

## The Antecedents and Consequences of Coopetition: Evidence from Pakistan

Ariflftiukhar

UCP Business School, University of Central Punjab, Pakistan

Dr. Abdul Waheed

Assistant professor, UCP Business School, University of Central Punjab, Pakistan

Corresponding Author: Dr. Abdul Waheed

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### Abstract

**Issue:** In contemporary business environment, phenomenon of coopetition has become an important and plausible way for competitive advantages. It is contemplated as a beneficial practice in an environment where the constant is 'change'. In today's business landscape, the environment is changing and uncertain, and firms follow multiple strategies to address this uncertainty. **Methods:** The article addresses the effect of coopetition (plausible strategy to address issues emanated by uncertain environment). Such business environment is the resultant of factors like globalization, hyper-competition, and technological advancement, which are studied in the context of Pakistan's small and medium enterprises (SMEs). **Findings:** The overall findings suggest that the coopetition is a relevant nuance as it has a positive effect on the firm's performance. Furthermore, it is suggested that the firms operating in an emerging economy like Pakistan can realize the potential by adopting the nuance of coopetition. **Conclusions:** In conclusion, it can be stated that creating alliances with their competitors, horizontally and/ or vertically, the SMEs can help organizations attain their objectives in a cost-effective manner leading to a better firm's performance.

**Keywords:** 1. Coopetition. 2. Firm performance, 3. Globalization, 4. Hyper-competition, 5. Technological advancement

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### 1. Introduction

The business environment in today's time is more volatile, aggressive, uncertain, and engulfed with hasten changes. According to Nashiruddin, (2018) firms are facing increasing number of competition challenges, and their intensity has increased, affecting the stakeholders (in particular customer) expectations (Altschuller, Gelb, and Henry, 2010). Making ten year's strategic plan is almost over since the current business environment constantly keeps changing. Rarely one can predict how technology, customers, regulation, competition will look in ten years.

This article addresses the discourse of coopetition, focusing on today's volatile and complex business environment, keeping in view that the cooperating firm is also a rival firm in the market space (Carlos, Ribeiro-Soriano and Palacios-Marqués, 2019). An economy characterized by global competition has efficient means to produce products and services, where knowledge turns to innovation. Small and medium sized enterprises (SMEs) are not able to cope up in the current environment.

According to Carlos et al., (2019) a good strategy for SMEs is coopetition, as it helps to cope with technological uncertainty and a way to compensate for the lack of resources significant to develop competencies and skills in a complex, volatile and fast-paced environment.

Our research argument stems from lack of strategic options available when the modern business/market environment is highly unpredictable, uncertain, fluid, volatile and turbulent, fuelled by globalization, technological advancement, and hyper-competitiveness. This research has helped to investigate the use of cooptation in improving a firm's performance within a business environment where competitiveness is high, technological changes are abrupt, firms lack new resources, and existing resources are already strained due globalization.

Keeping in mind the current pandemic situation, which has worsened the situation for all the firms (small, medium, and large) as it is becoming challenging to predict the future. Fabrizio et al. (2021) advocated that future research be required to improve the competitive advantage of small and medium sized organisations by improving their capacity when market is turbulent and requires firms to be competitive, work on innovation especially in an emerging market.

Sharma et al. (2020) pointed out that future research is required from the perspective of institutes (private or public) operations when risk and uncertainty is high as seen during the current pandemic time.

The objective of this study is to understand the antecedents and consequences of cooptation on the SMEs of Pakistan. Gathered data is from the firms operating not only in Pakistan but exporting their goods and services outside the boundaries of Pakistan.

## 2. Literature Review

The dynamism and innovation in the market is creating a challenge for firms to attain their sustainable competitive performance (Fabrizio et al., 2021). In the article, the focus is on cooptation (a paradox of collaboration and competition), a juxtapose relation, and a way for management to overcome the challenges and opportunities exist due to the dynamic business environment. As intricate the cooptation phenomenon is, it is must for today's business environment. In a volatile and turbulent environment, large firms may survive and sustain their position, but it may not be true in case of SMEs as the resources are scarce and thus, expertise is limited.

