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AN ANALYSIS OF ORGANISATIONAL AND TASK STRESSORS AMONG CONSTRUCTION PROFESSIONALS IN GHANA

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Abstract

The construction industry constitutes one of the imperative and promising industries in Ghana in term of output and outcome. However, the stressful nature of this industry has become an issue of concern to many. The study identifies and examines the critical organisational and task stressors among construction professionals in Ghana, using sequential explanatory mixed approach by means of mainly questionnaire survey and interviews. Data from a sample size of 372 construction professionals within the ten regions of Ghana were examined using factor analysis and pairwise ranking. The results of this study reveal that organizational policies, treatment and reward constitute the most critical organizational stressors. Overload and job description ambiguity turned out as the most critical task stressors. It was uncovered that organisation stressors are ubiquitous. The findings of this study can serve as policy alert for an optimal stress and employee-oriented policies as well as training scheme for construction professionals in Ghana. In-depth nationwide qualitative study on organisational and task stress coping strategies of construction professionals is recommended.

Keywords: Exploratory factor analysis, Ghana, Mixed approach, Organizational stressors, Task stressors

1.1 Introduction

The construction industry is among the imperative and promising industries in Ghana. In terms of its output and outcome, it contributes 14.8% of the national nominal gross domestic product and employs about 6% of the national labour force (Ghana Statistical Service, 2015) credited to its relative labour-intensiveness. Infrastructure as the main conduit for the enablement of other national productive activities is an outcome of this industry (Lopes, 2011). The adeptness and value of corporate operations hinge on the design and quality standards of constructed facilities that influence the enterprises' competitiveness (Ofori, 2012). As one of the wedge investment portfolios (such as hospitals, schools, roads, airports and ports; irrigation and bridges systems; and power and water infrastructure) of the government, construction in Ghana can serve as "an economic regulator" or "the balance wheel of the economy" (Hillebrandt, 2000). Its voluminous complex linkages with many subdivisions of the economy again support this. Further to this, the outcome of the construction industry forms a major national savings, representing major source of the national wealth (Hillebrandt, 2000; Castells, 2010; Lopes, 2011; Ofori, 2012; 2015).

The importance of the construction industry in the country is extensive as well as weighty in this era of heavy-duty global competition and Ghana, as both a middle-income country and a gateway to West Africa. Ghana's Construction professionals (GCPs) are expected than ever before to perform excellence to contribute their value to this industry. Inescapably, the current nature of the industry has aggravated the stress of GCPs. Besides; the Ghanaian construction industry is now in a constant change environment (Ofori, 2012). It is complex and has a multiple stakeholders' interrelationships as well as an increasing operational comprehensiveness, complexity and complication (Leung, Chan & Yu, 2008; Laryea & Mensah, 2010; Zika- Viktorsson et al., 2006). Hence, the industry should be modest, productive, customer-focused (Rasila & Gersberg, 2007)), and profitable (Siddiqui & Rahman, 2007). The construction industry has projects which are exclusive with varying time, quality and cost constraints that have compounded the stress level experienced by its professionals (Attakora-Amaniampong, 2016; Leung, Chan & Yu, 2008; Stevenson, 2008).

Studies have shown that a little above 50% of professionals in the industry believed that, in virtual terms today's construction industry is becoming more stressful than in the past decade (Campbell, 2006; Enshassi & Swaity, 2015; Leung, Chan & Yu, 2008; Wahab, 2010; Yip & Rowlinson, 2006). These studies supported earlier assertion that organisational stress has

become a general component of the construction industry as expressed by some institutions and researchers within the industry (Aitken & Crawford, 2007; Bahrami, 2010; Chartered Institute of Building, 2006; Park, 2007). The work overload, ambiguious description of jobs as well as working environment of the industry has constantly made its professionals liable to unpredictable stressors that have adverse effect on their health (Chan & Chen, 2011), productivity and job satisfaction (Attakora-Amaniampong et al., 2014). This can adversely affect the general industry performance (Leka & Jain, 2010; Samadzadeh, 2013).

