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Impact of Ambidextrous Leadership on Project Success with the Mediating Role of Innovation and Moderating Role of Self-Efficacy

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Abstract

The purpose of this research study is to empirically test the impact of ambidextrous leadership on project success with innovation as a mediator and self-efficacy as a moderator. The sample was drawn using convenient sampling technique. The data is collected through survey method, from branches of telecom firms in Pakistan (n = 327). The analysis is carried out by using SPSS v.25 and AMOS v.23 software's to test hypothesis. The findings suggested that there is positive and significant relationship between ambidextrous leadership and project success. For the projects to be successful, the leaders need to be ambidextrous by being explorative and exploitative according to the situation to meet challenges and overcome constraints. Innovation mediates the relationship between ambidextrous leadership and project success. Furthermore, results indicated that self-efficacy positively moderates the relationship between innovation and project success. Finally, some theoretical and practical implications on an organizational level, presenting certain guidelines to understand how ambidextrous leadership affects the success of projects within the organization, and research limitations and future directions are presented.

Keywords: Ambidextrous Leadership, Project Success, Innovation, Self-Efficacy

Prior studies show that a single leader is responsible for managing and controlling a group of followers (vertical and horizontal leadership styles) (Halal, 1994; Wood & Fields, 2007; Kassotaki, 2019; Attar, & Kalfaoğlu, 2020). This thinking and practice contradicts with the environment of most organizations today. Organization leadership complexity has been intensified (Li, Wang & Mobley, 2011) and organizations need to focus on the well-organized management of current business demands as well as on possible opportunities and challenges occurring in the future at the same time (Baškarada, Watson, & Cromarty 2016). The organization must be able to get accustomed to the market environment and adopt a strategy that consists of distributing power so that it is able to compete as well as perform with other organizations globally (Conger, 1989; Challanan, 2004; Zuraik, Kelly,& Dyck, 2020). They must adopt ambidexterity i.e. exploitation and exploration for prosperity and long term survival (Baskarada, Watson & Cromarty, 2016). The topic of ambidextrous leadership becomes specifically important as existing literature styles turned out to be insufficient in acquiring the complex nature and pace of innovation. Secondly, the traditional leadership styles that were studied in the past were very rigid; therefore they could not support innovation (Rosing, Frese & Bausch, 2011). It has also been proposed by Kosasih, Wibowo, & Saparuddin, (2020) that greatest leaders are the ones who are both transformational and transactional.

Projects are crucial not only for dealing with hurdles due to advancing technology, but they are also a source through which business can be made superior and improvements and changes can be put into practice (Andersen & Jessen, 2002). Project manager integrates the concepts of management as well as leadership and acts as a combining force (Doğru, 2020), by influencing, guiding and giving orders (Bennis & Nanus, 1985). Research on leadership in projects is exceptionally important as projects are becoming more widespread in today's organizations and project management is being recognized as a profession (Li, 2019). To gain new external and tacit knowledge in the form of research, development is linked to irregular innovation and change,

which is called exploration, and gaining current and overt knowledge is associated with incremental innovation and is known as exploitation (Chebbi, Yahiaoui, Vrontis, & Thrassou, 2017); hence ambidextrous leadership becomes an important approach here as it consists of both exploration and exploitation.

Innovation represents the prospect to grow and effect the direction in which the business is going (Davila, Epstein & Shelton, 2012). Leadership has been believed to be one of the key aspects that affect employee innovation and creativity (Müceldili, Turan, & Erdil, 2013). Leaders play a vital role in facilitating and sustaining the development of creativity and innovation. Leaders can encourage employee's innovation through making creativity a part of job requirement, providing progress on creative goals and reward employees on achieving outcomes that foster creativity (Doğru, 2020). Organizations are relying more and more on project teams to accelerate innovation and generate competitive advantage (Wuchty, Jones, & Uzzi, 2007). One of the natural features that a project team faces is uncertainty (Meyerson, Chang, Wang, & Wall, 1996). To help organizations achieve competitive advantage, teams must not only explore creative ideas but also exploit existing knowledge and use those ideas for their usefulness and feasibility (Liang, Shu, & Farh, 2018).

