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Manuscript Information
Submission Date: May 12, 2020
Publication Date: February 28, 2021
Conflict of Interest: None
Supplementary Material: No supplementary material is associated with the article
Funding: This research received no external funding
Acknowledgment: No additional support is provided

Citation in APA Style: Ahmed, M., & Habib, R. (2021). The Role of Top Management as a Moderator on Project Success during Project Life Cycle. Journal of Quantitative Methods, 5(1), 111-135.

The online version of this manuscript can be found at https://ojs.umt.edu.pk/index.php/jqm/article/view/401
DOI: https://doi.org/10.29145/2021/jqm/050105

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Received: May 12, 2020, Last Revised: Jan 24, 2021, Accepted: Feb 28, 2021

Abstract

The paper identifies the role of top management as a moderator during planning, monitoring, controlling, and evaluation phases for the success of a project. This study also discusses the novelties of the coordination between role of top management and legitimate power of project manager as significant impact on project performance and success during project life cycle phases. The instrument is adapted to measure planning, monitoring, controlling, evaluation, the role of project manager, project performance, project success, and the role of top management. Managers are targeted for data collection from the construction sector, education sector, and IT sector for the analysis. The findings show that coordination between variables as well as the role of a project manager is like a bridge between top management and other team members in four phases of project life cycle (planning, monitoring, controlling, and evaluation) for ultimate success. This study has a significant advantage for the organization and industries before implementing any project as it will be helpful for the top management to give authority and responsibility to the project managers while considering the scope of the project. For academia, this study helps to enhance the knowledge area of project management by introducing coordination management while discussing the other knowledge areas of project management.

Keywords: project planning, project monitoring, project controlling, project evaluation, role of project manager, project performance, project success.

Jell Classification: H43; O22

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1. Introduction

Project management is splendidly shining on the face of globe and appended to itself in all fields of life as it has evolved a prestigious topic for business, public institutions, science, and management (Bannerman, 2008; Morris, et al., 2006; Wastian, et al., 2014). It not only tells the feasibility of project but also states the scope of the project (Archibald, et al., 2012). This study extended the research of project life cycle theory by introducing the evaluation in the execution phase (monitoring & controlling) with side by side evaluation by the project manager and taking instant actions which facilitate to run the project in a better way. Furthermore, project manager has been neglected in the process of performance evaluation (Wastian, et al., 2014). Therefore, firstly in this study, role of project manager has been shown in evaluation during monitoring and controlling. Secondly this study showed the significant impact of personal factor in the domain of planning, monitoring, and controlling of project life cycle with integrating skill and knowledge of these phases.

(Solga, et al., 2015) described political behavior which can help project manager’s to behave skillfully and competently based on their power to achieve the goals for performing tasks. Hence, project manager has responsibility to achieve tasks as personal factor in project life cycle phases. Top management has a power to influence on the development of team, gives formal power to leader, and controls them. Project manager needs support from top management for some actions and decisions. Furthermore, he/she becomes helpless especially in large organization without the support of top management for high decisions.

2. Literature Review

Success is a word that has different meanings for different individuals at one time within a project (Blaikie, et al., 2014; Williams, et al., 2015) as the ultimate goal of project management is to earn success. After the signing off the project, its delivery is important to the customers within the ironic triangle (cost, time, quality) (Pinto & Prescott, 1988; Shenhar & Dvir, 2007). The project manager is an important variable and has leading role over project success and personal factor which is not included as an independent variable in this theory (Belout & Gauvreau, 2004). Project manager has a power of doing work within the processes & procedures of the organization. Moreover, project manager is
responsible to keep the client in touch during execution of the project and establish the good relation with them for future (Anderson, et al., 2015).

Project manager can obtain project success with the help of work break down structure (WBS) and good evaluation as it possesses strong relationship between team members, planning, controlling, and project success (Thomas, Jet al., 2008). Project manager gives direction and clarification for any confusion to team members and controls the project and completes it according to the plan (Thomas et al., 2008). Proper planning, estimation, team skill, leadership, and involvement of the user is the main characteristics of the project success (Attarzadeh & Ow, 2008). Likewise, it was found that user involvement, good planning, and estimation, good leadership, and technical skill of team members are the three main important factors for project success (Attarzadeh & Ow, 2008).

