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ORIGINAL RESEARCH

Exploring the Relationships Between a Toxic Workplace Environment, Workplace Stress, and Project Success with the Moderating Effect of Organizational Support: Empirical Evidence from Pakistan

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Purpose: Researchers have shown great interest in the relationships among a toxic workplace environment, workplace stress, and project success, which have led to an expansive body of research on the topic. In light of this work, the current study explores the effects of a toxic workplace environment (TWE) and workplace stress (WS) as determinants of project success in the renewable energy projects of Pakistan. Based on the resource-based view (RBV) theory, the study proposes and tests a model with organizational support as a moderating variable.

Research Methodology: A 30-item questionnaire survey was administered among staff of ten renewable energy project companies located in the vicinity of Karachi, Lahore, Islamabad (Pakistan). The target population was senior managers, middle-level managers, and administrative staff. Structural equation modelling was used to estimate the predictive power of the model.

Results: A toxic workplace environment was found to have negative relationships with project success and workplace stress. Organizational support served as a moderator in the relationship between a toxic workplace environment and workplace stress and thus contributed to the success of a project.

Conclusion: Toxic workplace environment and the resulting workplace stress have a negative effect on project success. Projects undertaken in the energy sector have tight deadlines, which create stress that leads to a range of mental and physical health problems. Workers facing these problems can ultimately suffer from such diseases as depression, anxiety, and insomnia. These issues lower morale and, thus, negatively affect productivity. The provision of organizational support can mitigate the negative effects.

Keywords: toxic workplace environment, workplace stress, organizational support, project success

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Introduction

Increasing energy demands and continuous reduction in fossil fuel reserves are forcing the world to focus on renewable energy sources to meet energy and environmental requirements and avoid a crisis in the energy sector. The number of renewable energy projects under construction is increasing continuously to ensure energy availability, reduce costs, and improve the environment. This is

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already a rapidly growing trend and is expected to have an even greater influence in the future. Jefferson[1,2] Pakistan is one example of an energy-deficient developing country. To address the looming energy crisis, the Pakistan government has launched a range of renewable energy projects in the country.[3] The success of these projects are directly or indirectly dependent on the workplace environment for employees of the firms involved, and the support these firms provide to their workers. Renewable energy projects are undertaken to tight deadlines, which creates stressful conditions for many workers associated with these projects. These high levels of employee stress can then affect the success of the projects. Previous studies have discussed the effects of workplace stress (WS) on project success. WS is the major source of workplace mental health problems globally and affects the decision-making ability of workers.[4] The performance and productivity of employees who are continuously under WS suffers, which produces major losses for organizations.[5] Ultimately, WS affects the overall efficiency, performance, and success of a project.[6,7]

Organizational support (OS) plays a very important role in reducing the toxicity of workplace environments and mitigating or alleviating WS among employees; it thus contributes to energizing and motivating employees, increasing their work performance and productivity and ultimately improving the likelihood of project success.[8] An organization that is more supportive of its employees and tries to control the sources of toxicity in the workplace environment to reduce workplace stress will help employees to be more efficient and productive and thus achieve superior project outcomes.[9]

Renewable energy projects are time-sensitive and subject to a high level of pressure in terms of time and budget.[10] In such a high-pressure environment, employees can face problems and experience a variety of negative behaviors within the organization responsible for the project's success. They can be exposed to workplace violence and often suffer from WS. Workplace environments can be divided into two types: collaborative and toxic.[11] A collaborative workplace environment (CWE) increases the productivity of workers, whereas the various dimensions of a TWE—harassment, bullying, ostracism, and incivility—reduce project success.[12,13] A TWE is directly linked to WS, with a highly toxic environment at work generating a form of stress that affects an employee's mental and physical condition. Due to workplace stress, employees are unable to concentrate on their work and this reduces their productivity, which is a great loss for an organization because it will affect the success of the project.[10] Organizational support is very important because it can moderate the toxicity of the workplace and alleviate WS, thus increasing employee productivity and leading to more successful projects. According to the resource-based view (RBV), an organization can exploit its resources by consolidating and assigning the duties of employees in such a way that can increase their productivity, leading to project success.[14] Employees' capacity to become productive in their work is reduced by TWE and WS, and this affects the success of projects.[15] It is therefore important for researchers to pay close attention to the sources of TWE and WS when exploring the antecedents of project success. This study contributes to this literature by examining TWE, WS, productivity loss, poor efficiency among employees, and the potential of OS to overcome these problems to increase the efficiency and productivity of employees for project success. In particular, this is the first study to focus on the moderating role of organizational support in the relationship between toxic workplace environment and workplace stress towards the success of a project.