The determination with which people perform new and challenging tasks is influenced by self-efficacy; that is workers with high self-efficacy are certain that specific tasks can be learnt and performed. Hence, they keep on trying even when problems surface and on the other hand, workers who lack self-efficacy think that they won't be able to either learn or perform a different task and give up easily when they face a problem (Luenburg 2011). By reviewing the past literature on self-efficacy, it was concluded that an influential predictor of job performance is self-efficacy (Bandura & Locke 2003). The lack of any substantial empirical studies using creative self-efficacy as moderator between innovation and project performance calls for filling this gap. The present study is conducted to model these variables by investing how ambidextrous leadership effects project success with innovation as a mediator and self-efficacy as a moderator. Hence, the problem statement of this research is: How does Ambidextrous Leadership impact Project Success?

Significant attention has been placed on innovation by researchers for decades (Baser, 2012). In most of the previous researches, innovation has been studies as an outcome of leadership (Oluwafemi, Mitchelmore, & Nikolopoulos, 2019). Primary reasons for the relationship between leader and innovation are that innovation represents avoiding conformity thinking and taking risk by developing new ideas. Employees need to exercise autonomy to show innovation (Janssen 2005). Autonomy and freedom of ideas are only possible when leaders provide support to employees (Foss, Woll, & Moilanen, 2013). The impact of different leadership behaviors in organization innovation and innovation performance has been studied in the previous research (Annar & Dalantai, 2014). Leaders are responsible for bringing change and guiding organizations; they can support innovation within organization and innovation performance (Jansen, Vera, & Crossan, 2009). In previous studies, the influence of different leadership styles on innovation has been studied and among them were behaviors displayed by transactional and transformational leadership (Rosing et al., 2011). The topic of ambidextrous leadership becomes specifically important as existing literature styles that are transactional and transformational leadership styles (Zuraik et al., 2020) turned out to be insufficient in acquiring the complex nature and pace of innovation. Secondly, the traditional leadership styles that were studied in the past were very rigid; therefore they could not support innovation (Rosing et al, 2011). It has also been proposed by Kosasih et al., (2020) that greatest leaders are the ones who are both transformational and transactional.

Although there is no deficiency of theories defining leadership concepts yet there is little agreement on what constitutes effective leadership (Berraies, & El Abidine, 2019). Besides, it has been claimed by the researchers that single leadership style cannot effectively promote innovation (Anderson, De Dreu, & Nijstad, 2004). Some researchers have tested innovation with supportive leadership (Montani, Battisrlli & Odoardi, 2015). A consequence of leadership styles on creativity has been studied in the past such as transformational leadership, empowering leadership, supportive supervision, transactional leadership and benevolent leadership. However, not many empirical studies have investigated the relationship between innovation and ambidextrous leadership.

Ambidextrous leader suggests that a solo leader can accomplish by adopting both opening behaviors (idea exploration) and closing behaviors (idea exploitation) (Zacher & Rosing, 2015). New idea generation is a part of innovation, therefore keeping in view the study of Attar et al., (2020) this study proposes that ambidextrous leader enhances employee innovation in projects.

It is important to study ambidextrous leadership impact on team innovation because there is still an overall paucity in literature and research that has been conducted on leadership in teams (Chin, 2015) and how leaders may promote ambidexterity (O' Reilly & Tushman, 2013). As innovation is termed as a non-routine behavior, therefore traditional methods of job are avoided by employees and they explore and implement new work means at work setting. Increasingly, there is a need for research that focuses on ambidexterity at employee level (Caniels & Veld, 2019).It has been suggested by researchers that confidence in person's creative competence is compulsory for that person to perform creatively and if the organizations need to innovate, building employee self-efficacy for creativity is an important step (Tierney & Farmer, 2011). The lack of any substantial empirical studies using creative self-efficacy as moderator between innovation and project performance calls for filling this gap.

The present study has many contributions in the domain of project management regarding leadership. In the previous literature, no clear information is found about the effect of ambidextrous leadership on project success. The present research confirms that ambidextrous leadership has a positive effect on project success. The mediating role of innovation between ambidextrous leadership and project success is also conceptualized and it reveals that innovation mediates this relationship. The finding of current study also shows that self-efficacy moderates the relationship between innovation and project success by strengthening it. Organizations can benefit from these findings as well. They may hire those employees have self-efficacy. Further practical implications are discussed later in conclusion.

