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Risk Management Practices and Islamic Bankers' Perception about Potential Risk in Islamic Countries

Samina Riaz*, Muhammad Irfan Khan†, Athar Iqbal‡

Abstract

This paper investigates the extent to which the Islamic bankers (Risk managers & Chief Financial Officers, (CFOs) understand risk management practices and perception of Islamic bankers about identification of potential risks in Malaysia, UAE and Pakistan. The sample consists of forty eight risk managers and CFOs in three Islamic countries. The results indicate that Malaysia has more females (59%) working as risk managers and CFOs between the age of 31-40 years than UAE and Pakistan. Moreover, Malaysian risk managers and CFOs have better understanding of risk management practices as well as identification of potential risk. After Malaysia the UAE is better in risk management practices as compared to Pakistan. Similarly, Malaysian risk managers and CFOs can clearly identify the potential risk. After Malaysia the UAE risk managers and CFOs can also identify the potential risk. On the other hand, Pakistani risk managers and CFOs are comparatively weak in identification of potential risk. The findings of this paper will be beneficial for the bankers, investors, depositors and policy makers to implement efficient risk monitoring techniques and to ensure the availability of well trained employees.

Key words: Risk management, Islamic banks, liquidity risk, credit risk, operational risk, market risk

Introduction

There are certain factors that cause roadblocks and obstructions to a system and stop it from achieving its objectives and goals. These factors are defined as risks, and they could either be internal or external to the system. Risks could be of many different types and they take place under particular situations. As a matter of fact, businesses and community life are prone to facing risks at any given stage of their existence because risk is regarded as a naturally-occurring phenomenon. However, tracing out the risk and confronting it could turn out to be more critical than expected (Khalil & Ali, 2015).The situation becomes more complex due to the dynamic environment of the present-day world; life is full of zeal

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but there are all kinds of risks out there as well. What is more, different world dimensions are subject to change on a day-to-day basis that, in turn, make things further complicated. At present, people are not only interested in taking risks but also want to reject the opportunity cost to reap optimum benefits out of every situation. Moreover, the people these days have become more critical towards everything as compared to their ancestors. Similarly, when we talk about investment options, risk management is becoming an important issue, both for academicians, as well as practitioners (Nazir, Daniel & Nawaz, 2012).

What's more, risk management is also determined to be a determining factor for a bank's stock returns (Sensarma and Jayadev, 2009; Hussain&Ajmi, 2012). Once the risk is identified and acknowledged, some basic techniques must be implemented to manage the risk efficiently. According to Shafiq and Nasr (2010), the best strategy to cope with a potential risk is to manage it before it happens. In Pakistan, the banking sector has undergone many huge risks like liquidity risk, credit risk, market risk, foreign exchange risk and risk related to rate of interests, etc., due to the unstable political and economic situation of the county.

The major loans of the bank have more credit risk exposure of the bank. Pakistani banks have not only faced credit risks associated with loans but other types of financial risks too. For instance, banks have undergone risks related to foreign exchange transactions, trade financing, interbank transactions, financial futures, bonds, swaps, equities, options, commitment and guarantee extensions, and the transaction-related settlements. In Malaysia, Bank Islam Malaysia Berhad and Takaful Malaysia were established in 1984 and 1985 respectively. Islamic banking is growing over the last 32 years in Malaysia. In Pakistan State bank of Pakistan begun to introduce Islamic Banking practices around 2000 and Meezan Islamic Bank was the first bank in 2002(Ahmad,Rehman&Saif, 2010). Islamic Banking in the UAE has seen striking development over the previous decade. Internationally, out of nine key markets about 95% assets of IslamicBanking are based in five countries of Gulf Cooperation Council (GCC) suchas UAE, Saudi Arabia, Qatar, Bahrain and Kuwait. The share of the overall industry of Islamic banking assets in UAE, Saudi Arabia, Qatar, Bahrain Kuwait and Malaysia are currently between 20 and 49 percent. The UAE is in the cutting edge of the quick development of Islamicbanking occurring at a worldwide level, and on the basis of value it is positioned as the third biggest Islamic Banking market after Saudi Arabia and Malaysia(Shome, Jabeen&Rajaguru, 2018).With the growing influence and demand of

Islamic banking, commercial banking and the overall importance of the finance industry, there is an increase in research interest in this domain as well (Nazir,Daniel &Nawaz, 2012).

