# EXAMINING THE MOTIVATION-PERFORMANCE LINK AMONG CONSTRUCTION EMPLOYEES IN WESTERN CAPE, SOUTH AFRICA

# Ndukuba Samuel Nnadoziem1\*, Uwa Chukwunonso Aghaegbulam2

<sup>1</sup>Department of Civil Engineering and Geomatics, Cape Peninsula University of Technology, Cape Town, South Africa. <sup>2</sup>Department of Mechanical and Mechatronics Engineering, Tshwane University of Technology, Pretoria, South Africa. Corresponding Author: Ndukuba Samuel Nnadoziem, Email: Ndusam4christ@yahoo.com

Abstract: The construction industry, serving as a cornerstone in economic development, necessitates a comprehensive understanding of the determinants influencing the productivity of construction workers. This study delves into the motivating drivers and challenging factors impacting construction workers' productivity in Western Cape, South Africa. The research context underscores the pivotal role of motivation in augmenting worker productivity while acknowledging the adverse effects of challenging elements on job satisfaction and overall project success. Employing a survey research design, the study focused on 200 construction professionals in the Western Cape Province, South Africa. A stratified proportional random sampling technique was employed to ensure a representative sample of 200 participants and only 146 were retrieved. The data collection process encompassed a structured questionnaire, covering demographic characteristics, motivation, and factors influencing productivity. Rigorous analyses, including mean and standard deviation and Pearson Product Moment Correlation, were conducted using the Statistical Package for Social Sciences (SPSS) software, facilitating a systematic examination of the collected data. The noteworthy findings highlight the significance of factors such as recognition by authority, responsibility, provision of healthcare services, working conditions, transportation facilities, promotion opportunities, error tolerance, salary increments, adherence to company policies, and participation in decision-making processes as significant motivators. Conversely, challenges such as lack of cooperation among fellow workers, unfair reward practices, lack of appreciation for job performance, poor supervision, irregular salary payments, inadequate safety measures, lack of respect by supervisors, presence of incompetent crew members, and repetitive tasks were identified. This research highlights the drive relationship between motivation and productivity in the construction industry which emphasises the need to focus on motivational factors that improve productivity problems. In conclusion, it is stated that improving worker motivation and, by extension, productivity in the construction sector, requires addressing both challenging and motivating factors. Construction companies may create a productive and motivating environment for employees by implementing practice strategies such as guaranteeing safety, enhancing supervision, encouraging justice and respect, offering sufficient training, recognising accomplishments, and promoting teamwork. The research findings have significant implications for the Western Cape's construction firms and other industries, as they can help guide the development of motivational strategies that will increase worker output and project success.

Keywords: Construction employees; Motivation; Performance; Western cape

# **1 INTRODUCTION**

The construction sector plays a crucial role in a country's economy, and human resources make the efficient use of other resources possible in large part. In most nations, the construction sector, which encompasses operations from project conception to completion, accounts for a sizeable share of gross capital and GDP. The industry plays a vital part in the South African economy, but in recent years, its performance has fallen short of expectations [1-2]. Decades of consistently poor productivity in the industry underscore the need for immediate action to motivate construction workers to increase productivity to achieve long-term economic growth [3-4]. Project delays, cost overruns, and a low GDP in the construction sector are the results of the global reduction in productivity in the industry, which includes South Africa. Improving labour effectiveness requires addressing elements including physical limitations, safety, ambient circumstances, and worker motivation. Despite this, the industry's practices for increasing worker involvement and efficiency are still lacking, leaving gaps that need attention [5-6].

To solve the persistent problem of low construction worker productivity, motivation is crucial. It is a process that has its roots in human wants and creates an internal motivator that guides behaviour and activity toward goal completion. There are two types of motivation: internal, which stems from internal wants, and external, which is used by firms to satisfy a range of demands and habits among their workforce [7-8]. The significance of motivating workers to improve productivity is demonstrated through the reciprocal relationship between productivity and motivation. Many theories, notably Maslow's hierarchy of needs, challenge the idea that money is the only motivator for construction workers by stressing the complexities of motivation. In employment-intensive industries like construction, efficient HRM goes beyond financial incentives [9-11]. Al-Abbadi and Agyekum-Mensah [12] conducted a recent study to investigate the factors influencing workers' motivation and productivity in the construction industry. The study identified several challenges, including insufficient financial incentives, delayed wage payment, insecure jobs, and unfavourable working

conditions. These elements were shown to hurt employees' motivation, underscoring the critical need for better pay and working conditions to raise employee motivation and, in turn, productivity.

Furthermore, an extensive amount of research has identified important motivating factors that have positive effects on construction workers' productivity. According to research showing that competitive and fair pay increases employee motivation and satisfaction, pay and benefits are essential for attracting and keeping qualified employees [13-14]. Public acknowledgement and incentives based on work performance are highly effective in increasing motivation and efficiency among workers in the construction industry [15-17]. In addition, funding training and development programs enables opportunities for career advancement and skill improvement, which raises employee motivation and ultimately results in increased production [18].

