

## **Impact of Organizational Culture on Project Success and the moderating role of Top Management Support**

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### **Abstract**

The purpose of this research is to assess the impact of organizational culture on project success dimensions i.e., project efficiency, impact on customers, impact on team, direct organizational success and preparing for future. The study also demonstrates the significance of organizational culture, top management support and project success with respect to project management in telecommunication sector of Pakistan. A sample size of 293 is analyzed to assess the relationships between the said variables. Furthermore, the role of top management support in moderating the relationship between organizational culture and project success dimensions is assessed. The findings distinctly show a significant impact of organizational culture on the five dimensions of project success including project efficiency, impact on customers, impact on team, direct organizational success and preparing for future respectively. Top management support is found to have a significant impact as a moderator on the project success dimensions except that of preparing for future. The study contributes to the resource-based theory by highlighting organizational culture and top management support as an organizational capability that drives project success. The study also offers practical insights to the telecommunication industry and enables the senior management to revisit their perspective in developing enabling cultures and offering active management support in enhancing success rate of projects in their organizations.

**Keywords:** Organizational Culture, Top Management Support, Project Success, Telecommunications

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## 1. Introduction

### 1.1 Background of the Study

Project Success rates in different fields of technology have been declined over the past few years. Specifically, in the telecommunication industry, projects of different nature are either negatively influenced or completely found to be failed (Ludovico & Petrarca, 2010). In Pakistan, Information and Communications Technologies (ICTs) are playing a pivotal role in IT sector as well as in the telecommunication sector to provide and create opportunities for economic and social growth. The telecommunication industry is highly significant for the financial and industrial stability of developing countries like Pakistan. According to the reports by the Information Telecommunication Union (ITU), a significant decline of 5-10% in telecom sector revenue has been observed throughout the world due to multiple reasons where failure of various on-going and proposed projects is quite pronounced. For Pakistan in FY2020, the telecom sector revenue declined to PKR 537 billion, which was 2.4% less as compared to the previous year. This is a huge call to alert, as such a downfall in the success of projects, specifically in the telecommunication sector is unaffordable for the developing countries like Pakistan. Ochiel, Iravo and Wandera (2017) have found that organizational culture is one of the dominant factors of any sort of work climate. It magnanimously attributes in how the project goals are achieved, and how employees are motivated towards attaining the set goals or objectives.

The significance of project success is influenced by the involvement as well as the support from the higher authorities, i.e., top management (Zwikael, 2008). On the contrary, if the top management chooses not to accommodate the concerned employees and their tasks with project deliverables, then there is a high chance that the project can lead to failure (Pinto, 1988). Support of the senior management is directly needed to act as one of the most critical factors for the success of any project. According to Young and Poon (2013), projects cannot be successful until and unless an excellent or even good support is given by the organization's top management. Previous studies have focused only on project level variables and their impact on project success but have ignored strategic-level variables which need to be investigated (Zawaideh, Abualoush, Kanaan & Masa'deh, 2018). Kanwal, Zafar and Bashir (2017) have used organizational culture as a single dimensional variable in IT industry of Pakistan. They suggested that future work may be carried out in a relatively different sector such as telecommunications. Nazem, Mozaiini, and Seifi (2014) are of the view that majority of the literature regarding organizational culture and work engagements belong to the studies performed in developed countries. Therefore, in the developing countries like Pakistan, this gap may be filled with different demographics and diversity of cultures in institutions. Project success has also been used as a very eventful variable in the IT sector. As suggested by Latif, Afzal, Saqib, Sahibzada, and Alam (2020), project success is studied specifically in pertinence to the telecommunication sector of Pakistan which has not been done in the previous studies.

Project success has been discussed as a single dimensional variable with respect to top management support in the previous studies. However, for the provision of enlightenment to the entitled project managers, a multi-dimensional framework of project success needs to be explored with top management support. This gap has been addressed in this research study, as a five-dimensional framework for project success which is tested from

the studies of Shenhar and Dvir (2007). Ali, Li, Haider, Khan and Din (2021) suggested that top management support may be discussed with a relatively different independent variable other than psychological empowerment or humble leadership in project management. Accordingly, top management support's moderating effect is investigated with a relatively different variable such as organizational culture. The study of Ahmed, Mohamad, and Ahmad (2016) investigated a direct relationship of top management support and project success and suggested that top management support may be used as a moderator in the future research. Therefore, top management support is tested as a moderator in this study. Considering the above-mentioned research gaps from different studies, this research study analyzes to provide empirical evidence strong enough to demonstrate how organizational culture as an independent variable may have its effects on the dimensions of project success while the top management support plays a moderating role on the relationship of the variables.

## **2. Literature Review**

### **2.1 Organizational Culture**

Organizational culture can be described as a pattern of invented basic principles which are further explored as they lead to cope with problems of integration and adaptation within an organization as discussed by Schein (1990). Organizational culture also affects a project about the changes in employees' commitment level towards project objectives (Hofstede, 2001). The organizational culture influences the processes involved in apportioning project resources and affecting the performance evaluation of project teams (Pinto & Prescott, 1990). Hence, as stated by Tsai, Chen, Chang, and Lee (2017), it is crucial for the organization to manage organizational culture because the individuals in the organization respond to shared values and their actions are expected to have an influence on organizational effectiveness. Ochiel et.al. (2017) found that culture positively influences projects in terms of its diversity, communication, and leadership. It is crucial to understand organizational culture as it helps to explain a lot of confusing and undesirable experiences in social and organizational life (Schein, 2010).

