T.C.

MARMARA ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ

İŞLETME ANABİLİM DALI

MUHASEBE FİNANSMAN BİLİM DALI

A COMPARATIVE ANALYSIS OF THE PERFORMANCE OF THE ISLAMIC BANKS AND THE CONVENTIONAL BANKS DURING THE FINANCIAL CRISIS PERIOD

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TEZ ONAY BELGESİ

İŞLETME Anabilim Dalı MUHASEBE FİNANSMAN Bilim Dalı TEZLİ YÜKSEK LİSANS öğrencisi MOHAMED KASSIM SAİD'nın FİNANS KRİZİ DÖNEMİNDE İSLAM BANKALARI İLE TİCARİ BANKALARININ PERFORMANSLARININ KARŞILAŞTIRMALI ANALİZİ adlı tez çalışması, Enstitümüz Yönetim Kurulunun 29.08.2019 tarih ve 2019-28/11 sayılı kararıyla oluşturulan jüri tarafından oy birliği / oy ~~çokluğu~~ ile Yüksek Lisans Tezi olarak kabul edilmiştir.

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ABSTRACT

Banks are one of the fundamental establishments of the financial system of a country. The operations and services provided by these financial institutions have both direct and indirect impacts on the different sectors of the economy. So it is important that banks` operations and performance are properly controlled to ensure the stable and smooth running of the economy. The banking system has been operating under the conventional system for many years offering services including loans, leasing services, funds transfer and creating money in the form of deposits in return for interest payments. While these banks were operating under the tenets of Interest, there was a need for a bank which addressed the needs of the Muslims who considered dealings with any form of interest against the fundamental beliefs of Islam. In 1980 the concept of 'interest-free banking' was first introduced into the economic literature. As of late, this banking system has grown tremendously stretching from the West to the Far East. The Islamic banking system has developed into a worldwide phenomenon with different institutions and more sophisticated financial instruments coming into practice. According to |Estimates from the Islamic Development Bank, the funds managed by Interest-free banking in the World are over 200 billion USD. This study looks at the performance of Islamic banks (Participation banks) and Commercial banks during and after the financial crisis of 2008 using the CAMEL rating model. The data used for the research was mainly obtained from the Banks Association of Turkey (TBB) and the individual bank's websites. It was found that Participation banks showed better performance during the financial crisis of 2008 in terms of capital adequacy, management quality as well as sensitivity component to market risk but performed poorly in liquidity and asset quality components.

Key Words: CAMELS, Conventional Banks, Participation Banks, 2008 Financial Crisis

ÖZET

Bankalar, bir ülkenin finansal sisteminin temel kuruluşlarından biridir. Bu finansal kuruluşlar tarafından sağlanan operasyon ve hizmetler, ekonominin farklı sektörleri üzerinde hem doğrudan hem de dolaylı etkilere sahiptir. Bu nedenle, ekonominin istikrarlı ve sorunsuz bir şekilde yürütülmesini sağlamak için bankaların operasyonlarının ve performansının uygun şekilde kontrol edilmesi önemlidir. Bankacılık sistemi, uzun yıllardır geleneksel sistem altında faaliyet göstermekte olup, kredi verme, finansal kiralama hizmetleri, fon transferi ve faiz ödemeleri karşılığında mevduat şeklinde para oluşturma gibi hizmetler sunmaktadır. Bu bankalar faiz prensipleri altında faaliyet gösterdikleri için Bankacilik işlemi gerçekleştirmek isteyen Müslümanların ihtiyaçlarını karşılayacak başka bir bankaya ihtiyaç vardı. Bu İslami finansal sistem tamamen İslam'ın ilkelerine dayanmakta olup iş ilişkileriyle ilgili İslami kurallara göre çalışmaktadır. Bu nedenle, 1980'de "faizsiz bankacılık" kavramı ilk olarak ekonomi literatürüne girmiştir. Şu anda, bu bankacılık sistemi, Batı'dan uzak Doğu'ya muazzam bir şekilde genişledi. Bu sistem, farklı kurumlar ve daha gelişmiş finansal araçlarla dünya çapında bir fenomen haline gelmiştir. İslam Kalkınma Bankası'ndan gelen tahminlere göre, Dünyadaki Faizsiz Bankacılığın yönettiği fonlar 200 milyar ABD dolarının üzerindedir. Bu büyük büyümenin temel nedeni, sistemin özellikle Dünya finansal krizi sırasında finansal şokları sürdürme kabiliyetidir. Bu çalışma, 2008 Finansal krizi sırasında ve sonrasında İslami bankaların (Katılım bankaları) ve Geleneksel bankaların CAMEL derecelendirme modelini kullanarak performansını analiz etmeyi amaçlamaktadır. Araştırmada kullanılan veriler esas olarak Türkiye Bankalar Birliği (TBB) ve bireysel bankaların web sitelerinden elde edilmiştir. Analiz sonuçlarına göre, Katılım bankaları, 2008 mali krizinde sermaye yeterliliği, yönetim kalitesi ve piyasa riskine duyarlılık açısından daha iyi bir performans göstermekte olup, likidite, kârlılık ve Aktif kalitesi bileşenlerinde düşük performans göstermiştir.

Anahtar Kelimeler: *CAMELS*, Katılım bankalar, Geleneksel bankalar, 2008 Finansal kriz

Table of Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF GRAPHS

LIST OF ABBREVIATIONS

IDB   Islamic Development Bank

IERB   Islamic Economics Research Bureau

BIBA   Bangladesh Islamic Bankers Association

TKBB   Türkiye Katılım Bankaları Birliği

TBB   Türkiye Bankalar Birliği

IFH   Islamic Finance House

IMF   International monetary fund

ROE   Return on Equity

ROA   Return On Asset

INTRODUCTION

The 2008 financial crisis witnessed across the globe caused economic and social turmoil for many banks. Multinational banks including Lehman Brothers Holding Inc. and other banks were forced to file for bankruptcy leading to job losses and a period of the stagnant economy. Firms were put under pressure to change their liquidity and capital restructuring to overcome this troublesome period. The main cause of this catastrophic crisis was due to default of consumers on mortgages in the USA. This led to a bubbling effect and borrowers as well as investment banks involved in the mortgage deals were not able to repay the interest dues. As a result, the banking system was negatively affected by this crisis. Since Islamic banks use the profit and loss sharing model instead of interests in carrying out their activities, one can expect these effects to vary across these banks.

The objective of the study is to analyze the performance of Islamic and conventional banks during and after the 2008 crisis period using the CAMELS rating model. The CAMELS Rating System was developed and implemented in the USA and is employed by financial institutions across the world to measure and analyze their performance using the following variables; "*Capital adequacy, Asset quality, Management adequacy, Profitability, Liquidity and Sensitivity to market risks.*" By comparing the financial data obtained from the Turkish Banking Association as well as the banks` official websites and using these variables we will be able to realize which banks had better performance during and after the financial crisis.

Chapter one covers a broad definition of Islamic and conventional banks, history of Islamic banks and their different modes of funding including the *Mudaraba*, *Musharakah*, *Murabaha*, *and Sukuk* among others.

The second chapter covers the development of Islamic finance across the globe, covering the Far East, Middle East as well as European countries. It also focuses on the growth of Islamic banks in Turkey.

The third chapter covers the Literature review and examines previous studies done relating to CAMELS analysis model around the world.

The fourth chapter evaluates the research methodology and an in-depth discussion of the CAMELS Model and how it's being applied to different financial institutions as a measure of

their performance. The Advantages and Disadvantages of the model are also discussed in this chapter.

The Final chapter mentions the analysis of the results using the above-mentioned model. The data for the banks was analyzed using SPSS software. *T-test* analysis was also used in this study to evaluate if there is a difference in the performance of the banks during these periods. Finally, results and conclusions were made for the study.

1. CHAPTER ONE

1.1. ISLAMIC FINANCE DEFINITION AND CONCEPT

1.1.1. Meaning of Islamic Finance

According to Atıla Yanpar Islamic Finance is a finance system that works according to the rules and doctrine of Islam. Ideally, it is first based on the proper knowledge of finance and the rules of conducting business as contained in the doctrines of Islam.[1]

Another definition describes Islamic Finance as a financial system with the aim of providing a truly moral and ensuring fair distribution of wealth and resources as well as maintaining social justice in society.[2] Ibrahim Warde views Islamic finance from both a narrow and broad perspective. He explains that these banks work under the principles of the Quran. He also went to point out that this is a wholesome financial system which not only focuses on the prohibition of Riba and other illegal business engagements but also the ultimate quest for the creation of justice and other religious goals.[3]

1.1.2. The Concept of Banking

The banking concept can be divided into two main branches;

1.1.3. Classic meaning

Classic Banks are institutions that carry out transactions such as credit investment, capital expenditure, money and payment transactions, safe deposit, leasing, bill collection, intelligence and technical services with most of their operations being run by interest income it obtains. In simple terms, these are commercial institutions that make a profit by gaining interest from trading operations and all other forms of payments and transactions.[4]

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[1] Atıla Yanpar, **İslami Finans İlkeler Araçlar ve Kurumlar**, 2 Baskı,Istanbul, Scala Yayıncılık, 2014, p.21

[2] Iqbal Z, "Islamic Financial System", **Finance and Development**, 1997, pp.42-45.

[3]Ibrahim Warde, **İslamic Finance in the Global Economy,** 2nd edition, Edinburgh University Press, 2000, pp. 5-7

[4] Warde, pp.8-10

1.1.4. Interest-Free Banks.

Interest-free banks operate on a totally different approach from conventional banks and are based more like a nonprofit organization. They mainly operate with models like profit-loss sharing.[5]

1.1.5. The Birth of Islamic finance and historical development

1.1.5.1. A Brief History of Banking

The banking system has played a key role in the economic and social growth of countries. The system works by collecting funds from investors and allocating them to trade and investments activities in order to achieve profitable results.[6]

1.1.5.2. The birth and growth of Islamic Finance

The concept and application of Islamic was first practiced in Mit Game where the then president of Egypt Gamal Abdel Nassir developed this system as an alternative to the expropriation to counter the other banking system. Islamic banking has developed tremendously and its presence has been felt in all corners of the world with a huge percentage of its operations based in the Middle East. Despite the lack of official statistical data with regards to the size of Islamic financial markets, Citibank based in Bahrain has claimed that the funds under the Islamic financial institution will grow to reach $200 billion worldwide.[7]

Islamic banking has been taking the biggest market share when it comes to the credit market in Muslim countries. This is evident by the fact that their market share rose by more than 13% in the periods between the 1970s to mid-1990s. Leading banking experts are of the opinion that in the next ten years Islamic banking will be managing 50% of the saving of Islamic countries.[8]

1.1.5.3. The main Prohibitions and ethics in Islamic Finance

The main aim of the Islamic finance model is to allow the carrying out of that transactions in accordance with the teachings of the Islamic law (sharia) rather than to reap maximum benefits from the financial assets. With this in mind, it should be understood that all exploitative contracts

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[5] Warde, pp.10-12

[6] Schoon Natalie, "Islamic Finance an Overview", **European Business Organization Law Review**, 9, pp.621 - 635.

[7] G Sümer, and Onan F, "Dünyada Faizsiz Bankacılığın Doğuşu, Türkiye'deki Katilim Bankaciliği'nin Gelişme Süreci Ve Konvansiyonel Bankacılıktan Farklari." **Gazi Üniversitesi Iktisadi ve Idari Bilimler Fakültesi Dergisi,** (2015). 17 (3), pp.296-308.

[8] Sümer.and Onan, pp.296-308

based on interest or usury (Riba) as well as contracts that exhibit any form of risk and speculation *(garage)* cannot be enforced.[9]

1.1.5.4. Interest (Riba) Prohibition

Riba-based transactions are strictly condemned in the Islamic law system. This is mainly because the main sources of Islamic sharia have come out strongly against this kind of transaction. In the Islamic doctrine, Riba refers to the period given to the borrower to pay back the loan taken in return for the premium. A famous definition by *Ibn al-Arabi* is *"all excesses over what is justified by the counter-value".*[10]

1.1.5.5. Prohibition of Risk and Uncertainty (Gharar)

The word *Gharar* comes from Arabic roots which have a meaning of fraud and uncertainty or anything that will cause destruction. Islamic scholars have come to the conclusion that Gharar is prohibited due to the fact that the transaction and nature of it are uncertain and that the community will be harmed because of this.[11]

We can conclude that the fundamental reason that justifies the prohibition of *gharar* is the fact that it leads to dispute, hatred and unfairly devouring other peoples` wealth. [12]

1.1.5.6. Prohibition of Game Of Chance and Gambling

Games of chances and gambling have their equivalence in Arabic as `*Meysir*` which means *"easily earned income".* These are one of the unfair ways of earning money. Islamic Law encourages the attainment of income through one's own personal labour and productivity and not through easy money scheme. In gambling, the gambler attains richness and wealth without exerting any effort for this reason the whole system is haram. All the proceeds obtained from unfair dealings and gambling are prohibited. There is high risk involved in the game of chances and gambling which may result in the loss of a substantial amount of money.[13]

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[9] Tarek S. Zaher, and M. Kabir Hassan, **"A comparative literature on the survey of Islamic finance and banking''** 10:4 2001 pp.155-199

[10] M. Umer Chapra, "The Riba in Islam", **Published in The Journal of Islamic Economics and Finance**, Bangladesh, 2006. Pp.5-10

[11] https://mpra.ub.uni-muenchen.de/67711/ **MPRA Paper No. 67711**, November 2015 22/03/2018

[12] A. Mahmoud El-Gamal, **Islamic finance and Law, economics, and practice,** Cambridge University Press, Cambridge, 2006.p. 221

[13] Zaher and Hassan, pp.155-199

1.1.5.6. Prohibition to engage in unlawful transactions.

Islamic finance generally propagates investing of money in projects that follow the rules of Islam. There are certain commodities and business dealings which by nature are prohibited to engage in e.g. selling and buying of drugs, pork products alcohol etc. This kind of prohibition aims to promote ethical investments in the society by avoiding commodities which cause harm rather than a benefit to society.[14]

1.1.6. Islamic Fund collection methods

Islamic banks like other conventional banks have their way of creating the necessary funds. Islamic financial institutions achieve deposits based on the needs of their customers. There are three main purposes why customers would want to have their savings in bank accounts. They include:

a) Security Purposes: This is mainly done to safeguard the deposits against the risk of theft.

b) Earning/Gain Purposes: This is done to achieve income-related earnings from the deposit accumulation.

c) Payment Purposes: This is done as a tool for ensuring smooth commercial operations are achieved during transactions.[15]

Based on these three different reasons, Islamic financial institutions have three different types of funds/account types. They include the Current account and Savings account

a) The Current Account

Current accounts are accounts that can be opened and closed at any time by the request of the customer. They carry no interest or profit. Majority of the times this account doesn't carry service fees.[16] These accounts are opened for commercial or consumption purposes and have a characteristic of being able to be withdrawn by the account holder at any time, with no return to the account holder. Usually, the Islamic banks accept this kind of deposits as a form of debt given to them by depositors but don't provide any kind of benefit to depositors. This account, therefore, includes the number of deposits the customer has deposited as well as withdrawals are done.[17]

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[14] A. Gait and A Worthington, "A Primer on Islamic Finance: Definitions, Sources, Principles and Methods", University of Wollongong, **School of Accounting and Finance Working Paper,** Series No. 07/05, 2007,p.12

[15] Atila, p.129

[16] M.A. Mannan, **Islam Ekonomisi Teori ve Pratik,** 1. Baskı, Istanbul, Fikir Yayınları, 1973 p.316

[17] Muhammed Bakir Es-sadr, **Islam Ekonomi Doktrini,** Istanbul , Hicret Yayınları, 1980 pp.835

Islamic banks can evaluate the funds accumulated in the accounts opened by their customers and make investments of the funds in various ways. In addition to this, According to the Islamic banking application, the evaluation of the savings kept in these current accounts is a problem in itself since in conventional banks their methods of evaluation of idle funds using overnight repurchase agreements and other methods are not permissible in interest-free banks.

Similar to conventional banks, the current accounts in Islamic carry a great amount of importance to the bank in terms of income generation. Because the bank makes use of these funds without any costs involved herewith. After evaluating other sources of funds of Islamic banks, it can be seen that Private Current Accounts play a major role in increasing the profitability and reducing the cost of funds of banks. Therefore, Islamic banks are seriously working to increase their share of this competitive account market.[18]

b) The Savings Account

The savings accounts are accounts that the owners aim to realize revenues or income after a fixed period of time. This account is similar to the conventional bank's deposit accounts in terms of maturity aspect; however, the difference stands in the treatment of the Customer wherein Islamic banks the relationship more of a profit and loss relationship. [19]

Since it is also possible to make losses from the funds provided by the Islamic Banks, the profit of the fund will not be specified in the depositing phase of the deposit. Since this share is not predetermined, deposit customers generally take into account the bank's past performance by evaluating the bank's financial statements and the number of dividends previously paid to depositors when making deposit accounts with participating banks.[20]

The structure of the savings account is quite different from the current account in that the accounts are usually held for a certain period of time. It can be for one month, three months, six months, one year or even longer periods of time depending on the bank`s specifications. The deposited money is collected in a pool fund and the bank uses it to invest in valuable projects that can yield profit. Most of the participation banks in Turkey use this source of funding. As of 2017,

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[18] Özsoy Ş, **Sağlam Bankacılık Modeli İle Katılım Bankacılığına Giriş,** Kuveyt Türk Katılım Bankası A.Ş., Yayın, İstanbul, 2012. Pp.139

[19] Atila, p.133

[20] Fahri Öztop, "Özel Finans Kurumlarının Vergilendirilmesi", Dokuz Eylül Üniversitesi, Sosyal Bilimler Enstitüsü, **Yüksek Lisans Tezi,** İzmir,2006 p.16

it has been observed that almost 80% of Participation banks in Turkey use this kind of funding source.[21]

1.1.7. Islamic Finance Products and financing method

1.1.7.1. Musharakah

Mohammad Akram Khan (1990) defined it as: *"A contract between two persons who launch a business or financial enterprise to make a profit"*. This means the concept of partnership where there is a person to chip in the capital and another entity to carry out the business according to the agreed profits ratio. [22]

This joint enterprise is ideally formed for conducting some business in which all partners share both the profit and loss according to a specific ratio of the contribution. This financing method is mostly used to finance equipment and machinery used in the industries as well as in the financing of business operations. When it comes to Islamic banking, *"Musharakah is described as a joint venture between an Islamic bank and a customer or business firm for certain operations."*[23]

The most important conditions for the execution of Musharakah contracts are as follows:
- The percentage of profit distribution between the parties must be clearly stipulated in the contract. Failure to do that, the contract is considered null and void.
- Regardless of the outcome of the investment of one of the parties, no alterations can be made on the invested amount or on the profit distribution.[24]

1.1.7.2. Mudarabah

Mudarabah occurs between two parties in the form of profit or loss sharing. According to Abdul Ghafoor (2006), the best employment of this form of finance was witnessed between Prophet Muhammad and his wife Khadija before the coming of Islam. [25]

Mudarabah consists of two main terminologies as indicated by Obaidollah. The *rabbi-al-mal* or the capital Financier/banker and the *mudarib,* the entrepreneur where the bank finances a specific

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[21] Servet Bayındır, **İslam Hukuku Penceresinden Faizsiz Bankacılık,** İstanbul, Rabet Yayın, 2005. pp.58

[22] Noraziah Che. A and A.Ismail,"Shariah parameters for Musharakah Contract: A comment**", International Journal of Business and Social Science**,Vol. 1 No;1, 2010 pp.141-162

[23] Che. A and Ismail, pp 141-162

[24] 'Yanpar Atıla, pp. 135

[25] Abdul-Gafoor A, "Mudaraba-Based Investment and Finance", **Journal of Islamic Banking and Finance**,23(4): 2006, pp.78-98

venture as requested by the customer. This model is a favourable partnership model to provide long and short term loans.[26]

The Current practice of Mudarabah is usually the contract between an investor/entrepreneur and an Islamic bank where the bank which has sufficient industry experience in identifying and executing income-generating projects, diligently invests the funds in a manner that suits the investor. The returns of the whole project are shared between the finance company and the businessman an agreed profit sharing ratio.

The major characteristics of the Mudarabah contract are as follows:

- The owner of the capital and the provider of the experience and expertise both have a share of the profits
- The profit distribution has to be shared at an agreed rate and formulae set beforehand by the two parties.
- In the event of a loss, it is wholly attributed to the finance provider.
- The capital or the amount invested should be fully managed by the bank or the party with the skills and expertise.
- The sole proprietor of the partnership is the owner of the capital. It is not possible for the manager of the investment to claim share to the assets apart from the agreed profit sharing. [27]

1.1.7.3. Murabaha (mark-ups on sale)

Murabaha is an Islamic finance instrument sale where the seller (bank) buys the commodity or assets as directed by the buyer and eventually sells it to him with the goal of gaining returns.[28]

The customer usually informs the bank about the quality, prices and specification of the goods to be purchased or imported. Thereafter the bank does a careful analysis of the client's application and specific requirements of the goods including the prices and conditions of the payment of the goods. The parties then keenly negotiate the details of the contract and after a mutual

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[26] Obaidullah M, "Islamic Financial Services", **Islamic Economics Research Center**, King AbdulAziz University, Jeddah, 2005, p.57

[27] Iqbal Zamir and Abbas Mirakhor, **An Introduction to Islamic Finance: Theory and Practice,** 2nd edition,Wiley Publishers, 2007,pp. 90-92

[28] M.I. Usmani, **"Meezanbank's Guide to Islamic Banking",** Karachi, Pakistan: Darul-Ishaat ,2006 p. 26

understanding the bank finally decides to purchase the commodities and resells them to the customer at a profit.[29]

The basic conditions according to Murabaha Transactions is that there has to be the original price that has been determined by the seller, the other additional costs calculated on the total cost and the predetermined profit margin should all be clear.[30]

The Execution of this financial instrument should adhere to these rules:

- The sale must happen there and then. A contract is considered null and void if there is a lack of existence of the commodities.

- The seller i.e. the bank should possess full ownership of the commodity at the time of the sale.

- The sale has to be instant and the period should be absolute. Thereby a sale which is realized at a future date is considered not accepted.

- The sale must a commodity or a property of intrinsic value.

- The sale cannot be anything that is unlawful in Islam.

- All the information relating to the commodity and the sale has to be communicated and clearly stated to the buyer.

- The seller must make sure that the delivery of the commodity is certain and that it is not based on any contingency plans.

- The price of the commodity should be indicated should be clearly stated in the sale contract failure to which it is null and void.

- The agreement of the sale should be unconditional and in the event of any conditions attached it should be mentioned earlier in the agreement.[31]

Murabaha and Musharakah are both old methods of financing. Nowadays, Most of the Islamic banks in the world engage in Murabaha contracts. The Fıgure below illustrates the Murabaha contract.

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[29] Gait and Worthington, p.13

[30] Muhammad Ayub, **Understanding Islamic Finance,** 1st edition, Chichester, England,John Wiley & Sons Ltd, 2007,pp.217-220

[31] M.I. Usmani, pp. 26-28
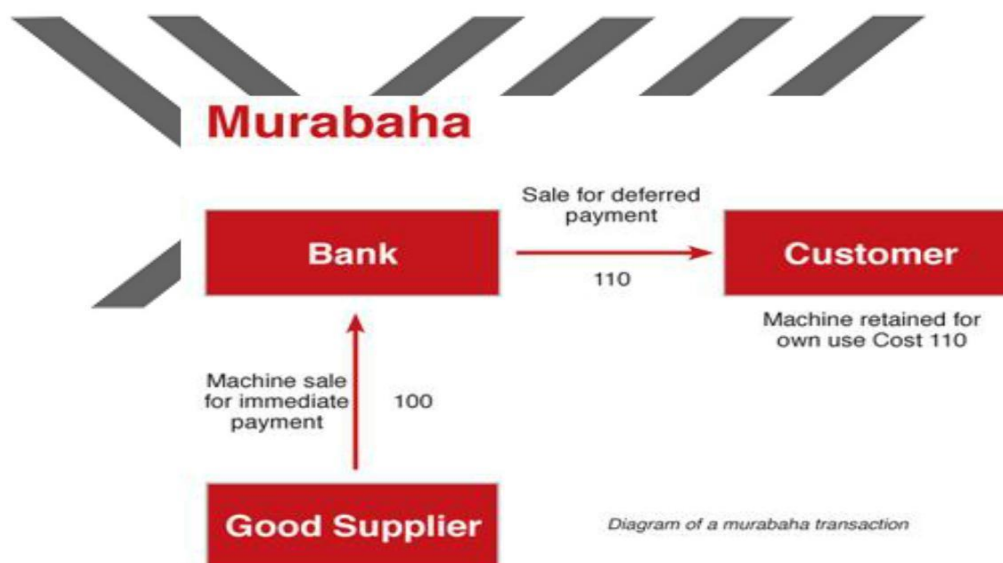
Figure 1: Murabaha Transaction

Source: Financial Islam, 2015.

