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RISK MANAGEMENT IN ISLAMIC BANKS: A RESEARCH ON THE PARTICIPATION BANKS IN TURKEY

İSLAMİ BANKALARDA RİSK YÖNETİMİ: TÜRKİYE'DEKİ KATILIM BANKALARI ÜZERİNDE BİR ARAŞTIRMA

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Abstract

There is a substantial need for unique methods compliant with Shariah principles in Islamic banks which are exposed to different risks with their unique working principles. Therefore, the aim of our study is the identification of the main risks faced in participation banks in Turkey. In addition, it is aimed to specify and explain main methods and practices are used for measuring, reducing and managing these risks. Within the scope of the research main questions are: "What are the main risks encountered in Islamic banks, what techniques are used to reduce and effectively manage these risks, what are the differences from conventional banks in terms of the risks encountered and risk management techniques, what are the strengths and weaknesses of Islamic banks in the risk management process. For this purpose, a qualitative research was conducted on 5 Islamic banks operating in Turkey. Within the scope of the research, the data obtained by the deep interview method was interpreted by descriptive analysis method. According to results, risk management in Islamic banks is largely similar to conventional banks. On the other hand, different types of risks encountered in these banks and the obligation to comply with Islamic principles differentiate Islamic banks in the risk management process.

Keywords: Islamic / Participation Banks, Risk Management, Shraiah Compliant Techniques, Deep Interview, Descriptive Analysis.

Öz

Farklı çalışma prensipleriyle farklı risklere maruz kalan katılım bankalarında, kendilerine özgü, şer'i uyumlu risk yönetimi uygulamalarına önemli ölçüde ihtiyaç vardır. Bu bakımdan çalışmamızın amacı; Türkiye'de faaliyet gösteren katılım bankalarında karşılaşılan başlıca risklerin belirlenmesi ve söz konusu risklerin ölçülmesi, azaltılması ve yönetimine ilişkin hangi yöntem ve uygulamalardan yararlanıldığının ortaya konulmasıdır. Bu kapsamda çalışmamızda, "katılım bankalarında başlıca karşılaşılan riskler nelerdir, bu risklerin azaltılması ve etkili şekilde yönetilmesi için hangi teknikler kullanılmaktadır, karşılaşılan riskler ve risk yönetim teknikleri bakımından geleneksel bankalardan farklılaşan yönler nelerdir, katılım bankalarının risk yönetim sürecindeki güçlü ve zayıf yönleri nelerdir" sorularına cevap aranmıştır. Bu amaçla Türkiye'de faaliyet gösteren 5 katılım bankası üzerinde nitel bir araştırma yapılmış, derin görüşme yöntemi ile elde edilen veriler betimsel analiz yöntemi ile yorumlanmıştır. Sonuçlara göre; katılım bankalarındaki risk yönetimi geleneksel bankalara büyük ölçüde benzemektedir. Öte yandan, bu bankalarda karşılaşılan farklı risk türleri ve İslami prensiplere uyma zorunluluğu İslami bankaları risk yönetiminde farklılaştırmakta ve yeni tekniklere, araçlara olan ihtiyacı ortaya koymaktadır.

Anahtar Kelimeler: İslami Bankalar, Katılım Bankaları, Risk Yönetimi, Şer'i Uyumlu Teknikler, Derin Görüşme, Betimsel Analiz.

GENİŞLETİLMİŞ ÖZET

Çalışmanın Amacı

Kendine özgü faizsiz çalışma prensipleri ve çeşitli İslami finansal ürün ve hizmetleri ile geleneksel bankalardan farklılaşan katılım bankaları, maruz kalınan riskler ve risk yönetimi konusunda da farklı uygulamalar gerektirmektedir. Bu bakımdan, çalışmamızın amacı; Türkiye'de faaliyet gösteren katılım bankalarında karşılaşılan başlıca risklerin belirlenmesi ve söz konusu risklerin ölçülmesi, azaltılması ve yönetimine ilişkin hangi yöntem ve uygulamalardan yararlanıldığının ortaya konulmasıdır. Ayrıca, riskler ve risk yönetimi konusunda katılım bankaları ve geleneksel bankalar arasındaki farklılıklar belirlenmiş ve katılım bankalarının risk yönetim sürecinde karşılaştıkları zorluklar ve çözüm önerileri ortaya koyulmuştur.

Araştırma Soruları

Araştırma kapsamında; "katılım bankalarında başlıca karşılaşılan riskler nelerdir, bu risklerin azaltılması ve etkili şekilde yönetilmesi için hangi teknikler kullanılmaktadır, karşılaşılan riskler ve risk yönetim teknikleri bakımından geleneksel bankalardan farklılaşan yönler nelerdir, katılım bankalarının risk yönetim sürecindeki güçlü ve zayıf yönleri nelerdir" sorularına cevap aranmıştır.

Literatür Araştırması

Geleneksel bankalarda karşılaşılan riskler ve risk yönetiminin incelenmesine ilişkin birçok çalışma bulunmasına rağmen, özellikle Türkiye'de, katılım bankalarında risk yönetimini inceleyen çalışmaların yetersiz olduğu görülmüştür. Dünyanın farklı bölgelerinde ise, İslami bankalarda risk yönetimini inceleyen ve geleneksel bankalarla karşılaştıran çalışmalar incelendiğinde; İslami bankaların genel olarak geleneksel bankalarla benzer risklere maruz kaldığı ancak risklere maruz kalma düzeylerinin değiştiği tespit edilmiştir. İslami bankalarda risk yönetiminin kendine özgü bazı risk ölçümü, riski azaltma ve risk yönetimi sistemleri gerektirdiği görülmüştür. Yapılan nicel ve nitel araştırmalar; İslami bankalarda risk yönetim uygulamalarının genel olarak iyi durumda olduğunu ancak bu konuda halen atılması gereken önemli adımların olduğunu ortaya koymuştur. Özellikle, geleneksel bankaların risk yönetiminde kullandığı bazı araçların katılım bankalarınca İslami prensiplerden dolayı kullanılamıyor oluşu, bu alanda yapılabilecek ilerlemelerin temelini oluşturmaktadır. Çalışmamız, Türkiye'deki katılım bankalarındaki risk yönetimini birincil verilerle inceleyen ilk araştırma olması bakımında literatüre katkı sağlayacaktır.

Yöntem

Araştırmada nitel araştırma yöntemlerinden derin görüşme tekniği kullanılmıştır. Kullanılan yöntem, görüşmeye katılan kişilerin sayısına göre "bireysel görüşme" kategorisine girmektedir. Görüşmeye katılan kişilerin özelliği bakımından ise "uzman kişilerle yapılan görüşme" olarak adlandırılmakta ve kuralların katılığına göre "yarı yapılandırılmış görüşme" olarak sınıflandırılmaktadır. Bu kapsamda, Türkiye'de faaliyet gösteren 6 katılım bankasından 5'inin risk yönetiminden sorumlu üst düzey yöneticileri ile görüşmeler gerçekleştirilmiştir. Görüşmeye katılan kişilerin, halihazırda risk yönetimi birimden sorumlu olan yöneticiler olmasına dikkat edilmiştir. Görüşmelerde, katılımcılardan izin alınarak görüşmelerde ses kayıt cihazı kullanılmış ve gerek görülen yerler için notlar da alınmıştır. Araştırma kapsamında toplanılan veriler betimsel analiz yaklaşımı baz alınarak analiz edilmiştir. Bu yaklaşım kapsamında, katılımcılara yöneltilen sorular ve alınan cevaplar çerçevesinde sekiz adet tema oluşturulmuştur. Bu şekilde kategorize edilen veriler, bu temalara göre düzenlenmiş, incelenmiş ve bulgular elde edilmiştir. Böylelikle, elde edilen verileri açıklayabilecek ilişkilere ulaşılmış ve birbirine benzeyen veriler belirli temalar çerçevesinde bir araya getirilerek okuyucunun anlayabileceği bir biçimde organize edilmiştir.

