

Environment Factors Impact on Firm's Performance: Evidence from Pakistan Banking Sector

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Abstract

The aim of this study is to measure the impact of environment factors such as hostility, dynamism and complexity on the overall firm's performance. The impact is examined. Data were collected by using developed questionnaire technique. Correlation analysis examines the data; OLS is used to measure the analysis. The empirical findings show that HOST and COM have a significant negative impact on firm's performance. Whereas, DYN having a significant positive association with firm's performance.

Keywords: Environmental Factors, Firms' Performance, Service Sector, Pakistan

Introduction

The environment may examine in different ways (Duncan, 1972; Lawrence & Lorsch, 1967). Some conceptual and empirical researches find multidimensional constructs of business environment, which involved dynamism, munificence, and complexity (H. Chen, Zeng, Lin, & Ma, 2017; Muthuvelayutham & Jeyakodeeswari, 2014).

The enhancement of globalization, changing customers' needs, changes in competitiveness and rapid technological advancements build such an environment in which it is very difficult to achieve and sustained the competitive advantage (Bhatt, Emdad, Roberts, & Grover, 2010). In spite of this, the fastest change in technology also increases the needs of firms to adopt the more advanced techniques and also improve and innovate the resource in order to survive in market

(Chen, Huang, & Hsiao, 2010). This may enhance the ability of a firm to face the challenges and respond to the market changes and also its critical success factor in a dynamic environment. So, it's very important for the firm to survive into competitive environment and also create innovation in dynamic business environment (Chen, Tsou, & Huang, 2009; Uz Kurt, Kumar, Semih Kimzan, & Eminoğlu, 2013; Zaefarian, Forkmann, Mitreğa, & Henneberg, 2017)

Munificence is a concern as the abundance of resources with slack and has the capacity to support the organizational growth (Ngah-Kiing Lim, Das, & Das, 2009). The availability of resources that influence to the organization growth and chances to remain within that environment (Dess & Beard, 1984; Richard, Murthi, & Ismail, 2007). Environment munificence is the large quantity of external resources, which support to organizational growth (Andreviski, Richard, Shaw, & Ferrier, 2014; Dess & Beard, 1984). In munificence environment, there are low taxes, motivations by government, technological knowledge given by educational institutes, high market growth rate (Rueda-Manzanares, Aragón-Correa, & Sharma, 2008).

Cost of equity is required rate of return achieved by the investors on shares. While cost of debt means the rate on which companies will pay bonds, bank loans and all other debt instruments. The cost of capital will increase on the demand of higher risk and higher return by the investors and creditors. So, the cost of capital also decreases when the risk decreases. In this situation, the investors will become more responsive to environmental issues of the investment target (Atan, Alam, Said, & Zamri, 2018). Normally, firms are having higher risk also have higher cost of equity. While, firms with low risk also have the lower cost of equity of capital (Bassen, Meyer, & Schlange, 2006).

Normally, hostility is considered as the complement of munificence that indicate the scarcity and anxiety of competition for environmental resources (Covin & Slevin, 1989). A hostile environment may create risks for the firm by increasing the rivalry or by decreasing the demand for products of firms. In order to avoid direct competition, companies may select the option to diversify their business into new markets under the hostile environment (Miller & Friesen, 1983). Environmental hostility also refers with adverse external strengths of business.

Unfavorable surroundings of environment may result reaction from radical industry changes, intense regulatory burdens placed on the industry or fierce rivalry among competitors (Werner, Brouthers, & Brouthers, 1996). Government policies and rules may increase environmental hostility in protecting the national markets (Zahra & Garvis, 2000).

The objective of current study is to find the effect of environment factors and firms performance. In order to achieve main objectives there are following supportive objectives:

- To investigate the influence of hostility and business performance
- To find out the relationship of dynamism and firm performance
- To examine the effect of complexity and firm performance
- To measure the impact of firm age and firm performance.

