MODERATION MEDIATION FRAMEWORK FOR ENTERPRISE RISK MANAGEMENT AND PERFORMANCE OF ISLAMIC BANKS OF PAKISTAN

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Abstract

In the present dynamic market, most organizations invest in colossal budget to gain a competitive edge and to enhance firm performance. Most of prior researches examined distant determinants of the competitive edge and the firm performance. The ongoing study focused on two components of the business strategy i.e. cost leadership strategy and differentiation strategy and two determinants of firm performance (financial performance and organization learning growth). Furthermore, the core objective of study to inspect the mediation of cost leadership strategy as well as differentiation strategy between Enterprise Risk Management (ERM) practices and Islamic bank performance. Financial literacy plays an intervening role between ERM practices and cost leadership strategy (CLS) and differentiation strategy (DS). Structured questionnaires employed for data collection, from the managers through a convenience sampling method. Structural equation modeling analysis employed to test the hypothesis. Results found positive and significant impact of the ERM practices on Islamic bank performance through cost leadership strategy but insignificant in differentiation strategy. Financial literacy (FL) found a significant negative effect on DS and CLS. This study has some limitations such as convenience sampling method employed for data collection which influence the generalizability of findings.

Keywords: Enterprise Risk Management, Cost Leadership Strategy, Differentiation Strategy, Banks Performance, Financial Literacy.

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Introduction

ERM has grown since the 1990s when enterprises face numerous surprises in the competitive environment (Arena, Arnaboldi, & Azzone, 2010). These shocks illustrated that financial crisis worldwide which created importance of the risk management practices (Coskun, 2013). Risk management is an essential concern in challenging worldwide environment. Risk knew to be the prime mover for institutions and individuals (Ali, Lu, & Wang, 2013). In recent years, most of the firm focused management of risk effectively and inefficiently manners (Farooq et al., 2019; Farooq & Raju, 2019). Some researcher believed that ERM practices directly influence on organizational performance (Florio & Leoni, 2017; Zou & Hassan, 2017). Contrarily, some researcher consider some other internal factors that influence the association between ERM and Organizational performance (Khan & Ali, 2017). A plethora of researchers conducted to investigated the importance of ERM practices in business (Bohnert, Gatzert, Hoyt, & Lechner, 2019; Yilmaz & Flouris, 2017).

ERM is a procedure to identify and assess risk which has an impact on the firms’ value. To meet these challenges organization implemented several approaches to manage risk and create fruitful risk management strategy (Meulbroek, 2002). ERM defined as a system to organize, measure, control, monitor and respond to the risk (Farrell & Gallagher, 2015). The leading goal of ERM practices is to augment the value for shareholders (Hoyt & Liebenberg, 2011). Furthermore, risk management enhances profitability and revenue for the organization. Islamic banks comparatively pay not much attention to Enterprise risk management practices. Moreover, few studies conducted on Erm and performance of the organization in under developing economies. None of the studies conducted before to determined ERM practices of Islamic banks of Pakistan.

ERM plays a very significant role in every day organizational practices as well as business activities to help businesses to control and manage their internal system. ERM practices crucial to respond any business threat in the better way and ensure getting benefits from the opportunities which are also helpful for organization to gain the competitive advantage (Armeanu, Vintilă, Gherghina, & Petrache, 2017). Enterprise risk management is very crucial for top management to effectively manage several kinds of risks (Annamalah, Raman, Marthandan, & Logeswaran, 2018).

According to the governor of state bank of Pakistan, Islamic bank should need to enhance risk management practices and transparency which can help to immunized from the risk (Bajwa, 2018). So, it is necessary to determine the impact of the ERM practices on the Islamic bank’s performance in Pakistan.

The novelty of this paper is previous studies utilized competitive advantage as the whole mediation variable between ERM on the firm performance. This paper examined two main compo-
nents of competitive advantage the first component is differentiation strategy and the second component is cost leadership strategy separately. Moreover, there is no study conducted before to examine the firm performance of Islamic banks of Azad Kashmir. Additionally, this research further contributes to the literature section. This study beneficial for the bank’s manager and owner to focused on ERM practices as well as financial literacy and components of competitive advantage.

The fundamental goal of present study investigates the impact of the ERM practices on the Islamic bank performance through mediating role of differentiation and cost leadership strategy, financial literacy recompense moderating role in current framework.

