

SUCCESS RATIO OF SMALL INFRASTRUCTURE PROJECTS OVER INVOLVING PROJECT STAKEHOLDERS: ENGAGING LOCAL NGOs

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KEYWORDS	ABSTRACT
Stakeholders' Involvement, Infrastructure Projects, Engagement of NGOs, Stakeholders' Power; Interest	This study investigates the challenges faced by infrastructure development projects in Balochistan, often leading to outcomes below expectations. The research analyzes impact of stakeholders' power and interest attributes on project success and examines the mediating role of the stakeholders' active involvement. Based upon the dataset of 216 valid responses from 25 union councils in 5-randomly selected Balochistan districts, statistical tools include correlation, regression as well as variance analysis were utilized. The results of study provide important information that are helpful in reaching the
ARTICLE HISTORY	conclusion and making desired decisions about hypothesized relationships
Date of Submission: 10-07-2023 Date of Acceptance: 11-08-2023 Date of Publication: 17-08-2023	among research variables under consideration. Results highlight significant influence of stakeholders' power and interest on project success. Notably, stakeholders' involvement was found to strongly mediate the relationship between their attributes and project success. This study sheds light on the complex dynamics influencing project success, providing insights valuable for future infrastructure development strategies in Balochistan. The study offered certain recommendations to project managers, policy-makers and future researchers.  2023 Journal of Social Sciences Development
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### **INTRODUCTION**

Project success always remained of vital importance in the field of project management (Faiz, 2020). This is a vast area of study, and many studies have been conducted in this area. Project management experts agree upon the point of importance of project management for project success. According to Mir and Pinnington (2014), project success is dependent on project management. Bryde (2008) considers project management necessary for the success of projects. Stakeholders' management is a significant area of project management (Chen & Lin, 2018). The studies show that there is a direct relationship between influential stakeholder management and project success. Westerveld (2003) stated that project's primary aim is to deliver maximum benefit to its stakeholders, and interactions

with stakeholders at various levels result in their utilization for their benefit from project outcomes. Stakeholders can contribute to the project's success positively as well as negatively (Beringer, Jonas & Kock, 2013). Therefore, one of the significant elements of project management is stakeholders (Wiśniewska, & Janasz, 2014). Dobes and Tchórzewski (2013) considers the desired identification of stakeholders and their role in the project as a decisive factor for the success or failure. Their role is dependent on attributes.

Rajablu, Marthandan and Yusoff (2014), offered evidence of direct effect of stakeholder influential attributes (power, interest, urgency, legitimacy, proximity, and relationship network) on project success. Stakeholders' influential attributes play vital role in project's success, and according to the previous studies in this field, they have both negative and positive effects (Wiśniewska, & Janasz, 2014). This study explores the mediating effect of stakeholders' involvement on the relationship of variables of stakeholders' influential attributes and the project success. Rajablu et al. (2014) have explored mediating effect of management through stakeholders on relationship of stakeholders' influential attributes and the project success. Bourne and Walker (2005) stated that the power of stakeholders has a pivotal impact on success or failure of project. In this study, critical factors from different literature were filtered to be confined to stakeholders' involvement in project execution (Beringer, Jonas & Kock, 2013). In order to achieve an efficient allocation of limited resources in a project, passes of serious success factors are far from sufficient. Active stakeholder management and performance review systems are critical to operational PPPs' performance; still, impacts of 2-factors on project are different.

With the project's limited resources, attention has to be drawn to factor that has a more significant impact on the project. Several studies showed the negative impacts of the stakeholders' behaviors on project success. Users' behaviors towards projects include user support absence, persistence, and the unwillingness of users to involvement in project execution (Saleem, 1996). Managers often face troubles due to diversity of interests of various stakeholders and project teams during the various phases of the projects. These conflicts mainly arise due to interests of the stakeholders in final output (Wiśniewska, & Janasz, 2014). Various stakeholders want to see output according to their desires and expectations. So, this situation creates severe problems for manager to face in project execution and complex for him to satisfy the variety of expectations and interests (Bourne & Walker, 2005). The pre-project partnering is an excellent solution to problem discussed. Pre-project partnering, to an extent, mitigates the problem raised due to the diversity of stakeholders' interests' stakeholders' influential attributes and project success. The project manager must master and control resources to deliver pre-defined quality, which will meet mass expectation of stakeholders of project about the outputs of projects.

Stakeholders' involvement has remained of vital importance in discipline of project management. The proposed study focuses on the involvement of stakeholders through the outsourcing of small infrastructure projects. Although according to the rules and practices, the project is already being outsourced to the contractors, at this moment, we mean to outsource the entire responsibility of the projects to community local NGOs. This responsibility will be from need assessment to handing over the projects to the community and further follow—up for sustainability. The relevant intensity and

role of these factors will be determined, and the need role of outsourcing some components of works will be heightened in the proposed study. The same aspects of problem have never been worked out previously. So, this issue needs to be investigated closely and deeply to devise a strategy to counter the problem. The literature gap exists concerning current scenario of Balochistan, and the existing scholar works in specific area of research. Although the general perception is prevailing regarding low quality of infrastructure works in province, it has not been addressed adequately in scholarly works. So, in light of existing literature and current scenario of Balochistan, following question is addressed in this study;

- 1. What is the impact of stakeholders' involvement through engaging NGOs on the project success?
- In order to address this research question, the following sub-questions also needs to be addressed:
- i. What is the impact of project stakeholders with their influential attributes of power and interest on success of projects?
- ii. What mediating role does stakeholders' involvement affect relationship between interest, power and project success?

