

Behavioral aspects of religiosity in finance : a brief survey on conventional versus Islamic finance

著者	Huseyin Ozturk
権利	Copyrights 2020 by Institute of Developing Economies, JETRO
journal or publication title	IDE Discussion Paper
volume	787
year	2020-05
URL	http://hdl.handle.net/2344/00051718

IDE Discussion Papers are preliminary materials circulated to stimulate discussions and critical comments

IDE DISCUSSION PAPER No. 787

Behavioral Aspects of Religiosity in Finance: A Brief Survey on Conventional versus Islamic Finance

Huseyin OZTURK*
May 2020

Abstract

Religious beliefs are accepted to be one of the main motivations for financial actions. The economic theory fails to provide an adequate foundation to study the link between religiosity and economic behavior. A number of empirical studies discusses the role of religion on the financial behavior of economic agents yet more research needs to be conducted. This study provides a brief review on how religiosity might affect financial behavior by the inclusion of recent studies. In addition to the empirical research that is based on European countries, we discuss the differences in different geographies and finance schemes. We also debate the potential factors that affect differing behavioral aspects with respect to religiosity.

Keywords: religiosity, Islamic banks, conventional banks, bank risk

JEL classification: G23, G28, O52

* Economist, Central Bank of the Republic of Turkey (huseyin.ozturk@tcmb.gov.tr),
Visiting Research Fellow of IDE-JETRO (June 2018 – July 2019)

The Institute of Developing Economies (IDE) is a semigovernmental, nonpartisan, nonprofit research institute, founded in 1958. The Institute merged with the Japan External Trade Organization (JETRO) on July 1, 1998. The Institute conducts basic and comprehensive studies on economic and related affairs in all developing countries and regions, including Asia, the Middle East, Africa, Latin America, Oceania, and Eastern Europe.

The views expressed in this publication are those of the author(s). Publication does not imply endorsement by the Institute of Developing Economies of any of the views expressed within.

INSTITUTE OF DEVELOPING ECONOMIES (IDE), JETRO
3-2-2, WAKABA, MIHAMA-KU, CHIBA-SHI
CHIBA 261-8545, JAPAN

©2020 by Institute of Developing Economies, JETRO

No part of this publication may be reproduced without the prior permission of the IDE-JETRO.

Acknowledgement

This monograph is the product of my research as a visiting research fellow in IDE-JETRO. I would to express my deepest appreciation to IDE-JETRO opening its fullest capacity to my research. I would also specifically thank Dr. Yasushi Hazama for his kind support. The views in this paper are solely mine and do not have any bearing with my current affiliation. I accept all the responsibility of errors in the paper.

Table of Contents

Acknowledgment 1

Table of Contents 2

1. Introduction 3

2. Religiosity in Conventional Finance 5

3. Religiosity in Islamic Finance 10

 3.1. Customer Behavior..... 14

 3.2. Institutional Behavior 19

4. Conclusion 22

References 25

1. Introduction

Since Max Weber, there is an active debate on the role of religion on people's economic attitudes and economic development of countries. The economic theory to elucidate the role that culture plays in economic decision is however almost non-existent. This is possibly due to the systematic tendency to involve culture into analysis under rational behavior. The relation between culture and economic outcomes is also vague and has few testable design (Guiso et al. 2006). Some empirical researches so far have examined the role of culture (religion) on certain economic outcomes, however, as argued by Guiso et al. (2003), the evidence in this line of research is based on cross-country sample in which the impact is confounded by differences in other institutional factors. Guiso et al. (2003) address a number of empirical limitations and investigate the relation between religious traits and various economic patterns. By studying religion across wide variety of geography, the authors give a rigorous and rich insight into different religions, even so, they cannot conclude which religion is more conducive for successful economic outcome. It is therefore safe to argue that there are at least plenty of venues pending for research on the impact of religiosity.

One potential mechanism through which religion affects economic behavior is the possible link between religiosity and risk attitudes. On several grounds risk aversion affects economic behavior such as on the realm of savings (Eeckhoudt and Schlesinger 2008; Noussair et al. 2014), insurance demand (Eeckhoudt et al. 1997) and household finance (Renneboog and Spaenjers 2012). The other strand of the literature complements the link between religiosity and economic outcomes by bringing extensive evidence on the positive impact of religiosity on risk aversion (Miller and Hoffmann, 1995; Osoba, 2003; Noussair et al. 2014). Specific to the area of finance, the religiosity is examined in terms of its influence in the conduct of lending business. The extensive evidence suggests that religiosity of customers lead to lax

lending standards (Kim et al. 2014), reduced risk-taking (Kanagaretnama 2015) and lower loan interest spreads (Chen et al. 2016).

Though the impact of religiosity on economic behavior is in general attached to countries where Christian population dominates, this can hold true for people who have devotion to Islamic beliefs as well. A flourishing literature examines the behavioral aspects in Islamic finance. This line of research arguably grows in two broad dimensions. On the one side, the lending behavior of Islamic banks are comparatively examined, by pointing out the differences between Islamic and conventional finance. On the other side, the impact of religiosity is studied on financial behavior with respect to the religiosity of customers. Therefore, while the first dimension examines how different jurisdictions and religious codes impact bank institutions, the second dimension is very much related to the behavioral aspects of customers.

In light of the ongoing debate on the channels through which religiosity affects financial behavior, it is timely to present a review of the recent literature on conventional and Islamic finance to highlight the main areas of interest and future research. This paper aims to review the literature on conventional finance in its link to religiosity as a first step. Then, our discussion will extend to Islamic finance as a unique finance scheme and its relation to religiosity. Our focus is thus to provide insights both into conventional and Islamic finance with an emphasis on different geographies and cultures. Unlike previous surveys that focus on Islamic and conventional finance in a holistic way without a specific focus, we are selective on the literature and limit ourselves to the papers that discuss the issue in the context of religious traits in both finance schemes. In doing so, we are able to plainly discuss the

relation between religiosity and finance business by Islamic and conventional comparison. The present paper overall not only will discuss the research theme on a comparative baseline but will also inform the policymakers about different finance schemes that can vitalize product diversification, financial inclusion and revenue generation.

