

**Original Research** 

# Anxiety, Stress and Depression as the Notorious Barriers to Achieving a Massive Performance among Egyptian Construction Site Workers

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# Abstract

In today's corporate landscape, optimizing performance has emerged as a formidable challenge for organizations, often hindered by formidable barriers and psychological factors. This study explores the role of anxiety, stress, and depression in attaining performance among Egyptian construction site workers. The quantitative analysis utilizes cross-sectional data collected from workers working at different construction sites in Egypt. The study concludes with findings from 298 valid cases. Leveraging the structural equation model (SEM) in a path analysis, the results unveil a stark negative impact of anxiety (p-value = 0.199), stress (p-value = 0.115), and depression (p-value = 0.209) on overall performance. Furthermore, it underscores the noteworthy predictive power of anxiety (p-value = 0.000) and stress (p-value = 0.000) on depression. These findings carry implications for both policy-makers and psychologists, offering valuable guidance for the formulation of strategies aimed at reducing anxiety, stress, and depression to catalyze enhanced performance. Besides, this study contributes a meaningful empirical perspective to the broader psychological and medical literature drawn from the unique context of construction site workers in a developing nation.



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### Keywords

Anxiety; stress; depression; performance; construction site workers

## 1. Introduction

In the present era, psychological challenges substantially disturb several organizations' ability to enhance their performance and achieve organizational success [1]. Factors such as anxiety, stress, and depression have remained the massive barriers most workers confront, especially at construction sites [2]. Anxiety is a sensation of terror, dread, or unease. It may make an individual anxious and tense, and your heart may beat quickly. It can be a typical stress response [3]. Likewise, stress is a miserable situation in which an individual feels intimidated or under pressure, and it occurs when individuals are in a risky position that they don't feel any control over [4]. In the study by [5], anxiety exhibited a significant negative correlation with mastery-approach goals, but it displayed positive associations with mastery-avoidance goals and performance-avoidance goals. Besides, the study found that anxiety levels were negatively linked to self-esteem throughout campus life, with low self-esteem leading to increasingly detrimental impacts on students' anxiety levels over their four academic years. However, the study did not identify any significant prospective effects of anxiety levels on self-esteem [6], long with anxiety and stress, depression is also an intolerable circumstance, commonly known as a common mental disorder explained as a feeling of melancholy and a lack of interest in things that used to be fun or fulfilling. Moreover, it may impair appetite and sleep [4, 5]. In this sense, the construction sector has a hostile working environment due to low worker productivity and high accident rates. Employees aim to improve their psychological circumstances to create more effective and secure workplaces [7]. In addition, they have psychological difficulties such as stress, anxiety, depression, and differences in temperament [7], which negatively affect their performance and mental health [8, 9]. Among health professionals, there is always high stress that can lead to burnout [10]. In the pandemic, increased workload caused severe burnout and occupational stress in emergency and non-emergency radiographers [10-12].

In the Egyptian context, the ineffectiveness of outdated safety equipment or safety equipment contributes to accidents in the Egyptian construction sector [13]. Among medical students, there is a notable prevalence of depression, anxiety, and stress. Notably, stress scores were found to be significantly higher than those for depression and anxiety. Besides, significant correlations were observed between stress and both depression and anxiety [14]. These persistent mental health challenges are intertwined with various social, demographic, behavioral, and educational factors, as elaborated in studies [15] and [16]. However, stress, anxiety, and depression are severe workplace issues that reduce productivity [10]. Hence, taken into consideration, this study raises the questions:

RQ1: What is the effect of anxiety, stress, and depression on performance among Egyptian construction site workers?

RQ2: How anxiety, stress, and depression are correlated with each other among Egyptian construction site workers?

#### 2. Literature Review and Hypotheses Development

Performance is found to be severely affected by psychological factors such as anxiety, stress, and depression. Feelings of unease, dread, and terror characterize anxiety. Sweating, tight, restless feelings and a fast heartbeat might result. It can be a typical stress response. For instance, you may have concerns before an exam, when presented with a challenging issue at work, or while making a significant choice [17]. In the perception of [18], anxiety can make it challenging to do math-related tasks online and can cause temporary disruptions to working memory. Similarly, pressure decreased during the term in the [19] research, but ironically, it grew stronger in correlation with performance. The measurements of the three parameters under investigation noted a statistically significant decrease: stress, anxiety, and depression.