Most similar studies have been conducted in developed countries, especially the USA, UK, and other Western countries. Relevant findings are scarce for emerging countries like Pakistan. The limited studies undertaken in emerging countries have generally examined the renewable energy sector, believing that renewable energy organizations play significant roles in socio-economic development. To the best of the author's knowledge, this research is among the first to investigate the impact of toxic workplace environment and workplace stress on project success in the Pakistani organizational context and the first to consider organizational support as a moderating variable. Based on the understanding of the above literature on TWE, WS, OS, and project success, this study addresses the research gaps with reference to the RBV. It also emphasizes the moderating role of OS for the success of renewable energy projects. The following research questions are proposed:

RQ1. How does a toxic workplace environment and workplace stress affect project success?

RQ2. How does organizational support moderate the relationship between a toxic workplace environment and workplace stress?

This article is organized as follows: The next section presents a review of the relevant literature. Hypotheses

Development frames the hypotheses development and theoretical framework of the study. Research Methods describes the research methods. Results and Analysis presents the study results and analysis, which are further discussed in Discussion. Limitations and Practical Implications provides some practical implications and limitations of the study, and Conclusion concludes.

Literature Review

Toxic Workplace Environment

The workplace environment is a term used to describe the relationship between workers at a workplace.[16] Prior studies have revealed two types of workplace environment: a collaborative work environment (CWE) and a toxic workplace environment. A CWE is characterized by amiableness, workplace pleasure, and a sense of involvement, includes feelings of empathy, and organizational citizenship behavior (OCB) prevails among the workers.[17,18] A TWE features narcissistic behavior, offensive and insulting leadership, threatening behavior, harassment, humiliation, mobbing, ostracism, incivility, and bullying among employees. A TWE is a source of physical and mental imbalances that cause high levels of stress and burnout, and have negative psychological effects on employees' health. High levels of work pressure are generated, which lead to counterproductive work behavior (CWB) at the place of the work. CWB is not in the favor of an organization because it affects its reputation and efficiency.[19]

Workplace Stress

WS is a condition suffered by a person within a workplace environment in which they are confronted with a thousand tasks to be fulfilled, completion of which seems impossible. Since 2001, the incidence of WS has risen by 10%.[20] Many stressors have become prominent in this period, such as the need to adapt to the rapid changes in working environments resulting from technological developments. Some individuals are able to adapt to these changes easily, while for others, they are perceived as a challenge that threatens their well-being.[21] Managers of firms are aware that WS is a critical issue, because having employees suffering high levels of work stress from various stressors ultimately results in ineffective workers, higher staff turnover, lower quality and quantity of work practices, increased health-care costs, lower work satisfaction, and lower productivity.[22]

Organizations need to develop strategies to deal with the harmful and costly stressors, and those that do not do so will find their employees looking for better opportunities elsewhere. In developing countries, excessive overtime work and high work intensity is having a destructive effect because of WS.[23,24] WS is caused by factors inside and outside of an organization. Creating a peaceful industrial atmosphere should produce fewer conflicts, but there is no organization that has eliminated WS.[25,26] Factors related to both a person or their situation can cause WS, which ultimately leads to self-degradation, poor self-efficacy, and negativity about the self, thus causing a person to produce poor work.[27–29]

