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RESEARCH PAPER

The Impact of Business Process Capabilities on Firm Performance: A Moderated-Mediation Approach of Strategic Agility and Environmental Turbulence

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ABSTRACT

Firm performance is a major challenge in Pakistan. Pakistan's hotel and hospitality industry and SMEs are badly impacted by many organizational challenges such as COVID-19. To get through this upheaval and get back on the solid foundation of strong business performance, the hotels and SMEs in this sector required direction and guidance. Through the mediation of strategic agility and the moderation of environmental turbulence, the objectives of the study are to clarify the impact of business process capabilities on firm performance. The study employed a quantitative research strategy and evaluated the responses of 321 managers working in Pakistan's hotel and hospital industries. The study analyzed data using AMOS 24 and SPSS software, and it employed structural equation modeling (SEM) to assess the hypotheses. The study's findings indicate that business process capabilities have a major impact on firm performance and that strategic agility significantly positively mediates the relationship between business process capabilities and firm performance. Results indicate that environmental turbulence has a negative moderating effect on the mediation relationship between firm performance and strategic agility. The unstable, unpredictable, and destructive environment encourage businesses to focus more intently on maintaining and improving their company performance as well as seeking out more strategically agile approaches. The results demonstrate the detrimental effects of environmental turbulence on the business performance of SMEs in Pakistan's hotel sector.

KEYWORDS	Business Process Capability, Environmental Turbulence, Firm Performance, Strategic Agility

Introduction

The firm performance is a significant for Pakistani business organizations, and in the current competitive business environment, delivering the best-value products to targeted consumers and effectively meeting their specific needs through efficient process management have become top priorities for organizations (Sukati, Hamid, & Baharun, 2013). Because efficient execution of business processes may greatly increase key efficiency and effectiveness criteria like cost, quality, service, and time, organizations have come to understand the significance of "business process capability" (BPC) in their business systems.

"Strategic agility" (SA) has also been acknowledged by organizations as a business strategy for obtaining a competitive edge (Arokodare & Asikhia, 2020). Businesses that are strategically agile provide value to their customers in order to satisfy their needs and preferences, which increases customer loyalty. Additionally, according to Clauss, Abebe, Tangpong, and Hock (2019), strategically agile businesses are proactive

and more likely to recognize opportunities and respond to threats and risks, which reduces the possibility of unfavorable outcomes for their company.

A firm's future readiness and a strong predictor of becoming an industry outperformer, gaining a competitive edge, and seeing a significant increase in market share have been suggested by studies that take into account the significant contributions of strategic agility (Oyerinde, Olatunji, & Adewale, 2018). The need for organizational strategic agility and business process capabilities has grown as a result of the coronavirus epidemic.

Another aspect of the business environment in Pakistan is environmental turbulence (ET), which has been described as changes in market trends, environmental conditions, and technological aspects. These changes have made it extremely difficult for organizations to adapt to these uncertain and extremely turbulent changes in the environment (Qiu, Hu, & Wang, 2020).

Literature Review

The study employs the Resource Base View (RBV) and Knowledge Base View theories as the empirical foundation for its synthesized model. The RBV theory argued that firms' internal sources should be used to define their external variable performances, and it was confined to the ideology of the entire phenomenon that the firms' internal components enable or define their performance as a structural competitive advantage. This theory primarily constructed the firm performance on the determinants of the outside industry (Kraaijenbrink, Spender, & Groen, 2010). The other theory employed was the knowledge-based view theory, which discussed how the firm's primary function is to integrate managers' individual knowledge into the firm structure in order to achieve high performance and a competitive advantage. This theory has a basic consensus regarding the knowledge resources of the company (Eisenhardt, Santos, Pettigrew, Thomas, & Whittington, 2000).

The definition of a BPC process is a series of exact procedures carried out to transform inputs into outputs. According to Davenport (1993), the goal of these activities is to transform resources, materials, or information into outputs like information, goods, or services. Business process capabilities were described as an organization's outside-in, inside-out, and spanning process capabilities to carry out business activities in the early 20th century school of thinking (Fahy & Hooley, 2002).

