Impact of Procedural and Distributive Justice on Virtual Project Performance: Mediating role of organizational commitment in digital work environments

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ABSTRACT

The purpose of this study is to examine the impact of Procedural and distributive justice on virtual project performance with the mediating role of employees' organizational commitment in digital work environments. The aim of the research is to highlight the decline in organizational commitment, which is caused by neglecting the importance of distributive and procedural justice in remote and hybrid work settings. It is predicted that organizational commitment can be restored and improved with the involvement of higher management by changing the direction of organizational policies, digital collaboration procedures, and justified distribution of resources and recognition. Resultantly, the productivity of virtual teams will increase, which in turn will improve the virtual project performance. Data for the said study was collected from IT and software development companies through a structured questionnaire from 200 personnel using online survey tools and virtual empirical research techniques. The data was compared across different virtual teams and found similarities in the response and their declining commitment to

the organization due to perceived injustices in digital workflows. It is found from the result that virtual project performance can be positively influenced with the active participation of managers by enhancing the application of distributive and procedural justice in digital contexts, with the mediating role of organizational commitment. It is also found that the best results can only be achieved with higher management commitment to establishing fair digital practices, as it has a pivotal role in any virtual organization's success. The respondents are primarily from the IT sector in the Pakistani region, which can be tested in other industries and regions beyond Pakistan's territory. The personnel attitudes differ from industry-to-industry environment as well as from region to region. The result of the study can be useful for project managers and leaders in virtual settings for the achievement of positive project performance with organizational commitment through positive distributive and procedural justice application in digital work environments.

KEYWORDS: Distributive justice, Procedural justice, Organizational commitment, Virtual Project Performance, Digital Work Environments

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1.INTRODUCTION

Initial studies pertaining to organizational justice remained focused on distributive justice. This type of organizational justice is highlighted by Adam (1965) in his equity theory. In contemporary digital work environments, distributive justice (fair allocation of rewards, recognition, and workloads) and procedural justice (transparent digital policies and decision-making processes) refer to virtual project employees' perception that they have been treated well by the organization (Colquitt, 2001). This phenomenon produces a sense of ownership and loyalty, which creates commitment to their existing organization despite their physical distance. It eliminates the rate of virtual burnout and turnover, and employees' skill level/expertise is improved, which enhances productivity and, resultantly, virtual project performance.

In the recent past, scholars have addressed the aspect of inter-organizational justice in virtual teams and contend that the perception of distributive and procedural justice among project members depends largely on how rewards are shared, digital processes pursued, online information shared and internet interpersonal relationships undertaken.

Muthuveloo and Rose (2005) defined organizational commitment as the capability of the staff to be loyal and associate with the organization in connection to the tasks and job liabilities being performed, even in a distant area. In the organizational commitment, employees identify with the goals and values of the prevailing organization, which forms a source of performance increase (Herscovitch and Meyer, 2002). This promise is essential in virtual settings as a way of ensuring cohesion. Organizational commitment is described as one of the greatest goals, taking into account the activities of organization in the context of preserving its existence (Yavuz, 2010). Higher rate of organizational commitment and satisfaction makes employees more productive, compatible, more loyal to their profession, more responsible and increases satisfaction, thus making them cost-effective for the organization (Balci, 2003).

According to Byars and Rue (2006), job performance refers to the level at which an employee is able to complete the task assigned to him/her remotely. An element of measure is virtual project performance, which is the extent that an employee meets the expectations that are demanded on a certain job despite the absence of supervision. As such, job performance is considered good or bad provided that the parameters of the performance have been mutually agreed upon by the employee and the management in a virtual setting.

Moreover, workers in virtual offices anticipate that they deserve a fair share of the justice and rewards as a result of the hard work they give to the company. They accomplish that through digital tools of social comparison. This means that once the workers are equitably compensated and systems are clear in virtual environments, they are happy and dedicated besides being satisfied with their work.