Hovac and Arcy (2012) discussed that the differences in various cultures of an organization can have a big impact on organizations where cultural standards ought to transcend structures of the organization. Various other authors also consider the institutional effect of the organization very crucial for project management activities. The institutional effects can influence behavior of the employees which may affect the accomplishment of the project as observed by Bevort and Sudaby (2016). As per Yongxing, Hong Fei, Bao Guo, and Lei (2017), work engagement is increasingly pivotal for the organization's culture as it contributes to the business processes of the organization. Elsbach and Stigliani (2018) believed that the culture of the department and project management team are vastly essential because acting without knowing cultural forces and efficient coordination there might be an unpredicted and unwanted impact on the outcomes which is not desirable by the stakeholders

### **2.2 Project Success**

Project success is basically the process of going through what more is required, making targets that are unequivocal, and the planning of important procedures in specifically allowing the project life cycle to be lead towards a fruitful end (Cleland, 2007). As contemplated by Anantatmula (2010), the definition of project success is somewhat difficult to state as there is no consensus of its definition. The study by Anantatmula (2010) showed

that the definition of project success is compatible with the definition provided by PMBOK<sup>3</sup> which is further adopted by Shenhar and Dvir (2007). Project success criteria can be different for stakeholders, because multiple and various stakeholders can have different expectations from their respective projects (Karlsen & Gottschalk, 2004). Project success measurement's criteria includes technological performance, efficiency in execution, individual growth, customer satisfaction, manufacturability, and overall business performance, which is similar to the discussions made by Kerzner (2017) in his study on measuring project success.

For the realization of project objectives, senior management of the company must implement organizational change, improve organizational potency, and strengthen stakeholder support which in further illuminates the probability of project success (Boonstra, 2013). According to McComb, Kennedy, Green, and Compton (2008), success can only be equated with projects which are declared completed by the organization and that in turn, is proportional to the performance on the project as affected by culture in the offices. The study further observed that a lot of projects are often incomplete for one reason or the other such as failed project specifications and poor alignments. Multiple studies on project success by Shenhar and Dvir (2007), Karlsen and Gottschalk (2004) and Boonstra (2013) have demonstrated that project success dimensions may depend on the project's nature and demographics while the importance of project lies in the success of its dimensions.

Project efficiency is the first dimension of Project Success as per multiple studies conducted by Shenhar and Dvir (2007). This dimension expresses the efficiency with which the projects can be managed and tells us how the projects may meet its resources considering the following pertinent questions: a) was the Project finished on time? b) Was the project completed under the allocated budget? This is the immediate factor with which any project can be evaluated. Lamenting that, Tsai et. al. (2017) have stated that this efficiency of projects can be achieved by employees' actions which prove to have a significant impact on organizational effectiveness. It has been stated by Low, Wang and Lim (2009) that managers' practices can be influenced by the working environment or the organizational culture, which may lead to difference in project outcomes. The willingness and inquisitiveness of a person to work depends on their attitude which comes from their organizational environment. Therefore, it is proposed that

*H<sub>1</sub>: Organizational Culture has a significant effect on Project Efficiency*

According to Shenhar and Dvir (2007), the second dimension pertains to the point of view of customer(s) which clearly addresses the importance placed over customer requirements. This dimension also includes meeting performance measures of the project, functional requirements, and technical specifications conveyed by the customer. Coherence and dependability on the customer satisfaction targets, contracts and commitments and the orientation of employees can contribute to the overall satisfaction of the customers and other parties which is likely to be influenced by the nature of organizational culture as observed by Arto and Wikstrom (2005) and Nguyen and Watanabe (2017) and therefore it is hypothesized that

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<sup>3</sup> Project Management Body of Knowledge

<https://www.pmi.org/-/media/pmi/documents/public/pdf/pmbok-standards/pmbok-guide-6th-edition-errata-4th-printing.pdf>

*H<sub>2</sub>: Organizational Culture has a significant effect on Impact on Customers*

The third dimension of project success is where the perspective of the team is considered. The impact of the project which is under execution or has been planned may affect the project team specially the project manager of the project (Shenhar & Dvir, 2007). This team led by the project manager derives an impact of the culture they work in and according to the project team's perception, the project should offer positive learning and incentives to the team. If so, the project is supposed to be a success. When the project teams are exposed to problems, they often come together and find ways to tackle problems. While the organization keeps on growing, new members are employed into the organization, and these new members learn the same methods used by their superiors for addressing the problems faced by their organization (Katane & Dube, 2017). As per Shenhar and Dvir (2007), managers and project teams are evaluated based on the objective success of the Project. The atmosphere to keep up with competency demands a culture within the organization that provides incentives and motivating environment to the team, proving to have a positive impact on the project, eventually. Therefore, it is hypothesized that

*H<sub>3</sub>: Organizational Culture has a significant effect on Impact on Team.*