The remaining sections discuss the issues under the sections of Islamic and conventional finance. The next section presents the papers in the context of conventional finance in general. This section will review the channels how religiosity impacts various features of conventional finance business. The following section focuses on the theme from Islamic finance perspective through a relatively more extensive discussion. That section first presents basic pillars in Islamic finance and how it differs from conventional finance. The impact of religious beliefs will then be the final point of discussion in that section. Religiosity will be discussed from customer and institutional perspectives. This is potentially important since we argue that the seemingly different behavioral traits triggered by religious beliefs might be in fact due to the institutional factors that govern Islamic finance. The last section concludes with a summary and suggests venues for future research.

2. Religiosity in Conventional Finance

A rising amount of research is devoted to understanding the role of religiosity as a cultural element of banking business. As Kanagaretnam et al. (2019) argue, the availability of data with the help of better statistical techniques have facilitated to discover the link between religiosity and financial decisions. The extensive evidence suggests that religions have significant and diverse bearing on risk behavior of individuals. Renneboog and Spaenjers (2012), for instance, investigate the impact of religion on the financial behavior of Dutch Christian community. The authors find that, with increasing religiosity, households are more

likely to save. Given the catholic and protestant denominations, the differences are also visible, for instance, catholic households are less likely to invest in stocks. In addition, their findings suggest that Catholics attach more importance to thrift and are more averse, while Protestants are found to have higher financial responsibility. Halek and Eisenhauer (2001) extend these findings to Jewish versus Christian community comparison and find that risk preferences of these religious communities exhibit substantial differences too. Noussair et al. (2013) also present similar findings as they find strong confirmatory evidence that more religious people, as they measure by church membership or attendance, are more risk averse toward financial risks. They however conflict with Renneboog and Spaenjers (2012), who find evidence of Catholics being more risk averse, and find that Protestants are more risk averse than Catholics in such task.

Though the impact of religion on individual behavior to finance is a commonly agreed phenomenon, the pertinent literature suggests that a similar impact is also relevant in corporate space. An example of the studies in finance is Hilary and Hui (2009), amongst others, who find evidence that firms in counties with higher religiosity exhibit higher risk aversion. The authors further argue that religions shape cultural values and affect individual decision-making, thereby enhance business ethics and constrain opportunistic behavior in business contracting and financial reporting. Their findings are in compliance with many others, for example, Callen and Fang (2015) demonstrate that the US companies located in counties with higher religiosity have a lower risk of stock price crash. The authors explain their findings with the power of religious social norms that function to reduce managerial hoarding of bad stock news. In a similar vein, Grullon et al. (2010) refer to community values that are driven by community religious beliefs which in turn affect corporate behavior. The

authors find that firm managers in religious US cities are less likely to present undesirable corporate behavior such as backdating stock options and aggressive earnings management, and are thus less subject to lawsuits. Baxamusa and Jalal (2016) provide ancillary evidence which suggests that firms managed by Catholic CEOs have less leverage, issue less debt, present business diversification in its geographic locations, and have less investments compared to firms with Protestant CEOs. The authors also find that corporate actions are also reflected in the CEOs' personal risk preferences such as stockholding habits and taste for risky sports. Kanagaretnam et al. (2015) document that banks in more religious countries tend to engage less in opportunistic earnings management. The authors accept this finding as an implication of the social norm theory which imply that seeking for approval from society is a basic objective for human attitudes. As a form of social norm enforcement, religiosity appears to exert control over societies and punish individuals who violate certain codes presented by religions. Conversely, those who behave in accordance with those norms may receive higher acceptance from societies as an implicit reward. The management of a corporation located in a highly religious area, therefore, is expected to act in compliance with social norms and abstain social sanctions.

Specific to lending business, further researches confirmed that cultural dimension of finance is valid, and religion, as a robust proxy for culture, influences bank lending (Chen et al., 2016; Kim et al., 2014; Abedifar et al. 2013; Kanagaretnam et al. 2015). Kim et al. (2014), for instance, by studying a data set of 12,545 syndicated loan facilities from 19 countries for the period 2003–2007, show that lenders loosen financing conditions to those borrowers who show strong ethical behavior. That study stresses that the shared ethical values between the lender and the borrower enhances loose financing, which further reveals that information

frictions are reduced in doing so. Chen et al. (2016) confirm Kim et al. (2014) in the sense that religiosity softens lending conditions and leads to lower loan interest spreads. What is more interesting, the authors find that religiosity replaces the role of legal environment as lower loan interest spreads is more pronounced in countries where creditor rights are weaker. The authors argue that this is due to the significant role that religious values play in constraining opportunistic behavior in weaker legal environment. Additional to the lower cost of loans, authors document other favorable conditions in lending when religiosity enters into play. Religiosity, as an important factor to implicitly push lenders to act in accordance with ethical norms, is also well documented. Kanagaretnam et al. (2015) find evidence that religiosity constrains excessive risk-taking over a representative sample of international banking. Authors argue that borrowers' implicit internal and external monitoring enhance with higher degree of religiosity which in turn disciplines lenders to take less risk. The disciplining role of religion is also emphasized by El Ghouli et al. (2012) who study a sample of 36,105 U.S. firm-year observations and document that the effect of religiosity on the cost of equity capital is larger for firms lacking alternative monitoring mechanisms which is measured by lower institutional ownership. The authors interpret this result as an evidence which supports the conjecture that religion plays as a corporate governance role in firm operations. Another intriguing finding of that study is that firms with lower visibility are more sensitive to religion, because, as the authors argue, they are more reliant on local social than economic factors because of suffering lower visibility.