To ensure that the current study is purposeful, the performance of virtual projects will be considered as an output that is needed by the remote employees, quantified against the predetermined set standards by using digital tools, which lead to the achievement of the organizational objectives.

2. LITERATURE REVIEW

2.1 Distributive and Procedural Justice in Digital Environments

It is common knowledge that four major types of justice can be found in any organization, and these are procedural, distributive, informational and interpersonal. Procedural justice used in this research is the perceived justice of virtual participants regarding the digital policies, processes, and procedures in which decisions were made in remote projects (Thibaut and Walker, 1975). The perceived justice concerned with the distribution of rewards and workload to the virtual project participants in regard to the contributions that they make is called distributive justice (Folger and Konovsky, 1989).

Organizational justice at the digital workplace has taken its substantial niche in literature. A number of studies have shown that the higher the sense of justice of remote workers, the better various organizational behavior factors including virtual work satisfaction, organizational commitment, and virtual employee performance are likely to be positively affected.

Available studies indicate that perceived distributive injustice has considerable number of undesired outcomes including low job satisfaction, pay satisfaction, outcome satisfaction and individual performance (Colquitt et al., 2001). On the same note, procedural justice is the perception of fairness of processes that are involved in the allocation of rewards within organizations (Greenberg, 1990b), which is of crucial importance to remote teams who have high affinity to transparent and fair digital processes.

It is also relevant to state that distributive justice is founded on equity and not equality (Greenberg,1990a). In virtual teams, equity is defined as the output of efforts and contributions made by a particular worker that is more difficult to observe and, therefore, has to be quantified and communicated efficiently (Qureshi et al., 2017). According to the principle of equity exchange, a remote worker evaluates outputs of an organization in relation to inputs and evaluates

it against the reward obtained by other workers in comparable virtual conditions and the perception of justice.

It is evident that procedural fairness is associated with satisfaction, commitment, performance, and citizenship behaviors, which form part of the research (Colquitt et al., 2001). Moreover, procedural fairness has been argued to be closely related to the results related to organization including organizational commitment and virtual project performance (Colquitt et al., 2001).

H1 Procedural justice has a positive impact on virtual project performance.
H2 Distributive justice has a positive impact on virtual project performance.

2.2 Organizational Commitment in Remote Work

Organizational commitment is defined as the emotional attachment, identification and involvement of the employee in the organization (Allen and Meyer, 1991). This commitment must be cultivated with deliberate efforts in online working environments where remote work needs to be counteracted. Organizational commitment can be defined as the voluntary involvement of employees in the attainment of organization targets at a remote level.

The term affective commitment is a good emotional attitude where employees are ready to work hard and would rather not leave the organization (Newstrom, 2011). In the case of remote employees, this is mostly equated with a feeling of belonging and association with the virtual team.

According to the social exchange theory, the two parties can satisfy one another by engaging with one another on the basis of reciprocal exchange. Within the social exchange of an employee-organization in the digital space, the equitable outcomes and procedures of an organization are indications of organizational supportiveness which in turn is returned by the employee through the affective commitment (Andrews et al., 2008; Loi et al., 2006). Therefore, it is most probable that the affective dimension of commitment will be a willingness or a desire to repay the fairness of the organization as being received via digital interfaces (Andrews et al., 2008). Therefore, the current research pays particular attention to the social exchange relationship between (distributive and procedural) justice and affective commitment in virtual environments.

H3 The OC mediates the relationship of procedural justice and virtual project performance.
H4 The OC mediates the relationship of distributive justice and virtual project performance.

2.3 Virtual Project Performance

A virtual project is a project that an organization performs on the internet and transacts its activities within the internet environment.

Project performance is a complex construct (Chipulu et al., 2014). Cost, time and quality objectives of significant dimensions are identified (Jha and Iyer, 2007; Winch, 2010) and are considered the iron triangle. Digital project management tools are also used in virtual projects to measure these. Performance of cost and time is commonly determined by the percentage difference of the original plan, but the performance of quality is typically determined in terms of adherence to contractual agreements and technical requirements (Tabish and Jha, 2012). In the case of virtual teams, one more important dimension is the measurement of satisfaction of the client and satisfaction of the team members with the process of digital collaboration (Lehtiranta

et al., 2012). These abstract standards that emphasize perceptions and attitudes are considered a significant addition to the project performance measurement, particularly in virtual teams where the soft factor is vital.