In fact, cooptation is gaining its importance due to the challenges faced by the firms forcing them to explore (innovate) and exploit (optimally maintaining the status quo) by collaborating with their competitors. The unprecedented spread of globalization, use of new information technologies (Its) within the local boundaries or beyond the national boundaries has influenced many firms to forego the traditional idea of considering competitor as foe but to see the opportunities of becoming an ally with the competitor.

Karabag and Berggren (2014) suggested that strategic input and firm resources are the factors, which leads to firm performance. Thus, we can say that firm performance is important factor and an ingredient for businesses especially in a developing country. For the survival of firm, performance is the condition (Taouab and Issor, 2019) in a world of business.

### 2.1 Hyper-competition and Cooptation

Lindskov, Sund, and Dreyer (2021) advocated that the competition, which exists in current time, is not what it used to be in the past – it is now highly intense. This intense competition is affecting the business returns, business survival rate is diminishing, and the business/market environment is getting dynamic day-by-day (Lindskov et al., 2021).

The pretention of these changes is a threat or a potential challenge to strategy making (Lindskov et al., 2021) and because of them, the competitive environment has become highly dynamic. This dynamism has made the rule of competition (Lindskov et al., 2021) to change and according to D'Aveni (1997); this is 'hyper-competition'.

Quinn (1992) wrote that firms enhance their learning and able to better serve and perform by creating alliances. These alliances in today's time having nuance of cooperation and competition i.e., coopetition, will help firms to perform well in the turbulent, unpredictable, and volatile environment. Therefore, we can hypothesize that

**Hypothesis (1):** Hyper-competition has a positive effect on coopetition.

## 2.2 Globalization and Coopetition

Belk (2019) argued that globalization has brought positive changes since its inception and some views are present that globalization will diminish with time. Globalization may diminish but it still exists due to the mega projects undergoing in many countries. One such project is Belt and Road Initiative (BRI), a brain child of Peoples Republic of China. This project is a lifeline to many people, or we can say the nations and it is true for Pakistan, as viewed by economists and strategist. The BRI project alone will be a driving force for globalization in today's time (Belk, 2017).

Hani and Dagnino (2020) argued that the changes happening in the network structures and architectures of business environment due to globalization. They argue that this will help the firms to explore and exploit the market thus gaining the desired outcome.

Management of the firm can use the coopetition paradigm, as it will be effective in meeting the globalization challenges (Breznitz, 2009; Nohria and GarciaPont, 1991; Kedia et al., 2016; Della, 2018). Thus, we can hypothesize; Globalization has a positive effect on coopetition (**Hypothesis 2**).

## 2.3 Technology Advancement and Competition

Sethi and Iqbal (2008) refer turbulence in business environment due to technology when technological environment is volatile, new information is incipient constantly about the customers, competitors, and the novel technology.

Liu, Deng, Wei, Ying, and Tian (2019) quoted in their article that various market turbulence factors are considered, to observe the changes in the technological arena and they emerge time to time that requires the stakeholders to be flexible to account and accommodate the unexpected changes in the firm.

Therefore, paradox of coopetition is a valuable phenomenon when there is high level of technological advancement. Liu et al. (2019) proposed that if the uncertainty is high in an environment due to technological factors than the coopetition is favourable. Hence, the **third hypothesis** is "Technological advancement has a positive effect on coopetition".

## 2.4 Coopetition and Firm's Performance

Crick (2018) claimed that understanding of coopetition increases the success rate by tapping into and combining the resources in such a way that it will not be possible otherwise. Crick (2018) also advocated that the linkage between the firms (social network) can help them to exploit and explore the knowledge and resource in ways that support the firms' performance. Thus, based on the arguments, we can say that coopetition a way forward to improve the firm's performance in the current environment (turbulent, unpredictable, changing, volatile etc.).