The social norm theory provides a useful tool for projecting light into some other studies which examine the relation between religiosity and corporate risk-taking and find evidence of a positive association between religiosity and risk aversion. Hilary and Hui (2009) find

that the volatility of return on assets and return on equity in US companies located in counties with higher religiosity is lower. Shu et al. (2011) demonstrate that mutual funds shun excessive risk in business environments where religiosity is observably intense. As would the social norm theory suggest, the firm managers in religious cities conform to the expectations of an average customer to avoid any costly implications of their objection. Although social norm theory attributes this line of behavior to the social pressure based on religious codes and cultural motives, the other rationale comes from Miller and Hoffman (1995) who argue that risk preference of individuals' is very much related to religiosity. As religiosity translates itself to specific reward expectation after death, similarly non-participation of a belief is a representation of risk taking. Risk averse people are those who reject higher return and seek lower but a safer return. Religious people in the same logic are those who hedge against an unknown future where the loss and return can be extensively large. Abedifar et al (2013) implicitly confirm these findings as risk aversion is far high among those individuals whose devotion to religious belief are intense as well. Boone et al. (2013) examine whether religiosity plays any role in tax avoidance among corporate and individual taxpayers. The authors find that taxpayers in more religious US counties are more eager to avoid tax. The authors argue that this finding is attributable to their risk preference, as religious people are risk averse and prevent from the risk created by tax evasion, however potential other explanation could be the social norms of religious counties. In relation to the related literature that investigate the impact of religiosity on individual financial behavior, Boone et al. (2013) also find that religiosity is consistently associated with lower tax avoidance by individual taxpayers as well. Noussair et al. (2013) however argue that the seemingly strong relation between religion and risk aversion is in fact driven by the social aspects of church membership rather than the pure religious beliefs. Although the authors fail to present

adequate evidence on the channels that the social aspects of church membership affect risk behavior, the seemingly strong relation between social aspects of religious institutions and risk behavior provides some confirmation to the social norm theory.

Religiosity reveals itself in the quality of financial reporting outcomes too. Dyreng et al. (2012) find that corporations operating in religious places generally have higher accrual quality, show less opportunistic earnings management, and are more transparent on reporting negative news. McGuire et al. (2012) also mention about superior accounting standards in those firms located in areas where religion is more intensely practiced. Kanagaretnam et al. (2015) give support for these findings from banking business. The authors conjecture that due to timely recognition and report of loan losses in banks driven by closer monitoring of religious customers, banks in more religious locations take less financial risk. Confirming their expectation, the authors find that banks in more religious countries exhibit lower risk and are less likely to encounter financial problem.

3. Religiosity in Islamic Finance

As this survey aims to discuss the impact of religiosity on financial behavior separately for Islamic and conventional finance, the key principles that make Islamic banking unique need to be emphasized. Islamic finance is based on *Shariah* principles which are either explicitly stated in the holy *Quran* or collectively agreed by scholars. *Shariah* principles first and foremost prohibit any financial transaction in the form of *Riba*, interest in conventional use. This does not necessarily mean that *Shariah* principles object to the time value of money, the compounded price of any economic value across time. Rather, according to Islamic finance, the goods and services can be purchased on deferred payment which can substantially differ from its current price. The basic difference between conventional and any Islamic contract is

the uncertainty that any party in an Islamic transaction needs to bear ahead. Islamic contracts therefore do not suggest any pre-determined return. Financial intermediaries in Islamic finance operate on this rule as well. The deposits, equity capital or *Sukuk* bonds through which an Islamic intermediary collects money are all purportedly non-interest bearing and therefore always carry the risk of loss which is very much translated as profit and loss sharing (PLS).

The conventional finance theory falls short to fully analyze the basic pillars of Islamic banking. In principle, the Islamic banking departs from conventional banking since interest (*riba*) is prohibited in Islam. In this unique form of finance, banks are not permitted to charge predetermined interest rates on loans or savings. In accordance with the principles of Islam-*Shariah*, the Islamic banking model is ideally based on the PLS mechanism. The ideal representation of PLS mechanism is generally manifested in *Mudarabah* (profit-sharing) and *Musharaka* (joint venture) contracts. Under the PLS arrangement, customers enter into a business contract where bank assets and liabilities are shared in a predetermined agreement by which customers also share the risk in that specific agreement. The risk sharing nature of Islamic finance is therefore argued to contribute to the stability of the financial system as customers also take responsibility (Khan and Mirakhor 1989, Ebrahim and Safadi 1995, Iqbal 1997). The equity based like finance in this form of Islamic finance is therefore substantially encouraged by Islamic finance because it is widely believed that customers and their banks engage in closer mutual monitoring (Askari 2012). This form of financing is also in compatible with sustainable development because banks tend to provide more long-term financing with better risk-return profile (Chapra, 1992, Mills and Presley, 1999).

There are potentially fundamental other discrepancies between Islamic and conventional finance that render the former to higher risk exposure. It has been widely proposed that the risk profile of Islamic contracts profoundly differs from conventional contracts. One of the common difference originates from the very structure of ownership. In *lease based financing* instruments, for instance, the financier, as an (partial) owner of the commodity that is subject to that transaction, bears not only the credit risk but also the commodity price risk, since the fluctuations in the commodity prices affect the financier during the life time of the contract.

Abedifar et al. (2015) identify three types of Islamic financing to date: i) *debt based financing* where the financier purchases or owns an asset and then sell it to a client at a mark-up rate which equals future rate of profit. The sale will be paid back by instalment(s) on a deferred basis ii) *lease based financing* is similar to debt based financing where the financier purchases or owns an asset and then rents it to a client. At the end of the rental period (or proportionate to payment), the ownership transfers to the client. iii) PLS financing departs from the first two in the sense that the financier is the partner of the customer and share the return (or loss) on a mutually determined proportion. In addition to interest (*Riba*), Islamic principles prohibit *Gharar* which is generally translated as excessive uncertainty. In financial transactions, for instance, any misconduct arising from information asymmetry is perceived as *Gharar* and prohibited. The other actions that are prohibited in Islamic jurisdictions, known as *Haraam*, are also impermissible in Islamic finance. Having business relation with companies who have involvement in alcoholic beverages, gambling etc. is therefore strictly prohibited.

There is a growing interest toward Islamic finance specifically after the outbreak of the

global financial crisis, as Islamic banks were argued to be more stable finance houses (Beck et. al, 2013; Mohieldin, 2012, Farooq and Zaheer, 2015). However, the characteristics of Islamic finance do not surely put Islamic finance as a safe heaven. Both from institutional perspective and customer perspective, the outlook from Islamic finance on the risk behavior is mixed. Islamic finance is interestingly have number of factors that might work in opposite directions.

Islamic banks are likely to have features that reduce risk by their nature. The religious beliefs of clients are expected to lead to greater loyalty to their banks and less withdrawal risk both of which have potential to improve bank soundness. There are nonetheless some institutional factors that might render Islamic banks more risky. In Islamic contracts, especially in the PLS ones, default penalties are limited and moral hazard incentives are larger. Although equity base of Islamic banks lead these institutions to have larger capacity to absorb losses, these operational limitations and poor risk management may render them less stable and risky.