Literature Review

Underpinning Theory and hypothesis

A meta-analytical study was done by Rosing et al., (2011) that introduced two concepts; innovation is a complex task hence it needs matching leadership styles and ambidexterity is a vital feature of innovation that must be included in innovation leadership theories. For the projects to be successful, they need to be unique and innovative. Ambidexterity is what makes a distinction between innovative performances from ordinary organizational performance. To foster innovation, project manager needs to show ambidexterity by blending two types of leadership behaviors whose focus is to increase or reduce discrepancy in behaviors of employees respectively. *Opening leadership behaviors* is theorized to foster exploration by increasing inconsistency in employee behaviors. *Closing leadership behaviors* is theorized to foster exploitation by decreasing inconsistency in employee behaviors.

Ambidextrous Leadership and Project Success

Even though the idea of ambidextrous leadership has come into view recently, its concept has been vital in theory of leadership from the beginning (Ma, Zhou, Chen, & Dong, 2019). It was noted by Kosasih et al., (2020) that effective leaders should be able to adopt the necessary leadership behavior which is in accordance with the particular situation. A great leader can decide what type of leadership behavior is suitable for which situation and exhibit high amount of transformational and transactional behavior according to the situation (Lou, Zheng, Ji & Liang, 2016). Literal meaning of ambidexterity is the potential of a person to make use of both hands with no difficulty. An ambidextrous leader uses transformational leadership when he is faced with a dynamic environment and uses transactional leadership when he faces stable environment (Bucic, Robinson & Ramburuth, 2010).

Traditional form of leadership is symbolized by transactional leadership (Burns, 1978). It refers to the trade that takes place between leaders and followers whose purpose is to meet their self- interest (Bass, 1999). The focus of transactional leader is to maintain and ensure that day to day operations are performed as efficiently as possible. On the contrary, transformational leaders are imaginative and passionate; they function without considering their self-interest and perform to promote learning that is adaptive according to the need (Nisar Khattak, Zolin, & Muhammad, 2020). Transformational leaders work hard to bring change within the organization to shape it into something different. It is described as magnetism, motivation and individual consideration (Hsu, Bell & Cheng, 2002). An ambidextrous leader is capable of switching between transformational and transactional leadership, as per the need and situation at hand (Zacher, Robinson & Rosing, 2016).
In reality, organizations are hardly in one phase or the other. Competitive environment does not give them the comfort of choice, therefore they must move back and forth or adopt both styles of leadership simultaneously, (i.e. Ambidextrous Leadership). Ambidextrous Theory of leadership suggests that exploration activities are a result of opening leadership behaviors and exploitation activities are a result of closing leadership behaviors (Zacher et al., 2015). Success is defined as a

subjective term and it depends upon view point of that person who is measuring it (Jha & Iyer, 2006). Key challenge in projects takes place when the scopes, objectives and stakeholders expectations are vaguely defined (Barclay & Osei - Bryson, 2010). The criteria for successful projects differ from project to project (Toor & Ogunlana, 2010). Traditionally used factors for measuring project success were time, cost and scope (Papke- Shields, Beise & Quan, 2010).

Businesses need to adopt simultaneously exploration and exploitation to meet the challenges and difficulties that come with the disruptive change (March, 1991). Organizations exploit the information that is in hand to make sure that the project is successful in short period and explore novel information and new possibilities, opportunities so that the project can achieve success and prosperity in the future (Chen, 2017). Ambidextrous leadership is an important factor in the accomplishment of organization goals venturing into highly developed economies (Chebbi et al., 2017). Similarly, pursuit of both exploration and exploitation results in superior firm performance (He & Wong, 2004; Raisch, Birkinshaw, Probst & Tushman 2009). To achieve firm's superior performance, projects need to be delivered in time, within budget and according to required quality. In today's global environment, to deliver projects within time and budget, process, people and technology used by information system project need to exhibit rigor and agility, i.e. Ambidexterity (Lee, Delone & Espinosa, 2007). If leaders fail to deliberately supervise projects that are vital to the organizations success, the competitive growth of a business will be affected (Rauniar & Rawski, 2012).

