

## Contingency Factor, Risk Management and Organization Performance: A Case of Pakistani Business Organization

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### Abstract

This study examines the relationship among the perceived business risk and perceived organization performance. In this article, researcher has explored the role of risk management in dynamic business environment. This study employed the structural equation modeling method in order to test hypothesis. Questionnaire was used to collect data from senior finance professionals from organizations operating in Pakistan. The results indicate that contingency variable is significantly influences the organization performance. Regarding the effects of risk management variables, the results show that the magnitude of RM methods, formalization of RM methods and internal controls also have significant effects on the organization performance. Providing significance evidence on the contingent factor and risk management, the analysis helps managers to improve their organizational performance. This research highlights the magnitude of RM methods merely subject to how accurately managers perceive business risk. An overlooked risk not only affects the investment / finance / operational decisions but also reduces the overall organization productivity. Therefore, implementation of formalized RM methods, risk-based controls and magnitude of RM methods are necessary to maintain organization performance. This study contributes to the literature related to perceived business risk in Pakistani context. The researcher creates awareness among the managers about uncertainty / risk faced by companies and help them to develop appropriate internal controls to sustain organization performance.

**Keywords:** Perceived business risk, Maganitude of RM Methods, Formalization of RM Methods, Perceived Organization Performance

With the advent of new technology and globalization, business environment has become very uncertain. The determination of risk in uncertain business environment is the biggest challenge for the management. In dyanamic envirnoment, business management has become attentive to risk management. A variety of risk management (RM) tools is used to exploring the risk in dayanamic envirement to sustain and enhance organization performance. The improvement of different risk analysis tools has been required by the vulnerability related to business activity which are because of changes in the perception of management of risk as soon as latest information received (Andor, Mohanty, & Toth, 2015). Therefore, Risk Management Practices (RMPs) have observed in all types of business at different levels. It is obligatory for the management to manage their anticipated risks by developing efficient and effective internal controls.

Internal controls determine the roadmap for business operations. Furthermore, these controls are one of the fundamental factors that were curical for the persistence of an organization performance (Ali, 2013). Numerous senior managers, specialists and academicians (Bedi, 2019 and Mayegle & Nguidjol, 2017) have discussed the recent rapid change and growing complication in the world economy. Therefore, researchers have started giving attention on a variable, widely recognized as perceived business uncertainty or perceived business risk to study this concept. There has been an extensive academic study published in quality research journals considering the impact of aforementioned variables and various marketing , accounting, inversting, health & safety and strategic variables. The previous researches have conducted either for specific industry or for some particular geographic area. Haque & Ali (2016) has focused on the individual sectors e.g. cellular sector, whereas some other researchers have focused on specific area like Pagach & Warr (2011) worked on US data; Abdullah, Hamid & Yatim (2017) have worked

on Malaysian data; Olson & Dash (2010) have worked on Chinese data and Lechner, Gatzert & Paper (2016) have worked on Germany data. A substantial theoretical and empirical literature has been conducted to explore the effect of risk management on organization performance in different context. The link between perceived business risk, risk management and organization performance is completely dynamic which depends upon context of study, more specifically, country and time specific. This relationship also varies across companies and sectors. Management may change their approach to deal uncertain business environment. The perception of risk and risk management based on internal controls in uncertain business environment is main issue of this study.

The objective of this study is to explore the complicated topic about risk – performance in which risk based internal controls have significant role. This study takes the case of Pakistan which is a developing country and has quite different business environment than developed countries studies earlier. This study contributes to existing literature in several ways. First, this study is among the first to find the relationship in Pakistan. Secondly, it outlines recommendation for management to improve risk management in dynamic business environment by assessing the management commitment to risk management in Pakistan. It also focuses on questions such as how manager in Pakistan perceives business risk, whether they deemed internal controls based RM as strategic activity, and if so how frequently they use RM tools to scan the business environment. Finally, to what level they adopt the formalized risk management methods. More specifically, the objective of this study is

- To explore relationship between perceived business risk and organization performance
- To study the influence of RM (Internal Controls, formalization RM and magnitude of RM) on organization performance

Rest of the paper is organized as follows. Section 2 presents survey of previous studies. Section 3 outlines our proposed methodology. Section 4 presents our main findings and finally, section 5 offers conclusions and some important policy recommendations.