As per RBV, business processes offer a structure for examining the utilization of resources, emphasizing the identification of crucial resources and the optimization of their distribution to attain a competitive edge (Empirical). Overall, research has shown that the RBV and KBV are useful frameworks for understanding how business processes and capabilities impact a firm's performance and capacity to achieve a specific goal or outcome.

The firm performance is a major challenge for corporate planners in Pakistan. In previous years covid 19 was a major challenge. The idea of "firm performance," which is widely recognized in the literature, has been discussed as a dependent variable influenced by a variety of firm skills, such as resources, competencies, and capacities (Zott, 2003). Several authors have defined firm performance in various ways, including maximizing profits or the firm's present value (Jensen & Meckling, 2019), achieving the firm's economic objectives (Venkatraman & Ramanujam, 1986), calculating the rate of

return on assets (Rumelt, 1991), and producing the expected output using the resources that the stakeholders have provided (Beheshti, 2004).

The business process capability was evaluated in this study as an independent variable and its impact on a firm's performance was investigated. A number of recent studies have looked into how business capabilities and processes affect a company's performance. Research has debated BPC's importance. According to Vermeulen, Pretorius, and Kruger's (2012) analysis of the relationship between BPC and firm performance, management can evaluate the organization's strategic and tactical preparedness for implementing BPC to determine the organization's strengths and weaknesses within its business divisions.

The relevance and noteworthy influence of IT capabilities and business-process performance on the performance of the company have also been highlighted by Aydiner, Tatoglu, Bayraktar, and Zaim (2019). Organizational learning and business process competencies, such as strategic agility, have been described as the value-creation characteristics (Rehman, Asghar, & Ahmad, 2015) that enhance the firm's financial performance and adaptability relative to its competitors. After reviewing the literature and published research, we developed and tested the following hypothesis 1.

H1: There is a significant relationship between business process capabilities (BPC) and firm performance.

The term "strategic agility" is a relatively recent addition to the management literature, with roots in the early 1990s. Strategic agility was first mentioned in (Roth, 1996), who defined strategic agility as the capacity to quickly react to changing market conditions, another study has defined strategic agility in a more elaborate way as the organization's ability to make strategic decisions for flexibility and re-development for the survival in the dynamic environment (Y. L. Doz & Kosonen, 2010). Strategic agility is a collection of actions used by firms to add value in unstable and unpredictable business settings (Chan, Teoh, Yeow, & Pan, 2019).

Research studies define "strategic agility" as a swift adaptive response to unforeseen and unplanned conditions and have identified it as a competitive advantage to thrive in the market (Amini & Rahmani, 2023). According to (AlTaweel & Al-Hawary, 2021; Doz, & Kosonen, 2008), there are three essential components of strategic agility: leadership unity, resource flexibility, and strategic sensitivity. Strategic sensitivity is the capacity to recognize shifts in the external environment and forecast how they will affect the company (Lehtimäki & Karintaus, 2012). Organizations can take advantage of these changes in the external environment, plan ahead to prevent hazards, and create backup plans in case anything unexpected happens (Fakunmoju, Arokodare, & Makinde, 2020; Reed, 2021).

Strategic agility has been tested as a mediator between different variables in different sectors. Battour, Barahma, and Al-Awlaqi (2021) have investigated and interpreted the positive mediation of strategic agility between HRM strategies and sustainable competitive advantage. Al-Azzam, IRTAIMEH, and Khaddam (2017) have found a full mediating effect of strategic agility between intellectual capital and organizational excellence. Another study conducted by Kale et al. (2019) has mentioned the significant positive impact of strategic agility on the firm performance. In addition to these narrated tested relationships of different studies, RBV (Nurjaman et al., 2021) and KBV have highlighted that knowledge like strategic agility and business process capabilities are valuable knowledge assets that can drive the firm toward survival and

growth of business in an unpredictable and readily changing environment. In light of all the mentioned knowledge from the literature, the following hypothesis 2 was developed and tested.

H2: Strategic agility significantly mediates the relationship between business process capabilities and firm performance.

