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**Banks Attributes and Financial Performance of Non-Interest Banks in  
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Non-interest banks have gotten a lot of publicity in recent years owing to their distinctive business model of not charging interest on the loans they provide customers. Consequently, opponents of this business model have questioned the ability of these financial institutions to sustain their performance over time. This study analyzes some of the attributes and their effects on the performance of the non-interest banks in Turkey. The population of the study comprises of Seven (7) banks out of which only three (3) have adequate data set for the period 2008 to 2017. To analyze the collected data, the regression analysis is employed. The results of the analysis show that the attributes jointly have significant effect on the performance of non-interest banks. At individual level, number of products is shown to have a significant positive effect while the age of the firms has a significant negative effect on the performance of the banks. Conversely, capital ratio has positive non-significant effect on the performance. Furthermore, firm size has a negative non-significant effect on the performance of the banks. Based on the findings of the study, it is recommended that, to improve their performance, the non-interest banks should focus on product innovation. However, the banks should be wary of the potential loss of control that may arise from their growth in size and age.

**Key words:** Non-interest banks, performance, Turkey

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**INTRODUCTION**

Banking sector plays one of the most important roles in the economic life of a country. It facilitates the production, distribution, exchange and consumption processes in the economic system, thus being an essential part of country's sustainable development.

Banking sector around the world has experienced dramatic changes in recent times. Deregulation, financial innovation and automation have been major forces impacting on the performance of the banking sector. In such a context, banks have become increasingly concerned

about controlling and analysing their costs and revenues, as well as measuring the risks taken to produce acceptable returns. Amongst the shift and innovation in the banking sector is the introduction of non interest banking. While it offers more flexibility in the way funds are access, it also lead to the inclusion of more people in the financial cycle.

For banks, their major concern is to improve their performance in terms of productivity, efficiency and provide better returns to the investors. However, the banking sector has faced a lot of challenges due to various global financial crises. These led to poor performances on the part of the banks and investors also having to face the threat of losing their capital. The alternative banking services like the non-interest banks appeared to have little challenges in the crises periods. Thus this study sets out to identify the determinants of performance of non-interest banks in Turkey in terms of profitability, efficiency, and productivity. The challenges is that most of the study of this nature were carried out for the conventional banks (Belaynah, 2011, Keles, 2011, Devinaga, 2010, Valentina et al, 2009). The few studies that have attempt to examine the determinants of the non-interest banks usually adopt the determinants of the conventional banks which are usually not specific to the non-interest banks. For example, Nabilah and Rashidah (2013); and Narwal and Pathneja (2015) focused on non-performing loan and liquidity only and did not account for the number of products offered by the banks. In line with the problem identified, this study sets out to test the hypothesis whether bank size, bank age, number of products and capital ratio have significant effects on the performance of non-interest banks in Turkey.

The remaining part of this work focus on the literature review, methodology, results and discussion and finally, conclusion and recommendation.

## **LITERATURE REVIEW**

Non-interest banks are banks that operate without charging interest. Non interest banking usually to satisfy a category of customers (mostly Muslim) who on religious basis are against the charging of interest. The issue is that without charging interest are these banks able to perform well? The empirical review below examine previous studies in this area.

Elisa and Guido (2016) ascertained the correlation among bank-specific characteristics and profitability in 28 European banks while unbalanced panel data was utilized from 2006-2015. Regression analysis was employed, from the regression outcome, capital ratio and size have positive impacts on bank profitability; while higher asset quality results in lower profitability levels. Findings also suggest that banks with higher deposit ratio tend to be more profitable. The study used unbalanced data without considering fixed and random effect model which could have given a better outcome than the unbalanced result.

Daniel (2017) determined the impact of liquidity management on the performance of deposit money banks spanned 1998-2011. Bank profitability was proxied by ROE. Multiple linear regression analysis was used for the analysis. Outcome indicated that liquidity and cash reserve ratios have positive impact on ROE, whereas loan to deposit ratio shows negative impact. However, the key results indicate that only the banks with optimum liquidity were able to

maximize returns. It was suggested that bank should adopt optimum liquidity model for efficiency and effectiveness. The study is in Nigeria and focused on interest based banks.