Organizational structure also influence on project success (Petro & Gardiner, 2015). For the portfolio success, project manager has a great impact on success of any organizational structure with involvement in steering committee as moderator also effect portfolio success (Petro & Gardiner, 2015). The project efficiency, business success, customer satisfaction, and future preparation are the main dimensions for the project success (Bannerman, 2008; Shenhar, et al., 1997). Project managers attach with the organization’s strategy and goals of the organization for long term. The project performance and project success is different for short projects and for long projects (Zwikael & Unger-Avim, 2010). Likewise, top management also adds more information to our understanding and supports in the new product development (Bonner, et al., 2002).

Portfolio management distributes the authorities to the managers for running the projects with selection of new managers. Likewise, power re-distribution also affects the success in portfolio management. Top management also mediates the effect on mimetic pressure, coercive pressure, and normative pressure during institutional burdens. In addition, institutional pressure is important to adopt the IT implementation, contribute post implementation adaptation, prolonged process, dynamic outcomes, and uncertain situation (Liang, et al., 2007). Similarly, virtuous square which added customer satisfaction in
ironic triangle (cost, time, quality) is also main ingredients of project management (Williams et al., 2015). While on contrary, for the management of different stakeholders, a proper responsible and authorized leadership is needed.

3. Theoretical framework and hypotheses

Project life cycle is a basic constituent of project management for having knowledge and skill in each domain. The life cycle is the only thing that uniquely distinguishes projects from non-projects stated by Patel and Morris (1999). It is the backbone of project management and help in getting project success step by step (Pinto & Prescott, 1988) and same researcher also proved that there is least impact of personal factor on project success. But on contrary, (Belout & Gauvreau, 2004) proved that personal factor strongly influences project success with moderator effect of project structure. So the factor of organizational structure has positive impact on project success (Belout & Gauvreau, 2004; Petro & Gardiner, 2015).

There is not robust relationship between the project management process, procedures, and project success but these are highly correlated with technical specifications and requirements (Ruiz-Martin & Poza, 2015). Project planning is a critical and challenging phase of project management in which manager has to put more efforts to combine all the interdependency activities ((Ruiz-Martin & Poza, 2015). Project performance and project success not only depends upon central role of project manager as a personal factor but they also need the involvement of top management for timely resolve of the issues during the process of completing the project.
HA1: Planning, monitoring, controlling, evaluation and project manager affect the project performance.

HA2: Top management moderately affects the project performance in planning, monitoring, controlling, and evaluating with the coordination of project manager.

HB1: Planning, monitoring, controlling, evaluation, and project manager affect the project success.

HB2: Top management moderately affects the project success in planning, monitoring, controlling, and evaluating with the coordination of project manager.

Impact of planning on project performance and project success with the moderator role of top management

There is a productive liaison between planning and project success (Pinto & Prescott, 1988) with practices of project management, related requirements, and technical specification that are the three main aspects of project planning which leads the project successfully (Souffront, 2011). Proper planning is the process of proper thinking (Mintzberg, 2000) hence, it is a decision making procedure which gives the answers i.e. What, How, When and Who. When the activities will be done at what time and what cost? Who is going to conduct?
H1a: Planning positively affects the project performance contained by ironic triangle.

H1b: Planning is positively effects the project success contained by ironic triangle.

H1c: Top management moderates the effects between planning and project performance.

H1d: Top management moderates the effects between planning and project success.

**Impact of monitoring on project performance and project success with the moderator role of top management**

The effect of project cost and time monitoring on progress of construction project is more important for significant success of the project. Moreover, it was emphasized on the usefulness of monitoring and controlling project management especially in construction project. An effective project performance control cannot be achieved only by monitoring the cost and time for actual and planned values but other issues should also be monitored. Abeid, et al. (2003) explained the execution of a programmed real-time monitoring system for construction projects as top management is also benefited by this system (Cheung, et al., 2004). In addition, project monitoring and evaluation has significant impact on project performance and project success as proved by (Mahaney & Lederer, 2010).
**H2a**: Project monitoring has positive impact on project performance.

