Examining the Impact of Ethical Leadership on Teams Knowledge Sharing

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ABSTRACT

Purpose: This study aims to explore the relationship between the ethical leadership behavior of project managers working on the China Pakistan Economic Corridor (CPEC) and knowledge sharing in organizations, by relating Kant’s Ethical theory.

Design/Methodology/Approach: The study was quantitative in nature. Data was collected through survey method from 310 employees working on CPEC projects. Results showed the positive impact of ethical leadership of CPEC project managers on moral motivation, ethical culture, and knowledge sharing in project teams.

Findings: A very strong effect was observed with both mediators i-e; ethical culture of CPEC organization and moral motivation of project teams. Ethical Leadership of Project Managers working on the CPEC project in Pakistan significantly impact Knowledge Sharing in project teams.

Implications/Originality/Value: The most significant implication as the authors observed that presence of a mediating effects of the project team’s moral motivation for knowledge sharing and ethical culture of CPEC Organizations in a relationship between the project manager’s ethical leadership and the project team’s knowledge sharing. The highest impact on knowledge sharing is observed when both mediator’s, direct and indirect effects are tested in a relationship between project managers' ethical leadership and the project team’s knowledge sharing.

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Introduction
Success of the project is evaluated based on three main factors i.e duration, budget & scope. It has been seen in recent projects that the cost overrun in projects occur due to the transfer of irrelevant information during execution phase (Kovacs & Paganelli, 2003, cited by Al Nahyan et al, 2019). The execution of similar kind of projects under China Pakistan Economic Corridor (CPEC) in different departments is the same where some government agencies have deduced problem of corruption and unethical behavior of firms. Macro and meso risks (Yin & Ali, 2019) and scarcity of knowledge sharing (Green Book, 2019) are the second in line of blockages. Risks arising from turnover of stakeholders, interdicted demands of politician and sparse technical knowledge of local manpower, are the macro risks. Meso risks are cost related which comes from erroneous estimation, lack of communication and retarded processes (Yin & Ali, 2019). Utilization of humane behavior and its further enhancement in project execution environment is many times studied by researchers. (Agarwal & Kalmar, 2015). Numerous other studies highlight its importance linked to management areas and pointed out further research in high-minded inspiration which is deemed for the ethical leadership (Bavik, 2018).

The knowledge sharing across homogenous types of projects in an organization plays a vital role in streamlining the executions. Same is the case in CPEC where the projects of infrastructure development are of same type. From eastern point of view if the ethics in leadership are addressed than selflessness, encouragement, communal betterment and ethereal can be the main context driven themes (Shahab H, Zahur H, Akhtar N and Rashid S, 2021).

In recent years the study of ethics along with leadership has gained interest from both academia and practitioners due to the reason employees are losing trust on governance of their corporates. It has been observed that the Islamic ethical style of leadership can be effective for the employees (Halil, Ahmet 2021). A model of foundation leadership theory has observed that a manager who reckons the aforementioned can ameliorate its worker’s engagement thus increase the organizational commitment (Fuller, L. P. 2021).

Many challenges have been faced by Pakistan, but this CPEC program will give an exponential rise to the economics. The challenges in the proper delivery can be tackled in time by favorably sharing knowledge, minimizing the partial and full-length risks, ensure the project constraints be within the planning. Many administrative and ethical problems are found in CPEC projects whereas deadlines are overlooked, and behavior of Pakistani firms are also ignorant towards WEF, GCI ratings, effecting CPEC. Meso and Macro failure risk factors can also affect the success of CPEC. Sustainable development is ignored because of lack of organizational capacity and sharing knowledge.

Literature Review
Emerging trends in the field include organizational context and social impacts (Pollack & Adler, 2015). The interpersonal aspects of the project team and project manager in managing a project is very important. (Pollack & Adler, 2015).

Project Manager’s Leadership
Association for Project Management (APM) based in United Kingdom (UK) states that project manager manages the project on daily basis and is an expert in efficiently managing scope, expected monetary values, schedule, procurements, communication, activities, risk, quality, resources, and performance baselines of the project (APM, 2015).

Project Manager is a person who is in charge and held responsible for the overall success of the project and in charge of project planning, administration, and management as well. Project teams involved multidisciplinary members having different technical skills, competencies, and
knowledge. They work in different functional areas of the project. (Tonnquist, 2012). PMI writes that the Project manager must manage multidiscipline teams and influencing them to achieve multiple tasks (PMI, 2013).