Ambidextrous coping strategies are used by project managers to lessen the adverse consequences of global boundary complexity on global project success (Lee, Delone & Espinosa, 2006). Previous research also suggests that the projects required in software development and implementation also require ambidexterity, i.e. They should be flexible/agile and rigorous/ disciplined simultaneously so that they can tackle the challenges faced by projects occurring globally (Lee et al., 2007). For example, teams have to follow project coping approach in a disciplined and rigorous way and simultaneously, show flexibility towards rapidly adaptation and reverse these approaches according to the need of the environment (Lee et al., 2006). Ambidextrous Leadership is essential for the projects to be successful. As the projects are unique in nature, they cannot be executed by using standardized processes only. Generating new knowledge is necessary along with standardized processes for successful execution of projects (Edmondson, 2008). This is in line with March's (1991) research in acquiring new knowledge in terms of ambidexterity; exploitation (refinement of knowledge in hand) and exploration (formation of new and unique way out). Based on above reviewed literature, hypothesis one has been developed:-

Hypothesis 1: Ambidextrous leadership is positively associated with project success.

Innovation as a Mediator

Innovation is defined as the deliberate opening and application of thoughts and ways to achieve goals that are novel to the appropriate unit of adoption and are considered in such a way that benefits the individual, group or organization considerably (Zafar, & Mehmood, 2019). Innovation consists of two stages: creativity and implementation (Rosing, Rosenbusch & Frese 2010). With the help of explorative and exploitative activities, there is great performance in creativity and its implementation. Exploration activities in creativity consist of risk taking, experimentation and discovery and need inherent motivation, a different thinking style and independence. Exploitation activities consist of refinement of production and efficient execution needs support of management and organization.

Practical research has confirmed that the most significant way to motivate employees towards innovation is leadership; however which specific leader behavior helps in contribution of innovation is still vague (Bledow, Frese, Mueller, 2011). Ambidextrous Leaders are capable of increasing enthusiasm and passion among employees and simultaneously make sure that discipline is still there (Zafar et al., 2019). Leaders that follow ambidexterity are receptive to various inspirational challenges and adjust their approaches according to situation as team proceeds on a project. Leader needs to synergize balancing inspirational forces that are passion and obedience, rather than intensifying one at the price of the other.

Leaders should promote exploitation and exploration behaviors among team members because combining both behaviors results in high innovative performance (Rosing et al., 2011). Leaders who practice ambidexterity not only compel employees to make efforts towards achieving innovation, but also direct and support them to pay attention towards efficiency (Havermans et al., 2015: Zacher el al., 2016). Due to dynamic environment, traditional organizational structures are shifting towards project based structures. Projects and innovations are found to be everywhere in our professional life and we live in a project society (Lundin et al., 2015). It is proven by previous

research that if a project is done through innovative solutions and processes, it goes further than classic project management (Aubry, Lievre & Hobbs, 2010).

The contribution of work spent in projects is positively related to success in innovation and in return, innovation success is positively related to business success (Wald et al., 2015). Researchers have pointed out that leaders who are innovative organize structures that are improved and processes that are better for project portfolios; they are more future oriented and proactive (devise techniques through which improved ideas are formed) and there is more inspiration among team members, they expect more innovative projects and are more experienced in dealing with ambiguity (Gemunden, Lehner & Kock, 2018). Tight schedule acts as a limitation in projects. They require new activities in contrast to existing repetitive activities to complete projects within the given timeframe. This means that project's primary focus is exploration, whereas project management within organization focuses more on exploitation. Project management practices are focusing on exploration and are opening up to new foundations (Maylor, 2006) because traditional approach is no longer able to deal with frequent changes. The success rate is not satisfying and projects are failing. Flexible model in projects promote continuous findings of new ways of doing things (Williams, 2005). Possible constraints that come up due to exploitation rapidly overcome with exploration of solutions and vice versa. Due to this, the project leader is able to adopt exploration or exploitation mode whichever is required. Project manager's freedom in choice of solutions (either exploration or exploitation) is the key element for project success (Hallgren, 2007). Based on above reviewed literature, the following hypothesis has been developed:-

Hypothesis 2: Innovation mediates the relation between ambidextrous leadership and project success.

Self-Efficacy as a Moderator

Self-efficacy has a great effect on employees. The work that they decide to learn and objective they choose for themselves are affected by self-efficacy (Huang, & Ren, 2020). Similarly self-efficacy has dominant effect on organizations. While hiring individuals, organizations should recruit people who have greater levels of self-efficacy. These employees will be motivated to adopt behaviors that will help them achieve high performance in workplace. High-performance goals are achieved by employees who have high self-efficacy resulting in higher levels of job performance which is critical for success of organization (Lunenburg, 2011). Teams play an important role in helping organizations achieve success. New innovations are considered, formed and implemented by the team projects within an organization (Archibald, 2003). Self-efficacy that is specific to an activity domain is most influenced by assessment of performance in that specific area (Jaaffar, Ibrahim, Rajadurai, & Sohail, 2019). Self-efficacy has confirmed association with innovation among employees (Tierney and Farmer, 2004) and work teams (Shin and Zhou, 2007). Therefore, based on literature reviewed, hypothesis three has been developed:

Hypothesis 3: Self-Efficacy Moderates the relationship between Innovation and Project Success such that higher Self-Efficacy increases the chances of Project Success.

