

Shahzad, Akmal et al.

## Article

# Mediating role of formalization of RM methods among the perceived business risk and organization performance

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## BANKING & FINANCE | RESEARCH ARTICLE

# Mediating role of formalization of RM methods among the perceived business risk and organization performance

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**Abstract:** The rapid changes in technology and globalization lead to mediating role in formalization of RM methods among perceived business risk and organization performance. Questionnaire distributed among 301 financial professionals of selected industries and duly filled questionnaires received back 204. Pilot study was conducted at 96 responses to check the validity and reliability of instrument. Questionnaire distributed among CFOs/Finance managers/Risk Managers of selected industries. The study results imply that the performance of the organization has a significant positive relationship with all components of perceived Business risk (PBR) such as economic factors, financial indicators, technological change, political uncertainty, and market competition. It is also found that the Formalization of RM Methods mediates among the component of PBR and organization performance. The results provide meaningful insights for managers, which are used generally by any organization as a guideline to improve the organization's performance.

**Subjects:** Finance; Corporate Finance; Business, Management and Accounting; Risk Management; Strategic Management

**Keywords:** Perceived business risk; organization performance; formalization of RM methods; risk management



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Akmal Shahzad has research interests in corporate finance, corporate governance, capital market, and Islamic financial system. Currently, Akmal Shahzad works at the Faculty of Management Sciences, as an Assistant Professor. Bushra Zulfiqar has research interests in working capital management, corporate governance, and Islamic financial system. Currently, Bushra Zulfiqar works at the Faculty of Management Sciences, as an Assistant Professor in PMAS-AAUR, Rawalpindi, Pakistan. Mumtaz Ali works at Federal Urdu University of Arts Science and Technology. Ayaz ul Haq has research interests in Financial Market, Investment Management, and financial management. Currently, Ayaz ul Haq works at the Faculty of Management Sciences, as an Assistant Professor. Maryam Sajjad has interest in finance and an independent researcher. Ahmed Raza did his MS finance from Iqra University.

### PUBLIC INTEREST STATEMENT

This study investigates the impact of business environmental factors on organizational performance. Business environmental factors are economic factors, financial market indicators, technological change, political uncertainty, and market competitions. The finding shows that the performance of the organization has a significant positive relationship with all components of perceived business risk (PBR) such as economic factors, financial indicators, technological change, political uncertainty, and market competition. It is also found that the Formalization of RM Methods mediates among the component of PBR and organization performance. The results provide meaningful insights for managers, which are used generally by any organization as a guideline to improve the organization's performance.

## 1. Introduction

With the advent of new technology and globalization, the business environment has become more dynamic. Therefore, business activity has become complex and challenging as compared to the last century. The increasing pace of changes and globalization both put risk base control high on the agenda for companies. As per Welch and Welch (2005), inclusive scanning of business indicates that the external business environment for any organization is filled with uncertainty and risk. The management has to comprehend the external business environmental factors in order to effectively deal with risk and to improve the organization's performance. Irrespective of the sector, organizations deal with rapid changes in the external business environment, which influence firm performance (Hitt, Ireland, Sirmon & Trahms, 2011). Therefore, a comprehensive risk management framework needs to adopt by the business organization to survive in the market. In the current scenario, the management of risk is one of the foremost important issues facing organizations today. In a dynamic business environment, balancing risk is an efficient approach to handle corporate risk (Berinato, 2004). The efficient RM not only reduces the influence of risk on business operation but also generates several beneficial prospects for organizations in uncertainty. The aforesaid motivates the management to dig out different techniques to cope with risk in business operation. A business has to survive in a volatile business environment, therefore every organization tries to exclude the risk (Renn & Klinke, 2016). It is well-established fact that risk only is reduced by different tools and techniques but can not fully eliminate from the business. Akpoviro (2018) describes the business environment as anything which can affect the business activity, e.g strategy, performance, process, and decision. The key components of the business environment are political, economic, technological, and legal, he added. A business may face various jeopardies arises from the external business environment, e.g. technological, political, legal, and many other fluctuations (Kannadhasan, Aramvalathan, Tandon et al., 2013a; Saiful, 2017). In general notation, the uncertainty of the outcomes is a risk. In nutshell, it is very important to realize the risk perception phenomena to develop understanding among the managers engage in finance office as well as RM activities to deal with business environment volatility.