Anxiety and stress levels drop in tandem with a decline in depression [2]. Workers who experience betrayal from their company may exhibit decreased productivity at work due to fear. Workers have a more pronounced mediation effect of heightened anxiety connected to their jobs when they believe they have relational obligations under their psychological contract. However, it is lower when people think they have duties related to transactions [14, 20].

Stress is a typical human emotion that spurs us to confront the challenges and risks in life [21]. It negatively affects learning and work performance [22]. These adverse effects lead to the failure of organizational success [23]. The workers' safety procedures are harmed by their stress levels. This implies that reducing stress at work may also improve workers' adherence to safety rules [24]. It has been discovered that negative variables, including stress, anxiety, and sadness, negatively predict performance. Additionally, these elements significantly improve the rate of turnover intention [2, 4, 20].

Similarly, depression, often known as a depressing disorder, is a recurrent and dangerous mental situation that has a hostile effect on one's emotions, thoughts, and behavior [25]. This factor frequently resists the attainment of performance in several domains [26]. The high rate of depression and anxiety among university students hurts their academic performance [27]. According to [28], a strong and positive correlation exists between driver safety and depression, which might result in depressive disorders affecting driving ability. [29] also indicate a negative correlation between frequencies of depressive symptoms and workgroup performance.

The performance demonstrates how well an individual implements their job duties and responsibilities. Several companies assess their employees' performance on the organizational success. However, factors such as anxiety, stress, and depression are negative predictors of implementation [22-24]. However, the domain literature did not concentrate enough on the investigation of these factors (anxiety, stress, depression) towards workers' performance, more specifically among construction site workers in Egypt. Based on these gaps and existing associations in the literature, we proposed Figure 1 to conform among the Egyptian construction site workers.



Figure 1 Model of the study. Source: Developed by the researchers.

## 2.1 Anxiety and Performance

Anxiety is a negative predictor of performance [30]. It may impair performance at several operational control levels, including attentional, interpretive, and physical, affecting decisions [31]. While it is widely agreed upon that positive emotions play a significant role in an athlete's performance, there is less agreement about the relationship between negative emotions, namely competitive anxiety, and performance [3]. According to [18], math anxiety impairs one's ability to execute math-related activities online and temporarily disrupts working memory. Likewise, in the study of [19], anxiety reduced during the term yet paradoxically became more strongly associated with performance. A statistically significant relationship between depression, anxiety, and stress is found. A reduction in depression leads to also a decrease in anxiety and stress [2]. Employees who feel betrayed by their organization may perform worse on the job due to anxiety. When workers feel they have relational duties under their psychological contract, this mediation effect of increased job-related anxiety is more prominent. Still, it is smaller when they believe they have transactional obligations [20]. An empirical study by [4] demonstrates that anxiety and stress are significant negative signs and predictors of online learning in Saudi Arabia.

Consequently, anxiety is a pessimistic performance analyst in several contexts in the domain literature. However, the exploration of anxiety towards performance among Egyptian construction site workers is lacking in the literature. To confirm these connections, we proposed:

H1. Anxiety negatively decreases the performance among Egyptian construction site workers.

# 2.2 Anxiety and Depression

Anxiety and depression work are correlated. Fatigue and poor sleep quality are considered risk factors for depression and anxiety; however, frequent headaches and low-grade fever are the risk factors for anxiety and stress. Anxiety, stress, and depression had a negative effect on learning and academic performance [22]. The relationship between anxiety and depression is low, high, and moderate [1]. A cross-sectional study by [32] demonstrates that construction workers feel great anxiety and depression. Similarly, in the study of [5], among the college students of Kuwait, the associations of religiosity are positively found with subjective well-being and psychopathology (anxiety and depression). Following therapy, it was discovered that the pupils' levels of anxiety and

depression had decreased. While the control group, which did not receive counseling, maintained the same levels of anxiety and depression, both male and female students in the experimental group experienced a decline in these conditions [33]. According to [34], depression was only indirectly predicted by anxiety due to illogical beliefs, low self-esteem, and persistent anxiety. The association between depression, incredible ideas, and low self-esteem was mostly attributed to chronic stress. Strong indicators of attitudes towards workers with depression are organizational and individual management traits, such as the pressure to be active at work, prior experience with anxiety and depression levels, and personality traits [35].

Consequently, anxiety and depression go together. However, its relationship is sometimes more substantial and higher [32, 34, 35]. Hence, to confirm this among construction workers in Egypt, we suggest:

H2. Anxiety is positively and significantly associated with depression among Egyptian construction site workers.

