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COMPARISON OF RISK TOLERANCES AND INVESTMENT DECISIONS OF PARTICIPATION BANK CUSTOMERS AND CONVENTIONAL BANK CUSTOMERS

KATILIM BANKASI MÜŞTERİLERİ İLE KONVANSİYONEL BANKA MÜŞTERİLERİNİN RİSK TOLERANSLARI VE YATIRIM KARARLARININ KARŞILAŞTIRILMASI

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ABSTRACT

Purpose - This study investigates the structure of financial risk tolerances and risk perceptions of participation and conventional bank customers.
Methodology – In the study, t-test and ANOVA analyzes, which are the main analyzes used in the comparison of group averages, were used in order to compare the risk perceptions of conventional bank clients and participation bank clients.
Findings – Our results show that conventional bank clients have a higher average in both overall risk tolerance and financial risk tolerance. This means that participation bank clients are more risk-averse. However, the basis of the participation account includes profit-loss sharing, namely, risk sharing. Therefore, participation account holders were expected to be more risk-taking investors.
Conclusions – The results support the managers and employees of participation banks who claim that their customer portfolios are not ready to invest in riskier products such as mudaraba and musharakah.
Keywords: Participation Bank, Conventional Bank, Risk Tolerance, Investment Decisions, Turkey.
JEL Codes: G40, G41, G51

ÖZ

Amaç - Bu çalışma, katılım ve geleneksel banka müşterilerinin finansal risk toleranslarının yapısını ve risk algılarını incelemektedir.
Yöntem - Çalışmada konvansiyonel banka müşterileri ile katılım bankası müşterilerinin risk algılarının karşılaştırılabilmesi adına grup ortalamalarının karşılaştırılmasında kullanılan temel analizler olan t-testi ve ANOVA analizleri kullanılmıştır.
Bulgular – Sonuçlar, geleneksel banka müşterilerinin hem genel risk toleransında hem de finansal risk toleransında daha yüksek bir ortalamaya sahip olduğunu göstermektedir. Bu da katılım bankası müşterilerinin daha fazla riskten kaçındığı anlamına gelmektedir.
Sonuç – Katılma hesabı sahiplerinin daha fazla risk alan yatırımcılar olması beklense de sonuçlar tam tersini göstermekte ve müşteri portföylerinin mudaraba ve muşaraka gibi daha riskli ürünlere yatırım yapmaya hazır olmadığını iddia eden çalışmaları desteklemektedir.
Anahtar Kelimeler: Katılım Bankası, Konvansiyonel Banka, Risk Toleransı, Yatırım Kararları, Türkiye.
JEL Kodları: G40, G41, G51

1. INTRODUCTION

Risk is generally defined as the danger of being harmed. The willingness to engage in a risky behavior with negative consequences can be expressed as risk tolerance. As a very specific meaning, financial risk tolerance is the maximum amount of uncertainty individuals are willing to accept when making financial decisions (Grable, 2000). It is different from definitions like risk preference, risk perception, risk capacity, risk need, or risk composure. Each of these definitions is an important response to the understanding of a person's risk profile. On the other hand, these phrases are not exchangeable (Grable J. E., 2018).

The level of financial risk tolerance affects many economic decisions that individuals make in daily life. Many economic decisions, such as determining investment instruments individuals will use to invest their savings, using bank loans, and becoming a company partner, are related to financial risk tolerance. In addition, decisions such as in which financial institutions (conventional banks, participation banks, etc.) the savings will be invested, from which financial institutions credit will be used, and in which financial institutions the investment portfolio will be allowed to be managed, are directly or indirectly related to financial risk tolerance and general risk perception. Individuals in Turkey generally encounter two types of financial institutions when making financial decisions regarding investing their savings and using credit. The first institution is the conventional bank that carries out its activities with interest-based instruments, while the other is participation bank that does not have a risk-free return such as interest in their activities and work based on risk and profit-loss sharing.