However, eliminating organisation and task-associated stress in the construction industry may be impossible (Greenberg, 2002). While optimum stress is a criterion for occupational monotony minimization and optimization of individual's work performance, excessive stress is disastrous (Leung, Chan & Chen, 2011). Therefore, stress management does not call for total elimination of stress (Rajkumar, Kumar & Krishnamoorthy, 2014) but the essence is how to identify and utilize stress (Greenberg, 2002). A survey of literature reveals a growing contemporary body of construction industry literature on the causes and coping strategies of task and organizational stress (CIOB, 2006; Aitken & Crawford, 2007; Leung, Chan & Chen, 2011; Rajkumar et al., 2014; Enshassi & Swaity, 2015). These studies were either quantitative or qualitative research. The literature review found that no mixed (quantitative and qualitative) sequential explanatory study has examined the critical organisational and task stressors of CPs in a global South country like Ghana. Hence, the study first identifies and second assesses the critical organisational and task stressors of construction professionals' stress in Ghana using a sequential explanatory. Explicitly, the study seeks to analyse organizational and task stressors among construction professionals with the aim of finding the most critical stressors among Ghanaians. The paper is in five sections. The current section introduces the study whilst in the next section, literature on organisational and task stressors on construction professionals are reviewed. Subsequent sections describe the methodology adopted in achieving the aim of the research followed by results and discussion as well as the conclusions and practical implications.

1.2 Literature Review

Stress epitomises an element produced as an outcome of a stressor and stress reactivity, and it cannot occur if these two factors do not exist (Greenberg, 2002; Leung, Chan & Yu, 2008). Therefore, a stressor forms a fundamental component of stress with a stress reaction provoking

latent (Ibem, Anosike, Azuh & Mosaku, 2011; Omeje & Agu, 2011). Stressor can be described to include all personal, physical, environmental and job-related stimuli of any adverse psychological or physical injuries endured by a large number of persons who are exposed to such detriments (Enshassi & Swaity, 2015; Wahab, 2010). Furthermore, a stressor is a stressful event or condition through which spiteful reaction is physically or psychologically produced in a person (Omeje & Agu, 2011). Generally, stressors are categorised into four key diversities: organisational, personal, physical and job (Enshassi & Swaity, 2015; Ibem et al., 2011; Leung, Chan & Chen, 2011; Wahab, 2010; Leung et al., 2008; Leung, Chan & Yu, 2008).

1.2.1 Organisational Stressors

Organisational stressors incorporate all stress sources evolving within or from a given organisation (Wahab, 2010; Andrews, et al., 2009) as well as its organizational policies, for example, on training and communication (Ibem et al., 2011) and organisational structure (Leung and Chan, 2010; Bowen, Edwards & Lingard, 2013). Needless hierarchies and bottlenecks within construction firms attributed to poor organisational structure have been found to constitute key organisational stressors (Ibem et al, 2011). They further held that, there is a strong connexion between human stress level and organisational size and structure (Ibem et al, 2011) as supported by Enshassi & Swaity (2015). Many elements of construction organisation such as organisational structure, notch of centralisation, process selection, hiring or laying off labour, scheduling, issuance of work orders, incentive plans (Stevenson, 2008), as well as frequent organisational dry rot can lead to conflicts within firms (Leung and Chan, 2010; Mazzola, Scholfeld & Spector, 2011), that influence job satisfaction, commitment, attrition and cause many stresses to persons (Bahrami, 2010; Stevenson, 2010). Lower wages, job requirement ambiguity, innovation deficiency, insufficient project objective awareness among others are some of the key stressors among CPs (Ng, Skitmore & Leung, 2005). Rajkumar et al. (2014) also concluded that, communication and relationship are among the key stressors of CPs.

1.2.2 Task Stressors

Task stressors, sometimes called workload and role stressors (Leung and Chan, 2010), include all sources of stress fundamental to the nature of daily jobs professionals execute (Mazzola, Scholfeld & Spector, 2011). This may come in the form of a long list of decisions to make

(Kaminskas & Antanaitis, 2010; Stevenson, 2010;), tenacious elongated hours of work, fatigue induced by workplace environmental strains, and having to cope with rapid and delicate changes at work (Wahab, 2010) due to the contemporary ever increasing clientele requirements' heterogeneity (Attakora-Amaniampong et al., 2014; Houtman and Jettinghoff, 2007). Others include too little or too much assigned job and cut-off dates and time pressure (CIOB, 2006; Ibem et al., 2011). Work over-load, work under-load and fixed time-frame are popular among the CPs task stressors (Enshassi & Swaity, 2015; Ibem et al., 2011; Mazzola, Scholfeld & Spector, 2011;). The lack of prerequisite CPs competencies such as Project Management skills (Attakora-Amaniampong, 2016) can be a key stressor of CPs. This is because most activities of construction firms are project- based and they are characterised by stipulated time limits that are constraint by cost or budgets, with quality prerequisite as well as risk elements at each of their stages (Carr, 2009; Stenvensons, 2008). Each project is unique (Carr, 2009; Gary, 2009; Stenvensons, 2010) which can constitute a stressor of stress to CPs (Bowen et al, 2013). This study therefore seeks to analyze these two CP stressors to identify the most prevalent among Ghanaian CPs using a mixed sequential explanatory approach.

