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## **RESEARCH ARTICLE**

## FINANCIAL PERFORMANCE OF NBFC'S IN INDIA: CORRELATION & REGRESSION ANALYSIS

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# ARTICLE INFO ABSTRACT

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This study is conducted to assess the financial performance of NBFC's in India using Correlation and Regression analysis. The study is an econometric one that considers the samples of various types of NBFC's. The main categorisations of the NBFC's are Loan Companies, Investment companies, Infrastructure finance companies, and Asset finance companies. Here, 50 NBFC's were chosen in total with 10 companies in each category. For the section of asset finance, it was further divided into subdivisions such as hire purchase and equipment leasing companies.

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#### Key Words:

NBFC, Financial Performance

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# **INTRODUCTION**

This study is conducted to assess the financial performance of NBFC's in India using Correlation and Regression analysis. The study is an econometric one that considers the samples of various types of NBFC's. The main categorisations of the NBFC's are Loan Companies, Investment companies, Infrastructure finance companies, and Asset finance companies. Here, 50 NBFC's were chosen in total with 10 companies in each category. For the section of asset finance, it was further divided into subdivisions such as hire purchase and equipment leasing companies. Given in the table below is the list of companies that were chosen for the purpose of this study.

**Period of study:** Obtaining the datasets for the purpose of the study involved a comprehensive search of the databases of IBA, website of RBI and SEBI bulletins, data bank of CMIE, reports and statistical data and tables published on NBFC's in different journals. The study uses the (balance sheet) data for 15 years from the year 2001 to 2015. This period was chosen to represent the upward trend of NBFC's which occurred most in this period of time. This disaggregate study thus takes place at a company level, with the selection of the companies being done based on the availability of relevant data. All the companies chosen above are listed in the RBI's list of NBFC's in India.

Variables of the Study: The following variables have been used for analysing the data in the present study.

#### Independent Variables:

- Operating profit margin
- Net profit ratio
- Current ratio
- Debt equity ratio
- Fixed asset turnover ratio
- Asset turnover ratio

#### Dependent Variables

• Return on assets

**Descriptive Statistics:** Descriptive statistics gives the summary of the data and is the representation of entire data. The descriptive statistics provides the information of minimum, maximum and the average value of study parameters. Descriptive statistical measures such as minimum, maximum, mean and standard deviation of financial parameters of NBFC are depicted in table 1.4.1. From the analysis, it is observed that the average value of all 50 NBFC companies' net profit ratio was 0.54 followed by, current ratio was 19.02, fixed asset turnover ratio was 153.4, asset turnover ratio was 0.59 and return on assets was 0.11. On the basis of the current ratio, the performance of the NBFC was good. However, operating profit ratio and debt-equity ratio were negative. It reveals that NBFC companies did not gain the operating profit during 2001-2015.

**Correlation and Regression Analysis:** Correlation and regression analysis generally provide the association information between the study parameters (variables).

Specifically, linear relationship between two variables can be ascertained through correlation analysis while regression analysis gives the cause and effect relationship between the variables. relationship between the independent variables (Operating profit margin, Net profit ratio, Current ratio, Debt equity ratio, Fixed asset turnover ratio, Asset turnover ratio) and dependent variable (Return on assets) is examined.

	NDDG
Categories	NBFC companies
Loan Companies	Bajaj Holdings
	Coral India Finance and Housing
	LIC Housing Finance
	Dewan housing
	GIC housing finance
	IFCI Limited
	India Infoline (IIFL)
	India Home Loans
	M&M Financials
	GRUH Finance
Investment companies	Blue chip investments
	Fortis Healthcare Holdings Pvt. Ltd.
	RELIGARE ENTERPRISES LIMITED
	TCI Finance
	GSB finance
	MukeshBabu Financial Services
	JM FINANCIAL LIMITED
	Shree Global
	Reliance Capital
	Power Finance Corporation Ltd
Infrastructure finance companies	Rural Electricity Corp.
-	Shristi infrastructure development corporation limited
	Marg projects and infrastructure limited
	GMR infrastructure
	Crest ventures
	Tourism Finance Corp of India
	GVK Power and infrastructure
	Power Finance corporation
	Centrum finance
	Nalin Lease finance
	Ceejay Finance Ltd
Asset finance companies	Ashirwad Capital
1	Escorts finance
	Shriram transport finance company limited
	Cholamandalam investment and finance company limited
	Lkp finance
	Sakthi finance limited
Hire-purchase companies	Kailash auto finance ltd
Equipment leasing companies	Manapuram Asset finance Limited
	VLS finance Ltd
	SUNDARAM FINANCE LIMITED
	Magma Fincorp Ltd
	Swastika Investsmart
	Upasana finance
	Pioneer investcorp
	Choice Financial services
	Glance finance ltd
	Golden Goenka
	Capri global
	Indus finance Ltd
	muus miance Liu

#### Table 1. Categories of NBFC's

Table 2. Descriptive statistics of financial ratios of NBFC

	Minimum	Maximum	Mean	SD
Net profit ratio (NPR)	-173.50	52.08	.54	7.69
Current Ratio (CR)	.00	1211.00	19.02	103.46
Operating profit ratio (OPR)	-19000.00	2700.00	-6.96	834.57
Debt-Equity ratio (DER)	-6518647.00	7898333.99	-4694.95	767077.25
Fixed asset turnover ratio (FATR)	-2.35	7778.00	153.36	726.58
Asset turnover ratio (ATR)	-1.68	59.03	.59	3.19
Return on Assets (ROA)	-12.00	7.72	.11	.62
Source: Calculated by Author				

Regression analysis is used in the context of the present study in order to identify the factors that account for the failure and success of the NBFC's with regard to their viability, profitability, granting loans and advances, recovery of loans with the amount of NPA. In regression analysis, the This is important as the objectives of the present research necessitate identification of the relationship between the dependent and independent variables. Regression analysis uses range from the most general problems to the most specific in each instance leading relating to a factor (or factors) to a specific outcome. In statistics, regression analysis includes any technique for modelling and analysing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable is changes when any of the independent variables are held fixed. Less commonly, the focus is on a quantile or other location parameter of the conditional distribution of the dependent variable. In all cases, the estimation target is a function of the independent variables called the regression function. In the regression analysis, it is also of interest to characterise the variation of the dependent variable around the regression function. In regression analysis, it is also of interest to characterise the variation of the dependent variable around the regression function, which can be described by a probability distribution.

