

## **Evidence of Moderating Role of Organizational Culture among Strategic Alliances and Organizational Performance**

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### **Abstract**

*The present study was aimed to investigate and identify the impact of strategic alliances on organizational performance and to study the moderating impact of organizational culture among strategic alliances and organizational performance. The present study adopted deductive and quantitative approach and lies under the philosophy of positivism to develop and test the hypothesized relationship on the basis of existing theories. The findings suggest that strategic alliances play significant role in organizational productivity and growth.*

**Keywords:** Strategic alliances, technological Innovations, productivity, organizational performance, organizational culture, sustainability

### **Introduction**

‘strategic alliance’ is usually described as mutual agreements between the organizations to increase their capabilities for better competition in an intense competitive world (Serrat, 2017). Such alliances are extended cooperative agreements intended to change among companies (or partners) to achieve goals of mutual interest built on collaboration among the companies (Krishnan, 2016). In recent decades’ strategic alliances have played very significant role in organizational performance. However, literature regarding high technology strategic alliances is limited to the developed countries like USA, Italy, Greece and Finland (Norman and MacDonald, 2004). The area of strategic alliances in Pakistani organizations has not been discussed widely by the researchers. Telecom sector plays a vital role in Pakistan economy. A Pakistan Telecommunication Authority (PTA) report in July 2018 revealed the number of 3G/4G subscribers in Pakistan has surpassed 57 million. This study is intended to contribute towards the literature of strategic alliances in Pakistani context by focusing on effects of organizational culture and its relationship with strategic alliances and organizational performance.

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## Literature Review

### *Strategic Alliances*

Strategic alliances are shared contracts among the organizations to increase their capabilities for better competition in an intense competitive world (Serrat, 2017).

### *Strategic Technology Alliances & Organizational Performance*

In recent decades organizations are facing the challenges of technological advancement, as proposed by Schotter et al. (2017) and that the emergence of competitors, increasing cost of development and increasing uncertain environment for the organizations (Grant, 2016). Strategic technology alliances involved technical knowledge sharing (Dodgson, 2018) which are having high transaction cost in case of marketing-based sharing that's why it is perceived that strategic technology alliances reduced the cost and increased the outcomes (Judge and Dooley, 2006).

*H1: Strategic technology alliances have positive and significant effect on organizational performance.*

### *Strategic R&D Alliances & Organizational Performance*

Previous studies found that R&D alliances enables the organizations to gain knowledge from the alliance organization and improve the competencies (Howard et al., 2016). R&D alliances plays significant roles in achieving the superior performance and economies of scales, development of effective strategies and enables the organizations to improve its overall growth to compete effectively (Bustinza et al., 2019, Kavusan et al., 2016).

*H2: Strategic R&D alliances have positive and significant effect on organizational performance.*

### *Organizational Culture*

#### *Strategic Technology Alliances and Organizational Culture*

Strategic technology alliances have been considered as a vital vehicle through which organizations might understand their international growth desires (Antonelli and Colombelli, 2018). Different cultures can be complementing for each other and hence they will serve significant upside efficiencies (Bruyaka et al., 2018). Horak (2018) says that, there is still a gap for study on Strategic alliances and organizational culture in changed scenarios.

*H3: There is a significant relationship between strategic technology alliances and organizational culture.*

*Strategic R&D Alliances and Organizational Culture*

In a broader context the organizational culture between the partners have ascended as key factors that determines the effective management and results (Schilke et al., 2015). If organizational culture is properly aligned with personal values, then culture can unrestraint massive potential and efforts toward organizational shared purposes which increases the organizational capacity to thrive in strategic alliances (Bruyaka et al., 2018).

*H4: There is a significant relationship between strategic R&D alliance and organizational culture.*

*Organizational Culture as moderator in Strategic Technology Alliances and Organizational Performance*

Innovation and technology need to be managed and it relies upon the organizational culture. Several sociology and anthropology scholars have strived to designate the notion of organizational culture, which lead to additional 150 explanations of culture provided in the literature (Sun, 2000). Organizational culture was taken as a moderator in the research of Di Stefano et al. (2019) and they found significant moderating role of organizational culture.

