burnout consists of a three-dimensional model consisting of emotional exhaustion; feelings of cynicism and detachment from the job and a feeling of ineffectiveness and lack of achievement. Construction professionals suffer burnout due to the gradual occurrence of constant and daily exposure to stress over a long period of time (Yip & Rowlinson, 2009). Job dissatisfaction, constant absenteeism, job demands, and lack of job resources are identified as professional outcomes (Salvagioni, et al., 2017). Evidence suggests that job burnout can be mentally harming to professionals (Maslach & Leiter, 2016; Ibem, et al., 2011). This can be due to the physical condition, organizational structure, interpersonal conflict, personal characteristics and nature of work. The mental symptoms include reduced self-esteem. Professionals may display emotionally detached, and they may be pessimistic toward co-workers, clients, and the organization (Totawar & Nambudiri, 2012). The individual will also experience psychological distress, anxiety, depression. In terms of physical health.

2.2 Job Characteristics

Studies on job characteristics related to the burnout phenomenon (Lingard, 2003). Cordes & Dougherty (1993) have identified the three categories of burn out job characteristics. The first relates to role and job characteristics. This has to do with the client and employee relation looking at role overload, ambiguity and conflict. The second category includes a job description and the eventuality of reward and punishment. The third category looks at career growth, social aspects and personal expectations and career progress. Research conducted by Russell, et al., (1987) showed that characteristics such as age, gender, education level predicate of burnout. Moreso, the number of stressful occurrences experienced related to burnout, social support and positive feedback.

Moreover, Maslach, et al., (2001) categorised job characteristics as being Qualitative and Quantitative. Quantitative job characteristics refer to too much work for the available time. This sort of characteristics has been studied support the notion of burnout being a work overload response. Moreso there is a direct link between burnout and excessive work overload (Vlăduț & Kállay, 2010; Maslach, et al., 2014). The development of work overload leads to emotional exhaustion. Furthermore, Maslach & Leiter (1999) found that burnout happens when the workload is coupled with a lack of personal control, lack of benefits, lack of equity and breakdown of conflict teamwork. This occurs when there is high-frequency client contact, not being able to take leave, high project targets, time pressure and demands among others (Sonn, 2015). The reports found high patterns of experienced strain and demands of long working hours and frequency of clients. Qualitative job characteristics relate to role ambiguity and conflict. They both resulted in moderate to the high relationship of burnout. Role conflict happens when there is a contrast in task requests from supervisors at work. Whereas role ambiguity happens in the absence of adequate information to go about completing tasks. Further qualitative job demands have been occasionally studied. This includes client problems which correlate in the same direction. Both quantitative and qualitative overload leads to fatigue. This is because of the professional’s resources necessary to complete tasks are being used up

Tight schedules, harsh working conditions and long working hours are just some of the burnout characteristics among construction professional (Yip & Rowlinson, 2006; Vlăduț & Kállay, 2010). Furthermore, job responsibility, workload, role conflict, various job aspects of job satisfaction and control over tasks contribute to burnout. Research has found job demand to be the most influential stressor contributing to the burnout phenomenal (Lingard & Sublet, 2015).

2.3 Contracting Job Characteristics

Long working hours are a major predictor for construction professionals working for contracting organizations (Yip & Rowlinson, 2009). This is associated with site-based projects. Yip & Rowlinson (2009) have also found role ambiguity and conflict to be a characteristic associated with contracting organizations. This predicates with cynicism

as the professionals must deal with multiple tasks, meet the demands of different role players and deal with role conflict. Zhang, et al., (2013) conducted a job stress research on field managers and workers in the Korean Construction industry. The results showed the field manager had high autonomy level in terms of job control. This is due to the work environment of construction, inadequate project schedule information flow, piling paperwork and excessive workload among construction site managers (Sutherland & Davidson, 1989). However, field managers were able to make decisions regarding working hours and workload. In addition, the field managers had low levels of job instability, organisational system and interpersonal conflict.