### **Literature Review and Theoretical Framework**

The concept of risk had been widely discussed in literature. Risk defined on the base of societal agreements (e.g. organizational, scientific, and technical) or the sector of application (e.g. finance, health, environment or business). A useful definition of risk must cover the prominent relevant aspects to the underlying field. In addition to this, some researchers used risk and uncertainty term synonymously (Knight, 1921; Ward & Chapman, 2003). Risk, in an organizational context was traditionally defined as anything that can have an influence on the achievement of the organization's objective, or as negative event that could disrupt performance (Hopkin, 2017). Adeoye & Elegunde (2012) highlighted that it is business environment which determines the set of possibilities for organization. Jansen et al. (2017) declared that volatile business environment causes the inconclusive statement about the existence of risk. This uncertainty about the existing of risk leads to concept of perceived risk. Perceived risk belongs to the contextual aspects that risk managers used to develop risk mitigation procedures and controls (Bento, Mertins, & White, 2018). The perception of risk within organization was conceptualized often with reference to the existence of events, information relevant to events (how management interpret) and how it establishes control. Such risk management process has lasted for many years. This process has been studied in particular context i.e. health and safety, insurance and hedging of interest rate and foreign currency, credit risk. More recently, research leaned to organization wide conceptualization of RM process: formalization RM methods and magnitude of RM methods (Subramaniam, Collier, Phang, & Burke, 2011) and risk based internal controls (Bento et al., 2018).

Contingency theorists highlighted how evenly business environment is important for organization when it is operating in instable business environment. Lawrence & Lorsch (1967) were among the early researchers who theoretically supported that organization outcomes are sensitive to contingent factors. The basic assumption of contingency theory is that there is not a particular single risk management approach which is appropriate for all organization success (Abba, Yahaya, & Suleiman, 2018). Instead, organization performance is contingent upon efficient risk management which differs among two organizations in term of formalization RM methods, (Carlson-Wall, Kraus, Meidell, & Tran, 2019), frequency of RM method used (Abu-Rahma & Jaleel, 2019) and risk based internal controls (Bento et al., 2018).

Some existing studies validate the relationship among the perceived business risk and audit fee (Maher, 2005). Whereas Habib (2018) concluded the relationship between perceived risk and cost of capital. While other researchers discussed the relationship between formalized RM and

perceived RM models to counter the risk in social media (Demick, 2018 and Poplin, 2015). Furthermore, number of researches focused on the relationship among risk management methods and strategy several others have discussed the scope and magnitude of methods (Bahmani, 2017 & Calof et al., 2018).

Based on contingency theory, this study proposed that perceived business risk, RM (internal controls, formalization of RM methods, & magnitude of RM methods) influence organizational performance. The proposed framework shown in figure 1

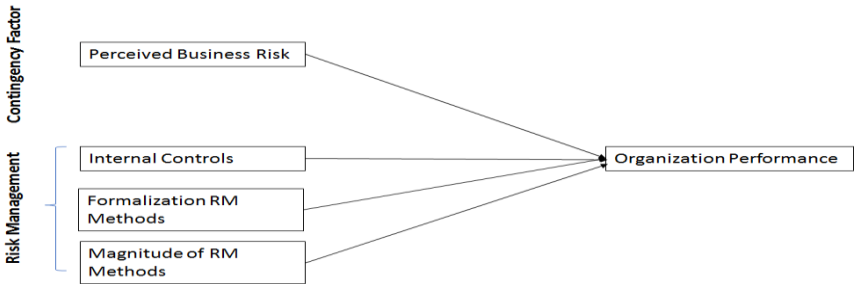


Figure 1: Research Model

### Hypotheses

*H<sub>1</sub>: Perceived business risk has positive impact on organization performance.*