The proposed theoretical model of this study are described in the following figure: 1

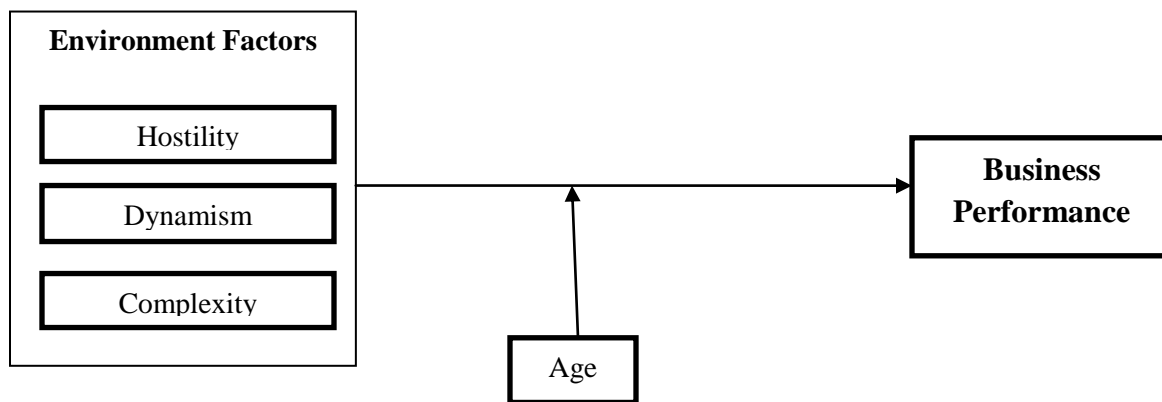


Figure1: Theoretical Model

Following are the central questions in this research:

Which environmental factors affect on firm's performance?

On the basis of above mentioned question, following research questions will be answered in this study:

- What is the impact of hostility on firm's performance?

- Does dynamism affect on firm's performance?
- What is the impact of complexity on firm's performance?
- How firm age affects firm's performance?

Literature Review and Hypothesis Development

In general business environment, munificence is the rate of enhancing organizational growth or growth of sales (Dess & Beard, 1984). Growth gives the slack resources for innovation and examination or analysis, resolve the conflicts and helpful to keep organizational alliance (Aragón-Correa & Sharma, 2003). A munificence environment include low taxes, government incentives, and technical knowledge given by educational institutes, highly market growth rates and economic recovery (DeCarolis & Deeds, 1999; Rueda-Manzanares et al., 2008).

The availability of resources may influence to the organization growth and chances to remain within that environment (Dess & Beard, 1984; Richard et al., 2007). Environment munificence is the large quantity of external conditions that leads to growth of business (Andrevski et al., 2014; Dess & Beard, 1984). In munificence environment, there are low taxes, motivations by government, technological knowledge given by educational institutes, high market growth rate (Rueda-Manzanares et al., 2008). Environmental munificence positively influence to the range of strategy and available options to the firm (Castrogiovanni, 1991).

A study is used to determine the effect of external environment and corporate performance. External environment is measure by using three different dimensions: munificence, complexity and dynamism. The study used both primary and secondary data. Business environment was measure by primary data by using 5-point Likert type Scale by using 15 items. These factors have great effect on the corporate strategic decision-making. Quantitative data used for the performance of the companies. Based on the findings, it is concluded that external environment factors were not statically significant (Machuki & Aosa, 2011).

A study was conducted on survey data from 115 acquisitions completed the time period between 2008 and 2011 by European acquirers from German-speaking countries, this concluded that entrepreneurial leadership is a strong predictor of exploration and a weaker but significant driver

of exploitation outcomes of M&A. Environmental hostility negatively effect of entrepreneurial leadership on exploitation on industry-wide while on target market environmental hostility also negatively impacts of entrepreneurial leadership on exploration (Strobl, Bauer, & Matzler, 2018).

A study by (Rueda-Manzanares et al., 2008) measured the influence of stakeholders on environment strategy of services firms by moderating role of environment complexity, uncertainty and munificence. Data were collected from 134 ski resorts of twelve countries of Western Europe and North America by using questionnaire techniques adopting 5-point Likert scale. The results show that complexity is negatively moderated among stakeholders and corporate environmental strategy and munificence and uncertainty is negatively moderate between stakeholder's capabilities and corporate environmental strategy.

A study examines the effective strategic responses to environmental hostility among small manufacturing firms. This study used primary data for the analysis and data was collected from 161 small manufacturing firms. It was concluded that environment hostility is positively related to the small firm performance (Covin & Slevin, 1989).