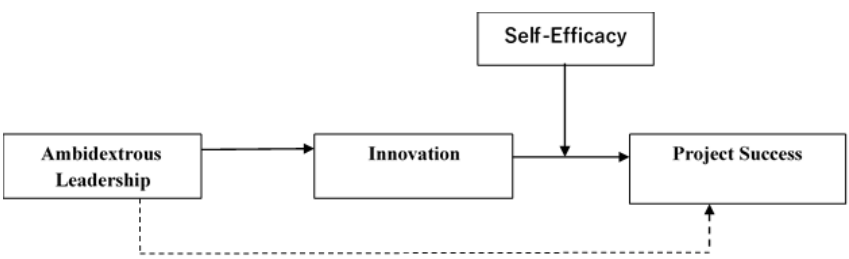

Figure 1: Research Model of Ambidextrous Leadership impact on Project Success: Moderation of Self-Efficacy and Mediation of Innovation

Research Methodology

Participants and Procedure

The study observed the effect of Ambidextrous Leadership on the Project Success. The focus of the study is the employees working in Telecom industry of Pakistan. The data collection was done through questionnaires, which were circulated to the various firms currently operating in Rawalpindi, Islamabad and Lahore. The reason to choose telecom industry of Pakistan is that various projects running in different fields such as online gaming lounge, energy, Gigabit Passive Optical

Network, social services, etc. Telecom sector strengthens the economy of Pakistan, by dragging overseas investors and this industry is also supported to the worldwide acknowledgment of Pakistan as an emerging country. Furthermore, all the information was kept confidential and the questionnaire results are reported in the statistical form only. Convenient sampling technique was used and total of 380 questionnaires were circulated, out of which only 327 were usable. The instruments used for the present research were already developed questionnaires for each variable, based on 5- point Likert scale included response choices from 1 to 5 where 1 = Strongly Agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly Disagree was used.

Measures

Regarding the independent variable, a13-item scale developed by Rosing et al., (2011) was used to measure Ambidextrous Leadership and Cronbach's alpha reliability for Ambidextrous Leadership was 0.813. Project Success was measured by using a 6-item scale developed by Robey, Daniel, Smith, & Vijayasarathy (1993), reliability at 0.808. As mediator Innovation was measured using 13-item scale Zhou, & George (2001) and alpha reliability for strategic agility was 0.927. Self-Efficacy as moderator was measured using a 9-item scale developed by Perrewe, Pamela, Kelly, & Ferris (2004) with an alpha reliability of 0.90. As the reliability above the threshold of 0.6, is considered acceptable (Xatignon & Xuereb, 1997; Hair, Anderson, Tatham, & Black, 1998).

Analyses and Results

Measurement Model

The measurement model was analyzed with the help of AMOS. Table 1 shows the threshold values for CFI, TLI and IFI is greater than 0.90. Values greater than 0.80 for GFI and AGFI is acceptable (Byrne, 2001). Moreover, different threshold values for RMSEA are there but according to Lomax & Schumacher (2004) value less than 0.05 is acceptable. For measurement model validation confirmatory factor analysis (CFA) was conducted following Anderson & Gerbing (1988) and Brown, (2015) suggestions that consisted of four latent variables ambidextrous leadership, innovation, self-efficacy and project success.