2.4 Consulting Job Characteristics

Organisations are mandated to come up with intervention strategies according to the construction service they provide (Yip & Rowlinson, 2009). For consulting organisations, their objective is reducing qualitative work overload and enhance promotional aspects. This will reduce the burnout effect among construction professionals. The consulting organizations, intervention strategies focusing on reducing long working hours, role ambiguity and conflict will reduce the level of burnout. Leiter (1990) study shows that intervention mechanisms predicated need to control burnout levels. The individuals' responses varied according to work-related demands. Some professionals handle the job demand better as compared to their colleagues, thus reducing the detrimental burnout effects (Haynes & Love, 2004).

Bowen, et al. (2014) found working hours to be the cause of work stress among project consultants in South Africa. This is due to the pressure of meeting deadlines. Houkes, et al., (2001) suggest that work setting may have a hand in the job characteristics. This is by looking at 4 areas of work situation: working and employment conditions, work content, social and labour relations. In a nutshell, the study had hypothesized that high motivation is due to job characteristics. The results showed that work overload and lack of support causes emotional exhaustion.

Lingard, (2003) study sought to look at different characteristics of burnout. The most identified was the workload. the study also measures job-characteristics with the use of the 36-item tool. The tool scale was designed to measure the dimensions relevant to the work characteristics of the construction professionals. However, Maslach & Leiter, (2016) study identifies responsibility, role conflict work control as some of the additional job characteristics. The study further suggests that demographics characteristics play a role in burnout such as being young unmarried professionals are more prone to burnout. Previous research also indicates that critical stressors such as work overload, role conflict, job ambiguity, tight schedules and unfavourable working environment to be indirectly influencing factors in the development of burnout.

2.5 Job Demand-Resource Model

According to literature, job demand and job resources are predictors of burnout (Els, et al., 2015). With this comes the use of Job Demand-Resource Model (JD-R) as a theoretical frame in examining burnout job characteristics (Wang, et al., 2016; Llorens, et al., 2006). The JOB demand characteristics are the social physical, psychological or organizational aspects of the job that requires sustained emotional or cognitive effort (Els, et al., 2015). This includes physical and emotional demands or high levels of work pressure. The work pressure can be in terms of the period of the task, the pace its being conducted at and amount of work given to the professionals. The emotional effort when in interpersonal contact whether colleagues or clients is the emotional demand (De Jonge & Dormann, 2003). Whereas, cognitive job demands relate to processing information, such as remembering things or decision making (Hockey, n.d.)

In the JD-R model, it is hypothesized that there is a unidirectional causal connection between job attributes and burnout phenomenon, however, it does not consider that this relationship may likewise be reversed (Schaufeli & Taris, 2014). JD-R model is made up of two burnout components being exhaustion and disengagement (Scalan & Still, 2019). Exhaustion refers to a lack of energy. Professionals experiencing burnout are incapable of completing given tasks due to lack of energy, leading to the bulking up of work content. Disengagement is from one distancing themselves from their tasks. Professionals withdraw by being absent, developing intentions to leave or leaving the organization (Maslach, et al., 2001)

According to Fernet, et al., (2013), the psychological mechanism of job demand has become the most important influencer of job burnout. The research found to be a positive relationship between job demand, job resources and

burnout. Using the job demands-resources model (JD-R) the study found certain job demands and resources are associated with both the energy and incentive procedures given their relationship with psychology resources and that they particularly anticipate burnout components. The job demand stems from the organizational factors that the professionals require to execute the work. The job resource is the support they need to accomplish tasks. A resourceful work environment gives a sense of importance to professionals in their organisation. They become more optimistic on tasks are given which may result in positive psychological and organizational outcomes. Similar research conducted by Bakker, et al., (2004) used job demands-resources (JD-R) model to examine the relationship between job characteristics and burnout. Findings suggest that job demand and job resources are the psychological processes that cause burnout eventually affecting the organizational outcome.