Sonuç ve Değerlendirme

Geleneksel bankaların sunduğu birçok hizmeti İslami prensipler çerçevesinde sunmakta olan katılım bankalarının, geleneksel bankaların karşı karşıya olduğu risklerin neredeyse hepsine farklı düzeylerde de olsa maruz kaldığı görülmüştür. Bu kapsamda, katılım bankalarının maruz kaldığı riskler temel olarak; kredi riski, piyasa riski, likidite riski ve operasyonel riskler olarak sınıflandırılmıştır. Diğer riskler ise operasyonel riskler kapsamında ele alınmıştır. Katılım bankaları, karşılaşılan riskler bakımından geleneksel bankalardan çok farklılaşmamakta, ancak bazı risklerin katılım bankalarında, bazılarının ise geleneksel bankalarda daha yüksek seviyede olduğu görülmüştür. Ayrıca, katılım bankalarında geleneksel bankalarda karşılaşılmayan birtakım özel riskler de mevcuttur. Araştırmamızda, geleneksel bankalarda karşılaşılmayan ancak katılım bankalarının maruz kaldığı riskler olarak; şer'i uyumsuzluk riski ve ticari kâr payı riski ön plana çıkmıştır. Ayrıca, katılım bankaları ile geleneksel bankalar arasında risk ölçüm yöntemleri ve risk yönetim teknikleri bakımından genel itibariyle farklılaşma olmadığı ancak, katılım bankaları için özel bazı yöntemlere ihtiyaç olduğu anlaşılmıştır. Burada en önemli farklılık, katılım bankalarının geleneksel bankaların kullandığı bazı faizli araçlardan yararlanamamasıdır, ancak bu durum katılım bankalarına risk yönetiminde bir dezavantaj oluşturmamaktadır. Zira katılım bankalarının bu araçları kullanmaması, riskten korunma açısından kısıtlılığa sebep olsa da daha az riske maruz kalma açısından avantaj sağlamaktadır. Son olarak, katılım bankalarının da tabi olduğu bankacılık sektörüne ilişkin mevcut yasal düzenlemelerin oldukça kapsamlı olduğu tespit edilmiştir. Mevzuatta, katılım bankalarına özel birtakım değişikliklerin yapılması gerekmektedir. Söz konusu değişiklikler, zaten çok kapsamlı olan yasal yükümlülükleri artıracak nitelikte olmamalı, bilakis katılım bankacılığının işleyiş esaslarını dikkate alarak, bu bankaları rahatlatacak yapıda olmalıdır. Ayrıca, Hükümet ve düzenleyici otoriteler bu bankalara destek olacak daha fazla kurumun teşkil edilmesinde ön ayak olmalıdır. Böylelikle, katılım bankacılığı sektörü, daha sağlam bir zeminde gelişmeye devam edebilecektir.

1. INTRODUCTION

Islamic banks contribute to the real economy with their asset-based instruments and unique system. They attract the capital that stays away from banking due to religious reasons. They are both an alternative source of funds and a reliable investment institution. They continue to develop day by day with many benefits to the economy. In order to keep this momentum and establish a sound basis to grow Islamic banks sustainably, the risk management should be given utmost importance.

Islamic banks have to deal with almost all the risks conventional banks face because they offer similar services with conventional banks (interest-based banks) within the framework of their own operating principles. On the other hand, the risks encountered in Islamic banks may be more diverse and complicated through some Islamic financial instruments. Risk management in Islamic banks requires some unique risk measurement, risk mitigation and hedging techniques as they don’t (can’t) use Shariah non-compliant methods used by conventional banks. At the same time, they have different risk management methods thanks to various Islamic financial instruments.

Despite the vital importance of risk management in banking, studies on risk management in Islamic banks are still insufficient. Especially in Turkey, although there are many studies based on conventional banks, there is a lack of studies examining risk management specific to participation banks. In this context, we believe that this study, which identifies the main risks encountered in participation banks and examines the risk management in these banks, will make a serious contribution to the literature and future studies in this field. In addition, this paper will be guiding for the initiatives held by public institutions to strengthen risk management in participation banks because it obviously identified the main challenges of these banks in risk management. In this study, we also aim to reveal the risk management of some Islamic financial instruments that are not yet used in participation banks in Turkey. We think that this research, conducted by examining the examples around the world, will be beneficial with the use of these products in the near future in Turkey.

In the first part of the study, the essential subjects of the risk management in Islamic banks are discussed. For this purpose, a wide literature review is conducted. Also, studies examining Islamic banks in different regions of the world are examined and the risks and risk management issues in these banks are studied. In the second part, qualitative research is done to explore the main risks encountered and how they are managed in participation banks operating in Turkey. In addition, the main tools and methods used to measure, reduce, and manage these risks are determined by this research. Within the scope of the research, the strengths and weaknesses of participation banks and the main differences between conventional banks in terms of risks and risk management are also revealed.

2. RISK MANAGEMENT IN ISLAMIC (PARTICIPATION) BANKS

Banks have been one of the most important actors of the global economic crises in the recent past. The crises in the banking sector have highlighted the importance of Islamic banking. Islamic banks encourage efficient working with the unique products they offer, bring the funds they collect into the real economy and thus they are expected to be more resistant to economic crises (Gödeş, 2016). On the other hand, Islamic banks, which offer almost all the services offered by conventional banks within the framework of their own operating principles, have to deal with the similar risk's conventional banks face. The risks faced by the banking sector, which is built on risky transactions by nature, are becoming more diverse in Islamic banks. In this respect, risk management in Islamic banks requires some unique risk measurement, risk mitigation and risk management systems.

Islamic banks may need more risk reduction strategies than conventional banks due to the different risks they are exposed to. The biggest challenges for Islamic banks are the fact that Islamic banking products include different types of risks at one and the same time, the transactions on the basis of profit-loss sharing create new risks unique to them, and the extra transparency required by these institutions. In addition, the fact that some hedging methods used by conventional banks are prohibited by Islamic law principles is another complication for Islamic banks (Salem, 2013). In this regard, there is a need to develop new and unique risk management instruments based on Islamic principles.

In this part of the study, the risks encountered in Islamic banks and their management are examined in detail. In this direction; credit risk, market risk, liquidity risk, operational risks and specific risks to Islamic banks are discussed.

2.1. Credit Risk Management

Providing a credit (loan) is one of the riskiest transactions for banks. Credit risk can be briefly defined as the risk of not being able to collect the loans at the specified time and amount. The purpose of credit risk management is to maximize the risk-adjusted return of the bank by managing the risks that the bank may be exposed to as a result of the lending transaction (TBB, 1999). The measurement of credit risk is based on the assessment of the borrower and transaction risk. Most banks determine their credit rating based on the probability of default. After each borrower is included in a risk group, the probability of default is determined for each class (Aksoy, 2005).

Islamic banks, as required by Islamic principles, provide funds / loans with different methods than conventional banks' lending methods. They have cash-based fund methods like murabahah, ijarah, mudarabah and musharakah as profit and loss partnership, salam, istisna and tawarruk as well as they have non-cash-based fund methods like letter of guarantee, letter of credit and aval-acceptance (Yahşi, 2014). With their unique lending instruments, Islamic banks are exposed to the similar credit risk with conventional banks. Since the Islamic financial contracts are new-sprung compared to conventional banking products, the qualitative and quantitative criteria for the establishment and operation of these contracts have not yet been fully settled and sufficient knowledge has not been accumulated. Also, some of the features of these contracts are changed over time and new Islamic financial instruments are introduced. Therefore, determining, measuring, monitoring and managing credit risk related to those contracts is a challenging issue for Islamic banks.

It can be said that the credit risk in Islamic banks is higher compared to conventional banks for three main reasons. First, asymmetric information and moral hazard are inherently intense in the profit-loss partnership structures. Here, the borrower may not give the bank real information about the profit to be shared later. Latter; the guarantee and penal sanctions to be applied in case of default are limited by the principles of Islamic law. Third, different risks are more intertwined in Islamic banking (Salem, 2013).

Proper measurement of credit risk in Islamic banks will enable to determine the price of various banking products properly (Sundararajan, 2007). Calculation of expected and unexpected loss may be more difficult in Islamic banks, which offer more complex structures than conventional lending methods. In this respect, it will be beneficial to develop innovative methods for measuring credit risk specific to Islamic financial products.

Risk measurement in Islamic banks may require a more complex process compared to conventional banks because, Islamic financial products contain different risks at the same time with their unique structures and so it is difficult to determine the correlations between these risks. For example, in a salam contract, the possibility of the debtor not to fulfill the obligation causes credit risk, the possibility that the product cannot be delivered on time with the features specified in the contract causes market risk, and holding the physical asset for a while causes operational risk (Sundararajan, 2007). Therefore, it is beneficial to consider the risk management process for each product separately in Islamic banking (Ariffin et al., 2009).

Credit Risk Mitigation Methods

Although the risk mitigation methods of Islamic banks and conventional banks are similar in terms of basic principles, there are some differences in practice. The policies of banks to reduce credit risk generally consist of the following four stages: Reflecting the risk, limiting the risk, sharing the risk and diversifying the risk. In this context, risk is tried to be minimized through methods such as obtaining various guarantees before lending, determining limits for different sectors and parties, and granting a loan by other banks together.

Regarding credit risk mitigation, there is an important issue that different for Islamic banks: It is not allowed under Islamic law to demand more payment (such as default interest) from the borrower to compensate for the delay when he fails to fulfill its obligations. But, collateral and third party guarantee (surety) is allowed. In case of default, the collateral is sold and converted into money and the bank compensates its losses. However, the bank can only get back what it lends, not more. If the collateral brings more money than the loan amount, the excess must be given to the borrower. Therefore, Islamic banks should be more sensitive about collateral, the value of the asset subject to collateral should be well determined and monitored, and the documentation should be meticulously for the safety of this process. (Wahyudi et al., 2015). In addition, since no default interest is applied, other coercive mechanisms for the borrower to fulfill its obligations (non-financial penalties) are more important in Islamic banks. (Salem, 2013).

Another issue where Islamic banks differ from the conventional system is the use of derivative products. Conventional banks use derivative instruments to hedge not only credit risk but also many other types of risk. Islamic banks, on the other hand, generally refrain from using derivatives, with the view that they are not Shariah compliant. In this regard, there is a necessity for new Islamic financial instruments that can be alternative to derivatives. Besides, some Shariah scholars argue that the existing derivatives can be used in Islamic finance with certain modifications. For example, it is argued that a series of contract types defined by Islamic contract law such as Islamic swaps or "urbun" and " wa'ad (unilateral promise)" can be used in the development of derivative instruments in accordance with Islamic principles (Yanpar, 2015).