This research investigates the relationship between diversification and capital structure by moderating the environment factors. This study uses the agency theory for the product diversification and debt financing of the company. Agency theory is useful because this research focus on the problems of agent and principal under uncertainty. Data were used 245 publically listed firms of Singapore period of (1997-1998) of financial crises. The results show that firms use more leverage in dynamic environment and use less amount of debt financing in stable environment (Ngah-Kiing Lim, Das, & Das, 2009).

Generally, complexity defined as the procreation and diversifications of the problems and factors under the general business environment (Aragón-Correa & Sharma, 2003; Duncan, 1972; Miller & Friesen, 1983). Under the complex environment decisions, become difficult for the managers (Aragón-Correa & Sharma, 2003). Firms make less large investment in the complex business environment in order to create a stakeholders alliance capacity for undertaking an aggressive environment strategy (Rueda-Manzanares et al., 2008).

Hypothesis Development

Hostility

Firms working in a hostile business environment may encounter high tax burdens, government obviation; technical knowledge given by educational institutions is impassable, weak infrastructure, market growth is very low, decline in general economic situation, or suitably qualified staff is not available (Rueda-Manzanares et al., 2008). In spite of this, firms may get little return on its investment by spending time, hard work and money to maintain the business capability under the hostile environment (Rueda-Manzanares et al., 2008; Stoel & Muhanna, 2009).

A study by (Ferreira & Fernandes, 2017; Strobl et al., 2018) found that environment hostility is negatively influence to the firm performance. (Zahra, 1993; Zahra & Covin, 1995) find that hostility is statistically significant affect on the firm's performance. Firms may unable to make good decisions for the business in hostile environment; like as selecting and satisfying the consumer needs demands and products, still how a business may achieve the desired results (Stoel & Muhanna, 2009). This will reduce its ability of business process or sufficient use of leverage. We may formulate the following hypothesis behind the above rationale:

H1: There is a negatively relationship of environment hostility and firm performance.

Dynamism

Dynamism reflects as the fluctuation, uncertainty, unsystematic, unpredictability and volatility (Nghah-Kiing Lim et al., 2009). Environment dynamism describes as change in external environment. (Dess & Beard, 1984). The environment dynamism characterized by the volatility and predictability in choice of customers, technological change, uncertainty and change in external environment (H. Chen et al., 2017; Jansen, Vera, & Crossan, 2009). In the highly dynamic environment, employees adopt the transformational leadership orientation toward the change, products and services and adopting radical change (Jansen et al., 2009).

In addition to this the dynamism also influence to the firm daily operations and goal achievement and also involves the sectors like as competitors, suppliers and customers (Daft, Sormunen, & Parks, 1988). Dynamism is related with business risk to some extent. Business risk is define at the change in future expectation (Ferri & Jones, 1979). It is stated that the firm with high business risk may associate with high return. High profitability may leads to higher return and also leads to financial distress that why the use of low leverage is more effective for the firm(Ferri & Jones, 1979; Kayo & Kimura, 2011). According to (Lopatta, Jaeschke, Canitz, & Kaspereit, 2017) environment factors are positively related with the firm performance. So, it is formulated that following hypothesis:

H2: There is a positive relationship of environment dynamism and firm performance.

Complexity

Complexity is concern with heterogeneity and distribution (Ngah-Kiing Lim et al., 2009). Complexity is an external factor, which affect the firm performance due to proliferation of shareholders, shareholders concern, altering the rules, regulations and public policies and changing the society expectations (Miller & Friesen, 1983; Rueda-Manzanares et al., 2008). Complexity is negatively affected with stakeholders capabilities and corporate environmental strategy (Rueda-Manzanares et al., 2008). Overall it is concluded that environment factors has significant effect on firm performance. The competitive environment may boost to follow aggressive and risky strategies.

H3: There is a negative association of environment complexity and firm performance.

Research Methodology

The objective of the study is to find out the effect of environment factors on firm performance. This study used the primary data which are collected through questionnaires. The questionnaires adopted from (J.-S. Chen, Tsou, & Huang, 2009). Measures of the variables of interest are shown in Appendix. Total 950 questionnaires were distributed among individuals by using convenient sampling techniques. Only 870 questionnaires were received and 855 questionnaires were

useable and analyzed through reliability. The demographic detail is explained in table 1. Reliability of all variables is more than 0.70 that shows the data is normal and can be used for further process.

