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Highlights

Dhaka Stock Exchange

Stock Split Announcements

Islamic Capital Market

Colombo Stock Exchange

Discovering Thoughts, Inventing Future

VOLUME 13 ISSUE 6 VERSION 1.0

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Impact of Money Supply (M2) on GDP of Pakistan

By Iqra Ihsan & Saleem Anjum
University of Lahore, Pakistan

Abstract - The main role of money supply (M2) on GDP of Pakistan is described. The excessive money supply (M2) by SBP (State Bank of Pakistan) to run the country entails to highrate of inflation if the indicators i.e. CPI, interest rate are not controlled within the prescribed limits. The more the money supply will be in the economy, the greater the inflation rate would be. No sooner, the indicators improves production in all sectors i.e. industry, agriculture, education, health and basic infrastructures increases, money supply would be lesser, inflation decreases and GDP increases accordingly. We have taken into consideration the data for 12 years (2000-2011) and analyzed this data by using the Regression Model. In this model we have taken three independent variables that are inflation rate, interest rate and CPI because money supply is affected both one of them and one dependent variable that is GDP. The CPI and interest rate have a significant impact on GDP and inflation rate has insignificant impact on GDP.

Keywords : *money supply, inflation, GDP, interest rate, CPI.*

GJMBR-C Classification : *FOR Code: E51, E49*

IMPACTOFMONEYSUPPLYM2ONGDPOFPAKISTAN

Strictly as per the compliance and regulations of:

Impact of Money Supply (M2) on GDP of Pakistan

Iqra Ihsan [α] & Saleem Anjum [σ]

Abstract - The main role of money supply (M2) on GDP of Pakistan is described. The excessive money supply (M2) by SBP (State Bank of Pakistan) to run the country entails to high rate of inflation if the indicators i.e. CPI, interest rate are not controlled within the prescribed limits. The more the money supply will be in the economy, the greater the inflation rate would be. No sooner, the indicators improves production in all sectors i.e. industry, agriculture, education, health and basic infrastructures increases, money supply would be lesser, inflation decreases and GDP increases accordingly. We have taken into consideration the data for 12 years (2000-2011) and analyzed this data by using the Regression Model. In this model we have taken three independent variables that are inflation rate, interest rate and CPI because money supply is affected both one of them and one dependent variable that is GDP. The CPI and interest rate have a significant impact on GDP and inflation rate has insignificant impact on GDP.

Keywords : money supply, inflation, GDP, interest rate, CPI.

I. Introduction

Money supply (M2) plays a significant role o GDP. We can define monetary policy for ascertaining the availability of money, supply of money and targeting the rate of interest for the promotion of economic growth in Pakistan.

Pakistan, being developing country, usually faces unemployment and unstable prices in its monetary policy, which is the management of expectations. Usually monetary policy consists on the relationship between the rate of interest in an economy that is the price of money can be borrowed and total supply of money. Both these are controlled by different tools to influence outcomes of inflation, economic growth, unemployment, interest rate and exchange rates with other currencies.

These main factors are set by the State Bank of Pakistan for vigilant control. This paper will focus on the significance of money supply (M2) on GDP. Undoubtedly GDP is affected by this money supply.

Money supply is the total amount of monetary assets available in an economy at a specific time. This can further be elaborated by including currency in circulations and demand deposits of financial institutions. Money supply (M2) in Pakistan is recorded, reported, analyzed and published by the State Bank of Pakistan.

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There are different measurements of money supply. All of them are widely used and the exact classifications depend on the country. M0 and M1, also called narrow money, normally include coins and notes in circulation and other money equivalents that are easily convertible into cash. M2 includes M1 plus short-term time deposits in banks and 24-hour money market funds.

It can be described direct relation between money supply growths in long term price inflation. This is necessary for fast increase in the amount of money in the economy.

a) Why Money Supply is Important?

Since money used normally in all the economic transactions, it has powerful effect on economic activity. Thus increase in supply of money will result in decrease in interest rates and increase in investment. In this way when extra money is spread in the society the consumers feel richer and will spend more. Industries acknowledge enhancing by ordering more raw materials and increase their production. When the business will flourish, the demand of labor and capital goods will be increased. Stock market prices increase and firms issue more equity and debt. In this perspective, money supply continuous to expand. Prices begin to rise, if output growth meets capacity limits. People began to expect inflation, lenders demand higher interest rates consumer purchasing power decreases over the life of their loans.

b) Inflation Became Worse in Pakistan's History

Pakistan encounter relative price establishment during the 1960s. Customary, prices rose at an average rate of 3% per annum. Contradictory, during the decade of the 70s the price level rose at an average annual rate of 11.7%. The inflationary position was even worse during (1973-1974) (22.8%) and (1974-1975) (25.3%) mainly because of the declining share of commodity producing sector in GDP and the high growth of money supply.

After (2004-2005), inflation has arisen during (2007-2008) it had reached memorandum levels. The basic inflationary tendency has been recognized in the domain of food inflation, an expected outcome of expedition in world commodity prices as well as flourishes oil prices. The year (2007-2008) has concluded with 12% overall CPI-based inflation. It is a well famous fact that food inflation has emerged as a major source of involvement for policy makers around the world, including Pakistan. Food inflation in Pakistan has been nourished by a combination of domestic demand driven factors (rising per capita income), local supply shortage and global trends in the prices of intrinsic material.

It may be noted that there are only four basic food items such as wheat flour, rice, fresh milk and vegetable ghee which subsidize 42.5 % to the overall increase in general price level.

c) Pakistan GDP History

Pakistan's tolerable economic growth rate since independence has been higher than the average growth rate of the world economy during the same period. Average annual real GDP growth rates were 6.8% in the 1960s, 4.8% in the 1970s, and 6.5% in the 1980s. Average annual growth fell to 4.6% in the 1990s with consequentially lower growth in the second half of that decade.

Pakistani economy grew at adequately imposing rate of 6 percent per year through the first four decades of the nation's existence. In spite of rapid population growth during this period, per capita incomes doubled, inflation continuously low and poverty diminished from 46% down to 18% by late 1980s(Dr. Ishrat Husain). In the 1990s, economic growth dropped between 3% and 4%, poverty rose to 33%, inflation was in double digits and the foreign debt amounted to nearly the entire GDP of Pakistan as the governments of Benazir Bhutto (PPP) and Nawaz Sharif (PML) played musical chairs. Before Sharif was ejecting in 1999, the two parties had supervised over a decade of corruption and mismanagement. In 1999 Pakistan's total public debt as percentage of GDP was the highest in overall South Asia 99.3 percent of its GDP and 629 percent of its gross revenue. Internal Debt of Pakistan in 1999 was 45.6 per cent of GDP and 289.1 per cent of its gross revenue.

The adjustment of the money supply and interest rates by the State Bank of Pakistan, in order to control inflation and stabilize currency are confined. Monetary policy is one of the two ways the government can influence the economy. By encountering the effective cost of money, the Federal Bureau of Statistics can affect the amount of money that is spent by consumers and businesses.

After a comparatively peaceful but economically dormant decade of the 1990s, the year 1999 brought a bloodless revolution led by General Pervez Musharraf, introduced a growth cycle that led to more than doubling of the national GDP, and expressive expansion in Pakistan's urban middel class.

d) Per Capita PPP GDP

Pakistan became one of the four fastest growing economies in the Asian domain during (2000-2007) with its growth averaging 7.0 per cent per year for most of this period. As a result of substantial economic growth, Pakistan accomplished in raising foreign exchange reserves to a satisfactory position and comprises the country's exchange rate; rebuild investors' confidence and most considerably taking Pakistan out of the IMF Program.

The above clues were confessed by the current PPP government in a Memorandum of Economic and Financial Policies (MEFP) for (2008/2009-2009/2010), while signing agreement with the IMF on November 20, 2008. The document clearly admitted that "Pakistan's economy perceive a major economic revolution in the last decade. The country's real GDP increased from $60 billion to $170 billion with per capita income rising from under $500 to over $1000 during (2000-2007)". It additional acknowledged that "the volume of international enterprise increased from $20 billion to nearly $60 billion. The improved macroeconomic execution enabled Pakistan to again enter the international capital markets in the mid of 2000s. Huge capital inflows financed the current account deficit and furnish to an increase in gross official reserves to $14.3 billion at the end of the June 2007. Floating in output growth, low inflation and the government's social policies provide a reduction in poverty and progression in many social indicators". (MEFP, November 20, 2008)

The Zardari-Gilani government transmitted somewhat satisfactory economy on March 31, 2008. It transmitted foreign exchange reserves of $13.3 billion, exchange rate at Rs62.76 per US dollar, the KSE index at 15,125 with market capitalization at $74 billion, inflation at 20.6 per cent and the country's debt responsibility on a declining path. The government itself approved in the same document that "the macroeconomic situation depreciate significantly in (2007-2008) and the first four months of (2008-2009) unsettled to adverse security developments, large exogenous price disturbance (oil and food), global financial agitation and policy stagnation during the political modulation to the new government"(MEFP, November 20, 2008)

A crisis of assurance intensified as investors and development partners started to walk away. The stock market decline, capital flight set in, foreign exchange reserves collapse and the Pakistani rupee lost one third of its value. In summary Pakistan's macroeconomic burden had grown unacceptable. It had no any other option but to return to the IMF for a bailout package.

While the country was moving rapidly towards the IMF, the Ministry of Finance had prepared the plan to bring $4 billion by June 30, 2008 through four transactions. These transactions were canceled on April 20, 2008. This cancellation spurs the balance of payment crisis and the rest became history.

The economy carries on remaining in intensive care unit and is almost breathing thanks to the injection of funds from the IMF, World Bank and Asian Development Bank.

e) Interest Rate Implications

The function of monetary policy is to bring development and efficiency in the financial sector, developing a leading environment for economic growth. The SBP followed a tight monetary policy in past few years. There are different objectives of monetary policy that are inflation, government borrowing and interest rate. In Pakistan, rising inflation and interest rate are the most common circumstances. The rising in lending rates causes harm for economy and consumer. It is a fact that high lending rates are regularly joined with high inflation.