#### LITERATURE REVIEW

### Project Success

Giving benefits to the project stakeholders is always the primary objective of the project. The project stakeholders are the steering factor in projects as their benefits drive the projects, and the achievement of their benefits drives the project's success. Three levels of project success defined by Davies (2002) are the success of project, success of project management, and success of the ongoing project. According to viewpoint of base-organization, Svejvig and Andersen (2015) have defined project success and its components expansively. According to him, project success is combination of the achievement of user benefits and project deliverables. His terms of deliverables and benefits reflect meanings of project management and project product, respectively (Wiśniewska, & Janasz, 2014). Various stakeholders want to see output according to desires and expectations. He termed deliverables for project management success and benefits for project product success; combination of both refers to the project success. According to the viewpoint of the stakeholder perspective, the behavior of stakeholder and its management is main factor of project portfolio success (Beringer, Jonas & Kock, 2013).

Watson, Keogh, Gay and Fourie (2010) insisted on importance of inclusion of project stakeholders' involvement in the curriculums of project management discipline for the success of the projects. The findings of research conducted by Toor and Ogunlana (2009) proved perception and satisfaction of stakeholders as critical determinants of the success of the project. From the project owner (base organization) point of view, Eskerod and Jepsen (2016) have agreed on importance of stakeholder involvement for project success as they said that successful motivation and then in return get their contribution is critical sign of project success (Wiśniewska, & Janasz, 2014). The literature described in this section has been found relevant to the study because project success is treated as dependent

variable. The impact of stakeholders' influential attributes is tested (Dobes & Tchórzewski, 2013). Project success is combination of achievement of user benefits and project deliverables. Mediation effect of stakeholders' involvement is explored on linkage amid stakeholders' influential attributes and project success.

### Stakeholder Theory

Definition and conceptualization of stakeholders as whole have been refined from broad to narrow. Stakeholders are more broadly and classically defined by Freeman (1984), who called them persons influence or can influence organizational achievements. Definitions of stakeholder after have been affected mainly by the theory of Freeman. However, they are further interested in the output of the projects. Definition of stakeholder by Cleland (1986) reflects the same influence. He defined the stakeholder narrower as he stated that stakeholders are individuals or institutions both in and out of the manager's premises of authority, and those who are influenced by project outcomes, moreover those who have a piece of a concern in project. Project Management Book of Knowledge guide (PMI, 2013, p. 29) has further refined the definition of stakeholders and stated that stakeholders are those who are/have perception of being subjective to inferences, processes, or products of project. Littau, Jujagiri, and Adlbrecht (2010) have accomplished extensive and profound research in this field, and they concluded the definition of stakeholder in the discipline of project management as most prominent definition.

They adopted this definition of project stakeholders in research. It defined stakeholder in project management as the individuals, groups, or organizations that are subjective to the project processes or outcomes and have privileges or concerns in project. The stakeholder theory gives foundations to this research study. So, the study has deeply examined the literature on this theory. Stakeholder theory has been stated to be the organizational ethics and management theory by Freeman, Phillips and Wicks (2003). Stakeholder theory is the inverse theory of the free market rule of shareholder capital maximization. Moreover, it promotes giving maximum to stakeholders. Project management scholars Stout (2012) have the opinion in this regard and state that a misinterpretation is prevailing about the legal definition of the business as an instrument of capitalization of stakeholders. They further stated that that the law says that it must be legal. The above discussion may be concluded into the purpose of the project to be instrument to benefit the stakeholder of the project. The owner of the business is also included in the stakeholders of the project. The study area of stakeholder has always been under discussion, and large number of diverse studies and good work has been carried out in this regard.

This resulted in the stakeholders' theories being extended and categorized into various branches, disciplines, and models. For instance, Donaldson and Preston (1995) divided stakeholder's theories into three taxonomy groups as normative taxonomy, instrumental taxonomy, as well as descriptive taxonomy, Freeman, Wicks and Harrison (2007) have discussed it via managing for stakeholders, Clarkson (1995) described the primary and secondary domains and organizational stakeholders' typologies had been defined by Savage, Nix, Whitehead and Blair (1991). Stakeholder theory is the inverse theory of the free market rule of shareholder capital maximization (Freeman, Phillips & Wicks, 2003). His terms of deliverables and benefits reflect meanings of project management and

project product, respectively (Wiśniewska, & Janasz, 2014). According to viewpoint of stakeholder perspective, the behavior of stakeholder and its management is main factor of project portfolio success (Beringer, Jonas & Kock, 2013). According to the viewpoint of the stakeholder perspective, behavior of stakeholder and its management is main factor of project portfolio success (Beringer, Jonas & Kock, 2013).