Furthermore, although the importance of worker motivation on productivity is recognized, empirical research addressing the direct relationship between worker performance and motivation in the context of South Africa is noticeably lacking. To gain a comprehensive picture of the total influence of motivation on the construction industry, it is imperative to examine the degree to which highly motivated workers contribute to better project results, timely completion, and lower rates of project abandonment. The literature that currently exists mostly focuses on broad issues and challenges facing the South African construction sector. But to fully understand the unique potential and problems facing the local construction industry, more research needs to be conducted that focuses on the Western Cape, South Africa. Enhancing motivation and productivity in the Western Cape can be achieved through examining how incentive strategies may be tailored to the specific needs and conditions within the area.

Thus, by investigating the relationship between motivational factors and productivity in Western Cape construction firms, this investigation provides insightful information that may be utilised to develop strategies aimed at enhancing productivity and efficiency in the region's building and construction industry. By gaining an in-depth understanding of the relationship between motivation and productivity and identifying the primary motivators for workers, construction firms in the Western Cape can design focused strategies that will motivate employees, successfully address challenges, and promote a more productive work environment. The findings of this study have the potential to improve Western Cape construction firms as well as provide insightful analysis and suggestions that can apply to the broader South African construction industry. These insights can play a crucial role in maximizing employee productivity and achieving project success on a broader scope. For that reason, this research seeks to as ascertain the following objectives:

1. To ascertain the motivation factors that drive' construction workers' productivity in the Western Cape

2. To ascertain the negative factors that challenge construction workers and their influence on productivity in the Western Cape.

3. To establish the relationship between motivation and worker productivity in construction firms in the Western Cape.

#### 2 THEORETICAL REVIEW MASLOW'S AND HERZBERG MOTIVATION

A psychological theory that describes human motivation and development called Maslow's hierarchy of needs has been implemented in several industries, including construction. Maslow's hierarchy of needs highlights basic needs like food, water, and shelter at the base.

Cover. These physiological demands are also met in the construction industry when workers are given safe working conditions, suitable housing, and access to basic amenities [19-21]. These fundamental needs are met in part by appropriate safety precautions, suitable tools, and a hygienic work environment, which gives construction workers a sense of stability and security.

Maslow underscores the importance of safety and belongingness needs, such as social ties and a sense of community, as he moves up the hierarchy. To accomplish these objectives, the construction sector must cultivate a cooperative and stimulating work environment [19]. Construction workers can form strong interpersonal bonds through team-building exercises, open lines of communication, and a favourable work atmosphere. People who experience a sense of support and belonging within the construction team not only have higher job satisfaction but also foster a more effective and productive work environment. When these basic requirements are met, construction workers feel more secure and stable because they have access to the right tools, safety precautions, and a healthy work environment.

Additionally, Maslow's theory can be applied to the requirements for self-actualization and esteem at the higher levels of the hierarchy [22]. These higher-order demands are met by offering chances for skill development, accomplishment recognition, and career growth paths in the construction sector. Construction professionals' self-actualization is facilitated by organizations that provide training programs, mentorship programs, and career advancement opportunities [23]. Workers in the construction business are more likely to be inspired, involved, and fully committed to their work if they have a feeling of personal growth and accomplishment in their roles.

# **3 HERZBERG MOTIVATION**

Herzberg's Two-Factor Theory also known as the Motivation-Hygiene theory has found practical application in the construction industry by addressing key factors that influence employee motivation and job satisfaction [24]. In the construction sector where projects are often complex and demanding, job satisfaction is crucial for maintaining high levels of productivity and ensuring the successful completion of projects [25]. Herzberg's theory identifies two sets of factors: motivators (satisfaction factors) and hygiene factors (dissatisfaction factors).

Within the construction sector, motivators include things like accountability, success, and acknowledgement. Construction firms have adopted numerous strategies to acknowledge and incentivize their workers, including praising exceptional work, offering chances for skill enhancement, and assigning challenging tasks that provide a feeling of achievement [26]. Construction firms seek to establish a work environment that promotes intrinsic motivation by focusing on motivators. This approach is aimed at improving job satisfaction and, as a result, productivity levels [27]. In terms of hygienic factors, construction organizations have taken steps to prevent employee unhappiness by addressing aspects such as working conditions, company policies, and interpersonal relations. Reducing job dissatisfaction in the construction sector involves maintaining a safe and well-equipped work environment, developing transparent and equitable company rules, and encouraging strong interactions among team members [28]. Human resource practices in the industry have been guided by Herzberg's theory, which highlights the significance of addressing motivational elements as well as potential sources of unhappiness to establish a balanced and enjoyable work environment [29].

# 4 MOTIVATIONAL FACTORS THAT POSITIVELY INFLUENCE THE PRODUCTIVITY OF CONSTRUCTION WORKERS

To increase productivity and guarantee the successful completion of projects, construction workers must be motivated. Creating a secure and encouraging work environment is one important component. Employees are more likely to concentrate on their work without unneeded distractions or worries about their well-being when they feel safe and confident in their surroundings [30-31]. Ensuring access to appropriate safety equipment, conducting frequent training programs, and putting in place extensive safety measures all help to create a good work atmosphere that inspires construction workers to provide their best effort.