Organizational Support

OS is the perception or belief that employees working in any organization have about the organization's role in contributing towards and protecting their rights and interests.[30] OS can be divided into the two dimensions of instrumental support and social-emotional support,[31] or the three dimensions of emotional, instrumental, and superior support.[32] According to studies in various sectors, by playing its role in supporting employees, an organization can effectively reduce WS and burnout.[33,34] A study of professional estimators found that informal support provided by the organization was even more helpful and effective than formal organizational support.[34]

Project Success

Project success refers to a project achieving its goals within its budget and deadline, although a general definition of project success is unachievable.[35] Whether a given project is declared as successful or failed depends upon the assessment of particular stockholders, because every stakeholder group has its own criteria to judge project outcomes.[36] From the viewpoint of project management, a successful project is one that maintains a balance between the demands of project quality, scope, cost, and meeting stakeholder expectations.[37] A project is thus described as successful if it meets its desired quality standard and satisfies stockholders within its allocated budget and time, and this success is to be judged on the two dimensions of effectiveness and efficiency. A project is considered efficient if "things are being done right" to obtain the maximum output, while it is considered effective if the "right things are being done" to meet the project goals.[38] Project efficiency may be related to assessing the project success via an "iron

triangle" of time, cost, and quality, whereas project effectiveness is the measurement of the satisfaction of clients, stakeholders, and users. The criteria of meeting the needs of the project's owner within the iron triangle is the measure of a successful project,[39] upon which there is a great deal of literature.[40–43]

Hypotheses Development

Toxic Workplace Environment and Workplace Stress

A positive relationship has been found between a toxic workplace environment and workplace stress. A number of studies indicate that violence at the workplace increases occupational stress among employees.[44–46] A toxic workplace threatens to fail to meet employee needs, and the demands it makes of employees' physiological resources decrease the capacity of employees to meet their targets and reduce social unity among peers.[47,48] A TWE has been found to contribute to hypertension, anxiety, and WS.[49,50] A high level of toxicity in the workplace environment increases WS, whereas a low level of toxicity decreases WS;[51] and this relationship has been confirmed by the ILO and in empirical studies.[52,53] Based on the literature discussed above, the following hypothesis was derived:

Hypothesis 1: A more toxic workplace environment will lead to higher levels of workplace stress.

Workplace Stress and Project Success

A negative relationship has been found between WS and project success. Previous studies indicate that WS increases absenteeism and lowers productivity.[54,55] Employees suffering from WS are likely to engage in behavior that is poor for their health, such as smoking, drinking, eating less, and stopping physical exercise.[56,57] Employees who suffer from WS exhibit poor performance and a lower quality of work and life, which reduces the success of projects that they contribute to. Studies have shown WS to reduce project success.[58] High WS leads to low project success, while lower WS leads to higher levels of project success. This negative relationship between WS and project success is reflected in the following hypothesis:

Hypothesis 2: Higher levels of workplace stress will lead to lower levels of project success

Toxic Workplace Environment and Project Success

A negative relationship has been found between TWE and project success. Previous studies indicate that different dimensions of TWE (harassment, bullying, ostracism, mobbing, and workplace incivility) are a cause of physical and mental illness, high blood pressure, appetite problems, too little sleep, less involvement with work, less productivity at work, depression, anxiety, and de-motivation, all of which affect the success of a project.[27,59] These types of threats, harms, and negative forms of work behavior in an organization prevent employees from performing their routine tasks, which undermines their performance and productivity, and ultimately the success of the project.[17] Some previous literature has shown a negative relationship between a TWE and project performance,[60,61] confirming that organizations with a highly TWE achieve low levels of project success and vice versa. In light of this literature, the following hypothesis was proposed:

Hypothesis 3: A more toxic workplace environment will lead to lower levels of project success