The profitability ratios such as net profit ratio and operating profit ratio were a positive relation with one another. Also, the profitability ratios were a positive relation with return on assets (P<0.01). It could be concluded that profitability ratios increase in value, it leads to enhance the return on assets. Likewise, the fixed asset turnover ratio was a positive relation with asset turnover ratio (p<0.01) and return on assets (p<0.01). Further, asset turnover ratio was a strong positive correlation with return on assets (p<0.01). However, liquidity ratio and solvency ratio did not correlate with any profitability and efficiency ratio.

Hence the alternative hypothesis "There is a significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of loan companies" is partially accepted

		NPR	CR	OPR	DER	FATR	ATR	ROA
NPR	r-value	1	.017	.961**	018	060	099	.426**
MFK	p-value		.841	.000	.870	.499	.230	.000
CR	r-value		1	.031	.002	.102	085	110
CK	p-value			.709	.983	.256	.312	.189
OPR	r-value			1	018	061	098	.422**
OFK	p-value				.875	.489	.234	.000
DER	r-value				1	.026	.062	.050
DEK	p-value					.828	.583	.659
FATR	r-value					1	.490**	.247**
TAIK	p-value						.000	.004
ATR	r-value						1	.704**
AIK	p-value							.000
ROA	r-value							1
KOA	p-value							

Table 3. Correlation analysis of financial ratios of loan companies

Source: Calculated by Author

Where NPR - Net profit ratio, OPR - Operating profit ratio, CR - Current Ratio, DER - Debt equity ratio, FATR - Fixed asset turnover ratio, ATR - Asset turnover ratio and ROA - Return on assets.

Table 4. Influence of profitability,	liquidity, solvency and	l efficiency ratios on financia	performance of loan companies
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Unstandardi	zed Coefficients	t-value	p-value	Collinearity statistics	
Beta (β)	S.E			Tolerance	VIF
.007	.018	.373	.710		
.108	.085	1.271	.208	.028	36.013
.000	.001	379	.706	.029	34.883
.000	.000	242	.810	.941	1.062
.000	.000	.333	.740	.994	1.006
.000	.000	-2.458	.017*	.852	1.173
.256	.021	11.926	.000**	.629	1.590
	Beta (β)           .007           .108           .000           .000           .000           .000           .000	.007         .018           .108         .085           .000         .001           .000         .000           .000         .000           .000         .000           .000         .000	Beta (β)         S.E           .007         .018         .373           .108         .085         1.271           .000         .001        379           .000         .000         .242           .000         .000         .333           .000         .000         -2.458	Beta (β)         S.E $^{1}$ .007         .018         .373         .710           .108         .085         1.271         .208           .000         .001        379         .706           .000         .000        242         .810           .000         .000         .333         .740           .000         .000         -2.458         .017*	Beta (β)         S.E         Tolerance           .007         .018         .373         .710           .108         .085         1.271         .208         .028           .000         .001        379         .706         .029           .000         .000        242         .810         .941           .000         .000         .333         .740         .994           .000         .000         -2.458         .017*         .852

Table 5. Correlation analysis of financial ratios of investment companies of NBFC

		NPR	CR	OPR	DER	FATR	ATR	ROA
NPR	r-value	1	018	293**	.036	046	040	.343**
NPK	p-value		.837	.001	.767	.626	.644	.000
CR	r-value		1	.044	.037	.018	035	033
CK	p-value			.616	.759	.846	.683	.700
OPR	r-value			1	024	106	024	.018
OPK	p-value				.845	.262	.779	.834
DER	r-value				1	.027	.028	.018
DEK	p-value					.840	.814	.878
FATR	r-value					1	.092	074
FAIK	p-value						.332	.434
ATR	r-value						1	122
AIK	p-value							.150
ROA	r-value							1
коа	p-value							

Source: Calculated by Author. NPR - Net profit ratio, OPR - Operating profit ratio, CR - Current Ratio, DER - Debt equity ratio, FATR - Fixed asset turnover ratio, ATR - Asset turnover ratio and ROA - Return on assets.

Null hypothesis: H0 - There is no significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of loan companies: Table above provides the correlation analysis of financial parameters of loan companies of Indian NBFC. The effect of profitability, liquidity, solvency and efficiency ratios on the financial performance of loan companies is shown in table 5. In the analysis, the financial performance of the companies is computed on the basis of return on assets. The coefficient of determination (Adjusted R-square = 0.684) connoted that around 68 per cent of change in the financial performance of loan companies depended on the independent variables such as profitability, liquidity, solvency and efficiency ratios. The significance values (p<0.05) indicated that efficiency ratios such as fixed asset turnover ratio and asset turnover ratio did the significant influence on the performance of loan companies of Indian NBFC while the profitability ratios, liquidity ratio and solvency ratio (p>0.05) did not a significant influence on the financial performance. The regression model for the loan companies of NBFC can be written in the following manner:

ROA= 0.007 + 0.108 (NPR) +0.256 (ATR)

Hence, the null hypothesis is accepted. However, some variables such as Fixed asset turnover ratio and Fixed asset turnover ratio are found to impact Return on Asserts. on assets. In the regression analysis, financial performance (ROA) of investment companies of NBFC was 55 per cent depend on their profitability, liquidity, solvency and efficiency ratios. Among the ratios, net profit ratio made the significant impact on the financial performance of investment companies while the other ratios like operating profit ratio, current ratio, debt-equity ratio, fixed asset turnover ratio and asset turnover ratio did not a significant influence. In addition, the variation inflation factor (VIF) of all independent variables was around 1. It could be inferred that there was no multi-collinearity problem within the independent variables. Therefore, the regression coefficients possessed the less variance. It could increase the precision of the results. Financial performance of investment companies of NBFC can be denoted as the following manner:

$$ROA = 0.062 + 0.019 (NPR) + 0.001 (ATR)$$

Table 6. Influence of profitability, liquidity, solvency and efficiency on financial performance of investment companies

Independent variables	Unstandardiz	zed Coefficients	t-value	p-value	Collinearity statistics	
	Beta (β)	S.E			Tolerance	VIF
(Constant)	.062	.021	2.925	.005		
Net profit ratio (NPR)	.019	.002	8.102	.000**	.963	1.038
Operating profit ratio (OPR)	.000	.000	1.666	.102	.932	1.073
Current Ratio (CR)	.000	.001	522	.604	.983	1.017
Debt-Equity ratio (DER)	.000	.000	011	.992	.991	1.010
Fixed asset turnover ratio (FATR)	.000	.000	294	.770	.983	1.017
Asset turnover ratio (ATR)	.001	.004	.183	.856	.976	1.024

Source: Calculated by Author .Adjusted R-square: 0.553; \*\*p<0.01. Dependent Variable: Return on Assets.