Past research indicated that organizational justice possesses numerous advantages to organizations and employees. We suggest that organizational justice is also found to have a close relationship with the performance of virtual projects. We also hypothesize that the relationship is positive such that when the degree of organizational justice goes up, the performance of the virtual project also goes up.

3.Research Design and Methodology

The conceptual framework of the present study is based on the Social Exchange Theory (SET) and aims to explore the relationships within the context of digital work environments. It assumes that virtual project performance depends on employees having a positive perception of fairness, including procedural justice and distributive justice. Moreover, it contributes to the existence of a crucial psychological state known as organizational commitment. Therefore, the underlying theory of Social Exchange Theory suggests that relationships are built on mutual reciprocity. In this context, the organization provides fairness, including just procedures and distributions in the digital workspace. Hence, the employee, in reciprocation, responds with increased loyalty and emotional attachment referred to as organizational commitment. This commitment then manifests as a willingness to go the extra mile, resulting in higher virtual project performance.

The framework is shown in the figure below and then explained in detail.

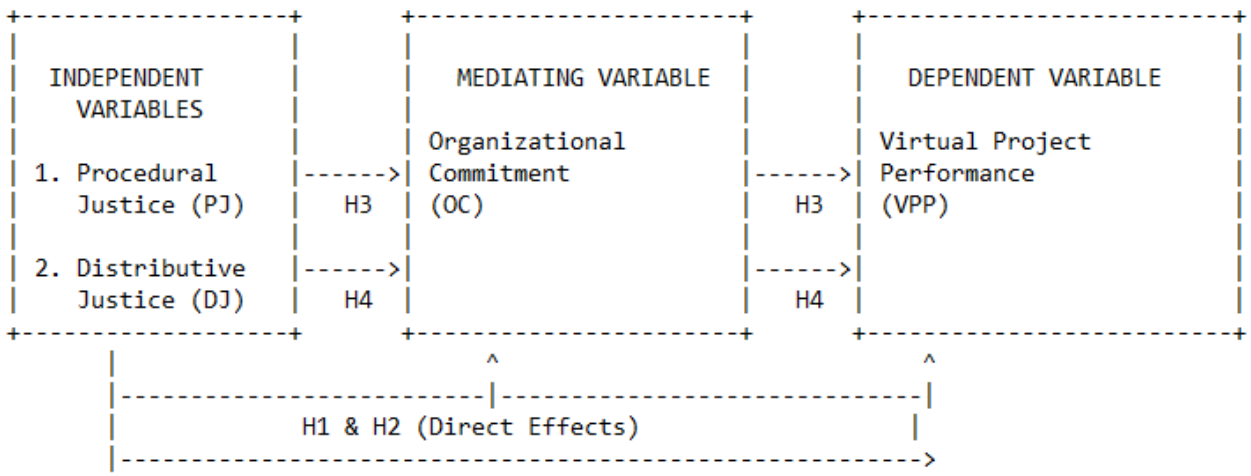


Figure 1: Conceptual Design of the Study

The diagram shows that the independent variables are two forms of organizational justice, including Procedural Justice (PJ) and Distributive Justice (DJ). The primary outcome or the dependent variable the research seeks to explain is Virtual Project Performance (VPP). This variable explains the process or mechanism through which independent variables affect the dependent variable. However, the mediating variable in this diagram is Organizational Commitment (OC). The diagram proposes that fair treatment (PJ and DJ) does not directly boost performance but fosters a sense of loyalty and belonging. This heightened commitment, in turn, motivates employees to exert greater effort, leading to improved virtual project performance.

Moreover, it also shows that the hypothesized relationships or Paths represent the specific hypotheses (H) of the study:

H1: Procedural Justice has a direct positive impact on Virtual Project Performance.