The concept of "environmental turbulence" was first defined by (Emery & Trist, 1965), and they stated a turbulent environment is the high degree of interconnection of an environment with the organization as well as with the high degree of change in the environment together. Since then, environmental turbulence has been studied and discussed in the studies and contributions of researchers. The later researchers (Khandwalla, 1977) elaborated the turbulence concept more efficiently as a " turbulent environment is a dynamic, unpredictable, expanding, fluctuating environment; it is an environment in which components are marked by change".

Authors have used environmental turbulence as a moderating factor that robust some factors and diminishes others at the same time. A very recent study by (Arici & Gok, 2023), has tested environmental turbulence as a moderator with strategic agility and they have highlighted the dominant intensity of environmental turbulence on the firm innovativeness, strategic agility, and performance. Anggraini and Sudhartio (2019) have addressed environmental turbulence with strategic agility in the banking sector, concluding the higher competitive advantage of strategic agility in the times of turbulence in the environment. Another study has mentioned that firms surviving in the turbulent environment need the dynamic strategic capacity to compete, strive to grow, and gain proliferating outcomes (Poi & Lebura, 2022).

 Reed (2022) has highlighted different subfactors of strategic agility to use in turbulent environments and gain competitive advantage and firm performance. In the literature, all these mentioned studies have used environmental turbulence as a moderator with strategic agility and in some with firm performance, and based on the knowledge from the literature the following hypothesis has been derived and tested.

H3: Environmental turbulence has a moderating relationship between strategic agility and firm performance.

The conceptual framework is depicted in figure 1 below. There are four different variables. One independent variable is BPC. The moderating variable is ET, the mediating variable is SA, and the dependent variable is FP.
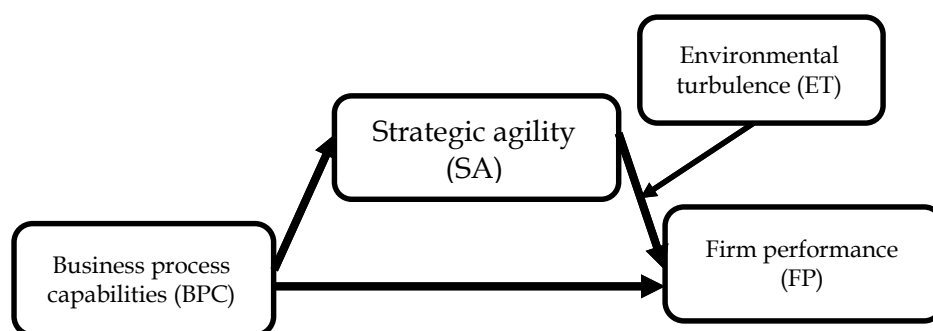

Figure I: The conceptual framework

Material and Methods

The phenomena were measured and quantified using a quantitative approach to study and deductive technique. Deductive techniques are commonly employed in quantitative research, as stated by Azungah (2018). The study used cross-sectional data. As per the findings of Seville, Hodson, and Di Tommaso (2023) and Monkey (2023), the cross-sectional methodology facilitates efficient execution while utilizing few resources.

Managers from a range of hospitality companies and hotels throughout all provinces in Pakistan made up the study's population, which allowed for the precise and accurate collection of data needed to evaluate the value of BPC and SA in an unpredictable context. The non-probability purposive sampling technique is used in this study, in which participants are specifically selected based on attributes that are pertinent to the objectives of the research. We employed a self-administered survey methodology to collect the data in addition to employing the online Google Doc survey method to reach SMEs spread across Pakistan's various regions.

The questionnaire was created to measure the factors using items from numerous studies. The independent variable, BPC, was measured via 12 items provided by (Rehman et al., 2015). The next variable of strategic agility was measured by using 9 items scale which was first ever developed in a study (Venkatraman & Ramanujam, 1986) and the same scale has been recently used by another study for the evaluation of strategic agility (Clauss et al., 2019) and this study has was encountered with significant and reliable results by using the targeted scale.