Recognition and appreciation for diligent labour are essential for increasing productivity. A sense of pride and pleasure is fostered when construction workers receive acknowledgement and compensation for their hard work and accomplishments, whether through verbal praise, formal recognition programs, or incentives [32] [33]. Employees who feel respected and appreciated are more likely to own up to their mistakes and strive for excellence in their work. Recognising both individual and team achievements inspires workers and fosters a collaborative productive environment on construction sites.

Manoharan et al. [34] suggest that efficient collaboration is another motivating element that raises productivity in the building sector. Workers are better able to organize and complete their work successfully when they are aware of the objectives, deadlines, and deadlines of the project. A transparent workplace reduces uncertainty and irritation through regular team meetings, updates, and open channels of communication with management and supervisors [35-36]. Consequently, effective communication fosters a sense of accountability and trust, which in turn motivates construction workers to take responsibility and contribute to the project's overall success.

In addition, Olanrewaju and Lee [37] claimed that providing opportunities for advancement in their careers is a progressive strategy for inspiring construction workers. Giving employees access to workshops, skill-building activities, and training programs improves their talents and shows support for their professional development. Employee loyalty and dedication are increased when they see that their company values and invests in their skill set [38]. A workforce that is knowledgeable and trained is not only more productive but also better able to deal with obstacles and support innovation and success in the construction sector across all industries.

# 5 MOTIVATIONAL CHALLENGES ON CONSTRUCTION WORKER'S PRODUCTIVITY

The nature of the labour and the requirements of the construction industry make it challenging to inspire workers to increase their productivity. According to Xing et al. [39], the physically demanding environment of construction labour can cause weariness and exhaustion, which can lower employee motivation. Exhaustion and lack of excitement can be caused by long hours, exposure to different climates, and having to work for frequent responsibilities [28]. The short-term and project-based nature of construction work can make it challenging to establish an efficient and involved workforce [40]. Time constraints are a common feature of construction projects, which puts additional strain on labourers. Ineffective management of this pressure might result in burnout and demotivation. It can also be challenging to sustain constant motivation due to the cyclical nature of construction work, which involves times of high activity interspersed by downtime [41].

Famakin et al. [42] claim that strict rules and safety concerns in the construction sector may unintentionally worsen problems with motivation. Strict safety regulations may be seen as a barrier, which would slow down production and maybe make workers unhappy. Maintaining a motivated workforce requires striking a balance between the demand for efficiency and production and safety precautions [43]

According to a study by Ayodele et al. [44], motivation is potentially affected by the construction industry's unidentified career development pathways. Because of this, employees may find it challenging to perceive the long-term results of the work they do without an established path for advancement, which could affect their dedication and desire. To address these issues, a comprehensive strategy that fosters a culture of motivation and productivity among construction workers is needed. This strategy should include creating a positive work environment, offering opportunities for skill development, and recognizing and rewarding exemplary performance [8, 45].

# 6 METHODOLOGY

The survey research design that has been selected has been purposefully adopted to facilitate the reliable collection of data about the intricate relationship between worker productivity and motivation in construction enterprises in the Western Cape Province of South Africa. Establishing the attitudes, beliefs, behaviours, and qualities that workers have is a very suitable application for this design. When evaluating numerical data, its quantitative method plays a crucial role in ensuring validity and accuracy in the findings. This methodology works well when examining a large workforce, which is a feature of the construction sector [46]. The research sample size selected was 200 construction professionals who are in the construction firm in Western Cape Province, South Africa, to understand how motivation influences workers' productivity. These selected survey professionals were engaged with ongoing projects, mostly owned by both private and corporate firms. Employing a stratified relative random sampling technique ensures the representation of various perceptions, resulting in a sample size of 146 respondents which constituted 73% of the targeted population size.

# 7 THE DATA COLLECTION

The data collection process for this study within the construction industry employed a structured questionnaire with two different sections. It should be noted that a five-point Likert-type scale was adopted to determine the relationship between workers' motivation and productivity. Section A captured demographic characteristics, while Section B focused on data concerning workers' motivational challenges and their perspectives on factors influencing productivity in the construction sector. A web-based survey and face-to-face administering were adopted because of the geographical spread of the construction professionals and firms involved in the study. The survey instrument with a supplementary personalised, signed cover letter was sent to the 200 survey respondents through e-mail, it is important to note that out of 200 sent e-mails and face-to-face administering, 146 were duly completed and returned using the web survey and face-to-face collection and hence an overall response rate of 73% was achieved. The direct delivery and retrieval method facilitated the efficient collection of data. In terms of the data analysis, descriptive analyses, encompassing measures such as mean and standard deviation, were utilized to rank the motivational drivers and challenges that influence construction worker's productivity. The data analysis approach incorporated a combination of descriptive and inferential statistical methods. Descriptive statistics were employed to assess central tendencies, including mode, median, and mean, as well as to evaluate data dispersion using measures such as standard deviation. Inferential statistics were utilised to validate the data obtained. These analyses provided a succinct summary and description of the study findings, offering insights into the motivational aspects of construction workers. The use of Statistical Package for Social Sciences (SPSS) software ensured a systematic and rigorous analysis of the collected data, emphasising the relevance of the findings to the construction industry and contributing to the advancement of knowledge in this field.