The Moderating Effect of OS

A TWE is a source of stress, and WS is the strain response to this source of stress. So, the association between TWE and WS is called a stressor–strain relationship. Previous studies have indicated that OS has a positive impact on employees' output, improving their commitment toward the organization and their productivity at work, thereby transforming the organization and the effectiveness of its fundamental values.[62–65] A positive association has been found between OS in the form of leadership sharing among team members and dynamic work behavior.[66] Motivation arising from the perception of OS among employees leads to greater productivity.[67] According to stress theories, OS plays an important role in relaxing the stressor–strain relationship: for example, the demand control support (DCS) model shows that severe health problems at work arise from excess demand and low levels of control coupled with insufficient organizational support.[68] This indicates that the effects of a TWE and WS can be reduced with the support of leaders and peers.[69–71] Based on the RBV of firms and the above literature, the present study proposes a theoretical framework (presented in Figure 1) predicting that OS can serve as a moderator in the relationship

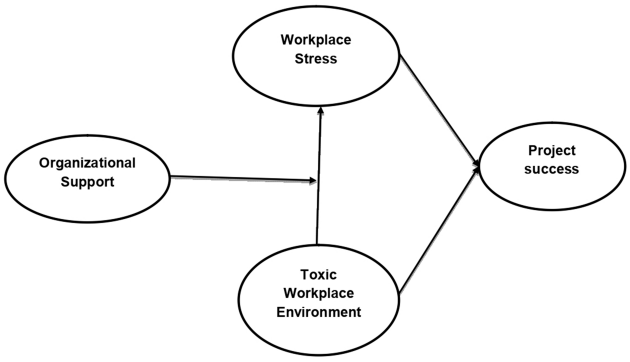

Figure 1 Theoretical framework.

between TWE and WS. The following hypothesis is proposed:

Hypothesis 4: Organizational support moderates the pathway between a toxic workplace environment and workplace stress

Research Methods

Instrument Development

A questionnaire survey approach was used for data collection.[72,73] Such an approach begins with the design of a questionnaire to collect data on the basis of the constructed hypothesis, followed by the calculation of descriptive statistics.[74] For the questionnaire, 30 items were included, all marked on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). The detail of each item of the research questionnaire is showing in the Appendix -A. To check the reliability and validity of the instrument a pilot study was conducted, which involved 30 draft questionnaires being distributed to experts and personnel with knowledge of the research topic and experience in the field of project management: specifically, ten academic professors, ten doctorate students, and ten professionals. Some changes were recommended by the pilot study respondents, and the instrument was modified accordingly before being distributed among the target population of our study for data collection purposes.

Data Collection and Sampling

Data were collected from ten renewable energy project based companies working in the vicinity of Karachi, Lahore, Islamabad (Pakistan). The target population was senior managers, middle-level managers, and administrative staff working on renewable energy construction projects in Pakistan. To meet the requirements of ethical research, respondents were informed that the information they provided would be confidential and used only for the purpose of the study. Of 500 distributed questionnaires, 453 responses were received for a response rate of 81%. After the disposal of 50 questionnaires that were not filled in correctly, the final sample consisted of 403 responses.

Variables and Measures

Two independent, one dependent, and one moderating variable were adopted for the study. Toxic workplace environment (TWE) and workplace stress (WS) were the independent variables, organizational support (OS) was the moderating variable, and project success (PS) was the dependent variable.

The independent variable of TWE comprised four dimensions: workplace harassment, workplace bullying, workplace incivility, and workplace mobbing. Seven items for TWE were adopted from Anjum et al,[75] all measured on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). Sample items included "My supervisor/co-worker/subordinate often appreciates my physical appearance" and "My supervisor/co-worker/subordinate spoke rudely to me in public." Cronbach's alpha of 0.96 was above the threshold of 0.70 and higher, so the measure was considered reliable for this study.

Seven items for WS were adopted from Anjum and Ming,[19] all measured on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). Sample items included "I do not feel any interest or enjoyment in doing things" and "I often think about to hurt myself, and I deserve to be dead." The Cronbach's alpha of 0.94 was above the threshold of 0.70, so the measure was considered reliable for this study.