## 2.3 Stress and Performance

Learning and performance are severely affected by anxiety, stress, and depression [22]. In the insight of [23], work stress, depression, anxiety, role ambiguity, work-family conflict, and interpersonal conflict all hurt engagement and burnout, which is why they are inversely correlated with safety performance. In Saudi Arabia, emotional intelligence lessens workplace stress and significantly influences improving safety behaviors among construction employees. Additionally, it has been discovered that employees' stress levels harm their safety practices. This suggests that decreasing workplace stress can also increase employees' compliance with safety regulations [24]. The factors such as anxiety, stress, and depression are found to be negative predictors of performance. These factors also significantly enhance the turnover intention ratio [2, 4, 20]. Based on the evidence of a negative relationship between stress and performance, we developed:

H3. Stress negatively decreases the performance of Egyptian construction site workers.

#### 2.4 Stress and Depression

Stressful life events can be significantly and positively foreseen by subsequent depressive symptoms [36]. Unidirectional models of the stress-depression association are losing ground in favor of a recognition of the influence of environments and personal aspects on the incidence of stressors and the likelihood of progressive and dynamic relationships between stress and depression over time [37, 38] suggest the influence of the stress-depression relationship with successive reappearances. When stress was present, moderate drinkers had less depression than other, more intense drinking groups. A range of typically mild behaviors that either suppress or reduce the effects of stress on depression can be represented by moderate alcohol usage [39]. According to [40], for students whose focus was impeding their academic performance, higher levels of stress management self-efficacy were linked to lower depression ratings. Depending on the stress level, stress management self-efficacy moderated part of the link between depression and stress. The capacity of individuals to cognitively reevaluate their situations was not linked to depressed symptoms at low stress levels. However, compared to women with poor cognitive reappraisal ability, those with solid cognitive reappraisal ability showed less depressed signs under stressful conditions. These imply that the relationship between stress and depression symptoms may be significantly

moderated by mental reappraisal capacity [41]. In the same connection, a significant work by [42] suggests that substantial direct relationships were seen between the degrees of depression, and elevated felt stress, and decreased sense of belonging.

As a result, the above literature witnessed stress's negative and significant effect on performance. Hence, to confirm these associations further, we suggest:

H4. Stress is positively and significantly associated with depression among Egyptian construction site workers.

## 2.5 Depression and Performance

Depression is a dangerous factor that massively resists performance. Students who experience moderate degrees of depressive symptoms do worse academically than those who experience normal or minor levels of sadness [26]. Anxiety and depression are common among college students, and it has been demonstrated that they both impair cognitive performance. The United Arab Emirates (UAE) university student population's high prevalence of anxiety and depression has a detrimental effect on their academic performance [33, 34], demonstrating the positive and significant connection between depression and driver safety, which leads to depressive disorders in driver performance. In a similar direction, [29] confirms a negative association between rates of depressive symptoms and the overall performance of a workgroup. In light of entity theory, depression is also a significant negative enabler of academic performance. Academic performance and entity theory are significantly mediated by depression. People who believe they are not changeable in their talents are more prone to experience depressed symptoms, which can negatively impact their academic achievement [29]. The factors such as pain, fatigue, and depression are closely associated with each other. When demographic and clinical characteristics were considered, there was a negative correlation between pain, sadness, exhaustion, and functional performance but no useful capability [43].

Consequently, the depression factor adversely affects performance frequently. Hence, to confirm this effect in Egyptian construction site workers, we proposed:

H5. Depression negatively decreases the performance among Egyptian construction site workers.

# 3. Methods

## 3.1 Approach and Respondents

We applied the quantitative as the best approach through quantitative data with actual factors [44]. The method is more robust due to the provision of factors in numbers in time [45]. In the previous literature, numerous scholars applied similar methods to investigate the effects of anxiety, stress, and depression on performance in diverse contexts and organizations [2, 4, 24, 32, 34-36, 46, 47].

Regarding respondents, we targeted the workers working at the different construction sites in Egypt. The construction industry has experienced poor labor productivity and high accident rates. The workers try to enhance their psychological conditions to achieve more productive and safer workplaces [7]. They also confront psychological challenges in terms of stress, anxiety, depression, personal temperament, etc. [7], which leads to their bad performance and mental ill health [8, 9]. Several accidents occur in the Egyptian construction industry for several reasons, including the

inefficiency of old safety equipment or safety equipment [13]. From them, stress, anxiety, and depression are significant problems at sites that diminish work performance [16].