2.2. Market Risk Management

Market risk management is at least as important for Islamic banks as for other banks. Islamic banks can't use some of the methods used by other banks to avoid this risk, since they are not compliant with Islamic principles. Therefore, it is sometimes more difficult for Islamic banks to manage these risks and new methods are required to be developed.

Conventional banks are exposed to market risk according to their position in financial instruments in order to gain a short-term profit from price or interest rate changes or to avoid risks in other elements in their commercial portfolios. However, according to Shariah rules, Islamic banks are not allowed to earn returns from such speculative transactions or transactions related to future events, such as hedging against risk or other derivative transactions. The positions Islamic banks will take are limited to stocks, commodities, currency positions, and various forms of sukuk (Sharia-compliant bond). Therefore, Islamic banks are exposed to market risk through only these conventional products (Tıby, 2011). On the other hand, Islamic banks may be more exposed to market risk than conventional banks due to their asset-based financial instruments.

There is a specific restriction for Islamic banks regarding the purchase of stocks. They cannot invest in companies that do not comply with Islamic criteria. (There is an index within the Borsa Istanbul (İstanbul Stock Exchange) regarding which companies can be invested: KATLM Index). Also, Islamic banks do not allow their customers to purchase stocks of these companies through their own banks. Thus, Islamic banks are at a disadvantage, especially in terms of diversification strategy.

Since the rate of return risk and exchange rate risk are important factors that directly affect the market risk, they are examined separately:

Rate of Return Risk Management

The interest rate risk in conventional banks changed to rate of return risk in Islamic banks. While conventional banks use "interest" in their deposit and credit activities, Islamic banks use the "profit share". Therefore, while conventional banks are exposed to "interest rate risk" in the context of market risk; Islamic banks are exposed to the risk of "profit share rate". (Yahşi, 2014). Therefore, the rate of return risk can be defined as “the negative effects that occur on the cash flows of the bank and on the assets and liabilities of the balance sheets due to expected or unexpected changes in the profit shares / rate of returns. (Varlık, 2010).

Fluctuations in market rates of return like changes in market interest rates are also a risk factor for Islamic banks. Deposit banks, which are exposed to interest risk when market interest rates rise, raise their deposit interest rates in order to eliminate the funding shortage. This situation, albeit limited, may result in the shift of funds from Islamic banks to the banks offer higher returns. Islamic banks cannot make any future earnings commitment due to their operating principles. Thus, they may face liquidity risk due to the effect of escaped funds as interest rates rise (Sayım, 2012).

Return rate risk is different from interest rate risk in three ways. Firstly, since conventional banks have interest-based and fixed-income securities in their assets, uncertainties in the rate of return on investments to be held to maturity are less. This uncertainty is higher in Islamic banks as returns are expected on cost plus profit rate instead of fixed income securities. Secondly, the return on deposits in conventional banks is predetermined; on the contrary, the return on deposit in Islamic banks is not predetermined, only an estimated rate can be given. Finally, the return of some investments, especially in equity-based partnerships, is not known until the end of maturity in Islamic banks (Greuning and Iqbal, 2008).

It is necessary to control maturity mismatch to control and reduce the rate of return risk. It is known as active and passive management. Banks should keep this risk under constant surveillance with sound information system networks, and set limits in line with the risk appetite and growth targets of the bank. In order to keep the losses of the rate of return risk at the lowest level, economic conditions should be analyzed well and the course of market variables should be predicted in the most accurate way.

While conventional banks use derivatives to reduce interest rate risk, there are two internationally accepted standard practices for Islamic banks to reduce this risk: "Profit Equalization Reserve" (PER) and "Investment Risk Reserve" (IRR).

PER: The bank spares a portion of the gross income as a reserve before giving mudarib the share of the income earned as a result of the mudarabah transaction for which the bank provided a loan on a profit and loss partnership basis. The remaining amount is shared between the bank and the mudarib. This reserve is used as a tool to adjust the rate of return offered by Islamic banks to changes in the market rate of return (interest) offered by conventional banks. In this way, it is aimed to reduce or eliminate sharp fluctuations in the yields of deposits and to prevent future shocks. Calculations of how much reserves should be allocated must be determined before a contract is made with investors and depositors, and the policy for this should be pre-defined, reviewed and approved by the board of directors (Tıby, 2011).

IRR: The bank shares the income arising from the mudarabah with the mudarib in accordance with the terms of the agreement. The bank will distribute this income to the investment account holders as dividends; however, it keeps some of this income as a reserve in order to compensate for the possibility of future losses. The calculations of how much this amount should be pre-defined, reviewed and approved by the board of directors (Tıby, 2011). While the main purpose of PER is to keep the return rates at a certain level, especially to monitor the market interest rates, the purpose of the IRR is to always pay dividends to depositors by compensating for future losses.

2.2.2. Exchange Rate Risk Management

Banks are exposed to exchange rate risk due to their foreign exchange positions after transactions for speculative purposes, or after borrowing and lending transactions. (Yahşi, 2014). Customer portfolios are diversified and transaction volumes are increasing consistently in Islamic banks. As the transactions in foreign currency increase, the exchange rate risk increases in these banks. On the other hand, Islamic banks categorize the funds they collect separately according to foreign currency type in different fund pools. While these banks extend loans in local currency from the local currency deposits, they extend loans in foreign currency from the foreign currency deposits. In this regard, the exchange rate risk can be lower in Islamic banks compared to conventional banks (Eşiyok, 2008).

Islamic banks are also exposed to exchange rate risk through Islamic financial contracts. Currency risk may arise when the bank has to purchase goods with foreign currency in murabahah contracts. In addition, as per the leasing agreement between the bank (lessor) and the lessee within the framework of an ijarah contract, it may be possible to purchase commodities or services from foreign markets in foreign currency then, the bank will again face currency risk. Islamic banks are again exposed to currency risk before the delivery date of the commodities or at the time of sale in case the commodities in the salam contracts are purchased in a foreign currency. In addition, “istisna agreements” regarding the construction of assets operating in foreign regions may also expose banks to such risk. Finally, in the musharakah and mudarabah partnership agreements, foreign exchange risk arises when the investments in the works performed in goods, assets or commercial activities abroad (Akkizidis and Khandelwal, 2008).

The fundamental action to avoid currency risk is to balance foreign currency assets and liabilities. Balancing has to be done not only in terms of amount but also in terms of maturity. In other words, a receivable or return should be expected as much as the debt received on foreign currency, and the terms of the debt and receivable should be as close as possible (Ertürk, 2010). One of the different policies of Islamic banks to mitigate the exchange rate risk is to ensure that the costs incurred for an investment and the income from the investment are in the same currency. For example, if the bank buys heavy equipment using dollars in an ijarah contract and leases it to a customer, the rental income should also be in dollars. In a similar example, in the case of an international mudarabah agreement, if the investment is made in a foreign currency, the profit-sharing should be in the same currency as well (Wahyudi et al., 2015).

In Islamic banks, transactions based on gold are increasing day by day and this situation also causes exchange rate risk. According to the Shariah principles, there are certain strict rules that limit to purchase and sale of metals such as gold and silver and foreign currencies (Döndüren, 2010). For this reason, foreign exchange risk management requires more effort in Islamic banks that have limited movement area in terms of foreign currency transactions and cannot benefit from derivatives markets.

2.3. Operational Risk Management

Operational risk is generally defined as all risks other than credit risk and market risk. Operational risk sources can be listed as follows: Employees, organizational structure, information systems and technology, processes, external environment and events, and legal regulations (Aksoy, 2018). Islamic banks, whose number is increasing rapidly in the world, are exposed to more operational risks due to rapid growth and spreading branching policies. Many strategies that must be determined such as the selection of branch locations and determination of priorities and so on bring along risk factors (Sayım, 2012). In addition, with this rapid growth, recruiting a large number of new personnel, providing the necessary infrastructure for banking systems and acquiring new tools and equipment increase the level of operational risk in these banks.

The rapid development of Shariah compliant instruments can be seen as a specific operational risk factor for Islamic banks trying to adapt to this. Understanding of new Islamic financial instruments, the process of incorporating them into the bank, introducing them to customers and ensuring compliance with both the legal standards of the country and Shariah principles can be considered as factors that increase the operational risk. On the other hand, the lack of legal regulations and guidance documents regarding Islamic banks can also be a factor increasing the operational risk arising from legal risks for these banks.

Another reason for the high level of operational risk in Islamic banks is that while the business area of conventional banks is mostly limited to the financial sector, this of Islamic banks includes both the financial sector and the real sector. Therefore, the operational risks faced by Islamic banks in practices such as murabahah, salam, ijarah, musharakah and mudarabah will be much more diverse than conventional banks (Wahyudi et al., 2015).

Operational Risk Mitigation Methods

The organizational structure of the bank plays a vital role in operational risk mitigation. In this context, all departments and employees of the bank have duties because operational risk is encountered in almost all transactions of the bank. The first responsible body in this matter is the board of directors and senior management who will form a strategy to avoid this risk.