The main aim of this paper is to assess the degree to which Islamic banks make effectual and proficient use of RMPs. This study will also classify the different approaches and mechanisms that are applied to manage various kinds of risks that Islamic banks may undergo in Malaysia, UAE and Pakistan. These include operational risks, credit risk, market risks and liquidity risk etc.Moreover, this study is a continuation of an existent research work prepared by Al-Tamimi and Al-Mazrooei (2007); Hassan (2009); Ariffin,Archer and Karim (2009) and Hussain&Ajmi (2012), The previous research recommended further research to be carried out on similar topics but under different circumstances and different environments in a way that it only focuses on the risk management and perception of Islamic bankers.The next section 2 discusses the review of literature, section 3 focuses on the methodology, section 4 is about discussion on results and section 5 presents the main conclusions, limitations and suggestions for future research.

Literature Review

In general, there is a plethora of research regarding risk management. However, empirical researches about Risk Management Practices (RMP) are limited in their scope as especially when it comes to the inclusion of Islamic Banking(Fatemi and Fooladi, 2006; Al-Tamimi and Al-Mazrooei, 2007; Khalil &Ali, 2015). A more recent study based on RMP and its related procedures carried out in commercial banks in Peshawar, Pakistan concluded that the assessment of risk and its analysis affects RMPs significantly, while the identification and monitoring of risks impact RMPs insignificantly (Khalil & Ali, 2015). Another research, carried out by Khalid and Amjad (2012) explained the RMPs taking place in Islamic banks of Pakistan. The aforementioned researches made use of similar methodology as per the recommendation of Al-Tamimi and Al-Mazrooei (2007). The results of the research revealed that when it comes to managing risk, Islamic banking practices are apparently more efficient. Nonetheless, significant variables affecting RMPs included controlling the risk, analysis of the risk, and management of the risk.

A comparative analysis of the research augmented that Islamic banks encounter higher levels of risk as compared to their commercial counterparts. Furthermore, Islamic banking system also had higher levels of residual, operational, country, liquidity and settlement risks. The results revealed that Islamic banking system faces unique risks.Naziret al. (2012) investigated the RMPs in Pakistani Commercial and Islamic banks. The data for the study collected with the help of a questionnaire to figure out the results of relative analysis.The results of the regression showed that Pakistani banks carry out credit risk analysis, risk monitoring, and understanding of the risk in an efficient manner. Since these are the most important variables in terms of managing risks, the outcomes revealed that there is a substantial difference between them. Moreover, in 2008 a study carried out by Khan and Bhatti, it was observed that improving the corporate governance and risk management strategies in Islamic banks is a rather crucial challenge due to its connection with Islamic Sharia'a (law). Owing to this, certain aspects of Islamic banking are influences in terms of emphasis, application, inclusion and exclusion.

The parent study conducted by Al-Tamimi and Al-Mazrooei (2007) presented a comparative aspect of risk management in banks, both in local as well as foreign banks operating in the United Arab of Emirates (UAE). According to the study, there are three significant types of risks that commercial banks operating in the UAE are facing. These risks include credit risk, operating risk and foreign exchange risk. Nonetheless, a previous research conducted by Al-Tamimi (2002) revealed that the major risk that commercial banks in the UAE face is credit risk. For the identification of the risk (RI), the main method used by the branch managers in the analysis of financial statement was inspection. On the other hand, a 2007 study by Al-Tamimi and Al-Mazrooei revealed that physical inspections, analysis of financial statement, risk survey and audits carried out by risk manager make up the main method of risk identification.Ilias (2012) also asserted that Malaysian Islamic banks have better risk assessment system followed by risk mitigation and internal control strategies. Moreover, major risk faced by Islamic banks are non- compliance risk, rate of return risk, equity investment risk and displaced commercial risk. On the other hand, the challenges faced by Islamic banks are reputation risk, valuation challenges and harmonization and accounting framework challenges undertaken by Bank Muamalat and Al-Rajhi Bank in Malaysia.

On an average, foreign banks are reported to be better than local banks when it comes to dealing with risk exposure. Moreover, the quality of the staffers was identified by the research as the main reason for the differences. In addition, regulatory requirements that the banks have to abide by also added up to the differences. The study by Al-Tamimi (2008) examined the relationship between the willingness to apply the Basel II Accord and the required resources in UAE banks. As a result, the benefits, challenges and the impact of implementing Basel II Accord were known to the banks. Nonetheless, the research failed to establish a positive relationship between the willingness of UAE banks to implement Basel II and the influence of the application. The study also did not establish a relationship among the bank's readiness to implement the said Accord and its expected cost. Between the UAE and foreign banks, there was no evidence of preparations being carried out to implement Basel II Accord.