### 3.2 Data Collection Modes

We collected data through a survey questionnaire using a convenience sampling technique to trace the study respondents. The researchers paid personal visits to get such responses. We correctly followed the ethical protocols of the respondents. Initially, we requested their precious time and made them mindful of the aim and objectives of the study. We also ensured them the privacy and secrecy of their acquired responses and their utilization only for study purposes. After gaining their willingness to contribute to the study, we signed a consent form and handed over the survey to them. We allowed them to take documents with them and fill them out where they may feel comfortable. The survey was conducted from December 2022 to May 2023. In total, the researchers succeeded in collecting 298 cases. We made the cleaning of data, ensuring missing data and outliers' examination. The researchers confirmed missing data using missing value analysis and found below 5% missing data, which is less severe [48, 49]. We ensured the univariate outliers examination through Z-Score (Standard score method) and set its threshold value at 3.0. In the study, the z-scores were not greater than 3.0 or less than -3.0, which ensured no case with outliers [49]. Moreover, to provide more about outliers, we calculated the Mahalanobis distance (Mahalanobis D2) of each data point from the mean, considering the covariance between variables. As a result, we noticed values less than 2.5, which ensured no possibility of an outlier [49]. After confirming these critical assumptions, we proceed with 298 valid cases for further analysis.

#### 3.3 Measurement Scales

We applied the Depression Anxiety Stress Scale (DASS21), which was formed by Lovibond and Lovibond [50] and adopted by Corrales-Reyes et al. [42]. This scale is based on twenty-one items in total. The depression factor is based on seven things, with sample items as "I have not been able to feel any positive emotion". Likewise, the stress factor is measured on seven items, with sample content as "It took me a long time to release the tension". We assessed anxiety in seven articles. The sample item of the scale is "I felt that I was on the verge of panic". Finally, we measured the performance on four items borrowed from the studies of Luna-Arocas and Camps [46] and Xiao [51]. The sample item of the scale is "I can accomplish job tasks better by using knowledge, skill, and ability". We applied a five-point Likert scale to gauge all the items. The scale begins with strongly agree = 1 and goes to disagree = 5 strongly.

## 3.4 Instrument Confirmation

We used a survey questionnaire as a robust tool to gather the facts from respondents. The items of the questionnaire are adopted from the domain literature. However, we conducted a pilot test to ensure its validity and reliability. The instrument's reliability is confirmed through Cronbanch's alpha ( $\alpha$ ) and found an overall 0.839; however, every factor's reliability appears greater than 0.70 with good scores [52]. Likewise, we ensured the instrument's validity by getting the respondents' feedback and university experts' opinions regarding the survey instrument's language, content, and format. We administered the survey questionnaire in English as most labor in construction is from

foreign countries, and they speak fluently and understand it easily. In light of the experts' comments, we made some minor amendments and launched to gather the large-scale data.

# 4. Analysis

# 4.1 Measurement Model

We verified the validity of the construct levels and the objects. We used factor loading to demonstrate the association between the items and their corresponding factors [52]. According to Hair et al. [53], the investigator should take the thing off the scale if its loading is little or less than 0.70. Maximum items in the current research had loading values over 0.70; these scores ranged from 0.750 (an5) to 0.929 (pr1). However, two things, dp5 and st4, did not meet the acceptable thresholds. As a result, they were disregarded in favor of being examined further. Additionally, the composite reliability (CR) values are determined to be within the acceptable limits (>0.70) according to [51] and [52]; these values ranged from 0.782 (PR) to 0.936 (AN). The average variance extracted (AVE) is found in the ranges of 0.509 (performance) to 0.676 (anxiety), which ensured the values greater than 0.50 [52]. As a final point, Cronbach's alpha reliability ( $\alpha$ ) is noticed within the ranges of 0.839 (ST) to 0.860 (AN), which is good reliability [52] (Table 1).