Table 7. Correlation	analysis of fina	ncial ratios of Infr	astructure finance	companies of NBFC

		NPR	CR	OPR	DER	FATR	ATR	ROA
NPR	r-value	1	.009	.969**	.012	.050	.024	.367**
	p-value		.912	.000	.918	.600	.781	.000
CR	r-value		1	.017	005	089	.018	.002
	p-value			.837	.966	.343	.834	.982
OPR	r-value			1	.015	.045	.042	.343**
	p-value				.895	.637	.622	.000
DER	r-value				1	065	013	010
	p-value					.625	.911	.934
FATR	r-value					1	.112	.016
	p-value						.230	.867
ATR	r-value						1	.782**
	p-value							.000
ROA	r-value							1
	p-value							

Source: Calculated by Author. NPR - Net profit ratio, OPR - Operating profit ratio, CR - Current Ratio, DER - Debt equity ratio, FATR - Fixed asset turnover ratio, ATR - Asset turnover ratio and ROA - Return on assets.

A Linear relationship between the financial parameters of investment companies of Indian NBFC is depicted in table above. The statistical significance values (p<0.01) interpreted that net profit ratio was correlated with operating profit ratio and return on assets. Further, the Pearson correlation coefficient (r-value) indicated that net profit ratio was a weak positive relation with return on assets (r=0.343) while it was a negative relation with operating profit ratio. But, the liquidity and solvency ratios of investment companies failed to reveal the significant relationship with the other financial ratios. Hence, the null hypothesis is accepted as significant relationship exists only between NPR and OPR, and NPR and ROA.

Null hypothesis: H0 - There is no significant impact of NPR, OPM CR, DER, FATR, and ATR on ROA for investment companies of NBFCs: Table above shows the regression analysis for the independent variables namely, profitability, liquidity, solvency and efficiency ratios of investment companies while the dependent variable is a return Only NPR tends to impact ROA. Hence the null hypothesis is accepted. Table above provides the correlation analysis of financial ratios of infrastructure finance companies of NBFC. The findings revealed that net profit ratio was correlated with operation profit ratio and return on assets based on the 1 per cent level of significance. Additionally, the Pearson correlation coefficient indicated that net profit ratio was a strong positive correlation with operation profit ratio while it was a weak positive correlation with return on assets. Similarly, operation profit ratio and asset turnover ratio were a positive correlation with return on assets of infrastructure finance companies. Hence the alternative hypothesis, 'There is a significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of Infrastructure finance companies of NBFC' is partially accepted.

Null hypothesis: H0 - There is no significant impact of NPR, OPM CR, DER, FATR, and ATR on ROA for infrastructure finance NBFCs: Table above provides the effect of profitability, liquidity, solvency and efficiency ratios on the financial performance of infrastructure finance companies of Indian NBFC. The coefficient of determination (Adjusted R-square = 0.684) specified that 64 per cent of the variation in the financial performance of infrastructure finance companies depended on the following independent variables namely, profitability, liquidity, solvency and efficiency ratios. Based on the significance values, net profit ratio and efficiency ratios such as fixed asset turnover ratio and asset turnover ratio did the significant impact on the performance of infrastructure finance companies of Indian NBFC while liquidity and solvency ratios (p>0.05) did not a significant influence on the financial performance (ROA). In the regression model, the multi-collinearity problem occurred in acceptable level (VIF<5).

Financial performance (ROA) as a function of independent variables can be written as,

ROA = 0.028 + 0.048 (NPR) - 0.001 (FATR) + 0.409 (ATR)

As three variables (NPR, FATR, and ATR) has significant impact on ROA, the alternative hypothesis, '*There is a* significant impact of NPR, OPM CR, DER, FATR, ATR on ROA for infrastructure finance NBFCs' is accepted. ratio (r=0.514) and asset turnover ratio (r=0.412). However, current ratio, debt-equity ratio and fixed asset turnover ratio of equipment leasing companies did not relation with any other financial ratios. Hence the null hypothesis is accepted.

Null hypothesis: H0 - There is no significant impact of NPR, OPM CR, DER, FATR, and ATR on ROA for equipment leasing companies of NBFC: The effect of profitability, liquidity, solvency and efficiency on the financial performance of equipment leasing companies of Indian NBFC is shown in table above. The statistical significance value clearly indicated that the independent variables namely, operating profit ratio and asset turnover ratio associated with the financial performance of the equipment leasing companies (p<0.05). However, the other independent variables namely, net profit ratio, current ratio, debt-equity ratio and fixed asset turnover ratio did not influence the financial performance significantly (p>0.05). The adjusted R-square value revealed that around 40 per cent of the changes in financial performance (ROA) of equipment leasing companies depended on the independent variables. Also, the multicollinearity problem between the independent variables was within the control limit (VIF<5).