Environmental turbulence ET has been used in this study as a moderator between strategic agility and firm performance and it was adopted from the same study from which the strategic agility scale has been extracted, however, this scale was first ever designed by Jaworski and Kohli (1993). The dependent variable, firm performance, was measured with 5 items first ever designed by a study (Venkatraman & Ramanujam, 1986) and this scale has been also used by the same study from which the empirical evidence of other two variables have been referred (Clauss et al., 2019). All the items in the survey instrument were plotted in the questionnaire with the help of a 5-point Likert scale and ratings for each item ranged from 1 (strongly disagree) to 5 (strongly agree).

The researcher used SPSS for fulfilling the initial protocols of data analysis including the screening of the data for missing values and outliers. Then, the descriptive test was performed to get an overview of the respondents and test the normality of the computed variables through skewness and kurtosis tests. Next, the researcher investigated the reliability and validity status of the data with the help of Cronbach alpha values, factor loading, or exploratory factor analysis, and then ran the tests of confirmatory factor analysis and convergent and discriminant validity. AMOS was used for data testing with CFA for further analysis, and SEM was performed to assess research hypotheses. These statistical programs and tools guarantee thorough data analysis to accomplish the study's goals.

Results and Discussion

We received 296 (59.3%) of the 500 responses addressed to managers in the hotel and hospitality industries via the Google Doc survey method, and 48 responses were obtained through the self-administered data collection approach. A total of 344 responses have been obtained by combining the responses on the sheets. Primarily in the dependent and independent variable sections, we perform preliminary screening of blank

responses. 321 responses in all were received. Along with doing the tests of validity and reliability using factor loading, EFA, CFA, and composite validity, respectively, we also assessed the normality of the constructs using skewness and kurtosis. Afterward, Amos's software was used to carry out the SEM in the last step. The Table 1 represents no missing value in the whole data set. Tables 2, 3, 4 and 5 show the demographic profile of the participants.

Table 1
Missing Values

	Valid		Missing	
	N	**Percent**	**N**	**Percent**
Gender	321	100.0%	0	0.0%
Age	321	100.0%	0	0.0%
Work experience	321	100.0%	0	0.0%
Qualification	321	100.0%	0	0.0%
BPC2	321	100.0%	0	0.0%
BPC3	321	100.0%	0	0.0%
BPC4	321	100.0%	0	0.0%
BPC5	321	100.0%	0	0.0%
BPC6	321	100.0%	0	0.0%
BPC8	321	100.0%	0	0.0%
BPC10	321	100.0%	0	0.0%
BPC11	321	100.0%	0	0.0%
BPC12	321	100.0%	0	0.0%
ET2	321	100.0%	0	0.0%
ET3	321	100.0%	0	0.0%
ET4	321	100.0%	0	0.0%
ET5	321	100.0%	0	0.0%
FP1	321	100.0%	0	0.0%
FP2	321	100.0%	0	0.0%
FP4	321	100.0%	0	0.0%
FP5	321	100.0%	0	0.0%
SA1	321	100.0%	0	0.0%
SA2	321	100.0%	0	0.0%
SA3	321	100.0%	0	0.0%
SA6	321	100.0%	0	0.0%
SA7	321	100.0%	0	0.0%
SA8	321	100.0%	0	0.0%
SA9	321	100.0%	0	0.0%

Table 2
The Gender

	Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Male	281	87.5	87.5	87.5
Female	40	12.5	12.5	100.0
Total	321	100.0	100.0	

Table 3
Age

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	23-30	70	21.8	21.8	21.8
	31-40	160	49.8	49.8	71.7
	41-above	91	28.3	28.3	100.0
	Total	321	100.0	100.0	

Table 4
Qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelors	59	18.4	18.4	18.4
	Masters	179	55.8	55.8	74.1
	masters or above	83	25.9	25.9	100.0
	Total	321	100.0	100.0	

Table 5
Work Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3-5	179	55.8	55.8	55.8
	5-8	118	36.8	36.8	92.5
	8 or above	24	7.5	7.5	100.0
	Total	321	100.0	100.0	