1.3 Research Methodology

1.3.1 Research design

The sequential explanatory mixed design was identified and used as the most suitable strategy for the realisation of the objectives of this study. First, quantitative data was collected and analyzed to identify and assess the critical organisational and task stressors of construction professionals' stress in Ghana. Second, personal interview was utilized for the qualitative data acquisition on the matching variables in order to build upon the quantitative stage to yield a comprehensive explanation and analysis of the quantitative results (See Creswell, 2009 and Greene, 2007). Both data collection and analysis traversed from March 2017 to June 2018.

Randomly, questionnaires were administered to construction professionals through email. As target participants of this study, the construction professionals constituted architects, project managers, structural engineers and project consultants or supervisors. Follow-up in-depth interviews were undertaken, involving 10 construction professionals, one from each of the 10 regions of Ghana.

1.3.2 Population and Sample Size

The 10 regions in Ghana were targeted for the study. The study's population entailed professionals within all construction firms in Ghana with a valid registration from the Ministry of Water Resources, Works and Housing (MWRW&H). In accordance with MWRW&H data, Ghana's number of class D1K1 (large firms) totalled 350 (4%); the D2K2 (medium firms) was 548 (6%) and the rest (90%) as D3K3 and D4K4 (small firms) were the registered construction companies in Ghana, at the time of the study. Based on their relative attentiveness of professionals, all active firm categories were considered as our target. The following two statistical formulae (see Rose et al., 2015) were utilised in computing the sample size:

$$S = \frac{Z^2 P(1-P)}{C^2}$$

Where S is the sample size, Z represents the Z value (1.96 for 95% confidence interval was used), P is the percentage choice of sample size needed expressed in decimal (0.50 used for sample size needed) and C represents the maximum error of estimation (0.05)

$$S = \frac{1.96^2\, 0.5(1-0.5)}{0{,}05^2} = 384.$$

According to Rose et al. (2015), the correction for the finite population is described as

$$S_{new} = \frac{S}{1 + \frac{S-1}{pop}}$$

Where, *pop* is the population, which was 8980 (close to 10,000) construction firms, according to Ministry of Water Resources, Works and Housing. This implies that, at least 92 active construction firms were required for the study. A preliminary survey confirms 5 to 7 construction professionals per firm then, 600 structured questionnaires were administered to construction professionals via e-mail across all the 10 regions of Ghana. As target participants of this study, the construction professionals constituted architects, project managers, structural engineers and project consultants or supervisors with more than 10 years' construction working experience. An effective 372 questionnaires were retrieved, presenting a 62% return rate for the quantitative phase.

1.3.3 Questionnaire Design

Based on literature survey (such as Enshassi & Swaity, 2015; Ibem et al., 2011; Leung & Chan, 2010) on the subject matter, a structured questionnaire was developed. This was refined using 15 construction professionals' pilot study. Definitely, the kernel of this pilot study was to find and remedy any ambiguous questions and to expand on accuracy, readability and comprehensiveness of questions. In addition, this was to obliterate any irreverent questions and modify questions to context of the construction industry in Ghanaian. Hence a structured questionnaire which contained two sections; the first section 'A' consisted of a bio-data and company specific data and the section 'B' was the stressor data. The section B was further subdivided into two: Organisational and Task stressors. The target participants or respondents were advised to specify their agreement levels to each stressor based on a five-point Likert rating scale (Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2 and Strongly disagree = 1). The scale allowed each participant to show their response enormousness for the questions, which was to facilitate the analysis and to provide evocative results (Enshassi & Swaity, 2015). Cronbach's Alpha coefficient that test the internal consistency of the statements was conducted. The questionnaire had Cronbach alpha of .756 signifying an acceptable reliability coefficient and an excellent internal reliability scale for all the statements in the questionnaire.