Religiosity in Islam can substantially influence customer behavior and can generate different patterns of risk too. The behavior of customers in Islamic finance indicate that they may show substantial risk avoidance on the one hand. To reveal the impact of Islamic beliefs on economic decisions, dual banking systems create a natural ground for comparison since there exists two alternative schemes offering similar products to its customers. Under such an environment, the evidence suggests that Islamic bank depositors are more sensitive to bank performance and demonstrate greater withdrawal risk (Abedifar et al., 2013; Aysan et. al, 2017; Aysan et. al, 2018). Calling this phenomenon as displaced commercial risk, Islamic banks are widely recommended to hold higher cushion for higher volatility in their capital

base. Potentially with increasing religiosity, on the other hand, religious Islamic bank customers may show loyalty and thus mitigate the volatility exerted by greater withdrawal risk (Aysan et. al, 2018). The later view is supported by the behavior of Islamic bank customers in Islamic banks where they act as captive because Islamic banks stand as the only financial service provider to people who have reservation to conventional financial products. Borrowing the term from El-Gamal (2007), *rent seeking Shariah arbitrage* creates lucrative business environment for Islamic banks since at least some of Islamic bank clients are ready to pay rents for receiving unique financial services that are compatible with their religious beliefs (Kuran, 1983; Aysan et. al, 2018). To review the impact of religiosity on behaviors in Islamic finance, we assess the literature with the impacts separately for institutions and depositors. We thereby discuss the issue from customer and institutional perspectives in the upcoming sections.

3.1. Customer Behavior

The impact of religious beliefs on economic decisions are rather scant in the scope of Islam. The major stake of evidence is from deposits market. A notable exception is Bursztyn et. al (2015) who find evidence that moral appeals are more effective than substantial monetary incentives as a means to enable debt repayment in a sample of credit card holders of a major Islamic bank in Indonesia. The authors study a field experiment by sending text messages to credit card holders to remind repaying their debts. The messages having quotations from the holy Quran is found to be effective. What is more is to explain the logic behind debt repayment in the field of religion is even more effective. This is interesting because apart from the impact of religion, the novel finding in that paper is the role of logic and justification in encouraging individuals to represent desirable financial behavior.

The impact of religiosity on financial behavior is generally inferred from the risk assessment of banks in general. The general tendency is that depositors show larger withdrawal from their banks against rising bank risk. As the past bank failures posited evidently, Islamic banks are not immune to bank runs and massive deposit withdrawals. Recent cases, in Turkey for instance, showed that Islamic bank depositors punish risky behavior by withdrawing their banks and letting the institutions to default (Aysan et. al, 2015, 2018; Çokgezen and Kuran, 2015). The flourishing literature on the impact of religiosity on depositor behavior, in general, employ depositor (market) discipline literature as a theoretical baseline.

The depositor discipline literature refers to a number of regulations in banking. Capital requirements of financial institutions, for instance, are the indispensable part of financial regulation and supervision. The requirements are in general quantified in function of the risk assessments of autonomous institutions, namely credit rating agencies. The level of capital that each financial institution has to hold is then specified by the risk exposure of that financial institution which is computed via ratings of credit rating agencies. Depositor discipline was pointed to be one of the complementary tool for prudential supervision as customers and investors support this line of regulation via individual monitoring.

Depositor discipline is a natural market mechanism where bank customers, either depositors or other creditors, incentivize or penalize financial institutions based on their relative performance. This mechanism works in a way that depositors ask higher returns on their deposits and/or withdraw their funds with respect to deteriorating bank soundness. To discourage deposit withdrawals in a riskier bank, bank managers are expected to offer higher

interest rates on deposits in the short run and put their utmost effort to lessen bank risk in order not to pay high premiums in medium to long run (Flannery 1998, Park and Peristiani 1995, Martinez Peria and Schmukler 2001).

The growing complexity of banking activities has been one of the culprits of the 2008 global financial crisis. The purportedly flawed credit ratings of various bank assets are widely believed to be one of the underlying factor in the buildup of the crisis (see e.g. Gültekin-Karakaş et. al, 2011; Duygun et. al, 2016; Eijffinger, 2012). Dissatisfaction with the performance of credit rating agencies has spawned reforms on risk assessments afterwards. The initiatives were in full agreement that proper due diligence practices which could maintain high quality individual risk assessment were necessary. Besides the rule-based regulations, the reforms after the global financial crisis specifically raised individual risk assessment again as a complementary, if not alternative, tool for risk assessment relied on market discipline. In a broader sense, it was intended to allow market participants to assess their own risk and reduce reliance on credit ratings (Duygun et. al, 2016; Eijffinger, 2012). Depositor discipline therefore partially transfers the burden of excessive risk taking and maintains a collaborative environment for financial stability.

Although underlying element for depositor discipline is the risk profile of a financial institution, there are a number of factors that affect the disciplining power of market participants. This is mainly associated with the factors that impact individual risk perception. The literature so far, for instance, unveiled that disciplining is influenced by negative press reports (Hasan et al. 2013), regulatory signals (Iyer et al. 2013), social networks (Iyer and Puria 2012), bank scandals (Homanen 2018), and the perception that they are “too big to fail”

(Oliveira et al. 2014). However the literature is still scant how culture or in a narrower sense ethics or religious beliefs affects market discipline.

As the Islamic finance also allows for market discipline as an important element in bank monitoring, the little known experience of Islamic banks spurred some interest as to whether market disciplining is potentially different from conventional experience. This potential difference also provides a fertile ground for discussion about the behavioral differences of religiosity. Starr and Yilmaz (2007) study the bank runs in Turkey with a specific incident of a bank run on Islamic banks (then, special finance houses) and raise the importance of deposit guarantee. Though the data set covers merely Islamic banks, the discussions are not extended to the role of religiosity. Potential differences in the behaviors of depositors in Islamic banks, who are potentially investing in Islamic banks due to religious commitment, would exhibit how religiosity motivates individuals against risk. Aysan et al. (2017) propose that Islamic banks depositors also put disciplining even under the unique corporate structure of Islamic banks. However the authors confirm that how this mechanism works in Islamic banks is not unequivocal. On the one hand, the evidence suggests higher risk aversion among religious individuals, the other line of evidence advocates loyalty of religious customers toward their banks. Aysan et al. (2017) argue that the loyalty might be more relevant to explain why religious reasons might have stronger explanation in Islamic bank depositor's decision to sidestep conventional banks and to deposit funds to Islamic banks. Actually this was typically the main finding of Baele et al. (2014) who study the loan market in Pakistan. Their finding suggesting much lower default rates on Islamic loans than those on conventional loans was attributed to religious norms activated by signing an Islamic loan contract. Aysan et al. (2017) however show that an average Islamic bank depositor, just like a

conventional bank depositor, exercises disciplining on their banks. The revision of depositor insurance scheme during the sample period makes this disciplining even larger. Aysan et al. (2015) confirm the findings of that study and suggest that market disciplining is effective among Islamic banks in Turkey where the banking system is composed of conventional and Islamic banks.