Table 1. *Measurement Model*

Model		CMIN/DF	CFI	TLI	IFI	AGFI	GFI	RMSEA
Baseline Model	Hypothesized	1.374	.948	.945	.948	.855	.870	.034

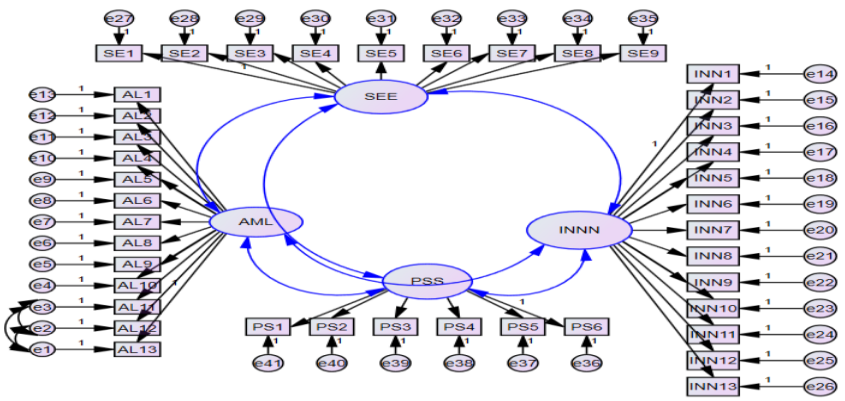

Figure 2: Measurement Model

The figure 2 interpretation is important for full understanding of the above table. The AML latent variable shows ambidextrous leadership, INN exhibits innovation, SE indicates self-efficacy and PS shows project success. Above table 1 showed the results for model fit. The values presented in the table above presented good model fit as suggested by (Hair et al 2009). Incremental fit index (IFI), comparative fit index (CFI) and Tucker-lewis index values were .948, .948 and .945 respectively which indicate good model fit. Furthermore, goodness of fit index and adjusted goodness of fit index (AGFI) values were .870 and .855, which also exhibit good model fit. Last but not the least

root mean square error of approximation value was .034, which represented good model fit. Overall, the four factor model results provide evidence for model fit.

Correlation Analysis

Correlation analysis was conducted to determine the relations among variables (Cohen, West, & Aiken, 2014). Pearson correlation ascertains the strength and nature of link through correlation that is from -0.1- 0.1. Positive sign represents that variables are moving in parallel direction and negative sign shows that variables are moving in opposite direction. Furthermore, "r" value shows the strength of the link.

Table 2. *Correlation Analysis*

Variables	1	2	3	4	5
Education	1				
Ambidextrous Leadership	.060	1			
Innovation	.241*	.292*	1		
Self-Efficacy	.214*	.182*	.430*	1	
Project Success	.158*	.181*	.479*	.226*	1

p<0.05,p<0.01***

Table 2indicates depicts information related to the correlation between variables. Correlation table shows that education is significantly and positively correlated to ambidextrous leadership (r = -.060, p<.05), innovation (r= .241, p<.05**),** self-efficacy (r = .214, p<.05) and project success (r = .158, p<.05). While independent variable also has significant positive association with all variables, the correlation of ambidextrous leadership with innovation was (r=.292, p<0.05), self-efficacy (r=.182, p <0.05), project success (r=.181, p <0.05). The correlation of innovation with self-efficacy was positive and significant (r=.430, p<0.05) and project success was positive and significant (r=.479, p <0.05). Furthermore, the correlation of self-efficacy with project success was also positive and significant (r=-.226, p<0.05).

Regression Analysis

Correlation analysis was conducted to investigate the existence of a relationship between variables, but it only deduces the existence of link between variables and gives no proof about the causal links among variables. Regression analysis was carried out to find out causal relationships to validate dependency of one variable on another variable (Bates & Watts, 1988). Regression has two types, simple regression and multiple regressions. Simple regression or linear regression is conducted, when there are two variables and the purpose is to establish a causal relationship. When more than two variables are included in multiple regressions is conducted like in the case of mediation and moderation.

Table 3. *Regression Analysis*

Predictor		INN			PS	
IV:AL	*β*	R^2	ΔR^2	*β*	R^2	ΔR^2
Step1						
Control Variables		0.066	0.066			
AL	0.341***	0.292	0.854	0.53***	0.180	0.032**
MED: INN						
Step2						
INN				0.478***	0.481	0.231**

Hypothesis 1 articulates that ambidextrous leadership positively influences project success. Results in the table 3 provided strong justification. Results suggested that there were control variables because there was a significant impact of demographics on project success. Therefore, demographics were included. Results indicate that ambidextrous leadership has a positive and significant relationship with project success as indicated by the regression coefficient (B=.53, p<0.001). In addition, the value of (R^2= .018) depicts that ambidextrous leadership brings approximately 53% variation in project success.