The concepts of risk and risk tolerance have particular importance in the field of Islamic finance, where Islamic banks serve as the most prominent actor in the world and participation banks in Turkey. Because Islamic finance theoretically has a structure that encourages risk sharing and profit-loss sharing. Islamic banks, which have a meager share in the global financial system regarding asset and activity size, started becoming a serious alternative to the conventional banking model, especially after the 2008 crisis (Aysan, Disli, Duygun, & Ozturk, 2018). The increasing interest of customers in Islamic banking products after the crisis is shown as one of the reasons for the rapid growth of Islamic finance (Khan, 2010). According to the end of 2020 data of participation banks in Turkey, although their total assets grew by 53.7% compared to the previous year, their share in the banking sector is still 7.2 (TKBB, 2020).

One of the most basic features of Islamic banks is that their financial products and services do not contain elements non-compliant with Islamic law, especially interest. The absence of interest in their transactions means they will share the risk with the depositors who give their money to the bank to make profitable investments. Thus, the depositor who shares the risk in the money operation also shares the profit obtained at the rate determined in the agreement. Another matter of discussion is the extent to which Islamic banks and financial institutions apply the above-mentioned risk/profit loss sharing principle in practice. The use of low-risk products such as murabaha on the funding side of Islamic banks is severely criticized by many (Zaman & Asutay, 2009; Asutay, 2012). Although the managers and employees of participation banks state that such a high murabaha rate is not preferable, they state that their customer portfolios are not ready to invest in riskier products such as mudaraba and musharakah. Moreover, they claim that the customers will transfer to conventional banks if the bank lose and reduce the customers' deposit. In other words, in case of any loss in participation accounts which are operated profit-loss sharing mechanism, depositors will not accept this loss. This study discusses the accuracy of this proposition, which is claimed by participation bank managers, through the concepts of risk perception and financial risk tolerance. Are the participation bank customers investors who do not like risk as claimed? Or are they risk-loving investors who can still be participation bank customers, in case their deposits decrease? In other words, what is the general risk perception of participation bank customers and how is this risk perception reflected in financial decisions?

This study aims to examine the structure of financial risk tolerances and risk perceptions of participation bank customers. It reveals the relationship between the demographic characteristics of participation bank customers, general risk perception and financial risk perception. Also, it shows which factors (being interest-free, high return, etc.) are effective in evaluating the savings of participation bank customers.

The study consists of three parts except the introduction part. The first section reviews the existing literature on general risk perception and financial risk tolerance. In the second section, the methodology of the research is explained. In the last section, the empirical results of the research are explained and discussed.

2. LITERATURE REVIEW

Banking clients' decisions are affected by many parameters in the financial market, and these investments are directly associated with the overall risk-taking level and financial risk tolerance. Many studies have examined the impact of demographic, personal type and financial literacy parameters on risk tolerance that are age, gender, marital status, ethnic background, educational level, number of dependents, income level, and wealth (Haliassos & Bertaut, 1995; Lippi & Rossi, 2020; Mishra & Mishra, 2014; Noviarini, Coleman, Roberts, & Whiting, 2021; Wang & Hanna, 1998; Thanki & Baser, 2021). Banking clients' overall risk-taking levels and financial risk tolerance are important to understand whether the clients who are using interest-based and interest-free banking systems are different or not. Because the products and financial tools offered by conventional banks and participation banks are different, and many other factors affect the preferences of clients using these banks. These factors should be studied in the economic context considering the different types of banking systems.

As an expectation and reality, riskier financial instruments can usually earn higher returns, the process of evaluation of financial instruments require a trade-off between investment return rate and riskiness. Moreover, higher financial returns usually demand longer and more commitments in terms of time (Kwon & Lee, 2009). On the other hand, interest is a common way to make money from financial instrument without uncertainty and risks. Interest is well-known and indispensable to many of us and has become so established as part of an official organization and accepted in modern economies and finance. It is almost impossible to conceive that finance can run without interest. Islam has strictly forbidden interest-based transactions, as it mentioned clearly in the Holy Qur'an and the Sunnah of the Prophet (Zakir Hossain, 2009). There are alternative financial solutions for Muslims to meet their financial needs. One of these solutions is the interest-free banking system known as Islamic banking and the participation banking, in globally and Turkey, respectively.