The previous research works have been conducted either for a specific industry or for some particular geographic area. Haque and Ali (2016) has focused on the individual sectors, e.g. cellular sector, whereas some other researchers have focused on a specific area like Pagach and Warr (2011) worked on US data; Abdullah et al. (2017) have worked on Malaysian data; Olson et al. (2010) have worked on Chinese data and Lechner et al. (2016) have worked on Germany data. A substantial review of theoretical and empirical literature has been conducted to explore the effect of risk management on organization performance in different contexts. The link between perceived business risk, Formalization of RM Methods, and organization performance is completely dynamic which depends upon the context of the study, more specifically, country and time-specific. This relationship also varies across companies and sectors. Management may change their approach to deal with uncertain business environments. As there is uncertain business environment in Pakistan which increase in risk at organizational level. Therefore, lack of formal RM methods exploits the organizational resources which in turn may reduce organization performance. Furthermore, the Pakistan has quite a different business environment than developed countries studies earlier; therefore, the researcher investigates the perception of risk and formalization of RM Methods in the uncertain business environment.

This study added literature to existing in several ways. First, this study is among the first to find the relationship in Pakistan. Second, it outlines recommendations for management to improve RM in a dynamic business environment by assessing the management commitment to RM in Pakistan. It also focuses on questions such as how a manager in Pakistan perceives business risk, whether

they deemed the Formalization of RM Methods base RM as a strategic activity, and if so how frequently they use RM tools to scan the business environment.

The rest of the paper is structured within the following sections. Section 2 explains the underpinnings and hypotheses development while section 3 deals with the identification of method, data, and variables utilized in the empirical analysis. Section 4 discusses the empirical results followed by a conclusion in section 5.

## 2. Literature review and theoretical framework

### 2.1. *Perceived business risk and organization performance*

The investigation link between perceived business risk and organization performance is considered as the important part of business analysis as discussed by Silva & Ferreira (2017). Milliken (1987) had earlier stated that the risk profile of any business tends to change due to external factors, which are considered crucial for the success of a business, and thus changes in these factors lead to formalized risk management methods in an organization as part of risk management. Thus, changes in the external factors (economic factors, financial market indicators, technological change, political uncertainty, and market competitions) lead to management concern to adopt the level of formalized risk management methods by gauging the impacts of environmental changes on the organization (Duncan, 1972). In this way, the business environmental factors are considered as an essential determinant of its structure (Crawford, 2017; Dunford et al., 2007; Oppong et al., 2016; Thompson, 1967). Further to this, a number of researchers conducted research to investigate the importance of business environment factors and how these factors develop organizational management risk approaches and implementation. A few other researchers inspected and discovered the contribution of components in developing risk management strategy, for example, environmental uncertainty, business system, and innovation are the key determinants of the adequacy of management and control. Similarly, accounting profit, dependence on bookkeeping-based operational measures, and budgetary control (Chenhall, 2003; Govindarajan & Gupta, 1985; Hassan et al., 2019;). The study concluded that PBR will result in higher levels of formalized RM methods which leads to better organizational outcomes.