The fourth dimension for project success highlights the immediate and direct impact of the project on the organization which owns it in the first place. Importantly, the dimension highlights that whether the project provided sales, income, and profits as expected (Shenhar & Dvir, 2007). This dimension falls under the category of projects in the telecom sector but can also be applied to projects in different fields. In addition, organizational culture is a collection of different elements with which individuals can come into coordination within organizations and help to develop a mutual understanding over the official matters. The author also states that organizational culture undoubtedly impacts the direct organizational success of the project in terms of financial performance and customer equity. Therefore, it is hypothesized that

*H<sub>4</sub>: Organizational Culture has a significant effect on Direct Organizational Success.*

The final dimension of Project Success according to the assessment of Shenhar and Dvir (2007) relates to the examination of what organizations can gain from their project executions. This reveals benefits of concerned with business success, such as gaining profits, increasing market share and long-term benefits which are expected to be realized in the longer run. Shenhar and Dvir (2007) discuss that this dimension addresses the question of how does the current project help prepare the organization for future challenges? This is significant as in the telecom sector; the follow up projects have always a lot to do with the projects initiated after the closure of the previous project. Organizational culture highlights the individual behavior of its people and the zeal they can exhibit for the betterment of the organizations. This also determines how they react towards some professional situations and how they socialize with new members (Spataro, 2005).

### 2.3 Top Management Support

Ahmed et. al. (2016) highlights that the phenomena of top management support implies that it is materialistic, financial, intellectual, documentation, human resources and other resources provided to a team for project's successful completion and its delivery. Involvement and engagement of senior level management in project's activities of the organization is considered as a top management support (Tan & Noor, 2013). In reality, the lack of top management support is found to be one of the most frequently reported barriers to project success (McComb, Kennedy, Green, & Compton, 2008; Ali & Kidd, 2014). However, Zwikael (2008) discussed that the literature does not fully provide a list of effective top management support practices. Although it is important for project managers to receive the support, they need from their senior management in the organization which is supported by Ahmed and Anantatmula (2017) as they went on to discuss that it gets very challenging for majority of the project managers to obtain support from the senior management in traditional organizations since resources are controlled by the department's top managers. Hence, this domain in context with project management presents a rich field for further research as there is a lot of human complexity associated project managers in different organizations.

In project management, TMS is a critical factor that adversely affects execution of projects in different organizations (Ziemba & Oblak, 2013). According to Young and Jordan (2008), top management support is acknowledged as one of the most influential critical factors for project success. The findings of the studies on top management support show conflicting relationship because top management plays a key role in facilitating project delivery and achieving project objectives (Kuratko, 2012, Yun, Wan, Wang, Bai, & Zhang, 2020). Ahmed and Anantatmula (2017) discussed how the orientation of the customer is influenced by the role of top management during a specific project. They found that the customers' requirements and perception on the results of the projects is directly affected by how the organization perceives it. This perception and compliance on the work that is to be done is enhanced if the top management is effectual and they support the project teams.

Amidst the role of senior management also widely known to be the top management support of any company, the culture of the company is essential because acting without the pre-requisite knowledge and other factors associated with the project, negative risks can be exposed challenging the execution of the projects. Manfreda and Štemberger (2014) highlight that the organization culture is responsible for how top management designs and guides the implementation of modules or work breakdown structure of the projects which later prove to be very critical in the standings of the company in the market. The competitive advantage tends to be negatively affected if the top management does not support the organization's norms, ethos, pathos, practices and policies to execute the projects. Without TMS, a project is unable to perform as required and this usually cause delays and budgetary issues (Liu, 2020). Lack of communication can also affect the project in an unprogressive manner (Shaikh, 2021).

According to Shenhar and Dvir (2007), long-term benefits and goals of the organizations relating to the new opportunities must be created in the future as this pertains to the final dimension of evaluating success of the project. Meanwhile, this remains to be one of very important tasks for the top management of the companies to ensure that a good organizational culture benefits the employees, and they collectively strive for the betterment

of the organization in upcoming years expanding the scope and rates of project success in the future. Therefore, it is hypothesized that:

*H<sub>6</sub>*: Top management support moderates the relationship between organizational culture and project efficiency.

*H<sub>7</sub>*: Top management support moderates the relationship between organizational culture and impact on customers.

*H<sub>8</sub>*: Top management support moderates the relationship between organizational culture and impact on team.