Though Aysan et al. (2015) and Aysan et al. (2017) find evidence of some similar behavioral pattern across Islamic banks depositors, the behavioral aspects of Islamic bank depositors are more explicitly discussed in a recent literature (Demiralp and Demiralp 2015, Aysan et al 2018a, Aysan et al. 2018b). Demiralp and Demiralp (2015) study monetary policy change episodes to disentangle the behavioral differences among Islamic and conventional banks. The main objective of that study is to examine whether religiosity is an impediment to rational behavior. The authors argue that in many cases Islamic actors blend religious beliefs with rational behavior and find alternative ways of rationality. The authors further find that religious depositors show similar behavior as conventional bank depositors do. Specifically they find that during times of monetary policy changes, Islamic bank depositors and conventional bank depositors respond to these changes similarly. Aysan et al. (2018) extend the discussion proposed by Demiralp and Demiralp (2015) by studying deposit clusters in their research. Deposit clusters vary according to the deposit size of depositors. The main conjecture is thus to analyze how deposit size (opportunity cost) affects depositor behavior. Their main expectation is that with bigger size of deposits the withdrawal tendency would be larger as well. The authors find that deposit clusters both in Islamic and conventional banks show significant responses to monetary changes. As expected, the responses are getting larger and more significant in larger deposit clusters. What is more intriguing is that deposit

clusters in Islamic banks show larger withdrawal tendency than deposit clusters in conventional banks. The authors explain this with unique behavior of religious depositors because while they maximize their returns and exhibit rational behavior they also seek to comply with religious codes. This finding also confirms the past evidence of Islamic bank-runs. Henry (2004) and Çokgezen and Kuran (2015) document that, during the collapse of an Islamic finance house in Turkey, depositors of that finance house did not differentiate from conventional bank depositors and practiced a classic bank-run by instantly withdrawing their deposits.

3.2. Institutional Behavior

The depositor's behavior of Islamic banks toward their banks are related to bank-specific characteristics too. Having discussed, Islamic bank depositors are rational actors but why they are more averse to risk is partly related to unique banking practices of Islamic banks. Aysan et al. (2018) proposes some potential reasons as to why bank-specific characteristics are partly responsible for this behavior. The authors argue that the interest/return adjustment in Islamic and conventional banks are substantially different. As conventional banks can sharply and instantly change deposit rates, Islamic banks do not have this flexibility and are in general slower when they need to adjust their rate of return. The slowness in generally originates from the logic of Islamic banking where the returns are shared ex-post between customer and the bank. This inertia is argued to make Islamic banks more vulnerable to interest rate changes. Gerrard and Cunningham (1997) also provide evidence that interest rate shocks lead to deposit flows from Islamic banks to conventional banks in dual banking systems.

The lack of instant revision in return gives Islamic banks a substantial disadvantage as the customers exhibit greater withdrawal tendency against economic shocks that impact Islamic banks. As Islamic banks distribute returns ex-post, the economic downturns generally generate lower returns in Islamic banks, which these banks do not have tool to mitigate. The term commercial displacement risk partly refers to this phenomena as the displacement risk of funds provided by Islamic customers are in general high in bad times so the institutions seek alternative ways to increase the attractiveness of themselves. In addition to lack of instrumental tool to mitigate the impact of economic downturns, Islamic banks are significantly disadvantageous at due to their loan loss provisioning (Elnahass et. al, 2014). Loan loss provisioning in Islamic banks are stricter than conventional banks, as their strict loan loss provisioning models render them unable to flatten the adverse effects of business cycles. Although their unique dynamic provisioning models based on expected loan losses targeted as a partial remedy, these have not been fully adequate to curb the negative effects of business cycles. The recent findings also suggest that Islamic banks face larger liquidity restrictions than conventional banks, so the impact of recessions are generally coupled with severe asset and liability contraction among Islamic banks.

Islamic banks involve in harsh price competition with their conventional counterparts by proposing similar returns to their depositors. This lead them to propose similar rates to their customers in the long-run (Haron and Ahmad, 2000; Chong and Liu, 2009; Ergeç and Arslan, 2013; Ito, 2013; Demiralp and Demiralp, 2015, Aysan et. al, 2017; Aysan et. al, 2018). These studies implicitly argue that Islamic banks are in essence not a unique finance houses but just resemble conventional banks at least in their pricing behavior. A recent study by Cevik and Charap (2015) examines the deposit returns in conventional and Islamic banks in Malaysia

and Turkey and find that both returns show similar long term patterns (co-integrating relation). An interesting finding is the causality test results which show that returns in conventional banks Granger cause the returns in Islamic banks. Sukmana and Kassim (2010) and Zulhibri and Sukmana (2016) examine, respectively, the behavior of Malaysian and Indonesian Islamic banks in their role of monetary transmission. Both of these studies conclude that Islamic banks in both countries are important players explicitly revealing that monetary changes alter returns in Islamic banks too. While Aysan et. al (2018) find that monetary changes create similar impacts in the long run, they also find that economic and monetary shocks instigate different adjustment paths in the short-term, because Islamic banks could lately respond to these shocks. Aysan et. al (2017) confirm the basic findings in Aysan et. al (2018) and extend their results to credit market. The authors find that as Islamic banks are affected by economic and monetary shocks more, the transmission mechanism is effective through loan market which results in more reduction in the volume of credits.