Table 1: Demographic Detail

		N	%
Gender	Female	142	16.60
	Male	713	83.40
Age	Under 25 years	120	
	26 – 32 years	250	
	33 – 39 years	212	
	40 – 46 years	143	
	47 – 53 years	75	
	54 – 60 years	35	
	61- above years	20	

Discussion and Results

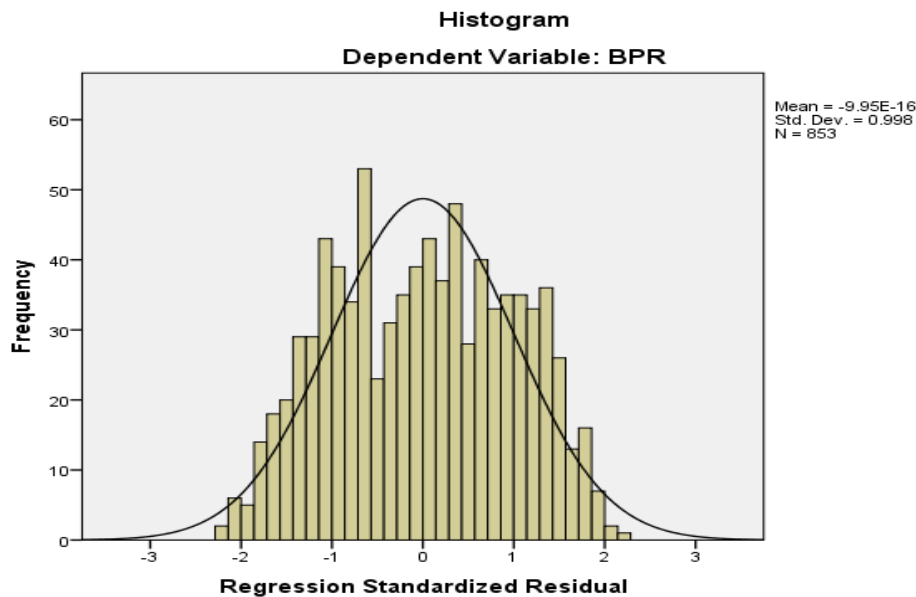
Summary of Statistics

In order to measure the normality of data, skewness and kurtosis were analyzed in SPSS and the outcomes are shown in Table 2. According to (Hair, Anderson, Babin, & Black, 2010) data normality is data distribution shape of each individual metric variable and the correspondence to normal distribution and the bench mark for statistical method. Data normality can be measured by two ways: first one is distribution shape and another is sample size (Hair et al., 2010).

Distribution shape was assessed by skewness and kurtosis values in SPSS. Skewness and kurtosis values within a range of -3.00 to +3.00 shows the normality of data. This study used the sample size of 250 questionnaires and the skewness and kurtosis values are -3 to +3 and data is normal. In addition to this, Figure: 2 also show the histogram for the normality of data.

Table 2: Descriptive Statistics

Variables	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BPR	12.6674	4.84601	-.014	.084	-1.141	.167
HOST	16.1482	5.91473	.076	.084	-1.118	.167
DYN	12.5906	4.82377	.041	.084	-1.120	.167
COM	11.0254	3.55243	-.659	.084	-.461	.167



Correlation Analysis

Correlation matrix is used to determine the association of variables of this study. The following table 3 show the results of correlation analysis.

Table 3: Correlation Analysis

	BPR	HOST	DYN	COM	AGE
BPR	1.000				
HOST	-.115**	1.000			
DYN	.013	.153**	1.000		
COM	-.057*	.028	.067**	1.000	
AGE	.100**	-.112**	-.064*	.012	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Reliability

Reliability is the consistency and stability among the different dimensions that are measured with a single instrument (Van de Ven & Ferry, 1980). Reliability of the variable of the scale shown in the table 4, which meets the standard range of reliability 0.7 as suggested by (Hair et al., 2010). There is a difference between reliability and validity as described by (Hair et al., 2010) that validity explained what should be measured while reliability described how it should be measured (Hair et al., 2010).