Sibel, and Ihsan (2012) investigated the profitability of the Korean banking sector for the period of 1992-2003 and he comes up with the following findings that the banking system in Korea impulses profitability when there is low liquidity in their assets and their macroeconomic determinants especially inflation have a significant impact on bank profitability. However, the impact of credit risk and cost are always negative. Furthermore, it is observed that on average the Korean banking sector is relatively more profitable during the pre-crisis period under both profitability measures, i.e., ROA and ROE. One relevant view that is included in the study that the Korean banking system was under fire during the Asian financial crisis. The focus of this study on macro-economic variables and it is also based on interest bearing firms.

Alaaeddin, Bashar and Ghazi (2017) ascertained the impact of noninterest income on the performance of 13 banks in Jordan spanned 2000-2015. Noninterest income was proxied by size of bank, loans, capital adequacy and overhead expenses. From the analysis, it was discovered that overhead expenses has negative significant impact on banks performance whereas, capital adequacy, loans and size has positive significant impact on bank performance. Therefore, it is concluded that overhead expenses decrease bank performance, while capital adequacy, loans and size increase it. The major focus of the work is not on bank size rather on non-interest income

Rahman (2015) used 25 commercial banks spanned 2006-2013 from Bangladesh, to determined determinants of bank performance. Liquidity, non-interest income, off-balance sheet activities, bank size, capital strength, credit risk, ownership structure, cost efficiency, and inflation were used while performance was measured by return on assets, return on equity and net interest margin over total assets. Outcome revealed that cost efficiency and off-balance sheet activities have negative impact on profitability; whereas, loan intensity and capital strength has positive impact on bank profitability. Furthermore, credit risk, and Non-interest income influence NIM. Also, there is a positive correlation among size and ROA, and that inflation has a negative correlation to ROA and ROE. The focus of the study is on profitability.

Allen (2014) examines the determinants of the efficiency and productivity of the banking systems of seven central and east European countries between 2004 and 2008. To achieve this, the stochastic frontier analysis and data envelopment analysis techniques are adopted. The empirical results show that the average efficiency of banks in central and east European countries grew in the period of the study (Allen, 2014). The average efficiency scores for each country shows a significant variation across the banking systems of the central and east European countries. Though the study is based on European banks, this current study brings out whether similar result is tenable in Turkey.

Nabilah and Rashidah (2013) explored the area of bank efficiency with the usage of Stochastic Frontier Analysis. The study focused on conventional and non-conventional (Islamic bank) banks in Malaysia. The result revealed that the levels of profit efficiency for both conventional and Islamic banks in Malaysia were highly similar. Further, it was found that efficiency is better for conventional banks as they have high size and also the decrement of both operational cost and credit risk, while the efficiency for Islamic banks is only better with decrement of

operational cost. The study focused only on DEA approach, this study uses both efficiency and profitability in term of ROA as measure of performance.

Aremu, Ekpo and Adedoyin (2013), in an effort to find the determining factors of profitability in the banking sector, applied the econometric analysis of Cointegration and Error Correction Technique. The research used the First Bank of Nigeria PLC as a case study. The study's findings showed that contrary to the views of some authors, Bank Size (Natural Logarithm of Total Asset and Number of Branches) and Cost Efficiency did not significantly determine bank profitability in Nigeria. Conversely, Credit Risk (Loan Loss Provision-Total Assets) and Capital Adequacy (Equity-Total Assets) were found to be significant drivers that affected bank profitability both in the long run and short run. Furthermore, while Liquidity affected bank profitability in the short run; Labor efficiency (Human Capital ROI and Staff Salaries-Total Assets) only affected bank profitability in the long run. But as for the external or macroeconomic variables which determined bank profitability, only Broad Money Supply growth rate was found to be a significant driver both in the long run and in the short run. This current study deviate from time series approach and used panel data approach.