1.1.7.4. Financial Leasing (İjarah)

According to Gait, *Ijarah* is a contract where the lessee enjoys the use of the assets from the lessor for a period of time and by paying agreed fees. This leasing is considered as a long-term financing method mostly practised by the interest-free bank as requested by the customer to finance equipment or a building etc. at an agreed rental fee of the property. Nowadays, most banks use this loan to fund a customer's needs. It has become increasingly popular today and is used as a medium and long term financing.[32]

This mode of financing is the second most used form after Murabaha in. Most Islamic use this method to finance real estate, plant and machinery or other physical assets.[33]

There are 2 forms of leasing in Islamic Banking:

1.1.7.5. Normal Leasing

As the name suggests, it is a type of leasing where there is no transfer of the ownership of the asset after the period ends.[34]

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[32] Gait and Worthington, p.15

[33] Ayub, p.280

Leasing leading to the transfer of ownership

Due to shortage of cash and by entering into a normal leasing contract with the financial institution, a customer with a credit who holds the right of use of an existing asset for a certain period of time may want to buy this property/asset. The credit customer is first given time to make enough profit from the use of the leased asset before the asset is transferred to his ownership. In this kind of situation, the customer is bonded by two contracts. In the first of these contracts, a lease agreement is made between the lessee and the lessor in accordance with the rules and thereafter another contract is made for the transfer of ownership.[35]

The advantages of financial leasing can be listed as follows;

- It provides medium and long term financing to entrepreneurs and provides flexible financing in investments.

- The entrepreneur can evaluate the shareholder`s equity since he doesn't use his own investments.

- Since the rental agreement and the lease term are agreed with the entrepreneur the risk of economic difficulties is avoided especially during inflation.

- The tax advantage is gained since the depreciation amounts for the assets leased are in the books of the lessee.

- Investment rents are covered. Thus, rents are repaid with profits from the investment.[36]

1.1.7.6. Salam

*Salam*is a type of contract used by financial institutions, that includes the buyer's pre-payment of the price of the agreed goods in full and the delivery of those goods at a specific time in the future [37]

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[34] Mustafa Uçar, **Türkiye'de ve Dünyada Faizsiz Bankacılık ve Hesap Birimleri**, 1.Basım, İstanbul, Fey Vakfı Yayınları, 1993, p.116

[35] Uçar.pp. 118

[36] Kuveyt Türk,**Finansal Kiralama**, http://www.kuveytturk.com.tr, 2011, 15.04.2018

[37] Atia J, "Banking in İslamic Framework", Islamic Financial Institutions Seminar Proceedings Series No.27, **İslamic Development Bank-Islamic Research And Training Institute,** Jeddah,1995, p28

This mode of financing is mostly used in the agricultural sector. This sale contract doesn't only apply for wheat and barley but also similar agricultural products.[38]

The rules for the execution of Salam contract is as follows:

- Payment should be made in wholesome.

- Goods should be quantified beforehand.
- The date of delivery should be mentioned.[39]

1.1.7.7. Istisna

This type of contract happens when an investor or a buyer orders the manufacture of his commodity and identifies where and when it should be delivered including the price before the beginning of the contract.[40].The main difference from the Salam sale contract is that it includes the future of the goods and the price whereas in Salam the price is paid in full at the beginning.[41]

1.1.7.8.Sukuk

Sukuk is a plural word of Arabic origin where Suk, in its plural sense means a transferable financial instrument which resembles a financing bill. It gives investors the right to benefit from the risks and returns associated with cash flows from certain assets of a particular entity.[42]

1.1.7.9. Types of Sukuk:

Sukuk depending on the type of financing.
- **Sukuk Ijarah:**

This is one of the most common Sukuk issuances, especially for financing a project. Sukuk Ijarah is a leasing structure coupled with a right available to the lessee to purchase the asset at the end of the lease period.

 The reason for the intense use of the contract in the *Sukuk* issuance is the fact that the contract of execution can easily be sold. In other words, this type of Sukuk means to offer the owner of the

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[38] Hakan Berberoğlu, "Faizsiz Bankacılık Nakit Yönetimi"**,** İnönü Üniversitesi, Sosyal Bilimler Enstitüsü İşletme Anabilim Dalı, **Doktora Tezi,** Malatya, 2004, pp. 23-24

[39] Iqbal M, and Molyneux P, **Thirty Years of Islamic Banking: History,Performance, and Prospect**,1st edition,London,UK, Palgrave Macmillan,2005, pp 145

[40] Iqbal and Molyneux, pp.138

[41] M.Anas Zarqa, "Istisna Financing of Infrastructure Projects", Islamic Financial Instruments for Public Sector Resource Mobilization, **Islamic Research and Training Institute,**Jeddah,1997, pp.231-233.

[42] Balala M.H, **"*Islamic Finance and Law: Theory and Practice in a Globalized World*",** 5. London, 2011,p.45

equal partnership and the usufruct rights of real estates on an immovable property which is rented to its owner.

- **Sukuk Mudarabah:**

This happens when a party provides capital and another party invests to enable him to carry out the business projects, which will be shared according to the agreed profits. The profit ratios must be agreed before the commencement of the project . In a case, a loss is realized after the end of the project they are shared equally.[43]

- **Sukuk Musharakah:**

As described above in the study, Musharakah agreement is mainly an agreement that mediates the partnership between two or more people to trade and share the profit from this trade. This type of Sukuk is mostly used to fund new projects as well as to finance business activities for firms.[44].

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[43] Tok Ahmet, "Sukuk-u İcâre Örneği Çerçevesinde Katılım Bankaları", **Active Finans Dergisi:** 55, 2008, pp.11-12
[44] Atila, pp.215

2.   CHAPTER TWO

2.1. THE DEVELOPMENT OF ISLAMIC FINANCE IN THE WORLD

2.1.1. During the time of the Prophet

The application of this system happened during the time of Prophet Muhammad (PBUH). During that period, the system of Islamic financial operations was based on the *Holy Quran* and the *Sunna* (traditions) of Muhammad which are the most fundamental tenets of this system.[45]

According to Islamic sources, it is believed that Muhammad (PBUH) was the first one to employ the use of M*udarabah* with Lady Khadija who later became his wife. It is can also be traced that Muslims at that time engaged in *Musharakah* (full partnership) mode of financing especially when operating large commercial enterprises.[46]

2.1.2. During the 19th Century

Islamic compliant financial systems were eventually replaced with the interest-based capitalist system. After most of the Arabic countries gained independence, independent systems were formed which led to most Islamic economies to formally consider the application of Islamic finance.[47]

Studies on Islamic Financial institutions in the world began in the 1960s. The first Islamic bank was established in 1963 by a man named Ahmed en-Naccar in an Egyptian town. In 1971, the bank was officially supported by the Egyptian government and fully recognized as the first interest-free bank in the country.[48]

Islamic Development Bank (IDB) came into existence later in 1971 and Dubai Islamic bank in 1975 with subsequent growth all over the world. Some of the factors that contributed to the tremendous growth of this financial system include the strong demand for sharia-compliant financial services from both the migrants and non-immigrant Muslims as well as the growing competitiveness of the financial products.[49]

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[45] P. Moore,**"Islamic Finance: A Partnership for Growth. Euro money",** London, 1997 pp.3

[46] Kahf M and Khan, **"Principles of Islamic Finance.** Research Paper No. 16,**Islamic Development Bank,** Jeddah,1993

[47] Moore, pp 3-7

[48] Serpam Araştırma notları, **"İslamî Finans Kavramı, Ürünler, Dünyada ve Türkiye'de Gelişimi ve Geleceği,"** 2013 pp. 8-10

[49] El-Qorchi M, **"Islamic Finance Gears Up",** Finance and Development, 2005, pp 46-50.
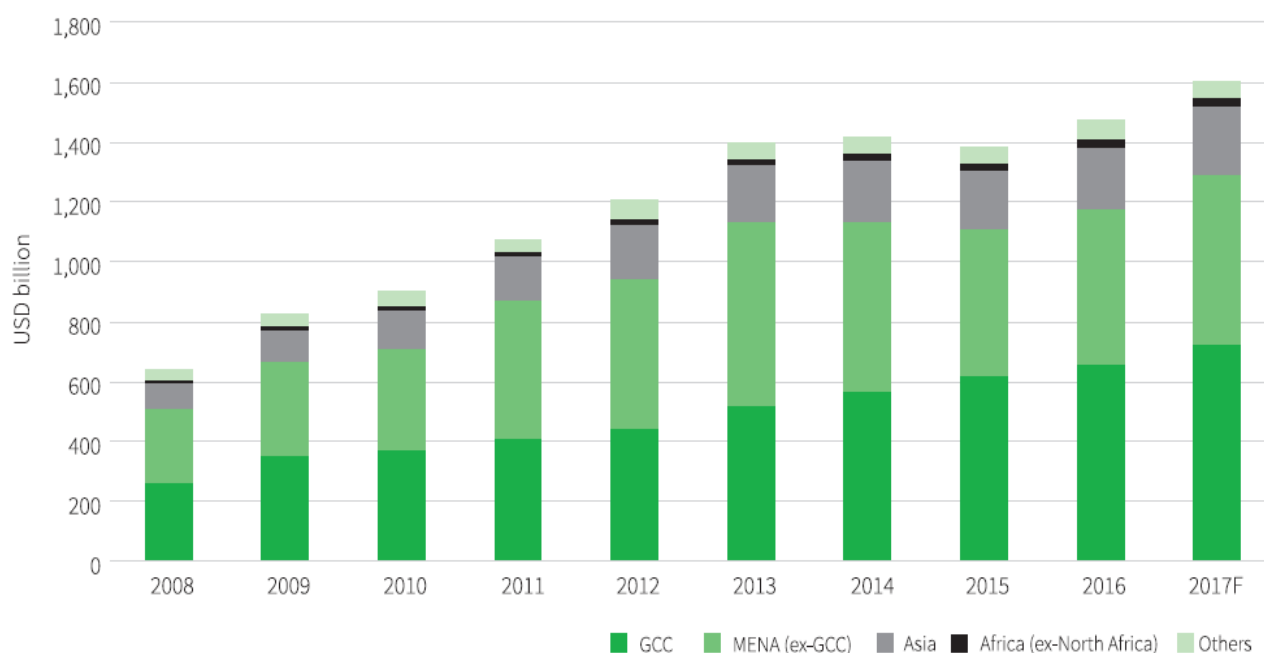
Figure 2: Assets of Islamic banks from 2008-2017

Source: Islamic Financial Services Industry Stability Report, 2018

Currently, it is estimated that the funds managed by interest-free banking in the world are over 200 billion USD. This figure is not only a share from the majority Muslim country but also large masses from Europe, America and the Far East. For this reason, the world's leading banking groups, have now increased their efforts to obtain a share from this market.[50]

Interest-free banking has developed into a worldwide phenomenon with different institutions more sophisticated financial instruments coming into being. In the last few decades, interest-free corporate structures and financial instruments have been developed and made more efficient. Currently, Majority of Islamic countries like Iran, Pakistan and Sudan and Malaysia have their financial systems entirely or largely regulated through the Islamic principles and rules.[51]

2.1.3. Some of the countries practising Interest-free Banking

2.1.3.1. Iran

According to Article 4 of the Constitution of Iran, all legal regulations must be based on Islamic standards and principles. In the year 1983, the Iranian Parliament passed a bill prohibiting all interests and all branches of interest-based banking thereby making the application of Islamic banking a compulsory phenomenon. As of 2011, the banking sector in Iran is estimated to have a

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[50] Küçükkocaoglu G, "Islami Bankalar ve Islami Finans**", Kurumları Çalışma Notları,** 2005,p.4

[51] M.K. Hassan, "The Cost Profit and X-Efficiency of Islamic Banks Economic",**12th ERF Conference Paper**,2005. p.3

relative size of approximately 390 billion dollars. This figure shows that 40% of the total Islamic finance assets in the world are in Iran.   Seven of the ten largest Islamic banks in the world, including the "Bank Melli Iran", "Bank Mellat" and "Bank Sederat" Iran, have operations in Iran.[52]

2.1.3.2.Malaysia

Malaysia, which is a largely Muslim secular country, has an interest-free banking system as well as the interest banking. The Bank of Malaysia developed its financial system infrastructure to be more effective and sophisticated than the simple interest-free banking system established in Iran and Pakistan. Banks operating under the interest-free system in the country have been subject to separate law and regulations. Islamic supervisory regulations; liquidity, reserve rate, commercial payment systems were developed and a central council was established to ensure that all Islamic banks operating in the country comply with the legal rules.

In 1983, the Islamic Banking Law and the Central Bank of Malaysia granted licensing and auditing authority to banks that worked without interest. In the same year, the State Investment Law was issued and this started the issuance of non-interest-bearing investment certificates and securities. As a result, there are two banks in Malaysia that offer interest-free banking services, while commercial banks and other financial institutions also offer windows for interest-free banking.[53]

2.1.3.3.Bangladesh

For years Bangladesh has been a British colony and has been practising the traditional banking system. The country was inclined to start applying the Islamic interest-free banking after being successfully applied and rolled out in Egypt. The country has formed two major corporate structures to deal with matters related to interest-free banking; Islamic Economics Research Bureau (IERB) and Bangladesh Islamic Bankers Association (BIBA).Like most other countries that offer interest-free banking services, Bangladesh also operates both conventional and Islamic banking, with 39 banks being conventional ones and 5 interest-free banks (one with the foreign capital bank). The following are some of the Islamic banks operating in Bangladesh:[54]

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[52] A. Ausaf, "Instruments of Regulation and Control of Islamic Banks By The Central Bank", Islamic Development Bank, **Islamic Research and Training Institute**,2000 p.33

[53] Türkmenoglu Rüveyde, "Katilim Bankaciligi ve Türkiye'deki Finansal Yapı", **Yüksek Lisans Tezi,** Kırıkkale Üniversitesi, 2007.pp 25-27.

[54] A.A.Sarker, "Islamic Banking in Bangladesh: Performance, Problems and Prospects**", International Journal of Islamic Financial Services,** Vo:1,No:3,1999, pp.18-22

2.1.3.4.Pakistan

The theoretic plan for Interest-free banking in Pakistan began in 1955 and started to actualize this plan in the years of 1970s. According to the 1974 Pakistan framework of the Nationalization of Banks Law, the banking system consists of 4 basic sections.[55] State Bank of Pakistan, Commercial banks, nationalized commercial banks and Development banks Investments banks.

2.1.3.5. Saudi Arabistan

Saudi Arabia is by far one of the countries that hugely plays a big active role in the practice and development of Islamic banking principles in the world. It contributes tremendously to the establishment and running of interest-free banks in many parts of the world. The country has two largest banks; Islamic development banks and Dar Al mal Islam [56]

The Islamic development bank (IDB), which is purely an interest-free bank was formed in Jeddah in 1974 and is one of the largest international Islamic banks which provides fee-based financial services and profit-sharing financial assistance to member countries under the Islamic Principles.[57]

2.1.3.6. UAE

The United Arab Emirates is also another gulf country. Ahmed Luta, one of the greatest businessmen of the emirate, took the first initiative to build an Islamic bank in the United Arab Emirates. Through his efforts, the Dubai Islamic Bank was formed in the year 1975. The main activities were to provide funds for the Islamic banking sector, to make investments, to give long term loans, as well as to finance trade in the region. These operations were all observed under the Islamic sharia Principles.[58]

2.1.3.7.Denmark

Luxembourg Islamic Banking System is the first bank with the name of Islamic banking in Europe. The International Islamic Bank of Denmark which was established in 1983 with 30 million Danish Kroner, is the first Islamic bank to perform banking operations. The major shareholders are the Islamic Finance House (IFH), which has its head office in the Cayman

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[55] Akin Cihangir, **Faizsiz Bankacılık ve Kalkınma,** Baski 1, Istanbul, Kayınhan Yayınevi,1986, pp.254-256.

[56] Öztop, pp 27-28

[57] M. Kabir Hassan, Mervyn K. Lewis, **Handbook of Islamic Banking,** 1st edition,USA Edward Elgar Publishing Limited, 2007,pp 12-13

[58] Cihangir, p.254

Islands. The International Islamic Bank of Denmark started its operations in mid-1983 as a result of the talks with the Danish central bank and government. It is slightly different from the structure of the other interest-free banks in the Middle East since its main purpose was to establish a financial connection between Scandinavian companies and other interest-free banks and investment companies who operate with interest-free financial transactions in accordance with the Danish legislation.[59]

2.2. THE DEVELOPMENT OF ISLAMIC BANKING IN TURKEY

The banning of interest, gambling and other illegal financial derivatives in Islam have caused Muslims to stay away from illicit transactions. This also applies to Muslim conservatives in Turkey who have religious sensitivity and would like to have their transactions in accordance to the Islamic guidelines.[60]

In Turkey, participation banks were not very well known by the same name but instead were referred to as *"special finance institutions"* which was formed based on the decree of the council of ministers in 1983. These institutions have been operational ever since serving loans and executing projects on an Islamic regulation basis i.e. without dealing with interest. For years they have been undergoing legal structural changes and especially in the year 1999 where the rules governing these institutions were categorized under the Banking Law. Finally, in the year 19/10/2005 under the 5411 numbered law, the previous name of the special finance institution was officially changed to Participation banks.[61]

2.2.1. Some of the reasons why some people prefer Participation banks

- People see the Participation banks as an alternative to the commercial banks. These banks have attracted a population from both the religious conscious people and other religions since it provides similar services to the other banking types. As a matter of fact, they provide more products like Financial leasing that the other banks don't.

- Participation banks work differently when it comes to dealing with their customers. When lending long term loans these banks consider their customers as investors or partners of their long term projects. They, therefore, keep a close eye on the operations of their customers with regards to the payment of the loan. Unlike the commercial banks which are only interested in the short term operation of their customers.

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[59] Cihangir, p. 277.
[60] Kerem Doğan Ergeç, " Türk Bankacılık Sisteminde Etkinlik ve 2008 Küresel Finansal Krizi: Katılım Bankacılığının Geleneksel Bankacılık ile Karşılaştırmalı Analizi",**Yüksek Lisans Tezi,** Eskişehir, 2018.p. 28
[61] Cihangir, p. 286

- Participation banks usually don't press the burden to their customers when befallen by the financial crisis. This is because when engaging in any financial agreements with their customers the transaction doesn't carry interest risks. Unlike the commercial banks which operate with the principle of interest and that this is generally affected by fluctuations of interest rates.

- Participation banks work on the basis of making profits to be shared by the parties in the contract. This phenomenon is at the forefront in ensuring a production and labour operations are positively realized by providing advice and support to their customers. Unlike the commercial banks which focus more on making money from money.

- One of the main factors for people preferring participation banks to commercial ones is the psychological positive feeling they get. Since these banks operate strictly on the principles of Islamic sharia which aims at protecting the wealth and welfare of the people they serve. Due care and diligence are observed when dealing with the wealth of the customers to minimize financial loss.

- The destructive nature of interest to the brotherhood, solidarity and unity of the society makes investors move more to participation banks. These make these organization at the forefront of realizing a prosperous economy and a social life.

- The role that Participation banking plays in the economy is quite significant and felt positively by all sectors of the economy. They are at the forefront of supporting production and labour, providing a cushion for investors during an economic turmoil as well as reducing the economic effects of inflation are one of the many reasons why people are attracted more to the banking system. [62]

2.3.   CURRENT PARTICIPATION BANKS IN TURKEY

2.3.1. Turkiye Finans

The bank was formed in 2005 after the merger of two big participation institutions, "Anadolu Finans. The decision for this financial merger was realized in 2005 when the Boydak Group and the Ülker Group decided to combine the operations in order to increase the competitive advantages of these entities. The name was changed to Türkiye Finans Katılım Bankası A.Ş. on 30 December 2005.[63]

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[62] Ayşe C, "Türkiye'de İslami Finansın Tarihi ve Kullanılan Finansman Yöntemlerinin karşılaştırmalı analizi," Marmara Üniversitesi Sosyal Bilimler Enstitüsü İşletme Anabilim Dalı, **Yüksek Lisans Tezi,** İstanbul, 2017 pp.20-21

[63] Ayşe C. pp.50

In 2015 the bank managed to issue a 360 million Sukuk in Malaysia As of December 2018, the bank has a total of 610 ATM as well as the 306 branches all over turkey. According to financial reports released by the Bank, the net profit increased by 18.5% from 375 million in 2017 to TL 444 million in 2018.[64]

Below is some of the Banks financial performance summary

TOTAL ASSETS (TL MILLION)
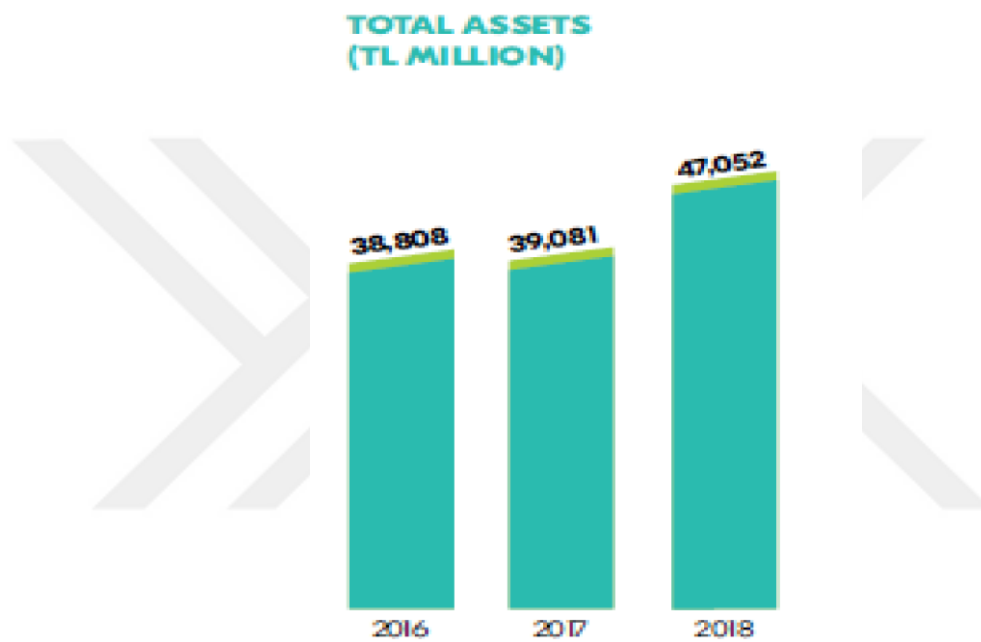
Figure 3: Turkey Finance Financial Summary

Source: Turkiye Finan's financial report, 2018

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[64]https://www.turkiyefinans.com.tr/Lists/BagimsizDenetimRaporlariEN/Attachments/19/TURKIYE%20FINANS%202018%20ANNUAL%20REPORT.pdf 17.01.2019

('TL thousand)	31 December 2018
Assets	**47,052,484**
Financial Assets (Net)	13,641,323
Cash and cash equivalents	10,033,764
Financial assets valued at fair value through other comprehensive income	3,107,096
Financial assets valued at amortised cost	208,378
Others	292,085
Loans (Net)	29,825,791
Tangible Assets (Net)	900,166
Other Assets (**)	2,685,204
LIABILITIES	**47,052,484**
Funds Collected	26,862,479
- Special Current Accounts	9,702,242
- Participation Accounts*	17,160,237
Loans Received	12,014,618
Subordinated Loans	1,326,515
Shareholders' Equity	4,323,181
- Paid-Up Capital	2,600,000
Other Liabilities (***)	2,525,691
Non-Cash Loans	7,559,008

Figure 4: Turkey Finance Financial Summary

Source: Turkiye Finans financial report, 2018

Income and Expense Accounts	01 January - 31 December 2018
Profit Share Income	3,937,713
Profit Share Expenses	-2,191,887
Net Profit Share Income	1,745,826
Net Fee and Commission Income	126,793
Other Non-Profit Income	705,892
Non-Profit Share Expenses	-2,009,061
Profit Before Tax	569,450
Provision For Taxes	124,700
Net Income	444,750

Key Ratios	31 December 2018
Capital Adequacy Ratio	16.62%
Return on Equity (Annual)	10.61%
Loans / Total Assets (**)	63.39%
Current Accounts / Funds Collected	36.12%
Non-Performing Loans (Gross) / Loans	5.52%

Figure 5: Turkiye finance bank Income Statement 2018

Source: Turkiye Finans financial report, 2018

2.3.2. Kuveyt Turk Bank

Kuveyt Türk Bank was founded in 1989 with the name of Kuveyt Türk Evkaf Finans Kurumu A.Ş. In 1999, it changed to a banking institution. In May 2006 the name of the bank was officially changed to Kuveyt Türk Katilim Bankasi A.Ş. (Kuveyt Türk). As of December 2018, the equity of the institution was TL 3.1 billion.[65]
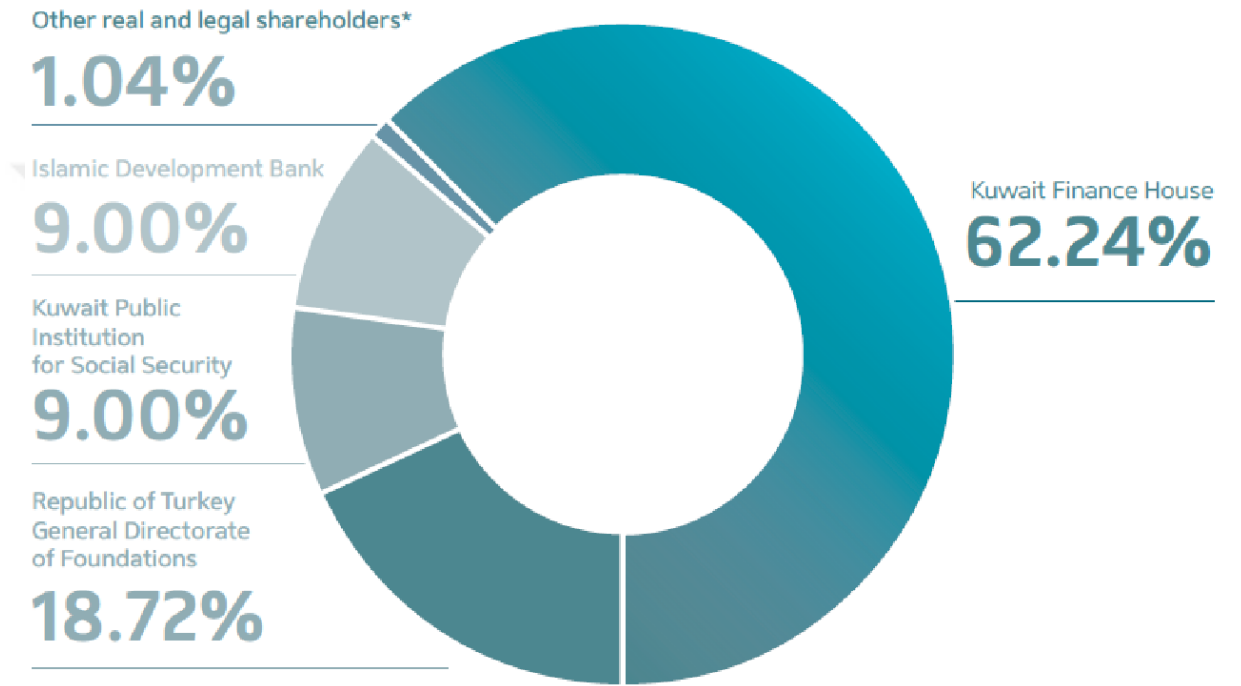
Figure 6: Shareholding and Capital Structure