- Decrease in Interest Rates

The decrease in interest rate is the best for the economic conditions. When consumer can sustain to borrow funds, they do not have to pay high interest rates on borrowed funds. There are some benefits from low interest rate that includes house loans, personal loans, credit cards, auto loans and increase in investment in stock market. Interest rate basically controls the economic growth. When the economy grows rapidly then it will involve in inflation. Price level increases and no one can afford the changes in real interest rate. Low interest rate will provide corporate level contingency to take new capital investment spending and increases the firm faith by make heavy investment in growing sector and producing heavy revenue.

- Increase in Interest Rates

The increase in interest rate will increase the cost of resources. The increase in interest rate is just like opening the door of increasing non performing loans.

f) Problem of the Study

Is this menace of inflation badly affecting the economy of Pakistan? Why inflation is increased day by day and what are its adverse effects on economy? And is this inflation controllable and how?

g) Objective of the Study

The significant objective of money supply is taken 'inflation'. The excess money supply by SBP in the country would entail to the rising of prices of basic commodities. Purchase on high prices by the public would demand more supply by the industry. To produce more and to increase the productivity entrepreneurs would get required money on high interest rates. The more the growth of products in the markets would be, the decreasing in prices would result in minimizing the inflation rate. The pro-rata decrease in inflation would tantamount to increase in GDP rate. The study is based on following variables.

- Interest rate
- Consumer price index (CPI)
- Inflation rate
- GDP

h) Literature Review

i. *Bigyan Shrestha*

The Price, GDP, M1 and M2 all are stagnant at first difference level. GDP and Price are unified with both of M1 and M2. M1 and M2 both are important variables for attention. As per the monetarist anticipation, the inflation is purely a monetary experience. But in Nepal it is found that, for the analyzed data for 1980-2009, the price is not affected by money supply, but the money supply is caused by price level. Granger causality tests do not prescribe a clear cut independent causality flowing from money to prices. This may have been the effect of configuration of monetary policy that is based upon the current price level and setting the targets but not proficient to fulfill the monetary function.

ii. *Ryan Barnes*

The Federal Reserve presented data on the levels of M1 and M2 on weekly basis and has been collecting data on the money supply since the 1950s. In the less financially tangled world that consist then, the supply of money showed a very strong relationship to how much money was spent and it was therefore studied by economists for suggestions to the economic growth. Constitution passed in 1978 that ordered the Federal Reserve to set annual targets for money supply growth. At the time, there was a still high relationship between money supply growth and primarily economic growth as measured by gross domestic product (GDP).

iii. *Sellin, Peter*

The Keynesian economists indicate that change in the money supply will directly affect on the stock prices only if the change in the money supply develop probability about future monetary policy. According to these economists, positive money supply encounter that will lead the people to forecast the tightening monetary policy in the future. They instruct for funds in prediction of tightening of money supply in the future which will push up the current rate of interest. (1).

iv. *Fernando Alvarez, Robert E. Lucas*

The outstanding principle of this harmony are that the mechanisms of monetary policy ought to be the short term interest rate that policy should be focal point on the control of inflation and that inflation can be reduced by increasing short term interest rates. These recommendations are taken as given would seem to involve the exclusion of the quantity theory of money, the class of theories that intimate that inflation rates can be controlled by controlling the rate of growth of the money supply. Such a rejection is a difficult step to take because the regular demonstration that continue linking with monetary policy, inflation and interest rates and there is an excessive amount that consists almost perfectly of evidence that increases in average rates of money growth that are correlated with equal increases in average inflation rates and in interest rates. According the quantity theory, rapid money growth is distinguished

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characteristic of monetary contentment and it is also correlated with high interest rates as well as with high inflations. (2)

v. *Min*

Even if economists extensively accept that inflation has a negative effect on economic growth, in this study the researchers did not disclose this affect in data from the 1950s and the 1960s. Therefore, a popular view in the 1960s was that the effect of inflation on growth was not exceptionally important. This view flooded until the 1970s when many countries mainly in Latin Americans practiced hyperinflation. Various studies were concerned to finding the effects of inflation in high inflation countries. These studies often accepted that inflation had a significant negative effect on economic growth at least at adequately high levels of inflation.

Thus today, the prevailing view about the effects of inflation has changed impressively. It has been found that in developing countries as the inflation rate overtake a stipulate point; it affects the growth rate unfortunately. (3)

vi. *Liang, Fang and Huang, Weiya*

Federal Reserve has been playing a fundamental role in affecting the US economy classification through carry out monetary policies and targeting a sustain economy system, consciousness of economists is interested to follow the fed's policy management and association afterwards. The three main tools of the Fed in motivating the market are open market transaction, discount rate and resources fulfillments. The importance of the situation of Fed cannot be over highlight because of its not able to replace the responsibility for the management of accumulate demand by total spending as well as inflation. (4)

vii. *Feldstein, M. and Stock, J. H*

Feldstein and Stock (1994) deliberated the probability of using M2 to target the quarterly rate of growth of nominal GDP in their paper in 1994. The study manifested that the Federal Reserve could perhaps make use of M2 that diminishes both the long-term average inflation rate and the fluctuation of annual GDP growth rate. (5)

viii. *Fair R*

Fair (2001) likely the constructive rules that relating to interest rate and a set of economic variables and penetrate out that there was an organic change of policy convention of Fed between 1979 and 1982. By including the organic change component, the scriber was able to carry out stable coefficient projections. The laws formulated from the regression explained interest rate into an orderly changing index that influenced by other major economic instruments. (6)

i) Research Scope/ Limitations

The scope of the study provides valuable insight to the factors that affecting the money supply (M2) movements and its impact on GDP of Pakistan.

- The study period is from 2000-2011
- The data is consisting of last 12 years of inflation, interest rate, CPI and GDP.

II. Methodology

a) Data Collection Technique

In this research, secondary data has been used. Secondary data is collected from the State bank of Pakistan and federal bureau statistics. In which there are four variables GDP, CPI, inflation and interest rate.

b) Sample Size

The study period consist of 12 years from (2000-2011).

c) Statistical Test

We use SPSS software to analyze the data by using Regression Model to find out the impact of money supply (M2) on the GDP of Pakistan.

d) Characteristics of Variables

i. *Dependent Variable*

GDP is the dependent variable. GDP is the total market value of all final goods and services which produced in a country in a given year are equal to total consumer, investment and government spending, plus the value of exports, minus the value of imports.

ii. *Independent Variable*

a. *Interest Rate*

The amount charged, formulate as a percentage of principal, by a lender to a borrower for the use of assets.

b. *CPI*

It measures the level of prices in the economy. It comprise transport, food, medical, education, fuel, house rent etc.

c. *Inflation Rate*

The rate at which the ordinary level of prices for goods and services is rising and afterwards, purchasing power is falling.

e) Analytical Results

The data were analyzed by using Regression Model to find out the relationship between inflation rate, interest rate and CPI with the GDP of Pakistan.

(Table no: 1) The value of mean show the average values, standard deviation shows the variability in the values and N represents number of years in the model.

Table no: 1

Descriptive Statistics

	Mean	Std. Deviation	N
Pakistan GDP	1.1198E2	40.87688	12
Inflation rate	11.6350	6.89123	12
Interest rate	10.9000	2.60785	12
CPI	1.1863E2	42.24516	12

(Table no: 2) The correlations table displays correlation coefficients, significance values and the number of years. Correlation coefficient represents the association between the variables. These values of correlation coefficient range from -1 to +1. The sign of correlation coefficient indicates the direction of the relationship either positive or negative. The value of correlation coefficient indicates the strength and values indicate the nature of relationship either strong or weak. Interest rate and CPI have absolute value shows strong relationship with GDP of Pakistan. Inflation rate shows weak correlation with the GDP of Pakistan. The correlation coefficients on main diagonal are always 1, because each variable have a perfect and positive relationship with itself. The significant level or P value is the probability of obtaining results as extreme. The significant level less (less than 0.05) except inflation rate that shows correlation is significant and variables are linearly related. The significant level of inflation rate is large or (greater than 0.05). This shows that there no significant correlation and variable are not linearly related with GDP.

Table no : 2

Correlations

		Pakistan GDP	Inflation rate	Interest rate	CPI
Pearson Correlation	Pakistan GDP	1.000	.422	.930	.965
	Inflation rate	.422	1.000	.627	.451
	Interest rate	.930	.627	1.000	.898
	CPI	.965	.451	.898	1.000
Sig. (1-tailed)	Pakistan GDP	.	.086	.000	.000
	Inflation rate	.086	.	.015	.071
	Interest rate	.000	.015	.	.000
	CPI	.000	.071	.000	.

(Table no: 3) The table displays that variables are entered or removed from method. No variable has been removed from the method on the basis of not relationship with GDP.

Table no : 3

Variables Entered/Removed [b]

Model	Variables Entered	Variables Removed	Method
1	CPI, inflation rate, interest rate[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Pakistan GDP

(Table no: 4) This table displays R, R squared, adjusted R squared and the standard error. We measure the strength of two variables, if the value of R is very close to +1 than there is a strong correlation, if it is closed to -1 than there is negative or weak correlation. R is the multiple correlation coefficient, is the relationship between the independent variables and dependant variable. Here, we have large value of R 0.982. This indicates that there is strong relationship. R squared is the proportion of variation in the dependant variable explained by the independent variables. Adjusted R square has a range between $0 \leq$ R square≤ 1. R squared value is 0.964 or 96 percent. This indicates that 96 percent variation in the dependant variable explained through all independent variables and remaining 4% is un-explained. Large values indicate that the model is fit one according to data. Adjusted R squared attempts to correct R squared to more closely reflect the goodness of fit of the model. Here, standard error of the estimate is considerably lower as compare to the model, if standard error is less than the model is the best model.