**Literature Review**

**ERM and banks performance**

In today’s worldwide businesses risk management is a fundamental concern for any business (Gordon, Loeb, & Tseng, 2009). Aabo, Fraser, and Simkins (2005) risk can turn into a great occasion if the deal in efficient manners. business enterprise risk management has same meanings as in strategic risk management, holistic risk management, integrated risk management, corporate risk management, business risk management and the broad ERM (Manab, Kassim, & Hussin, 2010). ERM is an efficient and competent instrument which different organization is using to reduce risks (Culp, 2002). ERM not only enhances the financial performance of the organization but also reduce associated risks (Florio & Leoni, 2017). There is some evidence available in real life; ERM relies on the competitive edge (Stulz, 1996). There is dearth studies conducted about the impact of ERM practices on the performance of firm (Khan & Ali, 2017).

Silva, Silva, and Chan (2019) conducted a study to testify the association between the ERM and the firm value. Study found ERM practices has positive and significant link with firm value. The study found a significant association between ERM practices and SME performance in the presence of competitive edge as mediation and financial literacy as moderator variable (Yang, Ishtiaq, & Anwar, 2018). Furthermore, the study illustrated that enterprise risk management has an association with firm performance with interaction impact of intellectual capital (Khan, Ali, Anjum, & Noman, 2019). They also suggested enterprise risk management implementation has positively associated with firm performance in Italian organizations (Florio & Leoni, 2017). Battaglia, Fiordelisi, and Ricci (2016) found that ERM has positive and significantly reduce risk and increase risk-adjusted performance during the financial crisis in eastern Europe. Undoubtedly there is a notable link between the ERM practices and the Performance of firm (Callahan & Soileau, 2017; Zou & Hassan, 2017). Contrarily, Eikenhout (2015) evaluated a study in Dutch insurance companies and found no remarkable link between ERM and the firm performance. Moreover, the study also did not find any impact of ERM on organization performance (Șenol & Karaca, 2017). Following hypothesis formulated based on above discussion.

**H1:** There is a positive influence of ERM practices on Islamic bank performance.
ERM and Cost Leadership Strategy

Business strategies outlined with purpose of internal as well as external valuation of the company. The enterprises can get a competitive advantage based on different strategies. These strategies includes CLS, DS and the FS (Porter, 1980). The current study focused on two competitive advantage strategies (CLS and DS). CLS accentuates for those customers satisfaction who are seeking low-cost product. This strategy divided into segments. First, Products or services offered to the customer at the minimum price available in the market. On the other hand, the second segment is the best product or services offered to the customers at the best available price in the market.

According to Brustbauer (2016), ERM practices significantly influence on strategic decisions which leads to organizational performance. Diversely, ERM practices don not influence directly on the organization’s value, but some internal factors influence on the relationship (Chung, Yu, & Hung, 2015). According to Zou and Hassan (2017) ERM practices helpful for curtail of different associated costs (cash flow management, asset management, and inventory management). Reduction of all cost leads to enhance the organization’s performance (Zou & Hassan, 2017). The study found that the positive link between the ERM practices and cost leadership strategy and differentiation (Soltanizadeh, Abdul Rasid, Mottaghi Golshan, & Wan Ismail, 2016)

\[ H2: \text{There is a positive influence of ERM practices on the cost leadership strategy.} \]

Cost Leadership Strategy and Organization Performance

Frigo and Anderson (2012) explained three major components of COSO’s enterprise risk management definition which is akin to the strategy. The first component of ERM must be linked with the strategy of the company effectively. Second, ERM designed to identify the circumstances which influence the performance of the company. Conclusively, ERM and strategies should be parallel. This is exactly strategic risk management come in. Third, the aim of ERM is to provide an assertion that the firm accomplishes its goal. According to Soltanizadeh et al. (2016) found a significant association between the CLS and the firm performance of listed companies in Malaysia. Furthermore, the study found a positive association between organizational performance and CLS in the hotel industry of Malaysia (Hilman & Kaliappen, 2014). Additionally, the study found that positive effect of the CLS and performance of Kenyan manufacturing firms (Wamalwa, 2018).

Contrarily, the study found there was no link between differentiation and cost leadership strategy with organization performance (Nandakumar, Ghobadian, & O'Regan, 2011). Moreover, the study also revealed that cost leadership strategy and the differentiation has no association found with the firm performance of Thailand manufacturing firms (Seedee, Sulaiman, & Ismail, 2009).

\[ H3: \text{There is a positive effect of the cost leadership strategy on the Islamic bank performance.} \]
ERM and differentiation strategy

Differentiation is Porter (1980) strategy which accentuates offering inimitable product or services at a relative price to the customers. Enterprise risk management system imperative for decision making and controlling. ERM practices not only crucial for the financial performance but also essential for the non-financial performance of the organization (Zaleha Abdul Rasid, Ruhana Isa, & Khairuzzaman Wan Ismail, 2014). It is asserted execution of ERM practices to organization successfully can lead to success. ERM practices helps to curtail operational cost and accounting cost. Conclusively, Organization executes a distant process to achieve competitive advantage. In this process, ERM practices utilized for shrinkage of different associated risks and expedited a firm’s competitive advantage satisfactory (Elahi, 2013). Following hypothesis formulated based on above discussion.