It was, thus, concluded that there existed a substantial difference between the bank's willingness to implement Basel II Accord and the educational qualification of the employees. The results supported that education is very important for the implementation of the Basel II Accord.A study carried out on Islamic Banking and their RMPs in Brunei was carried out by Hassan (2009) to assess the level of risk management practices and techniques carried out by Islamic banks in Brunei. The results of the study revealed that the main risks that banks in Brunei faced included foreign exchange risk, operating and credit risk.The results were developed using the regression model, and it was revealed that RI and RAA were the most impactful variables for Islamic banks in Brunei and the banks are required to pay more attention to these variables so make their RMPs more efficient. Understanding the exact implementation of Basel II Accord can lead to improved efficiency of the risk management in Islamic banks.Van Greuning and Iqbal (2008) and Iqbal and Mirakhor (2011) contend that an inclusive risk-management model is equally applicable to both Islamic as well as conventional banks. The research conducted by Hassan (2009) extended further support to this argument. Taking into account the above review and the objectives of the study, the research questions that this study aims to address are:

1. Are the Islamic bankers efficient in risk management practices?
2. What is the most important potential risk identified by the Islamic bankers?

Based on the above review and the research questions, the following hypotheses,phrased in alternate form, will be tested:

H_{01}. There is a significant difference among UAE, Malaysia and Pakistan's Islamic bankers in practices of risk management.

H_{02}: There is a significant difference among UAE, Malaysia and Pakistan's Islamic bankers in their perception towards identifying potential risk.

Research Methodology

The sample consists of 48 Islamic banks from Malaysia, UAE and Pakistan, 16 from each country because of the small number of the Islamic banks. The sample is considered to be sufficient since banks represent the top leading banks from each country. In Malaysia top 4 banks are selected out of 16; In Pakistan top 4 banks selected out 5 Islamic banks and from UAE 4 Islamic banks have been selected from the three largest cities of the UAE, namely, Abu Dhabi, Dubai and Sharjah. These cities host more than 80 per cent of the UAE population. Table 1 shows the 5 Likert scale used in the questionnaire to obtainthe perceptions of the Islamic bankers, specifically risk managers and CFO, about the risk management and identification of potential risk. The questionnaire is divided into two parts. The first part covers the understanding risk management and second part explains the perception of bankers about the potential risk identification.The questionnaire includes 22 closed-ended questions based on a five-point Likertscale and respondents were asked to indicate their degree of agreement or disagreementfor each of the questions.

Table 1
Scale of the Questionnaire

Scale	Classification
1	Strongly Agree
2	Agree
3	Neutral
4	Disagree
5	Strongly Disagree

Regarding the sample of banks, the following banks have been selected from each country:Malaysian Banks include Islam Malaysia Berhad, AmBank Islamic Berhad, Maybank Islamic Berhad and RHB Islamic Bank Berhad. UAE banks include Dubai Islamic Bank, Abu Dhabi Islamic,Emirates Islamic Bank, Emirates NBD, United Arab Emiratesand Sharjah Islamic Bank. Pakistani banks include Meezan Bank Limited, BankIslami Pakistan Limited, Dubai Islamic Bank and Al Baraka Bank. This study is a continuation of an existent research work prepared by Al-Tamimi and Al-Mazrooei (2007); Hassan (2009); Ariffin, Archer and Karim (2009) and Hussain&Ajmi (2012). Our questionnaire based on the finding of these studies. .The questionnaires were distributed to the risk managers and CFOs.The reliability of the scales has been assessed byCronbach'salpha,it evaluates the consistency with which respondents answer the inquiries inside a scale.Moreover, Cronbach's alpha permits to gauge the reliabilityof various variables. It comprises of assessment of the degree of variation in scores ofdifferent variables to infer to chance or random errors (Selltiz et al., 1976). It is considered acceptable if a coefficient value is greater than or equal to 0.7 and it implies construct reliability (Nunnally, 1978; Al-Tamimi& Al-Mazrooei,2007). The overall Cronbach's alpha for risk management as well as potential risk identification is 0.76.See appendix Table 1 and Table 2 for frequency of responses on risk management practices and perception about identification of potential risk.