3. Research Methodology

3.1 Research Methods

Random construction professionals both in the consulting and contracting construction environment will be requested to complete a comprehensive questionnaire. This will help gain an insight on the topic from the user perspective. The results will be examined with the aid of analytical and statistical techniques to extract the data. This research will be carried out by surveying within the Gauteng province of South Africa. This is due to a number of factors. One of them is the easy accessibility of contracting and consulting construction professionals. In addition, Gauteng province is the most developed province in South Africa (Nag, 2018). The data is to be analysed using a computer inputting program SPSS. All questions in the questionnaire were inputted into the program. The questions using the Likert scale was analysed by computing the means. All other questions were used by calculating the count of the variable. The calculation of means cannot be conclusive therefore a further variable analysis will be done for the Likert Scale questions.

Cronbach's alpha coefficients were calculated to determine the internal consistency and reliability of the sets returned. The values for alpha varying from 0.70 to 0.95 are acceptable, according to Tavakol & Dennick (2011). In this study, the coefficient values of 0.918 for Role Characteristics was obtained, which indicates an acceptable measure of the questionnaire reliability.

The Mann-Whitney U test (for non-parametric information) was performed for the purposes of this research to recognize important factors of burnout and other variables. The logic behind the Mann-Whitney U test is to rank the data for each objective and see how the two total ranks are distinguished (Tredoux & Durrheim, 2013). If the two conditions are systematically different, then most of the high ranks belong to one condition and the low ranks belong to the other. The statistic U of the Mann-Whitney test represents the distinction between two total ranks (Tredoux & Durrheim, 2013).

A one-sample t-test is a test of hypothesis to determine whether a population mean differs from a certain known (test) value (Association, 2005). The researcher starts by choosing a sample of observations from the interest population and by calculating the mean of the sample estimates the mean population. A significant feature of the one-sample t-test is that only one population is being studied. This differentiates a one-sample test from other kinds of hypothesis tests (e.g. independent t-test samples) where there are to be estimated two (or more) population parameters (Association, 2005). Making use of a five-point Likert scale of 'Strongly disagree' (SD) – 'Strongly agree' (SA), the respondents were asked to indicate Role Job Characteristics of Job Burnout Because of the of a five-point Likert rating scale and test value of 3.5, if it had a mean of 3.5 or more, a success criterion was considered critical or significant (Field, 2005). In accordance with the conventional acceptance of statistical significance at a P-value of 0.05 or 5%, CI is often calculated at a 95 per cent confidence level. Generally speaking, if an observed result is statistically significant at a P-value of 0.05, the null hypothesis should not fall within the 95% CI (L & Y, 2011).

3.2 Sample

A questionnaire to acquire information was created and distributed. This was to obtain a response from consulting and contracting construction professionals. A total of one hundred and five questionnaires were returned, representing an 88% return rate. 48 % works in a consultant organisation, while 52% per cent works for a contracting organisation.

3.3 Mann-Whitney U test

Table one represents comparative means and rankings of Consulting and Contracting Construction Professionals. furthermore, it gives overall mean, rankings, z score and P-value of 2-tailed significance for Role Characteristics.