Table no : 4

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982[a]	.964	.951	9.03283

a. Predictors: (Constant), CPI, inflation rate, interest rate

(Table no: 5) This table summarizes that regression output displays information about the variation accounted by the model. While, residual indicates that information not accounted by the model. The model with large regression sum of squares indicate that the model account for most of variation in the dependent variable. The degree of freedom is the number of years minus 1.The mean square is the sum of squares divided by the degree of freedom. The F statistics is the regression mean square divided by the residual mean square. Here, significant value of F statistics is less (less than 0.05) it means independent variables are explaining the strong variation in the dependent variable (GDP).

(Table no: 6)This table has three results:

- One percent increase in inflation rate, there would be a decrease in GDP by -.938.
- One percent increase in interest rate, there would be increase in GDP by 7.980.
- If one percent increases in CPI, there would be increase in GDP by 0.560.

The independent variables are measures in percentages. The standardized coefficient is an attempt to make the coefficient more comparable. We will get un-standardized coefficients. The t statistics determine the relative importance of each variable in the model. Here, t value of constant below -2 and in independent variables i.e. inflation rate t-value also below -2, interest rate and CPI t-value is above +2.

Table no : 6

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-30.503	14.175		-2.152	.064					
	Inflation rate	-.938	.537	-.158	-1.745	.119	.422	-.525	-.116	.541	1.849
	Interest rate	7.980	2.883	.509	2.768	.024	.930	.699	.184	.131	7.621
	CPI	.560	.155	.578	3.605	.007	.965	.787	.240	.172	5.801

a. Dependent Variable: Pakistan GDP

(Table no: 7)This table determines if there is any problem with co linearity. Eigen value indicates dimensions among independent variables. If Eigen values are close to zero, this shows that variables are highly inter-correlated. Small changes in data values may lead to large changes in the estimates of the coefficients. Condition indices are the square root of the ratios of the largest Eigen value to each of successive Eigen value. If condition index greater than 15 indicates a possible problem. The variance proportion is the variance of estimate accounted for by each principle component associated with each of the Eigen value.

Table no : 7

Collinearity Diagnostics[a]

Dimension Model		Eigen value	Condition Index	Variance Proportions			
				(Constant)	Inflation rate	Interest rate	CPI
1	1	3.797	1.000	.00	.01	.00	.00
	2	.147	5.087	.04	.66	.00	.01
	3	.052	8.543	.31	.05	.00	.17
	4	.005	28.863	.64	.28	1.00	.82

a. Dependent Variable: Pakistan GDP

f) Hypothesis Testing and Results

H_o: There is no significant relation between inflation rate and GDP.

H1: There is a significant relation between inflation rate and GDP.

- Result

The significant value of inflation rate is 0.086, which is greater than 0.05. We accept the null hypothesis. This means that the inflation rate has no significant relation with GDP of Pakistan.

H_o: There is no significant relation between Interest rate and GDP.

H2: There is a significant relation between Interest rate and GDP.

- Result

The significant value of interest rate is 0.000, which is less than 0.05. We reject the null hypothesis. This means that interest rate has a significant relation with GDP of Pakistan.

H_o: There is no significant relation between CPI and GDP.

H3: There is a significant relation between CPI and GDP.

- Result

The significant value of CPI is 0.000, which is less than 0.05. We reject the null hypothesis. This means that CPI has a significant relation with GDP of Pakistan.

III. Conclusion and Recommendations

a) Conclusion

High rate of inflation has adversely affected the economy of Pakistan which is a result of excessive supply of money (M2) by SBP. This study reveals the impact of money supply (M2) on the GDP of Pakistan whereby we have seen inflation rate in double digits. We have taken three indicators that is interest rate, CPI and inflation rate because money supply is affected either one of them. By using regression model, it is proved that Interest rate and CPI have a significant relation with GDP of Pakistan but inflation has no significant relation with the GDP of Pakistan. Thus, money supply needs aggressive control to boost the economy.

b) Recommendations

- We have to maintain interest rate and consumer price index at appropriate level and have to bring the inflation rate up to (5%-6%). For this; SBP has to be given full autonomy to control the money supply (M2) as per financial assets available in Pakistan. As new democratic Government is to likely to take over power in couple of months an aggressive, strong and vigilant control on money supply (M2), interest rate and CPI for having a good GDP would be challenging steps to take force into.
- Interest free loans for youth and qualified personnel to establish business would minimize the unemployment through controlled money supply (M2).
- Health insurance, education for all, improvement in power sector, increase in foreign remittances, foreign direct investment and attractive foreign currency exchange rates are the few important areas where the new Government has to take decision and ensure its implementation. This all can be controlled through SBP by devising healthy money supply (M2) policy.

References Références Referencias

1. Sellin, Peter. "Monetary Policy and the Stock Market: Theory and Empirical Evidence." Journal of Economic Surveys 15.4 (2001): 491-541.(1)
2. Sorensen, Interest Rates and Inflation, Fernando Alvarez, Robert E. Lucas, Jr. and Warren E. Weber ∗Working Paper 609 January 2001.(2)
3. Min (2005). Inflation & Economic Growth: Threshold Effects & Transmission Mechanisms, Working Paper, University of Alberta.(3)
4. The relationship between money supply and the GDP of United States by Liang, Fang 08050597 Applied Economics & Huang G, Weiya 08050872 Applied Economics.(4)
5. Feldstein, M. and Stock, J. H. (1994). The Use of a Monetary Aggregate to Target Nominal GDP National Bureau of Economic Research p. 7-69.(5)
6. Fair R. (2001)Forecasting Growth over the Next Year with a Business Cycle Index Actual Federal Reserve Policy Behavior and Interest Rate Rules.(6)
7. Friedman, B, and Kuttner, K. (1992). Money, Income, Prices, and Interest Rates. The American Economic Review, 82: 472-492.
8. Granger, C. W. J. (1969). Investigating causal relations by econometric models and cross spectral methods. Econometrica, 37: 424-438.
9. Grauwe, P.D., and Polan M. (2005). Is Inflation Always and Everywhere a Monetary Phenomenon? Scand. J. of Economics, 107(2): 239-59.
10. Herwartz, H., and Reimers H.-E. (2006). Long-Run Links among Money, Prices and Output: Worldwide Evidence. German Economic Review, Vol. 7: 65-86.
11. Jamie, E. (2005). The Quantity Theory of Money: Empirical from the United States. Economicsc Bulletin, 5 (2): 1-6.
12. Khan, A., and Siddiqui A. (1990). Money, Prices and Economic Activity in Pakistan: A Test of Causal Relation. Pakistan Economic and Social Review, winter, 121–136.
13. Ahmed Elsheikh M. Ahmed, University of Khartoum, Khartoum, Sudan : The Long–Run Relationship Between Money Supply, Real GDP, and Price Level: Empirical Evidence From Sudan, Journal of Business Studies Quarterly 2011, Vol. 2, No. 2, pp. 68-79.

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Critical Factors Influencing Voluntary Disclosure: The Palestine Exchange "PEX"

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Abstract - This study research examines which factors influence voluntary disclosure in the annual reports. Since corporate scandals have become a known feature in recent years, voluntary disclosure should be increased, and be documented clearly in the annual reports. The study analyse 48 listed companies at the Palestine Exchange "PEX" for the year 2011, and 35 companies for the year 2007 which represented the whole population for that period. The study also examines the extent to which critical factors such as nonexecutive directors, audit committee, board size, board activity, and number of shareholders influence voluntary disclosure practices. The analysis show that the following critical factors influence voluntary disclosure; non-executive directors, board size, audit committee, and number of shareholders. The factor do not influence the company's voluntary disclose information is board activity.

Keywords : voluntary disclosure; non-executive directors; audit committee; shareholders; board size; board activity.

GJMBR-C Classification : JEL Code: L96

CRITICAL FACTORS INFLUENCING VOLUNTARY DISCLOSURE THE PALESTINE EXCHANGE PEX

Strictly as per the compliance and regulations of:

Critical Factors Influencing Voluntary Disclosure: The Palestine Exchange "PEX"

Dr. Ibrahim M. Sweiti [α] & Dr. Osama F. Attayah [σ]

Abstract - This study research examines which factors influence voluntary disclosure in the annual reports. Since corporate scandals have become a known feature in recent years, voluntary disclosure should be increased, and be documented clearly in the annual reports. The study analyse 48 listed companies at the Palestine Exchange "PEX" for the year 2011, and 35 companies for the year 2007 which represented the whole population for that period. The study also examines the extent to which critical factors such as non-executive directors, audit committee, board size, board activity, and number of shareholders influence voluntary disclosure practices. The analysis show that the following critical factors influence voluntary disclosure; non-executive directors, board size, audit committee, and number of shareholders. The factor do not influence the company's voluntary disclose information is board activity.

Keywords : voluntary disclosure; non-executive directors; audit committee; shareholders; board size; board activity.

I. Introduction

Financial disclosure can be classified into two parts: mandatory and voluntary (nonmandatory) disclosures. Corporate voluntary disclosure, which is optional and additional to requirements, provides free choice on the part of managers to provide information to the annual reports users. (Nasir, 2004). Understanding why companies voluntarily disclose information is useful for both producers and users of accounting information, as well as for accounting policy. (Buzbee, 1975; Meek et al. 1995). Disclosure provides important information to the shareholders, so the disclosure act as a link between management and shareholders. The shareholders is the most important stakeholders, but not only once, so many parties other than shareholders receive benefits from financial disclosure, like creditors, employees, government, suppliers, … etc whose called stakeholders. (Fang and Jin 2012). Voluntary disclosure strengthens this bridge and builds the trust between the corporations and stakeholders by involving them with corporations' life. What management of corporations must do in order to get their shareholders' confidence and trust. The question arises here which factors that make corporations disclose more information in their annual reports?