**Ethical Leadership**
Ethical leadership can be defined as: “The demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making.” Tropp (2019)

**Characteristics of Ethical Leadership**
Ethical leadership has two dimensions of the moral manager and moral person. A moral manager works on the ethical behavior of his team by utilizing communication, reinforcement and evident actions, a moral person shows himself as an ethical person by his traits, behavior, and decision making (Voelpel, 2019).

**Ethical Leadership Practices**
Ethical leadership practices include mindfulness, engagement, authenticity, and sustainment. Activities related to mindfulness include strong observation, time for reflection, systematic thinking, dialogue, and questioning. (Marsh, 2012).

**Knowledge Sharing**
Project-based organizations defined as the process of capturing, sharing, developing, and using knowledge (Navimipour & Charband, 2016). Knowledge sharing can be defined as an action where one person's knowledge is ensured to be available for another person in an organization (Ipe, 2003; Bavik, 2018). Knowledge sharing provides constructive and practical recommendations and suggestions but by doing so, it challenges the status quo of the organization. A project team comprises of individuals and experts of different departments of project organization. They are tasked to work on the same project at the same time. (Navimipour & Charband, 2016).

**Knowledge Sharing Model for Project Organizations**
The basis of knowledge sharing model is the social constructivist theory. This model is made to construct knowledge effectually in project organizations. SYLLK Model aligns people in project organizations' i-e; the project teams and elements of project organizations to influence the organization's capacity to share knowledge by storytelling (Duffield & Whittey, 2016).

Unethical behavior in functional organizations violates either explicit or implicit knowledge, ultimately giving undesirable results to stakeholders (Bavik, 2018).

**Interpersonal Aspect of Project Manager’s Leadership and Knowledge Sharing in Project Organizations**
This interpersonal aspect is widened towards the entire project organization (Pollack & Adler, 2015). Ethical leadership through high conduct, personal actions, and exuberant interpersonal relations influence followers for two-way communication, decision making, and reinforcement. (Voelpel, 2019).

**Motivation of Project Team**
If motivation is made part of knowledge sharing processes, the probability of project success is increased (Ismail, Nor & Marjani, 2009). The motivation of knowledge sharer and knowledge recipient also plays a vital role in knowledge sharing activities (Zhang, 2015; Bavik, 2018).

**Ethical Culture**
Organizational culture captures the fundamental and very important norms, values, and original
expectations. These norms and values shape organizational behavior which influences the attitude of employees (Liu, 2017).

**Ethical Leadership and Ethical Culture**
Ethical leadership inspire an organization’s performance with ethical culture as a mediator (Eisenbeiss et al., 2015). Leadership influences the behavior of employees working in an organization, both positively and negatively (Preiss, 2019).

**Kants Ethical Theories**
**Aristotelian Virtue Ethics**
Aristotle believes that motivation emerges when people do good things that are ethically right. Virtuous people with rational and sensible thinking act morally. By doing this they follow their self-interest as well. (Bevan, Wolfe & Werhane, 2019).

**Kant as Ethics Officer**
Developing the Company’s Values and Principles Kant’s Officer creates a moral community. This community is based on rules and structures that support all stakeholders to act ethically (Bevan, Wolfe & Werhane, 2019).

**Moral Motivation, Ethical Leadership, Ethical Culture:**
Ethical perspective of study Kant ethics have been used for ethical leadership and moral motivation in corporate ethics programs. Kant's ethics support moral decision making and problem-solving by forming principles and rules by ethical leaders (Bevan, Wolfe & Werhane, 2019). This multicultural context is also applicable to CPEC, as CPEC involves employees, technicians, and workers from multi-cultural backgrounds within Pakistan and China.

**Figure 1: Theoretical Framework**

**Hypotheses**
Based on the above literature, the following hypotheses have been tested:
**Hypothesis 1:** Project Manager’s Ethical leadership is positively associated with the knowledge sharing of the project team.
**Hypothesis 2:** Project Manager’s Ethical leadership is positively associated with the Moral Motivation of Project Teams Working on CPEC.
**Hypothesis 3:** Project Manager’s Ethical leadership is positively associated with the Ethical Culture of CPEC Organization.
**Hypothesis 4:** The project team’s moral motivation for knowledge sharing mediates the positive
relationship between the project manager’s ethical leadership and the project team’s knowledge sharing.

**Hypothesis 5:** Ethical Culture in Project Management Organizations working on CPEC mediates the positive relationship between the project manager’s ethical leadership and the project team’s knowledge sharing.

**Hypothesis 6:** Project Team’s Moral Motivation for Knowledge Sharing and Ethical Culture in Project Management Organizations working on CPEC mediate the positive relationship between the project manager’s ethical leadership and the project team’s knowledge sharing.