**H2b**: Project monitoring has positive impact on project success.

**H2c**: Top management moderates the effect of monitoring on project performance.

**H2d**: Top management moderates the effect of monitoring on project success.

**Impact of controlling on project performance and project success with the moderator role of top management**

(Packendorff, 1995) identified that project organization and follow up plan are the two areas that need project control. Similarly, project control measures progress towards objective, monitor’s deviation from the plan, corrective action to match progress, and the active participation of project manager (Schwalbe, 2015). Top management brings new ideas for the organization as they understand the market strategy, process the new ideas, and action plans to be taken (Robert, 1991). Likewise, (Bonner, et al., 2002) conducted a study and they proved that there is a great stimulus by top management on project performance while adopting a new product or to follow the formal process for development. Controlling is main aspect of management process that has a bird eye view on individuals get the organization’s aim. It is difficult for the top management to look after the system for overall activities. Top-down and bottom-up control approaches are used to control the activities for good performance (Colin & Vanhoucke, 2015). There are many controlling techniques used in
(Colin et al., 2014) study for project cost control on theoretical basis like Earned Value Analysis (EVA) with its three D method.

**H3a:** Project controlling has a positive impact over project performance.

**H3b:** Project controlling has a positive impact over project performance project success.

**H3c:** Top management moderates the effect between controlling and project performance.

**H3d:** Top management moderates the effect between controlling and project success.

**Impact of evaluation on project performance and project success with the moderator role of top management**

The ultimate goal of project management is to achieve the target with positive evaluation. Evaluation is a term that justifies the whole project in a single snap shot either the project is completed within all good perspective or failures. Similarly, efficiency, effectiveness, sustainability, impact, and relevance are the five dimensions with the strategic level, tactical level, and operational level that showed the holistic view for the structure of the project evaluation (Zidane, et al., 2013). IT evaluation is considered to be the best management practice of construction SMEs as it gives a strong base to implement the proper IT investment. The evaluation concludes the contributory association between project process, outcome, and impact as evaluation is an essential phase to check oneself and the current performance of the
project or organization commitment. But in current study the concept of evaluation is to check the project performance side by side with the planning and to understand the flaws for inefficient progress of the project and correction according to the plan. Moreover, project manager evaluates the project periodically to check the performance and consult to the top management for improving the process of completion of the project. The time spam of evaluation depends upon the nature of project whether it is a shorter or long term project. It also guides when the evaluation should be conducted, either weekly or monthly as the top management is also influenced by the evaluation.

**H4a**: Evaluation has a positive impact on project performance.

**H4b**: Evaluation has a positive impact on project success.

**H4c**: Top Management moderates the effect of evaluation on project performance.

**H4d**: Top Management moderates the effect of evaluation on project success.

**Impact of project manager on project performance and project success with the Moderator role of top management**

Lovell (1993) described that the project manager achieve success by using his/her power and political strategies and relationships with project stakeholders. According to Lovell Project managers use their power to deal upward and sideways, and downward situations. (Callon & Blackwell, 2007) described actor–network theory which involves the steps from problem definition, negotiation, and control of the activities
by the manager. Actor-network theory helps to take decision in more modified and enhanced way rather than personal decision making process. Likewise, (Turner, 1999) suggested 4 styles for leadership which are if adopted by project manager can give good results like laissez-Faire, democratic, autocratic, and bureaucratic. There is a Path-Goal theory which is contingency theory present the idea that a leader must help the team to find or track the path which leads them towards the achievements of their goal. Project information system helps the project manager in achieving their managerial tasks for better planning, monitoring, and controlling (Raymond & Bergeron, 2008). Competency of manager also means that how he/she behaves with the team members and the subordinates either positively or negatively specially in construction sector (Sommerville, at al., 2010).

![Diagram](image)

**Figure 6: Impact of Role of Project Manager**

**H5a**: Leading role of project manager affects the project performance.

**H5b**: Leading role of project manager affects the project performance.

**H5c**: Top management moderates the relationship between the project manager and project performance.

**H5d**: Top management moderates the relationship between the project manager and project success.

### 4. Methodology and Sampling

Current study used descriptive research design with Likert scale to measure the responses of variables. Project managers, top management, middle managers, supervisors, and concerned team members were the
The Role of Top Management as a Moderator

targeted population for study. Furthermore, it is based on stratified random sampling (Sekaran & Bougie, 2003) with data collection from construction, IT, and education sector. In addition, 750 people were approached for the data collection through email survey out of 3,000 targeted populations from three sectors. Consequently, 183 responses were received with all completed information hence; these responses were used for analysis. The survey was conducted in two steps; firstly the data was collected through questionnaire from the concerned team members, top level management, and the project managers. Secondly web based data was collected by getting the questionnaire filled in by managers.