Table 4: Scale Reliability

Variables	Cronbach's Alpha
BPR	.779

HOST	.801
DYN	.772
COM	.843

Multicollinearity Analysis

The rule of thumb for multicollinearity is the value of VIF more than 10 depict the multicollinearity problem in data and when the variables are highly correlated (above 0.90). It also examines the viability and usefulness of data, Multicollinearity analysis results are conducted in Table: 5.

Table 5: Multicollinearity Analysis

Variables	VIF
HOST	1.07
DYN	1.06
COM	1.02
AGE	1.02
Mean VIF	1.04

All the VIFs of the variables of interest are less than 5 which shows that there is no multicollinearity (Gujarati, 2009; Gujarati & Porter, 2003) .

Regression Analysis

Overall the model was significant and R-square indicates the variation in dependent variable due to all those explanatory variables used in the study. It also explains that independent variable collectively shows to firm's business performance 58.8%. Table 6 describes the results of OLS regression.

Table 6: Regression Results

Variables	Coefficients	Sig.
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(Constant)		0.000
HOST	-.180***	0.000
DYN	.076**	0.028
COM	-.093***	0.006
AGE	.124***	0.000

***1% = P<.01, **5%= P<.05, *10%=P<0.10

The outcome of above table of regression reveals that HOST and COM have a strong significant negative effect with business performance at 0.01 level of significant. While, DYN has positive impact with firm performance at 5% level of significance. Whereas, firm age is used as a control variable in the study, it is also having a significant positive relationship with organizational performance at 1% level of significance.

Conclusion

The aim of current study is to check the effect of environment hostility, dynamism and complexity on firm performance. The results of this study depict that HOST and COM is significant negative effect on firm performance and DYN is significant positive association with firm performance. Under the complex environment decisions, become difficult for the managers (Aragón-Correa & Sharma, 2003). Firms make less large investment in the complex business environment in order to create a stakeholders alliance capacity for undertaking an aggressive environment strategy (Rueda-Manzanares et al., 2008). It is important for the government and multitasking agencies to increase the strengths of financial institution and create strong and healthy business environment (Ahsan, Man, & Qureshi, 2016).

There is an assumption of creating the unique relationship among the environmental and firm performance. It is important for the government, practitioners and authorities to enhance the environmental strategies and policies (Vastola, Russo, & Vurro, 2017).

The limitations of this study use only theoretical base assumption of environment factors. There are many other factors that can influence on business performance. This study uses only age as a control variable but there are many other factors that can be influenced like as geographical region, firm ownership and firm size. In future research, it's interesting to adopt political and behavioral factors on firm performance.

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Appendix

Measures of Environment Factors Constructs

Constructs	No. of items	Statement of items	Source	Scale
Firms' business performance (BPR)	4	<ul style="list-style-type: none"> Enhancing sales and profitability of firms. Profitable. Profit and sales objectives. Market share. 	questionnaire	Seven-point Likert Scale
Hostility (HOST)	5	<ul style="list-style-type: none"> The survival of our firm is currently threatened by scarce supply of labor. The survival of our firm is currently threatened by scarce supply of materials. The survival of our firm is currently threatened by tough price competition. The survival of our firm is currently threatened by tough competition in product/service quality. The survival of our firm is currently threatened by tough competition in product/service differentiation. 	questionnaire	Seven-point Likert Scale
Dynamism (DYN)	4	<ul style="list-style-type: none"> The products and services in our industry become obsolete quickly. The product/services technologies in our industry change quickly. We can predict what our competitors are going to do next. We can predict when our products/services demand changes. 	questionnaire	Seven-point Likert Scale

Complexity (COM)	3	<ul style="list-style-type: none"> • In our industry, there is considerable diversity in customer buying habits. • In our industry, there is considerable diversity in nature of competition. • In our industry, there is considerable diversity in product lines. 	questionnaire	Seven-point Likert Scale
Firm's Age (AGE)		<ul style="list-style-type: none"> • Measured by the number of years since the firm was founded 	questionnaire	Ordinal

Source: The above measuring constructs and items were adopted from (Y. Chen et al., 2014; Newkirk & Lederer, 2006; Turulja & Bajgoric, 2018).