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An Assessment of Trade Unions in the South African Architecture, Engineering and Construction Industry

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Abstract
The Architecture, Engineering and Construction (AEC) industry is known to be one of the largest employers of labour globally. The diverse and multi-faceted characteristics of the industry ensure it caters for the employment of both skilled and unskilled workers. However, the unfavourable working environment and conditions, exploitation of labour, and poor welfare of the workers are a few of the ills associated with the AEC industry. Hence, the establishment and proliferation of trade unions for mitigating the numerous challenges facing construction workers. This paper aims to assess the state of trade unions in the AEC sector using South Africa as a case study. A questionnaire survey was used to obtain the required data for this research study. The respondents were quantity surveyors, site engineers, foremen, safety officers, and quality control officers who are actively affiliated with a trade union in South Africa. A quantitative approach to data analysis was employed. The results revealed the major factors responsible for the establishment of trade unions in the South African AEC industry. Poor impact on project performance, intimidation of striking workers, disturbance of project process, organizational conflict and drag in negotiations are identified in the study as the major adverse impacts of trade unions in the AEC industry. The results revealed securing better wages, improved fringe benefits, improved workplace safety measures, prompt management responsiveness to employees, and improved health and safety of employees are the major benefits of trade unions in the AEC industry. It is believed that the presence of a versatile and effective trade union will optimize productivity and create a safe workplace culture in the built environment.

Keywords
Built Environment, Construction Industry, Construction Workers, Health and Safety, Labour Unions, South Africa, Sustainability.

1. Introduction

Globally, the Architecture, Engineering and Construction (AEC) industry is significantly relied upon to enhance the quality of human life. According to Roodman and Lensen (1994), one-tenth of the world economy is concentrated on the preparation, construction, operation and maintenance of buildings and structures. In South Africa, the AEC industry aids employment generation and grows the economy (Oyewobi et al., 2015). It plays a major role in the implementation of small to mega commercial, residential, hospitality, leisure, industrial, energy, transportation, and water infrastructural projects (Adamu et al., 2015). In developed and developing countries, the AEC sector has become one of the important sectors for optimizing economic, social and environmental development. Despite the numerous opportunities that the AEC industry presents, there is an equal proportion of challenges manifested in different forms by the sector. The capability to meet these challenges, therefore, remain paramount to ensuring a safe, conducive and productive work environment in the AEC industry.

A major challenge hindering the growth and sustainable development of the AEC industry relates to the safety and welfare of construction employees (skilled and unskilled). Despite the government's increased investments in the AEC industry, the growth had not been complemented by a fair upscale in compensation, remuneration and welfare of workers (Mabugu & Mohamed, 2008). The industry is still faced with challenges of poor remuneration and

compensation, growing inequality, unfairness to workers, substandard workers' welfare, injuries and death. The resultant effect of these challenges is largely responsible for the underperformance and negative impacts of the sector.

Mohamed and Motinga (2002) observed that the increased preference for subcontracting systems in the execution of construction projects has resulted in numerous firms that minimize costs, lower work standards and disregard workers' welfare, health and safety. Most contractors often weaken labour rights in their business operations, especially in a competitive sector like the AEC industry where the focus is usually concentrated on profit (Mayhew et al., 1997). Delays in salaries and poor remunerations, lengthy working hours, and poor welfare of workers are a few factors that characterized the operations of these contracting firms as employees are afraid to complain due to the fear of job loss. According to Okafor (2007), construction firms engages workers on casual and short-term contracts to remain competitive and maximize profit. Multinationals and local construction firms are known to exploit their employees in their bid to maximize profit. For example, thousands of migrant workers engaged in construction sites in Qatar have died since the nation got awarded the right to host the world cup (Erfani, 2015). Hence, the justification for the establishment of trade unions to promote and protect the rights and privileges of skilled and unskilled workers in the different sectors of the economy. To this end, this study is aimed at assessing the state of trade unions in the AEC industry using South Africa as a case study. The first part of this paper introduces the paper, followed by a literature review on the overview and concept of trade unions. The research methodological framework of the study is discussed, followed by the presentation of results and discussions and lastly drawing conclusions and recommendations for the study.