### Influential Stakeholder Attributes

Although Freeman's principles significantly contribute to stakeholder management in the project management discipline, disagreements among scholars also exist on his stakeholders' theory. This situation gives the motivation and grounds to Mitchell et al. (1997) to develop stakeholder salience theory, who added two more stakeholder influential attributes of urgency and legitimacy. Bourne and Walker (2005), Banerjee (2008), Yang (2009) have been among the critics of the stakeholder salience framework theory. Power-Interest matrix has been contributed by Johnson and Scholes (1999). Martinez, Nilson, Landin and Olander (2016) have modified this model to fit in the project environment. Walker and Bourne (2006) have extended the stakeholder salience framework and introduced the new model of typology of power, proximity, and urgency. To eliminate legitimacy's restriction, authors have replaced legitimacy with proximity, resulting in a new dimension. Interest: Organizational stakeholder mapping is regarding the interest of the stakeholders to follow up their interest and how this interest is backed by power. Thus, Rowley and Moldoveanu (2003) have the opinion against power-based arguments as well as argued that interest-based perspectives could mobilize stakeholders and distress the project management, free of the influence of the influential attributes of power.

H1: Project stakeholders' influential attribute of interest affects the infrastructure project success in Balochistan.

Power: Ability someone uses to achieve the desired outcomes is power (Salancik & Pfeffer, 1974). Mitchell et al. (1997) have criticized this influential attribute through organizational theories of transaction cost, resource dependence, and agency. Etzioni (1974) categorized power in the various categories like coercive power (power received by physical resources or force), utilitarian power (power gotten over financial resources), and normative power (power received by prestige). Most of the researchers in this field agree that the survival of project and performance are affected by the power of stakeholders in both positive and negative ways. Power may be used as weapon to benefit or harm the project. He has added these variables to cover limitation of the influential attribute of power. Critics have criticized these efforts for being remained on premises of the traditional power-based framework. This framework has faced significant criticism by scholars as it has ignored the stakeholders beyond firm's or project's economic value. This attribute has been point of continuous debate in scholars. Scholars in stakeholders like Donaldson and Preston (1995) and Freeman (1984) have criticized power in its significance. They chose legitimacy in stakeholders-manager relations against power.

H2: Project stakeholders' influential attributes of power affect the infrastructure project success in Balochistan.

### Stakeholder' Involvement

The delivery of stakeholders' expectations and satisfaction is the primary responsibility of project management organization; so, project stakeholders are primary originators of project management organization. Chang et al. (2013) stated that stakeholder management and involvement are the key contributors to the successful delivery of project deliverables, while Cleland (1999) calls the ability of project managers to know about stakeholder expectations to be the primary factor of successful engagement of the project stakeholders. Authors explained that project stakeholder management facilitates the requirements of stakeholders through the team of the project. The aim is to achieve stakeholders' objectives after identifying, discussing, and agreeing on them (Rowlinson & Cheung, 2008; Decker, 2016). Six continuous processes of relationship management of stakeholders have been thus contributed in this topic by Todorović, Petrović, Mihić, Obradović and Bushuyev (2015). Three processes of stakeholder management have been described by the authors of Eskerod and Jepsen (2016) and described the required process as the stakeholder identification, assessment, and prioritization. This study finds stakeholder involvement relevant and retains it for further assessment. The study uses the stakeholders' involvement as the mediating variable; thus, the hypothesis is developed as following;

H3: Stakeholders' involvement mediates the effect of stakeholders' interest on project's success. H4: Stakeholders' involvement mediates the effect of stakeholder power upon project's success.

#### RESEARCH METHODOLOGY

# Research Approach

The study's objective is to build conceptual connections for the investigation and production of the framework (Saunders, 2009). Correlation type of study and survey research has been chosen as it has been considered the fit method for this kind of study. This research has selected a questionnaire survey as the means of data collection. The Package has performed statistical analysis of the data for Social Science (SPSS).

# Sampling Method

Data has been collected over a non-random sampling method. The individual sampling units have been selected after a multi-stage sampling process. In the first stage, five districts from all over the province were selected randomly. The districts Killa Saifullah, Noshki, Khuzdar, Loralai, and Ziarat, was selected. In second stage, 25 union councils are selected from the selected district, 5 from each district randomly. After that, convenience sampling method was used to select individual sample units. In this stage, 12 individuals from each union council were selected. A sample size of 300 has been taken at all. 19 responses were dropped from data analysis that was declared to be unworkable. So, 216 valid and completed responses were left to be statistically analyzed, 72% of total sample size. So, it is good and satisfactory to proceed with this valid response rate for data analysis. 52.7% average response rate for studies at the individual level is suggested by Brauch and Holtom (2008) and Mellahi and Harris (2016). Valid response rate of 216 (72%) is highly satisfactory (Anderson, Tatham, & Black, 2010).

### Research Instrument

For primary research, a comprehensive questionnaire has been prepared. The questionnaire design was developed in light of conceptual framework, theories, and hypotheses of this research. For the measurement of variables, a five-point liker-type scale was chosen. This type of scale is considered to be un-bias and more reliable Asún, Rdz-Navarro and Alvarado, (2016). A series of steps taken have ensured the quality of questionnaire. Several steps have been taken for this purpose. During two months of data collection, overall, 235 questionnaires have been received that make 78.3% response rate. Thus, the steps to ensure reliability and validity are literature review, questionnaire's construct, & conducting consultation sessions with experts and professionals in project management and project stakeholders' management. Also, pre-tests and pilot tests of data collection through questionnaires have been taken for this purpose. SPSS software was applied to asses reliability and correlation analysis for the data analysis, while the mediation analysis was performed by structural equation modeling.