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World corporations are faced with a changing, challenging landscape which sees a series of financial statement frauds and shocking corporate scandals in US and Europe such as WorldCom, Enron, etc. As well as the recent financial crisis that negatively affects the world economies. These frauds and scandals constitute a major reason due to the lack of stakeholders' trust on the corporations. Information asymmetry and agency conflicts which exist between the management and the stakeholder also play a major role in creating these frauds and scandals. The core question here; what corporations are going to do in order to gain their stakeholders' trust? As we notice from previous discussion, corporate disclosure has been cited as being the link of trust between a corporation's management, stockholders and other users of financial reports.

In light of recent corporate scandals such as USA Building, Enron, and WorldCom (Heidi and Marlene, 2003) restoring of public confidence or trust becomes the main agenda in today's business leaders. Disclosing more information on the company's capital structure and control can be an important way to achieve that goal (Rogers, 2006).

Beasley (1996) and Beasley et, al. (2000) emphasise the crucial role of full disclosure in avoiding financial reporting fraud. Investigating a series of financial statement frauds that have occurred in recent years, Guan, et, al. (2007) find that to protect investors' rights and enhance information transparency, the regulatory authorities of securities markets and information intermediaries have exerted great effort to advocate corporate governance, thus lessening the occurrence of adverse selection and agency problems as a result of the information asymmetry.

The study investigates the Palestinian Exchange, due to the complicated political situation in Palestine (West Bank and Gaza Strip), which make Palestinian economy dependant on Israel economy. The Palestine Exchange (PEX) was established in 1995 to promote investment in Palestine, which is considered as a rising market, and lack for applied research.

a) Litreture Review

Many studies have examined the critical factors influencing voluntary disclosure among listed corporations in both developed countries such as US, UK, Canada, China, Sweden and Australia (Anderson, 2005; Huafang & Jianguo, 2007) as well as in developing countries such as Malaysia (Hossain et al., 1994 ; Haniffa and Cook, 2002; Nasir, 2004.), Zimbabwe, (Musa Mangena 2007.), Saudi Arabia (Khalid 2006.) and Kenya (Barako et al., 2006)…etc. , These researches have focused on examining different corporate governance characteristics such as board of directors, managerial ownership, audit committee and other variables, their effect on voluntary information disclosure in annual financial reports. Haniffa and Cook (2002) for instance examine the relationship between a number of corporate governance characteristics, cultural and firm-specific characteristics and the extent of voluntary disclosure in the annual reports of Malaysian companies. Nasir (2004) examines the influence of firm's financial status in explaining the level of voluntary disclosure among financial distressed firms in Malaysia. (Barako et al., 2006) investigate the extent to which corporate governance attributes, ownership structure and company characteristics influence voluntary disclosure practices among Kenyan companies. Swedish companies have also been studied by (Anderson, 2005). So that he depends on the agency theory to find out which factors that influence these corporations to disclose voluntary disclosure information in the annual reports. And so on many researches have been done among different developed and developing countries to figure out which factors could contribute to more disclosures by companies in their financial annual reports.

Due to the fact that no previous studies were keen to examine the impact of critical factors influenced voluntary disclosure among listed Palestinian companies, and the special complicated political situation in Palestine, this research is considered important for this region. It is based on previous studies on voluntary disclosure were conducted by developing and developed countries. Researchers try to examine to what extent voluntary disclosure can be influenced by certain critical factors (such as non-executive directors, audit committee, board size, and board activity, number of shareholders). Among listed Palestinian companies.

In examining the relationship between critical factors and voluntary disclosure, this research attempts to answer if these factors are influencing voluntary disclosure in the Palestinian's annual report or not. The main critical factors are board size, board activity, audit committee, non- excusive directors, and number of shareholders; affect the extent of voluntary disclosure in annual reports. The investigation on voluntary disclosure provides an excellent opportunity to apply agency theory. Managers who are directly involved in the day-to-day running of their firms are in the position to directly communicate corporate information through the annual reports to shareholders (owners) and other external stakeholders. The disclosure of information helps to reduce the costs of agency relationship when there is an information asymmetry between them and the shareholders.

II. Theory and Hypothesis Develping

a) *Voluntary Information Disclosure*

Voluntary disclosure is measured by the amount and detail of non-mandatory accounting and non-accounting information that is contained in the management discussion and analysis in the annual report. (Haniffa and Cooke, 2002) have defined voluntary disclosure by disclosing non-mandatory accounting and non-accounting information.

b) *Incentives for Voluntary Disclosure*

Healy and Palepu (1993) provide a comprehensive review of voluntary disclosure literature; they note that research into voluntary disclosure decisions tends to focus on the informational role of reporting for capital market participants. They identify five forces that have been found to be related to managers' decisions to voluntarily disclose information for capital market reasons:

- The Capital Market Transactions Hypothesis: Firms have incentives to make voluntary disclosures in order to reduce information asymmetry and therefore reduce the cost of external financing through reduced information risk.
- The Corporate Control Contest Hypothesis: When corporate performance is poor, managers use voluntary disclosures in an attempt to increase firm valuation and to explain the poor performance, therefore reducing the risk of management job losses.
- The Stock Compensation Hypothesis: Managers who are rewarded with stock compensation have an incentive to use voluntary disclosures to reduce the likelihood of insider trading allegations, and firms have incentives to increase disclosures to reduce contracting costs with managers who receive stock compensation.
- The Litigation Cost Hypothesis: Managers have an incentive to disclose bad news to avoid legal actions for inadequate disclosure, but have an incentive to decrease disclosures of forecasts that might prove to be inaccurate.
- The Proprietary Costs Hypothesis: Voluntary disclosures will be constrained if managers perceive that disclosure could be competitively harmful.

i. *Non-Executive Directors*

Non-executive directors act as a reliable mechanism to diffuse agency conflicts between managers and owners (Fama & Jensen 1983). They are viewed as providing the necessary checks and balances needed to enhance board effectiveness (Franks et al. 2001). Chen & Jaggi (2000) and Haniffa & Cooke (2002), provide empirical evidence of the relationship between the proportion of non-executive directors on the board and corporate disclosure.

The importance of non-executive directors has also been demonstrated in other settings; positive share price reactions to specific critical events when the firm's board is dominated by outside (non-executive) directors have been documented. Examples of these events include tender offer bids (Byrd & Hickman, 1992; Cotter et al. 1997), the adoption of poison pills (Brickley et al. 1994), and management buyout announcements (Lee et al. 1992). These empirical research findings verify the relevance of non-executive directors as a governance mechanism that enhances the board's capacity to ameliorate agency conflict between owners and managers, D. G. Barako, P. Hancock and H.Y.

Izan/FRRaG (Financial Reporting, Regulation and Governance) 2006, 5:1 6 which may occur in the decision to voluntarily disclose information in the annual reports. Based on these earlier findings the following hypothesis is stated:

H1: The extent of non-executive directors is positively associated with the level of voluntary disclosure.

ii. *Audit Committee*

Prior research studies provide evidence of a positive association between the presence of an audit committee and corporate disclosure practices (e.g. Ho & Wong, 2001). For example, McMullen (1996) reported that the presence of an audit committee is associated with reliable financial reporting, such as, reduced incidence of errors, irregularities, and other indicators of unreliable reporting. In addition, Bradbury (1990 p.21) argued that: "audit committees are commonly viewed as monitoring mechanisms that enhance the audit attestation function of external financial reporting". The board usually delegates responsibility for the oversight of financial reporting to the audit committee to enhance the breadth of relevance and reliability of the annual report (DeZoort, 1998; Wolnizer, 1995). Thus, audit committees can be a monitoring mechanism that improves the quality of information flow between firm owners (shareholders and potential shareholders) and managers, especially in the financial reporting environment where the two have disparate information levels. Given the influence of audit committees on the context and content of corporate annual reports, the following hypothesis is tested: D. G. Barako, P. Hancock and H.Y. Izan/FRRaG (Financial Reporting, Regulation and Governance) 2006, 5:1 7

According to Sarbanes-Oxley act requires that all members of the audit committee be independent, and company must include at least one member who is a financial expert.As well as the recent studied Samaha and Dahawy (2010 and 2011) found an audit committee existence complementary effect on the general corporate voluntary disclosures. Thus we generate our second hypothesis:

H2: There is a positive association between the existences of an audit Committee and the levels of voluntary disclosure in the annual reports.

iii. *Board Size*

Jensen (1993) and Yermack (1996) argue that board of directors are less effective monitors as they grow in size, since the control over management will be reduced. Moreover, a smaller board of directors will more likely take responsibility for monitoring a corporation's operations than a larger board of directors, according to Vaefas (2000). Larger board of directors may be slower to react to decisions that require an immediate course of action. Furthermore, as more directors are added, the board of directors loses the ability to be direct and decisive in their operation; therefore, it will be easier for the CEO to control the board of directors. The directors also become less candid in the ability to be critical of one another, which results in less efficient decision making (Jensen, 1993).

Ezat and El-Masry (2008) find that board size is positively associated with levels of corporate voluntary disclosure. Based on these arguments our third hypothesis is as follows:

H3: There is a negative association between board size and the levels of voluntary disclosures in the annual reports.

iv. *Number of Shareholders*

The greater the number of shareholders, the more likely it is that their information needs will be different, which results in a greater need for different information to be disclosed (Cooke, 1989a). On the other hand Samaha and Dahawy (2010 and 2011) did not find any evidence for an association between number of shareholders and the corporate voluntary disclosure level. Our fourth hypothesis is therefore as follows:

H4: There is a positive association between number of shareholders and the levels of voluntary disclosures in the annual reports.

v. *Board Activity*

Anderson (2005) states that the board of directors will be motivated to carry out its role as monitors of the management, as the directors' compensation gets higher. Therefore, corporations can be expected to have more disclosure since it will be more effective in monitoring managerial opportunism. Ezat and El-Masry (2008) and Samaha and Dahawy (2010 and 2011) found that the association between board independence and voluntary disclosure in Egypt is positive. Our last hypothesis is therefore as follows:

H5: There is a positive association between board Activity and the levels of voluntary disclosures in the annual reports.

vi. *Statistical Differences*

The following hypothesis is stated to discover if there any significant differences between the levels of voluntary disclosure related to variable of financial year 2007, 2011. Throughout 2007, "PEX" work went on in order to develop the, electronic systems, and work procedures. These developments included preparing automated programs that enable the "Center" to execute its operations rapidly and accurately, and prepare statistical reports efficiently. As Company guide (2007), The Palestine Securities Exchange launched the e-trading service in April 2007. We stated the following hypothesis:

H6: There is a significant difference at the level of voluntary disclosure related to variable of financial year (2007, 2011).