*H5: Organizational culture plays a significant moderating role between strategic technology alliances and organizational performance.*

*Between Strategic R&D Alliances and Organizational Performance*

Through the speedy acceleration of strategic alliances, the need for a more systematic way to find and evaluate potential R&D alliance partners have arisen (Shi et al., 2012). Recently, it has been suggested that the relationship between culture and academics also justifies that competitive advantage rises from the creation of organizational competences (He et al., 2019). However organizational culture role in the research and development strategic alliance needs to be studied. Therefore, it was recommended to use organizational culture as a moderator among strategic R&D alliances and organizational performance.

*H6: Organizational culture plays a significant moderating role between strategic R&D alliances and organizational performance.*

### Organizational Culture and Organizational Performance

In literature, the assumptions regarding this topic reveals that culture directly influence the organizational performance (Imam et al., 2013, Naranjo-Valencia et al., 2016). Additionally, the resource-based theory of the organizations reveals that culture plays a significant role in organizational competitiveness and sustainable performance due to difficulty of facsimileing for opponents to replicate, as many of its most important features are implicit and vastly multifaceted (Valmohammadi and Roshanzamir, 2015).

*H7: There is a significant relationship between organizational culture and organizational performance*

### Link among Strategic Alliances, Organizational culture and Organizational performance

Alliances enables to find out and learn the internal capabilities and skills of the partner firm (Howard et al., 2016). When these norms are aligned effectively with personal values and needs, then culture can unrestrained massive potential and efforts toward organizational shared purposes and increases the organizational capacity to thrive in strategic alliances (Bruyaka et al., 2018).

### Conceptual Framework

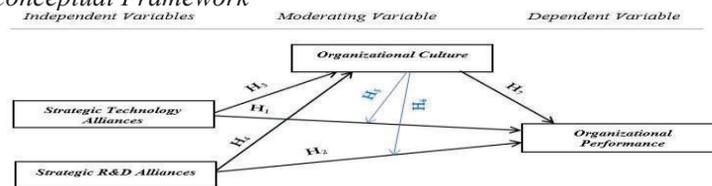


Fig 1: Conceptual Framework

### Methodology

The study adopted the positivism approach. For this persistent a survey questionnaire by adopting existing scale was used for data collection. 250 Questionnaires were distributed among the managers working in telecom sector out of which 110 were returned. After a careful scrutiny 100 were found completed in all aspects are considered for present study.

### Discriminant Validity

The study confirms the reliability and validity as illustrated in the table 2. *PLS model fitness test analysis*, the results that were extracted from confirmatory factor analysis shows that the model is fit for

Table 1: Reliability analysis of the study conceptual mode

	Cronbach's Alpha	Rho_A	Composite Reliability	(AVE)
Moderating Effect 1	0.941	1.000	0.789	0.130
Moderating Effect 2	1.000	1.000	1.000	1.000
OC	0.948	0.951	0.956	0.683
OP	0.918	0.919	0.932	0.581
SA (R&D)	0.768	0.746	0.820	0.398
SA (technology)	0.824	0.838	0.869	0.528

further study. SRMR was tested to be 0.109,  $d_{ULS}$ = 6.613, Bartlett's: chi-square test= 1279.533, p-value= 0.000. All these indicate that the model is fit

Table 2: Validity analysis of the study conceptual model

	Moderat. Effect 1	Moderat. Effect 2	OC	OP	SA (R&D)	SA (Tech)
Moderat. Effect 1	0.361					
Moderat. Effect 2	0.562	1.000				
OC	0.414	0.078	0.826			
OP	0.321	0.098	0.852	0.762		
SA (R&D)	0.238	0.153	0.506	0.662	0.631	
SA (Tech.)	0.132	0.176	0.562	0.647	0.718	0.727