#### **RESULTS OF STUDY**

Statistical tools of the SPSS application have been applied for data analysis. Non-parametric techniques have been to be suitable for the analysis of the collected data. The statistical tools have treated all the 13 items of the questionnaire of correlation and regression. The following result has come out.

# Respondents Profile

The questionnaires were distributed to 300 individuals of 25 union councils, Balochistan 5 districts. These questionnaires were distributed on convenience sampling methods in governmental and non-governmental offices, contractors and general public. Table shows profiles of respondents about age, gender, qualification, and profession.

Table 1 Respondents Profile

Profile Age	Valid	Profile	Valid	P-Qualification	Valid	Profile	Valid
	Percent	Gender	Percent		Percent	Profession	Percent
Less than 18	8.3	Male	85.2	Illiterate	5.6	Employee	43.5
18-25	21.3	Female	14.8	B-Matriculation	19.4	Student	29.6
26-35	40.7			Matriculation	24.5	Contractor	21.3
36-45	18.5			Graduation	29.6	Others	5.6
More than 45	11.1			H-Education	20.8		
Total	100.0	Total	100.0	Total	100.0	Total	100.0

## Reliability of Scale

The questionnaire consists of total of 13 items to measure the association of variables. The reliability statistics of the scale in Table 2 show Cronbach's Alpha of 0.859, which confirms reliability of the scale as Cronbach's Alpha more significant than 0.8 is considered to be sign of validity of the scale (Gliem, & Gliem 2003).

Table 2 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha (SI)	N of Items
.859	.868	13

Table 3 Summary Item Statistics

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	Mean	Minimum	Maximum	Range	Max / Min	Variance	N of Items	
Item Means	3.227	2.477	3.787	1.310	1.529	.153	13	
Item Variances	2.098	1.558	2.730	1.173	1.753	.114	13	
Inter-Item	.668	-1.728	1.738	3.466	-1.006	.723	13	
Covariances								
Inter-Item	.335	712	.884	1.596	-1.242	.155	13	
Correlations								

### Table 4 Scale Statistics

Mean	Variance	Std. Deviation	N of Items
41.95	131.500	11.467	13

### Correlations

Table (5) shows the results of correlation analysis of the relationship between the variables of the study. The strength of the correlation coefficient between the dependent variable project success and the independent variables stakeholders' interest and involvement is 0.638 and 0.724, which is strongly positive, while it is 0.344 between project success and stakeholders' moderate positive (Ratner, 2013). These relationships are significant at p<0.01. Correlation coefficients of relationship of stakeholders' interest with stakeholders' power and stakeholders' involvement are positive, solid, and moderate (r=0.518, p<0.01; r=0.445, p<0.01), while correlation coefficient amid stakeholders' power and the stakeholder' involvement is less than 3 which is considered to be weak (Hussain, Al Nasser, & Hussain, 2015).

Table 5 Correlation Analysis

		[1]	[2]	[3]	[4]
Project Success [1]	Pearson Correlation	1	.638**	.344**	.724**
	Sig. (1-tailed)		.000	.000	.000
	N	216	216	216	216
Stakeholders'	Pearson Correlation	.638**	1	.518**	.445**
Interest [2]	Sig. (1-tailed)	.000		.000	.000
	N	216	216	216	216
Stakeholders'	Pearson Correlation	.344**	.518**	1	.291**
Power [3]	Sig. (1-tailed)	.000	.000		.000
	N	216	216	216	216
Stakeholders'	Pearson Correlation	.724**	.445**	.291**	1
Involvement [4]	Sig. (1-tailed)	.000	.000	.000	
	N	216	216	216	216
**. Correlation is sign	nificant at the 0.01 level (1	tailed).			

### Regression

Linear regression analysis results show that model is significant, value of R square (0.649) shows that predictors adequately explain dependent variable project success. While table 7 of ANOVA shows model is a significant one.

Table 6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.806a	.649	.644	.80020

Table 7 ANOVA

Mo	odel	Sum of Squares Df Mean Squa		Mean Square	F	Sig.			
1	Regression	250.955	3	83.652	130.640	.000b			
	Residual	135.748	212	.640					
	Total	386.703	215						
a. ]	a. Dependent Variable: Project Success								
b. :	b. Predictors: (Constant), Stakeholders' Involvement, Stakeholders' Power, Stakeholders' Interest								

The relationship of the dependent variable, the project success, with each independent variable is illustrated in table 8. The values of table show the significant relationship of dependent variable with stakeholders' interest and stakeholders' involvement. While the project success is negatively associated with the stakeholders' involvement, and relationship between the both is statistically not significant.