**Methodology**

Survey research method used in this research for collecting the data and the unit of analysis of research are individual’s i.e., project team member. Social researchers usually explain characteristics of people individually, in a social group (Babbie, 2010).

**Sampling Technique**

In non-probability technique Purposive sampling is used for collecting data from heterogeneous sample. The target population for research is project management firms working on CEPC projects and organizations that can work with mixed industry to promote satellite clusters of SEZ and EZ. Pakistani and Chinese firms working on CPEC are scrutinized for this purpose. Detail of projects which are undertaken by Frontier Works Organization’s (FWO) and Pakistan Railways (PR) consultant firms are included in this research IT-related experts are working in CPEC with FWO and PR. Project team members of companies working on CPEC projects.

**Data Collection Instrument**

Demographic information from the respondents is collected like data regarding the gender, education levels, age of respondents, and experience. This will help in understanding the respondent’s background information.

Ethical leadership and knowledge sharing, both questionnaires are adapted from Bavik research, done in 2018. Ethical leadership has 10 items and knowledge sharing has five items. A moral motivation questionnaire is adapted from Burgwal’s research done in 2019, with six items. And ethical culture questionnaire is adapted from Amalina & Sulong research done in 2019, with 10 items. All questions are rated on a Likert scale of five points (1 = strongly disagree and 5=strongly agree). Genuine feedback was collected as the true opinion of respondents will benefit their organization and will also increase their knowledge about various aspects of the projects.

**Results And Interpretations:**

**Pilot Test**

A pilot-test is conducted to ascertain clarity of the instructions, questions, and scale -test is conducted on a similar category of people who will be cast-off in the actual data collection stage. (Pallant, 2011, p. 5). For the pilot test, the sample size is 20(n=20) to find out the loopholes and faults in the architecture of the survey instrument.

Reliability was estimated through Cronbach’s Alpha scores. The reliability test found that ELS (Ethical Leadership) and KS (Knowledge Sharing) and EC (Ethical Culture) and KS measures had a satisfactory score of more than α=.70 and less than α=.80. Whereas MM (Moral Motivation) and KS measure had an unsatisfactory score of more than α=.80. Validity established after pilot test.
Respondents Statistics

| Gender   | Frequency |
|----------|-----------|
| Male     | 345       |
| Female   | 77        |

| Age       | Frequency |
|-----------|-----------|
| 21-25     | 63        |
| 26-30     | 152       |
| 31-35     | 112       |
| 36 onwards| 104       |

| Experience| Frequency |
|-----------|-----------|
| 1-9       | 172       |
| 10-19     | 140       |
| 20-29     | 46        |
| 30 and above | 73 |

| Qualification | Frequency |
|---------------|-----------|
| Engineer/DAE/Arch/Tech | 194       |
| MBA            | 92        |
| BCS/Computer Software Engineer | 91       |
| Others         | 54        |

| Organization | Frequency |
|--------------|-----------|
| NESPAK      | 111       |
| FWO         | 103       |
| MM Pakistan | 55        |
| ATL         | 34        |
| Pak Railways| 9         |
| ACC         | 16        |
| NESCOM      | 103       |

Descriptive Statistics

Data analysis starts by checking the mean, median, standard deviation, etc. Unfamiliar observations (outliers) or any unusual patterns that source problems for later analyses are examined (Landau & Everitt, 2004, p. 38).

Table 1 Descriptive Statistics

|        | N  | Minimum | Maximum | Mean   | Std. Deviation | Variance |
|--------|----|---------|---------|--------|----------------|----------|
| M_ELS | 431| 2.20    | 5.00    | 3.7919 | .59930         | .359     |
| M_EC  | 431| 1.40    | 5.00    | 3.5777 | .66561         | .443     |
| M_MM  | 431| 2.83    | 5.00    | 3.9465 | .51573         | .266     |
| M_KS  | 431| 2.20    | 5.00    | 3.6158 | .62038         | .385     |
| Valid N (listwise)431 | | | | |

Table shows that all four variables’ ELS, EC, MM, and KS minimum value is 1.4 and the maximum value is 5. The mean of all four variables is above 3.5. This means respondents replied between neutral, agree, and strongly agree.