Table 8. Influence of profitability, liquidity, solvency and efficiency on financial performance of infrastructure finance companies

Independent variables	Unstandardize	ed Coefficients	t-value	p-value	Collinearity statistics	
	Beta (β)	S.E		_	Tolerance	VIF
(Constant)	.028	.040	.689	.494		
Net profit ratio (NPR)	.048	.021	2.301	.026*	.366	2.735
Operating profit ratio (OPR)	.000	.000	992	.326	.366	2.732
Current Ratio (CR)	.000	.000	165	.870	.988	1.013
Debt-Equity ratio (DER)	.000	.000	083	.934	.991	1.009
Fixed asset turnover ratio (FATR)	001	.000	-2.196	.033*	.945	1.058
Asset turnover ratio (ATR)	.409	.041	9.966	.000**	.948	1.055

Source: Calculated by Author. Adjusted R-square: 0.642; \*p<0.05, \*\*p<0.01. Dependent Variable: Return on Assets

		NPR	CR	OPR	DER	FATR	ATR	ROA
NPR	r-value	1	007	.660**	076	082	079	.450**
Nrĸ	p-value		.937	.000	.465	.374	.355	.000
CR	r-value		1	.015	.005	056	.089	027
CK	p-value			.859	.964	.541	.294	.751
OPR	r-value			1	093	023	014	.514**
UIK	p-value				.371	.807	.865	.000
DER	r-value				1	.056	.045	.022
DEK	p-value					.620	.667	.834
FATR	r-value					1	.152	.078
ГАІК	p-value						.097	.396
ATR	r-value						1	.412**
AIK	p-value							.000
ROA	r-value							1
NUA	p-value							

Table 9. Correlation analysis of financial ratios of equipment leasing companies of NBFC

Source: Calculated by Author. NPR - Net profit ratio, OPR - Operating profit ratio, CR - Current Ratio, DER - Debt equity ratio, FATR - Fixed asset turnover ratio, ATR - Asset turnover ratio and ROA - Return on assets.

Null hypothesis: H0 - There is no significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of equipment leasing companies of NBFC: Correlation analysis of financial ratios of equipment leasing companies of Indian NBFC is provided in table above. From the statistical significance values (p<0.01), it is observed that there was some relation between net profit ratio and operating profit ratio. Also, the Pearson correlation coefficient (r-value) interpreted that net profit ratio was a positive relation with operating profit ratio (r=0.660). Analogously, net profit ratio was a positive correlation with return on assets (r=0.450). Return on assets did the positive relation with operating profit ROA as a function of profitability, liquidity, solvency and efficiency is as follows:

ROA = -0.174 + 0.160 (NPR) + 0.003 (OPR) + 0.263 (ATR)

Only two variables are found to have significant impact on ROA. Hence the null hypothesis is selected.

Null hypothesis: H09- There is no significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of hire-purchase companies of NBFC: Table above shows correlation analysis of financial ratios of hire-purchase

#### Table 10. Influence of profitability, liquidity, solvency and efficiency on financial performance of equipment leasing companies

In dom on don't wonigh log	Unstandardi	zed Coefficients	t-value	a voluo	Collinearity statistics	
Independent variables	Beta (β)	S.E	t-value	p-value	Tolerance	VIF
(Constant)	174	.055	-3.180	.002		
Net profit ratio (NPR)	.160	.108	1.484	.142	.340	2.939
Operating profit ratio (OPR)	.003	.001	2.334	.022*	.339	2.951
Current Ratio (CR)	.000	.000	.010	.992	.972	1.029
Debt-Equity ratio (DER)	.000	.000	.484	.630	.989	1.011
Fixed asset turnover ratio (FATR)	.000	.000	.941	.350	.982	1.019
Asset turnover ratio (ATR)	.263	.043	6.173	.000**	.925	1.081

Source: Calculated by Author. Adjusted R-square: 0.403; \*p<0.05, \*\*p<0.01. Dependent Variable: Return on Assets

Table 11. Correlation analy	sis of financial r	atios of hire-purchase	companies of NBFC
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		NPR	CR	OPR	DER	FATR	ATR	ROA
NPR	r-value	1	025	234**	.052	016	023	089
NPK	p-value		.776	.005	.631	.865	.787	.285
CR	r-value		1	.086	040	.035	.002	.038
CK	p-value			.332	.717	.709	.979	.661
OPR	r-value			1	.014	.029	.019	.021
OFK	p-value				.897	.758	.818	.798
DER	r-value				1	024	016	.027
DEK	p-value					.837	.877	.800
FATR	r-value					1	.484**	024
FAIK	p-value						.000	.800
ATR	r-value						1	011
	p-value							.893
ROA	r-value							1
	p-value							

Source: Calculated by Author. NPR - Net profit ratio, OPR - Operating profit ratio, CR - Current Ratio, DER – Debt equity ratio, FATR – Fixed asset turnover ratio, ATR – Asset turnover ratio and ROA – Return on assets.

Table 12. Influence of profitability, liquidity, solvency and efficiency on financial performance of hire-purchase companies

In dan an dan t maniah lag	Unstandardized Coefficients		4 1		Collinearity statistics	
Independent variables	Beta (β)	S.E	t-value	p-value	Tolerance	VIF
(Constant)	.158	.031	5.061	.000		
Net profit ratio (NPR)	.064	.009	7.087	.000**	.540	1.850
Operating profit ratio (OPR)	.000	.000	-4.415	.000**	.537	1.861
Current Ratio (CR)	003	.003	-1.184	.241	.982	1.018
Debt-Equity ratio (DER)	.000	.000	.289	.774	.994	1.006
Fixed asset turnover ratio (FATR)	.000	.000	.304	.762	.750	1.333
Asset turnover ratio (ATR)	007	.008	923	.360	.747	1.339

Source: Calculated by Author. Adjusted R-square: 0.413; \*\*p<0.01. Dependent Variable: Return on Assets

Table 13. Summary Table

Hypothesis	Type of Statistical test used	Accept/ Reject
There is no significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of loan	Correlation	Partially
companies	Correlation	Accepted
There is no significant impact of NPR, OPM CR, DER, FATR, ATR on ROA for loan companies	Regression	Accepted
There is no significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of investment companies of NBFCs	Correlation	Accepted
There is no significant impact of NPR, OPM CR, DER, FATR, and ATR on ROA for investment companies of NBFCs	Regression	Accepted

Source: Calculated by Author

companies of NBFC. The findings revealed that net profit ratio and fixed asset turnover ratio were a relationship with operation profit ratio and asset turnover ratio respectively. Further, the Pearson correlation coefficient connoted that net profit ratio was weak negative correlation with operation profit ratio and fixed asset turnover ratio was a positive correlation with assets turnover ratio. Similarly, operation profit ratio and asset turnover ratio were a positive correlation with return on assets of infrastructure finance companies. However, current ratio, debt-equity ratio and return on assets failed to show the significant relationship with other financial ratios. Hence, the null hypothesis is selected.