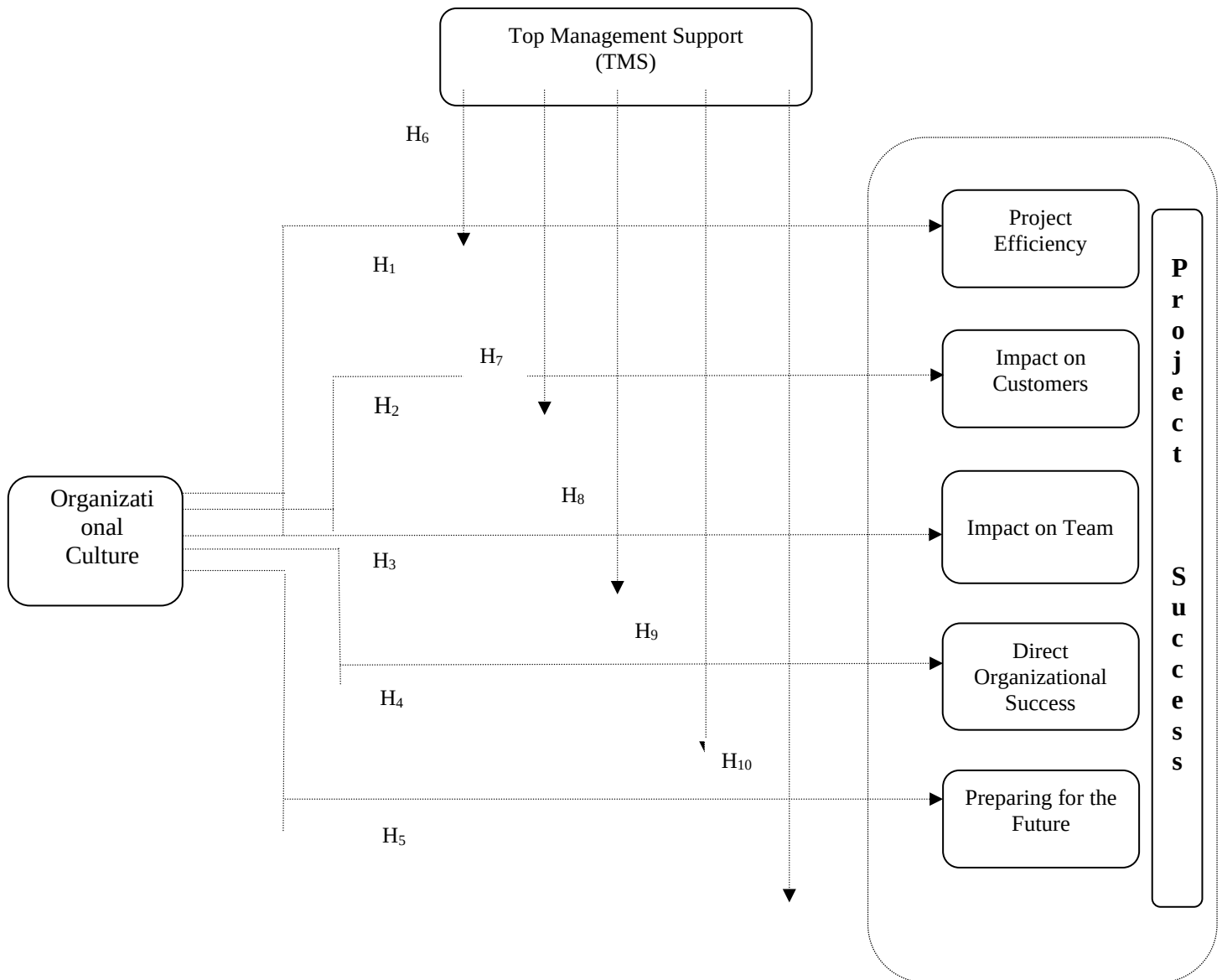
*H<sub>9</sub>*: Top management support moderates the relationship between organizational culture and direct organizational success.

*H<sub>10</sub>*: Top Management Support moderates the relationship between organizational culture and preparing for Future.

The research is driven by the Resource-Based View (RBV) theory which considers operant and operand firm specific resources in terms of assets, capabilities, competencies owned and controlled by the firm as the sources of sustainable competitive advantage (Barney, 1991). Prahalad and Hamel (1990) have highlighted that operant resources entail skills and knowledge at the corporate level that drive operand resources and determine the overall core competence of the firm. From the project management perspective, this study highlights that organizational culture is indeed a social milieu which guide and influence interactions, exchanges and relationships and have a strong bearing on the employees' attitudinal disposition and behavioral tendencies. From the perspective of project management, organizational culture is seen as a purposive, uplifting and progressive social environment that predominantly defines the success of a project. Further, project employees rely on top management to offer continuous support to execute and culminate projects more efficiently and effectively (Cleland, 2007). The legitimacy of conceiving and embodying progressive culture and support from top management for project success mandates the penetration into the morphs of project success dimensions which this study endeavors to empirically examine.

### 2.4.1 Theoretical Model

Figure 1: Theoretical Model



### 3. Methodology

The respondents in this study are the employees of different private and public sector IT and Telecom organizations which is the population for this study. For this purpose, the target population includes project directors/project managers, project coordinators, project leads and all the project employees working in different telecommunication departments of Pakistan. Population size for this study is a total number of 1200 employees as suggested by Ahmed and Mohamed (2017). Furthermore, in order to calculate the Sample Size of the study,



online sample size calculator<sup>4</sup> is used where confidence level was taken as 95%, sample of proportion as 50% and margin of error was taken to be 5%. The sample size for this research is calculated to be N=293 i.e. two hundred and ninety-three project management employees as per the given formula. The convenience sampling technique is used in this study as classified by non-probability sampling. The justification to use convenience sampling is that in Pakistan, generally responses are not consistently and properly gathered in return to the emails. Also considering the worldwide pandemic of COVID-19, physical visits to targeted companies was not possible. Hence, the samples are meant to be accessible while authenticity is given priority as well.

Data were collected through survey using the digital platform of Google Forms, as well as manual distribution of questionnaires were distributed. The questionnaire basically comprises of two parts. In the first part, the respondents are required to provide details about their demographics and general information, for example, experience, organization type, age, etc. The second part comprises of three sections pertaining to organizational culture (IV), top management support (MV) and five project success dimensions (DVs) i.e., project efficiency, impact on customers, impact on the team, direct organizational success and preparing for future. The respondents are assured about the confidentiality of their provided information. The instruments assessed organizational culture questions adopted from Gillespie, Denison, Haaland, Smerek, and Neale (2008), top management support measures adopted from Sax and Torp (2015) and project success dimensions adopted from Ahmed and Mohamed (2017).