5. Results and Discussion

5.1 Respondent’s demographics

Following are the respondent’s demographics from IT, education and construction sectors with variables of sex, education, designation, PM certification, organization, age and experience.

Table: 1 Respondents Data

| Demographic variables | Categories       | Responses | Response rate % | Mean  | S.D.  |
|----------------------|------------------|-----------|-----------------|-------|-------|
| Gender               | Male             | 136       | 26%             | 0.7   | .438  |
|                      | Female           | 47        | 74%             |       |       |
|                      | Bachelors        | 17        | 9.2%            |       |       |
| Education            | Master           | 101       | 54.9%           | 2.29  | .679  |
|                      | M-Phil           | 59        | 32.1%           |       |       |
|                      | PhD              | 06        | 3.3%            |       |       |
|                      | Manager          | 24        | 13%             |       |       |
|                      | Middle Manager   | 57        | 31%             |       |       |
| Designation          | Supervisor       | 28        | 15%             | 3.18  | 1.511 |
|                      | Director         | 09        | 05%             |       |       |
|                      | Project Manager  | 65        | 35%             |       |       |
| PM Certification     | No               | 114       | 62%             | 0.378 | 0.486 |
|                      | Yes              | 69        | 38%             |       |       |
|                      | IT Sector        | 29        | 15.8%           |       |       |
| Organization         | Construction     | 52        | 28%             | 2.535 | 1.170 |
|                      | Education        | 45        | 24.5%           |       |       |
|                      | Others           | 57        | 31%             |       |       |
|                      | 25-35 Years      | 83        | 45%             | 1.57  |       |
| Age                  | 36-45 Years      | 95        | 51.6%           |       | .548  |
| Experience  | People | Percentage | t | p-value |
|-------------|--------|------------|---|---------|
| <5 Years    | 81     | 44%        |   |         |
| 6 – 10 Years| 79     | 43%        | 1.75| .883   |
| 11 – 15 Years| 15   | 08%        |   |         |
| 16-20 Years | 03     | 1.6%       |   |         |
| >20 Years   | 05     | 2.7%       |   |         |
| Total       | 183    |            |   |         |

5.2. Reliability of variables

Table 3: Correlation between variables

| Variables | Planning | Monitoring | Controlling | Evaluation | Project Manager | Top Management | Performance | Success |
|-----------|----------|------------|-------------|------------|-----------------|---------------|------------|---------|
| Planning  | 1        | .674**     | .821**      | .749**     | .757**          | .428**        | .698**     | .422**  |
| Monitoring|          | .674**     | 1           | .720**     | .575**          | .464**        | .824**     | .424**  |
| Controlling|         | .821**     | .732**      | .500**     | .405**          | .361**        | .611**     | .353*   |
| Evaluation|          | .749**     | .720**      | .500**     | .935**          | .583**        | .917**     | .623**  |
| Project Manager| | .757**     | .575**      | .405**     |                 | .583**        | .809**     | .584**  |
| Top Management| | .428**     | .464**      | .361**     | .935**          | .583**        | .592**     | .601**  |
| Performance| | .698**     | .824**      | .611**     | .917**          |                | .635**     |         |
| Success   | .422**   | .424**     | .353*       | .623**     | .584**          | .601**        |            |         |

Significance at p<0.001

5.4. Main model description

Table 4 showed the impact of planning, monitoring, controlling, evaluation and project manager on performance and project success with the moderator (role of top management). The result showed the values of R=0.956 and F (5,177) = 373.618 significance at p<0.00. So, **HA1** accepted that performance is strongly influenced by monitoring, controlling, planning, evaluation and project manager.
### Table 4: Independent variables and its impact on project performance and success (main model)

|                | Performance |   |   |   |   |   |   |   |   |   |   |   |
|----------------|-------------|---|---|---|---|---|---|---|---|---|---|---|
|                | R           | R²| F  | P | R | R²| F  | P |   |   |   |   |
| Independent    | 0.95        |   | 406| .000 | 0.68  |   | 30.4 | .000 |   |   |   |   |
| Variables       |             |   | 902| .000 | 0    |   | 35  | .000 |   |   |   |   |
| Ind. Variables,| 9           |   | 338| .71  | 31.1 |   |   |   |   |   |   |   |
| Top Management  | 0.01        |   | 120| 7   | 14  |   |   |   |   |   |   |   |
|                | 0.95        |   | 209| 0.80 | 29.4 |   |   |   |   |   |   |   |
|                |             |   | 204| 9   | 80  |   |   |   |   |   |   |   |