**H4:** There is a positive impact of ERM practices and the differentiation strategy.

Differentiation Strategy and Organizational Performance

Cost leadership strategy executes at the lower level organization and differentiation strategy performed at the higher level company (Kim, Nam, & Stimpert, 2004). Kumar, Subramanian, and Strandholm (2002) identified that hospital utilized a differentiation strategy and have a stronger market inclination as compared to the CLS. Market orientation leads to differentiation performance as compared to cost leadership. Furthermore, Spencer, Joiner, and Salmon (2009) determine the positive link between the determinant of DS (product flexibility and customer service) and the performance of the firm. Wamalwa (2018) examined the positive impact of differentiation on the performance of Kenyan manufacturing companies.

Gorondutse and Hilman (2017) stated that positive and significant link of the DS and performance of Nigerian hotel industry. Additionally, they found the environmental munificence recompense moderating role between the link of DS and the firm performance. One more study testified positive link between differentiation strategy and the performance of Kenyan hotels (Bukirwa & KISING’U, 2017). Contrarily, Aliqah (2012) found DS does not influence on the performance of Jordanian companies.

**H5:** There is a positive effect of differentiation strategy on Islamic banks performance.

ERM and Financial Literacy

ERM practices not always provide a competitive edge but also need some skills which help to achieve the firm’s objective (Arena et al., 2010). Well educated managers as well as directors of the firm motivated to engage in the risk reduction activities which include corporates financial policies and hedging (Dionne & Triki, 2005). According to bank association of South Africa characterize financial literacy of SMEs must have the following requirement. This qualification includes business...
management skills, specific entrepreneurial competencies level, personal skills, and financial requirements and regulatory issues (Messy & Monticone, 2012). The study examined the significant association between financial literacy and ERM practices (Yang et al., 2018). Additionally, authors confirmed that qualification of managers has an impact on ERM practices and the strategies of the firm (Shanahan & McParlane, 2005). Financial education of entrepreneurs is also influenced by the association between firm performance and ERM (Herbane, 2010). Following hypothesis formulated based on above discussion.

H6: There is a significant effect of financial literacy on the relationship between enterprise risk management practices and cost leader strategies and differentiation strategy.

**Figure 1: Conceptual Framework**

**Methodology**

Data collected from structured questionnaires distributed among operational managers and branch managers of Islamic banks of Pakistan. This study is quantitative in nature, and the cross-sectional method is employed.

**Population and sample size**

The population of the current study is the managers of Islamic banks of Pakistan. Data was collected through a convenience sampling method. Questionnaires distributed among 150 operational managers and branch manager and 122 returned 118 questionnaires filled suitable.
Measurement of enterprise risk management practices nine items adopted from (Embi & Shafii, 2018). Six items adopted from (Wamalwa, 2018) developed by (Dess & Davis, 1984) to measure cost leadership strategy (Efficiency, the economy of scale and supplier relation) and differentiation strategy (customer services, marketing activities and product development). Ten items adopted from (Kaplan & Norton, 1992) study to measure Islamic banks performance (financial performance and organizational learning growth). Seven items adopted from (Okello Candiya Bongomin, Mpeera Ntayi, Munene, & Akol Malinga, 2017) study to measure financial literacy.

Analytical tool

Structural equation modeling utilized for testing of hypothesis by using SmartPLS V.3.2.8. data analysis divided into parts. In the first phase, initial data screening processed and employ CFA to check the fitness of model, reliability and discriminant validity. In the second phase, structural equation modeling employed to check the influence of enterprise risk management practices on Islamic banks performance.

Results and Discussion

Respondents of current study are the branch manager and operational manager of the Islamic banks in Pakistan. Three are approximately 102 (86%) respondent was male and 16 (13.6%) participants were females. There are approximately 60 (50.8%) were branch manager and 58 (49.2%) were operational manager participated in this survey.