*H<sub>2</sub>: Formalization of RM Methods has positive impact on organization performance.*

*H<sub>3</sub>: Maganitude of RM Methods has positive impact on organization performance.*

*H<sub>4</sub>: Internal Controls has significant impact on organization performance.*

## Methodology

### Population and Sample

The population of the present study was the Chief Financial Manager, Chief Risk Officers, Member of Risk Management Committee, There are 575 publicly listed companies as per the list obtained from the Pakistan Stock Exchange and hence these companies define our population. The target population is less than ten thousand, the required minimum sample is 200 (Cooper & Schindler, 2014). Convenience sampling technique was used to collect data.

### Measurement

The questionnaire was comprised of five parts. First part consists of demographic information, whereas remaining four parts contain the detail of main variable of this study. Research model comprises five variables four independent (perceived business risk, magnitude of risk management methods, formalization of risk management methods and internal controls) and one depends variable (Perceived organization performance). Perceived business risk scale used in this study has been developed on the scale used by Piskunov et al., (2016) and Subramaniam et al., (2011). The internal controls scale was based on the work of Ayagre, Gyamerah & Nartey, (2014) and Eke (2018). The formalization RM methods items included in this study were adopted from Miles et al., (1978) and Subramaniam et al., (2011). Whereas the organization performance and magnitude of RM methods scales were measured by the scale developed by Jusoh, (2008) and Subramaniam et al., (2011) respectively.

## Data Analysis and Results

### Demographic profile of Respondent

Out of 383 distributed questionnaires, only valid 204 responses received which is 53 percent. Remaining 47 percent includes incomplete or no response received from respondent. Majority of respondent of this study were male (91%), while female were (9%). In study age were group in four category. Out of the total 204 respondents, 23.5 % response observed for the age group is between 30-35 years i.e. 48 respondents. Age group between 36-40 years is 29.9 % with 61 respondents. 33.8 % response rate from the age group between 41-45 year having 69 respondents having the highest frequency amongst the all other age groups, whereas 12.7 % response rate from the age group is above 45 year having 26 respondents. Data were collected from two sector financial and non-financial sector. Around 47.5 percent are the respondents from Financial Sector, whereas 52.5 percent respondents from the Non-Financial Sector, which are

included in the research undertaken.

**Confirmatory Factor Analysis**

The main objective of confirmatory factor analysis is to test the data fitness and validity with other psychometric characteristics in accordance to the hypothesis of variable model. According to Kim, Ku, Kim, Park, & Park (2016), a construct having the factor loadings above 0.4 are considered as practically significant construct. The nine items were deleted from the questionnaires of perceived business risk and internal controls respectively. (for detail see table-2)

**Reliability**

After establishing the factor structure, the reliability test was conducted for each construct. Cronbach Alpha test was employed for this purpose and found reliability range between 0.83 to 0.97, which is above threshold value 0.80 as described by Field (2005). This indicates that all the constructs of study attained the reliability. (See table-1 for detail)

Table 1. *Component Matrix*

Dimension	Items Before CFA	Items included (Factor load>0.40)	Reliability
PBR	30	25	0.91
IC	31	27	0.94
FRMM	15	15	0.83
MRMM	8	8	0.94
OP	14	14	0.92

**Convergent Validity**

According to Hair, Black, Babin, & Anderson (2014), an AVE of 0.50 and above indicates convergent validity. The result shown in Table-3, indicate that all constructs of this study have AVE value above or equal to the threshold value, hence all constructs have achieved the convergent validity.