Data Analysis

The study has two parts as already highlighted in our hypotheses. First part covers the differences in practices of risk management among the respondent banks and second part includes Islamic bankers and CFOs perception about potential risk among the respondent banks. Table 2 shows that within the sample of 48Risk managers and CFOsof Malaysia, UAE and Pakistan, 54% Risk managers and CFOs are between the age of 31-40 years in Malaysia, 47% in Pakistan and 45% in UAE. Moreover, 33% Risk managers and CFOs are between the age of 41-50 years in UAE, 32% in Pakistan and 19% in Malaysia. Furthermore, sample shows that in Malaysia 59% females working as Risk managers and CFOs. On the other hand, 86% males are working as Risk managers and CFOin UAE.

Table 2

Descriptive Statistics

AGE of Risk Managers and CFOs	Malaysia	UAE	Pakistan
Below 30 years	6%	12%	8%
31-40 years	54%	45%	47%
41-50 years	19%	33%	32%
Above 50 years	21%	10%	13%
Gender			
Male	41%	86%	79%
Female	59%	14%	21%

Risk Management Practices

Table 3shows theFull Sample- Mean Score of each country. The highest mean 1.80 shows that the Malaysian risk managers have better understanding of risk management as well as identification of potential risk. It is obvious that the Malaysian risk managers are more efficient than the risk managers of UAE and Pakistan.

Table 3

Full sample mean score of each country

Country	Mean Score
Malaysia	1.80
UAE	1.792
Pakistan	1.735

Table 4 below shows the risk management average mean score of each country. It can be concluded that Malaysia has highest average mean score of risk management questions. On the other hand, UAE's average mean score is 2.04 and Pakistan has 1.98. It indicates that UAE risk managers and CFOs aremore efficient in understanding the risk management as compared to Pakistan.It implies that there is a significant difference among UAE, Malaysia and Pakistan's bankers in the risk management practices.

Table 4
Risk Management average mean score ofeach country.

Country	Mean Score
Malaysia	2.08
UAE	2.04
Pakistan	1.98

Table 5 shows the descriptive statistics and ANOVA of the Risk Management practices of Islamic banks in Malaysia, UAE and Pakistan. The mean values ranges between 1.63 and 2.94, it implies that banks' assess their risk by using qualitative analysis techniques followed by effective risk management framework such as infrastructure, process and policies and application of sophisticated risk management techniques. On the other hand, the lowest mean score shows that banks are least interested to extend the advanced risk management techniques. Moreover, ANOVAresults indicate the sum of squares variation, the degree of freedom, variance for within and between groups, the *F*-value and its significant *p*-value. The level of significance determines whether the null hypothesis to mean population or respondents is equal and has to be rejected or retained (Oseni&Omoola, 2017). ANOVA results for risk management practices indicate that there are significant differences among banks in Malaysia, UAE and Pakistan in applying sophisticated techniques in risk management, application of advanced risk management techniques, reduced cost for expected losses and using qualitative analysis methods to assess the risk ($p<0.05$). On the contrary, there are no differences among banks in effective risk management practices and level of risk management practices ($p>0.05$).

Table 5
Descriptive Statistics and ANOVA for Risk Management Practices

S. No.	Question	Mean	Skewness	Chi-square	ANOVA F	ANOVA Sig.
1	It is crucial to apply the most sophisticated techniques in risk management	1.87	-2.342	0.001	9.000	0.001***

2	The bank aims to extend the application of advanced risk management techniques	1.63	-0.533	0.041	3.462	0.040**
3	Applications of risk management techniques reduce costs or expected losses	1.67	-0.730	0.072	2.763	0.074*
4	My bank has an effective risk management framework (infrastructure, process and policies) in place	2.08	-0.121	0.142	1.299	0.283
5	The bank's risk is assessed by using qualitative analysis methods	2.94	-0.026	0.002	10.215	0.000***
6	I consider the level of RMPs in my bank to be excellent	2.02	-0.006	0.007	.393	0.677