#### 8 FINDINGS AND DISCUSSION

#### 8.1 Section A: Demographic Profiles

	Variables	Label	Freq.	Percentage %
	Age of Respondents	Below 25yrs.	10	6.8
		25 – 30yrs	21	14.4
		31 – 35yrs	46	31.5
		36 – 40yrs	36	24.7
		41 – 45yrs	25	17.1
		46 - 50yrs	5	3.4
		51 above yrs	3	2.1
		Total	146	100
Ed	ucational Qualification	ND (National Diploma)	23	15.8
	-	BSc / BTech /Advanced Dip	63	46.6
		Honours degree	29	19.9
		Master's degree	13	8.9
		PhD	4	2.7
		Other	9	6.2
		Total	146	100
	Professional Roles	Architect	11	7.5
		Project manager	34	23.3
		Site Engineer	15	10.3
		Quantity surveyor	63	43.2
		Supervising Builder (Foreman)	23	15.8
		Total	146	100
Years	Spent with the firm	Less than 5 Yrs.	37	25.3
	-	6-10 Yrs.	62	42.5

 Table 1 Distribution of Respondents Based on Age and Educational Qualification, Professional Roles, Educational

 Specialization and Years

# Volume 2, Issue 1, Pp 8-17, 2025

	11-15 Yrs. 16 Above Yrs. Total	29 18 146	19.9 12.3 100
Professional Roles	Architect	11	7.5
	Project manager	34	23.3
	Site Engineer	15	10.3
	Quantity surveyor	63	43.2
	Supervising Builder (Foreman)	23	15.8
	1 0 ( )	146	100

Table 1 above presents the distribution of respondents based on their age. The result shows that respondents below 25 years have a frequency of 10 representing 6.8%, followed by those whose ages are between 25—30 years with frequencies of 21 representing 14.4% while those between 31-35 have the highest frequencies of 46 representing 31.5% and 36 - 40 years is the second highest frequencies of 36 representing 24.7% while as 41 - 45 years, 46 - 50, 51 above years and above got the frequencies of 25, 5 and 3 representing 17.1%, 3.4% and 2.1% respectively. The percentage distribution shows that most of the respondents in the study area are below 30 years old. Further, the table presents the distribution of respondents based on their Educational Qualifications. The result shows that respondents with Matric certificates have a frequency of 15 representing 10.3%, followed by ND (National Diploma) holders with frequencies of 68 representing 46.6% whereas Honours degree holders have the second highest frequencies of 29 representing 19.9%. The master's degree, PhD and Others got the lowest frequencies of 13, 4 and 9 representing 8.9%, 2.7% and 6.2% respectively. The percentage distribution shows that most of the respondents in the study are BSc / BTech /Advanced Dip holders.

Furthermore, the above illustrates the distribution of respondents based on their professional roles within the construction industry. The findings indicate that Quantity Surveyors recorded the highest frequencies, comprising 63 respondents, representing 42.3%. Following closely are Project Managers, with frequencies of 34, constituting 23.3%, while Supervising Builders (Foremen), Site Engineers, and Architects had the lowest frequencies at 23, 15, and 11, representing 15.8%, 10.3%, and 7.5%, respectively. Additionally, the table presents the distribution of respondents based on their tenure with the company. The results reveal that individuals with 6-10 years of experience garnered the highest frequencies, totalling 62 and accounting for 42.5%. In contrast, those with less than 5 years of experience comprised 37 respondents, representing 25.3%. Respondents with 11-15 years and 16 years and above had the lowest frequencies, with 29 and 18 respondents, constituting 19.9% and 12.3%, respectively. The percentage distribution highlights that a significant portion of respondents in the study area have spent 6-10 years with their respective construction firms.

Motivational drivers	Means	Std Dev	Rank
Recognition by authority	3.89	0.72	1 <sup>st</sup>
Responsibility	3.67	0.83	$2^{nd}$
Provision of good Health Care services	3.54	0.76	3 <sup>rd</sup>
Working Overtime	3.51	0.73	4 <sup>th</sup>
Provision of Transportation facility	3.46	0.77	$5^{th}$
Opportunity to be promoted	3.39	0.85	6 <sup>th</sup>
Error Tolerance	3.33	0.74	$7^{\text{th}}$
Increase in Salary	3.26	0.94	8 <sup>th</sup>
Company policy	3.25	0.73	$9^{\text{th}}$
Taking part in the decision	3.18	0.88	10 <sup>th</sup>
Working condition	3.15	0.69	11 <sup>th</sup>
The work itself	3.07	0.71	12 <sup>th</sup>

Table 2 Motivational Drivers that Influence Construction Workers' Productivity in the Western Cape?