## **4. Results and Discussions**

### **4.1 Descriptive Statistics**

Around 84.96 % of the respondents were male and the remaining part of the respondents constituted of female professionals in the organizations which were targeted. The organization sizes varied as most of the organizations from which the data was gathered had 100+ employees operating in their offices. Approximately 48% out of 293 employees on the projects in the telecommunication sector were found to be less than and equal to 30 years in age. Over 60% of respondents belonged to the private companies in contrast to fewer than 40% of the respondents who were working in the government sector. Further demographic details of the respondents show that 35.49 % were working under the salary package of 100,000 – 150,000 PKR while 37.88 % of them had 1-3 subordinates reporting to them directly. Meanwhile, approximately 60% respondents had served 1-5 years in the organizations where they were currently working. The details of 293 respondents were incorporated and their analysis was done which is discussed later in this chapter. Table 2 shows that means and standard deviations of every variable remained around a neutral position on a 5-point Likert-type scale which indicates that respondents had indifferent perceptions over the relationship and impacts among the variables.

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<sup>4</sup> <http://www.raosoft.com/samplesize.html>

**Table 1: Descriptive Statistics**

| Name of the Variable          | Mean      |            | Std. Deviation |
|-------------------------------|-----------|------------|----------------|
|                               | Statistic | Std. Error | Statistic      |
| Organizational Culture        | 3.4426    | .0252      | .4321          |
| Top Management Support        | 3.6212    | .0373      | .6388          |
| Project Efficiency            | 3.4314    | .0360      | .6167          |
| Impact on Customers           | 3.5003    | .0397      | .6807          |
| Impact on Team                | 3.5454    | .0401      | .6868          |
| Direct Organizational Success | 3.3836    | .0352      | .6027          |
| Preparing for Future          | 3.6642    | .0443      | .7590          |

**Table 2: Reliability Statistics**

| Variable/Dimension                                             | Cronbach's Alpha | No. of Items |
|----------------------------------------------------------------|------------------|--------------|
| Organizational Culture                                         | .691             | 16           |
| Top Management Support                                         | .644             | 6            |
| Project Success                                                | .741             | 25           |
| Project Efficiency<br>(Process Success Dimension 1)            | 0.477            | 5            |
| Impact on Customers<br>(Process Success Dimension 2)           | 0.601            | 5            |
| Impact on Team<br>(Process Success Dimension 3)                | 0.653            | 5            |
| Direct Organizational Success<br>(Process Success Dimension 4) | 0.402            | 5            |
| Preparing for Future<br>(Process Success Dimension 5)          | 0.737            | 5            |

Cronbach's alpha is basically a measure of scale reliability which highlights the internal consistency of the set of items for a given variable. The data in Table 2 shows that the consistency of organizational culture, top management support and project success is found to be reliable for this study. In other words, if the inter item correlations of the variables is increased, this will also increase the Cronbach's alpha. The Cronbach's alpha for the four dimensions is beyond 0.60 except two dimensions of project success. For project efficiency and direct organizational success, Cronbach's alpha is relatively low. This may be due to the smaller number of items as the number of items in a scale can influence the value of alpha and give alpha value (Briggs & Cheek, 1986). They also recommended an optimal range of the inter-item correlation between 0.2 and 0.5 for dimensions which have less items e.g., 5 in this case. The threshold values of acceptable Cronbach's alpha values are considered

as ‘rules of thumb’ and there are diverse opinions about their acceptability. To some authors, values between 0.4 and 0.5 are considered satisfactory (Taber, 2018).

**Table 3: Correlations**

|                               | 1      | 2      | 3      | 4      | 5      | 6      | 7 |
|-------------------------------|--------|--------|--------|--------|--------|--------|---|
| Organizational Culture        | 1      |        |        |        |        |        |   |
| Top Management Support        | .978** | 1      |        |        |        |        |   |
| Project Efficiency            | .978** | .978** | 1      |        |        |        |   |
| Impact on Customers           | .985** | .989** | .984** | 1      |        |        |   |
| Impact on Team                | .978** | .985** | .986** | .989** | 1      |        |   |
| Direct Organizational Success | .972** | .974** | .987** | .980** | .983** | 1      |   |
| Preparing for Future          | .965** | .987** | .977** | .985** | .985** | .977** | 1 |

Strong correlations are observed between top management support and project success dimension of impact on customers as well as between project success dimensions of impact on team and impact on customers ( $r=0.989$ ,  $N=293$ ,  $p<0.001$ ). Cohen (1988) suggests that if the value of Pearson “r” is greater than 0.5, it is said to be strong. Hence, after reviewing the Pearson Correlation Coefficients in Table 3, it is indicated that all predictors showed positive, strong, and significant correlations. However, it may be observed that the correlations may be a little too high. This could have been a problem in case the variables of the study were not continuous. Considering the model of this study, there is only one independent variable and multiple dependent variables, so there cannot be any occurrence of high inter-correlations as simple regression analysis is done, and there is only a single independent variable in this study. Hence, there is no issue of multicollinearity in this study.