The loss aversion has a substantial impact on the individuals' investment strategies. There are several studies that investigate the loss and risk aversion with the different parameters on the individuals' investment strategies and portfolio choices (Berkelaar, Kouwenberg, & Post, 2004; Grable & Lytton, 1998). Charness & Gneezy (2012) and Arano, Parker, & Terry (2010) demonstrate the effect of gender on the loss aversion. Women have a higher level of loss aversion than men that induce women to invest less in high-risk assets.

Yao & Rabbani (2021) examine the association between investment risk tolerance, confidence levels, and investment portfolio risk on university students and non-students who are potential financial service consumers, professionals, and researchers. The results show that the positive relation between investment risk tolerance and portfolio risk is restrained by the level of confidence in financial knowledge. Individuals who have higher investment risk tolerance will have a higher risk portfolio, but low confidence will induce portfolio risk. The loss aversion has a negative relationship with investment decisions on high-risk and that encourage to make investments in lower risk assets (Arano, Parker, & Terry, 2010; Berkelaar, Kouwenberg, & Post, 2004; Dimmock & Kouwenberg, 2010).

Saputra, Natassia, & Utami (2020) investigate the impact of the religiosity on investment decisions by individual investors to choosing stock type securities in Padang, Indonesia. The findings demonstrate that the religiosity does not affect the investment strategies of individuals on stock type securities, while the loss aversion has a significant effect of the investment decisions on stock type securities.

Investment strategies employing the interest-free instruments need to regard the individual's risk tolerance because every type of Shariah complaint investment is closely related to the risk-return trade-off. Lestari, Ginanjar, & Warokka (2021) investigate whether the multidimensional risk-taking level and religiosity affect on sharia investment decisions in Indonesia. The findings indicate that risk propensity, risk attitude and risk capacity affect the sharia investment decisions, significantly. There are also differences between risk propensity and sharia investment strategies among moderate and religious individuals.

The overall and the financial risk tolerances are a deeply researched area in the behavioral finance field. Many of these research have been limited in scope to the relationship with demographic and socioeconomic factors. This study attempts to fill the literature gap and to understand the diversified effects of interest-based and interest-free banking clients on the overall and financial risk tolerances. According to the literature review, this study has conceptualized the relationships and hypotheses using multiple regression analysis. Our hypotheses are mentioned as below:

H1: The overall risk tolerance of participation bank clients is higher than the overall risk tolerance of conventional bank clients.

H2: The financial risk tolerance of participation bank clients is higher than the financial risk tolerance of conventional bank clients.

H3a: There is a significant difference between participation bank clients and conventional bank clients in terms of the importance of a high return on investment in the evaluation of savings.

H3b: There is a significant difference between participation bank clients and conventional bank clients in terms of the importance of having a regular return on investment in the evaluation of savings.

H3c: There is a significant difference between participation bank clients and conventional bank clients in terms of the importance of low-risk investment in the evaluation of savings.

H3d: There is a significant difference between participation bank clients and conventional bank clients in terms of the importance of the investment being reliable/known in the evaluation of savings.

H3e: There is a significant difference between participation bank clients and conventional bank clients in terms of the high liquidity of the investment in the evaluation of savings.

H3f: There is a significant difference between participation bank clients and conventional bank clients in terms of the importance of the interest-free investment in the evaluation of savings.

3. RESEARCH METHOD AND DATA

This study aims to examine and compare the structure of financial risk tolerances and risk perceptions of clients who have deposit accounts in conventional banks that offer interest or participation accounts in participation banks that offer dividends. For this purpose, the data of 1718 participants with a deposit or participation account and who participated in the Household Financial Perception and Attitude Survey conducted by the Republic of Turkey Presidency Finance Office were analyzed. The survey, conducted by the Presidency Finance Office, has a high representative power due to its broad scope and the fact that the participants are financial decision-makers in their households. In the study, t-test and ANOVA analyzes, which are the main analyzes used in the comparison of group averages, were used in order to compare the risk perceptions of conventional bank clients and participation bank clients.