Figure 2: Structural Model
The above Figure 2 illustrates the testing of the model. According to different authors value of outer loading should >0.50, 0.60 and >0.70 (Hair, 2006). In the present study followed >0.70 outer loading threshold criteria, those items <0.70 were omitted. All those items less than the cut of the point has an effect on composite reliability (CR), Rho-A, Cronbach alpha and Average Variance Extracted (AVE). Result testified that all outer loadings >0.70 (Ramayah, Cheah, Chuah, Ting, & Memon, 2016).

**Figure 3: Structural Moderation Model**

This above figure 3 shows that the moderation effect of financial literacy on cost leadership strategy and the differentiation strategy. Results reveal that significant effect of financial literacy on the cost leadership strategy as well as differentiation strategy.

Table 1

<table>
<thead>
<tr>
<th>Construct Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Items</strong></td>
</tr>
<tr>
<td>Enterprise Risk Management 2</td>
</tr>
<tr>
<td>Enterprise Risk Management 3</td>
</tr>
<tr>
<td>Enterprise Risk Management 5</td>
</tr>
<tr>
<td>Enterprise Risk Management 6</td>
</tr>
<tr>
<td>Cost Leadership Strategy 1</td>
</tr>
<tr>
<td>Cost Leadership Strategy 2</td>
</tr>
</tbody>
</table>

(Table Continued....)
The above table 1 shows that outer loading of each item in the construct. The value <0.70 omitted for better results and avert convergent as well as discriminant validity. Findings demonstrate that all outer loadings >0.70.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach's Alpha</th>
<th>Rho A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprise Risk Management</td>
<td>0.826</td>
<td>0.832</td>
<td>0.884</td>
<td>0.656</td>
</tr>
<tr>
<td>Cost Leadership Strategy</td>
<td>0.855</td>
<td>0.871</td>
<td>0.895</td>
<td>0.630</td>
</tr>
<tr>
<td>Differentiation Strategy</td>
<td>0.838</td>
<td>0.846</td>
<td>0.892</td>
<td>0.675</td>
</tr>
<tr>
<td>Islamic Bank Performance</td>
<td>0.874</td>
<td>0.879</td>
<td>0.905</td>
<td>0.613</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>0.842</td>
<td>0.849</td>
<td>0.888</td>
<td>0.613</td>
</tr>
</tbody>
</table>

Table 2

Reliability and validity of the construct
The above table 2 revealed that value of Cronbach’s alpha > 0.70 acceptable (Nunnally, 1978), the value of Composite reliability >0.50 is acceptable and value of average variance extracted is >0.70 (Hair, Black, Babin, Anderson, & Tatham, 2006). Results indicate that enterprise risk management practices, cost leadership strategy, differentiation strategy, financial literacy, and Islamic bank performance meet the condition of the threshold.

Table 3  
**Fornell-Larcker Criterion**

<table>
<thead>
<tr>
<th></th>
<th>Cost Leadership Strategy (1)</th>
<th>Differentiation Strategy (2)</th>
<th>ERM Practices (3)</th>
<th>Banks Performance (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>0.794</td>
<td>0.822</td>
<td>0.810</td>
<td>0.783</td>
</tr>
<tr>
<td>(2)</td>
<td>0.618</td>
<td>0.431</td>
<td>0.638</td>
<td>0.783</td>
</tr>
<tr>
<td>(3)</td>
<td>0.636</td>
<td>0.487</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>0.709</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table 3 testified that there is no discriminant validity issue. All diagonal value > from the correlation of each variable (Fornell & Larcker, 1981). Diagonal value of each construct is the square root of Average Variance Extracted (AVE), and it should be greater than the correlation value of each construct.

Table 4  
**Heterotrait-Monotrait Ratio**

<table>
<thead>
<tr>
<th></th>
<th>Cost Leadership Strategy (1)</th>
<th>Differentiation Strategy (2)</th>
<th>ERM Practices (3)</th>
<th>Banks Performance (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>0.740</td>
<td>0.502</td>
<td></td>
<td>0.739</td>
</tr>
<tr>
<td>(2)</td>
<td>0.712</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td>0.799</td>
<td>0.571</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table 4 illustrates that the modern method to the assessment of the discriminant validity. There is a lack of discriminant validity when value close to 1. According to Kline (2015), value >0.85 shows lack of discriminant validity. Moreover, value >0.90 illustrates a lack of discriminant validity (Gold, Malhotra, & Segars, 2001). Results found that there is no validity issue in the framework.
Table 5
Path coefficient