Table 6
The Descriptive Analysis of The Variables

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BPC	321	1.00	4.89	3.4566	1.00357	-.632	.136	-.897	.271
ELT	321	1.00	4.75	3.4626	1.13061	-.969	.136	-.367	.271
SAA	321	1.00	5.00	3.4299	.98610	-.754	.136	-.657	.271
FPR	321	1.00	5.00	3.5545	1.09872	-.826	.136	-.311	.271

The following table represents the KMO as Kaiser-Meyer-Olkin Measure, and Bartletts test figures, as mentioned in a study (Shrestha, 2021) the standard value for the confirmation of the effective value of KMO is above 0.6 and less than 1, and the following table has revealed a good figure for the KMO test as 0.966, thus it approved the high accuracy and adequacy of the data sample that can be used for data analysis.

Table 7
The KMO and Bartletts test of data adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.969
Bartlett's Test of Sphericity	Approx. Chi-Square	7914.919
	Df	276
	Sig.	.000

We used the rotated component analysis for the evaluation of factor loading and verified the accuracy of the loadings on the basis of a pre-defined threshold range of 0.6 or above but less than 1 (Rahi, 2017). We encountered with some cross-loading issues and the factor loadings of some items were below 0.5 so the researcher used the rule of deletion of maximum 25% items from the scale of each variable and deleted the items which have low factor loading scores and then after analyzing again the factor loading of the variables with same rotated component analysis, the researcher was finally encountered with no value less than 0.6 and there were no cross-loading issues among the factor scores of all the items used in the survey instrument. The Table 8 represents the factor scores of all the items of the variables. The Table 9 presents the Cronbach alpha values of the variables.

Table 8
The Factor Loading of all the Items

	Component			
	1	2	3	4
BPC2	.610			
BPC3	.773			
BPC4	.789			
BPC5	.721			

BPC6	.719
BPC8	.719
BPC10	.748
BPC11	.676
BPC12	.744

ET2	.856
ET3	.818
ET4	.848
ET5	.789

FP1	.734
FP2	.775
FP4	.809
FP5	.797

SA1	.667
SA2	.673
SA3	.665
SA6	.717
SA7	.727
SA8	.699
SA9	.672

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

Table 9
The Cronbach Alpha Values of Variables:

Name of variable	No of items	Cronbach alpha
BPC	9	0.954
SAA	7	0.938
FPR	4	0.953
ELT	4	0.944

The correlation test was used to evaluate the association between the computed variables. The following table represents the correlation between the variables.

Table 10
The Pearson Correlation Analysis

		BPC	ELT	SAA	FPR
BPC	Pearson Correlation	1	.636**	.817**	.713**
	Sig. (2-tailed)		.000	.000	.000
	N	321	321	321	321
ELT	Pearson Correlation	.636**	1	.633**	.635**
	Sig. (2-tailed)	.000		.000	.000
	N	321	321	321	321
SAA	Pearson Correlation	.817**	.633**	1	.743**
	Sig. (2-tailed)	.000	.000		.000
	N	321	321	321	321
FPR	Pearson Correlation	.713**	.635**	.743**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	321	321	321	321
	**. Correlation is significant at the 0.01 level (2-tailed).				

The confirmatory factor analysis CFA test was performed on the data for the evaluation of the model fitness and the output of the CFA test was used for the elucidation of validity of the data. The results are presented in Table 11.

Table 11
The Model Fit Measures for The Designed Framework.