1.3.4 Quantitative Data Analysis

To identify the critical organisational and task stressors among construction professionals' factor analysis, which is a data, drop statistical approach was engaged. The aim was to decrease the large number of variables (Bartholomew, Knott & Moustaki, 2011) or factors of stressors to a smaller number of critical factors as indicated by Fellows and Liu (2008). There exist two categories of factor analysis namely the confirmatory factor analysis and exploratory factor analysis. While the exploratory factor analysis is usually utilised in initial research phases for the inter-relationships exploration among variables sets, the confirmatory technique is utilised for confirmation of some specific theories or hypothesis for variable sets in the concluding stages of research (Child, 2006). The exploratory type of factor analysis was used. To assess the data adequacy and multivariate normality for this analysis, both test of the Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were conducted. Whereas Bartletts' test of sphericity was to identify identity-correlated matrixes, the KMO values assessed the ratio of the squared correlation between the variables to the squared partial correlation between the

variables, which varies from 0 to 1. Factor analysis reliability increases from 0 to 1 of KMO values, however minimum values of 0.5 or more is recommended (see Kaiser 1960; Kaiser, 1974; Field, 2005; Chan, 2008 cited in Enshassi and Swaity, 2015). For further dataset suitability tests for EFA, determinant scores were computed and this is a test for multicollinearity or singularity.

1.3.5 Expert Interview

Expert interview in a form of face to face and phone interviews were exploited as the main data acquisition tools at the qualitative stage, using semi-structured interview guide. The interview guide consisted of question sets that were open-ended guided by the critical stressors of CPs stress in Ghana. Responses from the contacted CPs were recorded verbatim. This approach was identified appropriately because of its few incorrect responses. Out of the 372 contacted CPs, 10 were selected by taking one from each of the 10 regions in Ghana each of whom was engaged in this task. The essence was to give in-depth meaning to findings at the quantitative stage of this research.

1.3.6 Qualitative Analysis

Qualitative data collection and analysis were done simultaneously. The qualitative data obtained through the interview were coded and analysed using PC-based program: IBM SPSS Statistics. This qualitative data analytical procedure included: (1) organised and prepared data for analysis; (2) read through all data; (3) coded the data by computer; (4) interpreted themes; (5) interpreted the meaning of themes (Creswell, 2008). The major analytical tool was pairwise ranking in identifying the most predominant stressors.

1.4 Results and Discussion

1.4.1 Background of Participants and Firms

Of the 372 professionals contacted: most (76%) of them were above 40 years of age; majority (74%) were males with the rest been females; 84% were married and 16% were yet to have spouses. Out of the 84% married CPs, 75% had single spouse and 9% had more than a spouse. A few (4%) of the CPs had no children; most (87%) of them had one to four children whilst the rest (9%) had more than 4 children. The majority (61%) of the respondents had their firms

located in the Greater Accra and Ashanti Regions with the rest scattered in the remaining eight regions of the country.

In terms of their levels of education, majority (97%) had tertiary education (91% from university and 6% from the polytechnics), whilst the rest (3%) had secondary education. The CPs consisted of architects, structural engineers, consultants, project managers and site engineers. Most (51%) of these CPs were engaged in building construction, a few (29%) were into civil engineering and the rest (20%) were engaged in both. Majority (91%) of these professionals were found in small-scaled firms, the rest were in medium (5%) and large (4%) scaled firms. On years of working experience, majority (90%) of the CPs interviewed had over 12 years of working experience, whilst the rest (10%) had 10 to 12 years of working experience.

On monthly salary from their regular jobs, majority (53%) of these professionals earned over GHS 2500 whilst only a few (10%) earned less than GHS 1002. The rest (37%) earn between GHS 1002 and GHS 2500 a month. On part-time jobs, 19% had no part-time job, 53% had one, 21% had two and 7% had more than two part-time jobs.

1.4.2 Quantitative Results

Stress factors among construction professionals' in Ghana were identified from among all the four categories of stressors found in literature (organisational, personal, physical and task stressors), but much emphasis were placed on the organizational and task stressors as the two precarious stress types in the global South (Enshassi & Swaity, 2015) and for the purpose of the study. In terms of the two models' good fit, all the models had <50% of their non-redundant residuals with absolute values greater than 0.05 indicating good fit models. Thus, the organisational stressor model had 21 (38.0%) non-redundant residuals with absolute values greater than 0.05 and the Task stressor model had 38 (22.0%) non-redundant residuals with absolute values greater than 0.05. The factor analysis results of each stressor group are presented and analysed separately in the subsequent paragraphs.

1.4.3 Factor Analysis Results for Organisational Stressors

By a varimax rotation with Kaiser Normalization, principle factor extraction analysis was conducted. For factor analysis data suitability (See Table 1), the Bartlett's test of Sphericity was 2539.250 and the significance level of p-value less than .001, indicated no identical

population correction matrix. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was .694, suggesting sample acceptability for the analysis. The determinant score was not above 0.00001 as this designates an absence of multicollinearity and the Cronbach's Alpha was .674 for an accepted reliability for the research instrument.