Insurance is one of the most used tools in hedging the operational risk in conventional banks. However, the current insurance system is seen as “haram” by Islamic scholars due to the view that it contains uncertainty (garar) and has a structure similar to gambling, and also because insurance companies invest their premiums they collect in interest-bearing financial instruments. Hence, Islamic banks look for alternative insurance tools and the most used tool in this regard is the “taqaful system” known as Islamic insurance (Yanpar, 2015).

The rapid increase in the number of branches and personnel requirements of Islamic banks increases the operational risk. In this context, the human resources department must be very sensitive in the recruitment processes. Employees of Islamic banks should have a minimum knowledge of Shariah principles, Islamic banking practices, as well as other necessary banking knowledge and experience.

Islamic banks are still mostly operating according to the legislation prepared for conventional banks and the regulations regarding Islamic banks are not long-established. This increases the level of legal risk. For this reason, Islamic banks should strictly follow the new practices in the world and focus attention to comply with both Shariah principles and the laws of the country. In addition, regulatory bodies should build the legal infrastructure of Islamic banks’ rapidly developing and diversifying products and services on a sound ground.

On the other hand, Islamic financial instruments require different information technology systems owing to their unique characteristics. However, since the software required for this purpose has not been fully developed and standardized yet, the operational risk associated with information systems in Islamic banks is much higher than in conventional banks (Tıby, 2011). Therefore, Islamic banks should increase their investments in information system infrastructure suitable for their business processes. In this respect, they should constantly update their digital competencies. Also, they should keep in step with the current developments in digitalization, big data analysis and artificial intelligence applications in risk management. (Kahyaoğlu and Aksoy, 2021)

2.4. Liquidity Risk Management

Liquidity risk is defined as the bank's inability to fulfill its payment obligations on time due to an imbalance in cash inflows and outflows (BDDK, 2014). The main causes of liquidity risk in Islamic banks are largely the same as conventional banks. The main reasons for this risk are maturity mismatch, deterioration in asset quality, increases in non-performing assets, unexpected resource outflows, decreases in profitability and financial crises. (Yenigün, 2016). In addition, considering that all other risk types will cause monetary losses, the bank may face liquidity risk because of all other risks. Therefore, good management of liquidity risk directly depends on the good management of all other risks.

2.4.1. Liquidity Risk Mitigation Methods

Active/passive management processes are critical to controlling liquidity risk. In addition, investing in liquid securities as much as possible, setting limits in line with the bank's activities and risk appetite, and establishing appropriate information systems that can provide timely and reliable information about the current and future estimated liquidity position are the main methods to reduce liquidity risk (BDDK, 2016).

While the similar liquidity management strategies are also used in Islamic banks, they are at a disadvantage in liquidity management compared to conventional banks. This is because the essential instruments used in liquidity management are interest-based, central banks' borrowing and lending mechanisms are generally based on interest, and the Islamic capital and money markets are not developed. Consequently, Islamic banks have very limited tools to manage liquidity risk.

Conventional banks can find solutions to their liquidity needs by lending each other on an interest basis in the interbank money market. In addition, they can use the fund surplus by investing in government debt securities, then they can give them to central banks to meet their overnight or short-term cash needs. However, since these transactions are interest-based, Islamic banks cannot benefit from them and can only transact among themselves. They work in the form of interbank mutual financing within the framework of profit-loss partnership in many countries (Şensoy, 2012).

The emergence of the concept of sukuk has been strengthening Islamic banks in liquidity management. It is not possible for Islamic banks to invest in debt-backed securities in the conventional system. With the use of sukuk, they have accessed alternative financing resources to meet the diversified risk-return profiles they need. (Şensoy, 2012). In addition, Islamic banks have had the opportunity to benefit more effectively from sukuk in liquidity management after the sukuk is started to be used in open market operations in some central banks. (Dede, 2017).

Similarly, while the developments in the global sukuk market increase the liquidity opportunities in Islamic banking, international mechanisms are being developed to solve the problems that arise in this process. In this context, the establishment of "International Islamic Liquidity Management Corporation - IILM" in 2010 is another important development that paves the way for liquidity management in Islamic banks (Yakar et al., 2013).

Additionally, in order to meet the short-term liquidity needs of Islamic financial institutions, initiatives for the establishment of the Mega Islamic Bank (MİB) are still continuing. The activation of this institution, which is expected to provide liquidity to the global interest-free financial system and support interest-free infrastructure investments, will further strengthen Islamic banks in liquidity management (Çetin, 2017).

“Tawarruq” is another method used by Islamic banks for liquidity management: The bank, which has a surplus of funds, usually buys a precious metal other than gold and silver from the London Metal Exchange in advance then, sells on credit it to a bank in need of funds. The bank, which needs the fund, meets its cash needs by selling this metal, which it bought on credit, in cash (Şensoy, 2012). Despite all these alternative methods, it is seen that Islamic banks are weak in liquidity risk management, as the interest-based systems narrow the range of action considerably. In this respect, it would be beneficial to develop new functional methods and to support these banks with Shariah compliant instruments by central banks.

2.5. Risks Specific to Islamic Banks

Islamic banks differ in many ways from conventional banks in terms of funding and lending, as they operate on the principle of interest-free. A wide variety of financial instruments appear in the examples of Islamic banks around the world. In addition, contracts established in the form of profit-loss partnerships are among the basic elements that distinguish these banks from conventional ones. Here, all these methods specific to Islamic banks bring different risks with them.

2.5.1. Shariah Non-Compliance Risk

The risk of Shariah non-compliance is defined as “the risk arising from the failure of Islamic financial institutions to comply with the Shariah rules and principles determined by Shariah boards or similar structures”. Compliance with Islamic principles is critical for Islamic banks, and this should be considered in all units of the organization, in all services, products and activities because majority of customers prefer these banks thanks to religious motives. Therefore, the perception of compliance with Islamic principles and rules is vital importance for the sustainability of a Islamic bank. In this context, it can be asserted that the Sharia non-compliance risk has a more important place in Islamic banks compared to other defined risks (IFSB, 2005).

This risk may arise from reasons such as not granting fatwa to a service or product prepared with great efforts, fatwa differences between Shariah boards, non-standard practices of Islamic financial products and transactions in banks directly contrary to Islamic law (Güney, 2015). Therefore, the first measure against this risk begins at the stage when a product or service starts to be developed. For this reason, a business / product development department must exist in Islamic banks. While the product is being configured, the relevant team should work in cooperation with the Shariah management system in the bank, make sure that the structure of the product is designed in accordance with the requirements of Islamic principles, and avoid any situation or condition that may cause non-compliance with Sharia (Lahsasna, 2014).

In addition to the services and products offered by the bank, Shariah non-compliance risk should be considered in information technology systems. These systems have to be designed to assist the relevant personnel in performing the operations according to Islamic principles. The system should be created in such a way as to prevent any attempt that is not compliant with Shariah rules as possible. Besides, activities such as marketing, advertising, bank-related publications etc. should be taken into account within the scope of this risk. These reflect the image and reputation of the bank as communication tools between Islamic banks and the public. Therefore, they must meet various criteria in terms of Shariah (Lahsasna, 2014).

Shariah Compliance Audit is another important tool in order to mitigate this risk. In this framework, the Shariah advisory boards of Islamic banks are of great importance for the inspection of compliance with Shariah. Also, the national supervisory Shariah boards formed independently from banks are effective in managing this risk.

2.5.2. Displaced Commercial Risk

The rate of return that is earned on assets financed by depositors may underperform competitors' rates. In this case, Islamic banks will be under market pressure to offer an extra return. Thus, in order to protect existing depositors and continue to attract others, they may have to give up some or all of their share of profit that comes from profit/loss partnerships. This is called "displaced commercial risk". In other words, the loss caused by changes in interest / return rates in the market is compensated by the gains from the different commercial activities of the bank. It is a commercial decision for the bank to give up its own profit coming from profit-loss partnerships. This decision must be subject to clear and well-defined policies and procedures approved by the board of directors (IFSB, 2005).

The displaced commercial risk is closely related to the rate of return risk. As the rate of return risk increases, it will also increase in the bank. Therefore, the methods used to reduce the rate of return risk are also effective for reducing displaced commercial risk. Two methods frequently used in this context: "Profit Equalization Reserve" (PER) and "Investment Risk Reserve" (IRR). As mentioned before, these two methods aim to reduce or eliminate sharp fluctuations in the rate of returns of deposits in the bank and prevent future shocks.

2.5.3. Fiduciary Risk

"Fiduciary risk is the risk that arises from Islamic banks' failure to perform in accordance with their fiduciary responsibilities. As a result of losses in investments, banks may become insolvent and therefore unable to meet the demands of current account holders for repayment of their funds and safeguard the interests of their customers" (IFSB, 2005). In such cases, always there a risk of depositors holding the bank responsible if the rate of return is low. As fiduciary agents, Islamic banks are expected to act in the best interest of investors, depositors and shareholders. If and when the objectives of investors and shareholders differ from the actions of the bank, the bank faces fiduciary risk (Rehman, 2016).