***,** and * indicate statistical significance at the 1, 5, and 10 percent level, respectively

Table 6 shows the mean differences among countries for risk management practices. The Tukey HSD test has been used. The results indicate that Malaysia, UAE and Pakistan are significantly different in applying crucial risk management techniques but there is no significant difference between UAE and Pakistan. Similarly, there is no significant difference between UAE and Malaysia in application of advanced risk management technique but there is a significant difference between Malaysia and Pakistan as well as UAE and Pakistan. Likewise, there is a significant difference between Malaysia and Pakistan in reduction of expected losses but there is no significant difference between UAE and Malaysia as well as Pakistan. There is also a significant difference between Malaysia, UAE and Pakistan in assessment of risk by using qualitative analysis methods but there is no difference between UAE and Pakistan. On the contrary, there are no significant differences among Malaysia, UAE and Pakistan in using effective risk management framework as well as level of risk management practices. The results are consistent with the previous studies,Ariffin, Archer &Karim (2009) argued that Islamic and conventional banks face the same risks. Khalil and Ali (2015) concluded that the assessment of risk and its analysis affects RMPs significantly; however, there are differences in the levels of risks. Ilias (2012) also asserted that Malaysian Islamic banks have better risk assessment system followed by risk mitigation and internal control strategies.

Table 6

Risk Management Practices-Mean Difference among Countries

S.NO.	QUESTIONS	Respondent Countries		Mean Differences	Sig
		Malaysia	UAE	-.375	.002**
1	It is crucial to apply the most sophisticated techniques in risk management		Pakistan	-.375	.002**
		UAE	Malaysia	.375	.002**
			Pakistan	.000	1.000
		Pakistan	Malaysia	.375	.002**
			UAE	.000	1.000
	The bank aims to extend the application of advanced risk management techniques	Malaysia	UAE	.000	1.000
2			Pakistan	.375	.069*
		UAE	Malaysia	.000	1.000
			Pakistan	.375	.069*
		Pakistan	Malaysia	-.375	.069*
			UAE	-.375	.069*
	Applications of risk management techniques reduce costs or expected losses	Malaysia	UAE	-.125	.723
3			Pakistan	-.375	.065*
		UAE	Malaysia	.125	.723
			Pakistan	-.250	.283
		Pakistan	Malaysia	.375	.065*
			UAE	.250	.283
	My bank has an effective risk management framework (infrastructure, process and policies) in place	Malaysia	UAE	.313	.429
4			Pakistan	.375	.299
		UAE	Malaysia	-.313	.429
			Pakistan	.063	.966
		Pakistan	Malaysia	-.375	.299
			UAE	-.063	.966
	The bank's risk is assessed by using qualitative analysis methods	Malaysia	UAE	.625	.002**
5			Pakistan	.688	.001***
		UAE	Malaysia	-.625	.002**
			Pakistan	.063	.927
		Pakistan	Malaysia	-.688	.001***
			UAE	-.063	.927
	I consider the level of RMPs in my bank to be excellent	Malaysia	UAE	-.188	.661
6			Pakistan	-.063	.955
		UAE	Malaysia	.188	.661
			Pakistan	.125	.831
		Pakistan	Malaysia	.063	.955
			UAE	-.125	.831

***,** and * indicate statistical significance at the 1, 5, and 10 percent level, respectively

Perception about Potential Risk

Table 7 shows perception about the Potential risk Identification average mean score of each country. The average mean of Malaysia is 1.89, it indicates that Malaysian risk managers and CFOs have clearly identified the potential risk. Moreover, the UAE average mean score is 1.80. It indicates that after Malaysia the UAE risk managers and CFOs can also identify the potential risk. On the other hand, Pakistan has the lowest average mean score (1.73). It shows that Pakistan risk managers and CFOs are comparatively weak in identification of potential risk.Italso implies that there is a significant difference among UAE, Malaysia and Pakistan's bankers in the identifying potential risk.

Table 7

Perception about Potential risk Identification average mean score of each country

Country	Mean Score
Malaysia	1.89
UAE	1.80
Pakistan	1.73

Table 8 shows the descriptive statistics and ANOVA results about Islamic bankers and CFOs' perceptionof potential risk in Malaysia, UAE and Pakistan. The results indicate that Malaysia, UAE and Pakistan's Islamic bankers and CFOs give importance to Credit risk, reputational risk, solvency risk, rate of return risk, Strategic risk, price (equity) risk, Shari'a non- compliance risk ,concentration risk and settlement risk. However, there are differences in the perception of Islamic bankers and CFOs about liquidity risk, operating risk, legal risk, foreign exchange risk, country risk and residual risk.