Hirindu and Kushani (2017) assessed the effect of bank specific factors on profitability in Sri Lankan banks. The study used balanced panel data of 60 observations spanned 2011-2015. Bank deposits, Bank size, Capital, and Liquidity are used as the measure of determinants of banks while return on asset as the Profitability measure. Outcome showed that size, capital ratio and deposit ratio have positive and significant influence on bank profitability while Liquidity has insignificant and negative relationship with ROA. The study did not consider bank efficiency as a measure of performance.

Bassey, Tobi, Bassey and Ekwere (2016) investigate the relationship between liquidity management and the performance of banks in Nigeria spanned 2000-2010. Liquidity management was measured by bank deposit; cash reserve requirement, bank investment, and cash ratio. Simple regression was used to establish the relationship. Outcome revealed that correlation exists among bank deposit and bank reserve requirement, and bank investment and cash ratio. Thus, it is suggested that banks should not concentrate purely on deposits but rather other measures be adopted to reduce illiquidity in this sector. The study did not consider bank efficiency as a measure of performance.

Makau and Memba (2014) determined the effect of asset liability on financial performance of Kenya commercial banks with specific focus on Diamond Trust Bank from 2006-2013. Asset liability was measured by customer deposits; loans advanced to customers; management of the loans advanced to customers and management of loans from other banks while performance was measured by Net Interest Income. From the t-test analysis, customer deposits as well as advancement of loans affect financial performance significantly. Therefore, banks should concentrate more on customer deposits and the advancement of more loans to customers so as to increase their financial performance. The study did not consider bank efficiency as a measure of performance.

Ofuan and Izien (2016) studied the correlation among firm age, firm size and profitability in 30 quoted firms on the Nigerian Stock Exchange Market spanned 2006-2012. Panel data

regression analysis was used to estimate the association. It was discovered that firm age, firm size has significant positive association with profitability. The control variable of board size reports a negative and insignificant relationship with profitability. The study suggested that the management should strive to increase the scale of operation of businesses and by implication, the size of the business to enhance improved reputation and attractiveness. This study focused on interest bearing banks and the fact that it did not use efficiency as a measure of firm performance.

Christos, Zacharias and Christos (2014) investigate the effect of size, age and exports on the efficiency of all manufacturing firms in Greece with a sample of 3600 Greek industrial firms spanned 2003-2011 while DEA analysis was used on 13 Greek regions. From the outcome of the Tobit regression analysis, it was discovered that export has negative effect on efficiency scores, while a positive relation exist among size and efficiency scores is reported. Finally, age is positively correlated with efficiency. The study only used correlation to examine the relationship.

Erasmus (2013) ascertained the impact of firm size and age on performance in Tanzania 30 Microfinance institutions within five years duration. Outcome revealed that firm size as measured by total asset and number of borrowers has positive impact on the performance of Microfinance institutions. Whereas, the study found out that firm size measured by the number of staff was negatively related to the efficiency sustainability and profitability. Discovery also established that the age of the firms which indicates firm experience have a positive impact on efficiency, sustainability and financial revenue levels but have a negative impact on the profitability. The study concludes that both firm size as well as age has impact on Microfinance performance. The study did not consider bank efficiency as a measure of performance.

Wangui (2013) determined the correlation among firm characteristics measured by firm age, size, diversification, leverage, liquidity, premium growth, claim experience and financial performance of Kenya life insurance companies from 2008-2012. Regression analysis was used to analyze the data. Outcome revealed that the variables are statistically significance to influencing financial performance of life insurance companies as indicated by the positive and strong Pearson correlation coefficients. This implies that premium growth is relied upon to make conclusions about the financial performance of life insurance companies. The study did not consider bank efficiency as a measure of performance.

Jean (2017) examined the impact of mobile banking on Unguka Bank performance spanned 2012-2016. Quantitative as well as interview were used to generate the data. Findings indicated that mobile banking products offered by Unguka Bank Ltd which include, Fund Transfer between Accounts, Bill Payment, order for cheque books, bank statements and mobile money were found to have influence on the performance of the banks. The study used the time series approach while this study is using the panel regression approach for non-interest banks.