Fiduciary risk is closely related to the Islamic bank's functioning as an intermediary between owners of excess funds and debtors lacking in them. "Fund owners entrust their funds to the Islamic bank to be managed as well as possible by channeling these funds to other parties lacking funds for their enterprises. The bank's inability to choose profitable investment opportunities will damage customer's trust to the bank" (Wahyudi vd., 2015). For example, the bank is expected to adequately examine the relevant project and closely follow the business processes in mudarabah or musharakah partnerships. Any negligence of the bank during the examination and follow-up of the project subject to the partnership may create distrust towards the bank in the eyes of the depositors and investors, then will cause fiduciary risk (Greuning and Iqbal, 2008).

In order to reduce this risk, the bank should have appropriate mechanisms to protect the interests of all account holders. The bank must establish and implement a clear and formal policy to address potential conflicts that may arise in the different roles it assumes in managing different types of investment accounts (IFSB, 2005). In addition, adequate procedures and control mechanisms are required to ensure the accuracy of information on investment management. Also, this information should be adequately and timely reported to depositors and the market in order to evaluate the risk profile and investment performance (Tıby, 2011).

2.5.4. Commodity Price Risk

Commodity price risk is defined as the possibility of loss due to fluctuation in commodity prices of Islamic banks holding various assets. Islamic banks generally face this risk through contracts based on the purchase or production of commodities. For example, "in murabahah contracts, a seller agrees with the purchaser to provide a specific commodity. The bank finances the contract on a certain profit added to the initial commodity's price. The potential difference between the agreed and the future market price of the commodity is the actual exposure of the corresponding risk that banks take. Likewise, when the bank provides the salam and the istisna, they are also exposed to commodity risk." (Akkizidis and Khandelwal, 2008).

In order to mitigate this risk in salam contracts, it is common practice for Islamic banks to enter a parallel salam contract, where a third party acquires goods of similar specifications to those determined in the first salam contract. Such an engagement mitigates commodity price risk on the bank's side since the third party should fulfill an immediate payment as stipulated by the contract (Salem, 2013).

Islamic banks must fully appreciate of importance of this risk because they offer many commodity-related financial instruments such as murabahah, ijarah, salam, and istisna. In order to manage the commodity price risk, they should closely monitor the market variables (inflation rate, exchange rate, production costs, weather conditions, political stability, etc.) and evaluate all conditions regarding the relevant product. After examining and forecasting the market conditions, they should be very sensitive about pricing while buying and selling commodities.

On the other hand, the lack of Shariah compliant hedging instruments and the insufficient liquidity of the commodity market are main challenges for Islamic banks in managing this risk (Wahyudi et al., 2015). Therefore, new instruments and techniques should be developed in order to better manage this risk specific to Islamic banks.

2.5.5. Risk Management Tools Specific to Islamic Banks

In addition to different methods and strategies mentioned in previous sections, there are plenty of unique risk management tools in Islamic banks. These tools are summarized in the Table1:

Table1. Risk Mangement Tools in Islamic Banks

Hamish jiddiyah	A refundable amount of money retained by the bank before establishing a contract, as protection from counterparty risk.
Urboun	A non-refundable sum of money fully retained by the bank as collateral to ensure the customer's compliance with his promise to purchase or lease an asset.
Rahn	A commitment between a debtor and a creditor based on an asset. It is pledged as an assurance that the debtor's obligations towards the creditor are fulfilled.
Al-Kafala	A person becomes a guarantor to fulfill the responsibility of someone else. There are 4 types of Kafala: Kafala bi-Nafs, Kafala bi-mal, Kafala bi-alain or bi-al-taslim, and Kafala bi-al-darak.
Al-Khiyarat	The right (choice) to terminate the contract because of a legitimate reason or due to non-compliance with one of the contract terms. There are 7 types of Khiyarat: Khiyar al-Majlis, Khiyar al-Shart, Khiyar al-'Aib, Khiyar Al-Ro'yah, Khiyar Al-Tadliss, Khiyar al-Naqd, Khiyar al-Ghabn, Khiyar al-Khiyanah, Khiyar Tafarruq al-Safqa
Ta'wid	A fine as an indemnity that may be claimed by the creditor to cover his losses when the debtor doesn't pay or is late in paying his debt
Gharamah	A penalty imposed by the bank on the client for delayed payment of his debt.

Source: Sakouili and Razane (2018)

3. A RESEARCH ON THE RISKS AND RISK MANAGEMENT PRACTICES IN PARTICIPATION BANKS IN TURKEY

3.1. Objective and Significance of the Research

The aim of the research is the identification of the main risks faced in participation banks in Turkey. In addition, it is aimed to specify and explain main methods and practices are used for measuring, reducing and managing these risks. Furthermore, the differences in risk management between participation banks and conventional banks are also explored in this research. Finally, the major problems in risk management faced by the participation banks in Turkey are identified and what needs to be done to solve them is determined with this research.

Although there are many studies regarding the conventional banks, there is inadequate study for the risk management of the participation banks in Turkey. Since Islamic banks are different from conventional banks with their unique interest-free operating principles and various Islamic financial contracts, products and services, they clearly require different practices in terms of risks and risk management. In this respect, this study is expected to fill the gap in the literature, guide regulatory authorities in policy making processes in strengthening risk management and contribute to future studies in this field in Turkey.

3.2. Literature Review

There are many researches which examine the risk management practices, measure the risk management level in Islamic banks and determine the differences compared to conventional banks. The results of the studies conducted in various regions of the world are summarized below. In the conclusion part, these results are compared with our research.

Table2. Results of the Researches on Risk Management in Islamic Banks

Author	Year	Results of the Study
Masood et al.	2011	"Operational risk in Islamic banks is more important and complex compared to conventional banks. Risk measurement and risk management practices of Basel principles need to be adapted specifically to the operational characteristics of Islamic banks."
Abedifar et al.	2013	"Islamic banks have lower credit risk than conventional ones. However, Islamic banks face extra risks due to the complexity of Islamic financial instruments and limitations in their funding, investment and risk management activities."
Akhtar et al.	2011	"Conventional banks have a better liquidity risk management system than Islamic banks."
Sakarya and Akkuş	2017	"Participation banks exposed to similar risks to conventional banks are in a low risk position in terms of credit risk."

Al-Adwan	2014	"Islamic banks face more risk than conventional ones due to the lack of Islamic money markets, lack of access to central banks, legal restrictions, and inadequate market infrastructure for Islamic financial instruments."
Ali and Naysary	2014	"Risk management practices in Islamic banks are almost the same as in conventional banks in terms of the risk management process, risk measurement instruments and risk mitigation techniques."
Ariffin et al.	2009	"Islamic banks are mostly exposed to similar risks as conventional ones, but there are differences in the level of risk. Islamic banks use the same risk management techniques as conventional banks, but prefer technically more primative risk measurement methods."
Dar et al.	2013	"Islamic banks differ significantly from conventional banks in terms of operational risk exposure. In this regard, as part of the operational risk, the risk of Shariah non-compliance risk and fiduciary risk are crucial risks for Islamic banks."
Fadel and Al-Ajmi	2017	"Credit risk is seen as the most important risk in Islamic banks, followed by liquidity risk, market risk and operational risk. For an effective risk management, Islamic banks should evaluate the risk of each financial instrument separately."
Hassan	2009	"Islamic banks are reasonably efficient at managing risk. In Islamic banks, the three most important types of risk are exchange rate risk, credit risk and operational risk, respectively."
How et al.	2005	"Islamic banks have significantly less credit and liquidity risks than conventional banks, but the interest rate risk is higher."
Hussain and Al-Ajmi	2012	"In Islamic banks, understanding and managing the risk is significantly different from conventional ones. Liquidity and operational risks, residual risk and clearing risk are higher in Islamic banks."
Ilias	2012	"Islamic banks face greater difficulties in identifying and managing risks compared to conventional banks due to their unique structures."
Iqbal	2012	"Islamic banks have a better liquidity position compared to conventional banks in liquidity risk management."
Izhar	2010	"While the operational risk exposure in Islamic banks is more complex than conventional banks, operational risk management is similar except for a few additional elements."
Izhar and Hassan	2013	"Islamic banks are exposed to the same degree of operational risk as conventional banks. However, the operational risk issue is more important and complex for Islamic banks due to the different nature of Islamic financial instruments and contracts."
Khan and Ahmed	2001	"Risk management instruments and money markets are insufficient for Islamic banks and the legal system and regulatory framework do not provide sufficient support for these banks."
Kozarevic et al.	2014	"Islamic banks face more risk than conventional banks because of the Shariah compliant products special for these banks. Besides, the instruments used to mitigate the risk are limited for Islamic banks."
Makiyan	2008	"Islamic banks face more risk than conventional banks due to primative Islamic money markets, limited access to central banks, inadequate market infrastructure and legal uncertainties."
Malim	2015	"There are few hedging instruments in the Islamic finance sector. Risk management infrastructure in Islamic banks should be designed to identify, separate, measure, monitor and audit all specific risks in Islamic financial transactions."