Null hypothesis: H010- There is no significant impact of NPR, OPM CR, DER, FATR, and ATR on ROA for hirepurchase companies of NBFC: Table above presents the regression analysis for the independent variables namely, profitability, liquidity, solvency and efficiency ratios of investment companies and the dependent variable is a return on assets. In the regression analysis, financial performance (ROA) of hire-purchase companies of NBFC was 41 per cent depend on their profitability, liquidity, solvency and efficiency ratios. Among the ratios, the profitability ratios namely, net profit ratio and operating profit ratio did the significant influence on the financial performance of hire-purchase companies while the other ratios like current ratio, debt-equity ratio, fixed asset turnover ratio and asset turnover ratio did not a significant influence. In addition, the variation inflation factor (VIF) of all independent variables was around 1. It could be concluded that there was no multi-collinearity problem within the independent variables. Therefore, the regression coefficients possessed the less variance. Then, it inferred that the precision of the results was good. Only two variables (NPR and OPR) are found to have significant impact

on ROA and hence the null hypothesis is accepted. The regression equation for the financial performance (ROA) of hire-purchase companies of NBFC can be written as follows:

ROA = 0.158 + 0.064 (NPR) -0.003 (CR) - 0.007 (ATR)

### **SUMMARY OF FINDINGS**

Correlation and regression analysis generally provide the association information between the study parameters (variables). Specifically, linear relationship between two variables can be ascertained through correlation analysis while regression analysis gives the cause and effect relationship between the variables. The profitability ratios such as net profit ratio and operating profit ratio were a positive relation with one another. Also, the profitability ratios were a positive relation with return on assets (P<0.01). It could be concluded that profitability ratios increase in value, it leads to enhance the return on assets. Likewise, the fixed asset turnover ratio was a positive relation with asset turnover ratio (p < 0.01) and return on assets (p<0.01). Further, asset turnover ratio was a strong positive correlation with return on assets (p < 0.01). However, liquidity ratio and solvency ratio did not correlate with any profitability and efficiency ratio. In the analysis, the financial performance of the companies is computed on the basis of return on assets. The coefficient of determination (Adjusted R-square = 0.684) connoted that around 68 per cent of change in the financial performance of loan companies depended on the independent variables such as profitability, liquidity, solvency and efficiency ratios. The significance values (p<0.05) indicated that efficiency ratios such as fixed asset turnover ratio and asset turnover ratio did the significant influence on the performance of loan companies of Indian NBFC while the profitability ratios, liquidity ratio and solvency ratio (p>0.05) did not a significant influence on the financial performance.

A Linear relationship between the financial parameters of investment companies of Indian NBFC is depicted in table above. The statistical significance values (p<0.01) interpreted that net profit ratio was correlated with operating profit ratio and return on assets. Further, the Pearson correlation coefficient (r-value) indicated that net profit ratio was a weak positive relation with return on assets (r=0.343) while it was a negative relation with operating profit ratio. But, the liquidity and solvency ratios of investment companies failed to reveal the significant relationship with the other financial ratios. Hence, the null hypothesis is accepted as significant relationship exists only between NPR and OPR, and NPR and ROA. financial performance (ROA) of investment companies of NBFC was 55 per cent depend on their profitability, liquidity, solvency and efficiency ratios.

Among the ratios, net profit ratio made the significant impact on the financial performance of investment companies while the other ratios like operating profit ratio, current ratio, debtequity ratio, fixed asset turnover ratio and asset turnover ratio did not a significant influence. In addition, the variation inflation factor (VIF) of all independent variables was around 1. It could be inferred that there was no multi-collinearity problem within the independent variables. Therefore, the regression coefficients possessed the less variance. It could increase the precision of the results. The findings revealed that net profit ratio was correlated with operation profit ratio and return on assets based on the 1 per cent level of significance.

Additionally, the Pearson correlation coefficient indicated that net profit ratio was a strong positive correlation with operation profit ratio while it was a weak positive correlation with return on assets. Similarly, operation profit ratio and asset turnover ratio were a positive correlation with return on assets of infrastructure finance companies. Hence the alternative hypothesis, 'There is a significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of Infrastructure finance companies of NBFC' is partially accepted. The coefficient of determination (Adjusted R-square = 0.684) specified that 64 per cent of the variation in the financial performance of infrastructure finance companies depended on the following independent variables namely, profitability, liquidity, solvency and efficiency ratios. Based on the significance values, net profit ratio and efficiency ratios such as fixed asset turnover ratio and asset turnover ratio did the significant impact on the performance of infrastructure finance companies of Indian NBFC while liquidity and solvency ratios (p>0.05) did not a significant influence on the financial performance (ROA). In the regression model, the multicollinearity problem occurred in acceptable level (VIF<5). The statistical significance value clearly indicated that the independent variables namely, operating profit ratio and asset turnover ratio associated with the financial performance of the equipment leasing companies (p<0.05). However, the other independent variables namely, net profit ratio, current ratio, debt-equity ratio and fixed asset turnover ratio did not influence the financial performance significantly (p>0.05). The adjusted R-square value revealed that around 40 per cent of the changes in financial performance (ROA) of equipment leasing companies depended on the independent variables. Also, the multi-collinearity problem between the independent variables was within the control limit (VIF<5).

From the statistical significance values (p < 0.01), it is observed that there was some relation between net profit ratio and operating profit ratio. Also, the Pearson correlation coefficient (r-value) interpreted that net profit ratio was a positive relation with operating profit ratio (r=0.660). Analogously, net profit ratio was a positive correlation with return on assets (r=0.450). Return on assets did the positive relation with operating profit ratio (r=0.514) and asset turnover ratio (r=0.412). However, current ratio, debt-equity ratio and fixed asset turnover ratio of equipment leasing companies did not relation with any other financial ratios. The findings revealed that net profit ratio and fixed asset turnover ratio were a relationship with operation profit ratio and asset turnover ratio respectively. Further, the Pearson correlation coefficient connoted that net profit ratio was weak negative correlation with operation profit ratio and fixed asset turnover ratio was a positive correlation with assets turnover ratio. Similarly, operation profit ratio and asset turnover ratio were a positive correlation with return on assets of infrastructure finance companies. However, current ratio, debt-equity ratio and return on assets failed to show the significant relationship with other financial ratios. Financial performance (ROA) of hire-purchase companies of NBFC was 41 per cent depend on their profitability, liquidity, solvency and efficiency ratios. Among the ratios, the profitability ratios namely, net profit ratio and operating profit ratio did the significant influence on the financial performance of hirepurchase companies while the other ratios like current ratio, debt-equity ratio, fixed asset turnover ratio and asset turnover ratio did not a significant influence. In addition, the variation inflation factor (VIF) of all independent variables was around 1.