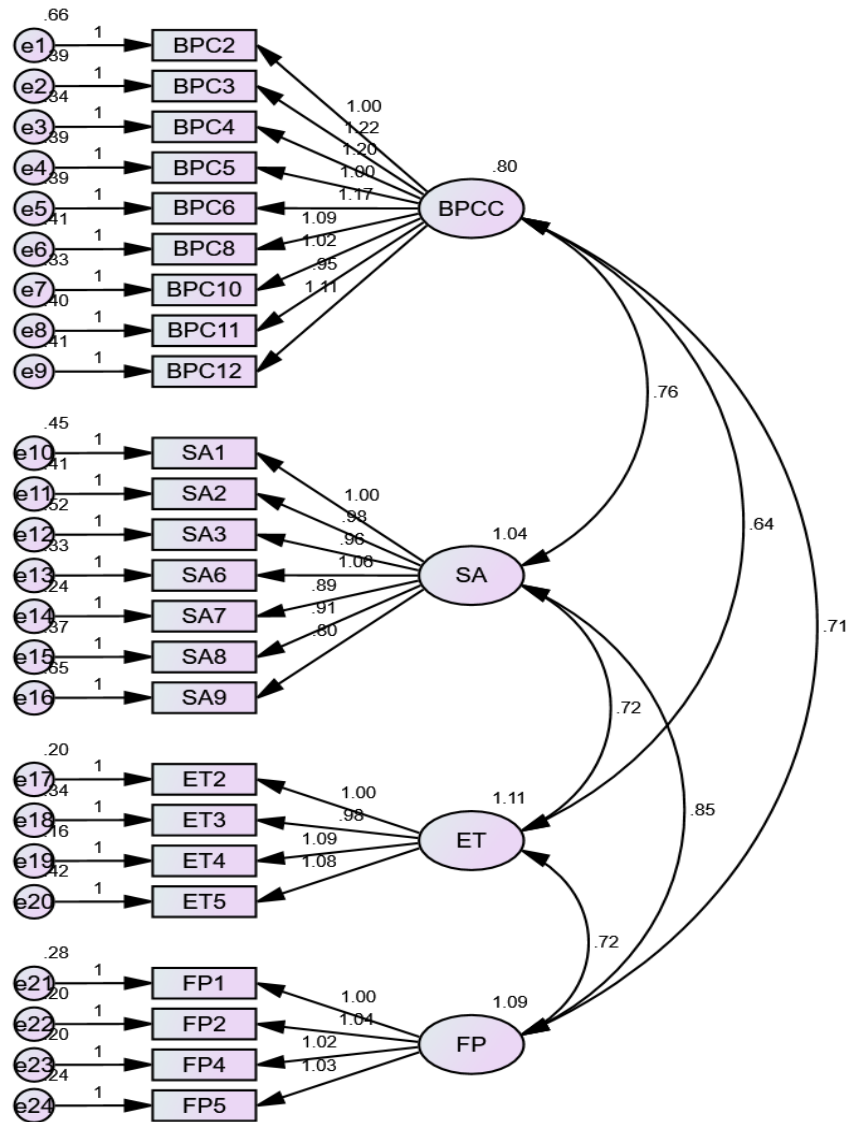| Measure	Estimate	Threshold	Interpretation
CMIN	455.399	--	--
DF	246.000	--	--
CMIN/DF	1.851	Between 1 and 3	Excellent
CFI	0.972	>0.95	Excellent
SRMR	0.031	<0.08	Excellent
RMSEA	0.053	<0.06	Excellent
PClose	0.280	>0.05	Excellent

Figure 2: The CFA analysis diagram.

The master validity approach was used for the investigation of any validity concerns present in the data. The table 12 represents the convergent and discriminant validity of the data.

Table 12
The Convergent and Discriminant Validity through Master Validity

	CR	AVE	MSV	MaxR (H)	BPCC	SA	ET	FP
BPCC	0.953	0.695	0.701	0.956	**0.834**			
SA	0.939	0.687	0.701	0.944	0.837***	**0.829**		
ET	0.946	0.814	0.459	0.952	0.677***	0.669***	**0.902**	

FP	0.952	0.831	0.631	0.953	0.755***	0.794***	0.654***	**0.912**

We performed the HTMT analysis (Table 13) as it has been used to deeply analyze the correlation between the variables and it has a threshold range of value below 0.9 (Henseler et al., 2015). The values of the output revealed with supportive results and showed all the values below the pre-defined criteria and verified the existence of discriminant validity between all the constructs.

Table 13
The HTMT Analysis for Discriminant Validity.

	BPCC	SA	ET	FP
BPCC				
SA	0.844			
ET	0.686	0.682		
FP	0.766	0.798	0.667	

The nature of the framed association of the first hypothesis of the study was evaluated with the help of the collected data from the respondents and the results showed a significant positive effect of the business process capabilities on firm performance with a regression value of 0.452 and the significance value of 0.001, the derived results were aligned with the conception in the literature and it led to the acceptance of H1.