2. Overview and Concepts of Trade Unions

According to Bendix (2010), the labour relations system that is operational in a particular society is a direct product and structure of that society. This means that a system, organization, region or nation where inequality, injustice and discrimination are endemic will explicitly reflect the same in its labour relations. In South Africa, the issue of massive social, economic and political inequality that characterized the apartheid system is also identified in the present labour market. The study of Venter and Levy (2014) posited that the many ills of the apartheid system of governance in South Africa manifested for the greater part of the twentieth century. Therefore, the history and development of employment relations in every nation are unique (Nel et al., 2005), and inherent to their history and system of government. The manifestation of systemic racial divisions, inequalities, unfair salaries and remunerations, unprotected and precarious employment conditions, cheap labour and exploitation, coercion, and repression amongst others, in the labour market, necessitated the emergence of trade unions.

Trade unions are described as an organization of workers who collectively seek to promote and protect their mutual interests through the tool of collective bargaining (Gupta, 2013). As explained by Bendix (2010), trade unions are a continuous alliance of wage earners for the objective of improving or maintaining their working conditions. Trade unions represent the interest of their members (employees) while their prescribed membership dues or affiliation fees are payable to help in running, supporting and promoting the roles and objectives of the union (Crounch, 2017). Since its inception, the roles of trade unions have become broad to fulfil their mandate. These are regulatory, service, capacity development, social welfare, and political roles.

Trade unions have spearheaded the clamour for the social welfare of the underrepresented members of society such as the elderly and disabled persons (Black, 2018). According to Wood and Glaister (2008), trade unions deploy their resources and manpower to influence political decisions in their favour. Due to their roles in enhancing members' potential, trade unions create platforms for their members' capacity development and growth by offering leadership opportunities, training, and relevant information dissemination (Bagilhole, 1997; Bezuidenhout, 2000). Trade unions are also providing services to their members and the public through their banks, insurance, pension and housing schemes, provision of soft loans, cooperative and thrift organizations, and other non-traditional outlets (Webster & Buhlungu, 2004; Bhorat et al., 2014). As Freeman (2005) indicated, trade unions influence the establishment, regulation, and implementation of workplace norms. As part of a completed research study that evaluates the impact of trade unions in the South African AEC industry, this paper presents the quantitative aspect of the study.

3. Research Methodological Framework

This study employed the quantitative research approach to evaluate the factors responsible for the establishment, pros and cons of trade unions in the South African AEC industry. Primary (structured questionnaire survey) and secondary (literature review) data were utilized to achieve the objectives of this study. The respondents for the study are

purposively selected, active and duly registered workers who are affiliated with a trade union in the South African AEC industry. They are site engineers, foremen, safety officers, quantity surveyors and quality control officers. One hundred and sixty (160) structured questionnaires consisting of close-ended questions are administered (physically and using google forms) to the identified respondents with One hundred and one (101) responses received, representing a 63% response rate.

The development of the questionnaire was informed by the factors deduced from the literature review. The first part (Section A) of the questionnaire survey dealt with the demographic background of the respondents. The second part (Section B) contained questions on the respondent's level of agreement on the factors responsible for the establishment of trade unions in the South African AEC industry. The third part (Section C) contained questions on the respondent's perception of the adverse impacts of trade unions in the South African AEC industry. The last part (Section D) of the questionnaire sought to identify the potential benefits of trade unions in the South African AEC industry. The questions in sections B, C and D were based on a five-point Likert scale (strongly agree= 5, agree= 4, neutral= 3, Disagree= 2, strongly disagree= 1). The Statistical Package for Social Sciences (SPSS) version 22 software was used to analyze the retrieved data using the descriptive statistical tools. The mean and standard deviation values of the variables identified were then tabulated and presented for comparison and discussion. A Cronbach's alpha reliability test of the data collection instrument was done, and the result showed that the factors responsible for the establishment, negative impacts, and benefits of trade unions in the South African AEC industry have 0.960, 0.948 and 0.953 values respectively. These high values (above the reliability coefficient of 0.7 considered acceptable) showed that the items have relatively high internal consistency (Ursachi et al., 2015).

4. Results and Discussions

4.1 The demographic background of Respondents

For the educational qualification of the respondents, the findings revealed that 33% had matric (senior secondary school) certificates, 39% had diplomas, 13% had bachelor's degrees, 12% had honours degrees and only 3% had master's degrees. The majority of the respondents are male (68%) while 32% were females. This result aligns with the general knowledge that the AEC industry remains a male-dominated sector of the economy. The results further showed that quantity surveyors constituted 30%, foremen constituted 28%, quality control officers constituted 17%, safety officers constituted 13% and site engineers constituted 12%. The respondents with 1-5 years of work experience were 34%, those with 6-10 years were also 34% and those with 11 years and above were 32%.