Significance at p<0.001, p<0.005

**Hₐ** accepted the values of R=0.965 and F (5,177) = 209.204 significance at p<.001 showed that all independent variables have significant impact with moderator variable on performance. Before applying the moderation effect some checks are important to check the suitability of data for moderating variable. Firstly measurement of dependent variables on continuous scale, second needs linear relationship between the variables, thirdly, data should be homoscedasticity between the variables. In homoscedasticity variance error should be same for all the independent and moderator variables. Fourthly there should not be multicollinearity. Multicollinearity also checked as tolerance level of all variables greater than 0.2 and VIF (variance inflation factor) is less than 10. This result showed that there is no multicollinearity in the data. So, the data is acceptable for
moderation effect. HB1 and HB2 are also accepted to have a significant impact on project success and the moderator effect of top management. The “R square” change by 14% after the interaction of top management success increased by the 14%. This moderation is significant at the level of p< .001.

5.5. Influence of Planning on Performance & Success with Moderator: (H1a, H1b, H1c, H1d)

Table 5: Impact of planning on Performance and success

| Performance | Success |
|-------------|---------|
| R | R² | F  | P | R | R² | F | P |
| Planning | 0.69 | 5 | 0.000 | 0.42 | 2 | 0.000 | 0.62 | 3 | 9 |
| Planning, Top Management | 0.77 | 3 | 0.000 | 0.62 | 8 | 4 |
| Planning, Top Management, Moderator | 0.80 | 4 | 0.000 | 0.69 | 1 | 0.082 | 28.22 | 0.00 |

Significance at p<0.001, p<0.005

Table 5 showed the impact of planning on performance and success with the moderator (role of top management). H1a accepted that planning has positively impact on project performance. The result was significant at [F (1,181) =171.95, p<0.001] with R=0.698. H1c also accepted that top management positively moderate the relationship of project performance and planning at [F (2,179) =25.474, p<0.001]. The value of R=0.770 change to R= 0.802 showed that 5.1% increase in performance after the involvement of top management. H1b accepted that role of planning has positively impact on project success. The value of [F (1,181) =39.319, p<0.001] with R=0.422. H1d also accepted at [F (2,179) =28.220, p<0.001] that top management moderate the relation of project success and planning and it’s positively
impact on project success. The value of $R=0.628$ change to $R=0.691$ showed 8.2% positively impact of moderation on project success.

5.6. Influence of Monitoring on Performance & Success with moderator: (H2a, H2b, H2c, H2d)

Table 6: Impact of monitoring on Performance and success

| Performance | Success |
|-------------|---------|
| $R$         | $R^2$   | $F$ | $P$ | $R$ | $R^2$ | $F$ | $P$ |
| Monitorin   | 0.8     | 24  | 382.3 | .00 | 0.4 | 39.7 | .00 |
| g           | 0.8     | 57  | 249.5 | .00 | 0.6 | 57.0 | .00 |
| Monitoring, | 0.8     | 59  | 167.7 | .17 | 0.6 | 53.0 | .00 |
| Top         | 0.8     | 59  | 167.7 | .17 | 0.6 | 53.0 | .00 |
| Management  |         |     |       |     |     |      |     |
| Importance  |         |     |       |     |     |      |     |
| Moderator   |         |     |       |     |     |      |     |

Significance at $p<0.001$, $p<0.005$

Table 6 showed the impact of monitoring on performance and success with the moderator (top management). H2a accepted that monitoring has positively impact on project performance. The result was significant at $[F (1,181)=382.385, p<0.001]$ with $R=0.824$. H2c rejected that top management has not moderate the relationship of project performance and monitoring at $[F (2,179)=167.762, p>0.001]$. H2b accepted that role of monitoring has positively impact on project success. The value of $[F (1,181)=39.756, p<0.001]$ with $R=0.424$. H2d also accepted at $[F (2,179)=53.050, p<0.001]$ that top management moderate the relation of project success while monitoring.
The value of $R=0.623$ change to $R=0.686$ showed 8.3% positively impact of moderation on project success.