In addition, Hani and Dagnino (2020) propagated that the firm will perform in a network alliance, thus affecting it in a positive way especially when the setting of coopetition is set. [Zacharia](#) et al. (2019) discussed and accentuated on adoption of coopetition by managers to improve firm performance. Thus, it is hypothesized that coopetition has a positive effect on firm's performance (**Hypothesis 4**).

## 2.5 Mediating Role of Coopetition between hyper-competition, globalization, technological advancement and firm's performance

Bogner and Barr (2000) wrote in their article that today the market is facing challenges due to the change, which is perpetual, and ferment. Thus, the market is in a state that will give rise to hyper-

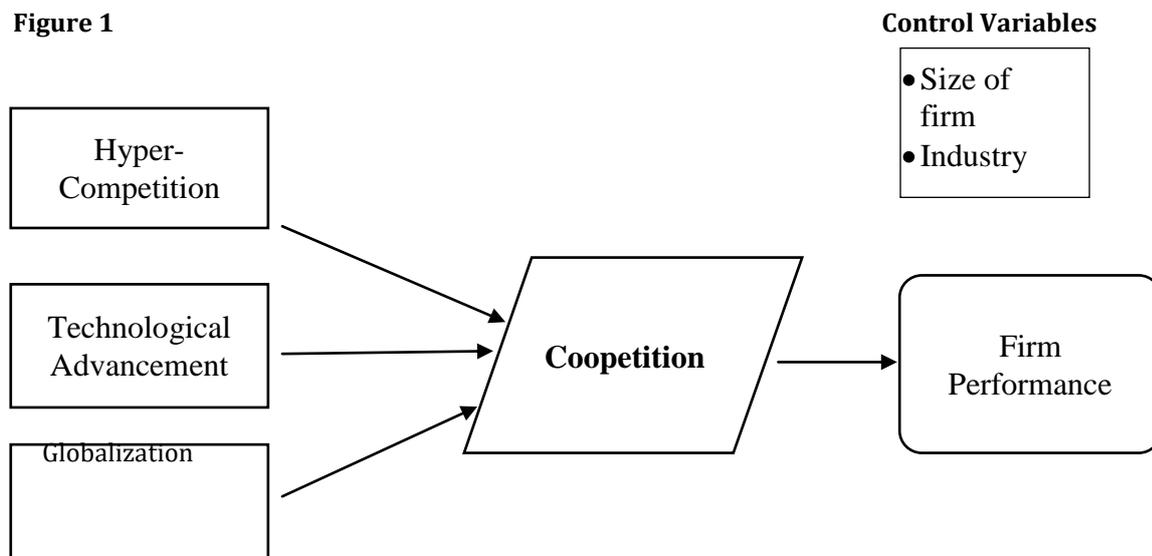
competition (Bogner and Barr, 2000). Lindskov et al. (2021) voiced that in hyper-competitive environment, sustaining and improving firm’s performance is becoming a complex and challenging task for the decision makers –Thebusiness/ market environment is continuously being challenged by the competitors via innovation (demand and need), shorter product life cycles to name a few. Brandenburger and Nalebuff (1996) hypothesized that when competitive firms cooperate with each other they improve firm performance by supplementing each other operations and this improvement is further enhance when they get into direct competition. In the process, they achieve a positive sum output (Fernandes et al., 2019; Zakrzewska-Bielawska, 2014; Brandenburger and Nalebuf, 1996). Therefore, it is safe to assume and strengthens the idea to use the nuance of coopetition in a hyper-competitive environment when firm’s performance is the objective. Thus, the **fifth hypothesis** is that Coopetition plays a mediating role between hyper-competition and firm’s performance.