<table>
<thead>
<tr>
<th>Pathferred</th>
<th>Original Sample Mean</th>
<th>Sample Mean</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Leadership Strategy -&gt; Islamic Banks Performance</td>
<td>0.474</td>
<td>0.467</td>
<td>0.091</td>
<td>5.236</td>
<td>0.000</td>
</tr>
<tr>
<td>Differentiation Strategy -&gt; Islamic Banks Performance</td>
<td>0.06</td>
<td>0.061</td>
<td>0.089</td>
<td>0.675</td>
<td>0.500</td>
</tr>
<tr>
<td>ERM Practices -&gt; Cost Leadership Strategy</td>
<td>0.636</td>
<td>0.642</td>
<td>0.052</td>
<td>12.353</td>
<td>0.000</td>
</tr>
<tr>
<td>ERM Practices -&gt; Differentiation Strategy</td>
<td>0.431</td>
<td>0.435</td>
<td>0.089</td>
<td>4.835</td>
<td>0.000</td>
</tr>
<tr>
<td>ERM Practices -&gt; Islamic Banks Performance</td>
<td>0.311</td>
<td>0.314</td>
<td>0.109</td>
<td>2.849</td>
<td>0.005</td>
</tr>
<tr>
<td>Financial Literacy -&gt; Cost Leadership Strategy</td>
<td>0.177</td>
<td>0.187</td>
<td>0.091</td>
<td>1.953</td>
<td>0.051</td>
</tr>
<tr>
<td>Financial Literacy -&gt; Differentiation Strategy</td>
<td>0.07</td>
<td>0.061</td>
<td>0.123</td>
<td>0.57</td>
<td>0.569</td>
</tr>
<tr>
<td>Moderating Effect 1 -&gt; Cost Leadership Strategy</td>
<td>-0.149</td>
<td>-0.139</td>
<td>0.066</td>
<td>2.241</td>
<td>0.025</td>
</tr>
<tr>
<td>Moderating Effect 2 -&gt; Differentiation Strategy</td>
<td>-0.165</td>
<td>-0.144</td>
<td>0.071</td>
<td>2.304</td>
<td>0.022</td>
</tr>
</tbody>
</table>

The above table 5 shows the effect of endogenous and exogenous variables. Results indicate that there is positive and significant impact of CLS on performance of Islamic banks (β=0.474, p<0.05), no impact found of differentiation strategy on performance of Islamic bank (β=0.060, p>0.05), positive effect of ERM practices on cost leadership strategy (β=0.636, p<0.05), positive impact of ERM practices on differentiation strategy (β=0.431, p<0.05), ERM practices have a positive effect on the performance of Islamic banks (β=0.311, p<0.05), financial literacy has an insignificant effect on cost leadership strategy (β=0.177, p>0.05), financial literacy has an insignificant effect on differentiation strategy (β=0.070, p>0.05), there is a negative and significant moderation effect found with CLS and the DS.
The above table 6 shows that the specific effect of ERM practices on Islamic bank performance through the mediating role of cost leadership strategy and differentiation strategy. The study found that there is a positive effect of ERM practices on Islamic bank performance through the mediating role of cost leadership strategy. Contrarily, there is an insignificant effect of ERM practices on Islamic bank performance in the presence of the differentiation strategy.

Conclusion

The core objective of current study to investigate the influence of enterprise risk management practices on the Islamic bank performance in Pakistan. Differentiation strategy and cost leadership strategy play a mediating role. The study concluded that the enterprise risk management practices has a positive and significant effect on the financial as well as non-financial performance of Islamic banks. Results also concluded that there is significant effect of ERM practices on Islamic bank performance in the presence of cost leadership strategy.

The result of present study found that there is an insignificant effect of ERM practices on Islamic bank performance through the mediating role of differentiation strategy. Financial literacy found a positive effect on Islamic bank performance. This present study found that there is an insignificant moderating effect of FL on DS and the CLS. This study recommended that the Islamic bank should focus on cost leadership strategy to enhance the financial and non-financial performance of Islamic banks. Enterprise risk management practices also help to enhanced banks performance.

This study prone some limitation such as data collected from 118 managers from different Islamic banks through convenience sampling method. This is a cross-sectional study which may affect generalizability. Future study can take other components of competitive advantage.

Table 6
Specific Indirect effect

<table>
<thead>
<tr>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERM Practices -&gt; Cost Leadership Strategy -&gt; Islamic Banks Performance</td>
<td>0.302</td>
<td>0.299</td>
<td>0.056</td>
<td>5.390</td>
</tr>
<tr>
<td>ERM Practices -&gt; Differentiation Strategy -&gt; Islamic Banks Performance</td>
<td>0.026</td>
<td>0.027</td>
<td>0.040</td>
<td>0.657</td>
</tr>
</tbody>
</table>
References


Review, 39(9), 1016-1033.