Confirmatory Factor Analysis (CFA)

In SEM, CFA is steered to examine how precise the variables denote the construct, thus gives model validity. It permits us to proceed with further tests with the model as shown in table 2.
Table 2

| Construct Items | Factor Loadings |
|----------------|-----------------|
| ELS1           | 0.566           |
| ELS2           | 0.519           |
| ELS3           | 0.510           |
| ELS4           | 0.696           |
| ELS5           | 0.647           |
| ELS6           | 0.659           |
| ELS7           | 0.640           |
| ELS8           | 0.638           |
| ELS9           | 0.623           |
| ELS10          | 0.555           |
| MM1            | 0.502           |
| MM2            | 0.574           |
| MM3            | 0.534           |
| MM4            | 0.631           |
| MM5            | 0.646           |
| MM6            | 0.548           |
| EC1            | 0.654           |
| EC2            | 0.549           |
| EC3            | 0.571           |
| EC4            | 0.638           |
| EC5            | 0.626           |
| KS1            | 0.584           |
| KS2            | 0.667           |
| KS3            | 0.656           |
| KS4            | 0.651           |
| KS5            | 0.593           |

Convergent Validity and Average Variance Extracted (AVE)

Convergent validity is proven when all the items in a construct unite or share a high quantity of variance commonly (Hair, 2014, p. 617). Indicator of convergent validity is the Average Variance Extracted (AVE) value. Convergent validity is established when AVE is more than 0.50 or 0.50 (Civelek, 2018, p. 40; Hair, 2014, p.619).

Construct Reliability (CR)

CR is defined as the internal consistency of the measured variables, CR value 0.7 or higher suggests good reliability. The acceptable range is between 0.6 and 0.7 (Hair, 2014, p. 619).

Table 3

| Construct | CR  | AVR | Sq Rt(AVR) |
|-----------|-----|-----|------------|
| ELS       | 0.85| 3.66| 1.91       |
Face Validity and Discriminant Validity
Discriminant validity is defined as the degree or level to which different construct of the study differs from one another (Hair, 2014, p. 619). For discriminant validity, variance extracted estimates should be greater than the squared correlation estimate (Hair, 2014, p. 619). Discriminant validity is also established as the square root of AVR in table 3 is greater than the correlation between variables in table 4.

|     | MM     | EC     | KS     |
|-----|--------|--------|--------|
|     | 0.86   | 0.65   | 0.8    |
|     | 0.94   | 0.68   | 0.82   |
|     | 0.94   | 1.86   | 1.36   |

Construct Validity
Construct validity gives the degree to which the variables represent the theoretical construct which it was designed to measure (Hair, 2014, p. 601). In the structural equation modeling (SEM) method, construct validity is calculated by meeting standards of the following:

Confirmatory factor analysis (CFA). Standardized loading estimates should be 0.5 or higher, and ideally 0.7 or higher

Construct validity of the constructs is also established as all factor loadings are above 0.5 with good convergent validity, construct reliability, and discriminant validity.

Measurement Model Validity
CFA’s eventual objective is to acquire an assurance that the model being tested is valid. CFA offers added investigative information. This information may suggest modifications for either addressing unanswered problems or refining the model’s test of measurement theory (Hair, 2014, p. 620). Table shows the goodness of the fit summary of CFA, proving the research model to be valid. And it supports that the data is well fitted to the model.

| Fit Indices | Fit Values | Model Fit Values | Fit |
|-------------|------------|------------------|-----|
| CFI         | 0-1        | 0.889            | Good fit |
| TLI         | 0-1        | 0.867            | Good fit |
| RMESA       | 0.05 or less | 0.05           | Good fit |
| CMIN/DF     | 1-5        | 2.3143           | Good fit |

Path Analysis
For multiple regression, path analysis is used to test causal models. Path analysis gives a hypothesized structure of cause-and-effect connections. To test the study model, SEM method was used. The software used for the study is AMOS 24.

Assessment of Structural Model Validity
The CFA gives the validity of the constructs to their indicators (Hair, 2014, p. 588). Rule of thumb
for fit indices selected to test the structural model are:
- One absolute fit index (i.e., GFI, RMSEA, or SRMR).
- One incremental fit index (i.e., CFI or TLI).
- One goodness-of-fit index (GFI, CFI, TLI, etc.).
- One badness-of-fit index (RMSEA, SRMR, etc.) (Hair, 2014, p. 589).