Seven items for OS were adopted from Eisenberger et al,[76–78] all measured on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). Sample items included "The organization attaches great importance to my work goals and values" and "The organization always helps me whenever I am facing bad time." The Cronbach's alpha of 0.94 was above the threshold of 0.70, so the measure was considered reliable for this study.

Nine items for PS were adopted from Maqbool, Sudong, Manzoor, Rashid,[43] all measured on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). Sample items included "I completed my projects within the given time frame." The Cronbach's alpha of 0.95 was above the threshold of 0.70, so the measure was considered reliable for this study.

Demographics

Table 1 presents the demographics of the study participants. The respondents comprised 75% males and 25% females. In

terms of work experience, 36.2% of respondents had less than five years, 44.4% had between 5 and 10 years, and 19.4% had more than ten years. Eleven percent of the respondents were in senior management, 38% in middle management, and 51% were in the administrative staff. Individuals under 25 years of age made up 6.1% of the sample, between the ages of 35 to 44 years made up 42.2%, between 35 and 44 years made up 31.7%, and the remaining 20% were over 44 years of age. In terms of education, 25.3% had completed junior high school or below, 24.1% matriculation, 23.3% higher secondary school/technical school/FA education, 20.1% undergraduate education, and 7.2% post-graduate education.

Results and Analysis

Data Analysis

SPSS-20 was used to aid in the analysis of respondents' demographics, reliability, descriptive statistics, and correlations. Structural equation modelling (SEM) was adopted for regression and moderation analyses, using AMOS-18. We adopted AMOS SEM instead of partial least squares SEM because the structural model is complex and contains a series of dependent relationships.

Table 1 Demographics

Measures	Items	Absolute Frequency	Percentage (%)
Gender	Male	302	75
	Female	101	25
Working experience	Less than five years	146	36.2
	5–10 years	179	44.4
	Above ten years	78	19.4
Position	Senior managers	45	11
	Middle managers	153	38
	Administrative staff	205	51
Respondent age	Less than 25 years	24	6.1
	25–34 years	170	42.2
	35–44 years	128	31.7
	Above 44 years	81	20
Education	Junior High School and below	102	25.3
	Matriculation/ Secondary School	97	24.1
	Higher Secondary School/Technical School/FA	94	23.3
	Undergraduate	81	20.1
	Post-Graduate	29	7.2

Validity and Reliability

Table 2 reveals Cronbach's alpha values greater than the generally accepted 0.7 thresholds. The KMO and contribution to overall variance were calculated for each variable through exploratory factor analysis. Table 2 shows that all constructs returned values greater than the accepted thresholds for reliability. The KMO values were above 0.6, while the Bartlett test returned $p < 0.001$, indicating suitability for factor analysis. Therefore, composites could be calculated by averaging the scale items. Table 2 also shows that all factor loadings exceeded 0.70 or 0.50 thresholds. Factor loadings for TWE (7 items) were between 0.86 and 0.89; for WS (7 items) between 0.80 and 0.86; for OS (7 items) between 0.80 and 0.89; and for the dependent variable PS (8 items) between 0.73 and 0.89.

Confirmatory factor analysis (CFA) was used to measure the reliability of each of the items and constructs. Average variance extracted (AVE) scores were calculated for each construct to test convergence validity, and composite reliability (CR) scores were also determined for each latent variable. Table 3 shows the results of CFA, representing the goodness-of-fit. All fitness indicators exceeded the accepted threshold values, and the standardized coefficients were all above the minimum acceptable value of 0.7. The AVE values for each latent variable were above 0.5, indicating good convergence validity. The CR values for each latent variable were above 0.6, demonstrating good measurement and construct reliability. The results of validity and reliability testing indicated that SEM was appropriate for testing the model.

Table 4 shows that the theoretical framework with four factors was confirmed as an outstanding fit. The alternative single factor and three-factor models returned a poor fit, as indicated by increased x^2/df values and higher values for other confirmatory factor analysis indexes. Tests for participation bias (using the chi-square method) and for common method variance (using the Harman one-factor method) indicated no major concerns.