III. Methodology

a) *Research Population and Sample*

Due to the relatively small number of companies listed on the Palestinian Securities Exchange all companies listed in 2011 were considered for inclusion in the survey which is called consensus survey. The total numbers of all companies listed in 2011 are 48 .The annual reports prepared at 31-12-2011 of these companies were considered.

b) *Dependent Variable (Voluntary Disclosure)*

The voluntary disclosure checklist was prepared to measure voluntary disclosure, based on the checklist developed by Meek et al. (1995) in relation to the voluntary disclosures of U.K., U.S. and Continental European firms. Data for the dependent variable (voluntary disclosure) is measured by an index of disclosure. Before determining the index of each company in the sample, a scoring sheet is prepared based on the selection of voluntary items information. Voluntary disclosure is disclosing non-mandatory accounting and non accounting information in the financial annual reports (Haniffa and Cooke, 2002). In this research, the annual reports, website information and disclosure requirements issued by Palestinian Securities Exchange in order to examine the research object only the most recent annual report and website information disclosure activities are used.

A disclosure checklist was compiled based on an analysis of international trends and observations of standard reporting practices, taking into account relevant research studies and comprehensive surveys such as Gray, Campbell and Shaw [1984] and Tonkin [1989]. The checklist began with a list of 128 items of information that were potentially voluntary. These items were then compared to the respective Palestinian securities exchange market disclosure requirements faced by the companies in the sample. Even though, it obviously eliminates some voluntary disclosures for some companies. The final checklist consists of seventy nine items of information. Thus, we use a common set of seventy-nine voluntary disclosure items for the sample selected. This enables us to compare voluntary disclosures across companies. In order to carry out the study, the 2007 annual reports were obtained for the samples of companies. At the time of data collection, these were the latest annual reports available. The contents of each annual report were compared to the items on the checklist and coded as 1 or 0 (or not applicable), depending upon whether the annual report contained or did not contain (respectively) the disclosure item. For each company, a voluntary disclosure index was then calculated as the ratio of the actual score awarded to the company divided by the maximum potential score applicable to that company. In other words, the applicability of the item concerned was also taken into account: companies were not penalized if a disclosure item was not relevant. In order to assess this aspect, the entire annual report was studied and a judgment was made on the matter. Thus, the dependent variable is the voluntary disclosure index.

The voluntary disclosure score for each company is additive and unweight. Unweight scores have been used in other empirical studies (e.g., Cooke 1989).

The voluntary disclosure items are categorized into three major types of information: strategic, non-financial, and financial. One reason for doing this is that the decision relevance of information probably varies by type. For example, the strategic and financial information categories have obvious decision relevance for investors. The non-financial information category is directed more toward a company's social accountability, extending beyond the investor group to include other company stakeholders as well. As a result, the variables affecting voluntary disclosure choices may also vary by information type.

The disclosure index for each company is calculated as follows.

$$I_j = \frac{\sum_{t=1}^{n_j} X_{ij}}{n_j}$$

Where:

I j Disclosure Index

N j Number if items expected for jth firm, nj ≤ 79

Xij 1 if the item is disclosed, 0 otherwise so that 0≤ Ij≤1

t Year

c) *Independent Variable (Critical Factors)*

This section described how the independent variables will be measured:

- Non-executive directors: proportion of independent non-executive directors to total directors.
- Audit committee: coded '1' to indicate existence of audit committee and '0' to indicate nonexistence.
- Board size: board of director's size, measured by counting the total number of the directors for each company.
- Number of shareholders: number of shareholders, measured by counting the total number of the shareholders for each company. (natural log).
- Board activities: Board activities measured by board compensation which is equal the log of the total amount of compensation given to the board of director for each company.

IV. Empirical Results

a) *Multicollinearity*

Before running the multiple regressions, the independent variables have to be examined and checked to see if there is correlation between them. Correlation between the independent variables is not a problem until it exceeds the limit of 0.8 Thomas (1996). Table 1, indicate that the correlation between the independent variables is quite low.

Table 1 : The correlation between independent variables

Variables	Non-ex.	Audit co.	Board size	Number sh.	Board act.
Non-ex	1				
Audit co.	0.147	1			
Board size	0.182	0.032	1		
Number sh.	0.23	0.121	0.327	1	
Board act.	0.158	0.721	0.165	-0.016	1

b) *Multiple Regressions*

Statistical packages were used for the Social Sciences (SPSS) in order to test the hypotheses. The multiple regressions are used. Five hypotheses were developed to explain the relationship between independent variables (critical factors) and voluntary disclosure. Multiple regression analysis was used to test the validity of these hypotheses. Analysis table shows the results of these tests.

Table 2 : The Regression result

	critical factors	Beta	T	p-value
H1	Non-executive directors	0.197	5.522	0.000**
H2	Audit committee	0.383	10.727	0.000**
H3	Board size	0.167	4.001	0.000**
H4	Number of shareholders	0.221	8.011	0.000**
H5	Board Activity	0.182	1.337	0.192
	R2	0.491		

The non-executive directors, audit committee, board size, number of shareholders and board activity, were entered into the regression to test their impact on voluntary disclosure as dependent variables. The results are shown in table 2:

The regression analysis results indicated that the independent variables explained 49.1% of the variance in behaviour intention.

It was also noticed that the non-executive directors had the impact on voluntary disclosure beta=0.197, $p < 0.01$. Based on these findings and in the presence of a significant relationship between non-executive directors and voluntary disclosure was accepted, hypothesis 1 is supported.

It was also noticed that the Audit committee had the strongest impact on voluntary disclosure beta=0.383, $p < 0.01$. Based on these findings and in the presence of a significant relationship between Audit committee and voluntary disclosure was accepted, hypothesis 2 is supported.

It was also noticed that the Board size had the impact on voluntary disclosure beta=0.167, $p < 0.01$. Based on these findings and in the presence of a significant relationship between Board size and voluntary disclosure was accepted, hypothesis 3 is supported.

It was also noticed that the Number of shareholders had the impact on voluntary disclosure beta=0.221, $p < 0.01$. Based on these findings and in the presence of a significant relationship between Number of shareholders and voluntary disclosure was accepted, hypothesis 4 is supported.

It was also noticed that the Board Activity had no impact on voluntary disclosure beta=0.182, $p > 0.05$. Based on these findings and in the presence of no significant relationship between Board Activity and voluntary disclosure was not accepted, hypothesis 5 is rejected.

c) Statistical Differences

Also the analysis used T. test to examine the difference between the levels of voluntary disclosure related to variable of financial year 2007, 2011. As it appears in difference table 3 , the result indicates that there is a significant difference between the two of financial year 2007 and 2011, since the mean for 2011= 0.417 and for 2007= 0.308 at a confidence level α =0.05 and p=000. The analysis support the hypothesis 6 and we found there are differences because of that we accepted the hypothesis.

Table 3 : Differences between the levels of voluntary disclosure

YAEARE	N	MEAN	STD	D.F	T.TEST	SIG
2011	48	0.417	0.097	81	3.989	.000
2007	35	0.308	0.121			

V. Conclusion

This study finds out whether the critical factors stated by researchers influencing the voluntary disclosure and also the researchers try to examine the changes of voluntary disclosure through the time pass. Our study findings that selected critical factors, nonexecutive directors, audit committee, numbers of shareholders, and board size, are positively influencing the voluntary disclosure Which is agreed with Ezat and Al-Masry (2008), and apposite to Jensen (1993), Yermack (1996), and Vaefas (2000), which they stated that there is negative correlation between board size and voluntary disclosure. Also we found that board of activities has no influence on voluntary disclosure which it apposite to Anderson (2005) , Ezat and El-Masry (2008), and Samaha and Dahawy (2010 and 2011) . It also found that the voluntary disclosure slightly improved when we compared 2007 with 2011.

Finally we can say that the stated critical factors have a positive influencing effect on voluntary disclosure but still the level of voluntary disclosure is low. Also the selecting critical factors used by researchers not only the ones there are so many other factors can be used such as Cultural aspect is an important factor that could influence voluntary disclosure. This was examined by others, but the researchers encourage experts to carry further investigations on this factor.

References Références Referencias

1. Anderson, Maria & Daoud, Manal. (2005). Corporate Governance Disclosure. (Unpublished Master's thesis). Jonkoping International Business School, Sweden.
2. Barako, D. G. Hancock, P. & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance, 14*(2), 107- 125.
3. Barako, D. G. Hancock, P. & H.Y. Izan. (2006). Relationship between Corporate Governance Attributes and Voluntary Disclosures in Annual Reports: The Kenyan Experiences. *Financial Reporting, Regulation and Governance, 5*(1).
4. Beasley, S. Carcello, V. Hermanson, R. & Lapides D. (2000). Fraudulent Financial Reporting: Consideration of Industry Traits and Corporate Governance Mechanisms. Accounting Horizons, 14(4). 441-454.
5. Beasley, M.S. (1996). An Empirical Analysis of the Relation between the Board of Director Composition and Financial Statement Fraud. *The Accounting Review, 71*(4), 443-465.
6. Brickley, J. A. Lease R. C. & Smith C. W. (1988). Ownership Structure and Voting on Antitakeover Amendments. *Journal of Financial Economics, 20*(1), 267-291.
7. Brickley, J. A. Coles J. F. & Terry R. L. (1994). Outside Directors and the Adoptions of Poison Pills. *Journal of Financial Economics, 35*(3), 371-390.
8. Buzby, S. L. (1975). Company size, listed versus unlisted stocks, and the extent of financial disclosure. *Journal of Accounting Research, 13*(1), 16–37.
9. Byrd, J. J. & Hickman K. A. (1992). Do Outside Directors Monitor Managers? *Journal of Financial Economics, 32*(2) 195-221.
10. Chen, C. J. P., & Jaggi, B. (2000). Association between independent nonexecutive directors, family control and financial disclosures in Hong Kong. *Journal of Accounting and Public Policy, 19*(4), 285–310.
11. *Companies guide (2007) PEX-listed Company.*
12. Cooke, T. E. (1989). Voluntary corporate disclosure by Swedish companies. *Journal of International Financial Management and Accounting, 1*(2), 171-195.