Table 1. Results for Mann-Whitney U test of Role Job Characteristics

Descriptive Statistics	Consultant		Contractor		Overall		Mann-Whitney U test	
	Mean (\bar{x})	Rank (R)	Mean (\bar{x})	Rank (R)	Mean	Rank (R)	Z	Sig
Tight Schedules	4,120	1	3,782	1	3,943	1	-1,544	0,123
Long working hours	4,000	2	3,782	2	3,886	2	-0,653	0,514
Work-home interference	3,860	6	3,764	3	3,810	3	-0,234	0,815
Unfavourable working conditions	4,000	3	3,564	11	3,771	4	-1,836	0,066
Role Overload	3,920	4	3,618	7	3,762	5	-1,823	0,068
Job Resources	3,920	5	3,600	10	3,752	6	-1,444	0,149
Responsibility	3,760	9	3,618	8	3,686	7	-0,618	0,536
Interpersonal relationship	3,700	11	3,673	5	3,686	8	-0,202	0,840
Role Control	3,760	8	3,600	9	3,686	9	-1,113	0,266
Emotional Demands	3,680	12	3,691	4	3,686	10	-0,044	0,965
Insufficient leadership	3,680	13	3,618	6	3,648	11	-0,542	0,588
Role conflict	3,760	10	3,418	13	3,581	12	-1,594	0,111
Role Ambiguity	3,820	7	3,309	15	3,552	13	-2,555	0,011
Shift work	3,480	15	3,473	12	3,476	14	-0,315	0,753
Social Support	3,500	14	3,400	14	3,448	15	-0,527	0,598

For the Both Consulting and Contracting Professional ‘Tight Schedule’ and ‘Long Working Hours ranked the highest. Furthermore ‘Social support’ ranked the lowest for both sets. The overall rankings show that ‘Tight schedules’ had the highest ranking with a mean of 3,943, Z-score of -1,544 and P-value of 0,123, which indicated no

significance. ‘Social Support’ was ranked last, with a mean of 3,448, Z-score of -0,527 and P-value of 0,598, which indicated no significance. Role Ambiguity was the only variable with a significance P-value of 0,011 ranked thirteenth overall

3.4 One Sample T-test

A one-sample t-test was performed to determine whether a particular attribute was deemed significant or otherwise by the population. The significance (i.e. the p-value) of each attribute is displayed in Table two represents the one-sample t-test that was carried out.

Table 2. Results for t-test showing one sample statistics for Role Characteristics

	Test Value = 3.5					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Role Overload	3,118	104	0,002	0,262	0,095	0,428
Role Ambiguity	0,532	104	0,596	0,052	-0,143	0,248
Long working hours	3,979	104	0,000	0,386	0,193	0,578
Tight Schedules	4,341	104	0,000	0,443	0,241	0,645
Unfavourable working conditions	2,522	104	0,013	0,271	0,058	0,485
Role conflict	0,801	104	0,425	0,081	-0,119	0,281
Role Control	2,135	104	0,035	0,186	0,013	0,358
Responsibility	1,845	104	0,068	0,186	-0,014	0,385
Job Resources	2,543	104	0,012	0,252	0,056	0,449
Interpersonal relationship	1,954	104	0,053	0,186	-0,003	0,374
Insufficient leadership	1,499	104	0,137	0,148	-0,048	0,343
Emotional Demands	1,862	104	0,065	0,186	-0,012	0,383
Work-home interference	3,139	104	0,002	0,310	0,114	0,505
Shift work	-0,225	104	0,822	-0,024	-0,234	0,186
Social Support	-0,488	104	0,627	-0,052	-0,265	0,161

The t-test results indicated that the following values had p value of significance : Role Overload (t= 3,118 ; p= 0,002) ; Long working hours (t= 3,979 ; p=0.001) ; Tight Schedules (t= 4,341 ; p=0.001) ; Unfavourable working conditions (t= 2,522 ; p=0.013) ; Role Control (t= 2,135 ; p=0.035) ; Job Resources (t= 2,543 ; p=0.012) and Work-home interference (t= 3,139 ; p=0.002). whereas, the following variables had a p value of no significance : Role Ambiguity (t= 0,532 ; p=0,596) ; Role conflict (t= 0,801 ; p=0,425) ; Responsibility (t= 0,801 ; p=0,425) ; Interpersonal relationship (t= 1,954 ; p=0,053) ; Insufficient leadership (t= 1,954 ; p=0,053) ; Emotional Demands (t= 1,862 ; p=0,065) ; Shift work (t= -0,225 ; p=0,822) and Social Support (t= -0,488 ; p=0,627)