Hypothesis Testing

Table 5 shows the results of the SEM, showing that the hypothesized relationships were all significantly associated with project success. Significance levels and tests of model fitness were all found to be acceptable, CMIN/DF = 1.400, GFI = 0.930, NFI = 0.965, and IFI = 0.990 (above threshold value of 0.9) and RMSEA = 0.037 (within the upper limit of 0.05). The results, therefore, support our Hypotheses 1–3.

Table 2 Validity and Reliability

Variables	Coding	Factor Loading	KMO	Alpha	Variance Explained
Toxic workplace environment	TWE-1	0.87	0.96	0.96	79.
	TWE-2	0.88			
	TWE-3	0.86			
	TWE-4	0.87			
	TWE-5	0.88			
	TWE-6	0.87			
	TWE-7	0.89			
Workplace stress	WS-1	0.80	0.92	0.94	77.8
	WS-2	0.81			
	WS-3	0.82			
	WS-4	0.83			
	WS-5	0.80			
	WS-6	0.86			
	WS-7	0.85			
Organizational support	OS-1	0.82	0.93	0.94	78.8
	OS-2	0.84			
	OS-3	0.89			
	OS-4	0.82			
	OS-5	0.89			
	OS-6	0.87			
	OS-7	0.80			
Project success	PS-1	0.82	0.93	0.95	82.0
	PS-2	0.84			
	PS-3	0.83			
	PS-4	0.86			
	PS-5	0.87			
	PS-6	0.89			
	PS-7	0.72			
	PS-8	0.73			

Abbreviations: TWE, toxic workplace environment; WS, workplace stress; OS, organizational support; PS, project success; KMO, Kaiser-Meyer-Olkin.

Table 3 Confirmatory Factor Analysis

Variables	CMIN/DF	RMSEA	GFI	AGFI	NFI	IFI	CR	AVE
Toxic workplace environment	3.634	0.095	0.964	0.915	0.979	0.985	0.96	0.77
Workplace stress	1.349	0.034	0.976	0.956	0.989	0.997	0.94	0.73
Organizational support	1.744	0.045	0.993	0.983	0.996	0.901	0.95	0.74
Project success	1.926	0.056	0.981	0.955	0.990	0.995	0.96	0.78

Abbreviations: RMSEA, root mean square error of approximation; GFI, Goodness-of-Fit Index; AGFI, Adjusted Goodness-of-Fit Index; NFI, Normed Fit Index; IFI, Incremental Fit Index; CR, composite reliability; AVE, average variance extracted.

Moderation Testing

Organizational support was found to moderate the relationship between TWE and WS. Eliminate co-linearity, TWE, WS, and OS were centered, thus minimizing the correlation between the interaction term and the initial latent variables of TWE and OS.[79] An interaction term was then constructed between TWE and OS.[80] While Kenny et al[81] suggested that all possible interaction pairs should be constructed as indicators of the main effect, Ping et al and Joreskog et al[82] recommended the use of just one product metric to simplify data processing and increase accuracy. Using this method, the results shown in Table 6

Table 4 The Comparative Results of Alternative Models

Measures	x^2/df	CFI	TLI	RMSEA	GFI
One-factor model: all the factors merged	25.08	0.073	0.067	0.290	0.134
Three-factor model: WS+TWE, OS, PS	2.217	0.956	0.954	0.064	0.810
Four-factor model: WS, TWE, OS, PS	1.273	0.991	0.990	0.030	0.913

Abbreviations: CFI, Comparative Fit Index; TLI, Tucker-Lewis index; RMSEA, root mean square error of approximation; GFI, Goodness-of-Fit Index; TWE, toxic workplace environment; WS, workplace stress; OS, organizational support; PS, project success.