Source: Kuveyt Turk Annual report 2018

As of the end of the year 2018, the bank has extensively penetrated the market with 414 branches and close to 6000 personnel. The bank has a strong capital structure and an efficient international service network. The bank has posted positive results with profits for the year ending 2018 increasing by 29% to TL 870 Million.[66]

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[65] https://www.kuveytturk.com.tr/hakkimizda/kuveyt-turk-hakkinda/gecmisten-bugune-kuveyt-turk 23.02.2019
[66] https://www.kuveytturk.com.tr/medium/document-file-2317.vsf 23.02.2019

Summary of Financial Indicators (TL Thousand)*	2017	2018
Profit Sharing Income	3,850,986	5,997,843
Profit Sharing Expense	1,716,773	2,850,053
Net Fee and Commission Income	241,002	349,546
Other Revenues	477,101	1,111,204
Other Expenses	2,003,383	3,482,483
Tax Charge	(174,942)	(256,245)
Net Profit for the Period	673,991	869,812
Total Assets	57,123,095	74,232,325
Total Shareholders' Equity	4,591,151	5,438,553
Capital Adequacy Ratio (%)	17.66	17.68

Figure 7: A summary of Key financial Indicators

Source: Kuveyt Turk Annual report 2018

2.3.3. Albaraka Turk bank

This is the first finance institution In Turkey. It was formed in 1984 and started its operation in 1985 The members of this bank were Albaraka banking Group, Islamic Development Bank and a native industrial group of Turkey, Albaraka Bank has been very active among the participation banks being the first bank in Turkey to offer Murabaha in Turkey. As of the year ending 2018, the banking Group had reported a total asset of USD 2.3 billion and a shareholder's equity of USD 23.8 billion. On the other, the group also posted profits of USD 217 billion. The bank currently has 230 branches all over Turkey with an accumulative total of 3988 staff. As reported in their annual financial report, the bank plans to focus more on improving their customers' satisfaction by investing more of its resources into AI technology and voice assistant systems to help increase their customers' interaction with the system.[67]

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[67] https://www.albaraka.com.tr/assets/en/pdf/investor-relations/2018-annual-report.pdf 15.03.2019

Albaraka Banking Group
486,523,265.68
54.06%

Islamic Development Bank
70,573,778.85
7.84%

Free Float
227,114,100.97
25.22%

900,000,000.00
100%

Other
36,855,889.78
4.11%

Local Shareholders
78,932,964.72
8.77%

Figure 8: Capital and shareholding structure of Albaraka Bank as of 2018

Source: Albaraka financial report 2018

Key Financial Indicators (TL thousand)	2014	2015	2016	2017	2018
Total Assets	23,046,424	29,561,999	32,850,738	36,229,077	42,223,652
Funds Collected	16,643,218	20,346,178	23,155,134	25,309,840	28,623,473
Funded Credits*	16,183,692	19,505,392	22,722,054	25,193,463	26,184,989
Shareholders' Equity	1,790,927	2,103,914	2,279,593	2,481,506	3,261,451
Net Profit	252,631	302,863	217,609	237,093	133,968
Number of Personnel	3,510	3,736	3,796	3,899	3,988
Number of Branches	202	213	213	220	230

Figure 9: Key financial indicators for the last 5 years

Source: Albaraka financial report 2018

Key Financial Ratios (%)	2014	2015	2016	2017	2018
Funded Credits/Total Assets	70.2	66.0	69.2	69.5	62.0
Funded Credits/Collected Funds	97.2	95.9	98.1	99.5	91.5
Funds Collected/Total Assets	72.2	68.8	70.5	69.9	67.8
Average Return on Equity	15.6	15.8	10.0	10.0	4.3
Average Return on Assets	1.3	1.1	0.7	0.7	0.3
NPL Ratio	2.0	2.4	4.7	4.7	6.9
Net NPL Ratio	0.2	0.9	2.3	2.0	3.6
NPL Reserve Coverage Ratio	87.9	60.0	52.3	57.7	47.3
Capital Adequacy Ratio	14.2	15.3	13.5	17.1	14.7

Figure 10: Key financial ratios for the last 5 years

Source: Albaraka financial report 2018

2.3.4. Turk Participation bank (Vakılım Katılım Bankasi)

Vakıf Participation Bank is the second youngest Participation Bank with a mission to ensure the development and growth of Participation Banking with the strength we derive from the foundation tradition. The bank obtained its license to operate as a participation bank in Turkey in the year 2016.[68]As of December 2018, the bank had 91 branches all over Turkey and reported an increase in profit from TL 138 million to 325 million representing a 136% increase.[69]

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[68] https://www.vakifkatilim.com.tr/tr/hakkimizda/vakif-katilimi-taniyin 15.03.2019
[69] https://www.vakifkatilim.com.tr/documents/flipbook/pdf/tr-vakifkatilim.pdf 15.03.2019
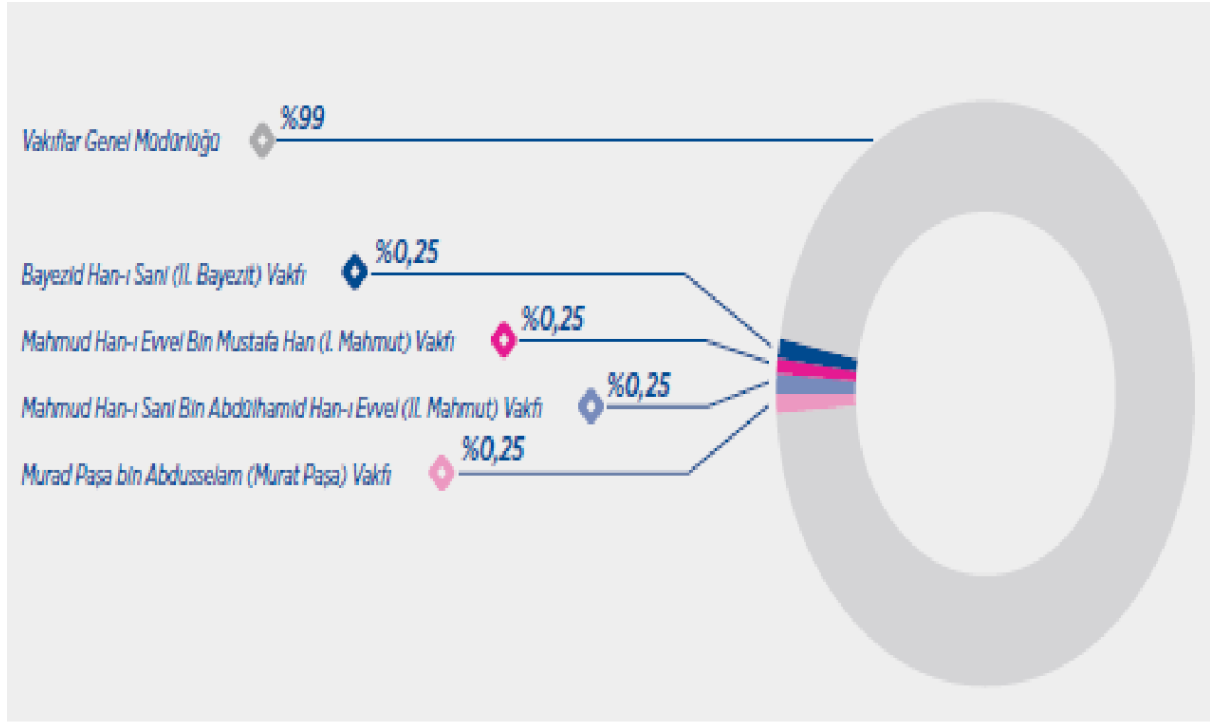
Figure 11: Shareholding structure of Vakif Participation Bank as of 2018

Source: Vakif Participation financial report 2018

2.3.5. Ziraat Participation bank (Ziraat Katılım Bankası)

Ziraat Participation bank is also another Islamic bank operating in Turkey. It was established with a total of 675.million TL paid-in share capital on 15th of October 2014 and started operations on 12th of May 2015. In the year 2018, the bank decided to increase its share capital by TL 500 million to reach TL 1.750 million.[70]

The bank has a mission of being both a regional and Universal Participation bank by generating sustained value in every stage and offering more to its customers through sharing.

As of the end of 2018, the bank had a total of 80 branches and 1042 working staff. The bank also realized a net profit of TL 323 million in the same year. [71]

2.3.6. Turkish Emlak Participation bank (Turkiye Emlak Katılım Bankası)

This is the newest and the youngest Participation bank In Turkey. The Bank which was previously known as Emlak Bank and was formed in Ankara in 1946 as one of the state banks. The bank's main goal was to support public construction initiatives through provision of loans, as

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[70] https://www.ziraatkatilim.com.tr/bankamiz/Sayfalar/hakkimizda.aspx 15.03.2019
[71] https://www.ziraatkatilim.com.tr/yatirimci-iliskileri/Documents/2018_faaliyet_raporu.pdf 20.03.2019

well as to protect the rights of orphans. During the Turkish Financial crisis of 2001, the bank lost its banking license with all its assets, liabilities as well as all the 405 branches being transferred to state Ziraat Bank and Halk Bank under the order or regulatory authority. The bank entered the market again under the name Turkish Emlak Participation Bank in July 2018. The Turkish Ministry of Finance and treasury owns 99.99% of the share capital. [72]

2.4. THE CONVENTIONAL BANKING SYSTEM

This system has been in operation for ages. The word bank itself comes from Italian which means a table or a stall. The term was used when Jews used to set stalls and form table during market days in order to carry out banking transactions. Currently, we still use the term banco to mean the various banking transactions that are being done at the bank branches.[73]

Banks serve the purpose of collecting funds as deposits and using the deposits to advance loans to customers. Usually funds are in the hands of the depositors who provide it to the banks for safekeeping where the banks then give them to institutions or individuals in form of loans.[74]

The following are some of the Functions of Conventional banks:[75]

- The function of providing funds: This is the primary task of the banks. Banks collect funds from those who provide savings and transfers with the fund to suitable people and companies in need of it and eventually charge receive interest and commission from these transactions.

- The function of providing services: In addition to providing deposits and lending loans, banks also have a duty of providing services like serving as intermediary in foreign trade transactions, collecting taxes and duties on behalf of the government, providing derivative products, purchasing and selling of securities on behalf of its customers, providing letter of guarantees as well as advising their customers on financial matters.

- The function of aiding economic and fiscal policies: Banks also have a hand to play in aiding the economic system. Problems in the economy such as inflation, interest rates, income distribution, control of tax revenues, unemployment, can only be managed with the help of the banks in the financial system.

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[72] https://www.emlakbank.com.tr/assets/uploads/sozlesme-form/sozlesme/emlak-kat%C4%B1l%C4%B1m-bankas%C4%B1-31-12-2018-TR-solo-final.pdf 22.03.2019
[73] Yazıcı M, **"Bankacılığa Giriş"**, İstanbul: Beta Basım A.Ş. 2016.p.1
[74] Toprak M. Coşkun, **Bankacılık ve Sigortacılığa Giriş.** Anadolu Üniversitesi Yayınları, Eskişehir,2012, pp.25
[75] Mehmet Takan, **"Bankalarda Toplam Kalite Yönetimi"**, Türkiye Bankalar Birliği,Istanbul, Yayın No: 217, 2001,pp.33-34

2.4.1. The Growth of Turkish Banking System

The Turkish banking system evolved in two phases:

2.4.1.1. Banking in the pre-Republic period (During the Ottoman period)

This period was during the control of the Ottoman Empire. The main purpose of the banking system during this period was to save the capital and wealth accumulated in the country from the hands of foreign banks and also to improve the national trade within the different sectors of the economy. The national banks at that time were used to provide lending activities in the form of commercial, artisan, agricultural, as well as consumer loans.[76]

2.4.1.2. Banking after Republic.

During the Republican era, the development of the banking system underwent six periods of development.

The Period of 1923-1938: This was the national banking in which a decree was passed by the judges following the Izmir economic congress where national banks are operating for the purpose of the country's economic growth.

The period of 1939-1960: This was the period after the Second World War also known as the Private Banking Period. Due to economic recovery after the war private banks gradually began to develop. Some of the banks that were born include Yapi Kredi Bank, Turkey Garanti Bank, Akbank, and Turkey Industrial Development Bank.

The period of Turkey's economy 1980-1990:.During this period economic and financial liberalization was witnessed which affected the opening of foreign banking sector. After allowing free interest and deposit rates to prevail, a banking crisis eventually erupted where the Central bank intervened and capped the interest rate to avoid any further problems. This period witnessed increased in foreign trade, the establishment of the ISE, the establishment of interbank TL and foreign exchange markets with the Central Bank and the opening of market transactions to focus on securities transactions, fund management and foreign exchange transactions.

The period of 1990-2000: It was characterized by an increase in Technological investments and the institutionalization of money and capital markets. Decree No. 32 was also passed to Protect

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[76] Özgur, Ersan. "Katılım Bankalarının Finansal Etkinliği Ve Mevduat Bankaları ile Rekabet Edebilirliği", Afyonkarahisar Kocatepe Üniversitesi Sosyal Bilimler Enstitüsü, **Doktora Tezi,** 2007 p.16

the Value of the Turkish Currency. As a result of this decree as well as the increase in the interest of Treasury Bills and Government Bonds, banks were able to increase their earnings quite easily.

The post-1990 period was a period in which banks increased their open positions and invested in public papers providing high risk-free interest income. This period also saw the adoption of the Banking Law No. 4389 and the establishment of the Banking Regulation and Supervision Board (BRSB). Banks also started to offer internet banking and electronic banking services.

Banking in the post-2000 period. This period was witnessed by the Turkish Financial crisis of 2000 and 2001.Due to severe shortage of liquidity and the failure of banks to adhere to banks` regulations, local banks filed for bankruptcy and the number of banks decreased from 81 to 61. The total number of branches also decreased by 929 to 6,908 and the Total assets were reduced by 26% to USD 115 billion. A transition Programme was initiated by the central bank of Turkey to restore the banking sector to the necessary condition for breaking the public sector borrowing dynamics.[77]

2.4.2. Classification of banks in Turkey

According to data provided by the Turkish banking association (TBB), the Turkish banking sector as of April 2019 was composed of 53 banks. 34 of which were deposit banks, 13 were development and investment banks while 3 were state-owned banks and 9 were private banks. During the period three commercial banks were also renamed to QNB final bank, MUFG bank Turkey and the development and investment bank of Turkey. A total of 6 participation banks were also witnessed with the new entrant being Turkiye Emlak Katilim Bank.[78]

The following figure illustrates the banking system in Turkey.

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[77]Ersan, pp.18-19
[78] https://www.tbb.org.tr/Content/Upload/istatistikiraporlar/ekler/854/Banks_in_Turkey_2018.pdf 16.04.2019
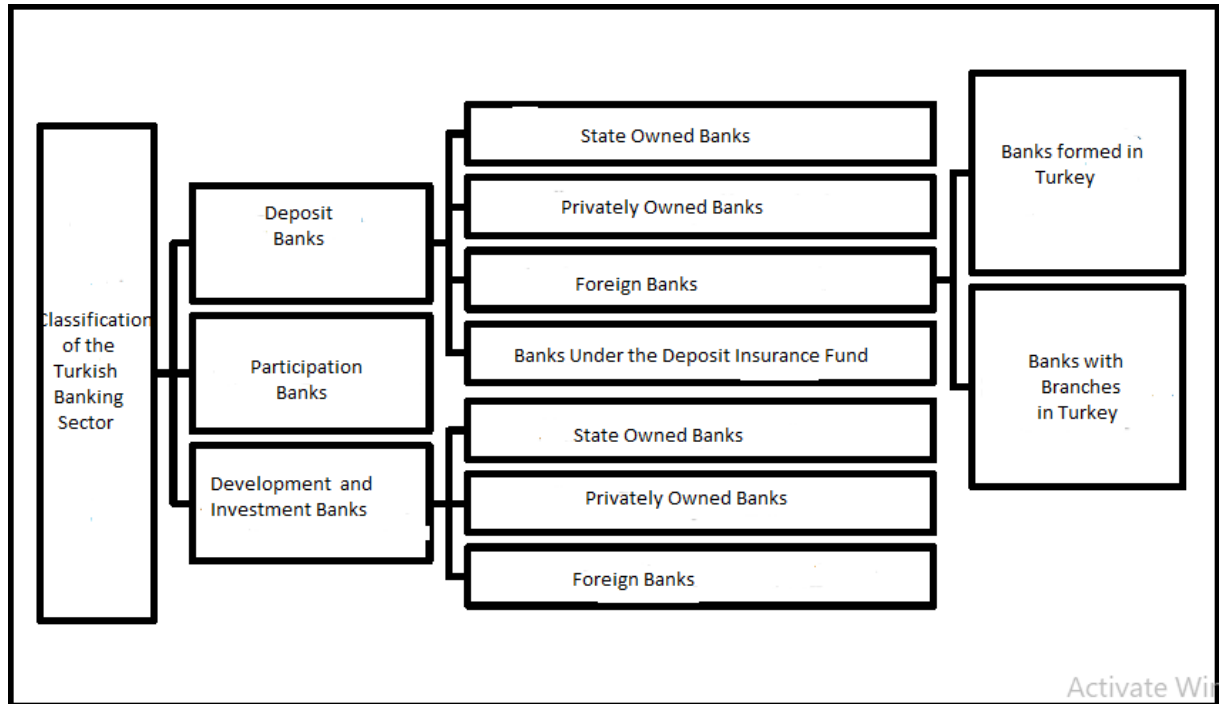
Figure 12: Classification of the Turkish Banking Sector

Source: TBB, 2018: 9

Table 1: Number of banks In Turkey

Bank types	2017	2018	April 2019
Deposit Banks	34	34	34
State-Owned Banks	3	3	3
Privately Owned	9	9	9
Foreign Banks	20	21	21
Savings Deposit and Insurance Fund(SDIF)	1	1	1
Development and Investment Bank	13	13	13
Participation Banks	5	5	6
Total	52	52	53

Source: TBB: 2018

2.4.3. Example of the Conventional Banks in Turkey

The following are some of the conventional banks in Turkey. The biggest of their category as state-owned and privately owned banks.

2.4.3.1. Ziraat Bank.

Ziraat Bank is by far the biggest and the oldest state-owned bank in Turkey. In the 19th century, there was an increase in the number of foreign banks operating in the Turkish territories. The local farmers suffered a lot from the exploitation of foreign banks and during those periods the agricultural sector wasn't growing well because of the lack of corporate financial structure. Lending and interest rates were up to 900% and this made it much harder for the farmers. This caused the farmers to sell their products to money lenders even before the harvest. There was, therefore, a need by the state to intervene and find remedies for these downtrodden farmers and boost the economy. As a result the first state bank was introduced State in 1863.

For the last 7 years, the bank has won awards including the most profitable bank in Turkey. The bank currently has 1,773 branches in Turkey and abroad, employing 24,647 staff and 7,155 ATMs across the world.[79]

The performance of the bank during the years 2017-2018 is shown in the figure below.

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[79] https://www.ziraatbank.com.tr/SitePages/InteraktifRaporlar/2018/files/en-ziraat.pdf 16.04.2019

(TL Million)	2017	2018	(%) Change
Liquid Assets and Banks	48,571	46,238	-4.8
Securities Portfolio*	70,628	88,681	25.6
Cash Loans**	298,033	371,871	24.8
Deposits	266,384	331,066	24.3
Non-deposit Sources	98,080	117,953	20.3
Shareholders' Equity	47,010	57,401	22.1
Interest Income	35,463	53,054	49.6
Interest Expense	18,561	31,138	67.8
Net Profit/Loss	7,940	7,961	0.3
Total Assets	**434,275**	**537,156**	**23.7**

* Excluding borrowed securities.
** Excluding non-performing receivables and allowances for expected credit losses.

Ziraat Bank's Market Shares

Market Share (%)	2017	2018
Total Assets	13.3	13.9
Securities Portfolio	16.8	18.0
Cash Loans	13.8	14.9
Deposits	14.8	15.3
Non-Deposit Sources	11.2	11.8
Shareholders' Equity	13.1	13.6

Figure 13: Ziraat bank performance

Source: Ziraat bank, Annual report, 2018

The figure above shows an increase in almost all the elements except the liquid assets of the bank which had negative percentage change of -4.8%.The total assets grew by 23.7% during the year 2017-2018. While the market share of the banks' balance sheet items all showed percentage increases during the years 2017-2018.[80]

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[80] Ziraat Bank Annual report,2018,pp 8
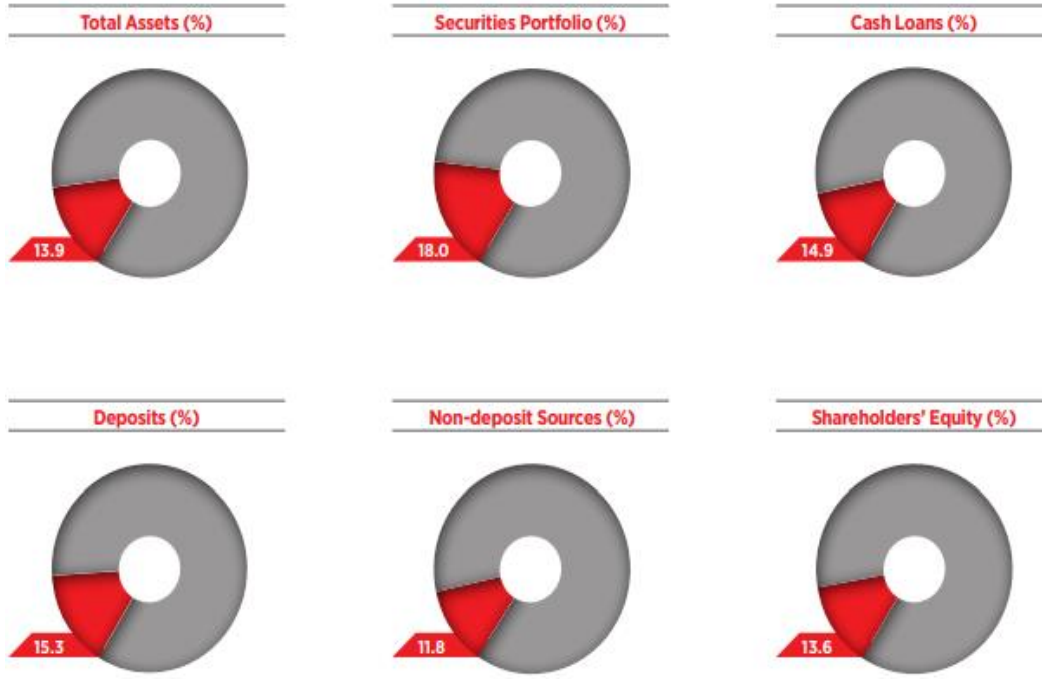
Figure 14: Ziraat Bank`s Market share.