**Discriminant Validity**

Discriminant validity ascertains the extent to which sufficiently distinct constructs are not strongly correlated with each other. According to Kim et al. (2016) in order to establish discriminant validity, the variance extracted estimates should be compared with the squared inter-construct correlation (SIC) and the value of AVE should be greater than squared inter-construct correlation for both constructs. All the values of squared inter-construct correlation (SIC) and Average Variance Extracted (AVE) are explained and it is proved there is discriminant validity. (See table-2 for detail)

Table 2. *Discriminant Validity of the Construct*

Construct	AVE	Correlated Variables	IC	SIC
Magnitude of RM Methods	0.50	MRMM <--> IC	0.41	0.17
Internal Controls	0.50			
Internal Controls	0.50	IC <--> PER	0.47	0.22
Organization Performance	0.53			
Magnitude of RM Methods	0.50	MRMM <--> PER	0.51	0.26
Organization Performance	0.53			
Formalization of RM Methods	0.52	FRMM <--> PBR	0.42	0.17
Perceived Business Risk	0.50			
Organization Performance	0.53	PER <--> PBR	0.40	0.16
Perceived Business Risk	0.50			
Internal Controls	0.50	IC <--> PBR	0.45	0.21
Perceived Business Risk	0.50			
Internal Controls	0.50	IC <--> FRMM	0.39	0.15
Formalization of RM Methods	0.52			
Magnitude of RM Methods	0.50	MRMM <--> PBR	0.52	0.27
Perceived Business Risk	0.50			
Organization Performance	0.50	PER <--> FRMM	0.55	0.30
Formalization of RM Methods	0.52			
Magnitude of RM Methods	0.50	MRMM <--> FRMM	0.51	0.26
Formalization of RM Methods	0.52			

**Measurement of Model**

To test the model this study used Chi-square ( $\chi^2$ ), degree of freedom (Df),  $\chi^2/Df$ , GFI, AGFI, CFI, TLI, NFI, RMR, RMSEA and PCLOSE. The CFA result of this study reveals that all the

constructs attain the adequate fit indices.

In order to test the adaptability of the model, structural model was performed in AMOS. Values for all model fitness indicators are above the mentioned criteria indicate the best choice for our model at suggested levels (see table-3).

Table 3. Model Fits

Model Fit Criteria	Measurement Model	Acceptable Range
$\chi^2$	1.39	-
Df	1	-
$\chi^2/Df$	1.39	1-3
GFI	0.99	>0.90
AGFI	0.96	>0.80
CFI	0.99	>0.95
TLI	0.98	>0.90
NFI	0.99	>0.90
RMR	0.01	<0.09
RMSEA	0.04	<0.08
PCLOSE	0.35	>0.05

**Hypothesis Testing**

After determining the model fit, the next step is the estimation of the model through regression coefficients. Present study used the procedure of Hayes & Preacher (2014) to check the relationship among independent variables and dependent variable. Structural equation modeling (SEM) technique employed to captures the for this purpose.