4.2 Factors Responsible for the Establishment of Trade Unions in the Architecture, Engineering and Construction Industry

Table 1 presents the mean value of the nineteen (19) identified factors responsible for the establishment of trade unions in the South African AEC industry. The result showed that all the 19 factors evaluated by the respondents possess mean scores higher than 2.5 making the factors significant to the study according to Field (2013). The result established that the identified factors are deemed significant based on the respondent's level of agreement. From the Table, 'lack of representation on grievances', 'unfair treatment, 'lack of platform for self-expression', 'lack of counselin disciplinary hearing', and 'discrimination' are the major factors identified as responsible for the establishment of trade unions in the South African AEC industry. Other identified factors by the respondents are 'poor job security', 'lack of fringe benefits', and 'poor participation of workers'. The findings from this study aligned with the position of Freeman and Rogers (1996), and Ratna and Kaur (2012) that lack of representation in dispute resolutions, employer reprisals, lack of worker's representative, poor welfare of workers amongst others necessitated the establishment of trade unions.

Table 1. Ranking of Factors Responsible for the Establishment of Trade Unions in the AEC Industry.

Factors	Mean ($\bar{x}$)	Standard Deviation (σX)	Rank (R)
Lack of representation on grievances	3.80	1.053	1
Unfair treatment	3.75	1.158	2
Lack of platform for self-expression	3.67	1.111	3
Lack of counsel in a disciplinary hearing	3.67	1.189	4
Discrimination	3.67	1.285	4

Poor job security	3.63	1.116	6
Lack of fringe benefits	3.59	1.129	7
Poor participation of workers	3.57	1.058	8
Fragmented forms of employment	3.56	1.247	9
Diminishing employer prerogative	3.56	1.104	9
Poor access to learning and skills acquisition	3.53	1.175	11
Poor employer-employee relationship	3.51	1.158	12
Low salaries	3.48	1.272	13
Lack of staff retention	3.47	1.149	14
Poor opportunities for advancement	3.40	1.261	15
Lack of pension plans	3.37	1.185	16
Poor input in job negotiation	3.34	1.147	17
Workplace health and safety concerns	3.30	1,326	18
Non -compliance with labour codes	3.15	1.345	19

3.2 Adverse Impacts of Trade Unions in the Architecture, Engineering and Construction Industry

Table 2 presents the mean value of the sixteen (16) identified variables on the negative impacts of trade unions in the South African AEC industry. The result showed that all the 16 negative impacts assessed by the respondents have mean values greater than 2.5. According to Field (2013), a mean score of 2.5 and more is an indication that a factor is significant to a study. Therefore, it can be established that the respondents agree that all the 16 identified factors are the negative impacts of trade unions in the South African AEC industry. The results further showed that the respondents considered 'poor impact on project performance', 'intimidation of striking workers', 'disturbance of project process', 'organizational conflict', and 'drag in negotiations' as the top five adverse impacts of trade unions in the South African AEC industry. Other major adverse impacts identified by the respondents are 'poor employer-employee relationship', 'loss of salary for striking employees', 'low standard of work', 'poor corporate image for construction firms', and 'vandalism and theft' amongst others. The results are in tandem with the position of other researchers on the negative impacts of trade unions (Memon et al., 2011; Murwirapachena & Sibanda, 2014; Bhorat et al., 2017).

Table 2. Ranking of Adverse Impacts of Trade Unions in the AEC Industry.

Adverse Impacts	Mean ($\bar{x}$)	Standard Deviation (σX)	Rank (R)
Poor impact on project performance	3.55	1.174	1
Intimidation of striking workers	3.55	1.287	1
Disturbance of project process	3.52	1.257	3
Organizational conflict	3.51	1.141	4
Drag in negotiations	3.43	1.309	5
Poor employer-employee relationship	3.41	1.254	6
Loss of salary for striking employees	3.33	1.237	7
Low standard of work	3.29	1.240	8
Poor corporate image for construction firms	3.18	1.315	9
Vandalism and theft	3.19	1.240	9
Possible loss of life	3.18	1.254	11
Accident and injuries	3.15	1.254	12
Employee dismissal	3.13	1.384	13
Loss of organizational investment	3.11	1.281	14
Retrenchment	3.08	1.340	15