In the survey, the overall risk tolerance of the participants was measured by the question of “Do you generally see yourself as a risk-taking person or as a risk-averse person?”. This question was answered on a 10-point scale: “1- Someone who does not want to take any risk” and “10- Someone who is completely ready to take risks”. On the other hand, the financial risk tolerance of participants was measured with the following question: “Let us say you have 5 different investment options for a one-year period where the probability of winning or losing is equal. If you had an extra 100,000 TL, which of the offers displayed on the screen would you prefer?” Participants answered this question by choosing the appropriate option from the options shown in the figure below. For this question, the option “I would not choose any of the options” indicates low financial risk tolerance and is expressed with a score of “1”. On the other hand, the option “100,000 TL gain or 50,000 TL loss” is accepted as a high financial risk tolerance and is expressed with a “6” score.

Figure 1: Options for financial risk-taking question

100,000 TL gain or **50,000 TL** loss If you win, your account will be **200,000 TL**; If you lose, your account will be **50,000 TL**. **-6-**	**80,000 TL** gain or **40,000 TL** loss If you win, your account will be **180,000 TL**; If you lose, your account will be **60,000 TL**. **-5-**	**60,000 TL** gain or **30,000 TL** loss If you win, your account will be **160,000 TL**; If you lose, your account will be **70,000 TL**. **-4-**
40,000 TL gain or **20,000 TL** loss If you win, your account will be **140,000 TL**; If you lose, your account will be **80,000 TL**. **-3-**	**20,000 TL** gain or **10,000 TL** loss If you win, your account will be **120,000 TL**; If you lose, your account will be **90,000 TL**. **-2-**	I wouldn't choose **any of the options** Your account will remain as **100,000 TL**. **-1-**

4. FINDINGS

While 56.3% of the survey participants are male, 58.8% are single. Also, the highest education level of 22.7% of them is secondary education. This group includes primary and secondary school graduates, as well as those who have not received a diploma. While the ratio of those with a high school or equivalent education level is 46.1%, the ratio of associate, undergraduate, graduate, or doctorate graduates is 31.2%. In addition, 34.3% of the participants are between the ages of 26 and 35. Finally, 70% of the participants have a deposit account with interest in conventional banks, while 35.8% have a participation account with a profit share in a participation bank. 5.2% of the participants are clients of both types of banks.

Table 1: Demographic Information

		f	%
Gender	Female	750	43.7
	Male	968	56.3
Education Level	Secondary and below	390	22.7
	High school and equivalent	792	46.1
	University and above	536	31.2
Marital status	Single	1010	58.8
	Married	708	41.2
Age	18 - 25	425	24.7
	26 - 35	590	34.3
	36 - 45	423	24.6
	46 and above	280	16.3
Bank Preference [1]	Conventional Bank Client	1202	70.0
	Participation Bank Client	615	35.8

[1] *Since there are participants who use both types of banks, the percentages add up to more than 100%.*

Table 2: The Relationship Between Bank Preference and Risk

	Conventional Bank Clients		Participation Bank Clients		
	X	SS	X	SS	*t*
Overall Risk Tolerance	5.98	2.36	5.52	2.36	3.87**
Financial Risk Tolerance	3.36	1.80	2.83	1.85	5.45**
*p<.05, **p<.01					

When conventional bank clients are compared with participation bank clients, it is seen that conventional bank clients have a higher average in both overall risk tolerance and financial risk tolerance. Accordingly, we can say that participation bank clients are more risk-averse. The results show that the H1 and H2 hypotheses could not be confirmed, contrary to the expectations.

Table 3: Important Factors in Evaluation of Savings

	High Return	Regular Return	Low Risk	Reliability	Liquidity	Interest-Free	F
General	18.44_{a}	20.99_{b}	16.61_{c}	19.38_{d}	15.55_{e}	9.02_{f}	332.75**
Conventional Bank Clients	19.76_{a}	23.06_{b}	16.69_{c}	20.01_{a}	15.75_{c}	4.74_{d}	669.70**
Participation Bank Clients	$15.82_{a,b}$	$17.01_{b,c,d}$	$16.36_{a,b,c}$	18.09_{d}	15.16_{a}	$17.57_{c,d}$	7.13**
*p<.05, **p<.01							

Within the scope of the study, individuals were asked which factors they consider when evaluating their savings (High Return, Regular Return, Low Risk, Reliable/Known, Easily Convertible into Cash when Needed, Being an Interest-Free Investment Tool). Participants were asked to score the factors presented to them, according to the importance of the factors, with a total of one hundred. The results regarding these factors are given in Table 3.