4. Discussion of Results

According to Yip & Rowlinson (2006) and Vlăduț & Kállay (2010) construction professionals are subjected to tight Schedules, long working hours and unfavourable working conditions. Furthermore, Bowen's (2014) study found that project consultants work long hours which leads to burnout. Cordes & Dougherty (1993) study identified role, role and control as the three job characteristics of burnout. These job characteristics according to Sonn (2015) result in moderate to high burnout levels. This objective also supports Maslach & Leiter, (2016) study, which found responsibility and role conflict, tight schedule and unfavourable working environments to be characteristics that influence the development of burnout. According to Minervini, et al., (2003), managers deal with increasing job demands with limited job resources. Sonn (2015) further supports the objective through findings. The research found that the lack of job resources uses up one's emotional demands and causes fatigue. Work-home interference is mainly due to professionals not balancing their lives. According to Yang, et al., (2016) the professionals are over-committed to work. Interpersonal relationship arises from role conflict ($\bar{x} = 3,76$; $R = 10$), where different supervisors expect different tasks. Therefore, the work of Yongkang, et al., (2014). According to West, et al., (2014), leadership is required to recognise burnout from their employees. Maslach, et al., (2001) found that social support decreases burnout effect. Irregular shift work is a job stressor that employees face, according to Storm & Rothmann (2003).

5. Conclusion & Recommendations

The literature reviewed revealed that some of the characteristics include long working hours, role ambiguity, tight schedules and work overload. Other studies state that consulting professionals are prone to unfavourable working conditions and role conflict. Furthermore, contracting professionals are exposed to long working hours and unfavourable working conditions. In addition, job characteristics are sent to come in the form of role and job characteristics. The job characteristics can either be qualitative or quantitative. Quantitative job characteristics refer to too much work for the available time. Qualitative job characteristics relate to role ambiguity and conflict. Furthermore, job responsibility, workload, role conflict, various job aspects of job satisfaction and control over tasks contribute to burnout

The implication of these findings pertaining to Job characteristics both Consulting and Contracting Construction Professionals are particularly crucial at the individual and organizational level because each dimension has a powerful impact on different behavioural and attitudinal results. However, the fact that many work characteristics play an important part in burnout growth implies that individual-focused strategies may have restricted efficiency. They also imply that Organisations need to change how tasks are performed. Interventions should concentrate on improving the efficiency of the workforce in the fields of workload, hours of work, reward, fairness and conflicting job roles. If an enhanced job fit can be accomplished, staff are likely to feel empowered, do something significant, be appreciated for their job or be well-rewarded for their efforts, thereby curbing the adverse impacts of stress, such as burnout, and eventually employee turnover.

It is important for organisation stakeholders and the construction professionals to have open communication when it comes to job burnout. The following are then recommended

- Professionals should develop coping strategies as an intervention strategy. The professionals should be made aware in this respect of which coping strategies they are likely to use in stressful circumstances and how these strategies can impact their burnout rates.
- This proposed that intervention strategies should be developed to reduce burnout should be made with regard to the type of employment organisation
- Organizations should evaluate the degree of satisfaction of their Professionals to decrease the adverse effect of dissatisfaction. This will have a positive impact on the job setting, improve boost productivity a thus improving the quality of the job and personal life in construction

6. Limitations and Future Studies

The research was limited to Construction Professional working within either a consulting or contracting organization in South Africa. This research study only focused on professionals in the province of Gauteng, South Africa. The relevant respondents are contracting and consulting construction professionals who are involved in construction projects in the Gauteng Province, South Africa. Future study should be carried out to determine needs to appropriate coping strategies to tackle job burnout on construction projects that may enhance productivity. In addition, future research should be carried out to assess the measures of job performance among burned out construction professionals. Furthermore, future study should be carried out the relationship of stressors with job burnout within the South African Construction Industry

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