Source: Ziraat bank, financial report, 2018, 8

2.4.3.2. Iş Bank

Iş bank was formed on the 26th of August 1926 under the mandate of the founder of Turkey Mustafa Kemal Ataturk as the pioneer of national banking in Turkey. It is by far the largest private bank in Turkey and plays a huge role in the strengthening of the Turkish economy.[81]

The bank which currently has subsidiaries in banking, insurance, private pension, capital market intermediation, portfolio management, venture capital, factoring, reinsurance, leasing, investment banking has contributed greatly to the finance sector in general as well as the development of the industry.[82]

The bank aims to be the most preferred bank in terms of customer service, to provide high quality, reliable and complete service to its customers as well as to comply with the business

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[81] https://www.isbank.com.tr/EN/about-isbank/who-we-are/ourhistory/foundation/Pages/foundation.aspx 16.04.2019

[82] Ceren Ç, "Bankaların İkinci El Sermaye Piyasasında Aracılık Faaliyetleri: İş Bankası Örneği", Atılım Üniversitesi Sosyal Bilimler Enstitüsü Finansman Ana Bilim Dalı, **Yüksek Lisans Tezi,**2010,pp. 85-86

ethical standards. Due to its involvement with a wide range of other financial activities in the sector, it also aims to offer suitable loans for national industry and trade.[83]

Below is some of the shareholding structure of the bank.
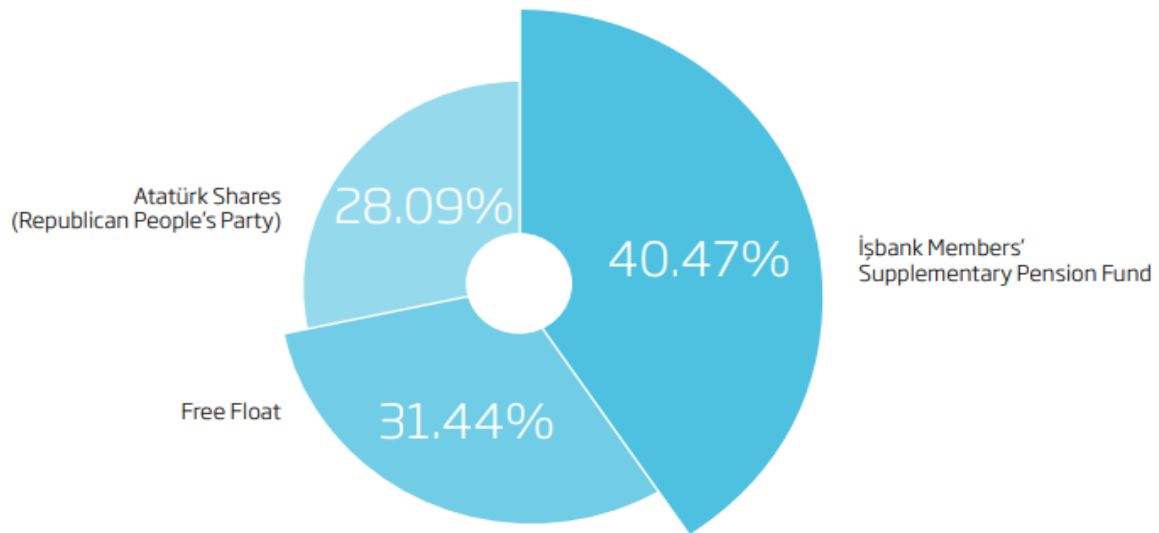
Figure 15: Shareholding structure of the Bank

Source: Iş Bank Annual report 2018, 6

The Figure above highlights the shareholding structure of the bank. As seen in the chart, Türkiye İş Bankası A.Ş. Members of the Social Security and Solidarity Fund hold the highest portion with 40.47%, Atatürk Shares (Republican People's Party) 28.09%, while the remaining is free float to the and the public sector.

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[83] Sara Heidarpour, "Banka Verimliliği Üzerinde Şube yeri Seçiminin Etkisini Belirleyen Faktörlerin İncelenmesi İş Bankası Örneği", Marmara Üniversitesi Bankacılık ve Sigortacılık Enstitüsü Bankacılık , **Doktora Tezi**, Istanbul, 2018 pp.70-71.

	31.12.2018	31.12.2017*	Change (%)
Total Assets	416,388	362,244	14.9
Loans	260,316	239,409	8.7
Deposits	245,269	203,752	20.4
Shareholders' Equity	49,721	42,984	15.7

(*) Changes in the accounting policy were applied retrospectively; accordingly, financial statements for 2017 were restated and corrected.

Key Financial Ratios (%)

	31.12.2018	31.12.2017*
Interest Earning Assets [1] / Total Assets	89.3	91.5
Loans / Total Assets	62.5	66.1
Loans / Deposits	106.1	117.5
NPL Ratio	4.1	2.2
NPL Coverage Ratio	58.7	86.0
Demand Deposits / Total Deposits	24.4	26.3
Shareholders' Equity / Total Liabilities	11.9	11.9
Capital Adequacy Ratio	16.5	16.7

Figure 16: Key Financial highlights of the bank

Source: Iş Bank Annual report 2018

As Shown Above the bank's performance has relatively improved for the year. Interest earnings which are the main source of earnings for banks increased by 2.2% while the total assets increased by 14.9%. The capital adequacy ratio reduced during the year but the value is still above the central bank's recommended value. [84]

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[84] Iş Bank Annual report,2018 p. 8

3. CHAPTER THREE

3.1. LITERATURE REVIEW

Researches relating to the performance of Interest-free banks or the participation banks as they are popularly known in Turkey have been done using different models, however few researches have been conducted in Turkey and especially in comparing these two financial systems during and after the financial crisis.

In the year 1996 Akkas in the thesis titled "Relative Efficiency of Conventional and Islamic Banking System in Financing Investment" concluded that Islamic Banks perform better in terms of efficiency than conventional banks.[85] Samad and Hassan (1999) analyzed and compared the performance of Islamic bank of Malaysia to eight conventional banks using a variety of ratios and also found that the Islamic banks made statistically significant progress in Liquidity and Risk ratios.[86] To add to this study Samad examined the comparative performance of interest-free Islamic banks and the interest-based in Bahrain with respect to Profitability, Liquidity risk and credit risk. He also found no big difference in liquidity but a substantial difference existed when it came to their credit performances.[87] Another research was done by Kader and Asarpota (2007) in the UAE also signifies the better performance of Islamic banks in terms of efficiency and Profitability.[88] However another research done by Moin in Pakistan on the performance of Meezan Bank Limited against five conventional banks concluded that MBL was less profitable and efficient compared to the banks.[89] Sehrish, Saleem and Muhammad (2012) from Pakistan also analyzed the financial performance of the two sets of the banking system from the years 2007-2011. He found out that there wasn't much difference in the profitability of the two banks but Islamic were less risky compared to their counterparts.[90]

Jaffar and Manarvi also carried out the performance of five Interest-free banks and five conventional banks using CAMEL model. He found that Interest-free banks had higher capital

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[85] Akkas A, "Relative Efficiency of Conventional and Islamic Banking System in Financing Investmen", **PhD Dissertation**, Dhaka University,1996.p.12

[86] Samad A. and Hasan K, "The Performance Of Malaysian Islamic Bank During 1984-1997 An Exploratory Study", **International Journal of Islamic Financial and Services,** Vol:1 No:3,1999.p.28

[87] Samad A, "Performance of Interest Free Islamic Banks Vis-à- Vis Interest-Based Conventional Banks of Bahrain**",** IIUM **Journal of Economics and Management**, vol:12 ,2004, pp.1-25.

[88] Kader J. M, and Asarpota, A. K, "Comparative Financial Performance of Islamic vis-a-vis Conventional Banks in the UAE'', Paper presented at 2006-2007 **Annual Student Research Symposium** & First Chancellor's Undergraduate Research Award at UAE University, 2007

[89] Moin M. S, "Performance of Islamic Banking and Conventional Banking in Pakistan: A Comparative Study". **Master Degree Project,** School of Technology and Society, University of Skövde, 2008.p.28

[90] Sehrish S, Saleem and F. Muhammad Y, "Financial Performance Analysis of Islamic Banks and Conventional Banks in Pakistan: A Comparative Study", **Interdisciplinary Journal of Contemporary Research in Business**, Vol:4 No:5, 2012,pp.186-200

adequacy (CA) and liquidity (LQ) but on the other hand the conventional one was better at management quality and earnings.[91]Another study using CAMEL was done by Merchant (2012) when he measured the performance of Interest-free banks against the conventional banks in the Gulf Countries. Interest-free banks were stronger at managing their capital but with had poor earning and management ratios.[92]

Amba and Almukharreq (2013) carried out an analysis of 25 Islamic banks and 65 conventional banks in the Gulf Arab countries during 2006-2009.They divided the period of the crisis into two; pre and post-crisis, to ensure accurate results. He concluded that the financial crisis negatively affected both the banks albeit Islamic banks showed better profitability ratios than the others.[93]Another study that was done during the financial crisis period was of Hassan and Dridi (2010) where they analyzed the operational performance of Islamic and conventional banks during this period. Their main variables were based on how the crisis affected their profitability, assets, credit growth and external ratings in the Arab Gulf countries where these banks have large market shares.. The results also found that the Islamic banks business model helped significantly to stabilize their profits in 2008, but their weakness in risk management resulted in their profit decline in 2009. Furthermore, Credit, asset growth and external ratings were all in favour of the Islamic banks.[94]

Another research was done in Turkey by Parlakkaya and Çürük in 2011.By only using financial ratios the research wanted to distinguish if there was a performance difference between the participation and conventional banks in Turkey. Using data from the years 2005-2008 and including 24 conventional banks and 4 participation banks, no difference was found in the profitability and liquidity ratios of both the two sets of banks. They also noted that Participation banks had more profit margins than their counterparts.[95]

Doğan Mesut (2013) also analyzed the performance of Participation and commercial banks using profitability, liquidity, riskiness, and debt and capital adequacy ratios between the years 2005-2011. To determine the difference between the two banks T-test analysis was employed. It was

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[91] Jaffar M, and Manarvi I, "Performance Comparison of Islamic and Conventional Banks in Pakistan'', **Global Journal of Management and Business Research,** vol:11, 2011,pp. 59-66.

[92] Merchant I. P, **"Performance analysis of banks using CAMEL approach",** An Empirical study of Islamic Banks Versus Conventional Banks of GCC,2012

[93] Almukharreq F, and Amba M. S, "Impact of the Financial Crisis on Profitability of the Islamic" Banks vs Conventional Banks-Evidence from GCC", **International Journal of Financial Research**, Vol:4, No:3, 2013, pp.83-93

[94] Dridi J, and Hassan M, **"The Effects of the Global Crisis on Islamic and Conventional Banks: A Comparative Study"**, International Monetary Fund(IMF), 2010.

[95] Raif Parlakkaya, and Suna Akten Çürük, "Finansal Rasyoların Katılım Bankaları ve Geleneksel Bankalar Arasında Bir Tasnif Aracı Olarak Kullanımı: Türkiye Örneği", **Ege Akademik Bakış Dergisi,** Cilt:11 No: 3, 2011,pp.397-405

found out that there wasn't much significant difference in terms of profits between the two sets of banks [96]

The most recent study done by Cengiz Erol et.al (2014) in Turkey. It analyzed and compared the performance of Participation and conventional banks in Turkey using the CAMELS approach to assess the managerial and financial performance of these banks. The period of study was between 2001-2009. The results showed that Islamic banks operating in Turkey performed better in profitability and asset management ratios compared to conventional banks but didn't perform well when it came to sensitivity to market risk criterion. [97]

A significant number of researches have been conducted from different countries to determine the performance of Islamic banks and conventional banks during the economic crisis period using different evaluation models including ratio analysis, credit analysis, asset growth, ratio analysis and CAMEL analysis. Nevertheless, research of this nature using CAMEL analysis is yet to be done in Turkey.

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[96] Doğan M, "Katılım ve Geleneksel Bankaların Finansal Performanslarının Karşılaştırılması: Türkiye Örneği", **Muhasebe ve Finansman Dergisi,** Vol.58, 2013,pp.175-188

[97] Cengiz Erol, Hasan F. Baklaci, Berna Aydoğan, Gökçe Tunç, "Performance comparison of Islamic (participation) banks and commercial banks in Turkish banking sector", **Euro Med Journal of Business,** Vol. 9 Issue: 2, 2014,pp.114-128

4. CHAPTER FOUR

4.1. RESEARCH METHODOLOGY

This study assesses the performance of Islamic banks and conventional banks of Turkey during the financial crisis period using the CAMEL model. The information in our study covers the period of 2007–2015.

The data on participation banks were obtained from the Participation Banks Association of Turkey (TKBB) while the data on conventional banks were obtained from the Banking Regulation and Supervision Agency database.

4.2. The concept of CAMELS and its application

The 'CAMEL' rating was first developed in the U.S in the years 1979-80 as a measure to supervise and eventually classify a Bank's overall position. Majority of Supervisory and regulatory bodies both in the US and in other parts of the world use this system. The ratings are given based on the ratio analysis of the financial statement. This model has been tantamount in providing a strong supersvisory internal control for financial firms According to Dang (2011), CAMELS basically applies the use of different ratios to evaluate the performance of banks. CAMELS is an acronym for the five components.T he components include Capital adequacy, Assets quality, Management efficiency, Earnings and Liquidity. A sixth component, a bank's sensitivity to market risk was added in 1997; hence the acronym was changed to CAMELS.[98]

In order to achieve the desired results of this research, 6 ratios that define their respective parameters will be analyzed these are mentioned below:

4.2.1. Capital Adequacy

The first component is the Capital adequacy. It helps management in understanding the shocks captivating capability of the banks during the times of risk thereby avoiding the risk of going bankrupt.it also helps in maintaining depositor's confidence. In other terms, it shows ın details the ability of banks to absorb unexpected losses.[99]

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[98] Majumder, Md & Mizanur Rahman, Mohammed, **"A CAMELS Model Analysis of Selected Banks in Bangladesh"**. International Journal of Business and Technopreneurship. 6.2016,pp 233-235
[99] Merchant I, "Empirical Study of Islamic Banks versus Conventional Banks of GCC." **Global Journal of Management and Business Research.** Volume 12 Issue 20 Version 1.0,2012.p 35-40

Capital of a firm means the difference between total assets and total liabilities of a firm. If there is any loss of loans when the deposits have been taken by customers it will be a big risk for banks to meet the demand of their depositors. Banks need to have higher CA ratio to avoid failures during these situations.[100]

The capital adequacy ratio is measured using the Equity to total assets ratio.

Capital Adequacy Ratio (CAR) = Total Capital Employed/Total weighted Assets x 100 %

4.2.2. Asset Quality

The second component of CAMEL is asset quality. It is also referred to as Return on Risk Assets. It is a ratio of the provision of Loan losses to Total Loans. This will help in understanding the number of funds that have been reserved by the banks in the event of bad loans and also aims to understand the risk of the exposure of the debtors.

Asset quality= Asset quality=Provision of loan losses (NPL)/total loans x 100 %

Asset quality ratio, therefore, is an assurance to cover the bad and doubtful loans of the bank. It is of essence that banks should maintain low provision for bad and doubtful loans as this will have an effect on the banks' profits. A higher value of this ratio suggests worsening financial health of the bank[101]

4.2.3. Management Quality/Efficiency

The component of management quality tries to find how the bank's management is effectively and efficiently performing. The banks` senior management which has the mandate to oversee the skills distribution and human resource of the bank will play a big role to control the cost and increase productivity.[102]

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[100] Chen J, "Capital adequacy of Chinese banks: Evaluation and enhancement**", Journal of international banking regulation**, 4(4),2003, pp. 320- 327
[101] Merchant, I. p.35-40
[102] Majumder & Mohammed, pp.233-266.

Banks which have time proper and efficient management should have the following qualities for the achievement of their qualities.

- The qualified human resource team
- Proper management expenses
- Strong hierarchy of management team
- Capacity to make equal decisions.
- Conducive working environment.

For the purpose of our study, the following ration will be employed.

Management Quality =Total Loans / Total deposits (Total assets)

This ratio shows how well banks can convert their deposits into higher-earning advances.

4.2.4. Earnings Quality

Earning is an important component of measuring the financial performance of an organization. Earning quality tries to measures the profitability and productivity of the banks and how it can survive for the foreseeable future.

The earnings help banks to carry out different activities like funding dividends, maintaining adequate capital levels, allocation of funds to invest in other profitable ventures.This study uses the Return on Assets ratio (ROA) and returns on equity ratio (ROE) to measure the earning's quality.

ROA=Income After interest and Tax/Total Assets.

ROE= Income After interest and Tax/Total Equity.

This ROA ratio measures how the bank uses its assets to generate profits. It is a common measure of managerial performance since it measures the net earnings per unit of a given asset, and how the bank can convert its assets into earnings.

In other words, it shows how a unit of income is generated from each unit of an asset on an average. A higher value of this ratio is recommended as this will show the better financial health of a bank.[103]

The ROE on the other hand measures how the management uses the equity fund to generate income of the firm. In other terms, it measures a unit yield of profit to a unit value of total shareholders' funds. Banks shouldn't hold too much capital neither too low to avoid failure. A low capital employed by the firm would yield a higher ROE ratio.[104]

4.2.5. Liquidity

The component of Liquidity determines the bank's ability to meet its financial obligations when they become due. A substantial liquid position would mean that the firm is able to obtain sufficient liquid funds by converting its assets quickly into cash at a reasonable cost.[105]

Banks generally lend in relatively illiquid assets, but it pays for its borrowed loans with mostly short term liabilities[106]

The main ratio used for this evaluation is the Liquid assets to total assets ratio. It measures the total Liquidity ratio of the bank. A higher ratio signifies a more liquid Banks and therefore a healthy financial position.

> **Liquidity = Total Liquid Assets /Total Assets**

4.2.6. Sensitivity to market risk

Sensitivity to Market Risk is usually assessed by the changes in interest rates, exchange rate, commodity prices, and stock prices that may adversely affect the Bank's financial position or capital. In assessing sensitivity, the following factors should be considered: the management's ability to determine the monitoring and control of these risks, the size of the bank, the amount of market risk arising from trading and foreign operations as well as the adequacy of revenues and

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[103] Ahsan Mohammad, "Measuring Financial Performance Based on CAMEL A Study on Selected Islamic Banks in Bangladesh." **Asian Business Review.** 6. 2016,47-56

[104] Mark Petersen. and Ilse Schoeman."Modeling of Banking Profit via Return-on-Assets and Return-on- Equity", **Proceedings of the World Congress on Engineering**, 2, 2008.pp. 1-6

[105] Majumder, Md & Mizanur Rahman, Mohammed. p.269

[106] Ahsan, Mohammad. 2016 p 60

capital in relation to the level of these risks. Most of the larger banks, this type of risk mainly comes from non-trading positions and their sensitivity to interest rate risk in large banks. [107] The following ratio will be used for the assessment.

Sensitivity to Market Risk: Net interest Income/ Total assets

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The advantages of the CAMELS system

The following are some of the advantages of using the CAMELS system to analyze the performance of banks.

- By focusing on just 6 components of evaluation this system shortens the time taken to evaluate the performance of banks.
- The credibility of the report is usually increased since this system employs the use of digital assessment rather than the reporting style.
- CAMEL system is less expensive compared to other office software.
- To make a comprehensive classification of the banking system as a whole according to a
- Supervisory decisions can be made based on the result of this analysis and this signifies sound management of the banks.

The disadvantages of the CAMEL System`

- The ratios employed in this system are purely based on personal judgment and not statistical assumptions. Proposers believe that there are other important financial ratios which are more efficient and will provide a more comprehensive analysis of the financial position of banks.
- The performance measurement is based on the other banks constituting the relative group. However, any structural change in that group`s performance or the performance of the banking system as a whole, are not changed accordingly when computing for the final ratings.
- Opposers of this system opine that it doesn't reflect the reality of the group's performance. This is due to the fact that the standard is based on the bank's classification into similar groups according to the size of the assets. The average values of the used ratios reflect the whole group, but this will differ significantly from one bank to another within the same group.[108]

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[107] Abbas Ali & Alyaa Abbas. **"**Use of CAMELS Standard in the Assessment of Iraqi Commercial Banks**"**, **International Journal of Multicultural and multi religious understanding**, 6.2019, pp.24-48

[108] Abbas, Ali & Alyaa, Abbas. Pp.25-48

5. CHAPTER FIVE

5.1. RESULTS, DISCUSSIONS AND CONCLUSION.

This chapter presents the findings of the analysis and discussions of the research titled the comparative analysis of the performance of commercial and Islamic banks in the financial crisis period (2007-2015) using the CAMEL model. It covers all the descriptive components of the variables and presented with the help of tables and graphs, which compares the performance of Islamic and Conventional banks during financial crises and after the financial crisis.

This study targeted two Conventional and two Participation banks operating in Turkey covering the period from 2007 to 2015. To realize accurate results, the analysis was divided into two periods: During the Financial crisis (2007-2009) and after the financial crisis (2010-2015) and used the CAMELS model to analyze the performance of these banks. A total of 7 different ratios representing the model were used. These ratios were then computed with the SPSS program and descriptive analysis was carried out. Finally, the data was tested with T-test analysis to see if there is a significant difference between the performances of these banks during these two periods.

5.2. RESULTS OF THE STUDY.

This section presents the analysis of the study by covering all the variables of CAMELS Model.

5.2.1. Capital Adequacy

Capital Adequacy Ratio is a measure of risk which shows the proportion of total assets being financed by shareholders. TETA abbreviation is sometimes used which refers to Total equity over total assets. This ratio shows the ability of banks to withstand any unexpected loses and bankruptcy. For this purpose of the analysis, this ratio is used to measure the performance of the selected banks during and after the financial crisis as shown below:

5.2.1.1 during Financial Crisis (2007-2009):

During the financial crisis, Islamic banks have shown better performance on average than conventional Banks as shown in **table 2**.The risk of banks is measured by standard deviation. According to the table, Islamic banks have shown more risk compared to conventional banks. The minimum ratio of Islamic Banks were 10% and 5.2% while for the Conventional Banking were 7% and 9.7%, whereas Maximum ratio of Islamic Banks were 11.9% and 14.1% and Conventional Banking were 8.9% and 13.2%. The data is interpreted as negatively skewed or not

normally distributed and zero kurtosis shows that data was normally distributed. However, as shown in **graph 1 and graph 2** in 2007 which was the first year of the crisis conventional banks performed better than Islamic Banks whereas in the second year Islamic banks outperformed the Conventional banks. However in the third year both banks had equally better performance. The higher the capital adequacy ratio means that Islamic banks had enough capital and were able to cushion against any losses and shocks during the financial crisis.

Table 2: Capital Adequacy during Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	**Turkiye Finans**	**Ziraat Bank**	**Iş Bank**
Mean	0.112	0.11	0.080667	0.116
Standard Error	0.00602771	0.029022979	0.005608	0.010214
Standard Deviation	0.01044031	0.050269275	0.009713	0.017692
Sample Variance	0.000109	0.002527	9.43E-05	0.000313
Kurtosis	0	0	0	0
Skewness	-1.6608181	-1.719721427	-1.01868	-0.74112
Confidence Level (95.0%)	0.02593516	0.124875802	0.024127	0.043949

Source: Author's computation
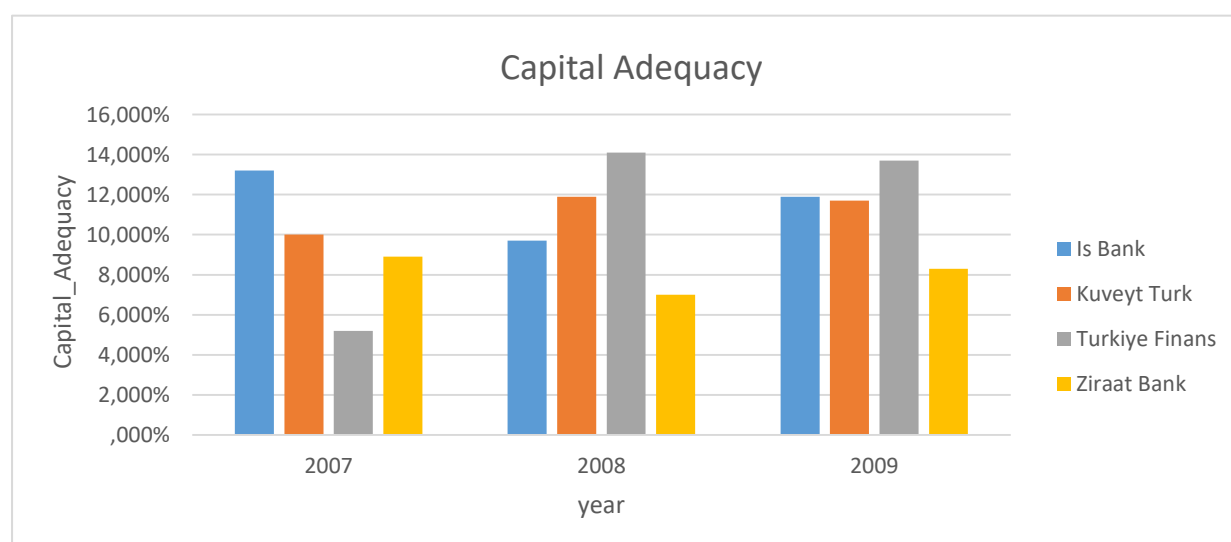
Source: Author's computation
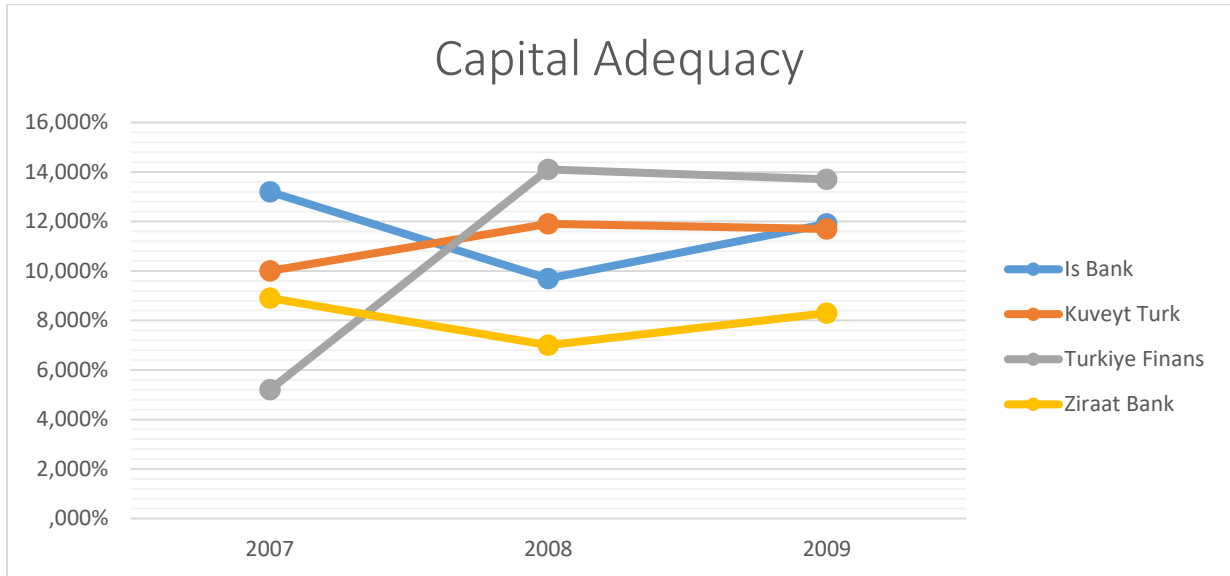
Graph 2: Capital Adequacy during the crisis

Source: Author's computation

5.2.1.2. After Financial Crisis (2010-2015):

After the financial crisis, both of the Conventional banks had better performances on average than the Islamic banks as shown by **Table 3** whereas the risk shown by standard deviation concluded that Islamic banks had higher risk than Conventional Banks. According to figures 3 and 4 shown below, the minimum ratio of Islamic Banks were 8.2% and 8.7% and Conventional Banking were 8.3% and 11.1%, whereas Maximum ratio of Islamic Banks were 12.9% and 13.2% and Conventional Banking were 11.3% and 12.9%. The data below is interpreted as follows that it is positively skewed or not normally distributed and kurtosis show that data is far from value |3| that means data was not normally distributed. However, it can be seen that in the first year after the crisis both Islamic banks had performed better than the Conventional banks as shown by **Graph 3 and Graph 4** whereas during the remaining years conventional banks had stable Capital adequacy ratio than Islamic banks.