Mokni et al.	2014	"Islamic banks have an effective risk strategy and effective risk management framework. Liquidity risk is perceived as the most important risk by Islamic banks, followed by Sharia non-compliance risk and credit risk, and lastly market risk."
Nazir et al.	2012	"The risk monitoring method is the only difference in risk management in conventional and Islamic banks."
Radzi and Lonik	2016	"Existing criteria for risk measurement are insufficient for measuring the credibility of Islamic banks. Risk measurement tools should be revised to include the unique characteristics of Islamic banks."
Rehman	2016	"Islamic banks differ significantly from conventional banks in risk identification, risk management practices, and liquidity risk analysis."
Shafii et al.	2010	"The Shariah Compliance Audit is required in order to reduce the Shariah non-compliance risk in Islamic banks."
Shafique et al.	2013	"Risk management practices in Islamic banks are generally not different from those in conventional banks."
Shaikh and Jalbani	2008	"Asset-based operating structures cause Islamic banks to be more exposed to risks. However, Islamic banks can reduce these risks sufficiently with effective and sufficient risk management practices specific to them."
Tafri et al.	2011	"Existing risk management instruments and systems for Islamic banking are insufficient."
Yahşi	2014	"Participation banks face similar risks with conventional banks but the level of risks is different in two types of banks. It is more difficult to reduce the liquidity risk in participation banks, and the market risk is more limited."

3.3. Sample of the Research

While the sample is expected to represent the universe in quantitative research, this is not the case for qualitative research. In qualitative studies, which are usually researched on smaller samples (sometimes even one person), there is a tendency towards a more holistic, in-depth and contextual understanding of the sample rather than statistical representativeness in sample selection. People who will provide as much information as possible should be selected as a sample in qualitative research (Türnüklü, 2000). In the light of this information, 5 senior executives responsible for risk management in the participation banks in Turkey were selected as participants of the study. (There are 6 participation banks in Turkey but, "Türkiye Emlak Katılım Bankası" has started its operations in 21/06/2019. Since it is a very new organization in terms of the period of our study, it has not been included in our study.)

It was ensured that the individuals interviewed within the scope of the research have the most accurate and up-to-date information on risk management in participation banks. The interviewees are managers who are currently in charge of the risk management unit. In this way, our study, whose theoretical infrastructure is created, is completed with the practical information with the opinions of experts who work in the field.

Participants of the research are presented below with their institutions and positions:

- Seher Elif Ekici; “Ziraat Katılım Bankası”, Head of Risk Management Department
- Murat Oktay; “Kuveyt Türk Katılım Bankası”, Vice President of Market Risk, Operational Risk and Capital Planning
- Ömer Salih Yücelsin; “Vakıf Katılım Bankası”, Head of Risk Management Department
- Deniz Aksu; “Albaraka Türk Katılım Bankası”, Deputy General Manager Responsible for Credit Risk
- Selman Sedat Koç; “Türkiye Finans Katılım Bankası”, Risk Policies and Reporting Manager

3.4. Limitations of the Research

Since the study is a qualitative research, a limited number of interviews were conducted. However, the purpose of such studies is to examine a particular issue in depth rather than generalization. Although there have been interviews with a maanger from all participation banks in Turkey, the limited number of participation banks in Turkey is a main restriction of the scope of this research.

3.5. Methodology, Data Collection and Analysis

Deep interview technique, one of the qualitative research methods, was used in the study. Our method is classified as "Individual interview" according to the number of people participating in the interview. There are just interviewer and interviewee in individual interviews. Our method is called "interview with experts" in terms of the characteristics of the interviewees. In such interviews, detailed technical information is collected in certain areas of expertise. Finally, according to the strictness of the rules, our method is classified as "semi-structured interview (Karasar, 2017).

The interviews, which lasted an average of 45 minutes, were recorded with two tape recorders with the permission of the participants. In addition, some necessary notes were also taken during the interviews. The interviews were conducted in the head office of the banks and in the offices of the interviewees. It was ensured that the interview environment was quiet enough to allow the data to be recorded properly. Within a few days immediately after the interviews, the recordings were transcribed. Thus, it was ensured that the information regarding the interviews was written down completely.

The collected data were analyzed based on the “descriptive analysis” approach. Within the scope of this approach, 8 themes were created according to the participants’ answers. The data that are similar to each other are brought together under certain themes and organized in a way that the reader can understand. Then, all data were analyzed around these themes then, fundamental findings were obtained.

Eight basic questions were prepared to ask participants before the interviews:

1. What kind of risks are participation banks exposed to? In this respect, do you think they differ from conventional banks? What are the risks specific to participation banking?

2. Which methods / techniques are used in your bank to measure the risks? Do you think you are different from your conventional opponents in this respect?

3. Which methods / techniques are used to reduce and hedging against risks? Could it be seen as a disadvantage in risk management that participation banks cannot benefit from certain tools used by conventional banks due to Islamic principles?

4. What are the strengths and weaknesses of participation banks in the risk management process (identifying risks, measuring and analyzing risks, establishing and implementing risk policies, and monitoring-reporting and supervising risks)?

5. Do you find the current methods to measure and reduce risks specific to Islamic financial products adequate? In this regard, do you think innovative methods should be developed? Is there a work on this within your bank?

6. Are the current legal regulations regarding risk management in banking sufficient in terms of the requirements of participation banks and the developing structure of the Islamic finance sector? Do you believe that more institutions should be created by the government and regulatory authorities to support these banks?

7. Could you tell us about the role of the Shariah board in risk management in your bank? Do you think that the Sharia management system should be institutionalized more?

8. Do you think that participation banks are at a disadvantage in liquidity risk management? If so, what kinds of activities can be done to strengthen participation banks in liquidity risk management?

During the interview, in addition to the above, extra questions were asked (semi-structured interview) to participants according to their answers. Thus, the information required for each subject was obtained in depth and completely.

3.6. Research Findings and Conclusion

The findings of the study are largely in line with the studies in the literature. According to this, the risk management system in participation banks in Turkey is similar to those in Islamic banks in the world. The problems encountered are almost the same. However, there are differences in some subjects due to the differentiation of banking products used and different legal regulations. The findings of the research are presented in detail in the sections below. In the light of the interviews, the findings of the analysis are grouped around eight themes:

3.6.1. Main Risks Exposed in Participation Banks

There is a consensus idea that Islamic banks have to deal with almost all the risks conventional banks face because they offer similar services with conventional banks within the framework of their own operating principles. In this context, the main risks that participation banks are exposed to are considered as credit risk, market risk, liquidity risk and operational risk. Other risks are considered within the scope of operational risks. Participation banks do not differ much from conventional banks in terms of the risks faced, but the level of risk exposure may be different.

The different funding method of participation banks compared to conventional banks causes some differences in exposure to credit risk and its management. While conventional banks provide cash loans, the method of funding of participation banks is based on a real asset. In this respect, the probability of default in participation banks is expected to be lower. In addition, the use of some of the loans granted in participation banks from participation pools ensures that the risks associated with these loans are not fully borne by the bank, but shared with participation fund customers. As a result, it can be said that credit risk is lower in participation banks, although there are fewer coercive mechanisms to repay loans.

Market risk is lower in participation banks compared to conventional banks. The main reason for this is that there are no speculative transactions in participation banks, no short positions are taken, the variety of financial products is less, especially interest-bearing derivatives are not used, and therefore no risk is exposed through these instruments. When evaluated from this point of view, although not being able to use all the tools used by conventional banks creates a limitation, it can also be seen as an advantage as it reduces the level of risk exposure.

There is not much difference between conventional banks and participation banks in terms of operational risk in general. However, conventional banks are superior in terms of R&D structure, size and technological infrastructure while participation banks are in an advantageous position in terms of human resources. In this regard, as the participation banking sector grows, as the risk management culture and institutionalization level in these banks increase, operational risk management will improve.

In the interviews, Shariah non-compliance risk, displaced commercial risk and rate of return risk came to the fore as specific risks to the participation banks. The Shariah governance system / the Shariah board is of great importance for Shariah non-compliance risk management. The Shariah non-compliance risk is also considered as a subtitle of the reputation risk. In this regard, reputational risk is higher in participation banks because it is an inevitable consequence that a participation bank, whose reputation will be damaged in terms of Islamic values, will experience a huge loss of trust in the eyes of the customer.

3.6.2. Risk Measurement Methods

Participation banks, like all other banks in Turkey, are subject to certain methods determined by the "Banking Regulation and Supervision Agency (BDDK) in accordance with Basel standards for risk measurement. In this context, methods such as basic approach, standard approach, advanced measurement approach and internal rating methods are used for the measurement of credit, market and operational risks. The liquidity coverage ratio determined by the BDDK and other specific liquidity ratios are followed for liquidity risk measurement. Value at Risk (VAR) calculations (Parametric VAR, Monte Carlo Simulation and Historical Simulation Method) are used for currency risk measurement. As a result, there is generally no differentiation between participation banks and conventional banks in terms of risk measurement methods.

On the other hand, since interest rate risk occurs in a different way in participation banks, a different method should be defined to measure this risk. Also, an original method must be developed to measure the Sharia non-compliance risk because there isn't such a method that measures systematically this risk in participation banks.

3.6.3. Risk Mitigation / Hedging Strategies

Risk mitigation and hedging practices in participation banks are generally similar with conventional banks except from Islamic factors. The most important difference is that participation banks cannot benefit from some interest-bearing instruments used by conventional banks, but this does not create a disadvantage for participation banks in risk management. Participants of the research assert that interest-bearing instruments such as derivatives can help to risk mitigation but on the other hand, they are a risk factor at the same time. Participation banks don't face the risk resulted from these instruments as they don't use these methods. Therefore, although this causes limitations in terms of risk mitigation, at the same time, it provides an advantage in terms of exposure to less risk.