H2: Distributive Justice has a direct positive impact on Virtual Project Performance.

H3: Organizational Commitment mediates the relationship between Procedural Justice and Virtual Project Performance. (i.e., PJ → OC → VPP).

H4: Organizational Commitment mediates the relationship between Distributive Justice and Virtual Project Performance. (i.e., DJ → OC → VPP).

3.1 Research approach

The researcher adopted a positivist approach as the predominant philosophy for quantitative research. In this research, a deductive and cross-sectional approach was used to test the hypotheses and validate the model in the context of digital work.

3.2 Sample and procedure

The study sample comprised 200 employees of two IT and software development companies functioning within the vicinity of the Islamabad Capital Territory (ICT) Administration, and the useful sample consisted of 101 personnel. The companies were selected based on their use of distributed and remote teams. However, questionnaires and online probability systematic sampling method was used in approaching respondents.

3.3 Measures

To test the above hypotheses, a structured online questionnaire (containing two parts) was developed by adopting four different scales, including distributive justice, procedural justice, organizational commitment, and virtual project performance. The items were slightly reworded to reflect a virtual context (e.g., "procedures" became "digital procedures," "rewards" became remote work bonuses, "project performance" specified virtual deliverables).

The first scale was adopted to evaluate the distributive justice. It was constructed by Dude et al. (2009) and consisted of a four-item construct. Cronbach’s alpha value was noted as 0.87. *(Corrected from 0.087, assuming a typo)*

The second scale was about procedural justice. It was developed by Dude et al. (2009) and contained seven items. Its coefficient alpha was measured at 0.75.

The third adopted scale by the researcher was about organizational commitment. It was created by Mowday et al. (1982) and comprised seven items taken purposively out of twenty-one. Its Cronbach's alpha value was found to be 0.65.

The fourth construct was about virtual project performance. It was measured by using a scale adapted from Vergopia (2008) and modified for virtual contexts, having a coefficient alpha value of 0.71.

The questionnaire consisted of the following two parts.

In the first part, respondents were required to provide demographic information. They were asked about their gender, marital status, age, job status, job designation, work experience, and frequency of remote work.

The response rate of gender comprised of 38% male and 62.3% female employees, out of which 26.7% are married and 73.2% are unmarried respondents. The working status of full-time participants is 65% and 35% are part-time employees. 95% of respondents reported working remotely more than 3 days a week.

In the second part, they were asked to rate 26 statements about their perception about the company virtual working environment with regard to distributive justice, procedural justice, organizational commitment, and virtual project performance.

One way ANOVA was used to find the control variable of study and two control variables gender and work position found with significant level of less than 0.05 which provides the confidence level more than 95%. The details are given below on the one-way ANOVA table.

Table 1 One Way ANOVA

demographics	F value	P value
Gender	0.248	0.016
Marital Status	0.077	0.818
Age	0.846	0.832
Work status	0.858	0.357
Position	4.846	0.003
Tenure	0.318	0.812

3.4 Data collection

Data collection was done cross-sectionally by using an anonymous online survey to collect quantitative data in order to get generalizable results.

In this study, relevant statements of entire scales were arranged on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). After getting ethical approval, the online questionnaire links were delivered to sample respondents. They were provided with the objectives of the study in keeping with anonymity and confidentiality considerations. The

respondents were contacted using online methods exclusively. The data collection was done with the help of the human resource department of the selected companies. In the end, 101 usable and valid questionnaires were collected. Data was collected in a period of three weeks.

3.5 Response rate

The researcher gathered responses of 101 usable employees in order to test above said hypotheses along with a valid response rate of 50.5% is recorded.

The questionnaire was pilot tested with a sample of 50 employees of International Islamic University, Islamabad before the major survey was administered. data is analyzed with IBM SPSS 23 by means, standard deviation, t-test, ANOVA, Pearson correlation and Linear regression modelling was employed to test draw statistical conclusions and relevant hypotheses.