Multiple Regression

Mediation and moderation analyses were done using Hayes (2013) process macros. Mediation analysis was done to examine the mediator (innovation) between ambidextrous leadership and project success. As our model is mediated moderation model so for that purpose model 14 was utilized. Results in the table 4 provided strong justification for hypothesis 2. The table 4 shows the indirect effect at lower level confidence interval and upper level confidence interval of .0884 and .3462, respectively. Both the ULCI and LLCI have same sign positive and there was no zero present between these two. Therefore, we conclude from here that mediation occurs. Hence, hypothesis 2 is supported.

Table 4. *Mediation Analysis*

IV	Effect of IV on M	Effect of M on DV	Direct effect	Total effect	Bootstrapping result for indirect effects	
					LL 95%	UL 95%
AL	.341***	.478***	.053	.217**	.0884	.3462

*N=327, IV Independent variable, M Mediator Variable, DV Dependent variable, LL Lower level confidence interval UL Upper level confidence interval ***p <.0000*

Table 5. *Moderation Analysis*

Variables	B	SE	T	P	LL 95% CI	UL 95% CI
Constant	2.93	0.213	13.73	.0000	2.515	3.356
Int_term (Inn*SE)	.316	.0543	5.826	.0000	.2097	.4234

N=327, p <.05

Moderation Analysis

Results in the table 5 provided strong justification for the hypothesis 3. The reason is the interaction term of "innovation and self-efficacy" moderates on the relationship of "project success" has the lower level and upper level confidence interval of 0.2097 and 0.4234, respectively; and both have the same sign and no zero is present. Moreover, the interaction term showed positive and significant regression coefficient (B=0.316, p<.05) means that self-efficacy moderates the link of innovation and self-efficacy such that higher self-efficacy increases the chances of project success. Therefore, we conclude that hypothesis 3 was supported for moderation.

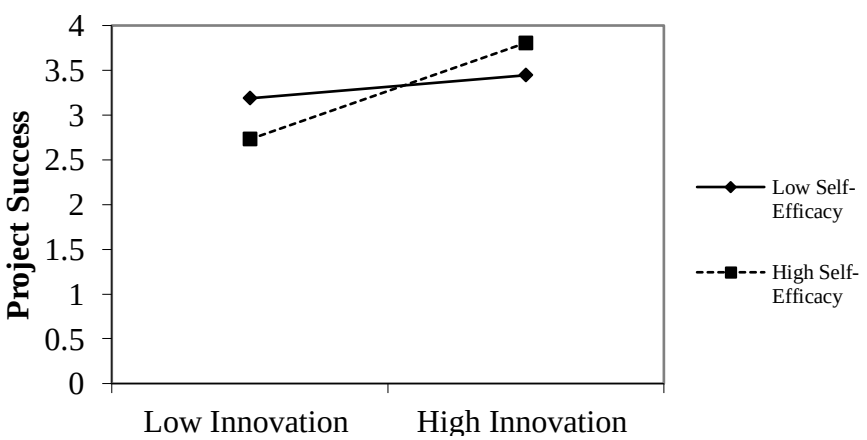

Figure 3: Interaction Graph

Simple slope was plotted for further evidence for moderation of self-efficacy. The slope demonstrates that the relationship between innovation and project success was stronger when

there is high self-efficacy. The figure indicated that when innovation and self-efficacy were high the chances of project success would be high and vice versa.

Mediated Moderation

Besides mediation and moderation regression analysis, full model analysis was also conducted (Bucy & Tao, 2007). As it states that self-efficacy will moderate the indirect effect of ambidextrous leadership on project success through innovation; the mediated relationship will be stronger when self-efficacy is high as opposed to low. Results in the table provided strong justification. The results from conditional indirect effects are shown in the table 6. As anticipated, the conditional indirect effects of ambidextrous leadership on project success via innovation become stronger at higher levels of self-efficacy and both upper level and lower level confidence interval have the same sign and the indirect effect was significant (B= 0.1032).

Table 6. *Mediated Moderation Model*

Mediator	Indirect effect	SE	Boot LL	Boot UL
Innovation	0.1032	0.0309	0.0504	0.1716

Discussion

As per the regression analysis, the first hypothesis had been accepted providing empirical proves that ambidextrous leadership has positive association with project success. The analysis results support the previous literature claim and provide further evidences of this relationship. For the projects to be successful, the leaders need to be ambidextrous by being explorative and exploitation according to the situation to meet challenges and overcome constraints. Leaders need to be explorative along with their team members when faced with complex environment so that they can come up with novel solutions and be exploitative when the environment is stable. As per the results, the correlation indicates that all the variables are positively and significantly correlated. These results are backed by literature. for example; it has been discussed in previous papers that exploitation and exploration are crucial for the long-run survival and success of firms (Cehn, 2017) and for the leaders to be effective, they need to adopt both of these leadership styles according to the required situation (Baškarada et al., 2017). Leaders should develop strategies that develop agility as well as rigor in projects to meet their goals (Lee et al., 2007).