There are various rating and scoring models for credit risk in participation banks. Also, early warning models and guarantees play an important role in reducing this risk. In addition, setting limits for various customer groups, sectors and regions, as well as the implementation of policies and rules set by the senior management, and related controls and reporting are effective in reducing risks. As a result, these and similar methods used for risk mitigation and hedging are generally not different from the practices in conventional banks.

3.6.4. Strengths and Weaknesses in Risk Management Process

There are no major differences in the risk management process (identifying risks, measuring and analyzing risks, creating and implementing risk policies, and monitoring-reporting and supervising risks) between participation banks and conventional banks, but there are strengths and weaknesses at some points. Participation banks have a less aggressive and balanced management approach, are not affected much by changes in interest rates, and are exposed to less risk due to their limited product range. These can be seen as strengths in risk management. Moreover, the recent public and government support for participation banking has increased the visibility and effectiveness of these banks in the sector. In this way, increased trust in the eyes of customers has also been reflected in the risk management process as an advantage.

On the other hand, participation banks experience more difficulties in liquidity risk management than conventional banks. In addition, conventional banks are seen one step ahead in terms of institutionalization regarding risk management processes and established banking traditions / practices.

3.6.5. Different Methods for Measuring Risks Specific to Islamic Financial Products

Participants of the research do not think that different risk measurement methods for measuring risks specific to Islamic financial products are currently needed because these products is limited and not commonly used in Turkey. However, they argue that if the diversity of Islamic financial products increases, new methods will be required for risk measurement. They think that the academic community and the sector should work together on this subject in the future.

3.6.6. Adequacy of Legal Regulations and Supporting Institutions

The current legal regulations regarding the banking sector, which participation banks are also subject to, are quite extensive. A number of specific changes / improvements should be made in the legislation for participation banks' needs. These changes should not increase the already extensive legal obligations, on the contrary, they should be in a structure that will relieve these banks by taking into account the operating principles of participation banking. In addition, the government and regulatory authorities should take the lead in establishing more institutions to support these banks. Thus, the participation banking sector will be able to continue to develop on a more solid ground.

3.6.7. The Role of Shariah Board in Risk Management

The Shariah board plays a vital role in managing Shariah non-compliance risk. In this context, it is also effective in reducing the reputation risk in terms of compliance with Islamic principles. The Shariah boards are required be more institutionalize. Each bank has a separate Shariah board established under different conditions in Turkey and this causes differences in opinions in many cases. Thus, the national Shariah board established in 2019 within "Participation Banks Association of Turkey (TKBB) is a positive development in terms of preventing different practices between banks and increasing trust in the eyes of customers.

3.6.8. Disadvantages in Liquidity Risk Management

Participation banks, which are exposed to liquidity risk similarly to conventional banks, have some specific difficulties in managing this risk. Participants of the research agree that Islamic banks face difficulties to manage liquidity risk because of these reasons: The essential instruments used in liquidity management are interest-based, central banks' borrowing and lending mechanisms are generally based on interest, and the Islamic capital and money markets are not developed.

On the other hand, with the recent support of the government, some facilities have been introduced for these banks. For example, sukuk is started to be used in open market operations in the Central Bank of the Republic of Turkey in 2013. This was a beneficial development in liquidity management for participation banks. Like this, it would be beneficial to launch new products compliant with Islamic principles for participation banks. In this context, it is expected that the Central Bank's other instruments will be also complied with Islamic principles. Furthermore, it is thought that regulations such as being a little more flexible in legal ratios for participation banks will strengthen the hands of these banks in terms of liquidity risk management.

In the light of the literature review and the findings of this study, we recommend the following for the improvement of risk management in participation banking:

I. The use of Islamic financial instruments / products has been increasing day by day in Turkey. Since it is not possible to measure these risks with existing conventional methods, it would be beneficial to develop innovative methods.

II. Participation banks that cannot benefit from some of the risk mitigation methods due to Islamic principles need to develop new techniques specific to them. In this respect, participation banks in Turkey should closely follow newly developed techniques used by Islamic banks around the world.

III. An internal rating system in which the risks of all assets are evaluated separately should be developed in participation banks.

IV. These banks should build a sound legal infrastructure of their rapidly developing and diversifying products and services, and they should pay attention to the compliance of contracts with Islamic principles together with the requirements of relevant banking laws.

V. Participation banks should develop their internal capabilities and introduce new financing strategies in order to better manage their liquidity risks.

VI. The Central Bank should introduce more instruments to strengthen the capabilities of participation banks in liquidity risk management.

VII. New supporting institutions and mechanisms need to be established by the government and regulatory authorities to reinforce risk management system of these banks.

VIII. Laws and legal regulations regarding risk management in banking should be reorganized in a way to relieve these banks, taking into account the needs of participation banks and the developing structure of the Islamic finance sector.

IX. In order to minimize the Shariah non-compliance risk, a common rating system and reporting mechanism can be established. This will also provide unity in practice and increase trust in these banks.

REFERENCES

Abedifar, P., Molyneux, P., Tarazi, A. (2013). Risk in Islamic banking. *Review of Finance*, 17(6), 2035-2096. https://doi.org/10.1093/rof/rfs041

Akkizidis, I., & Khandelwal, S. (2008). *Financial risk management for Islamic banking and finance* (1st ed.). New York: Palgrave Macmillan.

Akhtar, M. F., Ali, K., Sadaqat, S. (2011). Liquidity risk management: a comparative study between conventional and Islamic banks of Pakistan. *Interdisciplinary Journal of Research in Business*, 1(1), 35-44.

Aksoy, T. (2005). Basel I-II Sermaye Yeterliliği Uzlaşıları Işığında Bilanço Varlıklarında Risk-Bazlı Ağırlıklandırma ve Risk-Odaklı Kredi Fiyatlamasının Çok Yönlü Etkilerine Yönelik Bir İnceleme. *Üçüncü Sektör Kooperatifçilik/ Third Sector Social Economy Review, Türk Kooperatifçilik Kurumu*, *150,* 31-51. https://zenodo.org/record/3233954#.XQDHnVwzbIU

Aksoy, T. (2018). Risk odaklı iç denetim sürecinde operasyonel risklerin belirlenip ölçülmesine yönelik uygulamalı bir 3x5 risk matriksi ve risk analiz anket formu önerisi. *Mali Çözüm.*

Al-Adwan, R. N. S. (2014). Risk management in islamic banking. *International Review of Management and Business Research*, 3(4), 1855-1861.

Al Ali, H., Naysary, B. (2014). Risk management practices in Islamic banks in Kuwait. *Journal of Islamic Banking and Finance*, 2(1), 123-148.

Ariffin, N. M., Archer, S., Karim, R. A. A. (2009). Risks in islamic banks: evidence from empirical research. *Journal of Banking Regulation*, *10*(2), 153-163. https://doi.org/10.1057/jbr.2008.27

Bankacılık Düzenleme ve Denetleme Kurumu -BDDK (2016). L*ikidite riskinin yönetimine ilişkin rehber*. https://www.bddk.org.tr/ContentBddk/dokuman/mevzuat_0096.pdf (accessed on 12 January 2021)

Bankacılık Düzenleme ve Denetleme Kurumu -BDDK (2014). Bankaların likidite karşılama oranları hesaplamasına ilişkin yönetmelik. https://www.mevzuat.gov.tr/File/GeneratePdf?mevzuatNo=19498&mevzuatTur=KurumVeKurulusYonetmeligi&mevzuatTertip=5 (accessed on 10 January 2021)

Çetin, A. (2017). *Katılım ve mevduat bankalarının piyasa etkinliğinin karşılaştırmalı analizi ve bir uygulama.* (Unpublished doctoral dissertation). Marmara University, Institute of Banking and Insurance, İstanbul.

Dar, M. R., Azeem, M., Masood, D. O. (2013). Operational risk management, risk management approaches, and risk mitigation techniques: challenges faced by Islamic financial services. *Journal of Business and Management*, *11*(2), 72-79.

Dede, K. (2017). Katılım bankalarında hazine ürünleri ve sermaye piyasası uygulamaları. İstanbul: TKBB Yayınları.

Demirci, M. N. (2018). *Katılım bankalarında risk yönetimi uygulamaları: Türkiye örneği*. (Unpublished master dissertation), Necmettin Erbakan University, Institute of Social Sciences, Konya.

Döndüren, H. (2010). Kur'an ve Sünnete Göre Altınla İlgili Ticaret Muameleleri. www.tkbb.org.tr/.../Kuran_ve_Sunnete_Gore_Altinla_Ilgili_Ticaret_Muameleleri.doc (accessed on 14 June 2018).

Ertürk, H. (2010). Bankacılık sektörünün karşılaştığı riskler ve risk yönetimi. *Denetişim,* (4), 62-70.

Eşiyok, Z. (2008). *Katılım bankalarının kullandırdıkları krediler ve karşılaştıkları riskler*. (Unpublished master dissertation). Marmara University, Institute of Banking and Insurance, İstanbul.