Gurau and Dana (2020) stated in their research that the result of globalization is the removal of restrictions on foreign trade, investment, and innovations in various sectors which is also propagated by J. Paul in his article “Market access and the mirage of marketing to the maximum: New measures” published in year 2015. Chen, et al. (2016) claims in their publication that the effect of globalization on the stakeholders are complex, dynamic, and multifaceted. Due to its dynamic, complex, and manifold effect (Yang et al., 2011) on firms, they are no longer able to make strategies that will help in sustaining competitive edge, thus effecting firm performance. Gurau and Dana (2020) stated that the risks of globalization and internationalization can be lessen by adopting a paradigm shift from working alone to adopting a collaborative framework which includes the competitors of the firm.

Monticelli et al. (2022) advocated that the firm’s alliances could overcome the external obstacles and neutralize threats, which in turn leads to success. The robustness of firms in the face of globalized business environment is the key in managing the obstacles and neutralization of the threats. According to Della (2018),the coopetitive dynamics should have a positive impact on performance of the firm. Thus,it is hypothesise thatCoopetition plays a mediating role between globalization and firm’s performance (**Hypothesis 6**).

**Theoretical Framework**

**Figure 1**



Mufudza (2018) explains that in contemporary time the business environment is not stable but a turbulent one, which is characterized by many factors, one of them is the technological changes. Ritala et al. (2014) states that the technological changes in the contemporary world are driven by the short span

technology life cycle, integration of technologies i.e., technology convergence (Anderson & Tushman, 1990) and the cost incurred on the research and development for the technology change.

For the study, we have considered turbulence of technological world as another factor and considering it as the third variable, and named it, Technological Advancement. If these competing firms collaborate with each other there is a greater chance to come up with a new technological expertise (Fernandes et al., 2019), thus making the firms to bear the pressure and improve its performance. Therefore, the **seventh hypothesis** is Coopetition plays a mediating role between technological advancement and firm's performance.

### 3. Methodology

#### 3.1 Research Design

For the purpose of the research, a survey method is used. Questionnaire were filled by using online resource i.e., google forms, and via self-administered survey method.

#### 3.2 Population and Sample

In this research, we have focused on the firm level relations. The selected population are having authority and power to take decisions based on the opportunities available to them. The target population are from the SMEs of Pakistan based in and around central Punjab. According to the Punjab Board of Investment and Trade (2022), Pakistan, cottage and small-scale industries are lifeline to industrial development. In Pakistan 80% of industrial is employed by the cottage and small-scale industries. These industries help in creating jobs. For the development of the country and the Punjab province these SMEs has great potential.

#### 3.3 Items and Measures

To measure coopetition, the researcher has adopted the items from Kim, Kim, Pae and Yip (2013), for firm performance the items were taken from Kim et al., (2013). Like firm performance, the items for globalization are adopted from (Thoumrungraje, 2004). Jaworski and Kohli (1993) work was considered to measure technological advancement and hyper-competition.

#### 3.4 Collection of Data/ Responses

The responses were collected from the following five regions of Pakistan's Punjab province, namely, Sialkot, Faisalabad, Lahore, Gujranwala and Sheikhupura. These areas were selected on the basis of various industrial activities and existence of industrial estates/ zones.

### 4. Findings

Total of 384 responses came which is 39.30% of the total floated questionnaire. After cleaning the data 292 responses of the respondents were left for analysis, which equates to 76.04%. The remaining data was complete and fit for the purpose of analysis.

Multi-collinearity was not found as the VIF values are within the acceptable limit. The value for VIF is well within the limit i.e., for all the three IV's, namely, hyper-competition, globalization and technology advancement is less than 3. The dependent variable is firm's performance (FPD). Thus, we can infer from the result that the IVs are independent. Therefore, we can further perform various functions and continue with the study.

#### 4.1 Convergent Validity

Convergent validity is obtained because factor loadings of (exploratory factor analysis) are greater than 0.7 except for two, but they are still in acceptable range as their loadings are more than 0.5 (see Table

1).Discriminant validity is also established because no significant cross loading was found and correlation between any two factors was not more than 0.7. All composite reliability (CR) values are greater than 0.7, meaning that internal consistency is achieved. Moreover, all AVE values are also more than the threshold 0.5 showing that convergent validity is not an issue in our constructs.