Table 1: Bartlett and Kaiser-Meyer-Olkin's test

Bartlett's Test of Sphericity	Approx. Chi-Square	2539.25
	df	10
	Sig.	0
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.694
Determinant score		1.25E-06
Cronbach's Alpha		0.674

Table 2 depicts the eigenvalues of each linear attribute (Q1 to Q11) before extraction, after extraction and after rotation. This was the total variance explained for organisational stressors.

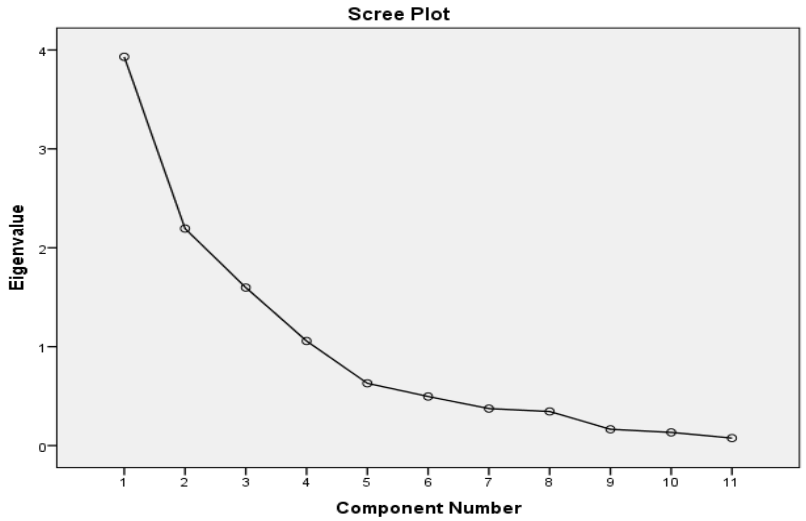
Table 2: Total variance explained for organisational stressors

Q	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	T	% V	C %	T	% V	C %	T	% V	C %
1	0.3	44.4	44.4	3.6	32.9	32.9	3.6	32.6	32.6
2	0.1	23.6	68.0	2.1	19.3	52.1	2.1	19.5	52.1
3	0.0	7.8	75.8						
4	0.0	7.2	83.0						
5	0.0	6.0	89.0						
6	0.0	4.5	93.5						
7	0.0	2.0	95.5						
8	0.0	1.6	97.1						
9	0.0	1.4	98.5						
10	0.0	1.1	99.6						
11	0.0	0.4	100						

NB T=Total, %V =% of Variance, C%=Cumulative %

Figure 1 is the scree plot that resulted in two factors. After extraction, Organisational Stressors 1 was Organizational policies, treatment and reward, which explained 32.6% of the total variance. The second Organisational Stressors was Organisational structure, which also explained 19.5% of the total variance. This study uncovered two most prevailing PCs' organizational stressors in Ghana as organizational policies, treatment and reward and organisational structure.

Figure 1. Scree plot of the attributes of organisational stressors



The loadings of the organisational stressors attributes after varimax rotation professionals' responses are in Table 3.

Table 3: The loadings and variance explanation of the organisational stressors

Stressors and attribute	Attributes Loading	Variance Explained
Stressors1: Organizational policies, treatment and reward		
My establishment is not attentive in my career.	0.933	32.6%
I feel the reward I get is relatively low compared to my effort or the external market.	0.904	
My company hardly provide support for my work.	0.868	
I often feel unfair for the organisation treatment.	0.709	
My company does not provide me with suitable career and promotion opportunities.	0.664	
Organisational Stressors 2: Organisational structure		
The company where I work is bureaucratic	0.909	19.5%
My work place is a politicised environment.	0.854	
I hardly get feedback from my supervisor on my performance	0.678	

This study identifies Organizational policies, treatment and reward with 5 attributes as the first stressor that explained 32.6% of the total variance. The first three attributes of this critical stressor have relatively higher factor loadings >.85 with 'My establishment is not attentive in my career' as the attribute that had the highest loading of .933. The attribute 'My company does not provide me with suitable career and promotion opportunities' appeared at the bottom with 0.664. Again, 'I feel the reward I get is relatively low compared to my effort or the external market' and 'My Company hardly provide support for my work' had the second and third highest factor loading of 0.904 and 0.868 respectively (See Table 3). These suggest that, the policies of construction firms in the country do not treat the professionals' well leading stress among them. This is in line of the findings of Enshassi and Swaity (2015). It also supports Leung, Chan and Yu (2008) and Andrews et al. (2009) that, construction professionals are stressful in that management of construction companies fails to provide them opportunities for training, promotion and reward.