# 8.2 Discussion of Findings One

The descriptive statistic as indicated in Table 2 revealed that recognition by authority is the most significant motivational factor influencing construction worker's productivity, ranked 1<sup>st</sup> with a MS of 3.89 and SD of 0.72. Motivational drivers with mean scores of 3.67 and 3.54, respectively, are placed second and third and include delegating responsibilities and offering high-quality healthcare services. The study's conclusions about the crucial motivational factors affecting the productivity of construction workers in the Western Cape are consistent with previous findings in the field. Important motivators in the construction industry have been highlighted, including acknowledgement by authority, responsibility, the availability of quality health care, and putting in extra hours of labour [47] [48]. These factors have an important influence on workers' overall health and satisfaction with their work, which in consequence improves their drive and productivity. Additionally, the research highlights how crucial it is to provide transportation, opportunities for advancement, error tolerance, pay raises, dedication to company policies, the ability to participate in decision-making processes, and favourable working conditions, all of which have a significant impact on the

productivity of Western Cape construction workers. The findings agree with previous research that emphasised the importance of monetary incentives, professional growth possibilities, and employee empowerment in inspiring construction workers [49][50]. The identification of specific motivators provides Western Cape-based construction firms with valuable knowledge. It underlines the need to identify and address these motivators in a way that promotes worker morale, commitment, and productivity. As a result, the study clarifies the key motivating factors influencing the productivity of construction workers in the Western Cape and provides recommendations to construction firms on how to create motivational strategies that will increase worker productivity and project success in general.

Research Question Two: What are the challenges to worker motivation in Western Cape construction firms that affect productivity?

Motivational challenges	Means	Std Dev	Rank
Lack of cooperation from fellow worker	3.51	0.91	1 st
Unfairness in giving reward	3.43	0.72	$2^{nd}$
Lack of appreciation for a job well done	3.40	0.80	3 <sup>rd</sup>
Irregular salary	3.35	0.83	4 <sup>th</sup>
Poor supervision	3.33	0.78	5 <sup>th</sup>
Poor safety measures	3.31	0.86	6 <sup>th</sup>
Doing the same work more than one time	3.28	0.79	7 <sup>th</sup>
Little achievement	3.24	0.73	8 <sup>th</sup>
Lack company policy	3.23	0.71	$9^{\text{th}}$
Lack of respect by supervisors	3.17	0.70	$10^{\text{th}}$
Poor working condition	3.12	1.09	11 <sup>th</sup>
Incompetent crew members	3.10	1.12	12 <sup>th</sup>

Descriptive data are shown in Table 3 of the following set of findings, which highlights key demotivating factors affecting construction workers' productivity in the Western Cape geographical area. This provides insightful information about the challenges that are addressed in this construction industry.

These findings agree with earlier studies that identified many different factors that hurt worker productivity. One important finding illustrates the negative impacts of a lack of teamwork among colleagues, underlining the important necessity of promoting teamwork in the construction industry. Strong teamwork dynamics must be established to address this issue, together with suitable resources and training [49-52].

The inequity of rewarding practices—both financial and non-financial—has also been noted as a challenging factor. This unfairness creates chaos among workers, which consequently lowers motivation and productivity. Implementing timely and equitable reward systems is essential to keeping employees motivated and productive. In the construction firm, there are also challenges of management and leadership that demotivate workers. These challenges include repeated tasks, insufficient supervision, irregular salaries, a lack of recognition for a job well done, and inadequate safety measures [53]. Understanding the importance of motivation and proactiveness will foster a positive work atmosphere whereby helps construction firms mitigate productivity challenges and enhance overall project success.

While the findings pertain specifically to the Western Cape site, acknowledging potential limitations in generalisability to other regions or contexts, the consistent recognition of the relationship between motivation and productivity in construction across various studies reinforces the validity and relevance of these findings. This correlation emphasizes the need for prioritising and addressing motivational factors to elevate worker productivity in the construction industry. As motivation levels increase, the positive association suggests a concurrent rise in productivity levels among construction workers, underlining the pivotal role of motivation in the construction sector.

Discussion of Finding Three: Is there any relationship between workers' motivation and workers' productivity in construction firms in the Western Cape sites?

#### 9 FINDINGS

Table 4 Factor analysis- Data Correlation Matrix					
Indicators	Motivational drivers	Challenges factors	Workers Productivity		
Motivational drivers					
Challenges factors	1.00 .73	1.00 .69		1.00	
Workers Productivity	.04				

The information that was observed correlation matrix, as was generated by using factor analysis regarding each variable, is shown in Table 4 (i.e., Motivational drivers, challenges factors and workers' productivity).

The findings demonstrated that all the measured variables ranged from 0.001 to 1.00, indicating that there are sufficient variables that can measure productivity.

Relationship between Workers' motivation and productivity.