### 2.2. *Perceived business risk and formalization of RM methods*

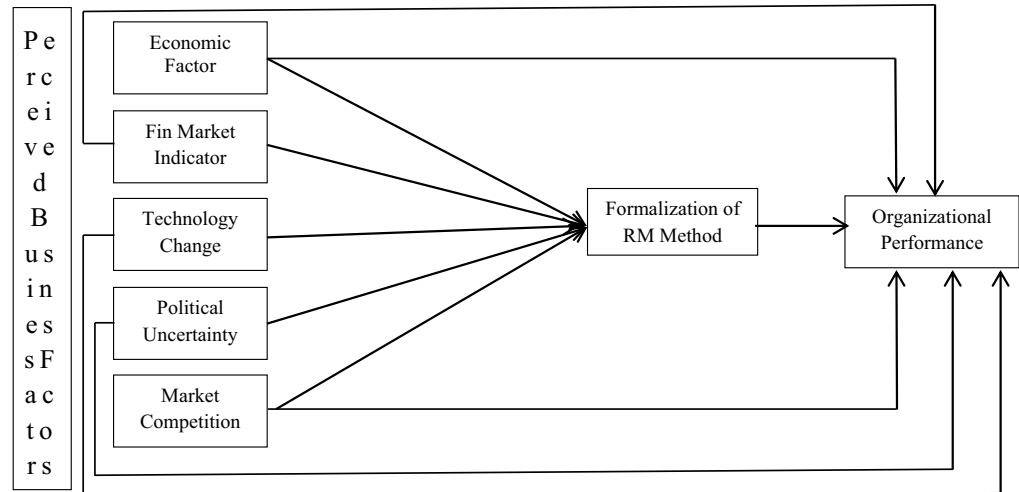
RM involves the main identification of risk along with evaluation and ways to counter it using suitable internal controls. This can only be effective if this information is shared amongst the organization on a timely basis while having formal, straightforward approaches and methodology advances, regular information among representatives on what should be “the set-in-stone activity” in a given condition. It is in this manner contended that formalization is probably going to satisfy both a control and a coordinated work (Vlaar et al., 2007). Customarily, formalization is seen as an aspect of authoritative structure and identified with how much an association depends on rules and standard working methodology to coordinate the conduct of representatives (Abdulkadir, 2014; Dawes et al., 2007).

For the motivations behind this investigation, we characterize RM formalization as the degree to which “RM strategies and procedures are formalized and embraced in a straightforward and precise way”. In this investigation, we contend that as Perceived Business Risk expands, organizations will progressively confront data which is unstable and will, therefore, not have the option to dole out probabilities with any level of certainty as to how natural variables will influence the firm (Bae, 2017; Duncan, 1972b; Gordon & Narayanan, 1984). In such conditions, we accept that organizations will endeavor to FRMM as formalization encourages the preparation of material and information that are available to instability in an increasingly methodical and cautious way.

### 2.3. *Theoretical framework*

Perceived risk is a crucial factor for an organization that influences multiple aspects of their firm’s performance, such as service quality performance, financial performance, and reputation

**Figure 1.**



performance. Therefore, perceived risk has gained the center position among policymakers and researchers for a few decades. Several studies (e.g. Carter, Rogers, Simkins, & Treanor, 2017; Cendrowski & Mair, 2009; Nottingham & User, 2016) discussed the relationship between the risk and risk management. Formalization refers to the use of accepted measures, guidelines, and activities (Sivadas & Dwyer, 2000a; Vlaar et al., 2007). A typical theory relates to the potential benefits of formalization for all types of organizations along with some potential drawbacks (Benhassine, McKenzie, Pouliquen, & Santini, 2018;; Song, I'm, Van Der Bij, & song, 2011). Strategy formalization reduces potential risks as it also produces consensus within the organization and acceptability of strategic direction (Abdallah & Langley, 2014; Grant, 2016). It also enables the organization to clarify its objectives and raises the potential collaboration within the organization leading to clear lines of communications (Sivadas & Dwyer, 2000b). Foguem and Tiako (2016) discussed the adoption of formalized risk management in a logistic organization. They divided the risk management into three steps such as risk identification, risk assessment, and risk control. Krykavskyy and Savchenko (2018) declared formalization as a strategic tool to streamline the operations along with the objective of the organization. Power (2004) argued through risk management has been formalized. This formalization is expected to provide opportunities to enhance managerial control, for example, via improved forecasting, more sophisticated measurement indicators, faster means of negative feedback, and greater stability (; (1998); Kearney & Kaplan, 1997; Vosselman, 2002). Moreover, this formalization gives rise to research and is more concerned with organization design and practical challenges than with opportunities for risk measurement. Practical challenges potentially erode the opportunities to maximize shareholder value and it may hinder the expansion of managerial control (Mikes, 2009, 2011; Power, 2007; Wahlström, 2018). Rad (2017) described risk management in the banking sector. He noted that formalized risk management results from effective internal controls. Frechet and Goy (2017) illustrated the importance of formalization in small and medium-sized organizations. He added that formalization may help the organized business process. Formalization also simplifies procedures within the organization (Song, et al., 2011) and acts as a bridging device (Ketokivi & Castañer, 2004). Consistent with this argument, some researchers have found that the formalization process increased the performance of the old organizations as well as the persistence of newly established (Burke et al., 2010). Whereas (McKenzie & Seynabou Sakho, 2010) admitted that high formalized organizations and less formalized companies had prominent differences in their earning. Formalized firms had higher profits than others they further added. Mayegle & Nguidjol (2017) highlighted the elements of formalized management and confirmed the importance of