#### 4.2 Direct Effects

The results for the first five hypotheses are shown below in Table 4. The Standardized Beta Coefficients (Beta) of all the dependent variables are positively associated with organizational culture. They are found statistically significant as their values are  $p < 0.001$ .

**Table 4: Standardized Coefficients**

| Hypothesis | Standardized Regression Weight | t      | R <sup>2</sup> | Significance |
|------------|--------------------------------|--------|----------------|--------------|
| OC-PE      | .978                           | 80.480 | .957           | .000         |
| OC-IoC     | .985                           | 96.076 | .969           | .000         |
| OC-IoT     | .978                           | 80.137 | .956           | .000         |
| OC- DoS    | .972                           | 70.552 | .945           | .000         |
| OC- PF     | .965                           | 63.177 | .932           | .000         |

Note: OC = Organizational Culture; IoC=Impact on Customers; IoT=Impact on Team, DoS = Direct Organizational Success; PF: preparing for the future.

The values for standardized beta coefficients and significant indicate that all direct hypothesis are accepted at 95% confidence interval i.e., H<sub>1</sub> (0.978; p=0.000); H<sub>2</sub> (0.985; p=0.000); H<sub>3</sub> (0.978; p=0.000); H<sub>4</sub> (0.972; p=0.000) and H<sub>5</sub> (0.965; p=0.000) indicating that organizational culture is a positive and strong antecedent of project efficiency, impact on customers, impact on team, direct organizational success and preparing for future.

#### 4.3 Moderating Effects

Table 5 demonstrates the results for the moderating effect of top management support (W) on the relationship between organizational culture (X) and project efficiency (Y). The results show that 97.7 % variance ( $R^2=0.9770$ ) is found on project efficiency by organizational culture and the moderating variable top management support (W) with the p-value of 0.000 which is less than 0.05. This suggests that the impact of top management support is positively significant with the t value of 2.5716 > 2, coefficient value which is 0.136 and p value of 0.000.

**Table 5: Moderating Effect (H<sub>6</sub>)**

|                                | coefficient | t      | p    | LLCI  | ULCI |
|--------------------------------|-------------|--------|------|-------|------|
| Organizational Culture (X)     | -.0510      | -.552  | .580 | -.232 | .130 |
| Top Management Support (W)     | .1316       | 2.571  | .010 | .030  | .232 |
| X * W                          | .1498       | 11.253 | .000 | .123  | .176 |
| $R^2 = 0.977, F(3,289) = 4092$ |             |        |      |       |      |

DV: Project Efficiency

Furthermore, it is also shown in Table 5 that the interaction term “Int\_1” [multiple of Organizational Culture (X) and Top Management Support (W)] possesses a significant effect of 0.1498 with the t-value of 11.2532 which is above the threshold of >2. Figure 10 depicts that the slopes of “Low Top Management Support” and “High Top Management Support” are different which means that they will interact with each other. A significant moderation of Top Management Support is observed on the relationship between Organizational Culture and Project Efficiency labelled on x-axis and y-axis respectively. The F statistic is significantly higher which shows that it is a good fit of the model and therefore H<sub>6</sub> is supported.

**Figure 2: Moderating Effect (H<sub>6</sub>)**

The results for H<sub>7</sub> are shown in Table 8 to analyze the moderation effect of top management support (W) on the relationship between organizational culture (X) and impact on customers (Y). The slopes of both the lines shown in the figure depict that there is interaction and hence the moderation. The results depict that 98.6 % variance ( $R^2=0.9859$ ) is found on impact on customers due to organizational culture and the moderating variable of top management support (W) with the p-value of  $0.000 < 0.05$ . The preceding numbers show that the impact of top management support is positively significant with the t value of 12.1594, coefficient is 0.5546 and with p value of 0.000.

**Table 6: Moderating Effect (H<sub>7</sub>)**

|                                  | coefficient | t       | p     | LLCI  | ULCI  |
|----------------------------------|-------------|---------|-------|-------|-------|
| Organizational Culture (X)       | .3973       | 4.9718  | .0000 | .2400 | .5546 |
| Top Management Support (W)       | .5546       | 12.5194 | .0000 | .4674 | .6418 |
| X * W                            | .0419       | 3.6373  | .0003 | .0192 | .0646 |
| $R^2 = 0.9859$ , F (3,289) =6716 |             |         |       |       |       |

DV: Impact on Customers

The interaction term "Int\_1" [Organizational Culture (X) \* Top Management Support (W)] possesses a significant effect of 0.0419 with the t-value of  $3.6373 > 2$ . The F statistic is significantly high which shows that it is a good fit.

**Figure 3: Moderating Effect (H<sub>7</sub>)**

For the eighth hypothesis (Table 9), that the value for  $R^2 = 0.9762$  depicts a 97.6 % variance in impact on team (Y) due to organizational culture (X) and the moderating variable top management support (W) with the p-value of  $0.000 < 0.05$ . This highlights that the effect of top management support is positively significant ( $t = 3.8398 > 2$ , Beta = .5757,  $p = 0.002$ ).