Table 5 SAS PCA Output					
Eigenvalues of the Correlation Matrix: Total = $10$ Average = $1$					
Items	Eigenvalue	Difference	Proportion	Cumulative	
Motivational drivers	2.21267568	0.475351250	0.31034	0.51453	
Challenges factors	2.51384526	1.54423985	0.3152	0.8121	

The results of the SAS PCA Output, which was obtained by conducting factors analysis for all variables (worker productivity, challenging factors, and motivational drivers), are shown in Table 5. The findings showed that all the variables are adequate for measuring productivity among workers.

Table 6 Correlation Analysis					
Correlations					
		Motivational drivers	Challenges factors	Worker's productivity	
	Pearson Correlation	1			
Motivational drivers	Sig. (2-tailed)	.000			
	Ν	146			
	Pearson Correlation	.572**	1		
Challenges factors	Sig. (2-tailed)	.000	.001		
	Ν	146	146		
	Pearson Correlation	.612**	.653**	1	
Worker's productivity	Sig. (2-tailed)	.000	.000	.000	
	Ν	146	146	146	
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 6 illustrates the correlation analysis examining the relationship between workers' motivations (both drivers and challenges) as independent factors and workers' productivity as the dependent factor. The findings indicate a significant positive correlation between motivational drivers and worker productivity, with a Pearson correlation coefficient of  $r= .572^{**}$  (p<0.01). Similarly, there is a strong positive correlation between motivational challenges and worker productivity, as reflected by a Pearson correlation coefficient of  $r= .612^{**}$  (p<0.01). Furthermore, the analysis reveals a positive and robust correlation between these factors, with a Pearson correlation coefficient of  $r= .653^{**}$  (p<0.01). The positive correlation indicates that motivation links to the increased sustainable productivity of construction workers which supports the established theories and previous research that highlights the critical motivational role in driving employee performance [11, 47].

The implications of this finding for construction firms working in the Western Cape province add to its significance. Management and other decision-makers can better develop strategies to increase employee motivation in the construction industry by taking into consideration the fundamental link between productivity and motivation. Construction firms may successfully increase productivity among their workers by implementing programs that address motivating factors including pay, prospects for career advancement, working environment, recognition, and job autonomy.

# 10 CONCLUSION AND RECOMMENDATIONS

The study's findings demonstrate how certain motivational factors, such as having access to high-quality healthcare, receiving recognition from managers, and having a comfortable workplace, are critical in determining how productive construction workers are in the Western Cape. This underlines how important it is to deal with motivating problems facing the construction industry to improve the productivity of workers as well as overall project success. The study demonstrates a strong correlation between productivity and motivation, underscoring the need for construction firms to proactively address motivational issues. The study also identifies demotivating challenges, such as insufficient safety precautions, inconsistent wage payments, and a lack of respect. These findings demonstrate how important it is for Western Cape construction firms to address these issues and foster a positive work environment. By implementing the suggested approaches into practice, construction firms can solve issues with motivation among employees, create a positive work environment, and maximise worker productivity. This will consequently assist the Western Cape's construction industry to perform healthier in general and deliver more effective results from projects.

# **Recommendations and Future Research:**

Western Cape province construction firms are strongly urged to give their full attention to implementing all-encompassing motivating strategies within their company's operations. Focus should be placed on important objectives including transparency, authority recognition, responsibility, access to quality healthcare, working overtime, and favourable working conditions. Construction firms can greatly increase motivation among workers and, as a result, overall productivity by focusing on these indicators. The firms also need to take proactive measures to overcome demotivating issues. This can be accomplished by enforcing tight adherence to safety regulations, establishing equitable

compensation structures, cultivating an environment of deference and gratitude, and making significant investments in training and development to improve worker effectiveness. By taking these steps, the construction industry will have an improved workplace environment, which will boost worker efficiency and drive.

Moreover, a key factor in motivating construction workers is skilled management and leadership. Construction firms should place a high priority on creating a work environment that values individual growth, promotes involvement in decision-making, strengthens teamwork, and facilitates effective collaboration. For the construction industry to become more productive overall, it is essential to create a work atmosphere that drives motivation.

Future research projects could investigate the long-term implications of these motivational techniques on worker retention rates and creative ways of integrating technological advances for increased productivity and satisfaction among employees. These studies could yield insightful information that will help the Western Cape and the construction industry continue to improve.

# **COMPETING INTERESTS**

The authors have no relevant financial or non-financial interests to disclose.