13. Cotter, J.F. Shivdasani, A. & Zenner M. (1997). Do independent directors enhance target shareholder wealth during tender offers? Journal of Financial Economics, 43(2), 195-218.
14. DeZoort, F.T. (1998). An Analysis of Experience Effects on Audit Committee Members' Oversight Judgments, Accounting, Organization and Society, 23(1), 1-22.
15. Ezat, A., & El-Masry, A. (2008). The impact of corporate governance on the timeliness of corporate internet reporting by Egyptian listed companies. Managerial Finance, 34(12), 848–867
16. Fama, E. F. & Jensen, M. C. (1983). Separation of ownership and control. Journal of Law and Economics, 26(2), 301-325.
17. Fang, H., & Jin Y. (2012). Listed Corporations' contribution to non-shareholders Stakeholders: Influencing Factors and Value Relevance of Voluntary Disclosure. International Conference on Management Science and Engineering (19^{th}) Dallas USA.
18. Gray, S.J., Campbell, L.G., & Shaw, J. (1984) "International Financial Reporting" New York: MacMillan.
19. Guan Yue-Duan., Sheu Dwan-Fang & Chu, Yu-Chin. (2007). Ownership Structure, Broad of Directors, and Information Disclosure. Journal of American Academy of Business, Cambridge: ABI/INFORM Global pg. 182
20. Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations, Abacus, 38(3), 317–349.
21. Healy, P. & Palepu, K. G. (1993). The Effect of Firms' Financial Disclosure Strategies on Stock Prices. Accounting Horizons, 7(March), 1-11.
22. Heidi,V. B., & Marleen, W. (2003). Voluntary Disclosure on Corporate Governance in the European Union. Dept of Applied Economics, University of London.
23. Ho, S. S. M., & Wong, K. S. (2001). A study of the relationship between corporate governance structures and the extent of voluntary disclosure. Journal of International Accounting, Auditing and Taxation, 10(2), 139–156.
24. Hossain, M., Tan, L. M., & Adams, M. (1994). Voluntary disclosure in an emerging capital market: Some empirical evidence from companies listed on Kuala Lumpur Stock Exchange. The International Journal of Accounting, 29, 334–351.
25. Jianguo Y. & Huafang X. (2007). The Joint Effect of Competition and Managerial Ownership on Voluntary Disclose. Journal of American Academy of Business, Cambridge, 11(2), 83.
26. Jensen, M. C. (1993). The Modern Industrial Revolution, Exit and the Failure of Internal Control Systems. Journal of Finance, 48(3), 831-880.
27. Alsaeed K. (2006).The association between firm-specific characteristics and disclosure the case of Saudi Arabia. Managerial Auditing Journal, 21(5), 476-496.
28. Lee, C. I. Rosenstein, S. Rangan, N. & Davidson W. N. (1992). Board composition and shareholder wealth: The case of management buyouts. Financial Management, 21(1), 58-72.
29. McMullen D.A. (1996). Audit committee performance: an investigation of the consequences associated with audit committees. Auditing: A Journal of Practice bbcb & Theory, 15(1), 87–103.
30. Gary, M. Roberts, K. Clare, B. & Sidney, S. (1995). Factors Influencing Voluntary Annual Report Disclosures by U.S., U.K. And Continental European Multinational Corporations. Journal of International Business Studies, 26(3), 555-572.
31. Mangena, M. (2007). Disclosure, Corporate Governance and Foreign Share Ownership on the Zimbabwe Stock Exchange, Journal of International Financial Management and Accounting, 18(2), 53-85.
32. Nasir, N. M. (2004). Voluntarily disclosure and corporate governance among financially distressed firms in Malaysia. Monash University Malaysia. Selangor Darul Ehsan, Malaysia.
33. Rogers, M. (2006). Corporate Governance and Financial Performance of Selected Commercial Banks in Uganda. Makerere University Business School, Faculty of Commerce. East Africa: Kampala Uganda.
34. Samaha, K. & Dahaway, K. (2010). factory influencing corporate disclosure transparency, in the active share trading firms: An Explanatory study. Research in Emerging Economies 10, 87-118.
35. Samaha,K, and Dahaway,K, (2011). An empirical analysis of corporate governance structure and voluntary disclosure in volatile capital market: The Egyptian Experiences. International Journal of Accounting and Performance Evaluation, 7(1), 61-93.
36. Tonkin, David J., editor. 1989. World survey of published accounts. London: Lafferty Publications.
37. Vaefas, N. (2000). Board structure and the informativeness of earnings. Journal of Accounting and Policy, 19(2), 139-160.
38. Wolnizer, P.W. (1995). Are Audit Committee red Herrings?, Abacus, 31(1), 45-66.
39. Yermack, D. (1996). Higher market valuation of companies with a small board of directors. Journal of Financial Economics, 40(2), 185-211.

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Growth of Non Bank Financial Institutions Over Time and Contribution to Economy: Evidence from Bangladesh

By Anupam Das Gupta, Afsana Yesmin & Md. Omar Faruk Khan
University of Chittagong, Bangladesh

Abstract - Non-banking financial companies, or NBFIs, are the financial institutions that provide financial services including banking but do not hold a banking license. These institutions are not allowed to take deposits from the public. The development of non-bank financial institution as financial intermediaries complementary to commercial banks is noticeable in Bangladesh. Started in 1981, the size of the nonbanking sector has been increased in both absolute and relative terms. However, the research on the sector remains substantially insignificant. Most importantly, growth of the non-banking industry and its contribution in the economic development have been a lacking in the available existing literature. Keeping this in mind, this paper aims at addressing the growth of the industry and its change over time by adopting growth measures based on asset, loan, income and expenditure figures with a sample period of 11 years from 2000-2010. The study reveals a positive growth of NBFIs over the years in advances, income, assets and others financial aspect and a good contribution in the GDP growth of Bangladesh.

Keywords : *development, growth and non-bank financial institutions.*

GJMBR-C Classification : *JEL Code: G21*

GROWTH OF NON BANK FINANCIAL INSTITUTIONS OVER TIME AND CONTRIBUTION TO ECONOMY EVIDENCE FROM BANGLADESH

Strictly as per the compliance and regulations of:

Growth of Non Bank Financial Institutions Over Time and Contribution to Economy: Evidence from Bangladesh

Anupam Das Gupta[α], Afsana Yesmin[σ] & Md. Omar Faruk Khan[ρ]

Abstract - Non-banking financial companies, or NBFIs, are the financial institutions that provide financial services including banking but do not hold a banking license. These institutions are not allowed to take deposits from the public. The development of non-bank financial institution as financial intermediaries complementary to commercial banks is noticeable in Bangladesh. Started in 1981, the size of the non-banking sector has been increased in both absolute and relative terms. However, the research on the sector remains substantially insignificant. Most importantly, growth of the non-banking industry and its contribution in the economic development have been a lacking in the available existing literature. Keeping this in mind, this paper aims at addressing the growth of the industry and its change over time by adopting growth measures based on asset, loan, income and expenditure figures with a sample period of 11 years from 2000-2010. The study reveals a positive growth of NBFIs over the years in advances, income, assets and others financial aspect and a good contribution in the GDP growth of Bangladesh.

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I. Introduction

The development of a country depends on the development and growth of all economic entity. The financial system is the ultimate engine for achieving economic prosperity of a country, and is involved in the mobilization of financial resources from the surplus to the deficit sector.

Though in the initial stage bank financial institutions plays a vital role in mobilization of funds in most of the countries, particularly in developing countries. However, the development of both banks and non-bank financial institutions are necessary for assuring a strong and stable financial system for the country as a whole (Pirtea, Iovu, & Milos, 2008; Raina & Bakker, 2003).

In addition, NBFIs add power to the economy in such a way that enhances the resilience of the financial system to economic crisis (Carmichael & Pomcerleano, 2002).

These NBFIs offer wide range of products and services to mitigate the financial intermediation gap and thereby, play an important complementary role of commercial banks in the society (Shrestha, 2007; Sufian, 2008;

Vittas, 1997). According to Ahmed and Chowdhury (2007), the fundamental limitations existed in the banking sector are, in fact, laid down the foundation of the accelerated development process of NBFIs. Firstly, the regulations adopted by the central bank of a country do not allow banks to embrace financial services for all areas of business; secondly, banks always face a mismatch in maturity intermediation since they have to fulfill the long-term financing needs with short-term resources; and finally extending the operational horizon through product innovations is not always possible for banks. These areas create new opportunities for the NBFIs to grab with utmost success.

As a result, the NBFIs are nowadays treated as an important sub-sector of the financial system, which has been expanding rapidly and attaining importance on a continuous basis due to their ability to meet the diverse financial requirements of business enterprises (Islam & Osman, 2011).

The development, growth and their changes over time as well as impact on the economy have been analyzed by many researchers to evaluate the structure of the banking industry. Various changes in the banking industry initiated by the financial reform policy make the analysis even more important to the policy makers. However, the research on various issues of NBFIs remains substantially scarce (Sufian, 2008), in spite of the fact that recent emergence of NBFIs as financial intermediaries is noticeable not only in developed countries but also in developing countries. Empirical evidence to evaluate the development and growth of the non-banking sector stays even more insignificant, particularly in the context of developing countries.