**Table 7: Moderating Effect (H<sub>8</sub>)**

|                                    | coefficient | t      | p     | LLCI  | ULCI  |
|------------------------------------|-------------|--------|-------|-------|-------|
| Organizational Culture (X)         | .2360       | 2.2557 | .0248 | .0301 | .4419 |
| Top Management Support (W)         | .5757       | 9.9294 | .0000 | .4616 | .6899 |
| X * W                              | .0579       | 3.8398 | .0002 | .0282 | .0876 |
| $R^2 = 0.9762$ , $F(3,289) = 3951$ |             |        |       |       |       |

DV: Impact on Team

The results highlight the possession of a significant effect by "Int\_1" [multiple of Organizational Culture (X) and Top Management Support (W)] with the value of 0.0579 and t-value of 3.8398 which is greater than 2. Furthermore, Figure 4 shows the slopes indicating moderation relationship between organizational culture and Impact on Team. The graph is complemented by the results found in Table 7.

**Figure 4: Moderating Effect (H<sub>8</sub>)**

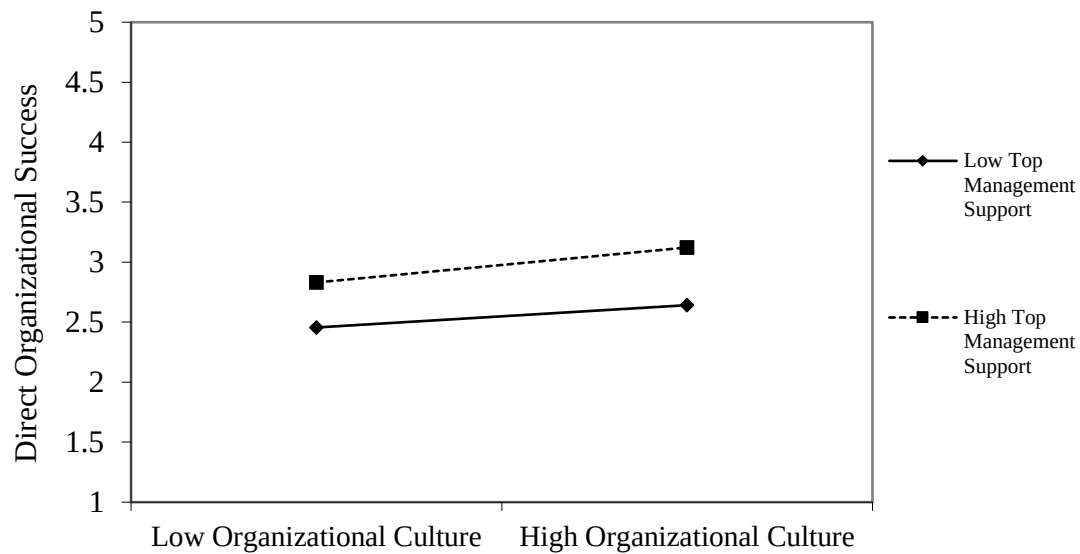
Table 8 shows the results for H<sub>9</sub> which are further demonstrated in Figure 13 in order to analyze the moderating effect of top management support (W) on the direct relationship between organizational culture (X) and direct organizational success (Y). The results indicate a 96.2 % variance ( $R^2=0.9622$ ) on direct organizational success due to organizational culture and the moderating variable of top management support (W) with the p-value of  $0.000 < 0.05$ . This means that the impact of top management support is positively significant with the t value of  $4.2104 > 2$ , coefficient = 0.2699 and significant p value of 0.000.

**Table 8: Moderating Effect (H<sub>9</sub>)**

|                                  | coefficient | t      | p     | LLCI   | ULCI  |
|----------------------------------|-------------|--------|-------|--------|-------|
| Organizational Culture (X)       | .0806       | .6965  | .4867 | -.1471 | .3082 |
| Top Management Support (W)       | .2699       | 4.2105 | .0000 | .1437  | .3961 |
| X * W                            | .1054       | 6.3236 | .0000 | .0726  | .1382 |
| $R^2 = 0.9622$ , F (3,289) =2453 |             |        |       |        |       |

DV: Direct Organizational Success

Figure 5 and Table 13 highlight that the interaction term “Int\_1” [multiple of Organizational Culture (X) and Top Management Support (W)] possesses a significant effect of 0.1054 with the t-value of 6.3236 which is greater than 2. Thus, indicating the moderation effect.

**Figure 5: Moderating Effect (H<sub>9</sub>)**

These results depict that H<sub>9</sub> is accepted as top management support significantly and positively moderates the relationship between organizational culture and direct organizational success. The results found for H<sub>10</sub> are indifferent as compared to other hypotheses as shown in Table 9 and Figure. Same procedure and tests were followed to analyze the moderation effect of top management support (W) on the direct relationship between organizational culture (X) and preparing for future (Y). The results depict that 97.4 % variance ( $R^2=0.9740$ ) is found on preparing for future due to organizational culture and the moderating variable of top management support (W) with the p-value of  $0.000 < 0.05$ .

**Table 9: Moderating Effect (H<sub>10</sub>)**

|                                  | coefficient | t       | p     | LLCI   | ULCI   |
|----------------------------------|-------------|---------|-------|--------|--------|
| Organizational Culture (X)       | .0402       | .3327   | .7396 | -.1977 | .2781  |
| Top Management Support (W)       | 1.1982      | 17.8836 | .0000 | 1.0663 | 1.3301 |
| X * W                            | -.0092      | -.5305  | .5962 | -.0435 | .0250  |
| $R^2 = 0.9740$ , F (3,289) =3605 |             |         |       |        |        |

DV: Preparing for the Future

The results in Table 9 demonstrate that moderation does not exist. This proves that to the extent of this study, there is no moderation of top Management Support existing on the relationship between Organizational Culture and Preparing for Future.