Table 8 Coefficients

Model		Unstandardized		Standardized	T	Sig.
		Coeffi	cients	Coefficients		
		B Std. Error		Beta		
1	(Constant)	111	.278		400	.690
	Stakeholders' Interest	.457	.057	.406	7.967	.000
	Stakeholders' Power	056	.100	027	559	.577
	Stakeholders' Involvement	.652	.054	.551	12.094	.000

The Preacher and Hayes (2012) process method (model 4) were employed at 5000 (bias-corrected) bootstraps at 95% confidence interval to test regression as well as mediation (Table 9). In indirect relationship results, the relationships of stakeholders' interest (T=2.587, p<0.05) was found highly significant with project success. Relationship between stakeholders' power and project success was found slightly significant (T=2.246, p<0.05). In regression results after inclusion of mediator (Table 10), partial mediation was observed amid stakeholder interest, project success taking stakeholders' involvement as mediator, whereas complete mediation was observed between stakeholders' power and project success. In the first case (stakeholders' interest), a direct relationship was significant, and it was improved after mediation (T=6.830, p<0.001), whereas, in the stakeholders' power case, a direct relationship was significant, and by including mediator, relationship became insignificant (T=1.802, p=0.072)

Table 9 Total Indirect Effects Mean, STDEV, T-Values, P-Values

	OS	SM	SD	TS	P-Values
Stakeholders Interest> Project Success	0.152	0.154	0.059	2.587	0.010
Stakeholders Interest> Stakeholders Investment					
Stakeholders Investment> Project Success					
Stakeholders Power> Project Success	0.122	0.121	0.054	2.246	0.025
Stakeholders Power> Stakeholders Investment					

Table 10 Total Effects Mean, STDEV, T-Values, P-Values

	OS	SM	SD	TS	P-Values
Stakeholders Interest> Project Success	0.535	0.538	0.078	6.830	0.000

Stakeholders Interest> Stakeholders Investment	0.285	0.288	0.104	2.746	0.006
Stakeholders Investment> Project Success	0.532	0.532	0.049	10.937	0.000
Stakeholders Power> Project Success	0.153	0.150	0.085	1.802	0.072
Stakeholders Power> Stakeholders Investment	0.229	0.228	0.103	2.228	0.026

Figure 1 Indirect Effect

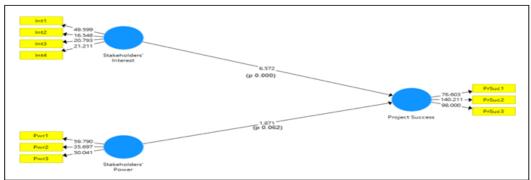
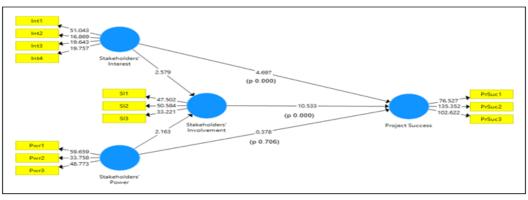


Figure 2 Total Effects



## **DISCUSSION**

According to the research, it was hypothesized that stakeholders' interest affects project's success. This hypothesis was addressed in survey questionnaire by four items. Analysis of the data collected against items gave significant results to support the hypothesis. The correlation analysis of the data shows significant relationship amid stakeholder interest & project success (r=0.638). Standardized coefficient beta is significant, as has value of 0.0406. The second hypothesis was that stakeholders Power affects project success, which was addressed by three items of questionnaire. Data analysis of the responses for these statements could not significantly support the hypothesis. The correlation amid stakeholders' power and project success is 0.344, and standardized coefficient beta is ~0.027. One of the four hypotheses of research was that involving stakeholders have a mediating role in the relationship of stakeholders' interest and project success. The result of the study also showed that effect of stakeholders' interest on project success became stronger after inclusion of mediator. The data analysis has supported hypothesis. The stakeholders' involvement itself has a significant

correlation with project success which is r=0.724. The data analysis confirmed mediation role of stakeholders' involvement.

Without the inclusion of the mediator, T-statistic value of the relationship of stakeholders' interest and project success was 2.587 and significant at 0.01 and the inclusion of mediator further improved the relationship. T-statistic has become 6.830 after inclusion of variable stakeholders' involvement as a mediator. The mediation role of same variable was hypothesized in relationship of stakeholder' power and project success which was supported by results of the data analysis. Before the inclusion of project involvement (the mediator) in the model, the relationship of stakeholders' power and project success was significant, but it became insignificant after the inclusion of the mediator. The findings are consistent with the previous studies, like one carried out by Sher, Bagul and Din (2015). The study's primary aim was to explore the effect of stakeholders' interest and stakeholders' power on project success, taking stakeholders' involvement as mediator. In this regard, the results of the study are consistent with the previous results. According to Rajablu et al. (2014), the stakeholders' interest is positively related to project success while stakeholders' power has an inverse relationship with project success.

The findings of this study confirmed the same. The results of the data analysis of this study are also consistent with the findings of research carried out by Aaltonen and Kujala (2016). The main motive was to explore the mediating role of stakeholders' involvement. Most often, the stakeholders have little or more influence in projects according to their interest in projects and strength to influence the project. The previous studies find the relationship of stakeholders' interest as a positive factor for project success and stakeholders' power having a negative impact on project success. In this scenario, a mediator like stakeholders' involvement can enhance the project's success as having the direct mediation effect on the relationship of stakeholders' interest and project success, and having negative mediation effect on relationship of stakeholders' power and project success. In contrast, the strength of relationship of stakeholders' power and project success became insignificant after inclusion of the mediator variable. The findings of this study are consistent with the previous study carried out by Mazur, Pisarski, Chang and Ashkanasy (2014) and with ByInam, Adamowski, Halbe and Prasher (2015).