It could be concluded that there was no multi-collinearity problem within the independent variables. Therefore, the regression coefficients possessed the less variance. Then, it inferred that the precision of the results was good. The descriptive statistics reveal that the financial performance of NBFCs was good on the basis of current ratio. When In the case the loan companies, return on assets was a positive relationship with profitability and efficiency ratios such as net profit ratio, operating profit ratio, fixed asset turnover ratio and assets turnover ratio. Meanwhile, fixed asset turnover ratio and asset turnover ratio could regulate the financial performance of loan companies. Likewise, net profit ratio was a positive relationship with return on assets in the investment companies of Indian NBFCS and it has caused the good financial performance of the companies. In the infrastructure finance companies, net profit ratio has some positive relation with operating profit ratio, and return on assets. In addition, the performance of infrastructure finance companies of NBFC depended on the financial ratios such as net profit ratio, fixed asset turnover ratio and asset turnover ratio etc.

Similarly, the performance of equipment leasing companies depended on the operating profit ratio and asset turnover ratio while the performance of hire-purchase companies of NBFC only influenced by the profitability ratios, such as net profit ratio and operating profit ratio. Correlation statistical test was applied to analyse the significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of loan companies and it was partially accepted. The result of regression statistical test showed that there was no significant impact of NPR, OPM CR, DER, FATR, and ATR on ROA for loan companies. Then, there is no significant relationship between NPR, OPM CR, DER, FATR, ATR and ROA of investment companies of NBFCs according to the result of correlation statistical test. Further it was found that there is no significant impact of NPR, OPM CR, DER, FATR, and ATR on ROA for investment companies of NBFCs on the results of regression statistical test.

## REFERENCES

Acharya, V. V., Khandwala, H. & Oncu, T.S. (2013). The Growth of a Shadow Banking System in Emerging Markets: Evidence from India. *Journal of International Money and Finance*. [Online]. 39. pp. 207–230. Available from:

http://www.sciencedirect.com/science/article/pii/S026156 0613000971.

- Adukia, R.S. (2014). An Overview of Regulatory Framework of Non Banking Financial Institutions. [Online]. Available from: http://www.caaa.in/Image/Regulatory Framework of NBFCs.pdf.
- Agarwal, A. (2014). Growth Prospects of Non-Banking Financial Companies in India – An Appraisal of Select Companies. [Online]. Charan Singh. Available from: http://shodhganga.inflibnet.ac.in/handle/10603/24221.
- Aggarwal, R. (2015). Non-Banking Finance Companies "The way forward". In: Proceedings & Recommendations – 2nd 4 National Summit 'Non-Banking Finance Companies – The Way Forward'. 2015, pp. 4–39.
- Akhan, J.A. (2010). Non-Banking Financial Companies in India: Functioning and Reforms. New Delhi: New Century Publications.
- Amutha, D. (2013). Global Financial Crisis: Reflections on Its Impact on India. SSRN Electronic Journal. [Online]. p.p.

9.	Available	from:
https:/	//papers.ssrn.com/sol3/papers.cfm?abstract_	id=2260
772.		

- Arunkumar, B. (2014). Non Banking Financial Companies (NBFCs): A Review. *Indian Journal of Research*. 3 (10). pp. 87–88.
- Bajpai, N. (2011). Global Financial Crisis, its Impact on India and the Policy Response. Mumbai.
- Banker, R.D., Charnes, A. & Cooper, W.W. (1984). Some Models for Estimating Technical and Scale Inefficiencies in Data Envelopment Analysis. *Management Science*. [Online]. 30 (9). pp. 1078–1092. Available from: http://pubsonline.informs.org/doi/abs/10.1287/mnsc.30.9. 1078.
- Bothra, N. & Sayeed, K. (2011). An Overview of the Indian NBFC Sector Performance in 2010, prospects in 2011.
  [Online]. Available from: http://www.academia.edu/6467886/An\_Overview\_of\_the \_Indian\_NBFC\_Sector\_Performance\_in\_2010\_prospects\_ in\_2011\_Legal\_Updates.
- Charnes, A., Cooper, W., Lewin, A. & Seiford, L. (1995). Data Envelopment Analysis: Theory, Methodology and Applications. New York: SpringerVerlag.
- Cochrane, J.H. (2008). Financial Markets and the Real Economy. In: *Handbook Of The Equity Risk Premium*. Amsterdam, Netherlands: Elsevier, pp. 237–330.
- Das, S.K. (2016). Performance and Growth of Non-Banking Financial Companies as Compared to Banks in India. *International Journal of Multifaceted and Multilingual Studies*. 3 (3). pp. 1–8.
- Demirgüç-Kunt, A. & Levine, R. (2002). Financial Structure and Economic Growth: Cross-country Comparisons of Banks, Markets, and Development. Cambridge, Massachusetts: MIT Press.
- Dungey, M., Fry, R., González-Hermosillo, B. & Martin, V. (2003). Characterizing Global Investors' Risk Appetite for Emerging Market Debt During Financial Crises. WP.
- Ernst & Young (2014). EY Regulatory Alert: Revised regulatory framework for Non-banking Finance Companies. India.
- FICCI (2013). Financial Foresights: View, Reflection and Erudition. Federation Of India Chamber Of Commerce & Industry. 3 (5). pp. 1–85.
- Gandhi, R. (2015). *NBFCs: Medium Term Prospects*. [Online]. 2015. Available from: http://www.businessstandard.com/article/news-ians/medium-term-prospectsof-nbfcs-vary-from-segment-to-segment-
- 115122100910\_1.html. [Accessed: 16 August 2017]. Gandhi, R. (2014). *Role of NBFCs in Financial Sector:*
- Regulatory Challenges. [Online]. 2014. Available from: http://www.indiainfoline.com/article/news-top-story/roleof-nbfcs-in-financial-sector-regulatory-challenges-114062400799\_1.html. [Accessed: 16 August 2017].
- Government of India (2012). Report of the Key Advisory Group on the Non-Banking Finance Companies (NBFCs). New Delhi, India: Department of Financial Services, Ministry of Finance, Government of India.
- Gumparthi, S. (2010). Risk Assessment Model for Assessing NBFCs' (Asset Financing) Customers. *International Journal of Trade, Economics and Finance*. 1 (1). pp. 121–130.
- Harikrishnan, K. (2008). Receivable Management in Non Banking Finance Companies with Special Reference to Vehicle Financing. Cochin University of Science and Technology.