5.7. Influence of Controlling on Performance & Success with moderator: (H3a, H3b, H3c, H3d)

Table 7: Impact of Controlling on Performance and Success

|                  | $R$  | $R^2$ Change | $F$ | $P$ | $R$  | $R^2$ Change | $F$ | $P$ |
|------------------|------|--------------|-----|-----|------|--------------|-----|-----|
| Controlling      | 0.61 | ------       | 108.10 | .00 | 0.35 | ------       | 25.77 | .00 |
| Controlling, Top | 0.73 | ------       | 102.64 | .00 | 0.61 | ------       | 55.70 | .00 |
| Manageme nt      |      |              | 1    | 0   | 8    | -            | 2    | 0   |
| Controlling, Top | 0.76 | 0.046        | 81.932 | .00 | 0.73 | 0.162        | 71.10 | .00 |
| Manageme nt,     |      |              | 1    | 0   | 8    | 3            | 0    |     |
| Moderator        |      |              |      |     |      |              |      |     |

Significance at p<0.001, p<.005

Table 7 showed the impact of controlling on performance and success with the moderator (role of top management). H3a accepted that controlling has positively impact on project performance. The result was significant at $[F (1,181)=108.103, \ p<0.001]$ with $R=0.611$. H3c also accepted that top management positively moderate the relationship of project performance and controlling at $[F (2,179) =81.932, \ p<0.001]$. The value of $R=0.730$ change to $R=0.761$ showed that 4.6% increase in performance after the involvement of top management. H3b accepted that role of controlling has positively impact on project success. The value of $[F (1,181) =25.77, \ p<0.001]$ with $R=0.353$. H3d also accepted at $[F (2,179) =57.499, \ p<0.001]$ that
top management moderate the relation of project success and role of project manager and it’s positively impact on project success. The value of $R=0.666$ change to $R=0.701$ showed 4.7% positively impact of moderation on project success.

5.7. Influence of Evaluation on Performance & Success with moderator: (H4a, H4b, H4c, H4d)

Table 8: Impact of Evaluation on Performance and Success

| Evaluation       | 0.917 | 952.7 | .0 | 0.6 | 114.8 | .0 |
|------------------|-------|-------|----|-----|-------|----|
| Evaluation, Top Management | 0.919 | 492.3 | 0 | 0.6 | 81.03 | .0 |
| Evaluation, Top Management, Moderator | 0.933 | 0.02 | 401.9 | 0 | 0.7 | 2 |
|                  | 5     | 02    | 00 | 18  | 6     | 00 |

Significance at $p<0.001$, $p<.005$

Table 8 showed the impact of evaluation on performance and success with the moderator (role of top management). H4a accepted that evaluation has positively impact on project performance. The result was significant at $[F (1,181)=952.776, p<0.001]$ with $R=0.917$. H4c also accepted that top management positively moderate the relationship of project performance and evaluation at $[F (1,179) =492.381, p<0.001]$. The value of $R=0.919$ change to $R= 0.933$. H4b accepted that evaluation has positively impact on project success. The result was significant at $[F (1,181) =114.892, p<0.001]$ with $R=0.623$. H4d also accepted that top management moderate the relation of evaluation and project success at $[F (2,179) =63.656, p<0.001]$. The value of $R=0.688$ change to $R= 0.718$ showed the 4.2% increase in success after the involvement of top management.

5.8. Influence of Project Manager on Performance & Success with moderator: - (H5a, H5b, H5c, H5d)
Table 9: Role of Project Manager & its Impact on Performance

| Role of Project Manager | R     | R² Change | F    | P  | R     | R² Change | F    | P  |
|-------------------------|-------|-----------|------|----|-------|-----------|------|----|
| Role of Project Manager | 0.80  | --------  | 343.80 | .00| 0.58  | --------  | 93.73 | .00|
| Project Manager         | 0.82  | --------  | 188.71 | .00| 0.66  | --------  | 71.80 | .00|
| Project Manager, Top Management | 0.85 | 0.058    | 165.44 | .00| 0.70  | 57.49    | .00   |    |