Table 14
The Regression Values for The SEM (Direct Effects)

Parameter			Estimate	Lower	Upper	P
BPC	--->	SAA	.817	.769	.855	.001
SAA	--->	FPR	.482	.348	.621	.001
BPC	--->	FPR	.320	.176	.452	.001

The results of the analysis for the second hypothesis showed a significant mediation effect of strategic agility with 0.393 and a significance of 0.001, thus in this way the second hypothesis of the study was accepted. The following model a was drawn and evaluated in the SEM test with the table of the indirect output:

Figure 3 The Structural Equational Modeling of The Empirical Model

Table 14
The Regression Values for The SEM (Indirect Effects).

	BPC	SAA
SAA	.000	.000
FPR	.393	.000

The third hypothesis of this study was about the moderation effect and after data analysis, the researcher faced a significant but negative value for the moderation of environmental turbulence, and the output of the analysis depicted a negative influence of environmental turbulence on the relationship between strategic agility and firm performance and it caused the rejection of the third hypothesis. The following SEM model was run for the moderation analysis and the following table was derived:
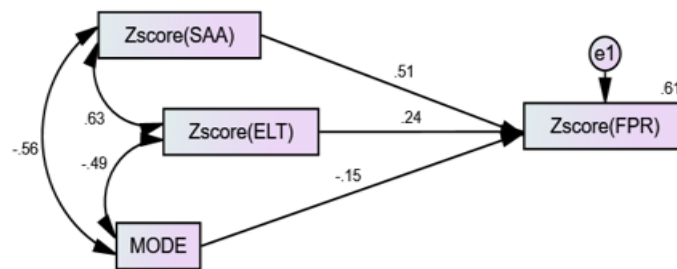
Figure 4: The Structural Equational Modeling for Moderation Analysis

Table 15
The Regression Values for The SEM (Moderation Effects).

	Parameter		Estimate	Lower	Upper	P
ZFPR	<---	ZSAA	.506	.390	.596	.016
ZFPR	<---	ZELT	.242	.150	.355	.007
ZFPR	<---	MODE	-.149	-.221	-.049	.016

Conclusion

The study has the first objective to investigate the association between the business process capabilities and firm performance. After data analysis, the first hypothesis was accepted and it revealed that business process capabilities do significantly determine the firm performance.

A very recent study conducted by Al-Matari et al. (2022), investigated the role of business process capabilities in enhancing organizational resilience which ultimately framed the firm performance based on the theory of RBT, the study used the same quantitative questionnaire data and primary data analysis approach, after which the study encountered positive significant defining role of the business process capabilities in enabling the firm to become resilient and enhance their organizational performance in uncertain times and sustain their firm performance (Al-Matari et al., 2022).

Another study (Jaakkola et al., 2016) was explored that investigated the role of business process capabilities on firm performance with the help of different marketing management-related businesses and analyzed the quantitative data, it also revealed the positive impact of business process capabilities on the firm performance (Jaakkola et al., 2016) and both these studies have provided this research with robust empirical evidence to justify the positive role of business process capabilities in determining the firm performance of the hotels and firms of hospitality industries of Pakistan.

The study has the second objective of mediating the relationship of strategic agility between the relationship of BPC and firm performance. According to this

hypothesis, firms and companies have an agile nature of strategies and have adaptive behavior to the uncertain and damaging turbulent environmental conditions have better implemented their business processes and have enhanced capabilities and this phenomenon has a constructive role in their firm performance.

This concept was analyzed in the SEM test and the results supported the association portrayed in the literature. So, the data analysis has confirmed the relationship of mediation impact of strategic agility between business process capabilities and firm performance. This result has been empirically justified by past empirical studies explored from the literature, a study (Clauss et al., 2019) explored the impact of strategic agility, business model innovations, and firm performance, and this study disclosed the positive impact of strategic agility on the firm performance with partial mediation of innovative business practices like value creation and value proposition innovative practices increase the firm performance.