**Table 1. Sector-wise survey responses**

Sector	Selected companies	Response received
Bank	35	25
Insurance	45	20
Modarabah	10	05
Sugar	45	32
Pharmaceutical	08	03
Cement	22	12
Automobile	20	8
Textile	140	89
Oil & Gas	20	7
Telecommunication	06	3
Total	351	204

formalization. They added that the formalized process leads to reduce doubt which leads to prompt and confident judgments. In the light of the review of past literature and relevant theories, the proposed framework is shown in [Figure 1](#)

H1: Economic factors have a positive impact on organizational performance.

H1: Formalization of RM Methods mediate economic factor and organization performance.

H2: Formalization of RM Methods mediate financial indicator and organization performance.

H3: Formalization of RM Methods mediate political uncertainty and organization performance.

H4: Formalization of RM Methods mediate technological change and organization performance.

H5: Formalization of RM Methods mediate market competition and organization performance.

### 3. Data and methodology

The leading industrial sectors are included in this study. Questionnaire distributed among CFOs/ Finance managers/Risk Managers of selected industries. 204 responses were received out of 351 distributed questionnaires. The survey method may be a useful and bona fide approach to explain and explore variables and construct of interest (Ponto, 2015). In this study, the author employed Structural Equation Modeling (SEM) to test the proposed model as proposed by Greenfield and Greener (2016). . [Table 1](#) describes the industry-wise response of the survey.

### 4. Pilot testing

This study employed a questionnaire to record responses on a 5-point Likert scale. Confirmatory correlational analysis (CFA) was used to confirm the validity of the instrument. Scale validity provides adequate support to the instrument in several cultures (Shirali, Shekari, & Angali, 2018). This approach is to live the intensity of the latent variables (Lewis, 2017). In the preliminary investigation, 96 respondents were included. The results of the pilot study confirm the validity and reliability of the questionnaire used to collect data from respondents (see, [Tables 2–4](#)). According to Kim, Ku, Kim, Park, & Park (2016), a construct having factor loadings above 0.5 is considered a practically significant construct. Analysis showed that maximum questions included in the instrument were found valid in the Pakistani scenario. Hair, Black, Babin, & Anderson (2014) suggested that average variance extracted (AVE) and Construct Reliability (CR) of the construct