4.Findings

There is no significant difference in male employees' opinions on virtual project performance compared to females. It is found that female employees provided better views on virtual project performance than male employees. The mean value for males is 3.49, and for females is 3.77.

In this study, there is no significant difference in the employees' views on virtual project performance with regard to age group. The significance value was found P= 0.432 with an F value of 0.846. The performance of employees is not affected due to age factors as all are performing equally in spite of different age groups in the virtual setting.

Distributed justice and organizational commitment are positively correlated as distributive justice is increased by the managers, the organizational commitment is improved and resultantly the virtual project performance is increased. The distributive justice has significant positive correlation with organizational commitment. However distributive justice is not found significantly correlated with virtual project performance hence weak positive correlation is established. If the distributed justice is manipulated it has no direct significant effect on virtual project performance but significant effect on organizational commitment is found.

Procedural justice and organizational commitment have positive correlation and significantly correlated. It is found that procedural justice has positive significant effect on organizational commitment which will improve the motivation level of employees as they have become more committed to perform well in a digital environment. It is also found that procedural justice has strong positive correlation with virtual project performance and significant relationships are established. It is concluded that with increase in procedural justice in the digital workflows of an organization, the same amount of employees' commitment is improved and increased which significantly improves the virtual project performance as well. In this case our hypothesis is strongly supported with impact of procedural justice on virtual project performance and this impact with mediating role of organizational commitment is also supported significantly.

The discussed phenomenon is given in the correlation table.

Table 2

Descriptive Statistics & Correlations

Variable	Mean	Std Deviation	N	DJ	PJ	OC	PP
DJ	3.50	0.621	101	1	.124	0.240*	0.114
PJ	3.67	.607	101	.124	1	0.636**	0.698**
OC	3.57	.525	101	0.240*	0.636**	1	0.609**
PP	3.67	.571	101	0.114	0.698**	0.609**	1

*Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)
DJ stands for Distributive justice
PJ Procedural Justice
OC Organizational Commitment
PP Virtual Project Performance

Table 3

Regression (Predicting Virtual Project Performance)

Model	Unstandardized Coefficients B	Standardized Coefficients Beta	Sig	R Square	ANOVA F	Sig
(Constant)	3.30		0.000	0.013	1.30	0.257
DJ	0.015	0.114	0.257			
(Constant)	1.256		0.000	0.49	94.27	0.000
PJ	0.657	0.698	0.000			

a. Dependent Variable: Virtual Project Performance (PP)
b. Predictors: (Constant) DJ Distributive Justice, PJ Procedural Justice

Table 4

Mediator Regression (Organizational Commitment as Mediator)

Model	DV	IV	R-Sq	F	P (IV)	Coefficient (IV -> M)	Direct effect (X on Y)	Indirect Effect (X on Y via M)
M	OC	DJ	0.057	6.04	0.016	0.202	-0.315	0.136
	OC	PJ	0.405	67.89	0.000	0.55	0.49	0.16
DV	PP	OC	0.37	29.08	0.000			
	PP	OC+PJ	0.53	55.1	0.000			

4.1. Explanation/Justification

In linear regression, if the amount of distributive justice is increased, virtual project performance also increases, and a linear relationship is established, which is proved with the linear regression equation (y= A+Bx). Linear regression analysis in the case of procedural justice is found to be strong and significant. The impact of distributive justice becomes 1.3% with no significant effect, but the impact of procedural justice is found 49% with a strong, positive, significant effect on virtual project performance.

In the case of mediation regression, the impact of distributive justice on virtual project performance is increased with the mediating role of organizational commitment, as the impact is 37%, and in the case of procedural justice, virtual project performance becomes 53%. So, the hypotheses H3 and H4 are supported. The indirect effect of distributive justice (X1) rises to 13.6%, and the direct effect of procedural justice (X2) is reduced to 16% when considering the mediator, indicating partial mediation.

The results of the current study carry a lot of implications on the dynamics of organizational justice in the digital workspace. The change to virtual and hybrid forms has not only reduced the value of fairness, but it has also altered the way justice is viewed and rendered.