Table 3: Model Test for Variables

	Saturated Model	Estimated Model
SRMR	0.109	0.108
$d_{ULS}$	6.613	6.543
$d_G$	2.954	3.010
Chi-Square	1,279.533	1,273.896
NFI	0.584	0.585

### Hypotheses Testing

Hypotheses were tested using smart partial least square (PLS). The results show a significant positive relationship between strategic technology alliances and organizational performance ( $\beta$ = 0.077,  $t$ = 0.916,  $p$ < 0.00). It means that results support H1. A

significant positive relationship was analyzed between strategic R&D alliance and organizational performance i.e. ( $\beta= 0.265$ ,  $t= 3.647$ ,  $p< 0.00$ ), this result also supports H2. Strategic technology alliances also have a significant positive relationship with organizational culture ( $\beta= 0.492$ ,  $t= 4.744$ ,  $p< 0.00$ ), this supports H3. There is a positive and significant relationship between Strategic R&D alliances and organizational culture ( $\beta= 0.438$ ,  $t= 0.555$ ,  $p< 0.00$ ), it shows that H4 is also supported. Organizational culture moderates the relationship between strategic technology alliances and organizational performance ( $\beta= 0.438$ ,  $t= 0.662$ ,  $p< 0.00$ ) hence, proving H5. The hypothesis H6 was supported by the result as ( $\beta= 0.230$ ,  $t= 0.555$ ,  $p< 0.00$ ). The study found significantly positive relationship between organizational culture and organizational performance that was supported by H7 i.e. ( $\beta= 0.675$ ,  $t= 12.154$ ,  $p< 0.00$ ). Table 3 below shows the results.

*Table 3: Model Test for Variables*

Hypothesis	Path $\beta$ coefficients ; students t-test	Hypothesis testing
H1	(0.077 ; 0.916)	Supported
H2	(0.265 ; 3.647)	Supported
H3	(0.492 ; 4.744)	Supported
H4	(0.438 ; 0.555)	Supported
H5	(0.438 ; 0.662)	Supported
H6	(0.230 ; 0.555)	Supported
H7	(0.675 ; 12.154)	Supported

## Discussion

The objective of study was to analyze the influence of strategic alliances (technological and R&D) on organizational performance and also to study organizational culture as moderator between strategic alliances and organizational performance. A positive and significant relationship was found between variables. Different researches have demonstrated that technology acquisition and knowledge sourcing through strategic alliances has positive effects on organizational performance (Faems et al., 2005, Leiponen and Helfat, 2010, Miotti and Sachwald, 2003). A study conducted by the (Kim et al., 2015) has found the significant impact of strategic technology alliances on the productivity and performance. R&D alliances is risky and critical activity which have long term consequences and if adequately managed and planned can threaten the survival of organization (Martinez-Noya and Narula, 2018). Organizational culture is also considered as a vital vehicle for the organizational effectiveness. Little research has been conducted on the extent to which the moderating role of organizational culture varies according to the type of strategic alliances (Naqshbandi and

Jasimuddin, 2018). Literature on organizational culture is mixed and varied. Though, several academics question the generalizability of culture and performance link, there is possible evidence that suggests organizational culture relates organizational performance. One of the main explanations for the wide spread recognition and understanding in organizational culture generates from the supposition that certain organizational cultures relate to excellent organizational financial performance.

### Conclusion

In this paper, we have attempted to explore and analyze, how strategic alliances is important in gaining and maintaining competitive advantage for organization and presented a brief overview of research and recommendations for this persistent. Organizational culture is most important to deliver the higher outcomes. In this modern era of constantly changing environment, organization must ensure higher level of technological resources. Further external knowledge is necessary to develop and nurture the high skilled and competent employees. Future studies may be conducted in different sectors like education, health etc. with a large sample to increase the scope of the study. The researchers and practitioner may compare the studies conducted in different sectors. We used organizational culture as a moderator in present study and in future the moderating role may be changed to some other important variables so that the results could be found different.

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