## 5. Discussion

The main objective of this research study was to examine the effects of organizational culture on Project Success dimensions and to investigate the moderating effect of top management support on the relationship between



Organizational Culture and five of Project Success dimensions in pertinence to the telecommunication industry of Pakistan. The results show that organizational culture has a positive and significant effect on the project efficiency highlighting that increasing the confidence and productivity in the culture of the organizational will enhance project executions within the budgets, under the schedules and with improved quality (Katane, & Dube, 2017). Top management support's moderating effect shows that it enhances the effectiveness of organizational assimilation for the project to be completed in time and with lesser cost (Jawad & Ledwith, 2020). Likewise, organizational culture has a significant and positive influence on impact on customers and the moderating effect of top management support on the relationship is also positively. This has previously been supported by Johnson and Babu (2020) in the construction industry. However, the relevant moderation analysis has now also been proved with respect to the telecommunication sector.

Organizational culture had a positive significant effect on Impact on Customers, as also observed by Lukas, Whitwell, and Heide (2013). Furthermore, organizational culture has a significant positive relationship with impact on team as well ( $B=0.978$ ,  $p=0.000$ ) with a moderating effect of top management support on the relationship between organizational culture and impact on team ( $Int\_1=0.579$ ,  $p=0.002 < 0.05$ ). Teams working on the projects are automatically dependent on what a specific culture of an organization may entail. Katane and Dube (2017) support this as any influential change in the organizational culture e.g., punctuality, motivation, may result in the impact on the teams and highlights that the senior management also plays a vital role to arbitrate in such matters. Increasing competitive advantage of the company is one of the most critical areas of project management of any company. This is complemented by the results because organizational culture has a significant positive relationship with direct organizational success followed by a moderating effect of top management support on the relationship between organizational culture and direct organizational success.

As depicted from the results, organizational culture has a significant positive relationship with preparing for future but there was no moderating effect of top management support detected on the relationship between organizational culture and preparing for future which means that organizational culture does enable the company to work and prepare for what the organization would look like (Elsbach & Stigliani, 2018) and where will it stand years from now, but that has nothing to do with the top management support from the senior managers currently working in the organization. It can be rightfully interpreted that the findings of this study were substantial enough to prove the nine hypotheses.

## 6. Conclusion and Recommendations

The study highlights the importance of organizational culture with respect to each dimension of project success. This emphasis is elucidated in light of how top management support in these telecommunication organizations influences the scope and results of the projects. The data analysis in this study complements the dependency of project success on organizational culture. The study proves that a progressive organizational culture results in the enhancement of efficiencies of company projects, elevates the relationship with customers, motivates the project teams, improves competitive advantages of the company in the market and creates new avenues for future. Public dealing and motivation amongst the customers are increased if the organizational culture consists

of productive and efficacious qualities, ultimately increasing the probability of the success of the projects. To enhance the business reputation, organizations seek competitive advantage in the market, specifically in the telecommunication sector. This was also complemented by the theory applied in this study i.e. resource based view. This means if an organization needs to increase its competitive advantage, then it also needs to have strong and adequate organizational culture. Increasing the dynamics, be it positive or negative, of the organizational culture will also increase the factors associated with future direction of the organization.

Project success requires the company to work and prepare for what the organization would look like in the coming years. The analysis and homework for the future projects and its influence on the organization also leads to the success of the projects. The subject research expounds how the support of senior management can impact the relationship between organizational culture and project success. As supported by the results, top management support significantly moderates organizational culture's relationship with project efficiency, impact on customers, impact on team and direct organizational success which shows that the positive support from the top management can further enhance the success of the projects in terms of increasing the organizational culture's influence on motivating the employees to be on time, to work under the deadlines, to not overspend the budget, to satisfy the customers, to complement and satisfy project teams and to work efficiently for achieving competitive advantage in the market. However, top management support could not prove its relationship with the organizational culture relationship with the prepare for the future aspect, as hypothesis  $H_{10}$  was not accepted. The work in this study contributes to the literature of project management areas by empirically identifying that the independent variable of organizational culture can be significantly attributed to the dimensions of project success. This designates that the phenomena of organizational culture in telecommunication organization and its projects exists in both public and private sector of Pakistan. Top Management Support's status is salient and dominant as it acts a crucial factor for the organizations and the successful completion of its projects.

## 7. Research Limitations

The subject research revolved around some restricted domains of project management. The study analyzes the impact of organizational culture in context with the field of project management, evaluating how the moderating role of top management support can have a direct influence on the relationship between organizational Culture and project Success. Top management support has broadly been discussed in the study in terms of its relationship with organizational culture and project success with a sampling size limited only in telecommunication industry. The research can further be stretched to a relatively different sector, for example, health, education, construction, etc. with a relatively larger sample size. The study highlights, those operant assets which are intangible and tangible both have a profound impact on the variables. Leveraging the assets will lead to strategic disadvantage while organizations seek competitive advantage in the market, specifically in the telecommunication sector which can be achieved if requisite support is given to the project teams with a developing nature of culture over time.

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