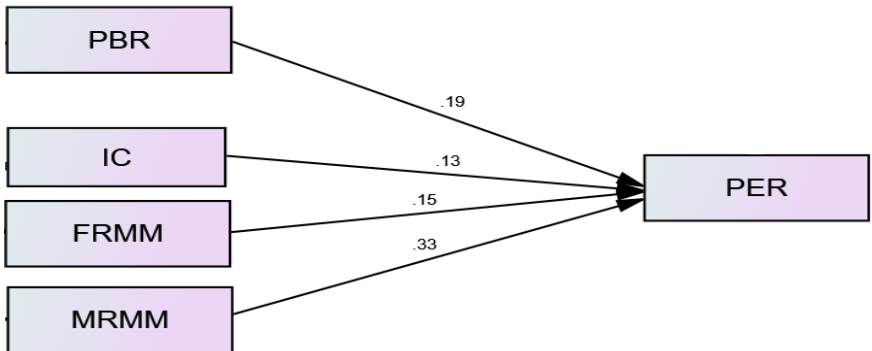


Figure 2: Structural Equation Model

From the above figure-2 elucidates the SEM, described the direct influence of perceived business risk, internal controls, formalization of RM methods, and magnitude of RM methods on organization performance. SEM analysis illuminates that dependent variable is significantly affected by the independent variables. The result shows that one-unit variation in perceived business risk brings 0.19-unit variation in organization performance. Likewise, one-unit variation in internal controls causes 0.13-unit variation in organization performance. Furthermore, one-unit variation in formalization of RM methods and magnitude of RM methods brings 0.15-unit and 0.33-unit variation in organization performance, respectively. The p-value (see table-4) for all relationship is less than 0.05, which means that all independent variables have significant and positive relationship with independent variable. Hence, the result in table-2 support to the hypothesis H1, H2, H3, and H4 showing that perceived business risk, formalization of RM methods, and magnitude of RM methods has significant role in determining the organization performance. In addition to the above, the analysis indicates that all the firms use formalized risk management methods for strategic decisions. It also reveals that the firms use multiple risk management methods simultaneously to evaluate the financing, investing and operating operations.

Table 4. *Structural Equation Modeling Result*

	Variables	Estimates	P-Value	Hypothesis Support
OP	← PBR	0.19	0.007	H <sub>1</sub> Accepted
OP	← FRMM	0.13	0.040	H <sub>1</sub> Accepted
OP	← MRMM	0.31	***	H <sub>1</sub> Accepted
OP	← IC	0.15	0.048	H <sub>1</sub> Accepted

### Discussion

The main purpose of the present study is to investigate relationship among perceived business risk, risk management and organizational performance in an uncertain business environment. In context of above cited literature and data analysis the main findings of the study can be summarized below:

The first hypothesis of the study i.e. perceived business risk has significant impact on organization is consistent with earlier studies (Haque & Ali, 2016). The possible reason behind this can be the business managers try to increase understanding the possible risk, its implication on organization performance and incorporate possible measures to counter the possible hazard (Kolay & Sahu, 1992).

The second hypothesis of the study i.e. formalization of RM methods has significant impact on organization performance. The finding of study is also supported by some previous studies such as (Basol & Dogerlioglu, 2014; Fréchet & Goy, 2017).

The third hypothesis of the study i.e. magnitude of RM methods has significant impact on organization performance, is accepted. The finding of present study supported by earlier study such as (Subramaniam et al., 2011).

The fourth hypothesis of the study i.e. internal controls has significant impact on organization performance, is accepted. The investigation reveals that significant relationship between organization performance & internal controls. This was also supported by the study of (Kamau, 2014).

### Conclusions

The objective of this study to explore the effect of perceived business risk, formalization of RM methods, internal controls and magnitude of RM methods on the company performance. Using the multivariate statistical tool SEM, the study identified the key influences and their relative role on risk analysis in organization performance. Note that, all of the four paths in the research model were found to be significant. The formalization RM methods coincide with the finding of (Baum & Wally, 2003). The use of formalized risk methods helps diffuse the new information more accurately and rapidly to develop strategy to reduce lose or boost the gain. Increase in the usage of risk analysis techniques is due to the availability of software packages which assist to identify the anticipated risk. The multiple techniques are used to digging out the risk from uncertain business environment (Ansell & Wharton, 1992). The perceived business risk has a direct impact on the organization performance supported by earlier studies such as (Haque & Ali, 2016). A new dynamism has emerged after liberalization of the economy and that has been observed more or less in every sector. The result of this study would motivate the strategic decision makers within organization to formulate effective, integrated risk management model that cope with dynamic situation for better performance. One of the major limitations of this research was the small number of respondent i.e. 204. Furthermore, the variable adopted in this study from the former studies may not be the best indicators to measure the latent variables. However, this study fills the gap in RM studies by determining the impact of perceived business risk and RM on organization performance. In future researchers can apply similar research on different industrial sectors and compare their results or could also conduct cross regional research using same or similar variables. Further to this research may use the risk base internal controls as mediating variable. Another direction can be that researchers can add further variables in order to further validate their findings.

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