Table 5 The Structural Equation Modelling Results of the Model

Hypothesis	Standardized Coefficients	Fitness Indicators
Hypothesis 1		CMIN/DF = 1.400 RMSEA = 0.037 GFI = 0.930 AGFI = 0.912 NFI = 0.965 IFI = 0.990
Toxic workplace environment →work stress	0.89*	
Hypothesis 2		
Workplace stress →project success	−0.49*	
Hypothesis 3		
Toxic workplace environment →project success	−0.41*	

Note: Significance level at <0.05*.
Abbreviations: CMIN/DF, x^2/degrees of freedom; RMSEA, root mean square error of approximation; GFI, Goodness-of-Fit Index; CFI, Comparative Fit Index; AGFI, Adjusted Goodness-of-Fit Index; IFI, Incremental Fit Index; NFI, Normed Fit Index.

Table 6 The Moderating Effect Analysis

Hypothesis 4	Standardized Coefficients	P	Fitness Indicators
Toxic workplace environment→workplace stress	0.404	***	CMIN/DF = 1.507 RMSEA = 0.043 GFI = 0.919 AGFI = 0.900 NFI = 0.957 IFI = 0.985
Organizational support→workplace stress	−0.505	***	
Toxic workplace environment × organizational support→workplace stress	−0.024	***	

Note: Significance level at < 0.001***.
Abbreviations: CMIN/DF, x^2/degrees of freedom; RMSEA, root mean square error of approximation; GFI, Goodness-of-Fit Index; CFI, Comparative Fit Index; AGFI, Adjusted Goodness-of-Fit Index; IFI, Incremental Fit Index; NFI, Normed Fit Index.

show all hypothesized relations to significantly affect WS, thus supporting Hypothesis 4.

Discussion

The workplace environment has attracted the attention of many researchers.[19,75,83] A collaborative work environment keeps employees in a confident and relaxed state from which they can achieve their maximum output, whereas a TWE creates depression, anxiety, and WS. An organization suffering from a TWE is a main source of stress for employees. The results of this study show that a TWE and WAS are directly linked: an increase in the toxicity of a workplace environment will increase WS. This supports our Hypothesis 1, in which higher levels of TWE lead to higher levels of WE. Ideally, employees, organizations, and all other stakeholders can be considered as cooperating on the basis of trust and honesty, but often the relationships become dysfunctional because of a TWE and WS. A TWE results in problems of anxiety, stress, and insomnia among employees.[84–86]

There is a danger that organizations trying to complete major projects with tight budgets and limited timeframes will put profitability ahead of the well-being of their most important assets, which are their employees. Ultimately, it is the employees of any organization who will render any project successful or unsuccessful, and organizations must give consideration to

this. With projects being rushed for completion within a given time period and budget to satisfy all stakeholders, employees can bear the burden of excessive mental pressure, with their stress manifesting in a variety of physical and mental health problems. These mental and physical stressors, however, also affect the success of the project. The results of this study show that there is a negative relationship between WS and project success. A high level of stress among employees at the workplace is likely to produce a less successful project. This supports our Hypothesis 2, in which higher levels of WS lead to lower levels of project success. This is consistent with the results of a prior study that showed a negative relationship between WS and project success in the IT industry.[87]

There is a negative connection between TWE and PS, which means that if the workplace environment is toxic, a project can face some serious issues that could be avoided by a CWE. The findings of this study confirm that higher levels of TWE lead to lower levels of project success, and show the relationship to be strong. A toxic workplace has a highly negative impact, according to the findings of this study.

How an organization attempts to meet the expectations of its employee while they work on a project is very important. High-pressure projects can give rise to various types of negativity, which can then create a toxic environment and high levels of stress in the workplace. However, organizational support plays a moderating role in the pathway between a TWE and workplace stress. By playing a supportive role in decreasing workplace toxicity and stress, an organization can ultimately improve project success. Organizational support for employees increases their motivation levels by providing them with a sense of attachment to the organization, which ultimately results in higher productivity. An organization that does not intervene to moderate the pathway between TWE and WS will have less motivated and less productive workers. The results of our study supported our hypothesis that OS moderates between a TWE and WS. The moderating role of OS has a significant effect on a TWE in its relation to WS, according to the findings of this study, which represent an original contribution in the context of emerging countries like Pakistan.