- Jain, S. & Bhanumurthy, N.R. (2005). Financial Markets Integration in India. Asia-Pacific Development Journal. 12 (2). pp. 15–32.
- Jayanthi, V. (2010). Chapter III: A Review of the Financial System of India. 2010. Inflibnet.
- Jeffrey, C. & Pomerleano, M. (2002). *Development and Regulation of Non-Bank Financial Institutions*. Wahington DC: World Bank.
- Kantawala, A.S. (1997). Financial Performance of Non Banking Finance Companies in India. *The Indian Economic Journal*. 49 (1). pp. 86–92.
- Karunagaran, A. (2012). Inter-connectedness of Banks and NBFCs in India: Issues and Policy Implications. [Online]. 2012. Reserve Bank of India. Available from: https://www.rbi.org.in/scripts/PublicationsView.aspx?id= 13979. [Accessed: 16 August 2017].
- Kaur, H. & Tanghi, B.S. (2013). Non Banking Finance Companies: Role & Future Prospects. *Global Research Analysis*. 2 (8). pp. 125–126.
- Kaushal, H.. (2016). Impact of Non-Banking Financial Companies (NBFCS) in Indian Economy Growth. *EPRA International Journal of Economic and Business Review*.
  [Online]. 4 (3). pp. 90–95. Available from: http://epratrust.com/articles/upload/13.Dr. H.R Kaushal.pdf H.R Kaushal EPRA International Journal of Economic and Business Review.
- Khalil Ahmed and Group (2011). Financial Performance of Non Banking Finance Companies in Pakistan. Interdisciplinary Journal of Contemporary Research in Business. 2 (12). pp. 732–742.
- Khan, M.Y. (2005). *Indian Financial System*. New Delhi: Tata McGraw-Hill Publication Company Limited.
- Khan, N.A. & Fozia, M. (2013). Growth and Development in Indian Banking Sector Introduction. *International journal* of Advanced Research in Management and Social Sciences. 2 (2). pp. 197–211.
- Kihara, Y. (1962). The Financial System in india. [Online]. Tokyo. Available from: http://www.ide.go.jp/library/English/Publish/Periodicals/ De/pdf/62 02 07.pdf.
- Koeva, P. (2003). *The Performance of Indian Banks During Financial Liberalization*. Working Paper. [Online]. Available from: https://books.google.co.in/books/about/The\_Performance \_of\_Indian\_Banks\_During\_F.html?id=\_4rzw0cqkYIC&re dir esc=y.
- KPMG (2014). Non-Banking Finance Company-Revised Regulator framework. [Online]. India. Available from: https://home.kpmg.com/content/dam/kpmg/pdf/2014/11/ Non-Banking-Finance-Company.pdf.
- Kumar, A. & Agarwal, A. (2014). Latest Trends in Nonbanking Financial Institutions, Academicia. An International Multidisciplinary Research Journal. 4 (1). pp. 225–235.
- Kumar, C., Mishra, V. kumar & Tiwari, V. (2015). Banking on Non-Banking Finance Companies. PricewaterhouseCoopers Private Limited.
- Levine, R. (2002). Bank-Based or Market-Based Financial Systems: Which Is Better? *Journal of Financial Intermediation*. 11 (4). pp. 398–428.
- Lumpkin, S.A. (2009). Regulatory Issues Related To Financial Innovation. OECD JOURNAL: FINANCIAL MARKET TREND. 9. pp. 1–31.
- Makhijani, N. (2014). Non-Banking Finance Companies: Time to Introspect. *Analytique*. 10 (2). pp. 34–36.

- Ministry of Finance (2012). Report of the Key Advisory Group on the Non-Banking Finance Companies (NBFCs). New Delhi, India: Government of India Ministry of Finance Department of Financial Services.
- Mohan, B. (2014). Non Banking Financial Companies in India: Types, Needs, Challenges and Importance in Financial Inclusion. *International Journal of in Multidisciplinary and Academic Research*. 3 (6). pp. 1– 11.
- Mondal, S. (2015). Comparison of Growth between Non-Banking Financial Companies and Banks and Their Contribution in the Indian Economy. *International Journal of Arts, Humanities and Management Studies*. [Online]. 1 (8). pp. 1–9. Available from: http://ijahms.com/upcomingissue/01.08.2015.pdf.
- Morck, R., Yeung, B. & Yu, W. (2000). The Information Content of Stock Markets: Why do Emerging Markets Have Synchronous Stock Price Movement. *Journal of Financial Economics*. 58 (1). pp. 215–260.
- Nath, S. (2013). Financial Foresights. Views, Reflection and Erudition. [Online]. 3 (5). Available from: http://ficci.in/sector/3/Add\_docs/Financial-Foresightsdec12 .pdf.
- Nishith Desai Associates (2013). Realty Check: Realty Debt Funding in India. 2013.
- Onnela, J.-P., Saramäki, J., Kaski, K. & Kertész, J. (2006). Financial Market - A Network Perspective. In: *Practical Fruits of Econophysics*. Tokyo: Springer-Verlag, pp. 302–306.
- Pandit, S. (2011). *RBI Panel headed by Usha Thorat presented Guidelines on non-banking finance company (NBFC)*.
  [Online]. 2011. Available from: http://www.jagranjosh.com/current-affairs/rbi-panel-headed-by-usha-thorat-presented-guidelines-on-nonbanking-finance-company-nbfc-1314695433-1.
  [Accessed: 16 August 2017].
- Pathak, B.V. (2011). *The Indian Financial System: Markets, Institutions and Services*. India: Pearson Education India.
- Perumal, A. & Satheskumar, L. (2013). Non Banking Financial Companies. Asia Pacific Journal of Research. 2 (8). pp. 128–135.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. (1998). Law and Finance. *Journal of Political Economy*. 106 (6). pp. 1113–1155.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. (1997). Legal Determinants of External Finance. *The Journal of Finance*. 52 (3). pp. 1131–1150.
- Pradhan, R.P. (2009). Forecasting Financial Markets in India. India: Allied Publishers.
- Puliani, R. & Puliani, M. (2014). *Manual of Non-Banking Financial Companies*. New Delhi: Bharat Law House.
- Randall, K. (2010). Interconnectedness, Fragility and the Financial Crisis, Prepared for Financial Crisis Forum. Washington, DC: Financial Crisis Inquiry Commission.
- Ratti, M. (2012). Indian Financial System & Indian Banking Sector: A Descriptive Research Study. *International Journal of Management and Social Sciences Research*. 1 (1). pp. 1–8.
- Reserve Bank of India (2015). *Reserve Bank of India*. Mumbai: Department of Non-Banking Regulation, Central Office.
- Reserve Bank of India (2014). Reserve Bank of India. [Online]. 2014. Mfinindia. Available from: https://www.rbi.org.in/scripts/AnnualReportPublications.a spx. [Accessed: 16 August 2017].