Construct	Code	Loadings	CR	AVE	α
	dp1	0.884			
	dp3	0.879			0.949
Depression	dp2	0.861	0.012		
[DP]	dp7	0.856	0.912	0.055	0.040
	dp6	0.849			
	dp4	0.833			
	st1	0.887			
	st2	0.865			0.839
Stress	st3	0.85	0 000	0 500	
[ST]	st6	0.822	0.900	0.599	
	st7	0.800			
	st5	0.788			
	an1	0.888			
	an2	0.862			
Anviotu	an4	0.840			
Anxiety [AN]	an3	0.821	0.936	0.676	0.860
[AN]	an7	0.799			
	an6	0.786			
	an5	0.750			
	pr1	0.929			
Performance	pr2	0.910	0 702	0.509	0.857
[PR]	pr3	0.900	0.762		
	pr4	0.898			

Table 1 Measurement model.

Source: Authors' estimation.

Note(s): AVE = average variance extracted values; CR = composite reliability;  $\alpha$  = Cronbach's alpha.

Furthermore, we confirmed discriminant validity (DV) to ensure the extent of distinctness of the construct at which they differ based on empirical standards [52]. Fornell and Larcker [54] criteria were employed to verify the presence of DV in the measurement model. According to Hair et al. [53], the square root of AVE values indicates a significant correlation between the constructs and the corresponding indicators and suggests a suitable divergence. Furthermore, we found that the correlation between the exogenous constructs was smaller than 0.85 [53]. From now on, the DV of all the model constructions is satisfied (Table 2).

Factors	1	2	3	4
1. performance	0.787			
2. Depression	-0.283	0.740		
3. Stress	-0.332	0.238	0.739	
4. Anxiety	-0.349	0.383	0.190	0.760

Table 2 Discriminant	validity.
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Note: Diagonals represent the square root of the AVE while the other entries represent the correlations.

### 4.2 Structural Model

Earlier, jumping to the hypotheses evaluation, we warranted the model's fitness, where we noticed all the model fit indicators within the adequate scores [55] (Table 3, Figure 2). We used Analysis of Moment Structures (AMOS) version 26.0 to assess the hypothesized paths. The path analysis demonstrated a negative effect of anxiety on performance (H1 =  $\beta$  = -0.081; p > 0.01), which accepted H1. Concerning the relationship between stress and depression, it is found to be positive and significant (H2 =  $\beta$  = 0.405; p < 0.01). Hence, H2 is supported. We found a negative effect of stress on performance (H3 =  $\beta$  = -0.078; p > 0.01). Thus, H3 is supported by the data. Furthermore, the path analysis confirmed stress's vivacious and significant effect on depression (H4 =  $\beta$  = 0.271; p< 0.01), which accepted H4. Finally, depression is a negative predictor of performance (H5 =  $\beta$  = -0.073; p > 0.01). Consequently, H5 is supported (Table 4 and Figure 2).

Table 3 Model fit indices	Table	3	Model	fit	indices
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Model fit	CMIN/df	NFI	CFI	GFI	AGFI	RMSEA
indicators [suggested values]	2.983 [<3]	0.917 [>0.9]	0.933 [>0.9]	0.909 [>0.90]	0.932 [>0.90]	0.028 [<0.05]

Source: Authors' estimation.

Notes: CMIN =  $\chi^2$ /chi-square/df; df = degrees of freedom; NFI = Normed Fit Index; CFI = Comparative Fit Index; GFI = Goodness-of-Fit Index; AGFI = Adjusted Goodness-of-Fit Index; RMSEA = root mean square error of approximation.

H.No.	Proposed effects	Mean	Std. Dev	Std. (β)	t-value	p- value	Decision
H1	Anxiety $\rightarrow$ performance	-0.08	0.055	-0.081	1.41	0.199	٧
H2	Anxiety $ ightarrow$ depression	0.406	0.060	0.405	8.001	0.000	٧
H3	Stress $\rightarrow$ performance	-0.078	0.049	-0.078	1.438	0.115	V
H4	Stress $ ightarrow$ depression	0.280	0.052	0.271	6.555	0.000	V
H5	Depression $\rightarrow$ performance	-0.075	0.056	-0.073	1.500	0.209	٧

#### Table 4 Path results.

Source: Authors' estimation.

Note: Significance level I = p < 0.05; V = accepted.



**Figure 2** Path analysis. Source: Estimated by the researchers. Note(s): AN = anxiety; ST = stress; DP = depression; PR = performance.

### 5. Discussion and Conclusion

The present study proposed to inspect the effect of constructs such as anxiety, stress, and depression on the performance of workers who work on different construction sites in Egypt. The study found a negative impact of pressure on performance, which accepted the H1. The negative connection between anxiety and performance is in line with several studies that found pressure as

a negative predictor of implementation [2-4, 24-26, 31]. These results reflect that the workers at construction sites in Egypt had noticed a dry feeling in their mouths. They confronted difficulty in breathing and had tremors. They have been anxious about circumstances where they might panic and make a fool of themselves. They felt that they were on the verge of panic. Without exerting any effort, they have felt changes in their hearts. Finally, they had to feel scared for no relevant reason.