The close and straightforward influence of procedural justice on virtual project performance (H1 confirmed) reflects a significant discovery in the digital era. In a workplace where the employees are physically apart, the environment becomes the focus of the clarity, uniformity, and openness of digital processes that will form the main framework on which trust and reliability are established. When the remote employees feel that the processes of assigning activities, performance evaluation, and decision making are even and carried out uniformly using digital technology, then their ability to deliver has been greatly boosted. This observation concurs with the fact that formal procedures where there is no physical supervision of operations are substitutes to direct managerial presence.

In its turn, the insignificant, non-significant direct correlation of distributive justice and virtual project performance (H2 not supported) is especially telling. It implies that the element of equity in the results (rewards, pay, promotions) in virtual environments is not enough to directly influence the success of projects. This may be due to the fact that the direct relationship between the personal output and the overall project performance is less concrete in complicated and collaborative digital projects. Instead, remote work isolation may mean that the decision-making process is more salient and immediate compared to the ultimate reward allocation, which may seem abstract and slow.

The essence of contribution that can be made by this study is that the mediating role of organizational commitment is well supported (H3 and H4 supported). In both forms of justice, the most likely avenue of influencing the performance of virtual projects is through the psychological association of the employee with the organization.

Procedural Justice - Devotion - Delivery: Equitable online systems bring a feeling of esteem and worth to distant employees and a belonging to the organizational essence. This creates a high level of affective commitment, in which the employees desire to make a contribution towards the success of the organization. This increased dedication will subsequently translate to increased hard work, cooperation and persistence on the virtual projects.

Distributive Justice - Commitment - Performance: Although equity in reward allocation does not influence performance directly, it has a significant influence on commitment. When remote employees understand that they are fairly compensated for what they have contributed, it makes them justify their efforts and makes them feel like members and part of the organization. This strengthened loyalty, which, in its turn, encourages them to work even better.

This is further reinforced by the fact that the mediating effect of procedural justice is stronger, and therefore in the digital work environment, way things are done is always more impactful in fostering commitment and spurring performance as compared to what is given. The digital handshake of fair process is stronger than the digital paycheck of a fair reward though both are significant.

5. Discussion and Recommendations

This paper concludes that organizational justice is one of the foundations of successful project management within the modern environment of digital work, yet the mechanisms of organizational justice are different. The success of virtual projects is not only the functionality of technical knowledge or computer-related tools but a profound entrenchment in the human experience of justice.

The important conclusion is that procedural justice becomes the major contributor to virtual project performance, and its mediating effect is forcefully enabled through an organizational commitment mechanism. Although distributive justice does not bring about the same effect on performance, it is essential in indirect integration in that it strengthens the same commitment. Hence, managers who want to improve the performance of their virtual units should focus on designing and executing equitable, open, and standard digital practices. At the same time, they should make reward systems seem fair to retain and reinforce the emotional bond of their telecommuters.

Investing in procedural and distributive justice, organizations will have an opportunity to create a committed remote workforce that is not only satisfied but also highly effective, and the issues

of digital dispersion will be transformed into the chance to achieve better performance and resilience.

5.1 Recommendation/Managerial Implications

The research can be expanded to encompass more areas and industries of IT and software, in other digital contexts and locations. Distributive and procedural justice adapted to digital work can help the managers to increase the commitment of the employees since this study has demonstrated an improved virtual project performance. There must be clear and fair digital procedures not only in favor of the system but also to the employees. It will boost the confidence degree of telecommuters and their loyalty to the company. The higher management cannot but be involved in reflecting on the significance of the digital policies and the equitable allocation of rewards and recognition to establish the trust of the remote employees and a feeling of ownership, which will generate commitment and enhance performance at the virtual project level.

Specifically, for digital work environments, managers should:

1. Establish and communicate clear, transparent digital workflows and decision-making processes.
2. Implement equitable reward and recognition systems that are visible and fair in a remote context.
3. Use technology to foster a sense of community and belonging, reinforcing affective commitment.
4. Train managers on leading virtual teams with an emphasis on organizational justice principles.