- Reserve Bank of India (2017). Trend and Progress of Banking in India. [Online]. 2017. The Hindu Business Line. Available from: http://www.thehindubusinessline.com/ todays-paper/tp-opinion/trend-and-progress-of-bankingin-india-200505-towards-greater-stability-andgrowth/article2197383.ece. [Accessed: 16 August 2017].
- Reserve Bank of India (2011). Working Group on the Issues and Concerns in the NBFC Sector: Report and Recommendations. [Online]. 2011. Available from: https://ideas.repec.org/p/ess/wpaper/id4433.html. [Accessed: 16 August 2017].
- Saha, M. (2012). Indian Economy and Growth of Financial Market in the Contemporary Phase of Globalization Era. *International Journal of Developing Societies*. 1 (1). pp. 1–10.
- Sahoo, S. (2013). Financial Structures and Economic Development in India: An Empirical Evaluation. RBI Working paper Series. [Online]. India. Available from: https://www.researchgate.net/publication/260255801\_Fin ancial\_Structures\_and\_Economic\_Development\_in\_India An Empirical Evaluation.
- Samal, S.C. & Pande, J.K. (2012). A Study on Technology Implications in NBFCs: Strategic Measures on Customer Retention and Satisfaction. *International Business Research Journal*. 1 (1). pp. 49–62.
- Saroj, D.K., Sukhamaya, S. & Sukhamaya, S. (2014). Housing Loan Disbursement in India: Suggestive Metrics to Prevent Bad Debts. *International Journal of Managment*, *IT and Engineering*. 4 (3). pp. 254–261.
- Seiford, L.M. & Thrall, R.M. (1990). Recent Developments in DEA: The Mathematical Programming Approach to Frontier Analysis. *Journal of Econometrics*. 46 (1–2). pp. 7–38.
- Sewell, M. (2011). Characteriztiom of Finacial Time Service. RN. [Online]. Available from: http://www.cs.ucl.ac.uk/ fileadmin/UCL-CS/research/Research\_Notes/ RN 11 01.pdf.
- Shakti Sustainable Energy Foundation and CRISIL Infrastructure Advisory (2014). Enabling Low-cost Financing for Renewable Energy in India. [Online]. 2014. Available from: http://shaktifoundation.in/report/ enabling-low-cost-financing-renewable-energy-india/. [Accessed: 16 August 2017].

- Shakya, S. (2014). Regulation of Non-banking Financial Companies in India: Some Visions & Revisions. 2014.
- Sharma, S.B. & Goel, L. (2012). Functioning and Reforms in Non-Banking Financial Companies in India. In: A. Singh (ed.). *Inclusive Growth and Innovative Practices in Management*. 2012, Proceedings of the National Seminar, Ghaziabad, Raj Kumar Goel Institute of Technology, pp. 21–25.
- Sharma, S.P. (2014). RBI issues revised Regulatory Framework for NBFCs. [Online]. New Delhi. Available from: https://rbidocs.rbi.org.in/rdocs/notification/PDFs/RRFNC
- 101114F.PDF. Sinha, P., Viswanathan, B. & Narayanan, B. (2015). Financial market and growth: Evidence from post-reforms India. *Cogent Economics & Finance*. 3 (1). p.p. 1057417.
- Sinha, S. (2014). Long Term Financing of Infrastructure. Ahmedabad, India.
- Sornaganesh, V. & Soris, N.M.N. (2013). A Fundamental Analysis of NBFC in India. *Outreach: A Multi-Disciplinary Refereed Journal.* 6 (1). pp. 119–125.
- Syal, S. & Goswami, M. (2012). Financial Evaluation of Non-Banking Financial Institutions: An Insight. *Indian Journal* of Applied Research. 2 (2). pp. 69–71.
- Taxmann (2013). Taxmann's Statutory Guide for Non-Banking Financial Companies. New Delhi: Taxmann Publications (P) Ltd.
- Temperton, P. (2015). India: economic reform and financial markets. Whitepaper. [Online]. united kingdom. Available from: file:///C:/Users/1040/Downloads/invesco-indiawhite-paper.pdf.
- The World Bank (2003). *Non-Bank Financial Institutions and Capital Markets in Turkey*. Washington. D.C: A World Bank Country Study.
- Thilakam, C. & Saravanan, M. (2014). CAMEL Analysis of NBFCs in Tamil Nadu. International Journal of Business and Administration Research Review. 2 (4). pp. 226–232.
- Vadde, S. (2011). Performance of Non Banking Finance Companies in India - An Evaluation. *Journal of Arts Science & Commerce*. 2 (1). pp. 123–131.

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