Dzombo, James and James (2017) evaluate the effect of branchless banking on the financial performance of 42 Kenya commercial banks. Branchless banking was measured by agency banking and electronic banking channels while bank performance was measure by return on asset. Exploratory research design was adopted. The amount of investment in agency and electronic banking was used as indicator for agency and electronic banking. It was discovered

that separately agency and electronic banking had a significant negative effect on the financial performance but in combine, agency and electronic banking channels had a significant positive effect on bank's financial performance. It was suggested that banks should invest in both agency and electronic banking as a multichannel strategy since these channels are complimentary to each other. This study is based in Kenya and considered the case of interest based banks.

Iliya, Batu and Necla (2015) investigated the effects of the bank's profitability performance of electronic-based banking services spanned 2005-2013 from 23 nations electronic banking services. Performance was proxied by ROA and ROE. Outcome indicated that bank profitability of developed and developing countries is influence by the ratio of the number of branches, and number of ATMs is highly significant and electronic banking services in significant. Outcome revealed that POS and internet banking were found to have negative relationship with performance because of diversity in the level of development of the countries, the socio-cultural structure and electronic banking infrastructure. This study did not take into consideration the efficiency dimension of performance in the analysis.

Bobby, Pek and Thian (2015) ascertained the effect of banking services on bank performance. Banking services was proxied by service quality, innovation, technology and employee commitment. Surveys research design was adopted through online questionnaire and self-administers methods that consist of drop-off survey. The outcome indicated that service quality has a significant correlation with bank performance. Also, technology has significant association with bank performance. Furthermore, innovation and employees commitment has a significant relationship with bank performance. This study did not take into consideration the efficiency dimension of performance in the analysis.

Narwal and Pathneja (2015) examined the determinants of productivity and profitability of banks in India. The linear programming model Data Envelopment Analysis (DEA) based Malmquist index is used in the study to measure total factor productivity of groups and sub-group banks. The decomposition of total factor productivity into pure technical and scale efficiency is done to get a comprehensive insight of the effect of these two on the overall productivity. The study disclosed that private sector banks are more productive than public sector banks over the whole study period. But no significant difference exists in the profitability of two bank groups. The main reason of more productivity of private sector banks is the better utilization of technology than the public sector banks. The study considered a comparative approach of different bank groups.

## **METHODOLOGY**

The study adopts cause effect research design. The design is to be used because it is able to determine cause-effect relationship between the dependent and independent variables with a view to establishing a causal link between them. It also tests hypotheses concerning cause-and-effect relationships; as well as combining the theoretical consideration with empirical observation.

The population of this study comprised of all the Islamic banks in Turkey. The total number of Islamic banks in the country is thirteen (7). Out of the total of seven banks, only three (3) banks

have complete data set thus were selected. The study covers the period of year 2008 to 2017. This period was selected based on the argument that during the period of financial crisis of year 2008 non-interest banks did not face serious financial challenges.

The ordinary least square (OLS) linear regression model is to be used to estimate the variables. This involves estimation of the model in order to examine the effect of the determinants on the profitability.

Specifically, the study use panel regression to bring out the individual and period effects of the banks. The choice of the effect specification will be based on the result of Hausman test on the naïve regression model. The rule is that if Hausman test suggest for fixed effect then fixed effect will be used. However, if it suggest for random effect then Lagrange Multiplier Tests is further carried out to see whether random effect should be used on ordinary panel regression be used. As shown by the Lagrange Multiplier Tests, the ordinary panel regression was used.