5.2. Limitations and Future Research Directions

This study, like all research, has limitations that provide avenues for future inquiry.

1. Context and Generalizability: The sample was drawn from the IT sector in Pakistan. Cultural factors and industry-specific norms may influence these dynamics. Future research should test this model in different cultural contexts (e.g., individualistic vs. collectivist cultures) and other industries that heavily rely on remote work (e.g., digital marketing, consulting).
2. Cross-Sectional Design: The data was collected at a single point in time, which limits the ability to infer causal relationships. Longitudinal studies tracking virtual teams over the lifecycle of a project could provide stronger evidence of causality and show how justice perceptions and commitment evolve.
3. Unexplored Variables: This study focused on distributive and procedural justice. Future research could incorporate the other two dimensions of organizational justice, interpersonal and informational justice—which are highly relevant to digital communication (e.g., respect in video calls, adequacy of information sharing) and may have unique effects in virtual settings.

Technology as a Moderator: The role of specific collaboration technologies (e.g., Slack, Asana, Teams) was not examined. Future studies could explore whether the type and usability of digital tools moderate the relationship between procedural justice and commitment.

References

1. Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267–299). Academic Press.
2. Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology, 63*(1), 1–18.
3. Andrews, M. C., Kacmar, K. M., Blakely, G. L., & Bucklew, N. S. (2008). Group cohesion as an enhancement to the justice-affective commitment relationship. *Group & Organization Management, 33*(6), 736–755.
4. Bryde, D. J. (2005). Methods for managing different perspectives of project success. *International Journal of Project Management, 23*(2), 119–131.
5. Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology, 86*(3), 386–400.
6. Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology, 86*(3), 425–445.
7. Gibbs, M., Mengel, F., & Siemroth, C. (2021). Work from Home & Productivity: Evidence from Personnel & Analytics Data on IT Professionals. *Becker Friedman Institute for Economics Working Paper*, (2021-56). *// Added for contemporary virtual context*
8. Greenberg, J. (1990a). Organizational justice: Yesterday, today, and tomorrow. *Journal of Management, 16*(2), 399–432.
9. Greenberg, J. (1990b). Employee theft as a reaction to underpayment inequity: The hidden cost of pay cuts. *Journal of Applied Psychology, 75*(5), 561–568.
10. Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a three-component model. *Journal of Applied Psychology, 87*(3), 474–487.
11. Jha, K. N., & Iyer, K. C. (2007). Commitment, coordination, competence and the iron triangle. *International Journal of Project Management, 25*(5), 527–540.
12. Lehtiranta, L., Kärnä, S., Junnonen, J.-M., & Julin, P. (2012). The role of multi-firm satisfaction in construction project success. *Construction Management and Economics, 30*(6), 463–475.
13. Loi, R., Ngo, H. Y., & Foley, S. (2006). Linking employees' justice perceptions to organizational commitment and intention to leave: The mediating role of perceived organizational support. *Journal of Occupational and Organizational Psychology, 79*(1), 101–120.
14. Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review, 1*(1), 61–89.
15. Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*(1), 20–52.
16. Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. Academic Press.
17. Golden, T. D. (2006). Avoiding depletion in virtual work: Telework and the intervening impact of work exhaustion on commitment and turnover intentions. *Journal of Vocational Behavior, 69*(1), 176-187. *// Added for virtual work context*
18. Tabish, S. Z. S., & Jha, K. N. (2012). Success traits for a construction project. *Journal of Construction Engineering and Management, 138*(10), 1131–1138.
19. Wang, X., Liao, J., Xia, D., & Chang, T. (2010). The impact of organizational justice on work performance: Mediating effects of organizational commitment and leader-member exchange. *International Journal of Manpower, 31*(6), 660–677.
20. Winch, G. M. (2010). *Managing construction projects: An information processing approach* (2nd ed.). Wiley-Blackwell.