According to the results, the most important factor, in general, is that the investment has a regular return. It is followed by reliability, high return, low risk, and liquidity. Being an interest-free investment instrument is the least important among these factors. While there is a similar situation for conventional bank clients, the factor of being an interest-free investment becomes even less important. On the other hand, the most critical factors for participation bank clients are reliability and being interest-free. These factors are followed by the factors of regular return and low risk. For participation bank clients, high return and liquidity are the least important factors.

Table 4: The Relationship Between Bank Preference and Factors Which are Important in the Evaluation of Savings

	Conventional Bank Clients		Participation Bank Clients		
	X	SS	X	SS	*t*
High Return	19.90	8.92	15.36	9.56	9.09**
Regular Return	23.22	10.02	16.21	10.11	13.09**
Low Risk	16.75	8.14	16.43	8.28	0.75
Reliability	20.09	8.76	17.91	8.87	4.65**
Liquidity	15.77	7.71	15.08	8.05	1.64
Interest-Free	4.26	6.57	19.00	14.54	-22.00**

*p<.05, **p<.01

Conventional bank clients and participation bank clients were compared in terms of the factors mentioned above. According to the results obtained, the investment's high and regular return and reliability are more important for conventional bank clients. In contrast, for participation bank clients being an interest-free investment is more important. Thus, the results supported H3a, H3b, H3d, and H3f. On the other hand, both types of clients think alike regarding the low risk of investment and liquidity. Therefore, H3c and H3e could not be confirmed.

5. CONCLUSION

This study examined the structure of financial risk tolerances and risk perceptions of participation bank customers. It reveals the relationship between the demographic characteristics of participation bank customers, general risk perception, and financial risk perception. Also, it shows which factors (being interest-free, high return, etc.) are influential in evaluating the savings of participation bank customers. To evaluate the result of the analysis more accurately, we included the conventional bank customers' data in the analysis. Thus, we had a possibility to compare the result of the participation bank customers to conventional bank customers. In other words, we used the data of conventional bank customers as a proxy.

When we examined the results, it is seen that some results are contrary to the expectations (Lestari, Ginanjar, & Warokka, 2021). Our results show that conventional bank clients have a higher average in both overall risk tolerance and financial risk tolerance. This means that participation bank clients are more risk-averse. This result is in line with Saputra, Natassia, & Utami (2020)'s findings. However, the basis of the participation account includes profit-loss sharing, namely, risk sharing. Therefore, participation account holders were expected to be more risk-taking investors. The results show the opposite and support the managers and employees of participation banks who claim that their customer portfolios are not ready to invest in riskier products such as mudaraba and musharakah.

Our results also show that factors affecting the customers savings vary according to the type of the customers. For conventional bank customers, the most crucial factor is a regular return, while the least important factor is being an interest-free investment. On the other hand, the most critical factors for the participation bank customers are reliability and being interest-free. For participation bank clients, high return and liquidity are the least important factors. These results imply that participation bank customers do not like taking risk in their investment, but also they consider being interest-free of financial instruments. It means that participation bank customers prefer financial instruments in which low-risk and interest-free, namely participation bank accounts.

Consequently, it can be said that participation bank customers seem quite rationally in their investment decisions. However, they try not to neglect religious values while making investment decisions. At that point, participation accounts in participation banks rise as an excellent alternative. The originality of this study is that it uses survey data with high representative power due to its broad scope and the fact that the participants are financial decision-makers in their households. However, it has one limitation. It is that the overall risk tolerance and financial risk tolerance level of the survey participants are measured by two questions. Since this survey was not designed for this study, we could use only this part of the survey. In future studies, surveys containing a risk tolerance scale can be designed. Thus, more accurate results can be obtained.

Ethics Statement: *This study does not need any permission from the Ethics Committee. In case of detection of a contrary situation, the Journal of Social Economic Research has no responsibility, and all responsibility belongs to the authors of the study.*

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