The various models for each of the hypothesis is presented below:

$$ROA_{it} = \alpha + \beta_1 CR_{it} + \beta_2 BS_{it} + \beta_3 NP_{it} + \beta_4 FA_{it} + \varepsilon_{it}$$

**Table 3.0 Variable Measurement**

S/N	Variable Name	Abbreviation	Measurement
1	<i>Return on Aset</i>	<i>ROA</i>	Net Income/Total Asset
3	<i>Number of Products</i>	<i>NP</i>	Number of products that the bank offers to customers
4	<i>Bank Age</i>	<i>FA</i>	Age of the bank
5	<i>Bank Size</i>	<i>BS</i>	Log of Total Asset
6	<i>Capital Adequacy</i>	<i>CR</i>	Total capital/ risk weighted asset

## RESULTS AND DISCUSSION

The result of the statistical analysis of the data is presented in this section of the work. All the pre and post diagnostic tests were carried out on the data and the results analyzed. The regression method was used to test the hypotheses of the study.

**Table 4.1 Descriptive Statistics**

	ROA	FS	NP	CR	AGE
Mean	0.031944	19790307	22.250000	14.28124	13.50000
Median	0.030000	14034507	24.000000	14.83000	11.50000
Maximum	0.060000	57123095	28.000000	21.72000	29.00000
Minimum	0.010000	2951434.	11.000000	0.142400	1.000000
Std. Dev.	0.010907	14722237	2.7060000	4.995644	8.150372
Skewness	0.545896	0.765933	0.1727560	-1.696424	0.404612
Kurtosis	3.539981	2.471322	2.4038950	5.908832	1.961052
Jarque-Bera	2.225386	3.939171	0.712080	29.95907	2.601383

Probability	0.328673	0.139515	0.700445	0.000000	0.272343
Sum	1.150000	7.12E+08	120321.0	514.1246	486.0000
Sum Sq. Dev.	0.004164	7.59E+15	49206441	873.4759	2325.000
Observations	36	36	36	36	36

**Source: Computed by the Author using Eviews 10**

Table 4.1 shows the descriptive statistics of the variables of the study. This describes the behavior of the data in terms of averages of the variables and distribution of the variables. The average value of the return on asset of the firms is 0.0329 which implies that on average the firms have 3% on assets employed. The fluctuation in the performance of the banks is measured by the standard deviation which is 1%. The average size of all the non-interest banks is 19,790,307 billion lar. The fluctuation in size is high to the tune of 14,722,237 billion lar. The average number of products by the banks is 22 while the average capital ratio is 14.28. The average age of all the banks is 13.5 years.

**Table 4.2 Correlation Analysis**

	ROA	FS	NP	CR	AGE
ROA	1.000000	0.211739	0.300482	0.148183	-0.271579
FS	0.211739	1.000000	0.870601	-0.156337	0.489709
NP	0.300482	0.870601	1.000000	-0.194016	0.506036
CR	0.148183	-0.156337	-0.194016	1.000000	-0.262978
AGE	-0.271579	0.489709	0.506036	-0.262978	1.000000

**Source: Computed by the Author using Eviews 10**

Table 4.2 shows the result of correlation analysis. The result shows that all the variables have weak relationship with the dependent variable and individual level. In fact, age has a negative correlation with return on asset which implies that as the firms are growing their performance is reducing. On the other the relationship between the independent variables is generally weak except for the link between number of products and firm size; this has a potential of causing co-linearity in the result, thus a further test of multicollinearity is carried out using variance inflation factor in table 4.7

**Table 4.3 Hausman Specification Test**

Correlated Random Effects - Hausman Test

Equation: Untitled

Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	1.715468	4	0.7879

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
CR	0.000070	0.000264	0.000000	0.4395
AGE	-0.000751	-0.000718	0.000000	0.6400
FS	-0.000000	-0.000000	0.000000	0.8614
NP	0.000006	0.000006	0.000000	0.7020

**Source: Computed by the Author using Eviews 10**

The result in table 4.3 shows the Hausman specification test. The result shows that when all fixed and random effects of the variables are compared all of them have probabilities that are greater than 5%. Also, for all the combined period random, the value of chi-sq. statistics is 1.715 which also indicated a probability value of 0.788 which again is greater than 5%. Based on the result above, the Hausman test suggest for random effect. However, Lagrange Multiplier Tests needs to be carried out again to see whether the random effect is appropriate or ordinary panel regression should be used. The result presented in table 4.4 shows the result of the test.