Table 3: Capital Adequacy after Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	**Turkiye Finans**	**Ziraat Bank**	**Is Bank**
Mean	0.096	0.10883333	0.09683333	0.12
Standard Error	0.006845923	0.00721765	0.00484022	0.00332666
Standard Deviation	0.016769019	0.01767956	0.01185608	0.00814862
Sample Variance	0.0002812	0.00031257	0.00014057	0.0000664
Kurtosis	4.632680708	-1.934019	-1.9082371	-2.421160546
Skewness	2.062455078	0.05018664	0.23697377	0.099802551
Confidence Level (95.0%)	0.017598006	0.01855356	0.01244219	0.008551452

Source: Author's computation

Source: Author's computation
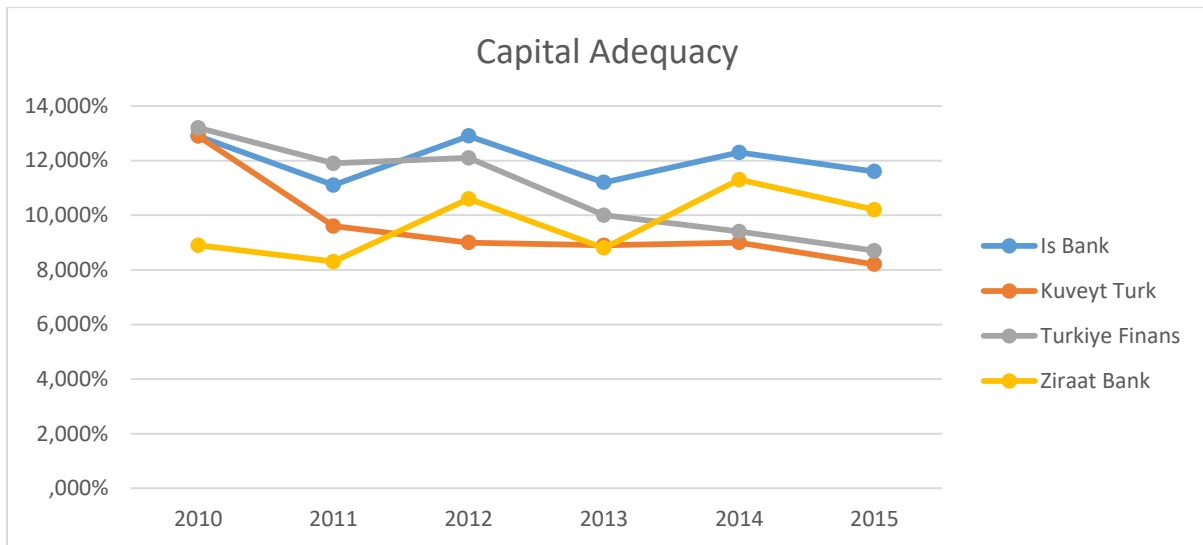
Graph 4: Capital Adequacy after crisis.

Source: Author's computation
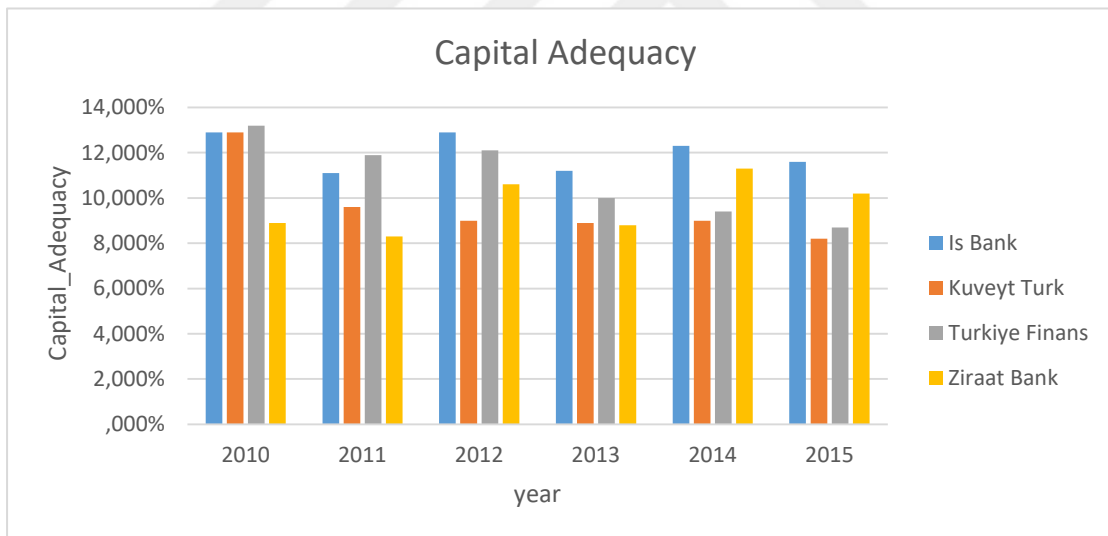
5.2.2. Asset Quality

In this analysis, this ratio is used to measure the performance of both Islamic and Conventional Banks during the financial crisis and after the financial crisis, as shown below:

5.2.2.1 during Financial Crisis (2007-2009)

During the crisis, Islamic banks have shown higher Asset Quality ratios on average than conventional Banks as shown in **table 4**. However, the risk of banks measured by standard deviation indicated that Islamic banks have retained more risk than conventional banks. It can be seen that the minimum ratio of Islamic Banks were 4% and 2% and Conventional Banking were 2% and 4%, whereas Maximum ratio of Islamic Banks were 6% and 4% and Conventional Banking were 2% and 6%. The data interpreted as follows is normally distributed as skewness is zero and kurtosis also shows that data is normally distributed.

However, as shown in **Graph 5 and Graph 6** above, the two Islamic banks under investigation posted a steady increase in asset quality percentage during the financial crisis periods. Conventional banks have on the other also posted gradual increases in the years 2008 to 2009.

Table 4: Asset Quality during Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	**Turkiye Finans**	**Ziraat Bank**	**Is Bank**
Mean	0.05	0.03	0.02	0.05
Standard Error	0.0057735	0.0057735	0	0.005774
Standard Deviation	0.01	0.01	0	0.01
Sample Variance	0.0001	0.0001	0	0.0001
Kurtosis	0	0	0	0
Skewness	0.00	0.00	0.00	0.00
Confidence Level (95.0%)	0.02484138	0.02484138	0	0.024841

Source: Author's computation

Graph 5: Asset Quality during Crisis

Source: Author's computation
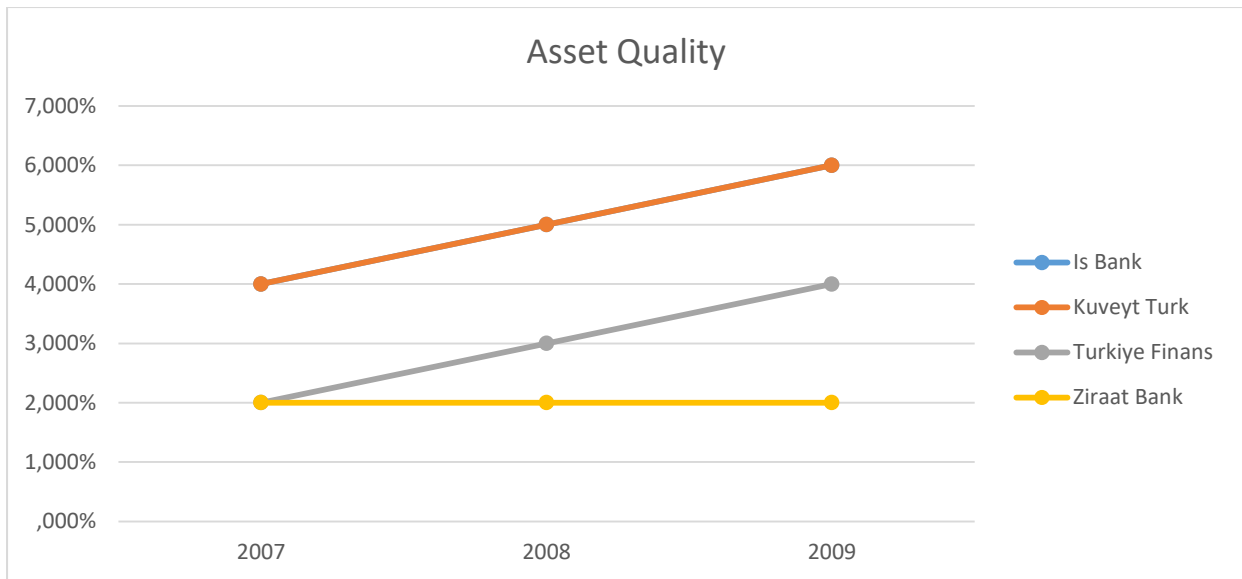
Graph 6: Asset Quality during Crisis

Source: Author's computation

5.2.2.2. After Financial Crisis (2010-2015)

After the financial crisis, one of the Islamic bank (Turkiye Finans) posted a gradual increase in the ratio while the other bank posted a decreasing ratio for the period. Both of the conventional banks, on the other hand, posted declining during the period after the crisis as shown by **Table 5.** The risk measured by standard deviation concluded that Conventional banks had higher risk than Islamic Banks. On average Islamic banks showed progressive increase in the ratios after the financial crisis period than the conventional banks. According to table shown below, the minimum ratio of Islamic Banks were 2% and 2% and Conventional Banking were 1% and 1.6%, whereas Maximum ratio of Islamic Banks were 3% and 5% and Conventional Banking were 3% and 4%. The data is interpreted as positively skewed or not normally distributed as it has a value of greater than zero. Moreover, data was not normally distributed since the kurtosis values were greater than 3.

However, in the first year after crisis both Islamic banks had shown stable Asset quality ratio than the Conventional banks as shown by **Graph 7 and Graph 8** whereas in the remaining years both conventional and Islamic banks had shown a relatively poor performance as compared to during the crisis period.

49

Table 5: Asset Quality after Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	**Turkiye Finans**	**Ziraat Bank**	**Is Bank**
Mean	0.021666667	0.03166667	0.01833333	0.022333333
Standard Error	0.001666667	0.00401386	0.00307318	0.003639292
Standard Deviation	0.004082483	0.00983192	0.00752773	0.008914408
Sample Variance	0.0000167	0.0000967	0.0000567	0.0000795
Kurtosis	6	3.60285375	-0.1038062	4.833080436
Skewness	2.449489743	1.43796226	0.31256996	2.1422036
Confidence Level (95.0%)	0.004284303	0.01031797	0.00789986	0.009355097

Source: Author's computation

Graph 7: Asset Quality after the crisis

Source: Author's computation
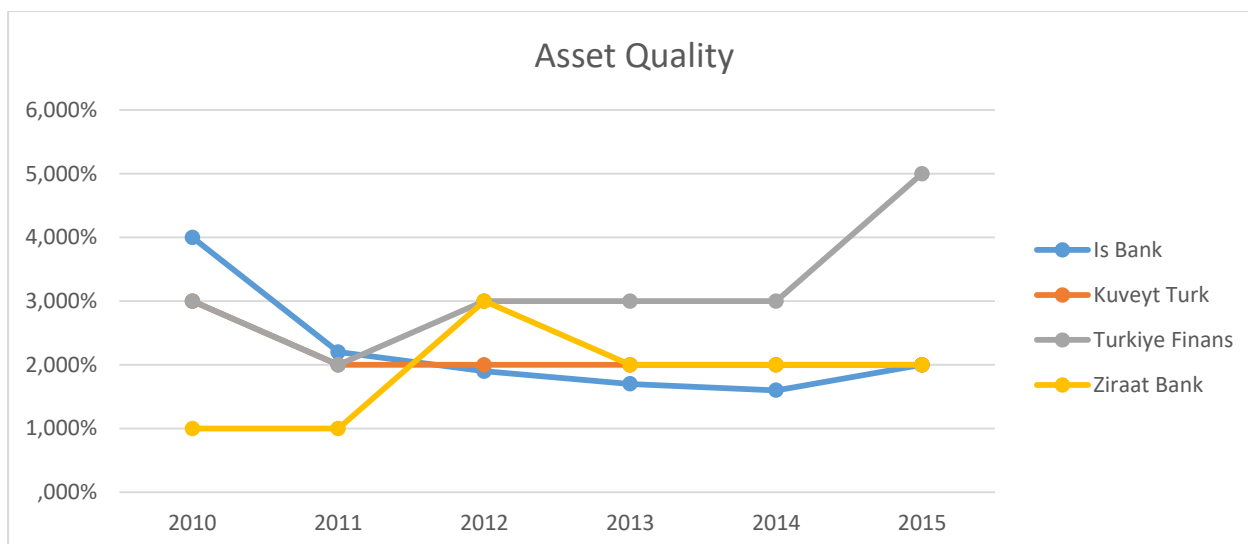
Graph 8: Asset Quality after the crisis

Source: Author's computation

5.2.3. Management Quality

In this analysis, this ratio measures the performance of both Islamic and Conventional Banks during the financial crisis and after the financial crisis, as shown below:

5.2.3.1. During Financial Crisis (2007-2009)

During the crisis, both of the Islamic banks have shown better Management Quality ratio on average than conventional Banks as shown in **Table 6**. However the risk of banks measured by standard deviation showed that Conventional Banks had more risk than Islamic banks. A keen look into the graph indicates a consistent decrease in the management quality ratio of Islamic banks for the period under the study, although high value is recorded compared to the conventional banks due to the fact that Islamic banks don't employ bank deposits to finance the loans but rather more of a partnership deal. The two conventional banks have shown an increase in the year 2008 but later the ratios decreased in the year 2009. The minimum ratio of Islamic Banks were 72% and 77% and Conventional Banking were 27% and 42%, whereas Maximum ratio of Islamic Banks were 78% and 82% and Conventional Banking were 30% and 49%. The data interpreted as follows is normally distributed as value is near zero and kurtosis show that data is normally distributed as it has value of zero or near 3.However, as shown in **Graph 9 and Graph 10** during all the three years of the financial crisis, Islamic banks had shown better Management quality ratio than Conventional Banks.

51

Table 6: Management Quality during Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	Turkiye Finans	Ziraat Bank	Is Bank
Mean	0.74	0.80	0.29	0.45
Standard Error	0.02	0.01	0.01	0.02
Standard Deviation	0.03	0.03	0.02	0.04
Sample Variance	0.00	0.00	0.00	0.00
Kurtosis	0	0	0	0
Skewness	1.55	-0.59	-0.94	1.60
Confidence Level (95.0%)	0.08	0.06	0.04	0.09

Source: Author's computation

Graph 9: Management quality during the crisis

Source: Author's computation
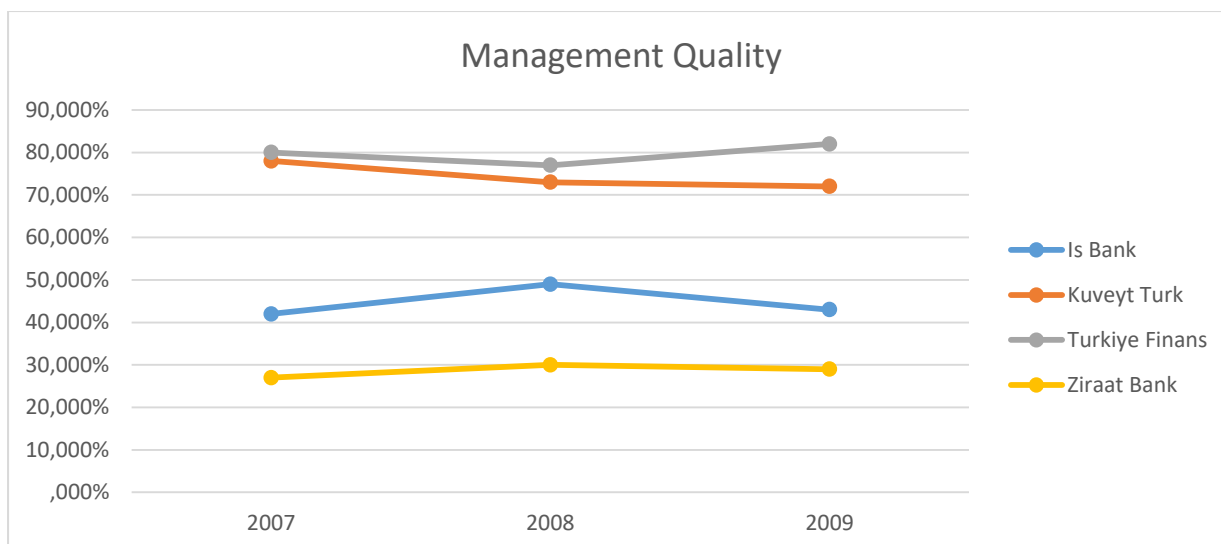
Graph 10: Management Quality during the crisis

Source: Author's computation

5.2.3.2. After Financial Crisis (2010-2015)

After the financial crisis, both of the Islamic banks had shown better Management quality ratio on average than the Conventional banks as shown by **Table 7.** However, risk shown by standard deviation concluded that Conventional banks had a higher risk than Islamic Banks due to fluctuation in the ratios. However Conventional banks exhibited a progressive increase in the ratio after the financial crisis period than Islamic banks which conversely showed a continuous decline in ratio. According to the figures below, the minimum ratio of Islamic Banks were 61% and 69% and Conventional Banking were 38% and 49%, whereas Maximum ratio of Islamic Banks were 72% and 76% and Conventional Banking were 62% and 66%. The data is interpreted as normally distributed as skewness has values near zero and kurtosis also shows that is normally distributed as it has values near 3.

However, in the first year after crisis both Islamic banks had shown better Management quality ratio than the Conventional banks as shown in **Graph 11 and Graph 12** whereas, during the remaining years, Islamic banks showed a consistent decline in their performance than Conventional banks. The ratio of conventional banks increased with the passage of time and reached the level of Islamic banks at the end of 2015.

Table 7: Management Ratio after the crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	**Turkiye Finans**	**Ziraat Bank**	**Is Bank**
Mean	0.6467	0.7183	0.5017	0.6033
Standard Error	0.0191	0.0125	0.0378	0.0263
Standard Deviation	0.0468	0.0306	0.0926	0.0644
Sample Variance	0.0022	0.0009	0.0086	0.0041
Kurtosis	-0.8854	-1.9244	-1.7146	1.2031
Skewness	1.0373	0.5488	0.0078	-1.3028
Confidence Level (95.0%)	0.0491	0.0321	0.0972	0.0676

Source: Author's computation

Graph 11: Management Quality after Crisis

Source: Author's computation
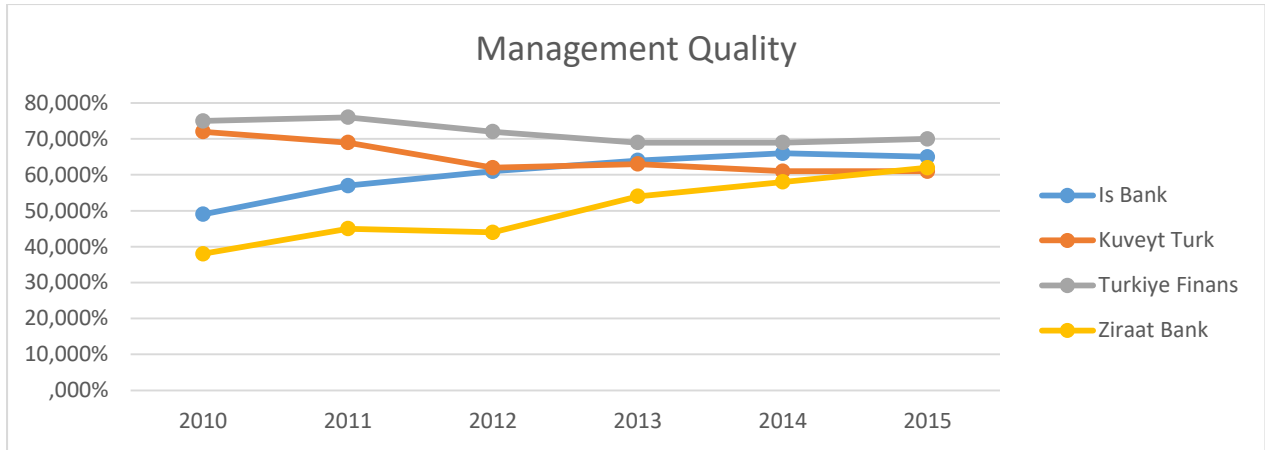
Graph 12: Management quality after the crisis

Source: Author's computation

5.2.4. Earnings Quality

Earning Quality ratio is measured by two ratios namely Return on Equity (ROE) and Return on Assets (ROA). Both of these ratios are used to measure the profitability of the banks.

5.2.4.1. Return on Assets (ROA)

Return on assets (ROA) which is also referred to as "Return on investment", is an indicator of how profitable a company is relative to its total assets. In other words, ROA tells us how efficient management is at using its assets to generate earnings. It is calculated by dividing a company's annual Net profit after Tax by its total asset. In this analysis, this ratio measures the performance of both Islamic and Conventional Banks during the financial crisis and after the financial crisis, as shown below:

5.2.4.1.1. During Financial Crisis (2007-2009):

During the crisis, both of the Conventional banks have shown better ROA ratio on average than Islamic Banks as shown in **Table 8**. However, the risk of banks measured by standard deviation showed that Conventional Banks had more risk than Islamic banks. It can be seen that the minimum ratio of Islamic Banks were 1.8% and 2% and Conventional Banking were 2.1% and 1.5%, whereas Maximum ratio of Islamic Banks were 2% and 2.6% and Conventional Banking were 2.9% and 2.1%. The data is interpreted as normally distributed as skewness has values near zero. However, as shown in **Graph 13 and Graph 14,** Conventional banks had shown better ROA ratio than Islamic Banks during the first year of crisis, but in the year 2008 Islamic banks had better performance than Conventional banks according to the given ratio. This can be

attributed partly due to the fact that during the crisis period the management expenses increased thereby resulting in the reduction of net income.