### CONCLUSION

The results of the analysis of hypothesis testing confirmed that all 4 hypotheses were supported. HI results confirmed the influence of stakeholders' interest on the success of infrastructure projects. The analysis results provided evidence of positive relationship of stakeholder interest to infrastructure projects' success. The H2 results confirmed prediction of theoretical framework that stakeholders' power affects infrastructure projects' success. The inverse effect of stakeholders' power on project success has been verified through hypothesis testing. H3 results confirmed the mediating role of stakeholders' involvement in stakeholders' interest and project success. Based on the situation, these attributes have a higher or lower positive and negative effect on project success. So based on the situation and the nature and level of their role, they should be handled. These results supported the classical argument on power as having a positive or negative effect on project success. Diversity in the opinion of scholars exists regarding power. On one side, the attribute of power is considered

a too dominant variable in power-based studies (Mitchell et al., 1997; Johnson & Scholes, 1999; Martinez et al., 2016). Therefore, there is also an opposite pole of a scholar who does not confirm the importance of power.

The scholars prefer legitimacy overpower & argue that using power without legitimate channels is ineffective (Suchman, 1995; Weber, 2009; Freeman, 1984; Preston & Donaldson, 1995; Clarkson, 1995). The results of hypotheses testing have supported SBPM Model. This model has the centered concentration upon project success in conjunction with its factors. As speculated in the theoretical framework, H4 results were confirmed with data analysis that stakeholders' involvement affects relationship of stakeholders' power and project success. Hypotheses confirmed that stakeholders' involvement in project execution effectively molds stakeholders' influential attributes of interest and power into the contributors to project's success. It is found in this study, which is also consistent with the previous studies, that stakeholders' power has a negative impact on project success. It is commonly observed that stakeholders with more ability to influence the project, often has negative effect on project success. This study explored that stakeholders' involvement as a mediator plays a role in minimizing negative role of stakeholders' power on project success. Stakeholder involvement plays positive role in project success by mediating relationship between stakeholders' power and project success.

### Recommendations

Through this study, the effect of three factors on project success has been examined. The effect of stakeholders' interest, power, and involvement on infrastructure project success has been examined. The research results provided are consistent with framework of SBPMM. This model has a central concentration on project management approach and stakeholder management. Thus, this study has unique aspects as it is narrowed down to the success of infrastructure projects, and stakeholders' involvement in terms of the engagement of local NGOs is an effective moderator that has not been adequately addressed in previous studies. Moreover, this study is limited to the infrastructure works in Balochistan, Pakistan. Thus, we recommend longitudinal studies for future studies to explore the success factors because we have observed the limitation of mono methods. Common response bias may be expected by this survey study as the respondents' responses are based upon that how they perceived the phenomenon. The common perception of the respondents can affect the quality of the findings of the study. So, the longitudinal studies cover this limitation to a large extent Erikson and Tedin, (2015).

#### REFERENCES

Aaltonen, K., & Kujala, J. (2016). Towards an improved understanding of project stakeholder landscapes. *International Journal of Project Management*, 34(8), 1537–1552.

Aarseth, W., Rolstadås, A., & Andersen, B. (2011). Key factors for management of global projects: a case study. *International Journal of Transitions and Innovation Systems*, 1(4), 326–345.

Asún, A., Navarro, K., & Alvarado, J. M. (2016). Developing multidimensional Likert scales using item factor analysis: The case of four-point items. Sociological Methods & Research, 45(1), 109–133.

- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human relations*, 61(8), 1139–1160.
- Belassi, W., & Tukel, O. I. (1996). A new framework for determining critical success/failure factors in projects. *International journal of project management*, 14(3), 141–151.
- Beringer, C., Jonas, D., & Kock, A. (2013). Behavior of internal stakeholders in project portfolio management and its impact on success. *International Journal of Project Management*, 31(6), 830–846.
- Blok, V., Hoffmans, L., & Wubben, E. F. M. (2015). Stakeholder engagement for responsible innovation in the private sector: Critical issues and management practices. *Journal on Chain and Network Science*, 15(2), 147–164.
- Bourne, L., & Walker, D. H. (2005). Visualizing and mapping stakeholder influence. *Management Decision*, 43(5), 649–660.
- Bourne, L., & Walker, D. H. T. (2006). Using a visualizing tool to study stakeholder influence. *The Project Management Journal*, 37(1), 5–21.
- Bryde, D. (2008). The perceptions of the impact of project sponsorship practices on project success. *International Journal of Project Management*, 26(8), 800-809.
- Burnay, C. (2016). Are stakeholders the only source of information for requirements engineers? Toward a taxonomy of elicitation information sources. ACM Transactions on Management Information Systems (TMIS), 7(3), 8.
- Cascetta, E., Carteni, A., Pagliara, F., & Montanino, M. (2015). A new look at planning and designing transportation systems: Decision–making model based on cognitive rationality, stakeholder engagement and quantitative methods. *Transport Policy*, 38, 27–39.
- Chan, A. P., Scott, D., & Chan, A. P. (2004). Factors affecting the success of a construction project. *Journal of Construction Engineering and Management*, 130(1), 153–155.
- Chen, H. L., & Lin, Y. L. (2018). Goal orientations, leader-leader exchange, trust, and the outcomes of project performance. *International Journal of Project Management*, 36(5), 716–729.
- Cooke-Davies, T. (2002). The "real" success factors on projects. *International Journal of Project Management*, 20(3), 185-190.
- Davis, W. J. (1973). Neuronal organization and ontogeny in lobster swimmeret system. In Control of posture and locomotion (pp. 437–455). Springer, Boston, MA.
- Demirel, H. Ç., Leendertse, W., Volker, L., & Hertogh, M. (2017). Flexibility in PPP contracts—Dealing with potential change in pre-contract phase of a construction project. *Construction Management and Economics*, 35(4), 196–206.
- Dobes, A., & Tchórzewski, S. (2013). System Zarządzania Projektami W Przedsiębiorstwie Górniczym "Silesia. *Wiadomości Górnicze*, 64(3), 122–126.
- Donaldson, T., & Preston, L. E. (1995). The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*, 20(1), 65–91. Eskerod, P., & Jepsen, A. L. (2016). Project stakeholder management. Routledge.
- Etzioni, A. (1974). Political unification: A comparative study of leaders and forces. Krieger Publishing Company.
- Freeman, E. E (1984). The Strategic Management: A Stakeholder Approach. New York: NY. HarperCollins College Div.

- Freeman, R. E. (1994). The politics of stakeholder theory: Some future directions. *Business Ethics Quarterly*, 409–421.
- Freeman, E., Harrison, J. S., & Wicks, A. C. (2007). Managing for stakeholders: Survival, reputation, and success. Yale University Press.
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & De Colle, S. (2010). Stakeholder theory: The state of the art. Cambridge University Press.
- Freeman, R. E., Wicks, A. C., & Parmar, B. (2011). Stakeholder theory as a basis for capitalism. In Corporate Social Responsibility & Corporate Governance (52–72). Palgrave Macmillan, London.
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales. Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education.
- Gudienė, N., Banaitis, A., Banaitienė, N., & Lopes, J. (2013). Development of a conceptual critical success factors model for construction projects: a case of Lithuania. *Procedia Engineering*, 57, 392–397.
- Hahn, T., Figge, F., Pinkse, J., & Preuss, L. (2010). Trade-offs in corporate sustainability: you can't have your cake and eat it. Business Strategy and the Environment, 19(4), 217–229.
- Hahn, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive frames in corporate sustainability:

  Managerial sensemaking with paradoxical and business case frames. Academy of

  Management Review, 39(4), 463–487.
- Hussain, R., Al Nasser, A., & Hussain, Y. K. (2015). Service quality and customer satisfaction of a UAE-based airline: An empirical investigation. *Journal of Air Transport Management*, 42, 167–175.
- Hwang, B. G., & Lim, E. S. J. (2012). Critical success factors for key project players and objectives: Case study of Singapore. *Journal of Construction Engineering and Management*, 139(2), 204–215.
- Inam, A., Adamowski, J., & Prasher, S. (2015). Using causal loop diagrams for the initialization of stakeholder engagement in soil salinity management in agricultural watersheds in developing countries: Journal of environmental management, 152, 251-267.
- Janasz, K., & Wiśniewska, J. (2014). Organizational innovation strategies. Scientific works of the Wrocław University of Economics (366 Strategic management in theory and practice), 184– 193.
- Jepsen, A. L., & Eskerod, P. (2009). Stakeholder analysis in projects: Challenges in using current guidelines in the real world. *International Journal of Project Management*, 27(4), 335–343.
- Julian, S.D., Ofori-Dankwa, J.C., & Justis, R.T. (2008). Understanding strategic responses to interest group pressures. *Strategic Management Journal*, 29(9), 963–984.
- Keogh, J. J., Fourie, W. J., Watson, S., & Gay, H. (2010). Involving the stakeholders in the curriculum process: A recipe for success? *Nurse education today*, 30(1), 37-43. Landry, M. (2013). Navigating the political minefield. PM Network, 27(3), 38-43.
- Lim, S., & Mohamed, Z. (1999). Criteria of project success: Exploratory re-examination. *International* journal of project management, 17(4), 243–248.