Table 8

Descriptive Statistics and ANOVA for Perception about Potential Risk

S. No.	Question	Mean	Skewness	Chi-square	ANOVA F	Sig.
1	Perception of Islamic bankers about importance of Credit risk	1.83	-.229	0.026	1.005	.374
2	Perception of Islamic bankers about importance of liquidity risk	1.58	-.349	0.000	28.720	.000***
3	Perception of Islamic bankers about importance of operating risk	1.42	.349	0.000	11.926	.000***
4	Perception of Islamic bankers about importance of legal risk	1.90	-2.676	0.004	6.818	.003**
5	Perception of Islamic bankers about importance of regulatory risk	1.90	-2.676	0.055	3.095	.055**
6	Perception of Islamic	1.00				

	bankers about importance of reputational risk					
7	Perception of Islamic bankers about importance of solvency risk	1.21	1.483	0.091	2.500	.093
8	Perception of Islamic bankers about importance of rate of return risk	1.96	-4.737	0.124	2.143	.129
9	Perception of Islamic bankers about importance of foreign exchange risk	1.19	1.653	0.000	19.286	.000***
10	Perception of Islamic bankers about importance of Strategic risk	1.90	-2.676	0.210	1.567	.220
11	Perception of Islamic bankers about importance of price (equity) risk	1.77	-1.331	0.889	.111	.895
12	Perception of Islamic bankers about importance of country risk	1.94	-3.732	0.041	3.462	.040**
13	Perception of Islamic bankers about importance of Shari'a non- compliance risk	1.00				
14	Perception of Islamic bankers about importance of concentration risk	1.94	-3.732	0.344	1.047	.360
15	Perception of Islamic bankers about importance of residual risk	2.46	.173	0.095	2.442	.098*
16	Perception of Islamic bankers about importance of settlement risk	1.94	-3.732	0.344	1.047	.360

***,** and * indicate statistical significance at the 1, 5, and 10 percent level, respectively

Table 9 shows Mean differences among countries to investigate their perception about identification of potential risks in Malaysia, UAE and Pakistan. The results imply that perception of Islamic bankers and CFOs are similar about the importance of Credit risk, reputational risk, rate of return risk, Strategic risk, price (equity) risk, Shari'a non-compliance risk, concentration risk and settlement risk in Malaysia, UAE and Pakistan. On the contrary, there is difference in the perception of Islamic bankers and CFOs about the importance of liquidity risk between UAE and Pakistan and Malaysia and Pakistan. Perception about operational risk is difference between Malaysia and UAE and Pakistan and UAE. Similarly, legal risk perception is difference between Malaysia and UAE and Malaysia and Pakistan. Regulatory perception is different between Malaysia and Pakistan. Moreover, solvency risk importance is difference between Malaysia and Pakistan although similar between Malaysia and UAE. Foreign exchange rate rated differently in terms of importance between Malaysia and Pakistan, UAE and Pakistan. Country risk rated differently between Malaysia and Pakistan. Previous studies also revealed that the major risk that commercial banks in the UAE face is credit risk, operating risk and foreign exchange risk (Al-Tamimi ,2002; Al-Tamimi& Al-Mazrooei ,2007). In Pakistan, the banking sector has undergone many huge risks like liquidity risk, credit risk, market risk, foreign exchange risk and risk related to rate of interests, etc., due to the unstable political and economic situation of the county (Shafiq& Nasr , 2010; Nazir et al.,2012). Moreover, major risk faced by Islamic banks are non- compliance risk, rate of return risk, equity investment risk and displaced commercial risk.

Table 9

Mean Difference among Countries about perception of potential risk

S.NO.	QUESTIONS	Respondent Countries		Mean Differences	Sig
1	Perception of Islamic bankers about importance of Credit risk	Malaysia	UAE	-0.188	0.567
			Pakistan	-0.250	0.369
		UAE	Malaysia	0.188	0.567
			Pakistan	-0.063	0.938
		Pakistan	Malaysia	0.250	0.369
			UAE	0.063	0.938
2	Perception of Islamic bankers about importance of liquidity risk	Malaysia	UAE	0.063	0.860
			Pakistan	0.813	0.000***
		UAE	Malaysia	-0.063	0.860
			Pakistan	0.750	0.000***
		Pakistan	Malaysia	-0.813	0.000***
			UAE	-0.750	0.000***
3	Perception of Islamic bankers about importance of operating risk	Malaysia	UAE	-0.500	0.004**
			Pakistan	0.188	0.409
		UAE	Malaysia	0.500	0.004**
			Pakistan	0.688	0.000***
		Pakistan	Malaysia	-0.188	0.409
			UAE	-0.688	0.000***
	Perception of Islamic	Malaysia	UAE	-0.313	0.007*