Organisational structure was identified by this study as the second most critical organisational stressor that leads to construction professional stress in Ghana. This stressor explained 19.5% of the total variance with three attributes. 'The company where I work is a bureaucracy', 'I am working in a politicised environment' and 'I hardly get feedback from my supervisor on my performance' had factor loadings as high as 0.909, 0.854 and 0.678 respectively. Leung, Chan and Yu (2008) and Leung, Zhang and Skitmore, (2008) identified these three attributes by many such as the main sources of stress through organisational structure stressors with politicized environment at the top as the main attribute. In other words, this study does not confirm the findings of Leung and Chan (2010) in that, the second attribute of this current finding was the first in their study. Again, these findings stalwartly sustain Enshassi and Swaity (2015).

1.4.4 Factor Analysis Results for Task Stressors

In terms of factor analysis data suitability (see Table 4), the Bartlett's test of Sphericity was 9594.568 and the significance level was p-value less than .001. This shows no identical population correction matrix. Furthermore, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.838 suggesting sample acceptability for the analysis. The determinant score was less than 0.00001, which indicates no multicollinearity and the Cronbach's Alpha was 0.581 for an accepted reliability for the research instrument.

Table 4: Bartlett and Kaiser-Meyer-Olkin's Test

Bartlett's Test of Sphericity	Approx. Chi-Square	9594.568
	df	18
	Sig.	0
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.838
Determinant score		6.44E-08
Cronbach's Alpha		0.581

In addition, Table 5 displays the eigenvalues of each linear attribute (Q37 to Q55) before extraction, after extraction and after rotation. This table also depicts the total variance explained by task stressors.

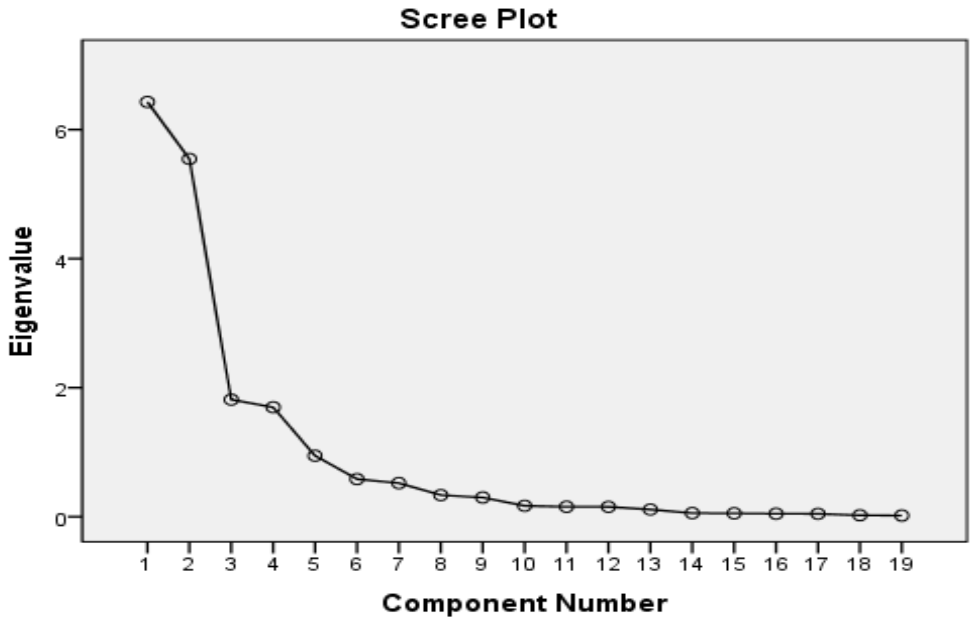
Table 5: Total variance explained for task stressors

Q	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	T	% V	C %	T	% V	C %	T	% V	C %
37	0.4	37.5	37.5	6.2	32.7	32.7	5.6	29.7	29.7
38	0.4	31.0	68.5	5.3	28.1	60.8	5.4	28.2	57.9
39	0.1	11.1	79.6	1.7	8.9	69.8	2.5	13.3	71.1
40	0.1	6.2	85.8	1.9	10.0	79.7	1.6	8.6	79.7
41	0.0	3.7	89.5						
42	0.0	2.8	92.2						
43	0.0	1.7	93.9						
44	0.0	1.4	95.3						
45	0.0	1.1	96.4						
46	0.0	1.0	97.3						
47	0.0	0.6	97.9						
48	0.0	0.4	98.4						
49	0.0	0.4	98.8						
50	0.0	0.4	99.2						
51	0.0	0.3	99.5						
52	0.0	0.2	99.7						
53	0.0	0.2	99.8						
54	0.0	0.1	99.9						
55	0.0	0.1	100.0						

NB T=Total, %V =% of Variance, C%=Cumulative %

Figure 2 displays the scree plot that resulted in four factors. Work Overload turned out as Task stressor 1, which explained 29.7% of the total variance. Task Stressor 2 was Role Conflict/Ambiguity, Task Stressor 3 was Work Under-load whiles Task Stressor 4 was Constant learning/Limited relaxation after extraction that explained 28.2%, 13.3% and 8.6% of their respective total variances.