**Table 4.4 Lagrange Multiplier Tests**

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.577962 (0.4471)	0.096528 (0.7560)	0.674490 (0.4115)
Honda	-0.760238 (0.7764)	0.310690 (0.3780)	-0.317878 (0.6247)
King-Wu	-0.760238 (0.7764)	0.310690 (0.3780)	-0.577455 (0.7182)
Standardized Honda	0.373058 (0.3546)	0.563766 (0.2865)	-3.391770 (0.9997)
Standardized King-Wu	0.373058 (0.3546)	0.563766 (0.2865)	-3.641373 (0.9999)
Gourieroux, et al.*	--	--	0.096528 (0.6162)

**Source: Computed by the Author using Eviews 10**

The result in the table shows the various tests for the presence of cross-sectional and period effects in the panel model. This was done after taking into consideration Hausman test which suggested for random effect. Since Hausman test suggested for random effect a further test of Lagrange Multiplier needed be done to see whether the random effect be done or whether panel without effect specification is better. This test was done using Breusch-Pagan test, Honda test, King-Wu test, Standardized Honda test and Standardized King-Wu test. For all the tests, both cross-section and time effects all suggested absence of effects since the probability values are all greater than 5%.

**Table 4.5 Regression Result**

Dependent Variable: ROA

Method: Panel Least Squares

Periods included: 12

Cross-sections included: 3

Total panel (balanced) observations: 36

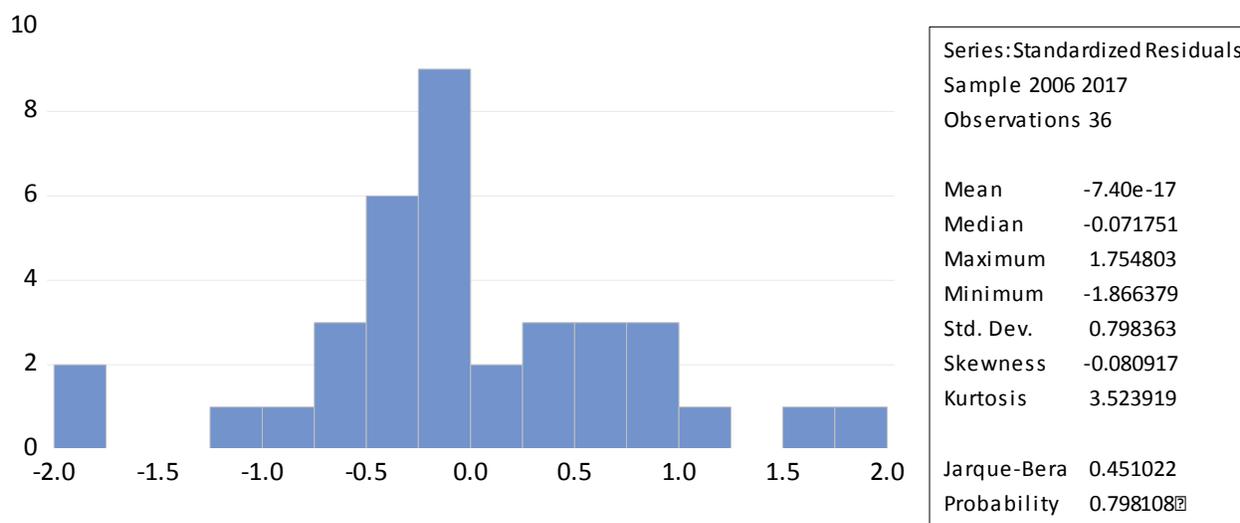
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.10E-16	0.141385	-2.19E-15	1.0000
CR	0.104275	0.147121	0.708773	0.4838
AGE	-0.527898	0.168408	-3.134641	0.0037
FS	-0.075727	0.289682	-0.261416	0.7955
NP	0.726496	0.293461	2.475616	0.0190
R-squared	0.310321	Mean dependent var		-3.92E-16
Adjusted R-squared	0.300362	S.D. dependent var		1.014185
S.E. of regression	0.848309	Akaike info criterion		2.637101
Sum squared resid	22.30845	Schwarz criterion		2.857035
Log likelihood	-42.46783	Hannan-Quinn criter.		2.713864
F-statistic	4.756472	Durbin-Watson stat		1.874848
Prob(F-statistic)	0.004141			