Table 8: ROA during Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	Turkiye Finans	Ziraat Bank	Is Bank
Mean	0.018666667	0.023	0.026	0.019
Standard Error	0.000666667	0.00173205	0.00251661	0.002
Standard Deviation	0.001154701	0.003	0.0043589	0.003464102
Sample Variance	0.000001333	0.000009000	0.000019000	0.000012000
Kurtosis	0	0	0	0
Skewness	1.732050808	0.000000000	-1.630059200	-1.732050808
Confidence Level (95.0%)	0.002868435	0.00745241	0.01082811	0.008605305

Source: Author's computation
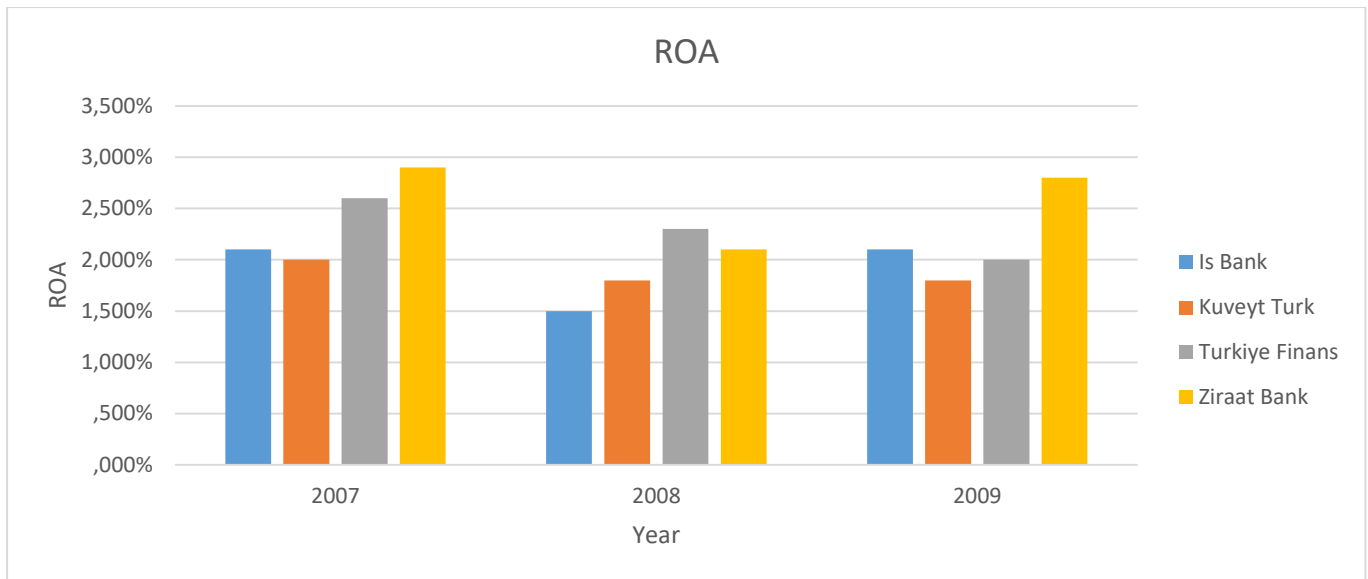
Graph 13: ROA during the Financial Crisis

Source: Author's computation
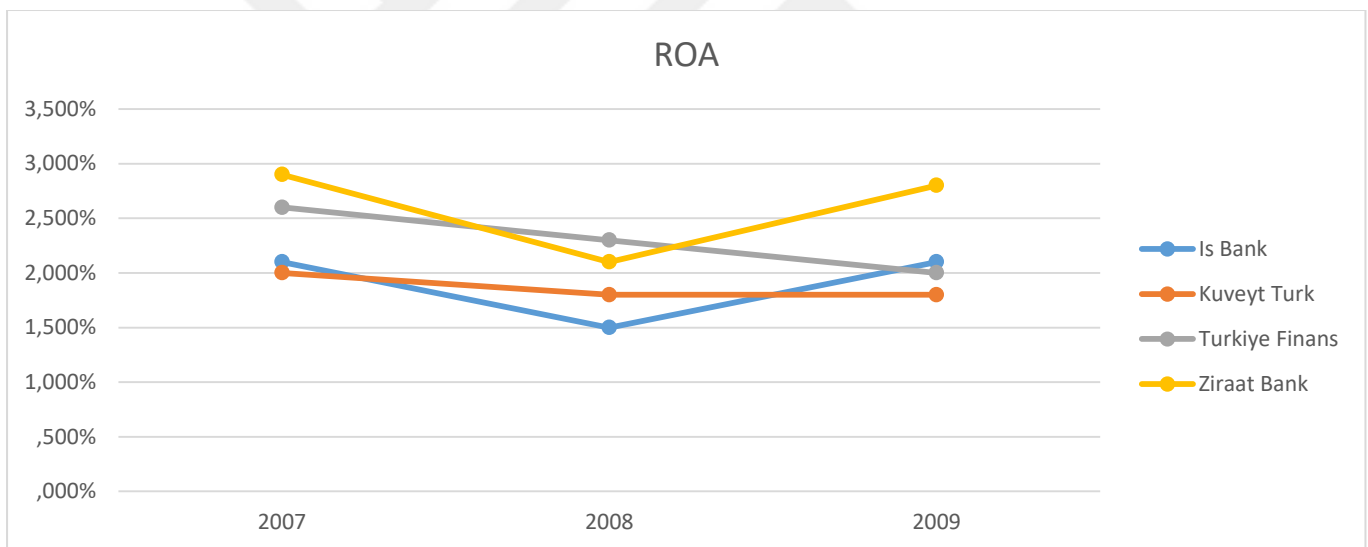
Graph 14: ROA during the crisis

Source: Author's computation

5.2.4.1.2. After Financial Crisis (2010-2015)

Both of the Conventional banks showed better ROA ratio on average than Islamic banks as shown by **Table 9** after the financial crisis. However, the risk shown by standard deviation concluded that Conventional banks had slightly more risk than Islamic banks due to fluctuation in ratio. According to the table shown below, the minimum ratio of Islamic Banks were 1.1% and 0.7% and Conventional Banking were 1.4% and 1.1%, whereas Maximum ratio of Islamic Banks

were 1.6% and 1.9% and Conventional Banking were 2.5% and 2.3%. The data is interpreted as normally distributed as skewness has values near zero and kurtosis also shows that it is normally distributed as it has values near 3.

The **Graph 15** and **Graph 16** below illustrates that Conventional banks had better ROA ratios than the Islamic banks, whereas, during the remaining years, Islamic banks had consistently shown poor performance during the years of study than Conventional banks. On the other hand, the performance of both conventional and Islamic banks gradually decreased during these years of study and reached the lowest level at the end of 2015.

Table 9: ROA after Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	Turkiye Finans	Ziraat Bank	Is Bank
Mean	0.012666667	0.01366667	0.01733333	0.016333333
Standard Error	0.000760117	0.00185592	0.00160555	0.001706198
Standard Deviation	0.001861899	0.00454606	0.00393277	0.004179314
Sample Variance	0.00000347	0.00002067	0.00001547	0.00001747
Kurtosis	1.852810651	-1.1391259	4.3168475	0.329963289
Skewness	1.280743909	-0.4612288	1.96514202	0.610056635
Confidence Level (95.0%)	0.001953943	0.0047708	0.00412719	0.004385921

Source: Author's computation
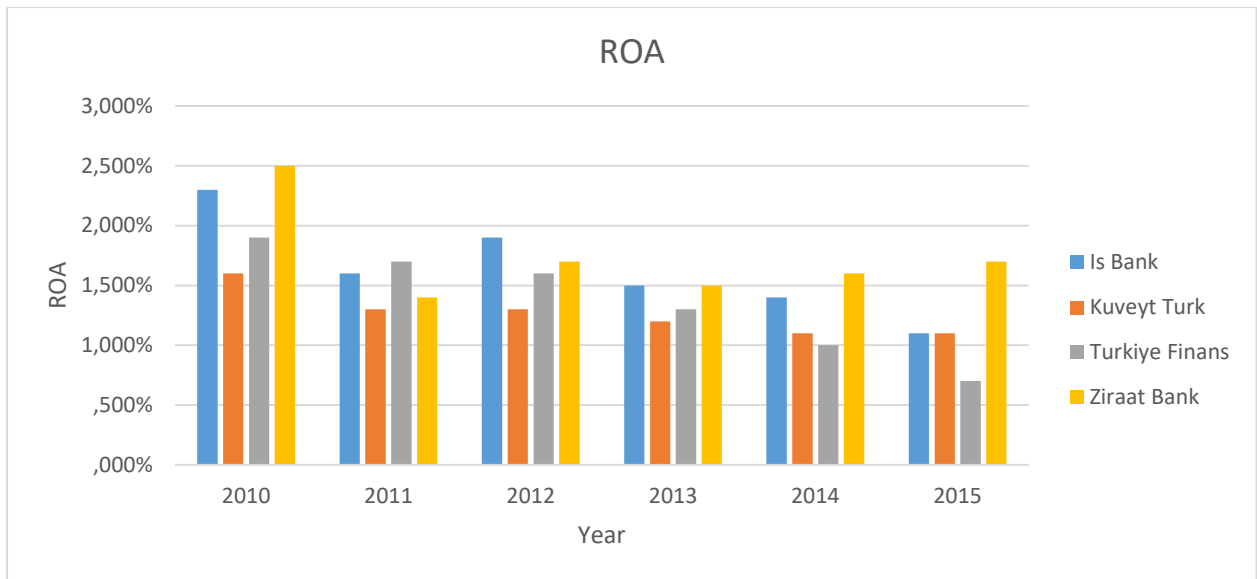
Graph 15: ROA after Crisis

Source: Author's computation
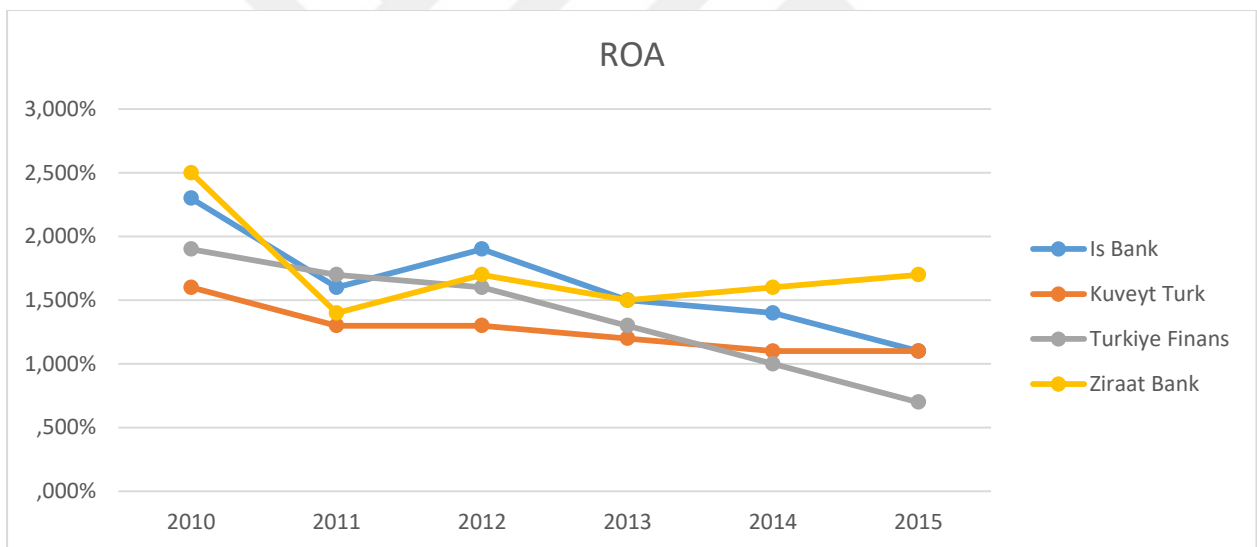
Graph 16: ROA after the crisis

Source: Author's computation

5.2.4.2. Return on Equity (ROE)

Another ratio that is used to measure the Earnings quality is the Return on Equity ratio (ROE). In this analysis, this ratio measures the performance of both Islamic and Conventional banks during the financial crisis and after the financial crisis.

5.2.4.2.1. During Financial Crisis (2007-2009):

It can be seen from **Table 10** below that during the crisis both of the Conventional banks had better ROE ratio on average than Islamic Banks as shown by. However the risk of banks measured by standard deviation showed that Islamic Banks had more risk than conventional banks. The **Graph 17** and **18** shows the minimum ratio of Islamic Banks as 15.2% and 14.3% and Conventional Banking as 29% and 16.1%, whereas maximum ratio of Islamic Banks were 19.1% and 25% and Conventional Banking were 34% and 17.6%. The data is interpreted as normally distributed as the skewness values are near zero and kurtosis also shows that it is normally distributed as it has values of zero. It can also be seen that during the first year of the crisis Conventional banks had shown better ROE ratio than Islamic Banks. On the remaining two years Islamic banks had steadily poor performance than Conventional banks. However, Ziraat Bank performed the best among all years.

Table 10: ROE during Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	Turkiye Finans	Ziraat Bank	Is Bank
Mean	0.166666667	0.18433333	0.31866667	0.166
Standard Error	0.012251984	0.03319806	0.01489221	0.005
Standard Deviation	0.021221059	0.05750072	0.02579406	0.00866025
Sample Variance	0.000450333	0.00330633	0.00066533	0.00007500
Kurtosis	0	0	0	0
Skewness	1.624505338	1.56329006	-1.1759556	1.73205081
Range	0.039	0.107	0.05	0.015
Confidence Level (95.0%)	0.052716032	0.14283972	0.06407599	0.02151326

Source: Author's computation
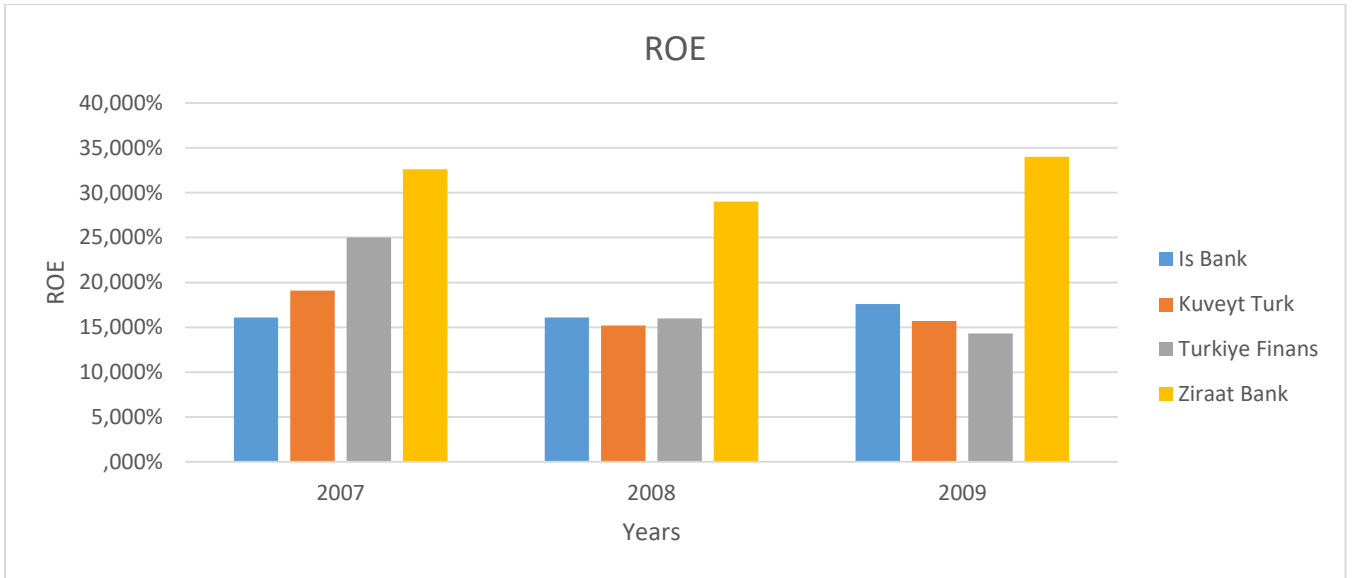
Graph 17: ROE during the crisis

Source: Author's computation
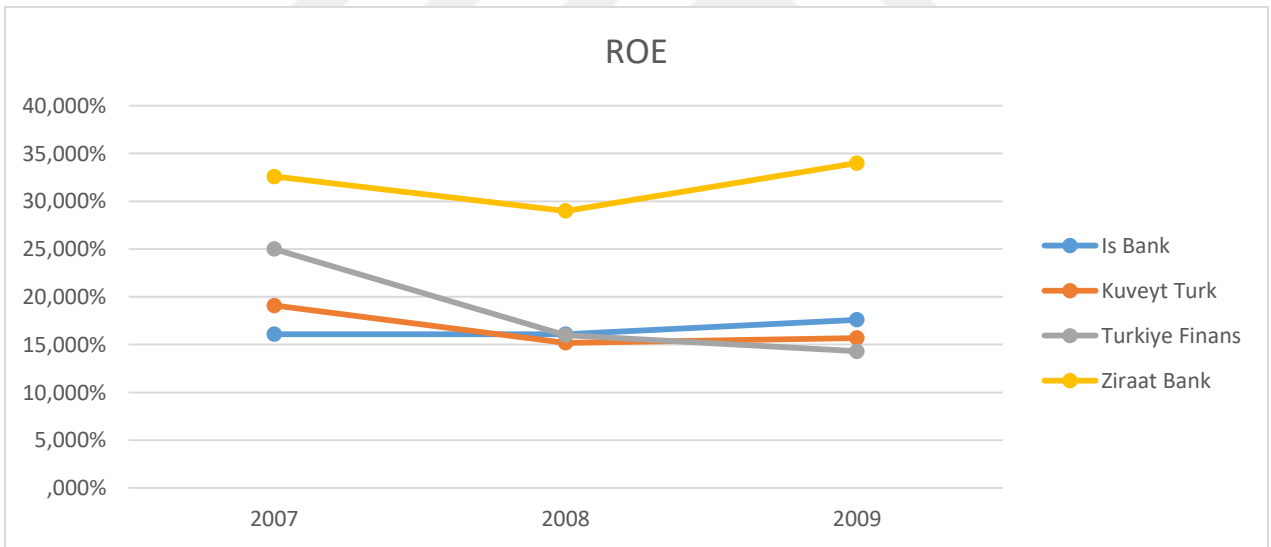
Graph 18: ROE during the crisis

Source: Author's computation

5.2.4.2.2. After Financial Crisis (2010-2015):

After the financial crisis, both of the Conventional banks had shown better ROE ratio on average than the Islamic banks as shown by **Table 11** whereas the risk shown by standard deviation concluded that Conventional banks were a lot riskier than Islamic Banks due to fluctuation in ratio. According to the graphs shown below, the minimum ratio of Islamic Banks were 12.3% and 7.8% and Conventional Banking were 14.4% and 9.6%, whereas Maximum ratio of Islamic Banks were 14.9% and 15.6% and Conventional Banking were 27.7% and 17.5%. The data is interpreted as normally distributed as skewness has values near zero and kurtosis also shows that data is normally distributed as it has values near 3 except Ziraat Bank which showed higher than the normal. It can also be noted that in the first year after the crisis both Conventional banks had shown better ROE ratio than the Islamic banks as shown by **Graph 19 and Graph 20** whereas, during the remaining years, both Islamic banks and Conventional banks had consistently shown poor performance. The performance of both conventional and Islamic banks gradually decreased with the passage of time and reached the lowest level at the end of 2015.

Table 11: ROE after Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	Turkiye Finans	Ziraat Bank	Is Bank
Mean	0.132666667	0.12716667	0.1815	0.13583333
Standard Error	0.003711843	0.01206763	0.0196006	0.01130609
Standard Deviation	0.009092121	0.02955954	0.04801146	0.02769416
Sample Variance	0.00008267	0.00087377	0.0023051	0.00076697
Kurtosis	2.058812435	0.11562101	5.02102094	-0.1810629
Skewness	1.311397739	-1.076935	2.16583158	-0.124793
Confidence Level (95.0%)	0.009541596	0.03102084	0.05038493	0.02906324

Source: Author's computation

Graph 19: ROE after the crisis

Source: Author's computation
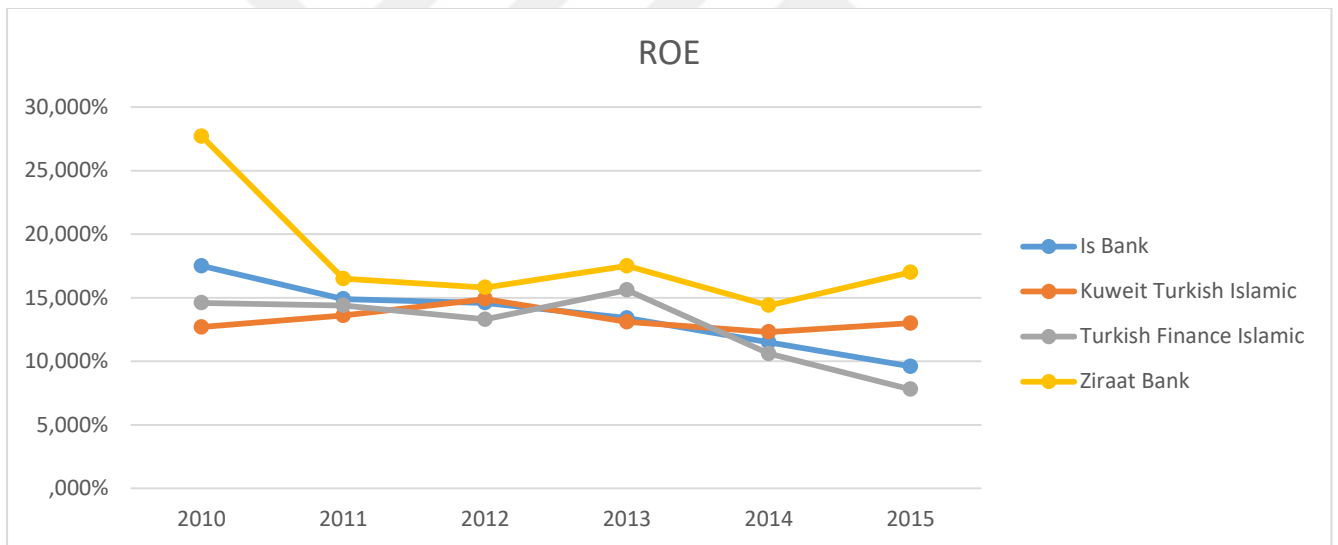
Graph 20: ROE after the crisis

Source: Author's computation

5.2.5. Liquidity Quality

Liquidity refers to the ability of banks to meet its short term financial obligations as they come due. In this analysis, this ratio is used to measure the performance of both Islamic and Conventional Banks during the financial crisis and after the financial crisis, as shown below:
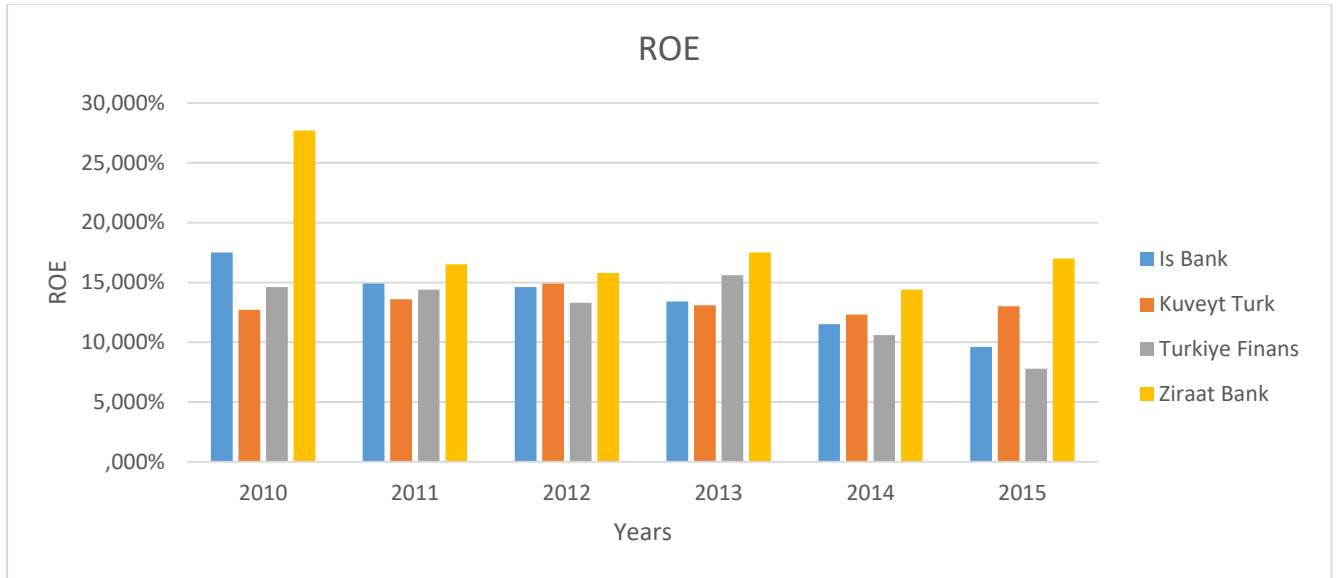
5.2.5.1. During Financial Crisis (2007-2009):

During the crisis, both of the Conventional banks showed twice the Liquidity ratio on average than Islamic Banks. However, the risk of banks measured by standard deviation concluded that Conventional Banks had more risk than Islamic banks due to fluctuation of ratio. According to the **Graph 21 and Graph 22** below, the minimum ratio of Islamic Banks were 15% and 11% and Conventional Banking were 22% and 39%, whereas Maximum ratio of Islamic Banks were 21% and 17% and Conventional Banking were 54% and 46%. The data is interpreted as normally distributed as skewness has values near zero and kurtosis also shows that is normally distributed as it has values near 3. However, on the remaining 2 years, Islamic banks had steadily poor performance than Conventional banks according to the given ratio.