Similarly, our second hypothesis has also been accepted. The analysis results support the previous literature claim by Rosing et al. (2011) that two complementary sets of opening and closing behaviors positively predict team innovation. By using these behaviors, the leader facilitates high levels of innovation among members (Rosing, 2015) and provides further evidences of a positive and a significant relationship of Innovation as a mediator. This particular research studied the mediating effect of the innovation between Ambidextrous Leader and Project success. The acceptance of mediation hypothesis solidifies the claim that ambidextrous leaders motivate and support employees to make an effort towards using innovation to come up with new and novel ideas for accomplishing tasks. Innovation is a requirement to get projects done as uniqueness is an inherent part of a project. When the leader and team members are innovative, they deal more capably with ambiguous situations and constraints. Hence through innovation, team members are able to achieve better outcomes. For innovation in project based organizations, innovative culture is necessary where everyone can give their innovative ideas independently when the project leader or team members face challenges.

The results supported the third hypothesis. Self-efficacy is strongly linked with innovation and project success. Self-efficacy strengthens the relationship between innovation and project success. Team members with high self-efficacy develop more innovative ideas and work outcome as compared to other team members who lack self-efficacy. Higher levels of self-efficacy enhance the creativity of the team member towards the achievement of project success (Mittal & Dhar, 2015). Innovative behavior in the organization increases the level of self-efficacy. The project manager should empower the project team members and also trust them. Due to empowering, self-efficacy of team members will increase and bring more innovative ideas to make the project successful. When manager empowers team member they will feel more confident in their own abilities, they are more likely to share their work and ideas when they feel their ideas and efforts

are respected and manager gives importance to their ideas. Project managers should develop the skills of their team members and make an effort to increase their self-efficacy for innovation.

The research on Ambidextrous Leadership and innovation is in initial stage. Ambidextrous Leadership is used as predictor particularly in the context of creative involvement, whereas, innovation is used as an employees' work outcome. Researchers stated that by using innovation, employees talk about new ideas, therefore they need high self-efficacy in showing innovation (Anderson, Potocnik, & Zhou, 2014). In addition, employees' high innovation shows more extra role behavior; therefore, they are more expected to perform well. These variables are studied in the literature; however they are not modeled together in a single conceptual framework. The present study is conducted to model these variables by investing how ambidextrous leadership affects project success with the mediating role of innovation and moderating role of self-efficacy.

The current study has several practical implications. It demonstrates that ambidextrous leadership improves project success. Therefore, it is suggested that project managers in different project based organizations should try to be ambidextrous and allow exploitation and exploration with their team members according to the situation. When the environment is unstable, the project managers allow the employees to exploit organizational assets and resources and when the organization is stable, they encourage the employees to explore and come up with new and unique ideas thus resulting in successful outcomes of a project. Successful implementation of project activities accordingly enables the organization to achieve the preferred objective of a particular project.

The current study proposes that managers of the project based organization must realize how to increase the self-efficacy of team members so that they bring innovative ideas for the project success. Managers can do this by empowering their subordinates by respecting their ideas and efforts. Therefore, employees can identify the consequences of their efforts and work on the success of different projects. Managers can also empower their employees by training to improve their skills which will enable them to perform their role more efficiently, effectively and confidently. They can also hire employees in the first place who have high self-efficacy.

Limitations and future directions

Future researchers can advance the model by checking other mediators like culture and global environment. They can also check other moderators like organizational social capital and personality traits. Secondly, the data were collected once. The future researchers can use time lag for data collection. Thirdly, the sample size for the study was 327 which are although sufficient, but a much larger sample size would further help solidify the study results. The larger the sample size of any research study, more it increases the validity and implications of the study. There are several different directions in which future researchers can go from here. By incorporating more relevant variables can really help elevate the already developed grounds for the research in this specific area. Adding more mediators of the Ambidextrous Leadership such as fairness perception and trust, etc. can provide more definite and enticing results.

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