**4.2 Measurement Model**

Confirmatory Factor Analysis (CFA) was performed on AMOS. In the study, there are five (05) first order constructs, namely, hyper competition, globalisation, technological advancement, coopetition, and firms' performance. The items that measured hyper competition is six (06) in number, five (05) items are measuring globalisation and technological advancement. The coopetition which is a mediator is measured with six (06) items as well as the firm performance, the dependent variable.

The factor loadings for all items were above 0.6, except for TE05 with the value as 0.59. Therefore, we removed this item. The goodness of fit indices show that model provides a good fit (CMIN/df = 2.31, GFI = 0.91, CFI = 0.936, TLI = 0.929, RMSEA = 0.07).

**4.3 Structural Equation Modelling (SEM)**

For the testing of hypotheses, structural equation modelling was used and analysis was performed on AMOS. Firm size and industry type were used controls.

The effect of hyper competition and technological advancement on coopetition is significant, positive ( $\beta = 0.352$ ;  $p \leq 0.05$  and  $\beta = 0.477$ ;  $p \leq 0.05$ , respectively), whereas the effect of globalization is insignificant ( $\beta = 0.050$ ;  $p = 0.643$ ). This means that H1 and H3 are supported but H2 is not accepted. In case of direct relationship between coopetition and firm performance, the hypothesis (H4) is accepted ( $\beta = 0.206$ ;  $p \leq 0.05$ ).