Although both direct and indirect forms[1] of financial intermediation are available in Bangladesh,

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[1] In case of direct finance, deficit budget units collect funds from surplus budget units through stock market, whereas in case of indirect finance, banks and NBFIs play the role of financial intermediaries between deficit budget units and surplus budget units.

[2] BDT stands for Bangladesh Taka, and Taka is the local currency of the country.

similar to many developing countries the indirect form dominates the other form in the financial market to a great extent (Beck & Rahman, 2006; Uddin & Suzuki, 2011). The journey of NBFIs was started in 1981, ten years after the independence of the country. A private sector NBFI, namely, Industrial Promotion and Development Company (IPDC) was the pioneer in the sector in Bangladesh. Over the years, the non-banking sector has grown in numbers as many state-owned, private, and joint-venture firms started to join the sector, and by the end of 2010 a total of 35 firms were reported by the Ministry of Finance as NBFIs. The size of the non-banking sector in respect of both absolute and relative terms has also expanded. For instance, the absolute size of the non-banking sector, measured in terms of assets, was BDT[2]78.84 billion in 2000 and by the end of 2010 it became BDT414.11 billion. On the other hand, the relative size of the non-banking sector, measured in terms of assets relative to gross domestic product (GDP), increased to 5.96 per cent in 2010 from 3.85 per cent in 2000. Moreover, the importance of non-banking sector has been accelerated rapidly due to the development of new areas of business operations like leasing, term lending, housing and real estate financing, merchant banking, factoring, and so on by NBFIs Ahmed & Chowdhury, 2007; Debnath, 2004; Hossain & Shahiduzzaman, 2002; Nasreen & Jahan, 2007).

The contribution of this paper can be expressed in three ways. Firstly, it addresses to analyze the growth of the non-banking sector of Bangladesh through analyzing the changes of different financial aspects over last 11 years of time, and by doing this it shows the scenario of Bangladesh with the growth of NBFIs. Secondly, the findings of this study will generate some guidelines for the policy makers to formulate policies and strategies with regard to the structure of the non-banking sector since the growth of NBFIs also influences the GDP growth. Finally, it will also raise some issues to deal with further researches.

The later part of this paper is organized in the following manner: section two describes the available literature concerning the growth on NBFIs over time. It also focuses on the previous studies carried out in Bangladesh to tackle the issues relating to the non-banking sector. Section three elaborates the overview of the non-banking sector of Bangladesh. Section four introduces the data and methodology adopted for the study. Section five displays the findings and empirical results of the study and section six concludes with creating some future research opportunities.

II. Literature Review

From the very beginning of bank financial institutions plays very significant role in economic and infrastructure development of Bangladesh. The history of NBFIs is not as old as BFIs but with the passage of time NBFIs become an integral part of the financial system of Bangladesh.

Goldsmith (1969) opine that NBFIs alongside the banking sector contributing prominently in influencing and mobilizing saving for investment

Beck and Rahman(2006) has shown the robust relationship between the development of financial intermediaries and economic growth. They also added that financial intermediaries not only contribute to the economic growth but also control the reverse causation of economic growth.

Islam & Osman (2011) examined the long-run relationship between per capital real GDP and the NBFIs based on Malaysian market. They revealed that there is a long run stable relationship between per capita real GDP and the NBFIs' investment, trade openness, and employment. From their empirical result they showed that NBFIs is a vital component of the financial sector through which flow of financial resource effectively channelized from the surplus units to the deficit units and promote long-run sustainable economic growth.

Pirtea, Iovu & Milos (2008) expressed that with the development NBFIs financial system and domestic capital market also develop that in tern contribute to the overall economic developemnt of the country. Thus sustainable economic growth largely depends on the development of efficient financial intermediation.

Vittas (1997) opine that creating new marketable securities in the area of leasing, factoring and venture capital NBFIs creates long-term financial resources and provide a strong stimulus to the development of capital market.

With regard to the literature concerning the non-banking sector, limited number of studies has been conducted so far in Bangladesh. Hossain and Shahiduzzaman (2002) focused on the importance of non-banking sector as a vehicle for the economic development of the country and identifies the underlying problems existed within the sector. Sufian (2007) opine that BFIs and NBFIs enhance the overall growth of the economy with the support of efficient money and capital market and NBFIs plays important role in providing complementary facilities offered by the commercial banks. Sufian(2007) also opine that with the development of health of NBFIs, health of capital market is also increase. He also added that as the key player in the development of capital market efficient and productive NBFIs lead the market based economy move forward.

Ahmed and Chowdhury (2007) opine that NBFIs intensify the country's financial system and contributing to the economic development of the country through diversified financial services in the market. They deal with different features, contribution, and challenges faced by NBFIs in Bangladesh. At the same time they also focus on performance analysis of NBFIs by adopting traditional financial indicators like current ratio, debt-equity ratio, productivity ratio, return on equity, etc. and report that in spite of the presence of several constraints existed in the sector NBFIs have been performing considerably well.

Nasreen and Jahan (2007) conducted a research on leasing companies only regarding the accounting practice. However, none of the above mentioned studies analyze the growth of the non-banking sector of Bangladesh over a long period of time and their contribution of economic growth, which creates an opportunity to deal with through an investigation.

III. Overview of the Non-Banking Sector of Bangladesh

Bangladesh Bank is the central bank of the country and therefore, is responsible for regulating and supervising the bank-based system. At the same time, as a supreme authority of the indirect form of financial intermediation, Bangladesh Bank is also responsible for controlling the activities of all NBFIs. On the other hand, the stock exchanges are operated under the guidance and monitoring of Securities and Exchange Commission (SEC), Bangladesh.

From the initial stage NBFIs were governed by 'Bangladesh Bank Order 1972' as per provision stated in Chapter V. In 1989 a new order Promulgated name 'Non Banking Financial Institutions Order' for proper supervision and better regulation of this sector. However, regulatory deficiencies of this order with regard to the activities of NBFIs and statutory liquidity requirement urged the central bank to announce a new act in 1993 in the name of 'Financial Institutions Act' (Ahmed & Chowdhury, 2007; Barai, Saha, & Mamun, 1999). From then on, all NBFIs in Bangladesh have been licensed and controlled under this act.

Although the major business of most of the NBFIs is lease financing, still a handful number of NBFIs involves in different financing activities, namely, term lending, house financing, merchant banking, equity financing, venture capital financing, project financing, financing to pilgrimage, etc. NBFIs also extend services to various sectors like textile, agriculture, small and cottage, chemicals, trading, pharmaceuticals, transport, food and beverage, leather products, and construction and engineering.

Table 1 represents the position of different types of NBFIs in Bangladesh in the year 2010. The total number of NBFIs is 35 in 2010 out of which 10 are domestic and foreign joint venture NBFIs, 20 are privately owned NBFIs, and 5 are state owned NBFIs. In 2000, the total number was 28 out of which 9 were domestic and foreign joint venture NBFIs, 14 were privately owned NBFIs, and 5 were state owned NBFIs. Among all NBFIs, privately owned NBFIs hold the majority of the market share by capturing 74.74 per cent, 57.43 per cent, and 60.27 per cent of deposits, loans and advances, and assets respectively. State owned NBFIs collectively retain higher market share than joint venture NBFIs in terms of deposits and assets, but lower market share in terms of loans and advances. Again proportionate incomes are - Joint venture companies 19.43 percent, privately owned companies 56.08 percent and state owned companies 24.49 percent respectively in 2010. Also expenditure proportions are 18.40 percent, 62.86 percent and 18.74 percent of joint venture, privately owned and state owned companies respectively.

Table 1 : Position of Non-banks in 2010 (Amount in million BDT except no. of non-banks)

Type of Ownership	Deposits		Loans and Advances		Assets	
	Amount	%	Amount	%	Amount	%
Joint Venture	24,216	11.32	61,222	22.13	76,986	18.59
Privately Owned	159,903	74.74	158,880	57.43	249,561	60.27
State Owned	29,835	13.94	56,548	20.44	87,561	21.14
Total	213,954	100.00	276,650	100.00	414,108	100.00
Type of Ownership	Income	Expenditure	No. of Non-Banks		No. of Employees	
Joint Venture	7,371	4,699	10		876	
Privately Owned	21,270	16,050	20		27,255	
State Owned	9,287	4,785	5		2,740	
Total	37,928	25,534	35		30,871	

Source : Constructed by the Authors based predominantly on Ministry of Finance publication, few missing data are collected from the annual reports of respective NBFIs.

IV. Data and Methodology

In order to compute the development and growth, asset and loan , income and expenditure figures are used in this study to ascertain the growth over time in different financial aspect NBFIs with a sample period of 10 years from 2000-2010. The data are collected from various issues of 'Bank and Financial Institutions' Activities', a yearly publication of the Ministry of Finance of the government of Bangladesh, and is published in local language in the name of '*Bank O Arthik Pratisthansamuher Karjaboli*'. All NBFIs reported in this publication in a particular year are considered for that year by the present study.

This Study adopts cumulative measures of financial data for addressing the growth and development of financial position of NBFIs using time series analysis. Line Graphs, Ratios and Statistical measure such as Correlation coefficient used to describe the growth and development of NBFIs and show relationship between the growth of NBFIs and whole economy at large.