**Table 2. Convergent validity**

Economic factor		Formalization of RM methods		Organizations performance	
Items	Std. Est. ( $\lambda > 0.50$ )	Items	Std. Est. ( $\lambda > 0.50$ )	Items	Std. Est. ( $\lambda > 0.50$ )
EF-1	0.71	FRMM-1	0.73	PER-1	0.67
EF -2	0.64	FRMM-2	0.65	PER-2	0.67
EF -3	0.76	FRMM-3	0.64	PER-3	0.64
EF-4	0.74	FRMM-4	0.77	PER-4	0.61
AVE = 2.04 /4 = 0.51		FRMM-5	0.69	PER-5	0.86
CR = 8.12/(8.12 + 1.96) = 0.80		FRMM-6	0.77	PER-6	0.73
Financial market indicator		FRMM-7	0.75	PER-7	0.66
Items	Std. Est. ( $\lambda > 0.50$ )	FRMM-8	0.64	PER-8	0.77
FI-1	0.83	FRMM-9	0.79	PER-9	0.70
FI-2	0.76	FRMM-10	0.75	PER-10	0.82
FI-3	0.59	FRMM-11	0.75	PER-11	0.79
FI-4	0.81	FRMM-12	0.67	PER-12	0.66
FI-5	0.71	FRMM-13	0.76	PER-13	0.79
FI-6	0.60	FRMM-14	0.76	PER-14	0.75
AVE = 3.13/6 = 0.52		FRMM-15	0.79	AVE = 7.38 /14 = 0.53	
CR = 18.49/(18.49 + 2.86) = 0.86		AVE = 7.76 /15 = 0.52		CR = 311.87 /(311.87 + 12.42) = 0.96	
Technological change		CR = 102.3/(102.3 + 6.62) = 0.94		Political Uncertainty	
Items Std. Est. ( $\lambda > 0.50$ )		Market competition		Items Std. Est. ( $\lambda > 0.50$ )	
TC-1	0.82	Items Std. Est. ( $\lambda > 0.50$ )		PU-1	0.70
TC-2	0.72	MC-1	0.71	PU-2	0.69
TC-3	0.78	MC-2	0.79	PU-3	0.73
TC-4	0.65	MC-3	0.66	PU-4	0.79
TC-5	0.71	MC-4	0.73	PU-5	0.67
TC-6	0.68	AVE = 2.09 /4 = 0.52		AVE = 2.58/5 = 0.51	
AVE = 3.13/6 = 0.53		CR = 8.3/(8.3 + 1.90) = 0.81		CR = 12.88/(12.88 + 2.41) = 0.84	
CR = 18.49/(18.49 + 2.86) = 0.86					

EF = Market Uncertainty, FI = Financial Uncertainty, TC = Technological Change, MC = Regularity Uncertainty, PU = Political Uncertainty, IC = Formalization of RM Methods, PER = Performance.

should be above or adequate to 0.50 and 0.70, respectively. The AVE values of every construct found quite the prior stated acceptance criteria. The CR of the entire construct was greater than the aforementioned criteria, which means internal consistency exists.

Table 3 shows the valid items for the construct of study alongside their source and reliability. Cronbach's Alpha was employed to live the reliability of constructs suggested by Hair, Anderson, Tatham, & Black (1998). The results in Table 3 shows that each construct has a value above 0.70, which suggests that the instrument that would not collect that for this study is reliable.

## 5. Empirical analysis

This study employed various analysis techniques to examine the collected data. Table 4 contains the results of indicators regarding the adaptability of the model as suggested by Hair et al. (1998). Results revealed that all criteria mentioned in the table are within the range for the proposed study model.

The researcher has also used Common Method Bias (CMB) and found variables are not biased with each other's. After validating the model, the next step was to scrutinize the hypotheses formulated. This study followed (Hunjra, 2018) methodology to check mediation. The indirect relationship among



**Table 3. Cronbach's alpha**

Variables	Source	Items	Valid Items	Cronbach's Alpha
Economic factor	Hammad, Jusoh, and Ghozali (2013) Miles et al., (1978)	6	4	0.78
Financial indicator		9	6	0.86
Technological change		10	6	0.81
Political uncertainty		8	5	0.82
Market competition		8	4	0.80
Formalization of RM methods	(Miles et al., 1978; Subramaniam et al., 2011)	15	15	0.96
Organization performance	Govindarajan (1985)	14	14	0.94

**Table 4. Model fit index**

Model fit criteria	Measurement model	Acceptable range*
$\chi^2$	1.39	-
$\chi^2/Df$	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