- Littau, P., Jujagiri, N. J., & Adlbrecht, G. (2010). 25 years of stakeholder theory in project management literature (1984–2009). *Project Management Journal*, 41(4), 17-29.
- Martinez-Avila, C., Nilsson, R., Landin, A., & Olander, S. (2016). An exploratory study of the practice of stakeholder participation in densification projects. *Creating built environments of new opportunities*, 1, 310.
- Materia, E., Pernia Leal, M., Scotto, M., Balakrishnan, B., Kumar García–Martín, M. L., & Pellegrino, T. (2017). Multifunctional Magnetic and Upconverting Nanobeads as Dual Modal Imaging Tools. *Bioconjugate Chemistry*, 28(11), 2707–2714.
- Mazur, A., Pisarski, A., Chang, A., & Ashkanasy, N.M. (2014). Rating defence major project success:

  The role of personal attributes and stakeholder relationships. *International Journal of Project Management*, 32(6), 944–957.
- Mellahi, K., & Harris, L. C. (2016). Response rates in business and management research: An overview of practice & suggestions for future direction. British Journal of Management, 27(2), 426-437.
- Miller, P., & Rose, N. (2017). Political power beyond the state: Problematics of government. In Foucault and Law (pp. 191-224). Routledge.
- Mir, F. A., & Pinnington, A. H. (2014). Exploring the value of project management: linking project management. *International journal of project management*, 32(2), 202–217.
- Mitchell, R. J. (1997). Effects of pollen quantity on progeny vigor: evidence from the desert mustard Lesquerella fendleri. *Evolution*, 51(5), 1679–1684.
- Mitchell, R. K., Van Buren, H. J., Greenwood, M., & Freeman, R. E. (2015). Stakeholder inclusion and accounting for stakeholders. *Journal of Management Studies*, 52(7), 851-877.
- Osman, O., Mey, S. S. C., Ibrahim, K., Hassan, H. A., Ghazali, M., & Koshy, K. C. (2016). The role of solution–oriented knowledge transfer program and networking in charting a new course in University–Stakeholder engagement. In Engaging stakeholders in education for sustainable development at university level (pp. 243–262). Springer, Cham.
- Pfeffer, J., & Salancik, G. R. (1974). Organizational decision making as a political process: The case of a university budget. Administrative Science Quarterly, 135–151.
- Phillips, R., Freeman, R. E., & Wicks, A. C. (2003). What stakeholder theory is not. *Business Ethics Quarterly*, 13(4), 479–502.
- Pinto, J. K., & Slevin, D. P. (1987). Critical factors in successful project implementation. *IEEE Transactions on Engineering Management*, (1), 22–27.
- Pugh, C. (2001). The theory and practice of housing sector development for developing countries, 1950–99. *Housing Studies*, 16(4), 399–423.
- Rajablu, M., Marthandan, G., & Yusoff, W. (2014). Managing for stakeholders: Role of stakeholder-based management in project success. *Asian Social Science*, 11(3), 111. Ratner, B. (2013). The correlation coefficient: Definition. DM Stat-1 Articles.
- Rowley, I., & Moldoveanu, M. (2003). When will stakeholder groups act? Interest-and identity-based model of stakeholder group mobilization. *Academy Of Management Review*, 28(2), 204-219.
- Rowley, J. (1997). Moving beyond dyadic ties: Network theory of stakeholder influences. *Academy of management Review*, 22(4), 887-910.

- Rowlinson, S., & Cheung, Y. K. F. (2008). Stakeholder management through empowerment: modelling project success. *Construction Management and Economics*, 26(6), 611–623.
- Saleem, N. (1996). An empirical test of contingency approach to user participation in information systems development. *Journal of Management Information Systems*, 13(1), 145–166. Saunders, M. N. (2011). Research methods for business students, 5/e. Pearson Education India.
- Savage, G. T., Nix, T. W., Whitehead, C. J., & Blair, J. D. (1991). Strategies for assessing and managing organizational stakeholders. *The Executive*, 5(2), 61-75.
- Sher, K., Bagul, A. P., & Din, S. (2015). The Influence of Community Attachment and Community Involvement Toward Resident Support on Sustainable Tourism Development by Mediating Perceived Benefits and Perceived Costs. American–Eurasian Journal of Agriculture. & Environmental Sciences, 15, 133–138.
- Stout, L. A. (2012). The shareholder value myth: How putting shareholders first harms investors, corporations, and the public. Berrett-Koehler Publishers.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. Academy of Management Review, 20(3), 571–610.
- Svejvig, P., & Andersen, P. (2015). Rethinking project management: A structured literature review with a critical look at brave new world. *International Journal of Project Management*, 33(2), 278–290.
- Todorović, L., Petrović, Č., Mihić, M. M., Obradović, V. L., & Bushuyev, S. D. (2015). Project success analysis framework: Knowledge-based approach in project management. *International Journal of Project Management*, 33(4), 772–783.
- Toor, S. U. R., & Ogunlana, S. O. (2009). Construction professionals' perception of critical success factors for large-scale construction projects. *Construction Innovation*, 9(2), 149-167.
- Westerveld, E. (2003). The Project Excellence Model<sup>®</sup>: linking success criteria and critical success factors. *International Journal of Project Management*, 21(6), 411–418.
- Yang, J., Shen, G. Q., Bourne, L., Ho, C. M. F., & Xue, X. (2011). A typology of operational approaches for stakeholder analysis and engagement. *Construction Management & Economics*, 29(2), 145–162.
- Yang, J., Shen, Q., & Ho, M. (2009). An overview of previous studies in stakeholder management and its implications for the construction industry. *Journal of Facilities Management*, 7(2), 159–175.
- Zhang, X. (2005). The critical success factors for public-private partnerships in infrastructure development. Journal of Construction Engineering and Management, 131(1), 3-14.