4	bankers about importance of legal risk		Pakistan	-0.313	0.007*
		UAE	Malaysia	0.313	0.007*
			Pakistan	0.000	1.000
		Pakistan	Malaysia	0.313	0.007*
			UAE	0.000	1.000
5	Perception of Islamic bankers about importance of regulatory risk	Malaysia	UAE	0.063	0.822
			Pakistan	0.250	0.054***
		UAE	Malaysia	-0.063	0.822
			Pakistan	0.188	0.184
		Pakistan	Malaysia	-0.250	0.054***
			UAE	-0.188	0.184
6	Perception of Islamic bankers about importance of reputational risk	Malaysia	UAE		
			Pakistan		
		UAE	Malaysia		
			Pakistan		
		Pakistan	Malaysia		
			UAE		
7	Perception of Islamic bankers about importance of solvency risk	Malaysia	UAE	0.188	0.385
			Pakistan	0.313	0.078*
		UAE	Malaysia	-0.188	0.385
			Pakistan	0.125	0.650
		Pakistan	Malaysia	-0.313	0.078*
			UAE	-0.125	0.650
8	Perception of Islamic bankers about importance of rate of return risk	Malaysia	UAE	-0.125	0.184
			Pakistan	-0.125	0.184
		UAE	Malaysia	0.125	0.184
			Pakistan	0.000	1.000
		Pakistan	Malaysia	0.125	0.184
			UAE	0.000	1.000
9	Perception of Islamic bankers about importance of foreign exchange risk	Malaysia	UAE	0.000	1.000
			Pakistan	-0.563	.000***
		UAE	Malaysia	0.000	1.000
			Pakistan	-0.563	0.000***
		Pakistan	Malaysia	0.563	0.000***
			UAE	0.563	0.000***
10	Perception of Islamic bankers about importance of Strategic risk	Malaysia	UAE	-0.188	0.202
			Pakistan	-.063	0.832
		UAE	Malaysia	0.188	0.202
			Pakistan	0.125	0.484
		Pakistan	Malaysia	0.063	0.832
			UAE	-0.125	0.484
11	Perception of Islamic bankers about importance of price (equity) risk	Malaysia	UAE	0.063	0.912
			Pakistan	0.063	0.912
		UAE	Malaysia	-0.063	0.912
			Pakistan	0.000	1.000
		Pakistan	Malaysia	-0.063	0.912
			UAE	0.000	1.000
12	Perception of Islamic bankers about importance of country risk	Malaysia	UAE	0.000	1.000
			Pakistan	0.188	0.069*
		UAE	Malaysia	0.000	1.000
			Pakistan	0.188	0.069*

		Pakistan	Malaysia	-0.188	0.069*
			UAE	-0.188	0.069*
13	Perception of Islamic bankers about importance of Shari'a non-compliance risk	Malaysia	UAE		
			Pakistan		
		UAE	Malaysia		
			Pakistan		
		Pakistan	Malaysia		
			UAE		
14	Perception of Islamic bankers about importance of concentration risk	Malaysia	UAE	0.125	0.326
			Pakistan	0.063	0.751
		UAE	Malaysia	-0.125	0.326
			Pakistan	-0.063	0.751
		Pakistan	Malaysia	-0.063	0.751
			UAE	0.063	0.751
15	Perception of Islamic bankers about importance of residual risk	Malaysia	UAE	0.375	0.087*
			Pakistan	0.125	0.751
		UAE	Malaysia	-0.375	0.087*
			Pakistan	-0.250	0.326
		Pakistan	Malaysia	-0.125	0.751
			UAE	0.250	0.326
16	Perception of Islamic bankers about importance of settlement risk	Malaysia	UAE	-0.125	0.326
			Pakistan	-0.063	0.751
		UAE	Malaysia	0.125	0.326
			Pakistan	0.063	0.751
		Pakistan	Malaysia	0.063	0.751
			UAE	-0.063	0.751