Fadel, S. M., Al-Ajmi, J. (2017). Risk management of islamic banks: a search for empirical evidences. *Corporate Ownership & Control*,*14*(2), 8-16. https://doi.org/10.22495/cocv14i2art1

Gödeş, Merve (2016). *BASEL-III kriterlerinin katılım bankacılığına etkileri: Türkiye örneği*. (Unpublished master dissertation), Marmara University, Institute of Banking and Insurance, İstanbul.

Güney, N. (2015). İslami finansta şer'i yönetim uygulamaları ve konuyla ilgili tartışmalara genel bir bakış. *Turkish Journal of Islamic Economics*, *2*(2), 45-69. https://doi.org/10.15238/tujise.2015.2.2.45-69

Greuning, H., Zamir I. (2008). Risk analysis for ıslamic banks. Washington: The World Bank.

Hassan, A. (2009). Risk management practices of Islamic banks of Brunei Darussalam. *The Journal of Risk Finance*, *10*(1), 23-37. https://doi.org/10.1108/15265940910924472

How, J. C., Karim, M. A., Verhoeven, P. (2005). Islamic financing and bank risks: the case of Malaysia. *Thunderbird International Business Review*, *47*(1), 75-94. https://doi.org/10.1002/tie.20041

Hussain, H. A., & Al-Ajmi, J. (2012). Risk management practices of conventional and Islamic banks in Bahrain. *The Journal of Risk Finance*, *13*(3), 215-239. https://doi.org/10.1108/15265941211229244

Islamic Financial Services Board-IFSB (2005). Guiding principles of risk management for institutions (other than insurance institutions) offering only Islamic financial services. www.ıfsb.org (accessed on 20 July 2020).

Ilias, S. E. B. (2012). Risk management in Islamic banking. *International Proceedings of Economics Development and Research,* 55(32), 159-162. https://doi.org/10.7763/IPEDR. 2012. V55.32

Iqbal, A. (2012). Liquidity risk management: a comparative study between conventional and Islamic banks of Pakistan. *Global Journal of Management and Business Research*, *12*(5), 54-64.

Izhar, H. (2010). Identifying operational risk exposures in Islamic banking. *Kyoto Bulletin of Islamic Area Studies*, *3*(2), 17-53.

Izhar, H., Hassan, Z. S. A. (2013). Applying core principles of risk management in Islamic banks' operational risk analysis. *Afro Eurasian Studies*, *2*(1), 15-40.

Kahyaoğlu Bozkuş S., Aksoy, T. (2021) Artificial Intelligence in Internal Audit and Risk Assessment. In: Financial Ecosystem and Strategy in the Digital Era. Contributions to Finance and Accounting. Springer Nature AG, Switzerland. https://doi.org/10.1007/978-3-030-72624-9_16

Karasar, N. (2017). Bilimsel araştırma yöntemi: Kavramlar-ilkeler-teknikler (32nd ed.). Ankara: Nobel Yayın Dağıtım.

Khan, T., Ahmed, H. (2001). Risk management: an analysis of issues in Islamic financial industry. Jeddah: Islamic Development Bank, Islamic Research and Training Institute (No.91).

Kozarević, E., NURIKIĆ, M. B., & Nuhanović, S. (2014). Specifics of risk management in islamic finance and banking, with emphasis on Bosnia and Herzegovina. *Journal of The Faculty of Economics and Administrative Sciences, Çankırı Karatekin University, 4*(1), 151-166.

Lahsasna, A. (2014). Shariah non-compliance risk management and legal documentation in ıslamic finance. Singapore: John Wiley & Sons.

Makiyan, S. N. (2008). Risk management and challenges in Islamic banks. *Journal of Islamic Economics, Banking and Finance*, *4*(3), 45-54.

Malim, N. A. K. (2015). Islamic banking and risk management: issues and challenges. *Journal of Islamic Banking and Finance*, *Oct-Dec*, 64-70.

Masood, O., Abdullah, M., Shahimi, S., Ismail, A. G. (2011). Operational risk in Islamic banks: examination of issues. *Qualitative Research in Financial Markets*, *3*(2), 131-151. https://doi.org/0.1108/17554171111155366

Nazir, M. S., Adeel, D. & Muhammad, M.N. (2012). Risk management practices: a comparison of conventional and ıslamic banks in Pakistan. *American Journal of Scientific Research*, *68*, 114-122.

Radzi, R. M., & Lonik, K. A. T. (2016). Islamic banks' risks: it's rating methodology and shariah assessment solutions. *Journal of Islamic Banking and Finance*, *4*(2), 48-60. https://doi.org/10.15640/jibf.v4n2a7

Rehman, A. A. (2016). *A comparative study of risk management practices between Islamic and conventional banks in Pakistan*. (Unpublished doctoral dissertation), Cardiff Metropolitan University, Cardiff

Sakarya, Ş., Akkuş, H. T. (2017). Türk bankacılık sektöründeki katılım bankalarının finansal istikrarının stres testi yöntemi ile analizi. *Balıkesir University The Journal of Social Sciences Institute*, *20*(38), 215-234

Salem, R.A. (2013). Risk management for islamic banks (1st ed.). Edinburgh: Edinburgh University Press.

Sayım, F. (2012). Risk kavramı, mevduat bankaları ve katılım bankalarının bilanço risklerinin karşılaştırılması. *Çerçeve Dergisi, 20*(58), 68-84.

Shafii, Z., Salleh, S., Shahwan, S. H. (2010). Management of shariah non-compliance audit risk in the Islamic financial institutions via the development of Shariah compliance audit framework and shariah audit programme. *Kyoto Bulletin of Islamic Area Studies*, *3*(2), 3-16.

Shafique, O., Hussain, N., Hassan, M. T. (2013). Differences in the risk management practices of Islamic versus conventional financial institutions in Pakistan. *The Journal of Risk Finance*, *14*(2), 179-196. https://doi.org/10.1108/15265941311301206

Shaikh, S. A. A., Jalbani, A. A. (2009). Risk management in Islamic and conventional banks: a differential analysis. *Journal of İndependent Studies and Research*, *7*(2), 67-70.

Sundararajan, V. (2013). Risk characteristics of islamic products: implications for risk measurement and supervision. Islamic finance: the regulatory challenge. Singapore: John Wiley & Sons (Asia).

Sakouili, A., Razane, C. (2018). Risk management of financial ınstruments in Islamic banks: an overview. *Uluslararası İslam Ekonomisi ve Finansı Araştırmaları Dergisi*, *5*(1), 20-39. https://doi.org/10.25272/ijisef.419518

Şensoy, N. (2012). İslami kurallara uygun finansal hizmetler veren kuruluşların likidite sorunları ve ILLM. *Çerçeve Dergisi, 58*, 198-202.

Tafri, F. H., Masood, O., Rahman, R. A., Omar, N. (2011). Empirical evidence on the risk management tools practised in Islamic and conventional banks. *Qualitative Research in Financial Markets. 3*(2), 86-104. doi:10.1108/17554171111155339

Taktak, N. B., Mokni, R. B. S., Echchabi, A., Azouzi, D., Rachdi, H. (2014). Risk management tools practiced in Islamic banks: evidence in MENA region. *Journal of Islamic Accounting and Business Research*, *5*(1), 77-97. https://doi.org/10.1108/JIABR-10-2012-0070

Tıby, A.M. (2011). Islamic banking how to manage risk and improve profitability. New Jersey: John Wiley & Sons.

Türkiye Bankalar Birliği (1999). Kredi riskinin yönetimine ilişkin ilkeler. www.tbb.org.tr (accessed on 20 July 2020).

Türnüklü, A. (2000). Eğitimbilim araştırmalarında etkin olarak kullanılabilecek nitel bir araştırma tekniği: görüşme. *Kuram ve Uygulamada Eğitim Yönetimi Dergisi, 6*(4), 543-559.

Varlık, A.B. (2010). Basel ilkeleri ışığında bankacılıkta risk yönetimi ve Türkiye uygulaması. (Unpublished doctoral dissertation), Marmara University, Institute of Banking and Insurance, İstanbul.

Wahyudi, I., Rosmanita, F., Prasetyo, M. B., Putri, N. I. S. (2015). Risk management for islamic banks: recent developments from Asia and the Middle East. Singapore: John Wiley & Sons.

Yahşi, F. (2014). *Katılım bankalarında risk odaklı iç denetim ve bir model önerisi*. (Unpublished doctoral dissertation). Marmara University, Institute of Banking and Insurance, İstanbul.

Yakar, S., Kandır, S. Y., Önal, Y. B. (2013). Yeni bir finansman aracı olarak "sukuk-kira sertifikası ve vergisel boyutunun incelenmesi. *Bankacılar Dergisi, 24*(84), 72-94.

Yanpar, A. (2015). İslami finans ilkeler, araçlar ve kurumlar (2nd ed.). İstanbul: Scala Yayıncılık.

Yenigün, G. (2016). Basel III Kriterleri Kapsamında Bankalarda Likidite Riski Yönetimi ve Türk Bankacılık Sektörüne Yansımaları. (Unpublished master dissertation). Beykent University, Institute of Social Sciences, İstanbul.