Furthermore, the path analysis demonstrated a positive relationship between anxiety and depression (H2 accepted). Likewise, these positive associations between anxiety and depression are reinforced by the literature, which appears to have a positive connection between stress and depression [22, 32, 33, 35]. These findings demonstrate that the employees were unable to experience any happy feelings. They found it challenging to take the initiative to accomplish things. They believed that nothing existed that might inspire hope in them. They've been depressed and defeated. They haven't been able to find anything to be enthused about. They believe that they don't have much worth as people. Finally, they have experienced a sense of meaninglessness in life.

Concerning the effect of stress and performance, it is also found to be negatively significant (H3 supported). The domain literature conferred these negative relationships, which confirmed the same results in various contexts [2, 4, 20, 24-28]. These findings imply that it took them some time to release the stress. They have a propensity to overreact to circumstances. They had the impression that they were using a lot of energy. They experienced agitation. It has been challenging for them to unwind. Anything that would have hindered them from carrying on with what they were doing was not permitted. Finally, people tend to lose their temper quickly.

The study also confirmed a positive association between stress and depression (H4 accepted). Like other studies, these connections are supported by the field literature, which demonstrated a positive and significant relationship between anxiety and depression [36-41]. The results show that stress creates depression and tension. In the perception of construction workers, stress can be damaging on its own, but it can also exacerbate depression. They experience depression and loss of interest in things they typically like due to their mental disorder.

Concerning the final hypothesis, the results confirmed a negative association between performance and depression that is aligned with related studies [29-32]. These negative results show that workers' performance is severely affected by depression. Depression is the influential factor that enormously prevents individuals from doing better performance.

In conclusion, the overall results suggest that factors such as anxiety, stress, and depression negatively affect the performance of construction site works in Egypt. On the other hand, anxiety and stress are massive and positive predictors of depression. These results suggest that anxiety, stress, and depression are the significant challenges and resistances that resist improving the work and performance of workers. They do not accomplish their job tasks better due to stress, anxiety, and depression. The quality of their work is also adversely affected due to these unbearable situations.

#### 6. Implications, Limitations, and Future Research Paths

The study offers both practical and theoretical implications. Concerning practical implications, the study would support policymakers and planners of construction industries to concentrate on the employees' anxiety, depression, and anxiety as these adversely affect the performance of construction site workers. The study would support reducing despair and mental illness by

developing several entertainment and sports activities to divert workers' minds at the construction sites. Furthermore, the study's outcomes would support controlling difficulty in breathing and tremors. This may assist in managing anxiety circumstances where workers might feel panic. Finally, the study would offer guidelines to understand the psychological problems among workers in other sectors, such as SMEs and further pressure-based professions.

Regarding theoretical implications, the study would assist in developing the theories through the present empirical evidence. The study would provide fresh insights into the literature as it offers the connection between anxiety, stress, depression, and performance. This integrated approach may enrich the validation of psychological factors towards implementation. Finally, confirming these factors in Egyptian construction sites may contribute to the literature, particularly for developing contexts.

The study is limited to a concerned theory. We did not use the related idea to support the study's conceptualization. From a methodological point of view, the study is restricted to a quantitative approach, which utilizes cross-sectional data. The modes of data collection are based on a single source of data (questionnaire). The study targeted the workers working at different construction sites in Egypt. Finally, the study's conclusion is based on 298 samples.

Regarding future research paths, future studies must apply a suitable theory to strengthen the study's conceptual framework. Other factors, such as the need for achievement, physical complications, mental illness, and environmental factors, may be applied to examine workers' performance. More longitudinal studies may be conducted to validate the study results further. Other individuals like doctors, engineers, and front-line workers may targeted in future studies. Finally, the mixed method approach should be utilized in future studies.

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#### **Author Contributions**

Abdelwahed NAA developed the conceptualization framework and hypotheses of the study. Mohammed A. Al Doghan, MA developed the methods and write-up of the manuscript. Soomro BA analyzed the data and discussed the results in the light of literature. All authors accepted the final version after revisions.

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## **Competing Interests**

The authors have declared that no competing interests exist.

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