Figure 2: the scree plot for task stressor attributes



This four-factor solution as indicated earlier explains 79.7.5% of the total variance and Table 12 shows the respective loading scores. Again, these factors had a range of Cronbach's Alpha representing suitable internal consistency as indicated before.

This study identifies work overload as the most critical task stressor of CPs in Ghana with eight attributes explaining a bit over 28.9% of the total variance. The first six attributes of this critical stressor have relatively higher factor loadings >.80. From Table 6, "I have many responsibilities in my job" came out as the attribute with highest factor loading of 0.927. This attribute is of great significance because, CPs tasks are project in nature that consist of set of many activities done within time-frame with well-defined objectives as described by Gary (2009), Carr (2009) and Stevenson (2008).

They are normally cost and quality constraints that involve risk at every step of each process as outlined by Carr (2009) and Stevenson (2008). Further, this attribute can be linked to the

fact that about 80% of contented CPs are engaged in more than one part-time job or project and each task is unique which could at no time be repetitive in the alike manner even by the same set of professionals within an identical dwelling as emphasised by Attakora-Amaniampong (2015), which can increase the stress of CPs in Ghana.

Table 6: The loadings and variance explanation of the task stressors

Stressors and attributes	Attributes Loading	Variance Explained
Task Stressor Factor 1: Work Overload		
I have many responsibilities in my job	0.927	29.675
My project problems are usually complicated	0.905	
My work always involves long hours	0.902	
My job normally involves multiple tasks at the same time	0.861	
Much effort is involved to guiding subordinates in their tasks	0.842	
I normally do overtime (evenings and weekends) to finish my work	0.818	
My tasks are often needed urgently and have tight deadlines	0.758	
I do not have enough time to myself because of meetings	0.662	
Task Stressor Factor 2: Role Conflict/Ambiguity		
It is often difficulty to decide between high productivity and high quality	0.965	28.197
Explanations of what has to be done are often unclear	0.961	
My beliefs often conflict with those of the organization.	0.943	
The organisational goals and objectives are invisible and unclearly stated	0.861	
There is often a conflicting demands between for different parties	0.854	
My job responsibilities are generally vague, unclear and inconsistent.	0.775	
Task Stressor Factor 3: Work Under-load		
My skills and abilities are not being used well	0.859	13.261
My job is boring and repetitive	0.821	
I am given very limited authority	0.810	
Task Stressor Factor 4: Constant learning and Limited Relaxation		
My job requires that I keep learning new things.	0.960	8.582
I am pressurised to work without relaxing	0.509	

Work overload as the most critical task stressor of CPs is consistent with the results of similar studies (e.g. Lingard & Francis, 2004; Ng & Leung, 2005; Chan & Yu, 2008). Work overload, as described as both qualitative and quantitative in nature support the view of Enshassi & Swaity (2015) as an important stressor of CPs. Other high ranked attributes identified by other

works such as Lingard & Francis (2004), Ng et al. (2005) and Enshassi and Swaity (2015) are in line with this result.

Role conflict and ambiguity was identified as the second most critical task stressors by this study (see Table 12). It explains 28.197% of the total variance and contained six attributes. The first five attributes of this critical stressor recorded relatively high factor loadings, a little over 0.80. The attribute with the highest factor loading (of 0.965) is "I often have difficulty deciding between high productivity and high quality ". It is a role ambiguity. It indicates that CPs' role is ambiguously defined in the country. This can be linked to incapability of the CPs to effectively define scope of tasks. This is in line with the view of Attakora-Amanaiampong (2016) that, CPs though appreciate the importance of project management competency most of them are deficient. Clearly, all the highly rated attributes of these task stressors are related to this first attribute, buttressing its significance with ambiguity among CPs. This is consistent with results from Leung & Chan (2010) and Attakora-Amaniampong et al (2014).