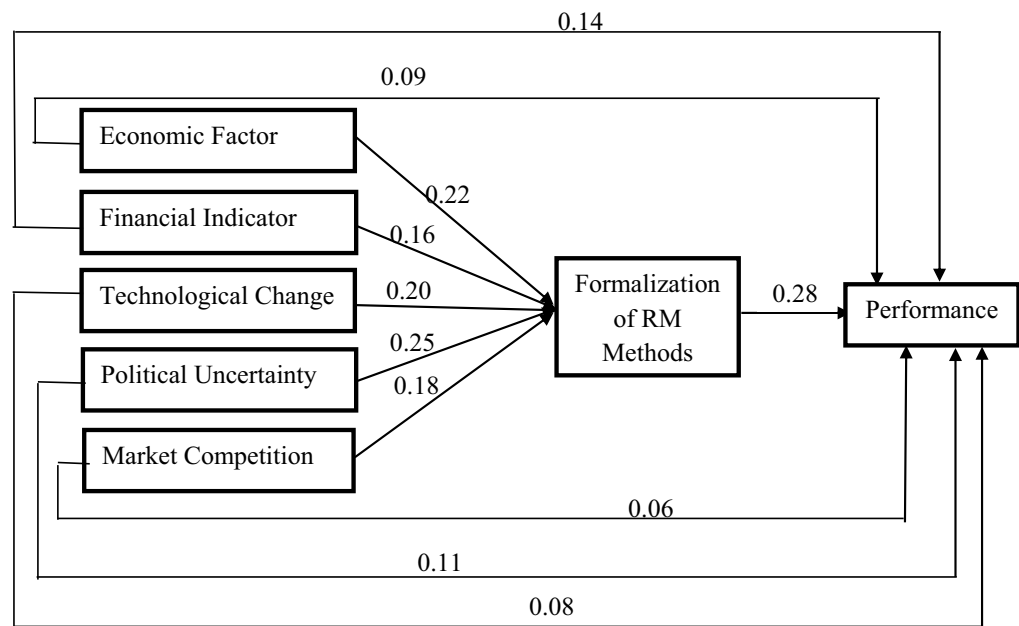
independent and dependent variables through the mediating variable was tested. A two steps procedure is employed to see the mediating effect of dividend policy, which is shown in [Figure 2](#).

The sixth hypothesis describes the association between perceived risk due to economic factors and perceived Formalization of RM Methods. The result in [Table 5](#) depicted that the effect of perceived volatility in economic factors on the Formalization of RM Methods is significant and positive. Hence, the result supports the suggested relationship between both variables, i.e. there is a significant and positive association between perceived economic factor risk and the Formalization of RM Methods. The association between perceived risk due to financial factors and the Formalization of RM Methods was also examined. The statistics of the study illuminated the positive association between perceived uncertainty in financial factors and the Formalization of RM Methods with a significant path coefficient. The results confirm the implication that perceived uncertainty in financial factors and the Formalization of RM Methods associate with each other significantly and positively.

The association between perceived risk due to political factors and the Formalization of RM Methods was also examined. The statistics of the study illuminated the positive association perceived uncertainty in political factors and the Formalization of RM Methods with a significant path coefficient. The results confirm the implication that perceived uncertainty in political factors and the Formalization of RM Methods associate with each other significantly and positively.

The association between perceived risk due to technical factors and the Formalization of RM Methods was also examined. The statistics of the study illuminated the positive association between perceived uncertainty in technology factors and the Formalization of RM Methods with

**Figure 2. Structural equation models: Indirect effects with mediating variables.**



**Table 5. Structural equation models: Indirect effects with mediating variables**

Variables			Estimates	P value
Formalization of RM methods	←	Economic factors	0.22	0.005
Formalization of RM methods	←	Financial indicators	0.16	0.000
Formalization of RM methods	←	Technological change	0.20	0.021
Formalization of RM methods	←	Political uncertainty	0.25	0.010
Formalization of RM methods	←	Market competition	0.18	0.003
Organization performance	←	Formalization of RM methods	0.28	0.001

a significant path coefficient. The results confirm the implication that perceived uncertainty in technology factors and the Formalization of RM Methods associate with each other significantly and positively.