Economic and monetary shocks are influential drivers for loan supply in Islamic banks. The general expectation is that loan supply in conventional banks tunes well with business cycles suggesting that during boom times banks tend to lend more while during bust times they reduce lending. Ibrahim (2016) suggests that pro-cyclical lending does not hold true for Malaysian Islamic banks and argues that with different definitions of loan supply definition and business cycle measure, Islamic banks lend counter-cyclically which means that they stabilize the fluctuations in overall credit market in the Malaysian banking system. The author concludes that Islamic banks with their unique *raison d'etre* to support socially responsible lending, they lend against the wind and mitigate the adverse effects of recessions. However, Aysan and Ozturk (2018) find that Turkish dual banking system as a whole

presents a pro-cyclical pattern in lending without any discrimination against or in favor of Islamic banks. The authors however explain their findings with different jurisdictions and or competition in the markets. The authors empirically find that competition can be a reason why Islamic banks also exhibit pro-cyclicality in the loan market. Their finding is in compliance with Ascarya and Karim (2016) who find that Islamic banks in Indonesia is also pro-cyclical. Aysan and Ozturk (2018) propose potential channels why Islamic banks are pro-cyclical. The authors argue that the dynamic loan-loss provisioning in these banks lends support for pro-cyclical lending. Higher capital for potential loan losses which is allocated for excessive capital flight as a results of displaced commercial risk, can lead these banks to reduce lending during recessions (Al-Deehani et. al, 1999; Hall et. al, 2000; Rosly, 2009; Daher et al, 2016). As these banks have less access to cross-border financing and other funding reserves, they are also heavily affected by recessions. However, as argued by Aysan and Ozturk (2018), if these banks constitute a small niche in the banking system, the size of the market can make these banks to focus on a dedicated customer and exercise a more stable intermediation.

4. Conclusion

Economic theory on general grounds disregard the impact of culture on economic decision. The relation between culture and economic decision is in general scantily investigated in the literature. The rising interest toward culture as an important element in economic decision is interesting though. Narrowing the wide avenue of research interest, in this short survey we presented the latest research on the impact of religious beliefs on financial actions.

We presented a discussion the link between religiosity and financial behavior. Since the context is religion in a broader sense, we discussed the issue from conventional versus

Islamic finance. This has been an important vantage point because Islamic finance provides a unique finance platform for its customers. The uniqueness purportedly reflects in financial actions too.

In a conventional finance base, we discussed how religion can constitute a normal basis in financial behavior. The norms sometimes facilitate financial decision that is generally manifested in conflict of interest, information asymmetries and various potential frictions in financial markets. We also discussed that, in addition to the findings in conventional finance, Islamic finance has unique behavioral traits. We proposed that the impact of religion can be disaggregated into customer and institutional. Having discussed that prohibitions in Islam lead to product diversification hence Islamic bank customers might feel captive to Islamic financial institutions and products. This form of captivity may render these economic agents as irrational. Although this might be a main motivation for a segment of customer, the literature generally suggests that customers of Islamic institutions exhibit rational behavior by blending their economic beliefs. We also proposed that seemingly different behavioral actions are in general borne out from institutional limitations. The lack of interest in Islamic transactions generally prevents Islamic financial institutions to instantly adapt to economic and monetary changes. So the delayed response of Islamic financial institutions creates potential behavioral differences.

This paper is a modest attempt to survey the recent literature that explores one of the important themes in economic decision-making. Culture solely opens further avenues for future research in economics. We argue that despite a number of empirical studies that discuss the role of religion on the financial behavior of economic agents, more research is

needed. Potential discrepancies between religions on economic decision is also vitally important.

References

- Abedifar, P., Molyneux, P., & Tarazi, A. (2013). Risk in Islamic banking. *Review of Finance*, 17(6), 2035-2096.
- Abedifar, P., Shahid M. E., Molyneux, P., & Tarazi, A. (2015). Islamic banking and finance: Recent empirical literature and directions for future research, 29(4), 637-670.
- Al-Deehani, T., Abdel Karim, R.A., & Murinde V. (1999). The capital structure of Islamic banks under the contractual obligation of profit sharing, *International Journal of Theoretical and Applied Finance*. 2 (3), 243-283.
- Ascarya, R., & Karim, A.A. (2016). Testing of the procyclicality of Islamic and conventional banks in Indonesia. Springer International Publishing, Cham, 133–152.
- Askari, H. (2012). Islamic finance, risk-sharing, and international financial stability. *Yale Journal of International Affairs*, 7(1), 1-8.
- Aysan, A. F., Disli, M., Ozturk, H., & Turhan, I. M. (2015). Are Islamic Banks Subject to Depositor Discipline?. *The Singapore Economic Review*, 60(01), 1550007.
- Aysan, A. F., Disli, M., Duygun, M., & Ozturk, H. (2017). Islamic banks, deposit insurance reform, and market discipline: Evidence from a natural framework. *Journal of Financial Services Research*, 51(2), 257– 282.
- Aysan, A. F., Disli, M., Duygun, M., & Ozturk, H. (2018). Religiosity versus rationality: Depositor behavior in Islamic and conventional banks. *Journal of Comparative Economics*, 46(1), 1-19.
- Aysan, A. F., & Ozturk, H. (2018). Does Islamic banking offer a natural hedge for business cycles? Evidence from a dual banking system, *Journal of Financial Stability*, 36, 22-38.
- Baele, L., Farooq, M., & Ongena, S. (2014). Of religion and redemption: Evidence from default on Islamic loans. *Journal of Banking & Finance*, 44, 141-159.

- Barajas A, Steiner, R (2000) Depositor Behaviour and Market Discipline in Colombia. Working Paper WP/00/214, International Monetary Fund.
- Baxamusa, M., & Jalal A. (2016). CEO's religious affiliation and managerial conservatism. *Financial Management*, 45(1), 67-104.
- Beck, T., Demirgüç-Kunt, A., Merrouche, O. (2013). Islamic vs. conventional banking: Business model, efficiency and stability. *Journal of Banking & Finance*, 37(2), 433-447.
- Berle, A.A., & Means, G.G.C. (1932). *The modern corporation and private property*. Transaction Books.
- Boone J.P., Khurana I.K., & Raman, K. K. (2013). Religiosity and tax avoidance. *The Journal of the American Taxation Association*: 35(1), 53-84.
- Bursztyn L., Fiorin S., Gottlieb, D., & Kanz M. (2015). Moral incentives in credit card debt repayment: Evidence from a field experiment. NBER Working Papers 21611, National Bureau of Economic Research, Inc.
- Chapra, M.U. (1992). *Towards a Just Monetary System*. Leicester: The Islamic Foundation.
- Cevik, S., & Charap J. (2015). The behavior of conventional and Islamic bank deposit returns in Malaysia and Turkey, *International Journal of Economic and Financial Issues*, 5 (1), 111-124.
- Chen, H., Huang, H. H., Lobo, G. J. & Wang, C. (2016). Religiosity and the cost of debt, *Journal of Banking & Finance*, 70, 70-85.
- Chong, B.S. & Liu M.-H. (2009). Islamic banking: interest-free or interest-based? *Pacific-Basin Finance Journal*, 17 (1), 125-144.
- Čihák, M., & Hesse, H. (2010). Islamic banks and financial stability: an empirical analysis. *Journal of Financial Services Research*, 38(2-3), 95-113.
- Cubillas, E., Fonseca, A. R., & González, F. (2012). Banking crises and market discipline:

- International evidence. *Journal of Banking & Finance*, 36(8), 2285-2298.
- Çokgezen, M., & Kuran, T. (2015). Between consumer demand and Islamic law: the evolution of Islamic credit cards in Turkey. *Journal of Comparative Economics*, 43 (4), 862–882.
- Daher, H., Masih, M., & Ibrahim, M. (2015). The unique risk exposures of Islamic banks capital buffers: A dynamic panel data analysis. *Journal of International Financial Markets, Institutions and Money*, 36(C), 36– 52.
- Demiralp, S. & Demiralp S. (2015). The rational Islamic actor? Evidence from Islamic banking
New Perspectives on Turkey, 52, 3-27.
- Demirgüç-Kunt, A., & Detragiache, E. (2002). Does deposit insurance increase banking system stability? An empirical investigation. *Journal of Monetary Economics*, 49(7), 1373-1406.
- Demirgüç-Kunt, A., & Huizinga, H. (2004). Market discipline and deposit insurance. *Journal of Monetary Economics*, 51(2), 375-399.
- Disli, M., & Schoors, K. (2013). Bank rebranding and depositor loyalty. Ghent University Working Paper No. 2013/867.
- Disli, M., Schoors, K., & Meir, J. (2013). Political connections and depositor discipline. *Journal of Financial Stability*, 9(4), 804-819.
- Duygun, M., Ozturk, H., & Shaban, M. (2016). The role of sovereign credit ratings in fiscal discipline. *Emerging Markets Review*, 27(C), 197-216.
- Ebrahim, M.S., & Safadi, A. (1995). Behavioral norms in the Islamic doctrine of economics: a comment. *Journal of Economic Behavior & Organization*, 27(1), 151-157.
- Eijffinger S. (2012). Rating agencies: role and influence of their sovereign credit risk

- assessment in the Eurozone. *Journal of Common Market Studies*, 50 (6), 912-921.
- El-Gamal, M., & Inanoglu, H. (2000). Islamic banking in Turkey: boon or bane for the financial sector. In *Proceedings of the Fifth Harvard University Forum on Islamic Finance* (pp. 7-20). Center for Middle Eastern Studies, Harvard University.
- El Ghouli S., Guedhami O., Ni Y., Pittman J., & Saadi S. (2012). Does religion matter to equity pricing? *Journal of Business Ethics*, 111(4), 491-518.
- El-Hawary, D., Grais, W., & Iqbal, Z. (2004). Regulating Islamic financial institutions: the nature of the regulated. *World Bank Policy Research Working Paper No. 3227*. World Bank.
- Elnahass, M., Izzeldin, M., & Abdelsalam, O. (2014). Loan loss provisions, bank valuations and discretion: A comparative study between conventional and Islamic banks. *Journal of Economic Behavior & Organization*, 103(Supplement), S160– S173.
- Ergeç, E.H. & Arslan, B.G. (2013). Impact of interest rates on Islamic and conventional banks: the case of Turkey. *Applied Economics*, 45 (17), 2381-2388.
- Errico, L., & Farahbaksh, M. (1998). Islamic banking: issues in prudential regulations and supervision. *IMF Working Paper No. WP/98/30*. International Monetary Fund.
- Farooq, M., & Zaheer S. (2015). Are Islamic banks more resilient during financial panics? *Pacific Economic Review*, 20(1), 101-124.
- Flannery, M. J. (1998). Using market information in prudential bank supervision: A review of the US empirical evidence. *Journal of Money, Credit and Banking*, 30(3), 273-305.
- Gerrard, P., Cunningham, J.B. (1997). Islamic banking: a study in Singapore. *International Journal of Bank Marketing*. 15 (6), 204–216 .
- Guiso, L., Sapienza, P., & Zingales, L. (2003). People's opium? Religion and economic attitudes. *Journal of Monetary Economics*, 50, 225–282.

- Guiso, L., Sapienza, P., & Zingales, L. (2006). Does culture affect economic outcomes? *Journal of Economic Perspectives*, 20, 23–48.
- Grullon, G., Kanatas, G., & Weston, J. (2010). Religion and Corporate (mis)Behavior. Unpublished Working Paper. Rice University.
- Gültekin-Karakaş D., Hisarciklilar M., & Öztürk H. (2011). Sovereign risk ratings: biased toward developed countries? *Emerging Markets Finance and Trade*, 47 (0), 69-87.
- Halek, M., & Eisenhauer JG. (2001). Demography of risk aversion. *Journal of Risk and Insurance*, 68, 1-24.
- Hall, M., Dar, H., & Muljawan, D. (2000). A capital adequacy framework for Islamic banks: the need to reconcile depositors' risk aversion with managers' risk taking. *Proceedings of the Fifth Harvard University Forum on Islamic Finance*, 21-42.
- Hannan, T.H., & Hanweck, G.A. (1988). Bank insolvency risk and the market for large certificates of deposit. *Journal of Money, Credit, and Banking*, 20(2), 203-211.
- Haron, S. & Ahmad N. (2000). The effects of conventional interest rates and rate of profit on funds deposited with Islamic banking system in Malaysia. *International Journal of Islamic Financial Services*, 1 (4), 1-7.
- Hasan, M., & Dridi, J. (2011). The effects of the global crisis on Islamic and conventional banks: A comparative study. *Journal of International Commerce, Economics and Policy*, 2(2), 163-200.
- Hasan, I., Jackowicz, K., Kowalewski, O., & Kozłowski, Ł. (2013). Market discipline during crisis: Evidence from bank depositors in transition countries. *Journal of Banking & Finance*, 37(12), 5436-5451.
- Henry, C.M. (2004). Financial performances of Islamic versus conventional banks. In:

- Henry, C.M., Wilson, R. (Eds.), *The Politics of Islamic Finance*. Edinburgh University Press, Edinburgh, pp. 104–128 . chapter 5.
- Hilary, G., & Hui, K. W. (2009). Does religion matter in corporate decision making in America?. *Journal of Financial Economics*, 93(3), 455-473.
- Homanen, M (2018). “Depositors Disciplining Banks: The Impact of Scandals”, working paper.
- Ibrahim, M. H. (2016). Business cycle and bank lending procyclicality in a dual banking system. *Economic Modelling*, 55(C), 127– 134.
- Ioannidou, V., & De Dreu, J. (2006). The impact of explicit deposit insurance on market discipline. *De Nederlandsche Bank*.
- Iqbal, Z. (1997). Islamic financial systems. *Finance and Development*, 34, 42-45.
- Iyer, R, & M Puri (2012). Understanding bank runs: The importance of depositor-bank relationships and networks. *The American Economic Review* 102(4), 1414-1445.
- Iyer, Ra, M Puri, & N Ryan (2013). Do depositors monitor banks?. NBER technical report.
- Ito, T. (2013). Islamic rates of return and conventional interest rates in the Malaysian deposit market. *International Journal of Islamic and Middle Eastern Finance and Management*, 6(4), 290– 303.
- Jensen, M.C., & Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Kanagaretnam, K., Lobo, G, Wang, C., & Whalen, D. (2015). Religiosity and risk-taking in international banking. *Journal of Behavioral and Experimental Finance*,7, 42-59.
- Kanagaretnam, K., Lobo, G, & Wang, C. (2015). Religiosity and earnings management: International evidence from the banking industry. *Journal of Business Ethics*,132(2), 277-296.

- Kanagaretnam, K., Lobo, G., Wang, C., & Whalen, D. (2019). Cross-country evidence on the relationship between societal trust and risk-taking by banks. *Journal of Financial and Quantitative Analysis*, 54(1), 275-301.
- Karas, A., Pyle, W., & Schoors, K. (2013). Deposit insurance, banking crises, and market discipline: Evidence from a natural experiment on deposit flows and rates. *Journal of Money, Credit and Banking*, 45(1), 179-200.
- Khan, M. S., & Mirakhor, A. (1989). Islamic banking: Experiences in the Islamic Republic of Iran and in Pakistan. IMF Working Paper No. WP/89/12. International Monetary Fund.
- Kim, M., Surroca, J., Tribó, J. A. (2014). Impact of ethical behavior on syndicated loan rates, *Journal of Banking & Finance*, Elsevier, 38, 122-144.
- Martinez Peria, M.S., & Schmukler, S. L. (2001). Do depositors punish banks for bad behavior? Market discipline, deposit insurance, and banking crises. *The Journal of Finance*, 56(3), 1029-1051.
- Miller, A.S., 2000. Going to hell in Asia: The relationship between risk and religion in a cross cultural setting. *Review of Religious Research*, 42 (1), 5–18.
- Miller, A.S., & Hoffmann, J.P. (1995). Risk and religion: An explanation of gender differences in religiosity. *Journal for the Scientific Study of Religion*, 34(1), 63-75.
- Mills, P.S., & Presley, J.R. (1999). *Islamic finance: Theory and practice*. Macmillan, London.
- Mohieldin, M. (2012). Realising the potential of Islamic finance. *World Economics Journal*, 13(3), 127-142.
- Nier, E., & Baumann, U. (2006). Market discipline, disclosure and moral hazard in banking. *Journal of Financial Intermediation*, 15(3), 332-361.
- Noussair, C. N., Trautmann, S. T., van de Kuilen, G., & Vellekoop N. (2013). Risk aversion and religion. *Journal of Risk and Uncertainty*, 47(2), 165-183.

- Noussair, C. N., Trautmann, S. T., & van de Kuilen, G. (2014). Higher order risk attitudes, demographics, and financial decisions. *Review of Economic Studies*, 81(1), 325-355.
- Oliveira, R de F, R F Schiozer, & L A B de C Barros (2014). Depositors perception of too-big-to-fail. *Review of Finance* 19(1), 191-227.
- Park, S., & Peristiani, S. (1998). Market discipline by thrift depositors. *Journal of Money, Credit and Banking*, 30(3), 347-364.
- Prean, N., & Stix, H. (2011). The effect of raising deposit insurance coverage in times of financial crisis—Evidence from Croatian microdata. *Economic Systems*, 35(4), 496-511.
- Renneboog, L., & Spaenjers, C. (2012). Religion, economic attitudes and household finance. *Oxford Economic Papers*, 64, 103–127.
- Rosly, S. (2009). Al-bay' bithaman ajil financing: Impacts of Islamic banking performance. *Thunderbird International Business Review*, 41, 461-480.
- Safieddine, A. (2009). Islamic financial institutions and corporate governance: New insights for agency theory. *Corporate Governance: An International Review*, 17(2), 142-158.
- Shu, T., Sulaeman, J., Yeung, P.E., 2011. Local religious beliefs and organizational risk-taking behaviors. *Management Science*, 58(10), 1779-1796.
- Sironi, A. (2003). Testing for market discipline in the European banking industry: Evidence from subordinated debt issues. *Journal of Money, Credit, and Banking*, 35(3), 443-472.
- Solé, J. (2007). Introducing Islamic banks into conventional banking systems. IMF Working Paper No. WP/07/175. International Monetary Fund.
- Starr, M. A., & Yilmaz, R. (2007). Bank runs in emerging-market economies: evidence from Turkey's special finance houses. *Southern Economic Journal*, 73(4), 1112-1132.
- Sukmana, R., & Kassim, S. H. (2010). Roles of the Islamic banks in the monetary transmission process in Malaysia. *International Journal of Islamic and Middle Eastern*

Finance and Management, 3(1), 7– 19.

Zulhibri, M., & Sukmana, R. (2016). Financing channels and monetary policy in a dual banking system: Evidence from Islamic banks in Indonesia. *Economic Notes*, 46(1), 117– 143.