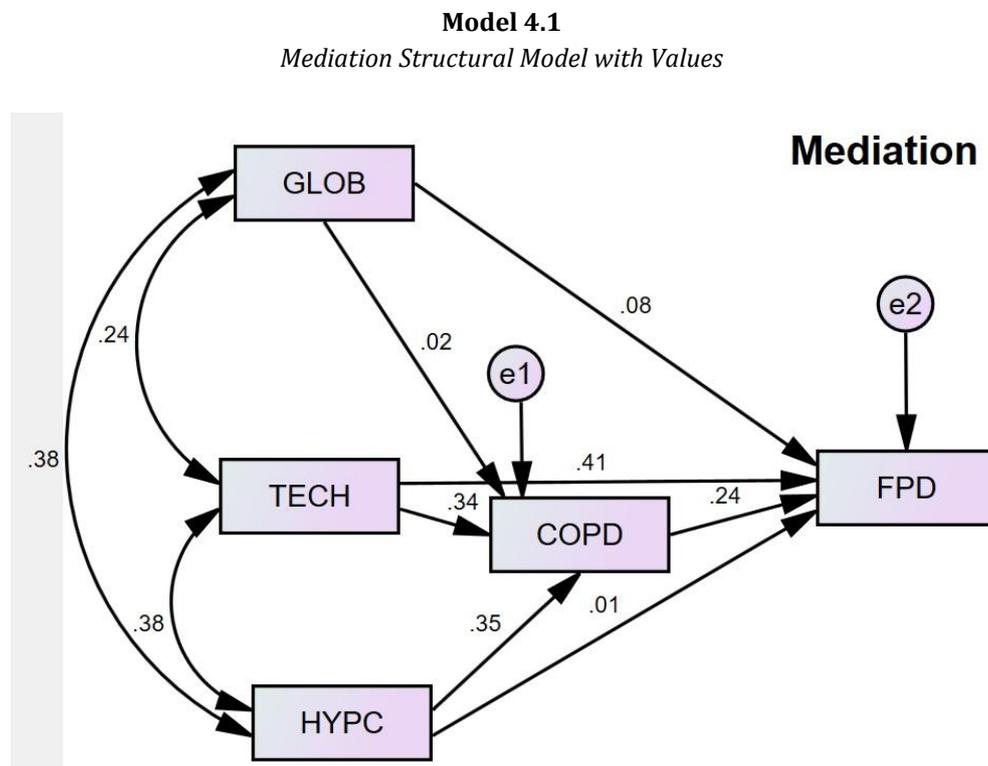
**Table 1**

<i>Pattern Matrix – Convergent Validity Estimates</i>					
	Factor				
	1	2	3	4	5
HYPC01			.596		
HYPC02			.841		
HYPC03			.739		
HYPC04			.776		
HYPC05			.872		
HYPC06			.875		
GLOB01				.748	
GLOB02				.882	
GLOB03				.919	
GLOB04				.880	
GLOB05				.865	
FPD01	.759				
FPD02	.804				
FPD03	.962				
FPD04	.988				
FPD05	.827				
FPD06	.722				
COP01		.810			
COP02		.701			
COP03		.804			
COP04		.864			

COP05		.885			
COP06		.947			
TECH01					.709
TECH02					.777
TECH03					.700
TECH04					.808
TECH05					.563
Extraction Method: Maximum Likelihood.					
Rotation Method: Promax with Kaiser Normalization.					
a. Rotation converged in 6 iterations.					

#### 4.4 Mediation Analysis (direct and indirect estimates)

For mediation analysis, bootstrap mediation technique is used (Hayes, Preacher, and Meyers, 2011).



According to the results, the relationship between technological advancement and firm performance is significant. For globalization, the relationship with competition and firm performance is not significant. The path between hyper-competition (HYP) and firm performance (FPD) is also not significant. Thus, it is inferred that the model will hold the partial and full mediation.

The hypothesis H5, i.e., competition plays a mediating role between hyper competition and firm's performance is accepted as the causal path is significant. In addition, we can see that there is full mediation as the direct path is non-significant for HYP and FPD.

The H6 states the mediating role of competition (COPD) between globalisation (GLOB), the independent variable, and firm performance (FPD), the dependent variable. We found that the direct causal path, i.e., GLOB to FPD is non-significant as well the indirect path i.e., GLOB to COPD to FPD is also non-significant.

This means that there is no mediation of cooperation existing between the IV and DV. This also conforms with the analysis of hypothesis two (H2). The H2 and H6 hypotheses are rejected.

The p-value tells us that the mediator variable, i.e., COPD is mediating between technology (TECH) and FPD. At the same time there is a significant direct relation between TECH and FPD. This means that there are other factors which play a role between the TECH and FPD, therefore, direct i.e., TECH to FPD and indirect causal path i.e., TECH to COPD to FPD both the causal paths are significant. This means that there is a partial mediation between TECH and FPD when COPD is an intervening variable.

Statistically, we can explore the indirect effect by looking at the p-values. We can see that the cooperation plays a mediating role between hypercompetition and firm's performance as well as between technological advancement and firm's performance. Hence, statistically it is supporting the H5 and H7. On the other hand, cooperation is not statistically playing a mediating role between globalization and firm performance as the p-value is .657. Therefore, we found statistically that cooperation is not playing a mediating protagonist between globalization and firm performance. Thus, hypothesis 6 is rejected.

According to the estimated values, the causal path between hypercompetition is significant as discussed above. Also, the causal path is significant between technological advancement and cooperation. For both the paths the significance value is .001 which is less than .05. On the other hand, the causal path between globalization and cooperation is non-significant as the p-value is .712. Thus, it also supports the above findings for the hypotheses 1 to 3.

According to the standardized direct effects, the p-value is .001 between hyper-competition and cooperation, and same between the technology and cooperation. This means that the unmediated causal path is significant. This is analysed in AMOS, where bootstrap approximation is obtained by constructing two-sided bias-corrected confidence intervals. The standardized direct (unmediated) effect of globalization on cooperation is non-significant as the  $p = .712$  two-tailed. This is also a bootstrap approximation obtained by constructing two-sided bias-corrected confidence intervals.