***,** and * indicate statistical significance at the 1, 5, and 10 percent level, respectively

Conclusions

Malaysian risk managers have better understanding of risk management practices as well as identification of potential risk. Malaysia, UAE and Pakistan are significantly different in applying crucial risk management techniques but there is no significant difference between UAE and Pakistan. Similarly, there is no significant difference between UAE and Malaysia in application of advanced risk management technique but there is a significant difference between Malaysia and Pakistan as well as UAE and Pakistan. On the contrary, there are no significant differences among Malaysia, UAE and Pakistan in using effective risk management framework as well as level of risk management practices. Malaysian risk managers and CFOs have clearly identified the potential risk. After Malaysia the UAE risk managers and CFOs can also identify the potential risk. On the other hand, Pakistani risk managers and CFOs are comparatively weak in identification of potential risk. Perception of Islamic bankers and CFOs are similar about the importance of Credit risk, reputational risk, rate of return risk, Strategic risk, price (equity) risk, Shari'a non- compliance risk, concentration risk and settlement risk in Malaysia, UAE and Pakistan. On the contrary, there is difference in the perception of Islamic bankers and CFOs about the importance of liquidity risk, operational risk between UAE and Pakistan and Malaysia and Pakistan. Country risk is also rated differently between Malaysia and Pakistan. It is recommended that the trainings of advanced risk management techniques should be provided to Islamic bankers. There is also a need for widespread Islamic banking education to fulfill the need of skilled and well trained employees. Further studies can be extended on different countries, risk exposure of Islamic banks and key factors affecting the risks of Islamic banks in different countries.

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Appendix

Table 1

Risk Assessment-Frequency of Responses

S.NO.	QUESTIONS	Response Category	Frequency	Percentage
1	It is crucial to apply the most sophisticated techniques in risk management	Strongly Agree	6	12.2
		Agree	42	85.7
2	The bank aims to extend the application of advanced risk management techniques	Strongly Agree	18	36.7
		Agree	30	61.2
3	Applications of risk management techniques reduce costs or expected losses	Strongly Agree	16	32.7
		Agree	32	65.3
4	My bank has an effective risk management framework (infrastructure, process and	Strongly Agree	10	20.4
		Agree	24	49

	policies) in place	Neutral	14	28.6
5	The bank's risk is assessed by using qualitative analysis methods	Agree	9	18.4
		Neutral	33	67.3
		Disagree	6	12.2
6	I consider the level of RMPs in my bank to be excellent	Strongly Agree	8	16.3
		Agree	31	63.3
		Neutral	9	18.4

Table 2
Perception about Potential Risk-frequency of Responses

S.NO.	QUESTIONS	Response Category	Frequency	Percentage
1	Perception of Islamic bankers about importance of Credit risk	Extremely Important	11	22.4
		Very Important	34	69.4
		Neutral	3	6.1
2	Perception of Islamic bankers about importance of liquidity risk	Extremely Important	20	40.8
		Very Important	28	57.1
3	Perception of Islamic bankers about importance of operating risk	Extremely Important	28	57.1
		Very Important	20	40.8
4	Perception of Islamic bankers about importance of legal risk	Extremely Important	5	10.2
		Very Important	43	87.8
5	Perception of Islamic bankers about importance of regulatory risk	Extremely Important	5	10.2
		Very Important	43	87.8
6	Perception of Islamic bankers about importance of reputational risk	Extremely Important	48	100
7	Perception of Islamic bankers about importance of solvency risk	Extremely Important	38	77.6
		Very Important	10	20.4
8	Perception of Islamic bankers about importance of rate of return risk	Extremely Important	2	4.1
		Very Important	46	93.9
9	Perception of Islamic bankers about importance of foreign exchange risk	Extremely Important	39	79.6
		Very Important	9	18.4
10	Perception of Islamic bankers	Extremely	5	10.2

	about importance of Strategic risk	Important		
		Very Important	43	87.8
11	Perception of Islamic bankers about importance of price (equity) risk	Extremely Important	11	22.4
		Very Important	37	75.5
12	Perception of Islamic bankers about importance of country risk	Extremely Important	3	6.1
		Very Important	45	91.8
13	Perception of Islamic bankers about importance of Shari'a non- compliance risk	Extremely Important	48	100
14	Perception of Islamic bankers about importance of concentration risk	Extremely Important	3	6.1
		Very Important	45	91.8
15	Perception of Islamic bankers about importance of residual risk	Very Important	26	53.1
		Neutral	22	44.9