Possible increase in crime rate	3.07	1.307	16

3.3 Benefits of Trade Unions in the Architecture, Engineering and Construction Industry

Table 3 presents the tabulated mean value ranking of each of the identified beneficial factors to reveal the respondent's level of agreement. The result indicated that all the 18 beneficial factors assessed by the respondents have mean values higher than 2.5 making the factors significant to the study according to Field (2013). The result established that the respondents agree that all the 18 identified factors are beneficial factors of trade unions in the South African AEC industry. Based on the results from the descriptive analysis and Table 3, the respondents considered 'secure better wages for employees', 'improved fringe benefits for employees', 'improved workplace safety measures', 'improved management responsiveness to employees', and 'improved health and safety of employees' are the five major benefits of trade unions in the South African AEC industry. Other beneficial factors that align with the respondent's agreement level are 'promote employee welfare condition', 'ensure equality', 'increase learning and skills acquisition', 'expand opportunities for promotion', and 'reduce discrimination' amongst others. The results are on par with the position of other researchers on the benefits of trade unions (Freeman & Medoff, 1984; Doucouliagos & Laroche, 2003; Hirsch, 2004).

Table 3. Ranking of Beneficial Factors of Trade Unions in the AEC Industry.

Benefits	Mean ($\bar{x}$)	Standard Deviation (σX)	Rank (R)
Secure better wages for employees	3.97	1.019	1
Improved fringe benefits for employees	3.90	0.990	2
Improved workplace safety measures	3.85	1.038	3
Improved management responsiveness to employees	3.84	1.012	4
Improved health and safety of employees	3.80	1.063	5
Promote employee welfare condition	3.79	1.018	6
Ensure equality	3.77	1.062	7
Increase learning and skills acquisition	3.75	1.029	8
Expand opportunities for promotion	3.72	1.102	9
Reduce discrimination	3.71	1.148	10
Improve transparent of management responsibilities	3.70	1.106	11
Provide job security	3.69	1.043	12
Provide legal advice and representation	3.64	1.088	13
Increase employee discipline	3.59	1.155	14
Improve employer-employee relationship	3.57	1.139	15
Increase economic development	3.56	1.255	16
Increase staff retention	3.48	1.158	17
Support poverty reduction	3.44	1.148	18

5. Conclusion and Recommendations

This research paper is aimed at assessing the state of trade unions in the South African AEC industry. To achieve the aim, factors responsible for the establishment of trade unions were examined. The pros and cons of trade unions were further assessed to understand their impacts. Based on the findings, it can be deduced that inequality, discrimination and repression remain inherent in the South African labour system. The majority of construction firms in the country are more focused on maximizing their profits at the expense of workers' welfare, work environment, health, and safety. It can be concluded that the attributes of the apartheid era still manifesting in the present post-apartheid regime coupled with the delicate nature of the AEC industry made it imperative for the establishment of trade unions. Without the presence of trade unions and their competitiveness, the fate of workers would have been sealed in the hands of their paymasters. Also, the presence of active trade unions in the South African AEC industry and other sectors of the economy has led to construction project delays, time and cost overruns, poor standard of work, conflicts, and a sour

employer-employee relationship which are a few of the adverse impacts on the sector. However, the study revealed the beneficial dimension of trade unions in the South African AEC industry. These benefits can be categorized as workers-related, employer-related, government-related and people-related. The findings are further corroborated by research scholars. With better wages, fringe benefits, and proper workplace safety measures as the top benefits of trade unions, the resultant effect on the South African AEC industry will likewise be beneficial. Project delays, time and cost overruns, and poor quality of work due to workers downing tools and shutting down activities on construction sites will be minimized.

It is therefore recommended that the Department of Labour and other related agencies of government ensure the rights and welfare of workers are safeguarded. These agencies of government in collaboration with other stakeholders should ensure effective and efficient frameworks, policies and laws are enacted, adopted and implemented from time to time and as demanded. Anonymous avenues for reporting persons and organizations disregarding the labour laws should be put in place. Professional bodies, higher education institutions (HEIs), technical and vocational education and training (TVET) colleges and other relevant outlets are recommended to incorporate work and labour ethics into the training programmes of skilled and unskilled workers. This will ensure the workers are fully aware of the expectations of their prospective employers thereby reducing conflicts in the process of discharging their duties. A fair and unbiased avenue for dialogue and mediation which is acceptable and trusted by all stakeholders in the industry should be established to effectively address cases of disagreements and protests. It is believed that with the cooperation of all relevant stakeholders, especially the trade unions, the South African AEC industry will sail towards a truly sustainable path.

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