This study publicised work under-load as the third critical task stressor explaining 13.26% of the total variance with a three-attribute constituent. The most significant attribute of this stressor is "I feel my skills and abilities are not being used well" with 0.859 as its loading. This can be attributed to the poor economic condition besieged with high graduate under-employment in Ghana. Though, this task stressor is the third in this current study, it was the second according to Leung et al. (2005; 2008). The second attribute of work under-load in this study is 'My job is boring and repetitive'. This can be traced to the limited and undiversified span of operation of these construction firms. This is because a number of these firms were solely either into building (52%) or civil (29%) making the task repetitive. The third attribute of work under-load is 'I am given very limited authority'. This may also be traced to the Ghanaian situation where CPs are given a countless but repetitive job with limited authority. This normally increased stress on the part of the CPs since they are usually not decision makers. This, as third and last attribute under work under-load is in line with that of Leung, Chan and Yuen (2010).

Markedly, this study revealed constant learning and limited relaxation as a fourth critical Task stressor. This explained 8.58% of the total variance with a dual-attribute constituent. The critical attributes of this stressor with the loading of 0.96 and 0.51 were 'My job requires that I keep learning new things' and 'I am pressurised to work without relaxing'. These interrelated

attributes can be traced to today's ever increasing clientele requirements' heterogeneity. They make CPs strive continually to meet and at times surpass these demands as indicated by Attakora-Amaniampong (2016). This, in addition to the current quality demands (Stevensons, 2008) from CPs' clientele and globalization might have increased their stress. This stressor is unique in that, whereas this study had four Task Stressor attributes, other studies such as Leung, Chan & Yuen (2010), Leung et al. (2005b; 2008) and Enshassi and Swaity (2015) uncovered only two Task Stressor attributes, creating a knowledge gap.

1.4.5 Qualitative Results

The respondents were asked to pairwise rank the two critical stressors based on their prevalence and Table 7 illustrates this result. The essence was to identify the most prevailing stressors between the two critical stressors of CPs in Ghana. It also serves as an appendage to the earlier presented quantitative results.

Table 7: CPs Stressors' prevalence result

Stressors	Scores	Rank
Organisational Stressors	52	1st
Task Stressors	18	2nd

From Table 7, our study revealed that organisational stressors (scoring 52 out of 70) is most ubiquitous stressor among the four CPs' stressors in the country. This portrays directly that though Task stressors are quit disturbing yet the organizational stressor is the most worrying type that is disturbing CPs across the ten regions of Ghana. In order to know realities of the quantitative responses in table 13 a well experienced but young woman who has been in the construction profession over a decade said:

> As a professional, l am usually submerged with numerous activities to handle. But, there is a mismatch between my effort and reward and hence worsening my situation whenever I feel that l am not part of most decisions made in this company. One may not be far from wrong to say that I am enslaved to the company. And I do not think that I am the only victim of such canker, the situation is the same everywhere you go.

A fifty-one-year-old architect from northern Ghana similarly expressed his sentiments about the stressful situation of CPs that supported organizational stressors' predominance in Ghana. He indicated:

> My condition is upsetting the plans I had before starting this work because I have the feeling that I am under paid. My salary does not commensurate my output and effort in this company…I am always mad about this bad condition, as the policies of this company do not support our career.

This study also reveals a recent stress increase among CPs than ever before as a result of organizational, personal, physical and task stressors with organizational stressors as the most prevalent.

1.4.6 Conclusion and Practical Implications

This study has demonstrated that the organizational and task stressors are the two critical stressors among construction professionals' in Ghana of which the organizational stressors are the most predominant. As the most prevalent CPs stressors, organisational stressors had two attributes with organization, policies, treatment and reward as the first rated attributes followed by organisational structure. The first stressors are induced by the extreme incapacity of construction firms to see their internal clienteles as resources and assets but not mere tools to achieve corporate goals. However, the study also uncovered four attributes of task stressors, namely work over-load, role conflict/ambiguity, work under-load and constant learning with inadequate relaxation.

The outcome of this study can serve as policy alert for an optimal stress target and employee centred organisational and task related policies for CPs in Ghana. Construction firms in Ghana need to organise stress management orientation for their staff. This is because, as noted earlier, stress cannot and need not be completely eliminated. Therefore, knowing and managing the stressors may help industry workers to keep the required balance for optimal performance. This would help in curtailing organisational stressors impact on CPs and also aid in the management and minimization of personal stressors. It is also recommended that a nationwide in-depth qualitative study on stress coping strategies of CPs should be conducted by the state or GhIS. This stems from the fact that the sequential explanatory mixed approach is quantitatively skewed.

1.5 Reference

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