Limitations and Practical Implications

Limitations

The current study has filled the gap in the literature. For practitioners, this research will help project-oriented organizations in weighing the critical success factors from different points of view that have not been discussed before. Particularly in Pakistan, where renewable energy projects are still in their infancy, the results of this study should encourage project-oriented organizations to focus on employee wellbeing. Nonetheless, this study has some limitations that should be considered in interpreting the results. First, the respondents were all from Pakistan. Limiting the study to one country increases the risk of cultural bias, and caution must be taken in generalizing the results. Future research in different cultural contexts is needed to validate the results. Second, few of the respondents could be considered experts who are highly capable and qualified in managing renewable energy projects, because Pakistan is a developing country and has only in recent years begun to promote renewable energy projects. To reduce the effect of these limitations, the results have been interpreted in line with related studies, and a pilot study was done to ensure the questions would be clear to the respondents.

Practical Implications

Project-based organizations have limited time to complete their projects efficiently and effectively. With projects being undertaken in different cities, often far from the organization's headquarters, employees are often expected to work on these projects far away from their houses, family, and friends. This is one of the causes of a TWE and WS in the specific sector examined in this study. The findings of this study have various practical implications related to the role of OS in helping to reduce the effects of TWE and occupational stress among employees.

First, organizations should provide financial, moral, and psychological support to prevent the emergence of a toxic environment and thus to maintain physical and mental balance among employees. This kind of support provided by organizations to their employees helps them to maintain their productivity level, which ultimately is beneficial for the organization as well as for employees. Second, organizations should introduce attractive compensation (direct and indirect) schemes among employees, to increase feelings of responsibility and motivation, leading to greater productivity. Third, sports activities arranged by organizations could be useful to keep employees physically fit and active. Fourth, training sessions should be arranged by top-level managers to ensure employees are well prepared to manage and work in different scenarios.

In general, the root causes of a TWE need to be identified. Steps should be taken to reduce and dissolve toxicity in the workplace environment and try to build a positive environment in its place. These steps taken by the organization and top-level managers will help to create a positive workplace environment and enhance work productivity. Moreover, a CWE will decrease stress levels and relieve insomnia, headache, and other health issues among employees.

Conclusion

In this study, we investigated the relationship between a TWE, workplace stress, and project success. Moreover, organizational support was found to moderate between a toxic workplace environment and workplace stress. The results show a negative relationship between a toxic workplace environment and project success and between workplace stress and project success. As most of the renewable energy projects chosen as the focus of this study are time-sensitive, employees of organizations participating in these projects experience a variety of mental and physical health problems. A TWE and WS intensify these problems, which can ultimately lead to diseases of depression, anxiety, and insomnia. These issues reduce the morale of employees, which affects their productivity level. Employees lacking morale will not be productive at the workplace, which ultimately results in less successful projects.

The findings of this study also indicate that organizational support, which is treated as a moderator between a TWE and WS in this study, plays an important role to overcome the problems. An organization that cares more about its employees will intervene in the situation and play a supportive role to sustain wellbeing and productivity. Through organizational support, employees of an organization feel a responsibility towards their assigned duties, which increases their productivity. This is ultimately good for the organization as well as for the employees, improving the chances of project success. In conclusion, the model tested in this study indicates that a toxic workplace environment and workplace stress influence project success with organizational support acting as a moderator. The study makes a novel contribution in the context of renewable energy projects in Pakistan.

Ethics Statement

This research was conducted among in Pakistani organizations involved in renewable energy projects. First, the authors attained the approval of project directors for data collection. Second, the participants were given a cover letter ensuring them of the confidentiality of their responses and asking them to indicate their willingness to participate. All the participants willingly took part in the questionnaire survey, and written informed consent was provided by the participants and their organizations. Third, this work was conducted under the supervision a Chinese professor, and the research ethics committees of Nanjing University of Aeronautics and Astronautics, Guangzhou University, and Guangxi University approved the study.

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Disclosure

The authors report no conflicts of interest in this work.

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