#### REFERENCE

- [1] Alaloul WS, Musarat MA, Rabbani MBA, et al. Construction sector contribution to economic stability: Malaysian GDP distribution. Sustainability, 2021, 13(9): 5012.
- [2] Owolabi J D, Ogunbodede E F, Afolabi A O. The Role of Leadership in Motivating Construction Workers in Nigeria. Journal of Construction in Developing Countries, 2020, 25(1): 33-50.
- [3] Dixit S, Mandal SN, Thanikal JV, et al. Study of significant factors affecting construction productivity using relative importance index in the Indian construction industry. In E3S web of conferences, EDP Sciences, 2019, 140: 09010.
- [4] George M L. Worker motivation and productivity in the construction industry. Journal of Construction Engineering and Project Management, 2019, 9(2): 17-27.
- [5] González Navarro F, Selva Olid C, Sunyer Torrents A. The influence of total compensation on job satisfaction. Universitas Psychologica, 2022, 20: 1-15.
- [6] Zong Z, Long T, Ou Y, et al. Dual-path influence of risk perception on construction workers' safety participation and the moderating role of mindfulness. Journal of Construction Engineering and Management, 2025, 151(1): 04024194.
- [7] Sitopu YB, Sitinjak KA, Marpaung FK. The influence of motivation, work discipline, and compensation on employee performance. Golden Ratio of Human Resource Management, 2021, 1(2): 72-83.
- [8] Paais M, Pattiruhu JR. Effect of motivation, leadership, and organizational culture on satisfaction and employee performance. The Journal of Asian Finance, Economics and Business, 2020, 7(8): 577-588.
- [9] Nguyen GN, Mani V, Kha M, et al. Supply chain social responsibility in labour-intensive industries: a practitioner's perspective. Production Planning & Control, 2023, 34(4): 371-390.
- [10] Zhong Y, Li Y, Ding J, et al. Risk management: Exploring emerging Human Resource issues during the COVID-19 pandemic. Journal of Risk and Financial Management, 2021, 14(5): 228.
- [11] Locke E A, Latham G P. What should we do about motivation theory? Six recommendations for the twenty-first century. Academy of Management Review, 2004, 29(3): 388-403.
- [12] Al-Abbadi GMD, Agyekum-Mensah G. The effects of motivational factors on construction professionals productivity in Jordan. International Journal of Construction Management, 2022, 22(5): 820-831.
- [13] Emmanuel N, Nwuzor J. Employee and Organisational Performance: Employees Perception of Intrinsic and Extrinsic Rewards System. Applied Journal of Economics, Management and Social Sciences, 2021, 2(1): 26-32.
- [14] Bussin MH, Serumaga-Zake P, Mohamed-Padayachee K. A total rewards framework for the attraction of Generation Y employees born 1981–2000 in South Africa. SA Journal of Human Resource Management, 2019, 17(1): 1-14.
- [15] RAMYA S, VANITHAMANI M. THE POWER OF EMPLOYEE RECOGNITION: BUILDING A CULTURE OF APPRECIATION IN THE WORKPLACE. JOURNAL OF TECHNICAL EDUCATION, 2023, 109: 109.
- [16] Ihemereze KC, Eyo-Udo NL, Egbokhaebho BA, et al. Impact Of Monetary Incentives on Employee Performance In The Nigerian Automotive Sector: A Case Study. International Journal of Advanced Economics, 2023, 5(7): 162-186.
- [17] Ogunsanmi O. Enhancing motivation and productivity in construction firms: A case study of selected construction firms in Nigeria. Journal of Construction in Developing Countries, 2018, 23(2): 123-138.
- [18] Atnafu A, Hailemariam T, Endehabtu BF, et al. Implementation Outcomes of Performance Based Non-Financial Incentive: using RE-AIM framework. Ethiopian Journal of Health Development, 2023, 37(1).
- [19] Ihensekien OA, Joel AC. Abraham Maslow's Hierarchy of Needs and Frederick Herzberg's Two-Factor Motivation Theories: Implications for Organizational Performance. Romanian Economic Journal, 2023, 26(85).
- [20] Acquah A, Nsiah TK, Antie ENA, et al. Literature review on theories of motivation. EPRA International Journal of Economic and Business Review, 2021, 9(5): 25-29.