Another study explored the strategic agility as a mediator between the absorptive capacity of firms and their financial performance and used the same questionnaire and quantitative research method in the context of Turkey, after data analysis, the study was facilitated with supportive results for the whole model and it concluded a positive significant value of strategic agility as a mediator between the absorptive capacitor, its dimensions and the firm performance of 150 Turkish firms (Kale et al., 2019).

Along with it, another study (Haider & Kayani, 2021) was encountered that has elucidated the mediating impact of strategic agility as a mediator on the relationship between business process capabilities as customer knowledge management capability and the efficient performance of software companies' integrated projects. The study also used the quantitative questionnaire research method and ran the SEM analysis on the data of 307 employees. in their findings, they interpreted the positive role of the based customer knowledge management capability of the firms as a determining factor for creating a surge in the project performance, along with it, this study also revealed the more robust and incumbent role of strategic agility as a mediator and they mentioned strategic agility as a stronger factor in increasing the performance as compared to the independent variable (Haider & Kayani, 2021). These cited studies have empowered the derived results of this study and have enabled the researcher to verify the mediating role of strategic agility in this research.

The last objective of this study was on the moderation effect of environmental turbulence and this hypothesis was framed with the conception that turbulent, uncertain, and destructive environments promote the firms' attitudes to pay more significant attention to seeking more strategically agile practices and sustaining and growing their firm performance. However, the analysis revealed the rejection of this hypothesis and reflected the negative influence of environmental turbulence on the firm performance of SMEs in the hotel industry in Pakistan.

This result has depicted that respondents and the managers of the hotels have portrayed a turbulent environment as a non-supportive factor for making the firms more adaptive and resilient in times of uncertainty and it created a tough time for the firms and harsh situations to deal with. This result was contrary to the designed assumption in the literature however, the literature was explored and some supportive studies were explored. For example, a recent study crafted by Turulja and Bajgoric (2019), that has investigated the moderating role of environmental turbulence in the relationship between firm innovativeness and firm performance, and concluded in their findings that environmental turbulence has no moderation impact on the specified relationship and

also narrated that turbulent environment negative and destructively define the firm performance that includes both financial and non-financial performance.

Another very recent study (Zhang et al., 2023) investigated the moderating role of environmental turbulence in strengthening the association between different strategic orientations and responsible innovation to enhance the sustainable performance of Chinese SMEs, and the study computed mixed results in which environmental turbulence played a positive moderating impact on the association between digital orientation and responsible innovation, meanwhile it cast a negative diminishing influence on the linkage between environmental orientation and responsible innovation, thus reflected empirical support for the negative result of environmental turbulence as a moderator (Zhang et al., 2023). Thus, the negative result of this study about the moderation impact of environmental turbulence has been verified and attested to be valid with the help of these past studies.

In addition to this, the hotel managers have incumbent awareness of the prospective benefits of different strategically agile practices, and they have an incrementing trend in evaluating the needs of their setups in the form of strategic implementations in times of uncertain and unpredictable market and economic environments. However, the managers of the SMEs of the hotel industry reflected those sudden destructive changes in the environment in the form of turbulence cause devastating and damaging consequences on the firm performance, and it creates a challenging situation for the businesses and firms. In light of these findings, the researcher has concluded that a turbulent environment decreases the productivity and performance of the SMEs in the service sector of Pakistan.

Recommendations

The research study has crafted some recommendations and suggestions that can be used by potential future researchers for exploring this topic and revealing more incumbent information and integrations. Firstly, future researchers can use the same tested model with the extension of the determinants of environmental turbulence including market turbulence and technological turbulence, and can give the literature with more extended and comprehensive knowledge about the prevalence and consequences of environmental turbulence on different business practices and performances.

Future studies can use different innovative and advanced strategic agility practices in investigation by using either the same or different sectors and can insight into meaningful implications regarding their targeted industries. Future potential scholars can use a mixed-method approach by keeping under examination the same empirical framework of this study and can provide the multi-dimensional aspects of the same variables used in this study and may reveal some more critical issues and more incumbent suggestions for the SME's growth performance.

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