**Source: Computed by the Author using Eviews 10**

The result of the panel regression is shown in the table 4.1 above. The result shows that out of a total of 100%, the model is able to explain the relationship between the two variable up to 31%. This result means that the remaining 69% is explained by other variables that are not within the scope of this study.

The result also shows that when the selected variables are not being considered, the performance of the non-interest banks falls by 3.10E-16. This implies that the lot has to be done in order to move the banks from non-performing to performing. The result shows that capital adequacy ratio has a positive effect on the performance of the banks, however, the level of capital ratio is not enough to cause a significant change in the performance of the banks. The result shows that as the firms grows in age their performance reduces. This is shown by the coefficient value of -0.52 and it has significant statistical implication. Also, firm size has negative effect on the

performance of the banks. This is due to size effect as firms grow and continue to age they begins to diversify they face a lot of challenges thus easily lose focus of profitability. On the other hand, number of products have statistically significant positive effect on the performance of the banks. This is expected as the performance of a bank depends on innovation of new products in to the market.



**Figure 1: Residual Plot for Normality Test**

The figure shows the result of the normality test. This was done on the residual of the regression residual. The test shows the distribution of the residual. The result shows a very low value of skewness, kurtosis and jarque-bera statistics. In fact, the probability of the jarque-bera statistics is 0.798 which is higher than 5%. Therefore the residual has a normal distribution.

**Table 4.6 Residual Cross-Section Dependence Test**

Residual Cross-Section Dependence Test

Null hypothesis: No cross-section dependence (correlation) in residuals

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	1.458497	3	0.6919
Pesaran scaled LM	-0.629316		0.5291
Pesaran CD	0.559941		0.5755

**Source: Computed by the Author using Eviews 10**

This shows the result of the cross-sectional dependency test. From the foregoing result in table 4.4 the probability value of the Breusch-Pagan LM test is 0.69 which then implies that there is no case of cross-sectional dependence test.

**Table 4.7 Multicollinearity Test**

Variance Inflation Factors

Included observations: 36

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.019990	1.000000	NA
CR	0.021644	1.082784	1.082784
AGE	0.028361	1.418793	1.418793
FS	0.083915	4.197945	4.197945
NP	0.086119	4.308186	4.308186

**Source: Computed by the Author using Eviews 10**

The result of Variance Inflation Factor is presented in table 4.6. The result shows that all the values of both uncentered and centered VIF are all less than 5%. This result thus implies that the regression result presented are robust of co-linearity among the explanatory variables. In fact the values for FS and NP are high due to the fact that they have high correlation of 87%, however, the VIF are still less than 5 thus no concern of multicollinearity.

### CONCLUSION AND RECOMMENDATION

This study has examined the effects of bank's attributes on the performance of non-interest banks in Turkey. The result of the analysis shows that the selected attributes jointly have significant effect on the performance of the banks. The result shows that capital adequacy ratio has a positive effect on the performance of the banks, however, the level of capital ratio is not enough to cause a significant change in the performance of the banks. The result shows that as the firms grows in age their performance reduces. Also, firm size has negative effect on the performance of the banks. This is due to size effect as firms grow and continue to age they begins to diversify, they face a lot of challenges thus easily lose focus of profitability. On the other hand, number of products have statistically significant positive effect on the performance of the banks. This is expected as the performance of a bank depends on innovation of new products in to the market. In line with the findings and the conclusion, it is recommended that the non-interest banks focus on product innovation as this will continue derive their performance. However, the banks needs to be wary of the fact that as they are growing in size and age they could lose control which then affects their performance.

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