The association between perceived risk due to market factors and the Formalization of RM Methods was also examined. The statistics of the study illuminated the positive association between perceived uncertainty in market factors and the Formalization of RM Methods with a significant path coefficient. The results confirm the implication that perceived uncertainty in market factors and the Formalization of RM Methods associate with each other significantly and positively. It further reveals that the connection between the Formalization of RM Methods and organization performance is statistically significant.

**Table 6. Comparison of direct and indirect effects (Formalization of RM methods)**

Variables			Direct effects		Indirect effects		Hypothesis Support
			Estimate	P-value	Estimate	P-value	
PER	←	Economic factors	0.19	0.005	0.14	0.006	H1 Accepted
PER	←	Financial indicators	0.33	***	0.09	0.020	H2 Accepted
PER	←	Technological change	0.23	***	0.08	0.011	H3 Accepted
PER	←	Political uncertainty	0.16	0.005	0.11	0.004	H4 Accepted
PER	←	Market competition	0.12	0.019	0.06	0.001	H5 Accepted

According to Baron and Kenny (1986), to test the mediation effects, compare the estimate of the direct and indirect path and significance. In literature, generally, this method has been employed by most of the researchers to check the mediation. The researcher also used similar methods in this study in order to check the mediator, i.e. Formalization of RM methods influences the relationship among components of perceived business risk and organization performance. It is evident from the analysis results described in Table 6 that regression weights have reduced from 0.19, 0.33, 0.23, 0.16 and 0.12 to 0.14, 0.09, 0.08, 0.11 and 0.06, respectively, with insignificant relationships. This reduction in regression weight with insignificance means that there is full mediation exist in the relationship between factors of perceived business risk (e.g. economic factors, financial indicator, political uncertainty, technological change, and market volatility) and organization performance is supporting the hypothesis H1 to H5.

The model is found to be fit, which applies that perceived business risk is contributing to the Formalization of RM Methods, which causes organization performance. Environmental factors are long considered critical determinants of organizational control systems.

Accordingly, this study reaffirms the findings of Vasile and Croitoru (2016) in the context of the Pakistani corporate sector. The businesses which are relatively more profitable, less risky, mature and stable, it means organizations has simpler and efficient Formalization of RM Methods as compared to companies that do not develop controls to satisfy the danger. This study finds that perceived business risk features a direct impact on the financial performance also because of the mediation role of Formalization of RM Methods with financial performance. A Formalization of RM Methods system potentially enhances a firm's monitoring and reporting processes, also ensuring compliance with laws and regulations. In this way, effective control features a critical role to play during a firm's success.

## 6. Conclusion

The findings of this study provide meaningful insights for managers of personal sector organizations for achieving higher organizational performance. These insights are often used generally by any organization as a guideline, or they will be specifically applied to the danger perception—organization performance within the private sector during a developing country. With reference to general implications for managers, the first questions proposed by this study were: How does perceived business risk influence organizational performance through control, and whether control mediates the perceived business risk-performance relationship? The solution obtained from the results of this study was that perceived business risk definitely influences organizational performance and the Formalization of RM Methods mediates this relationship. Therefore, to realize

higher organizational performance it is vital for organizations that managers should adopt a robust control that is, first, according to the business goal and, second, according to the regulatory guidelines. Therefore, this finding is extremely important for firms to counter business risk. Organizations inevitably have to undergo changes including structural, procedural, and managerial. It is important for managers to know the risk perception and control relationship in two ways because both have an enormous impact on organizational performance and that they can not be separated from one another since uncertainty in the business environment influences the level of control and the other way around. The limitation of this study is measurements for all variables are supported the perceptions of respondents who were senior management. As such, their observations could also be hospitable biased.

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#### Disclosure statement

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