- [21] Maksum I. Integration of Needs into a Qur'an Perspective Using Maslow and Herzberg's Motivation Theory. Saudi Journao of Humanities Social Science, 2021, 6(9): 354-362.
- [22] Rojas M, Méndez A, Watkins-Fassler K. The hierarchy of needs empirical examination of Maslow's theory and lessons for development. World Development, 2023, 165: 106185.
- [23] Stephen J. Broadening the Path to Self-Actualization through Systematic Changes to Maslow's Hierarchy of Needs (Doctoral dissertation), 2023.
- [24] Yousaf S. Dissection of Herzberg's Two-Factor Theory to Predict Job Satisfaction: Empirical Evidence from the Telecommunication Industry of Pakistan. Lahore Journal of Business, 2020, 8(2).
- [25] Tezel MS. Herzberg's Two-Factor Theory, and knowledge workers' motivation and job satisfaction: a study on academicians at foundation universities (Master's thesis, Işık Üniversitesi), 2023.
- [26] Sugathadasa R, De Silva, ML Thibbotuwawa, et al. Motivation factors of engineers in private sector construction industry. Journal of Applied Engineering Science, 2021, 19(3): 794-805.
- [27] Lakshitha M, Sugathadasa PRS, Bandara KACP, et al. MOTIVATION FACTORS OF ENGINEERS IN PRIVATE SECTOR CONSTRUCTION INDUSTRY. Journal of Applied Engineering Science, 2021, 19(3): 794-805.
- [28] Lee B, Lee C, Choi I, et al. Analyzing determinants of job satisfaction based on two-factor theory. Sustainability, 2020, 14(19): 12557.
- [29] Ganesh R, Liu Y. Employee satisfaction in the sales department of the automobile industry in Beijing, China: an approach with Herzberg's two-factor theory. International Journal of Services, Economics and Management, 2022, 13(1): 57-77.
- [30] Jeelani I, Gheisari M. Safety challenges of UAV integration in construction: Conceptual analysis and future research roadmap. Safety Science, 2021, 144: 105473.
- [31] Prodanova J, Kocarev L. Is job performance conditioned by work-from-home demands and resources?. Technology in Society, 2021, 66: 101672.
- [32] Kumari K, Barkat Ali S, Un Nisa Khan N, et al. Examining the role of motivation and reward in employees' job performance through the mediating effect of job satisfaction: An empirical evidence. International Journal of Organizational Leadership, 2021, 10(4): 401-420.
- [33] Baqir M, Hussain S, Waseem R, et al. Impact of reward and recognition, supervisor support on employee engagement. American International Journal of Business and Management Studies, 2020, 2(3): 8-21.
- [34] Manoharan K, Dissanayake P, Pathirana C, et al. Assessment of critical factors influencing the performance of labour in Sri Lankan construction industry. International Journal of Construction Management, 2023, 23(1): 144-155.
- [35] Hamza M, Shahid S, Bin Hainin, et al. Construction labour productivity: a review of factors identified. International Journal of Construction Management, 2022, 22(3): 413-425.
- [36] Chien GC, Mao I, Nergui E, et al. The effect of work motivation on employee performance: Empirical evidence from 4-star hotels in Mongolia. Journal of Human Resources in Hospitality & Tourism, 2020, 19(4): 473-495.
- [37] Olanrewaju AL, Lee AHJ. Investigation of the poor-quality practices on building construction sites in Malaysia. Organization, Technology and Management in Construction: an International Journal, 2022, 14(1): 2583-2600.
- [38] Turner CJ, Oyekan J, Stergioulas L, et al. Utilizing industry 4.0 on the construction site: Challenges and opportunities. IEEE Transactions on Industrial Informatics, 2020, 17(2): 746-756.
- [39] Xing X, Zhong B, Luo H, et al. Effects of physical fatigue on the induction of mental fatigue of construction workers: A pilot study based on a neurophysiological approach. Automation in Construction, 2020, 120: 103381.
- [40] Greco M, Grimaldi M, Locatelli G, et al. How does open innovation enhance productivity? An exploration in the construction ecosystem. Technological Forecasting and Social Change, 2021, 168: 120740.
- [41] Sun M, Zhu F, Sun X. Influencing factors of construction professionals' burnout in China: a sequential mixed-method approach. Engineering, Construction and Architectural Management, 2020, 27(10): 3215-3233.
- [42] Famakin IO, Aigbavboa C, Molusiwa R. Exploring challenges to implementing health and safety regulations in a developing economy. International Journal of Construction Management, 2023, 23(1): 89-97.
- [43] Ebekozien A. Construction companies' compliance to personal protective equipment on junior staff in Nigeria: issues and solutions. International journal of building pathology and adaptation, 2022, 40(4): 481-498.
- [44] Ayodele OA, Chang-Richards A, González V. Factors affecting workforce turnover in the construction sector: A systematic review. Journal of Construction Engineering and Management, 2020, 146(2): 03119010.
- [45] Dodanwala TC, Santoso DS, Yukongdi V. Examining work role stressors, job satisfaction, job stress, and turnover intention of Sri Lanka's construction industry. International Journal of Construction Management, 2023, 23(15).
- [46] Nardi PM. Doing survey research: A guide to quantitative methods. Routledge, 2018: 2583-2592.
- [47] Lu Y. Motivation factors influencing construction workers' productivity: A comparative analysis. Construction Management and Economics, 2020, 38(5): 431-446.
- [48] Choudhry R M. Factors affecting motivation of construction professionals: A comparative study of the UK and Pakistan. Journal of Construction Engineering and Management, 2017, 143(10).
- [49] Odeh A M, Battaineh H T. Factors influencing workers' productivity in the building construction projects: The case of the Gaza Strip. Journal of Engineering, Project, and Production Management, 2016, 6(2): 69-82.
- [50] Olanrewaju OI, Bello AO, Semiu MA, et al. Critical barriers to effective communication in the construction industry: evidence from Nigeria. International Journal of Construction Management, 2024: 1-19.

- [51] Bakri S. Safety as a demotivating factor in construction projects: A case study of Yemen. Journal of Engineering, Design, and Technology, 2019, 17(2): 383-397.
- [52] Odeyinka H A, Kaka A P. Influence of social factors on Productivity of building construction workers in Nigeria. Journal of Construction Engineering, Project, and Management, 2015, 5(2): 49-59.
- [53] Zhang H. Motivating construction workers in China: The role of supervisory support, intrinsic motivation, and extrinsic motivation. International Journal of Project Management, 2016, 34(2): 311-318.