Table 12: Liquidity quality during the crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk Bank	Turkiye Finans Bank	Ziraat Bank	Is Bank
Mean	0.19	0.14	0.36	0.42
Standard Error	0.02	0.02	0.09	0.02
Standard Deviation	0.03	0.03	0.16	0.04
Sample Variance	0.00	0.00	0.03	0.00
Kurtosis	0	0	0	0
Skewness	-1.67	-0.10	0.93	0.75
Confidence Level (95.0%)	0.08	0.07	0.41	0.09

Source: Author's computation
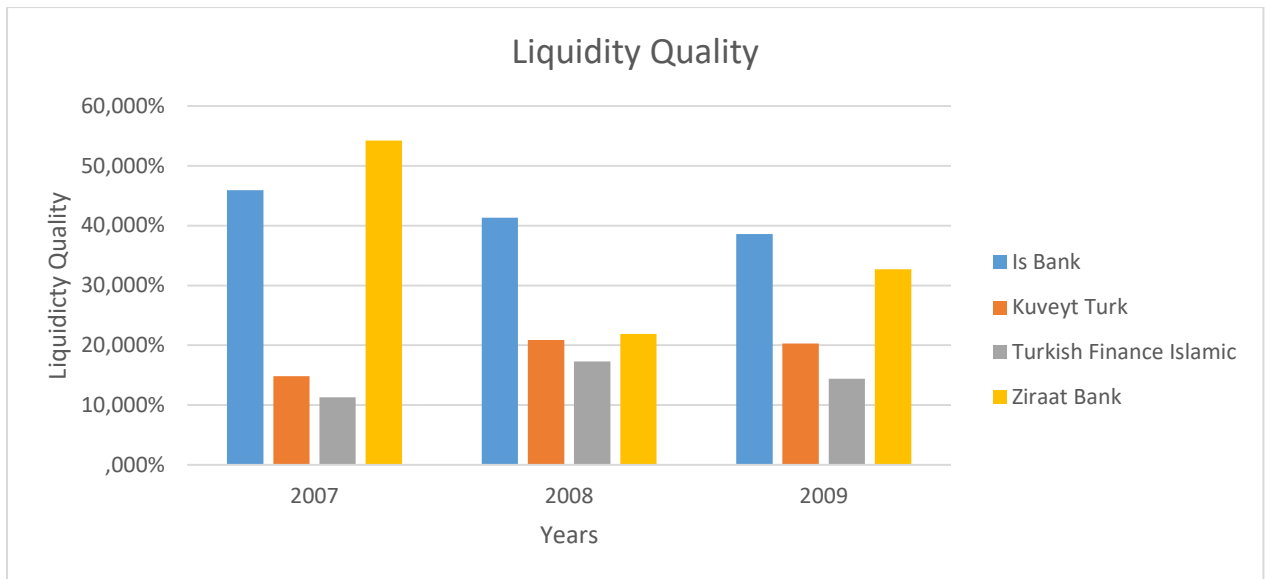
Graph 21: Liquidity Quality before the crisis

Source: Author's computation
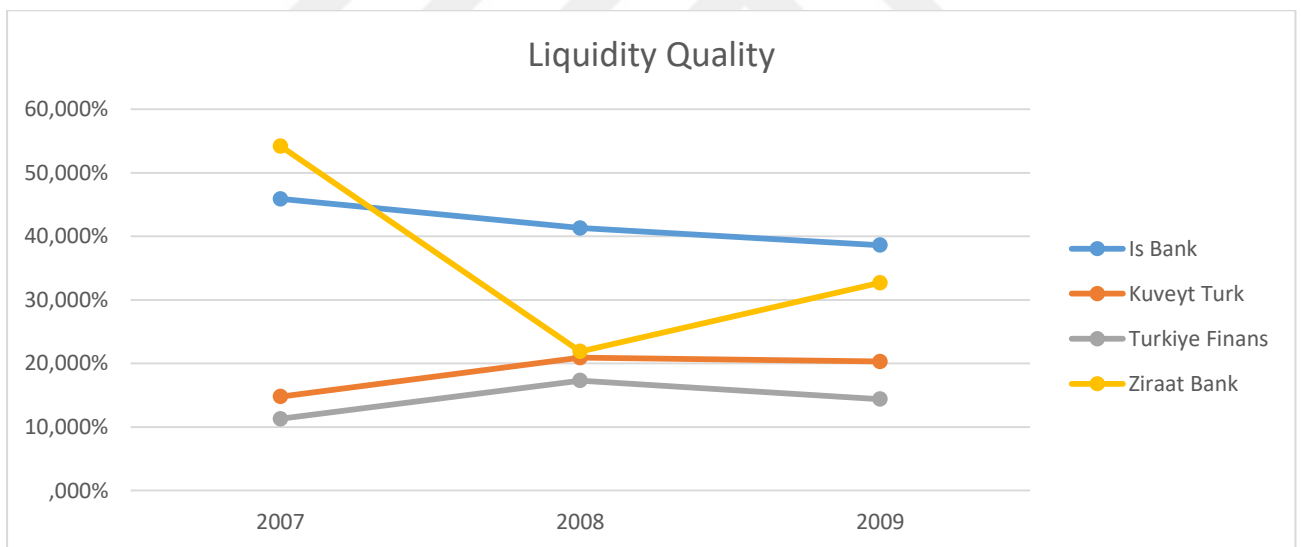
Graph 22: Liquidity quality during the crisis

Source: Author's computation

5.2.5.2. After Financial Crisis (2010-2015):

It can be seen that after the financial crisis, both of the conventional banks again showed better Liquidity ratio on average than the Islamic banks as illustrated in **Graph 23 and Graph 24**. However, the risk computed by standard deviation concluded that Islamic banks were riskier than Conventional Banks due to fluctuation in ratio. The minimum ratio of Islamic Banks during the period were 15% and 21% and Conventional Banking were 31% and 26%, whereas Maximum ratio of Islamic Banks were 34% and 25% and Conventional Banking were 37% and 33%. The data is interpreted as normally distributed as skewness has values near zero and kurtosis also shows that is normally distributed as it has values near 3. It can also be noted that in the first year after crisis both Conventional banks had shown better Liquidity ratio than the Islamic banks whereas, during the remaining years, both Islamic banks and Conventional banks had shown gradual increase in performance. On the last year, Islamic Banks had shown better liquidity ratio on average than Conventional Banks

Table 13: Liquidity quality after the crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk Bank	Turkiye Finans Bank	Ziraat Bank	Is Bank
Mean	0.29	0.22	0.35	0.28
Standard Error	0.03	0.01	0.01	0.01
Standard Deviation	0.07	0.02	0.02	0.03
Sample Variance	0.01	0.00	0.00	0.00
Kurtosis	2.35	-0.05	-0.47	2.99
Skewness	-1.67	0.38	-0.79	1.59
Confidence Level (95.0%)	0.07	0.02	0.02	0.03

Source: Author's computation
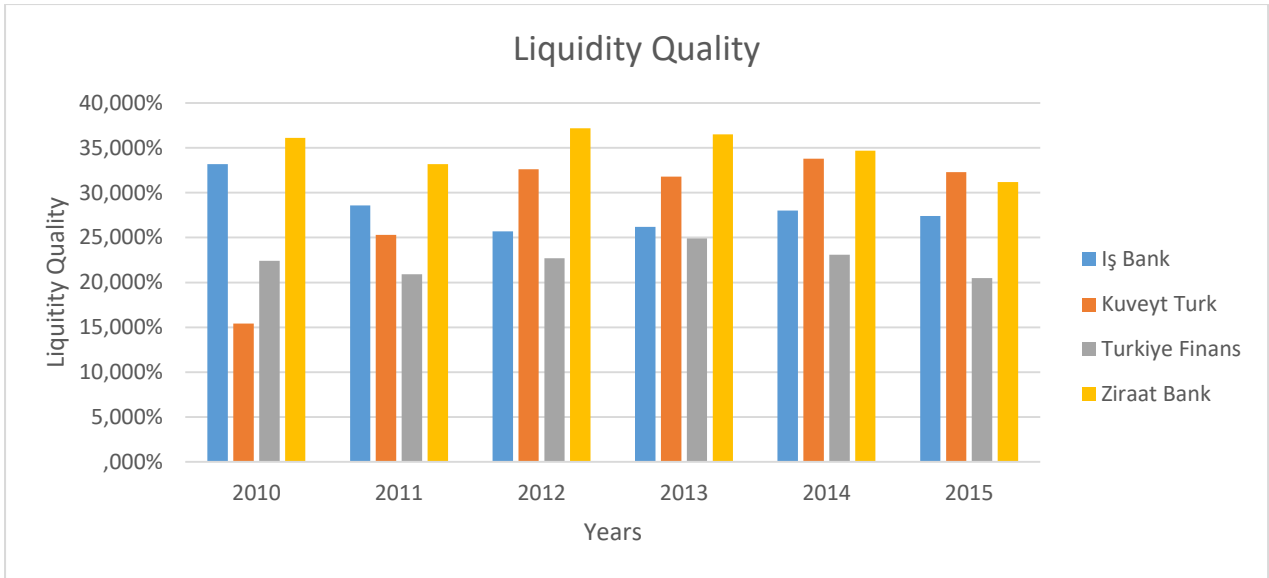
Graph 23: Liquidity quality after the crisis

Source: Author's computation
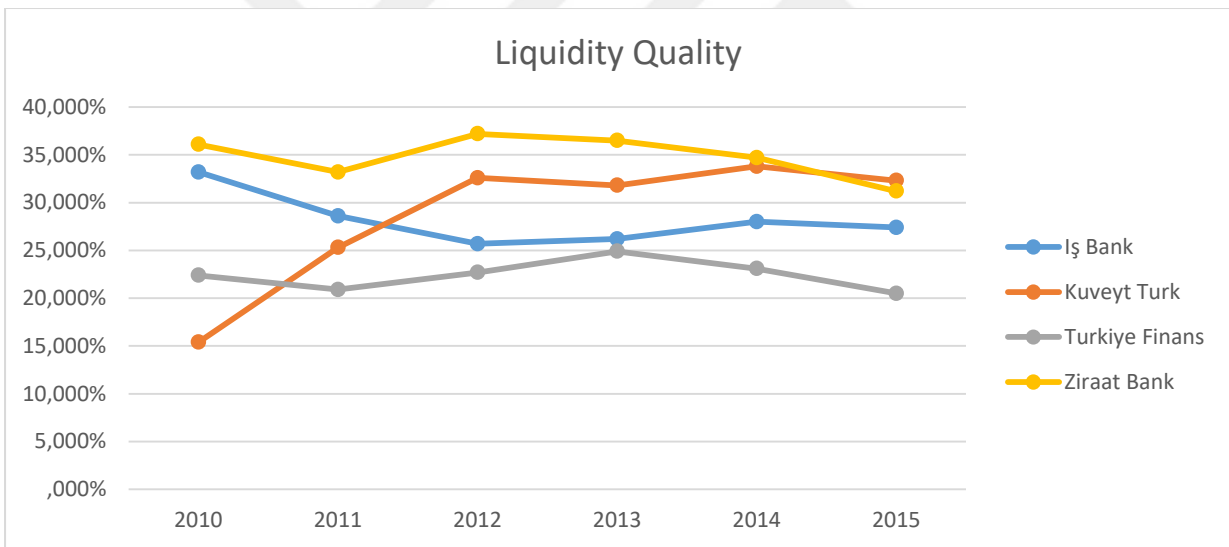
Graph 24: Liquidity Quality after the crisis

Source: Author's computation

5.2.6. Sensitivity

Sensitivity to Market Risk is usually assessed by the changes in interest rates, exchange rate, commodity price, and stock prices that may adversely affect the Bank's financial position or capital. In this analysis, the ratio of net interest income to total assets is used to measure the performance of both Islamic and Conventional Banks during the financial crisis and after the financial crisis, as shown below:

5.2.6.1. During Financial Crisis (2007-2009):

During the crisis period, Islamic banks have shown slightly higher Sensitivity ratio on average than Conventional Banks as shown by **Table 14**. However the risk of banks measured by standard deviation concluded that both Conventional and Islamic Banks low risk during financial crisis **Graph 25 and Graph 26** below show that the minimum ratio of Islamic Banks were 5% and 6% and Conventional Banking were 4% and 4%, whereas Maximum ratio of Islamic Banks were 5% and 6% and Conventional Banking were 5% and 4%. The data is normally distributed as skewness has values near zero and kurtosis also shows that is normally distributed as it has values near 3.

Table 14: Sensitivity during the crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	Turkıye Fınans	Ziraat Bank	Is Bank
Mean	0.05	0.06	0.05	0.04
Standard Error	0.00	0.00	0.00	0.00
Standard Deviation	0.00	0.00	0.01	0.00
Sample Variance	0.00	0.00	0.00	0.00
Kurtosis	0	0	0	0
Skewness	-1.29	0.00	0.42	1.73
Confidence Level (95.0%)	0.01	0.00	0.02	0.01

Source: Author's computation
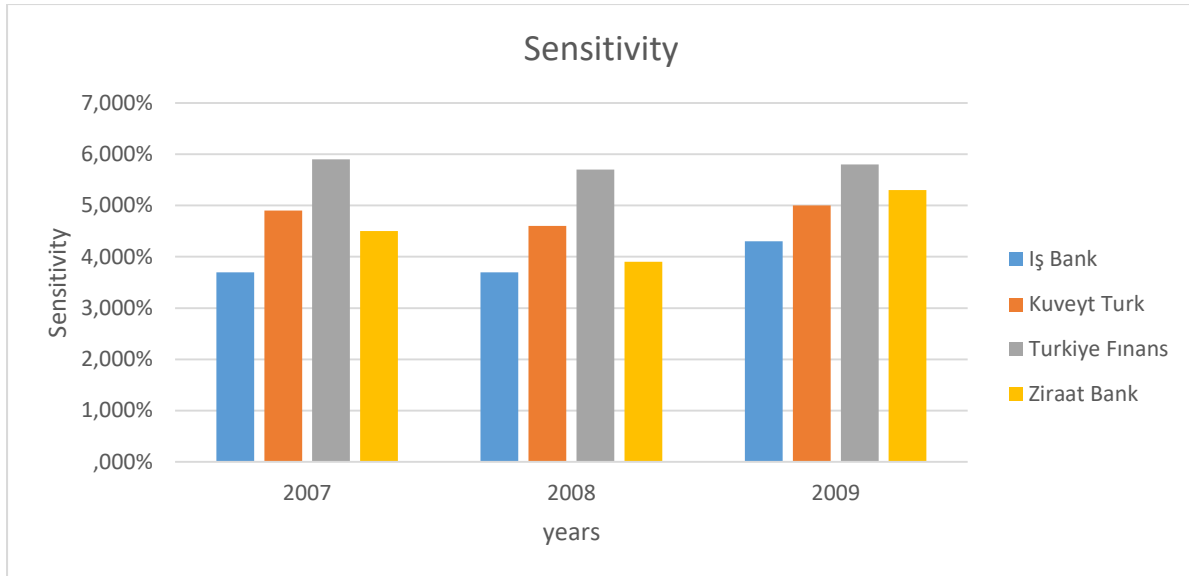
Graph 25: Sensitivity during the crisis

Source: Author's computation
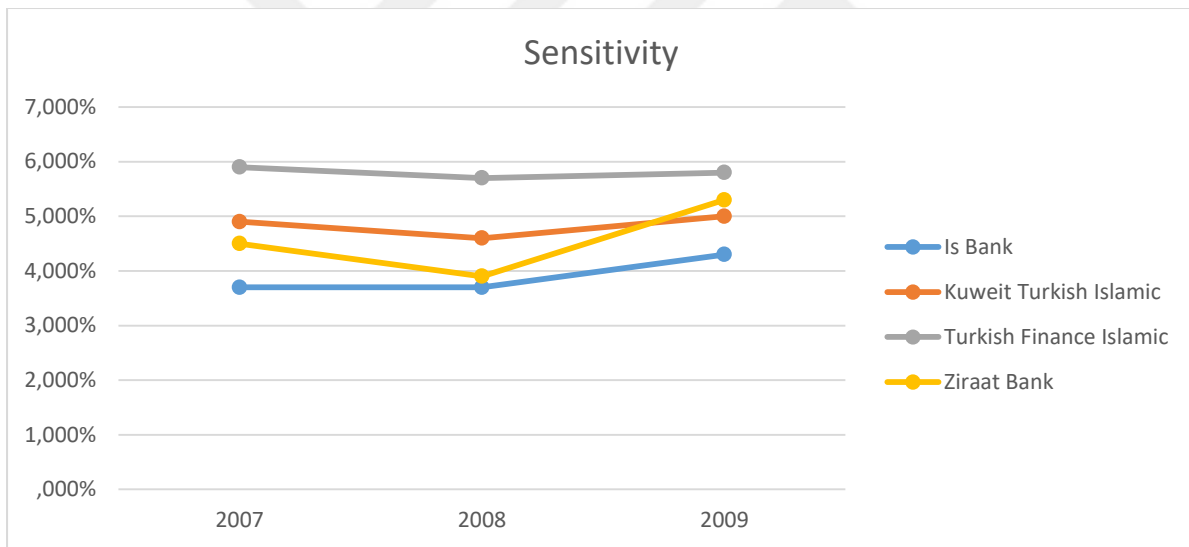
Graph 26: Sensitivity during the crisis

Source: Author's computation

5.2.6.2. After Financial Crisis (2010-2015):

After the financial crisis both Conventional and Islamic banks had the same Sensitivity ratio on average as shown by **Table 15.** However, the risk shown by standard deviation concluded that both Conventional and Islamic Banks low risk after financial crisis. According to **Graph 27 and 28** below the minimum ratio of Islamic Banks were 3% and 3% and Conventional Banking were 3% and 3%, whereas Maximum ratio of Islamic Banks were 4% and 5% and Conventional

Banking were 4% and 4%.It can be seen that in the first year after crisis both Islamic banks had shown higher Sensitivity ratio than the Conventional banks whereas, during the remaining years, Islamic banks had shown better performance than Conventional banks. On the last year, both Conventional and Islamic banks had the same performance according to the given ratio. The data is normally distributed as skewness has values near zero

Table 15: Sensitivity after Crisis

	Islamic Banks		Conventional Banks	
	Kuveyt Turk	Turkiye Finans	Ziraat Bank	Is Bank
Mean	0.04	0.04	0.04	0.03
Standard Error	0.00	0.00	0.00	0.00
Standard Deviation	0.00	0.01	0.00	0.00
Sample Variance	0.00	0.00	0.00	0.00
Kurtosis	1.27	-2.55	1.70	0.74
Skewness	0.80	-0.01	0.79	-0.87
Sum	0.22	0.24	0.22	0.19
Confidence Level (95.0%)	0.00	0.01	0.00	0.00

Source: Author's computation
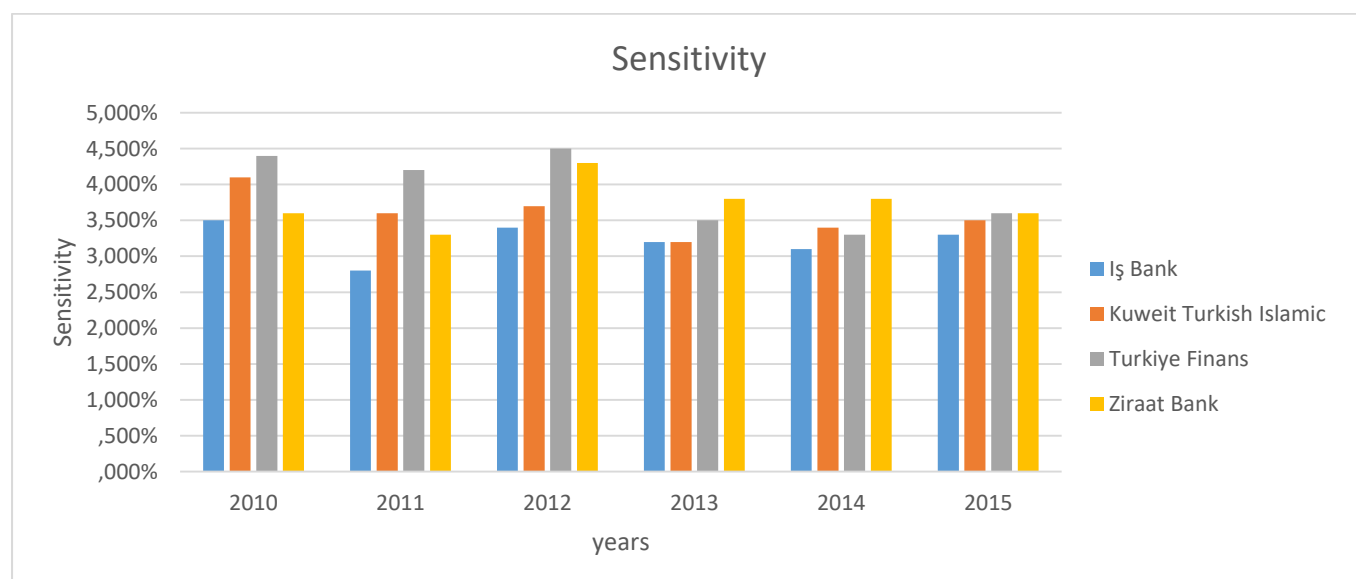
Graph 27: Sensitivity after the crisis

Source: Author's computation
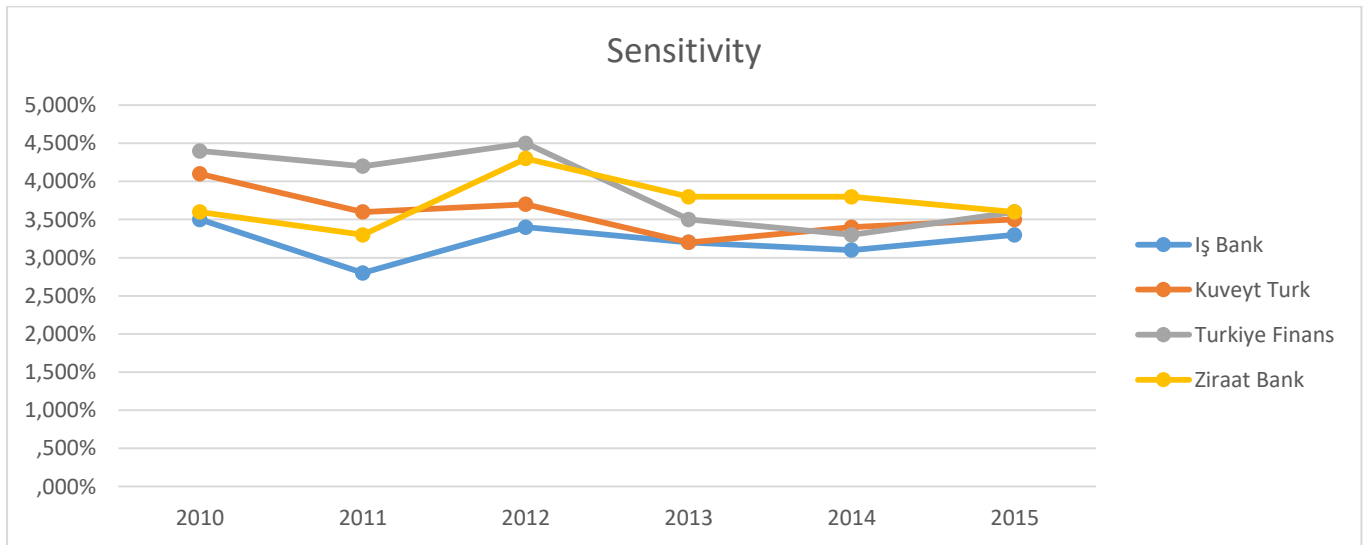
Graph 28: Sensitivity after the crisis

Source: Author's computation

5.3. HYPOTHESIS TESTING

This second section aims to find if there was a significant difference in the performance of the two sets of banks during and after the financial crisis. The T-test analysis was performed for this section. As per the requirement of objective, Independent sample testing is conducted in SPSS for the two periods as shown below:

5.3.1. During Financial Crisis (2007-2009)

Table 16: T-test during Crisis

Variables	T-test for Equality of Means				
	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
CA Islamic – CA Conventional	.777	9.043	.457	.012667	.016295
AQ Islamic – AQ Conventional	.542	9.555	.600	.00500	.00922
MQ Islamic – MQ Conventional	9.946	6.763	.000***	.40333	.04055
ROA Islamic – ROA Conventional	-.672	8.190	.520	-.001667	.002479
ROE Islamic – ROE Conventional	-1.737	7.090	.125	-.066833	.038481
LQ Islamic – LQ Conventional	-4.730	6.103	.003***	-.226000	.047781
Sensitivity Islamic – Sensitivity Conventional	3.217	9.874	.009***	.010833	.003367

Note: ***, **,* denote significance at 1%, 5%, and 10% respectively.

Source: Author's computation

According to the results obtained by Independent sample test as shown in **Table 16**, the significance of the difference in the performance of conventional banks and Islamic banks are measured by T-Test and P-Value is used to check the significance of variables. The Hypothesis developed during the analysis was:

H_0: There is no significant difference between the performance of the CAMELS variables of Conventional and Islamic banks during the Financial Crisis:

H_1: There is a significant difference between the performance of the CAMELS variable Conventional and Islamic banks during the Financial Crisis:

The results showed that among all the six variables i.e. Capital Adequacy, Asset Quality, Management Quality, Earning Quality, Liquidity Quality and Sensitivity, only three of them have shown the significant results that are **Management Quality, Liquidity Quality and Sensitivity.** All three of them are significant at 5% Level of Significance. Therefore the result is interpreted as there is a significant difference in the performance of Management quality, Liquidity Quality and Sensitivity of Islamic Bank and Conventional banks.

Furthermore, according to the significant performance ratios, we can see that during financial crisis, Islamic Bank's Management quality is on average higher than Conventional Bank's Management quality by 40.33%, Conventional Bank's Liquidity Quality is on average higher than Islamic Bank's Liquidity Quality by 22.6%, and Islamic Bank's Sensitivity is on average higher than Conventional Bank's Sensitivity by 1.08%

5.3.2. After Financial Crisis (2010-2015):

Table 17: T-Test after Financial Crisis

Variables	T-test for Equality of Means				
	T	df	Sig. (2tailed)	Mean Difference	Std. Error Difference
CA Islamic – CA Conventional	-.882	21.612	.387	-.006000	.006802
AQ Islamic – AQ Conventional	1.822	21.837	.082*	.006333	.003476
MQ Islamic – MQ Conventional	4.214	17.513	.001***	.130000	.030853
ROA Islamic – ROA Conventional	-2.468	21.509	.022**	-.003667	.001486
ROE Islamic – ROE Conventional	-2.029	15.720	.060*	-.028750	.014166
LQ Islamic – LQ Conventional	-2.897	19.950	.009**	-.060250	.020798
Sensitivity Islamic– Sensitivity Conventional	1.627	21.695	.118	.002750	.001691

Note: ***, **,* denote significance at 1%, 5%, and 10% respectively.