Significance at p<0.001

Table 9 showed the impact of role of project manager on performance and success with the moderator (role of top management). H5a accepted that role of project manager has positively impact on project performance. The result was significance at \[F (1,181) =343.802, p<0.001\] with \(R=0.809\). H5c also accepted that top management moderate the relation of project performance and role of project manager and it’s positively impact on project performance. The value of \[F (2,179) =165.449, p<0.001\]. The value of \(R=0.823\) change to \(R=0.857\) showed the 5.8% positively moderate the relationship by the involvement of top management. H5b accepted that role of project manager has positively impact on project success. The value of \[F (1,181) =93.734, p<0.001\] with \(R=0.584\). H5d also accepted at \[F (1,179) =57.499, p<0.001\] that top management moderate the relation of project success and role of project manager and it’s positively impact on project success. The value of \(R=0.666\) change to \(R=0.701\) showed 4.7% positively moderate the relationship by the involvement of top management.
5.9. Coordination between project manager, top management, planning, monitoring, controlling, evaluation, performance and success (Ha, Hb, Hc, Hd, He, Hf, Hg, Hh):

For all paths Ordinary Least Square has been calculated. \( Y = \alpha + \beta X \) represents the OLS equation. The purpose of OLS is to check the relationship between dependent and independent variables.

**Table 10: Coordination and their impact between all variables**

| Linear Regression                      | R     | F      | P      |
|----------------------------------------|-------|--------|--------|
| a. Project Manager, Planning           | 0.757 | 242.838| .000   |
| b. Monitoring, Project Manager         | 0.575 | 89.509 | .000   |
| c. Project Manager, Evaluation         | 0.935 | 1260.656| .000  |
| d. Top Management, Evaluation          | 0.583 | 93.137 | .000   |
| e. Performance, monitoring, project manager | 0.920 | 497.985| .000   |
| f. Success, controlling, top management| 0.618 | 55.702 | .000   |
| g. Controlling, top management          | 0.361 | 27.091 | .000   |
| h. Performance, success                | 0.635 | 122.386| .000   |

Significance at \( p<0.001 \) & \( p<0.005 \)

**Discussions**

TOP Management has commitment of communication with shareholders and stakeholders in setting regulatory requirements. Hence, from the perspective of project policy, it must ensure the objectives, reviews conducted for management the events, and ensuring the available resources. Top management also ensures customer requirements, determination to meet requirements, and intention to increase satisfaction with policies of the project whether that the purpose of the project is applicable or not. During planning top management also ensure that objectives are determined and reliable with quality policy. Top management also ensures about the planning,
support of project management system, meet the requirements given in the project objectives and the reliability of the project management system.

6. Conclusions

It was concluded that during the project life cycle (PLC), project managers as well as top management are not only the aesthetic words in project executions but they also increase the competence and credentials of project executions. With the strategies of planning, monitoring, controlling, evaluation, responsibility of project manager and authority of top management project become successful with all its good enactment. Therefore, after collecting and analyzing data, the result showed that planning, monitoring, controlling, and evaluation have strong impact on project performance and project success with the role of project manager and also moderator role of top management. It gas also observed that during performance of project, top management has not any moderate effect in monitoring phase but it has also expressed moderation in project success. Hence it is concluded that, in monitoring phase project manager has a leading role in running and monitoring the project for better performance and his/her reporting helps in getting the project success and also by authority of the top management.

It was also concluded that top management also ensures the changes which are sustained when there are any changes in the Project Management System, planning, and execution. Top management determined the authorities and responsibilities to managers for communication and collaboration with the team. In the same way, structural chart is approved by the top management for activities and gives responsibility to project manager to explain the duties to the team members and relationship between activities to accomplish a task. In addition, top management has hired or selected the project managers for the specific project who are responsible for the performance and success of the project.

Limitations

Initiating, planning, monitoring, controlling, and closing are the main phases of project life cycle. In this study planning, monitoring, controlling and evaluation are discussed with reference to the role
project manager and top management. As initiation and closing are also main phases of the project life cycle but in this study both phases are not discussed. In this study the role of middle management is also not discussed hence, future researchers can study project initiation and closing stage of the project.

| Conflict of Interest | None |
|----------------------|------|
| **Supplementary Martial** | No supplementary material is associated with the article |
| **Funding** | This research received no external funding |
| **Acknowledgment** | No additional support is provided |

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Citation: Ahmad, M., & Habib, R. (2021). The Role of Top Management as a Moderator on Project Success during Project Life Cycle. *Journal of Quantitative Methods, 5*(1), 111-135. 
https://doi.org/10.29145/2021/jqm/050105