## 5. Discussion

From the findings, we can consider that cooperation is in fact used as an option to increase the survivability of the Pakistani SMEs. The effect of cooperation on the firm's performance by weighing environmental factors such as technological advancement, hypercompetition and globalization showed the existence of collaboration and competition elements. However, surprisingly an unexpected result emerged when globalization construct was further analysed. Majority of the responders acknowledged the overall effect of globalization on their firm but downplayed the effects on firm's performance. The responses received mostly downplayed the effect of these factors; hence our two hypotheses were rejected i.e., globalization effect on cooperation (H2) and mediating role of cooperation between globalization and firm's performance (H6). The direct effect of globalization on the firm's performance is of lesser magnitude especially when studied for the complexity of business operations, volume of competitors, forecasting demand for the products, predictability of consumer purchasing patterns, and market uncertainty due to globalization. Cygler and Sroka (2017) discuss the disadvantages of cooperation in their scholarly research paper, in which they address the existence of cons of cooperation and the threats that may be present in the context of globalization, those cons may point out the cause of the rejection of hypotheses H2 and H6.

Next, the research focused on the impact of hyper-competition, and technological advancement on the cooperation. Based on the data analysis to understand hyper-competition (H1) and technological advancement (H3), the statistical analysis showed that both have a positive impact on cooperation. Thus, our study is aligned with the literature and consistent with other researchers who have gathered data from

their respective country markets. The market of Pakistan is very competitive according to the data collected from the SMEs of Pakistan. Based on the analysis of the collected data, the results showed the hyper-competition prevails in Pakistani business environment. The response showed that technology plays a considerable role on a firm's operations and therefore affecting a firm's performance positively. For H4, factors within this part of the study included; element of conflict of interest between partner firms, competition with partnered firm in a market to increase market share; advantage of cooperation in exploring new and unique opportunities; and acknowledging the relationship between firms as cooperative. Results of the study of the factors helped us to understand and establish the existence of cooperation. It is in consistence with other researchers that the cooperation paradigm does lead to better firm performance. Thus, validating that cooperation has a positive effect on a firm's performance.

For the remaining two hypotheses, analysis of the data suggests that cooperation plays a mediating role between hyper-competition and firm's performance (H5) and between technological advancement and firm's performance (H7). It plays a vital role between HYCP and FPD as an integral factor in this relationship. If cooperation does not exist between them then no relationship exists, thus statistically it is mediation. On the other hand, cooperation plays a mediating role between technological advancement and firm's performance, but it is not the only cause of relation between them. It means that the relationship between TECH and FPD will still exist even if no cooperation exists between them. Hence, hyper-competition factors affect the Pakistani markets.

## **6. Conclusion**

### **6.1 Conclusion**

The analysis of the statistical data collected for this study implies that cooperation does in fact exist in the context of Pakistani SME firms. In this research, the focus is to determine the existence of cooperation among firms and their competitors, and not the amount of cooperation that exists. The nuance of cooperation does exist in SMEs of Pakistan, though to some extent in a somewhat non-traditional capacity. Some Pakistani SME firms carry unique product offering, customer base, and market share, and can be considered unconventional businesses not reliant on cooperation for their continued growth. However, the gathered data suggests that they are ready to work with competitors in order to sustain.

The takeaway for managerial implication is that the nuance of cooperation can help firm's performance. The portmanteau word cooperation or the nuance of cooperation will help organisation's stakeholders cooperate with their competitors since this could help balance the effects of changes in environment. This research is an abridgement of the main elements that helps to connect into the concept, theory and practice of cooperation in a current business environment, indicating it as the potentially effective platforms for SMEs of Pakistan.

### **6.2 Limitations and Future Directions**

The limitation faced were the cultural differences (Raza-Ullah, 2020) among the people belonging to different provinces, districts, and the other parts of Pakistan. For our study, we collected the data from firms within specific market, which engage in cooperation. The future researchers should observe dyadic relation as this would help the researcher and practitioner to understand the relation between firms and network of firms along with other specific aspects. A qualitative technique and quantitative technique should be used together to further helped to understand the notion of cooperation. We can see that intra-firm effect of cooperation was not studied for playing a part in the performance of employees, and departments thus, having a combined effect on firm's output i.e., the performance: another limitation.

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