Source: Author's computation

According to the results obtained by Independent sample test as shown in **Table 17**, the significance of the difference in the performance of conventional banks and Islamic banks are measured by T-Test. P-Value is used to check the significance of variables. The Hypothesis developed during the analysis was:

H₀: There is no significant difference between the performance of the CAMELS variables of the Conventional and Islamic banks after the Financial Crisis:

H₁: There is a significant difference between the performance of the CAMELS variables of the Conventional and Islamic banks after the Financial Crisis:

The results showed that among all the six variables i.e. Capital Adequacy, Asset Quality, Management Quality, Earning Quality(ROA & ROE), Liquidity Quality and Sensitivity, only four of them have shown significant results that are: **Asset Quality, Management Quality, Earning Quality(ROA & ROE), Liquidity Quality**. The Asset Quality and Return on Equity (ROE) both had a significance level of 10% which means that the degree of significance was not very large. Return on Assets (ROA) had a significance level of 5%. On the had the management quality had the highest significance level at 1% which means that the variable was portrayed a huge difference as illustrated by the mean difference of 13%? The result is interpreted as there is a significant difference in Asset Quality, Management Quality, Earning Quality (ROA & ROE), Liquidity Quality of Islamic Bank and Conventional banks.

Furthermore, according to the significant performance ratios, we can see that after the financial crisis, Islamic Bank's Asset Quality is on average higher than Conventional Bank's Asset Quality by 0.63%, Islamic Bank's Management Quality is on average higher than Conventional Bank's Management Quality by 13%, Conventional Bank's ROA is on average higher than Islamic Bank's ROA by 0.37%, Conventional Bank's ROE is on average higher than Islamic Bank's ROE by 2.88%, and Conventional Bank's Liquidity Quality is on average higher than Islamic Bank's Liquidity Quality by 6.03%.

5.4. CONCLUSIONS

This study was aimed to analyze the performance of Participation and conventional banks during and after the financial crisis of 2008 using the CAMELS model. A sample of two full-fledged Participation banks and two Conventional banks were used in this study. İş Bank and Ziraat bank were chosen for the conventional banks while Turkiye Finan's bank and Kuveyt Turk Bank for the Participation Bank. These banks were chosen based on their sizes being the largest of their kinds in terms of total active assets. The study was divided into two periods i.e. 1. Their performance during the financial crisis period and 2.Their Performance after the crisis period. The purpose of this was to get a realistic result as well as to understand how these banks performed during the recovery period.

From the analysis of the results above, it can be seen that during the first period under study (2007-2009) which was the onset of the financial crisis, the two banking systems posted varied performances with relation to the CAMELS variables under investigation. Participation banks posted better performance on average than conventional banks in the section of Capital Adequacy. Since Participation banks are strictly based on Islamic Laws and principles they need to safeguard and shield their customers` interest against any risk. For this reason, the resilience of Islamic bank to withstand economic downturn of the financial crisis is greater than conventional banks. The higher the capital adequacy ratio means that Islamic banks have enough capital to cushion against any losses and shocks in case of any financial crisis. Ideally, it is this ratio that ensures the stability of a nation's financial system by reducing the risk of the banks becoming insolvent. It is important to note that if a bank is declared insolvent, the confidence level of investors is shaken and this affects negatively the whole financial system. Badrul Hisham Kamaruddin and Rohani Mohd (2013) in their study titled `Camel Analysis of Islamic Banking and Conventional Banking in Malaysia` also realized the same results that the Bank Islam Malaysia Berhad posted better CA ratios than Maybank (the conventional bank).

However, after the financial crisis period there came the recovery phase wherein general conventional banks gradually started posting better CA ratios than Islamic banks eventually achieving the highest rates in 2015. As investor confidence level and economic stability pursued during the years more capital is employed into the banking sector realizing higher ratios although idle capital increases which also explains the reduction in Earnings ratio especially the ROE during the years after recovery.

Islamic banks also posted higher Asset Quality ratios during the crisis period than Conventional banks. Asset quality is a very important parameter to examine the degree of financial strength of a bank. It is highly paramount this component is properly maintained to avoid any crisis. The main reason for this is that Islamic banks had higher non-performing loan ratio to the total loans. Conventional banks exhibited higher total loans. After the crisis period, conventional banks again on average posted a decreasing AQ ratio than Islamic banks mostly because of increased stability of the economy during the period which increased the loan borrowing rate from customers.

Management Quality was poor for Conventional banks during financial crisis period compared to Islamic banks mainly because Islamic banks use a variety of funding methods including Mudaraba and Murabaha to finance their customers' projects which led to higher total loans to total deposits ratio. However Conventional banks posted a gradual increase in the management quality ratios after the financial period as more and more customers increased borrowings from these banks during this period.

Earnings quality which was measured using two ratios i.e. Return on Equity (ROE) and Return on Investment (ROA). It can be seen that during the financial crisis both of the conventional banks performed better in both the earnings ratio compared to the Islamic banks. This can be attributed to the fact that during the crisis period there was an increased management expense which reduced the net income as banks tried to the extra cost incurred during this period. A similar result ensued after the crisis as well with conventional banks posting even higher earnings ratio figures than during the crisis period. These findings are similar to the ones done by Merchant, I. P (2012) and Jaffar who also found that Islamic banks had poor performances in their earnings ratio than their conventional counterparts.

Liquidity which is also a component of CAMEL showed that conventional banks posted better liquidity ratios performances during the financial crisis period than Islamic banks, albeit a declining figure was witnessed during the period for Conventional banks. Both the Islamic banks posted gradual increase in the liquidity ratio in the year 2008 through 2009.This signifies their inability to meet short time obligations during the financial crisis period. After the crisis period, Islamic banks posted a gradual increase in liquidity performance although both the conventional banks again posted higher ratios than their counterparts. This situation showed that the ability of conventional banks to pay their debts and their ability to continue their operations in unexpected situations.

The Sensitivity to risk component showed that Islamic banks were more sensitive to Market risk during the financial crisis than their counterparts. This means the interest income obtained from the assets of the sector decreased due to the decreasing interest rates during the crisis period as central banks tried to tackle the crisis. Immediately after the 2008 crisis, interest rates entered a downward trend with the effect of monetary expansion throughout the world. The decline in interest rates led to a contraction in the margin between banks' interest income and interest expense. Therefore, the profitability of the banking sector remained low compared to the increase in the total assets. The period after the financial crisis saw the same trend in higher riskiness of Islamic banks to the conventional banks.

CAMELS MODEL										
C:Capital Adequacy	Total Equity/Total Assets									
A:Asset Quality	provision of loan loses(NPL)/total loans									
M:Management Quality	Total loans/total deposits(TA)									
E:Earnings Quality	NPAT/Total asstes									
L:Liquidity Quality '	Liquid assets/total deposits(TA)									
S:Sensitivity	Net interest income/ total assets									

	CAPITAL ADEQUACY									
Banks	Variable	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kuweit Turkish Islamic	Total Equity/Total Assets=Capital adequacy	10.0%	11.9%	11.7%	12.9%	9.6%	9.0%	8.9%	9.0%	8.2%
Turkish Finance Islamic	Total Equity/Total Assets=Capital adequacy	5.2%	14.1%	13.7%	13.2%	11.9%	12.1%	10.0%	9.4%	8.7%
Ziraat Bank	Total Equity/Total Assets=Capital adequacy	8.9%	7.0%	8.3%	8.9%	8.3%	10.6%	8.8%	11.3%	10.2%
Is Bank	Total Equity/Total Assets=Capital adequacy	13.2%	9.7%	11.9%	12.9%	11.1%	12.9%	11.2%	12.3%	11.6%

	ASSET QUALITY									
Banks	Variable	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kuweit Turkish Islamic	Asset quality=Provision of loan loses(NPL)/total loans	4%	5%	6%	3%	2%	2%	2%	2%	2%
Turkish Finance Islamic	Asset quality=Provision of loan loses(NPL)/total loans	2%	3%	4%	3%	2%	3%	3%	3%	5%
Ziraat Bank	Asset quality=Provision of loan loses(NPL)/total loans	2%	2%	2%	1%	1%	3%	2%	2%	2%
Is Bank	Asset quality=Provision of loan loses(NPL)/total loans	4%	5%	6%	4%	2.2%	1.9%	1.7%	1.6%	2.0%

	MANAGEMENT QUALITY									
Banks	Variable	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kuweit Turkish Islamic	Management Quality=Total loans/total deposits(TA)	78%	73%	72%	72%	69%	62%	63%	61%	61%
Turkish Finance Islamic	Management Quality=Total loans/total deposits(TA)	80%	77%	82%	75%	76%	72%	69%	69%	70%
Ziraat Bank	Management Quality=Total loans/total deposits(TA)	27%	30%	29%	38%	45%	44%	54%	58%	62%
Is Bank	Management Quality=Total loans/total deposits(TA)	42%	49%	43%	49%	57%	61%	64%	66%	65%

	E:Earnings Quality									
Banks	Variable ROA	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kuweit Turkish Islamic	Earnings Quaity= NPAT/Total assets	2%	1.8%	1.8%	1.6%	1.3%	1.3%	1.2%	1.1%	1.1%
Turkish Finance Islamic	Earnings Quaity= NPAT/Total assets	2.6%	2.3%	2.0%	1.9%	1.7%	1.6%	1.3%	1.0%	0.7%
Ziraat Bank	Earnings Quaity= NPAT/Total assets	2.9%	2.1%	2.8%	2.5%	1.4%	1.7%	1.5%	1.6%	1.7%
Is Bank	Earnings Quaity= NPAT/Total assets	2.1%	1.5%	2.1%	2.3%	1.6%	1.9%	1.5%	1.4%	1.1%

	E:Earnings Quality									
Banks	Variable ROE	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kuweit Turkish Islamic	Earnings Quaity= NPAT/Total Equity	19.1%	15.2%	15.7%	12.7%	13.6%	14.9%	13.1%	12.3%	13.0%
Turkish Finance Islamic	Earnings Quaity= NPAT/Total Equity	25.0%	16.0%	14.3%	14.6%	14.4%	13.3%	15.6%	10.6%	7.8%
Ziraat Bank	Earnings Quaity= NPAT/Total Equity	32.6%	29.0%	34.0%	27.7%	16.5%	15.8%	17.5%	14.4%	17.0%
Is Bank	Earnings Quaity= NPAT/Total Equity	16.1%	16.1%	17.6%	17.5%	14.9%	14.6%	13.4%	11.5%	9.6%

	L:Liquidity Quality									
	Variable	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kuweit Turkish Islamic	Liquidity Quality =Liquid Assets/Total Assets	14.8%	20.9%	20.3%	15.4%	25.3%	32.6%	31.8%	33.8%	32.3%
Turkish Finance Islamic	Liquidity Quality =Liquid Assets/Total Assets	11.3%	17.3%	14.4%	22.4%	20.9%	22.7%	24.9%	23.1%	20.5%
Ziraat Bank	Liquidity Quality =Liquid Assets/Total Assets	54.2%	21.9%	32.7%	36.1%	33.2%	37.2%	36.5%	34.7%	31.2%
Is Bank	Liquidity Quality =Liquid Assets/Total Assets	45.9%	41.3%	38.6%	33.2%	28.6%	25.7%	26.2%	28.0%	27.4%

	S:Sensitivity									
Banks	Variable	2007	2008	2009	2010	2011	2012	2013	2014	2015
Kuweit Turkish Islamic	Sensitivity:Net interest income/ total assets	4.9%	4.6%	5.0%	4.1%	3.6%	3.7%	3.2%	3.4%	3.5%
Turkish Finance Islamic	Sensitivity:Net interest income/ total assets	5.9%	5.7%	5.8%	4.4%	4.2%	4.5%	3.5%	3.3%	3.6%
Ziraat Bank	Sensitivity:Net interest income/ total assets	4.5%	3.9%	5.3%	3.6%	3.3%	4.3%	3.8%	3.8%	3.6%
Is Bank	Sensitivity:Net interest income/ total assets	3.7%	3.7%	4.3%	3.5%	2.8%	3.4%	3.2%	3.1%	3.3%

REFERENCES

Abbas, Ali & Alyaa, Abbas & Obayes, Kareem &, Alyaa & Abdulkadhim, Qahtan. **"Use of CAMELS Standard in the Assessment of Iraqi Commercial Banks", International** Journal of Multicultural and multi-religious understanding, 2019.

Abdelkader Chachi, Ahmed Belouafi. **"Islamic Finance in the United Kingdom: Factors Behind its Development and Growth"**, May 2014.

Abdul-Gafoor, A. "**Mudaraba-Based Investment and Finance**". Journal of Islamic Banking and Finance, 2006.

Ahmet Tok**, "Sukuk-u İcâre Örneği Çerçevesinde Katılım Bankaları"**, Active Finans Dergisi: 2008.

Ahsan, Mohammad. **"Measuring Financial Performance Based on CAMEL A Study on Selected Islamic Banks in Bangladesh".** Asian Business Review: 6. 2016.

Akin Cihangir, **"Faizsiz Bankacılık ve Kalkınma"**, 1. Kayınhan Yayınevi, Baski 1, Istanbul, 1986.

Akkas, A. **"Relative Efficiency of Conventional and Islamic Banking System in Financing Investment",** PhD Dissertation, Dhaka University, 1996.

Akther, Uddin, **"Principles of Islamic Finance, Prohibition of Riba, Gharar and Maysir",** Munich Personal Re PEc. Archive, INCEIF, Kuala Lumpur, Malaysia, 13 October 2015.

Amba M. S. and Almukharreq F. '**Impact of the Financial Crisis on Profitability of the Islamic Banks vs Conventional Banks- Evidence from GCC**', International Journal of Financial Research, Vol:4, No:3, 2013.

Atia J. "**Banking in İslamic Framework**", Islamic Financial Institutions Seminar Proceedings Series No.27, İslamic Development Bank-Islamic Research And Training Institute, Jeddah, 1995.

Ausaf A. "**Instruments of Regulation and Control of Islamic Banks by the Central Bank**" Islamic Development Bank, Islamic Research and Training Institute, 2000.

Ayşe Celebcioğlu, "**Türkiye'de İslami Finansın Tarihi ve Kullanılan Finansman Yöntemlerinin Karşılaştırmalı Analizi**", Yüksek Lisans Tezi, Marmara Üniversitesi, İstanbul, 2017.

Ayub, Muhammad. **"Understanding Islamic finance",** John Wiley & Sons Ltd, The Atrium, Chichester, England,2007.

Bacanlı Z., **"Dünyada Yeni Trend",** Faizsiz Bankacılık, 2005.

Balala, M.H. ***"Islamic Finance and Law: Theory and Practice in a Globalized World",*** book 5 London, 2011.

Bayındır Servet, **"İslam Hukuku Penceresinden Faizsiz Bankacılık",** Rağbet Yayınları, İstanbul, 2005.

Berberoğlu Hakan, **"Faizsiz Bankacılık Nakit Yönetimi"** Doktora Tezi,İnönü Üniversitesi Sosyal Bilimler Enstitüsü İşletme Anabilim Dalı, Malatya, 2004

 Erol, Cengiz, Hasan F. Baklaci, Berna Aydoğan, and Gökçe Tunç. **"Performance comparison of Islamic (participation) banks and commercial banks in the Turkish banking sector"**, Euro-Med Journal of Business, Vol. 9 Issue: 2, 2014.

Chapra, M. U. **"The Nature of Riba in Islam",** Published in The Journal of Islamic Economics and Finance (Bangladesh), Vol. 2, No. 1,2006.

Chen, J. **"Capital adequacy of Chinese banks: Evaluation and enhancement",** Journal of international banking regulation, 4(4), 2003.

Çürük Akten, Suna. **"İslami Finansın Türkiye'deki Gelişimi Mevcut sorunlar ve Çözüm Önerileri",** Doktora Tezi, Selçuk Üniversitesi, Konya, 2013.

Mesut Doğan. **"Katılım ve Geleneksel Bankaların Finansal Performanslarının Karşılaştırılması: Türkiye Örneği",** Muhasebe ve Finansman Dergisi, 2013.

El-Gamal, Mahmoud. A. **"Islamic Finance: Law, Economics and Practice",** Cambridge University Press, Cambridge, 2006.

El-Qorchi, M. **"Islamic Finance Gears Up, Finance and Development",** 42(4) 4, 2005.

Es-Sadr Muhammed Bakir, **"Islam Ekonomi Doktrini",** Hicret Yayınları, Istanbul, 1980.

Gait, A., & Worthington, A. C.**"A Primer on Islamic Finance: Definitions, Sources, Principles and Methods",** University of Wollongong, School of Accounting and Finance Working Paper Series, No. 07/05, 2007.

Hamid M. A. ve Azmi S. M. **"The Performance of Banking during 2000-2009: Bank Islam Malaysia Berhad and Conventional Banking in Malaysia",** International Journal of Economics and Management Sciences, Vol: 1 No: 1, 2011.

Hassan M.K. "**The Cost Profit and X-Efficiency of Islamic Banks**",12th ERF Conference Paper, 2005.

Hassan M. Ve Dridi J. **"The Effects of the Global Crisis on Islamic and Conventional Banks: A Comparative Study",** International Monetary Fund (IMF), 2010.

http://www.iifm.net/system/files/private/en/IIFM%20Sukuk%20Report%202018-compressed.pdf 03/04/2019

https://www.albaraka.com.tr/assets/en/pdf/investor-relations/2018-annual-report.pdf 15/03/2019

https://www.emlakbank.com.tr/assets/uploads/sozlesme-form/sozlesme/emlak-kat%C4%B1l%C4%B1m-bankas%C4%B1-31-12-2018-TR-solo-final.pdf 22/03/2019

https://www.kuveytturk.com.tr/medium/document-file-2317.vsf 23/02/2019

https://www.turkiyefinans.com.tr/Lists/BagimsizDenetimRaporlariEN/Attachments/19/TURKIYE%20FINANS%202018%20ANNUAL%20REPORT.pdf 17/01/2019

https://www.vakifkatilim.com.tr/documents/flipbook/pdf/tr-vakifkatilim.pdf 15/03/2019

https://www.vakifkatilim.com.tr/tr/hakkimizda/vakif-katilimi-taniyin 15/03/2019

https://www.ziraatkatilim.com.tr/bankamiz/Sayfalar/hakkimizda.aspx 15/03/2019

https://www.ziraatkatilim.com.tr/yatirimci-iliskileri/Documents/2018_faaliyet_raporu.pdf 15/03/2019

Iqbal Zamir and Abbas Mirakhor, **"An Introduction to Islamic Finance: Theory and Practice",** Wiley Finance Series, Singapore: Wiley, 2007.

Iqbal, M. and Molyneux, P. **"Thirty Years of Islamic Banking: History, Performance, and Prospects",** Palgrave Macmillan, Houndmills: New York,2005.

Iqbal, Z. **"Islamic Financial System",** Finance and Development, 34(2): 1997.

Jaffar, M., & Manarvi, I. **"Performance Comparison of Islamic and Conventional Banks in Pakistan",** Global Journal of Management and Business Research, vol. 11, no. 1, 2011.

Kader, J. M., and Asarpota, A. K. **"Comparative Financial Performance of Islamic vis-a-vis Conventional Banks in the UAE",** Paper presented at 2006-2007 Annual Student Research Symposium & First Chancellor's Undergraduate Research Award at UAE University,2007.
Kerem D. Ergeç. **"Türk Bankacılık Sisteminde Etkinlik ve 2008 Küresel Finansal Krizi: Katılım Bankacılığının Beleneksel Bankacılık ile Karşılaştırmalı Analizi",**Yüksek Lisans Tezi, Eskişehir, 2018

Küçükkocaoglu G. "**Islami Bankalar ve Islami Finans Kurumları Çalısma Notları**", 2005

Kuveyt Türk. (2011) Finansal Kiralama. http://www.kuveytturk.com.tr, 20.11.2018

M. Kabir Hassan, Mervyn K. Lewis, **"Handbook of Islamic Banking",** Edward Elgar Publishing Limited, USA.

Majumder, Md & Mizanur Rahman, Mohammed.**"A CAMEL Model Analysis of Selected Banks in Bangladesh",** International Journal of Business and Technopreneurship. 6. 2016.

Mannan M.A, **"Islam Ekonomisi Teori ve Pratik"**, Fikir Yayınları, Istanbul, 4. Baskı, 1980.

Merchant, I.**"Empirical Study of Islamic Banks versus Conventional Banks of GCC",** Global Journal of Management and Business Research. Volume 12 Issue 20:1,2012

Moin, M. S. **"Performance of Islamic Banking and Conventional Banking in Pakistan: A Comparative Study"**, Master Degree Project, School of Technology and Society, University of Skövde, 2008.

Moore, P. **"Islamic Finance: A Partnership for Growth. Euro money"**, London. 1997

Noraziah Che. A, **"Shariah parameters for Musharakah Contract: A comment".** Vol. 1 No. 1;2010

Obaidullah, M. **"Islamic Financial Services, Centre for Research in Islamic Economics"**, King Abdul Aziz University, Jeddah, Saudi Arabia, 2005.

Özgür, Ersan. **"Katılım Bankalarının Finansal Etkinliği ve Mevduat Bankaları ile Rekabet Edebilirliği"**, Doktora Tezi, Afyonkarahisar Kocatepe Üniversitesi, Afyon,2007.

Özsoy Ş. **"Sağlam Bankacılık Modeli İle Katılım Bankacılığına Giriş"**, Kuveyt Türk Katılım Bankası A.Ş, İstanbul, 2012

Öztop, Fahri. **"Özel Finans Kurumlarının Vergilendirilmesi"**. Yüksek Lisans Tezi, Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü , Istanbul, 2006.

Parlakkaya, Raif ve Çürük, Suna,Akten. **"Finansal Rasyoların Katılım Bankaları ve Geleneksel Bankalar Arasında Bir Tasnif Aracı Olarak Kullanımı: Türkiye Örneği"**, Ege Akademik Bakış Dergisi Cilt: 11 No: 3, 2011.

Petersen, Mark and Schoeman, Ilse. **"Modeling of Banking Profit via Return-on-Assets and Return-on- Equity"**, Proceedings of the World Congress on Engineering, 2, 2008.

Rozzani, Nabilah. and Rohman, A.Rashidah. "**Camels and performance evaluation of Banks in Malaysia: Conventional versus Islamic**". Journal of Islamic Finance and Business Research, 2:1, 2013

Rüveyde, Türkmenoglun. **"Katilim Bankaciliği ve Türkiye'deki Finansal Yapi"**, Yüksek Lisans Tezi, Kirikkale Üniversitesi, Kirikkale, 2007.

Samad A. & Hasan K. **"The Performance Of Malaysian Islamic Bank During 1984-1997: An Exploratory Study"**, International Journal of Islamic Financial and Services, Vol:1 No:3,1991.

Samad, A. **"The Performance of Interest-Free Islamic Banks Vis-à- Vis Interest-Based Conventional Banks of Bahrain"**, IIUM Journal of Economics and Management, 12 (2), 2004.

Sarker A.A., **"Islamic Banking in Bangladesh: Performance, Problems and Prospects"**, International Journal of Islamic Financial Services, Vo: 1 No:3,1999.

Heidarpour,Sara. **"Banka Verimliliği Üzerinde Şube yeri Seçiminin Etkisini Belirleyen Faktörlerin Incelenmesi (Iş Bankasi Örneği)"**, Doktora Tezi, Marmara Üniversitesi Bankacılık ve Sigortacılık Enstitüsü, Istanbul, 2018 .

Sarker, A.A. **"CAMELS rating system in the context of Islamic banking: A proposed 'S' for Shariah framework"**, 2006.

Sehrish, S., Saleem and F., Muhammad Y. **"Financial Performance Analysis of Islamic Banks and Conventional Banks in Pakistan: A Comparative Study",** Interdisciplinary Journal of Contemporary Research in Business, Vol:4 No:5,2012.

SERPAM Ariştirma notları, **"İslamî Finans Kavramı, Ürünler, Dünyada ve Türkiye'de Gelişimi ve Geleceği,"** 2013.

Siraj, K.K ve Pillai, P.S.**"Comparative study on the performance of Islamic banks and conventional banks in GCC region",** Journal of Applied Finance & Banking, Vol:2 No:3, 2012.

Sümer, G , Onan, F .**"Dünyada Faizsiz Bankaciliğin Doğuşu, Türkiyedeki Katilim Bankaciliğinin Gelişme Süreci Ve Konvansiyonel Bankaciliktan Farklari"**. Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi dergisi, 17 (3),2015.

Takan, Mehmet. **"Bankalarda Toplam Kalite Yönetimi",** İstanbul: Türkiye Bankalar Birliği, Yayın No: 217, 2001.

Uçar, Mustafa. "**Türkiye'de ve Dünyada Faizsiz Bankacılık ve Hesap Birimleri**", Fey Yayınları, İstanbul, 1993.

Usmani, M. I. A. **"Meezan Bank's Guide to Islamic Banking"**, Karachi: Darul-Ishaat,2002

Warde Ibrahim. **"İslamic finance in the global economy''** Edinburgh University Press, 2nd edition,2000.

Yanpar, Atıla. **"İslami finans ilkeler araclar ve kurumlar''**, Scala Yayıncılık, Istanbul ,Mart 2014.

Zaher, Tarek.S. and Hassan, Mohammad K. **"A Comparative Literature Survey of Islamic Finance and Banking**." 2001.
Zainol, Z. & Kassim, S.H. **"An Analysis of Islamic Banks' Exposure to Rate of Return Risk",** Journal of Economic Cooperation and Development, vol.31, no. 1, 2010.

Zarqa, M. Anas. **"Istisna Financing of Infrastructure Projects",** Islamic Financial Instruments for Public Sector Resource Mobilization, Jeddah: Islamic Research and Training Institute, 1997.