Three models are tested. Model A has moral motivation as a mediator in a relationship between ethical leadership and knowledge sharing. Model B has ethical culture as a mediator in a relationship between ethical leadership and knowledge sharing, Model C has the moral motivation and ethical culture as mediators in a relationship between ethical leadership and knowledge sharing. In reviewing these fit indices of Model, A, B, and C, Table 6 shows that the hypothesized causal model derived from concepts and then with the theory is well-fitting for Model C, as indicated by a CFI, TLI, RMSEA and CMIN/ DF, which is in the suggested range of acceptability (Byrne, 2010, p. 176). Model A and B are rejected.

| Table 6 | Model | Fit Indices | Fit Values Criteria | Model Fit Values | Fit | Accepted/ Rejected |
|---------|-------|-------------|---------------------|------------------|-----|-------------------|
| A (MM as a mediator between ELS and KS) | CFI | 0-1 | 1 | Good fit | Rejected |
| TLI | 0-1 | 0 | Good fit |
| RMESA | 0.05 or less | 0.544 | Bad Fit |
| CMIN/ DF | 1-5 | 77.668 | Bad Fit |
| B (EC as a mediator between ELS and KS) | CFI | 0-1 | 1 | Good fit | Rejected |
| TLI | 0-1 | 0 | Good fit |
| RMESA | 0.05 or less | 0.549 | Bad Fit |
| CMIN/ DF | 1-5 | 0 | Bad Fit |
| C (MM and EC as mediators between ELS and KS) | CFI | 0-1 | 0.998 | Good fit | Accepted |
| TLI | 0-1 | 0.990 | Good fit |
| RMESA | 0.05 or less | 0.047 | Good fit |
| CMIN/ DF | 1-5 | 1.58 | Good fit |

The Causality of Research Model
The results of Table 6 shows that covariance between predictor(cause) and the predicted(effect) variables. The sequence is also established, as each cause proceeds with the effect in time. Figure 2 also gives evidence of non-spurious association exists between the cause and effect i-e: mediators. Result of table 6 and figure the 2, report critical ratio, regression estimates, regression path, and significance values of model C.
Hypothesis Testing
Hypothesis 1
The results show positive and significant influence of ethical leadership on knowledge sharing ($\beta=0.337$, $P<0.001$). It proves that ethical leadership rises knowledge sharing by 33.73%. The critical ratio (CR=5.301) reveals the ethical leadership of the project manager is reflected as a significant determinant of knowledge sharing in organizations working on CPEC. Thus, hypothesis 1 is supported.

Hypothesis 2
The result indicates the positive and significant influence of ethical leadership on moral motivation ($\beta=0.532$, $P<0.001$). It demonstrates that ethical leadership rises moral motivation by 53.243%. The critical ratio (CR=11.92) reveals that the ethical leadership of the project manager is reflected as a significant determinant of moral motivation in project teams working on CPEC. Thus, hypothesis 2 is supported.

Hypothesis 3
The results indicate the positive and significant influence of ethical leadership on Ethical Culture ($\beta=0.552$, $P<0.001$). It proves that ethical leadership rises Ethical Culture by 55.27%. The critical ratio (CR=9.76) reveals that the ethical leadership of the project manager is reflected as a significant determinant of Ethical Culture in organizations working on CPEC. Thus, hypothesis 3 is supported.
Hypothesis 4
To investigate the mediating role of the project team’s moral motivation, the model validity of the association between Project Manager’s Ethical Leadership and Project Team’s Knowledge Sharing was analyzed first, which is not sustained. Hence, hypothesis 4 is rejected.

Hypothesis 5
To investigate the mediating role of the project organization’s ethical culture, the model validity of the association between Project Manager’s Ethical Leadership and Project Team’s Knowledge Sharing was analyzed first, which is not sustained. Hence, hypothesis 5 is also rejected.

Hypothesis 6
Results of hypothesis 6 shows the standardized total effect on Project Team’s Knowledge Sharing is $\beta = 0.597$ at $p < 0.01$ (Schumacher & Lomax, 2010, p. 151). Partial mediation of both moral motivation for knowledge sharing and ethical culture of project management organizations working on CPEC is observed hence, hypothesis 6 is strongly supported.

Results and Discussion
Ethical Leadership of Project Managers working on the CPEC project in Pakistan significantly impact Knowledge Sharing in project teams. This finding is consistent with the findings of Bavik (Bavik, 2018). Ethical leadership of Project Manager also significantly impacts moral motivation (finding is consistent with the results of Khan, Bauman & Javed, 2020).

The most significant result is the mediating effects of the project team’s moral motivation for knowledge sharing and ethical culture of CPEC Organizations in a relationship between the project manager’s ethical leadership and the project team’s knowledge sharing. The highest impact on knowledge sharing is observed when both mediator’s, direct and indirect effects are tested in a relationship between project managers' ethical leadership and the project team’s knowledge sharing.

IPRI reports corruption and administrative problems in CPEC projects, but CPEC Project Managers through ethical leadership can control these problems. CPEC Project Manager with ethical leadership will be a moral manager and a moral person (Treviño et al., 2003; Voelpel, 2019).

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