V. Findings & Analysis

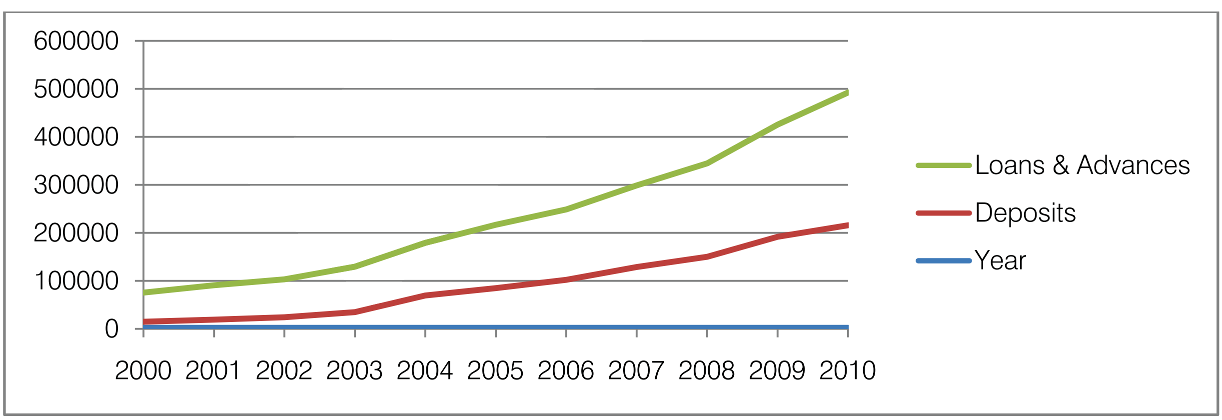
Table 2 provides a comparative financial position of different years as indicators of growth over mentioned period of time. From the table it is quite clear that financial aspect of the non bank financial institution become well off with the passage of time.

Table 2 : Comparative position of different financial aspect of NBFIs over the years (From year 2000 to year 2010, (Amount in million BDT except no. of non-banks)

Year	Deposits	Loans &Advances	Assets	Investment	Total Income	Total Expenditure	No. of Employees
2010	213954	276650	414108	83751	37928	25534	30871
2009	190111	233523	361160	72158	46155	34928	30076
2008	148118.77	194821	281997.51	48825.31	39890.36	30951.88	30496
2007	126990.79	169761	246359.46	40185.03	32606	26676.35	31062
2006	100210	146688	198251	33821	27064	21485	24261
2005	82935	131687	156936	23570	22529	17684	17257
2004	67592	109506	131623	18706	17330	13212	14651
2003	32848	94523	105495	17764	15193	11886	13750
2002	22367.85	78745.02	84618.81	14812.43	13915.56	12144.08	14541
2001	17309.15	71151.9	91269.91	13715.19	11536.75	10016.78	14509
2000	12909.2	60368.99	78839.27	13153.63	9330.24	7986.11	13307

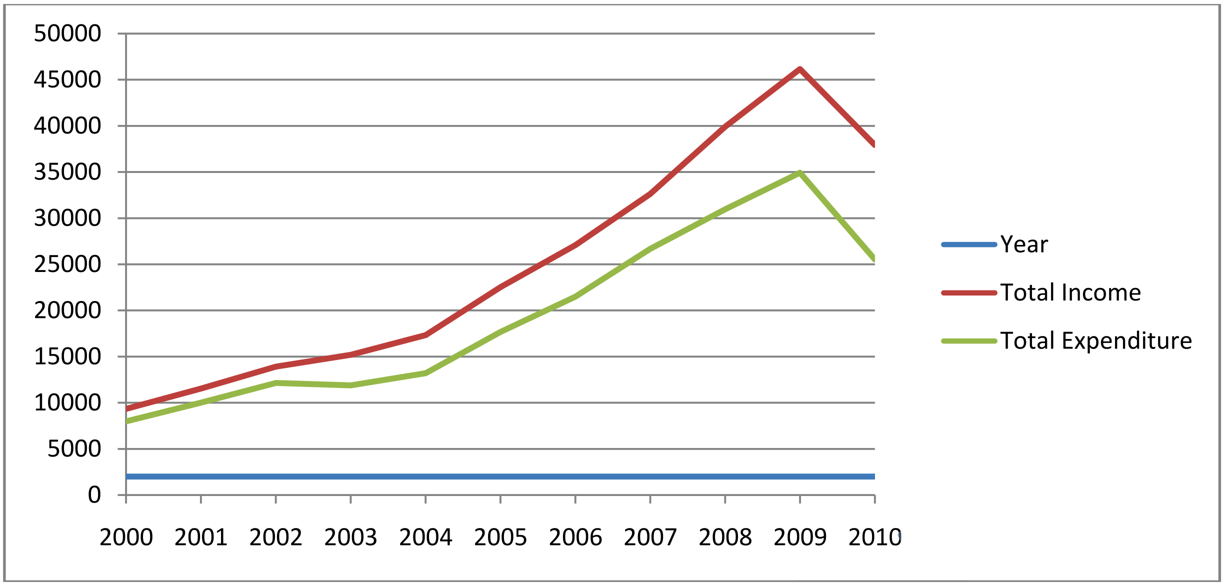
Source : Constructed by the Authors based predominantly on Ministry of Finance publication, few missing data are collected from the annual reports of respective NBFIs.

Graph 1 : Growth overtime in Deposit and Advance



Graph 1 showing that, the gap between deposit and Loan and Advances widening in subsequent years than early years which refers NBFIs efficiency in mobilizing their deposit to investment. On the other way it can be said that NBFIs are widening their areas in giving loan and advance than before and their total amount of loan and advances also increase in recent years which is about 276.65 billion taka in 2010, more than 358.27% than year 2000.

Graph 2 : Growth of Total Income and Expenditure



Source : Constructed by the Authors

Graph 2 depicted the potentiality of the sector over time. Gap between income and expenditure indicated the operational efficiency of NBFIs over time. That means with the passage of time NBFIs become more efficient in collecting deposit from least cost sources and invest those fund in most profitable sectors.

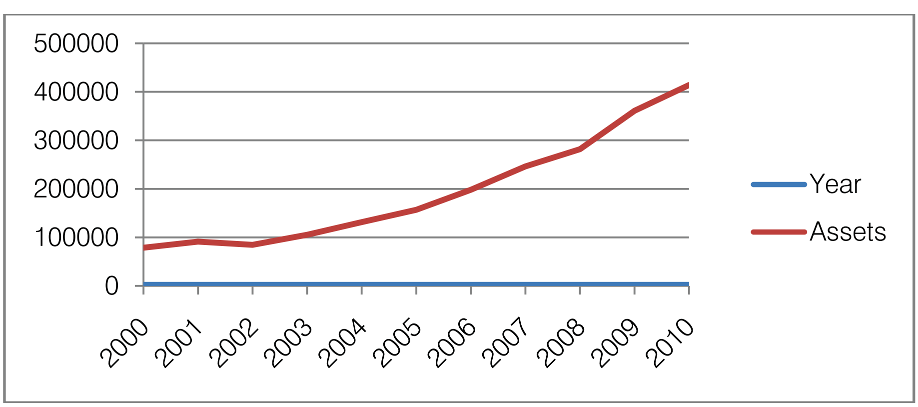
Table 3 : Total Assets, GDP & Total Asset to GDP ratio

All figures in million tk. Except ratios)

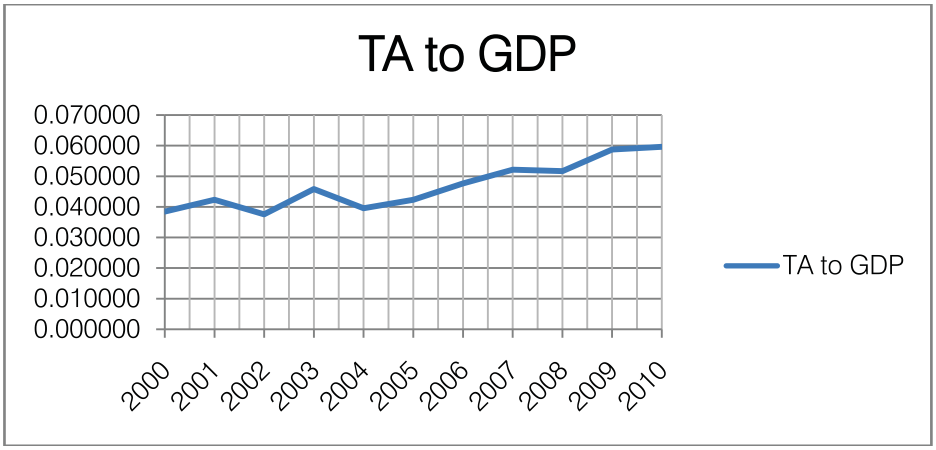
Year	2000	2001	2002	2003	2004	2005
Total Asset	78839.27	91269.91	84618.81	105495	131623	156936
GDP	2049276	2157353	2252610	2300580	3329730	3707070
TA to GDP Ratio	0.038472	0.042306	0.037565	0.045856	0.03953	0.042334242
Year	2006	2007	2008	2009	2010	
Total Asset	198251	246359.5	281997.5	361160	414108	
GDP	4157280	4724770	5458220	6147950	6943240	
TA to GDP Ratio	0.047688	0.052142	0.051665	0.058745	0.059642	
Correlation between Loan & Advance and Total Assets				0.994442691		
Correlation between Deposit and Investment				0.970512149		
Correlation Between TA & TA to GDP ratio				0.98974167		

Source : Constructed by the authors based on the data of Bangladesh Bureau of Statistics (BBS) and Bangladesh Ministry of Finance (MOF).

Graph 3 : Growth of Asset over time



Graph 4 : TA to GDP ratio



From the Graph 3 & 4 it can be said that Growth of assets follows a growing trends. Total asset value of NBFI is about 414.11 billion taka in the year 2010 which was 78.84 billion in the year 2000. That means, NBFIs are contributing in the national wealth besides their own development. Proportion of Total asset with respect to GDP is about 5.97% in 2010 which was 3.85% in 2000. There is a very high degree positive correlation between Total asset & TA to GDP ratio. Though increment of GDP is influence by the overall performance of the economy still there is a significant relationship between the growth of an industry and GDP. Contribution of GDP from this industry (NBFIs) is about 6% refers NBFIs plays active role in the development of whole economy. From Table 3 we can say that there is a very high degree positive relationship between loan and advance and total asset, intern growth of total assets contribute in GDP.

With regard to the measure of growth & development it is mentionable that the correlation among the three areas that is correlation between Loan & Advance and Total Assets, correlation between Deposits and Investment & correlation between Total Assets and Total Assets to GDP ratios are positive. These relationships indicate that the amount of returns is backed by the proper investment which intern contributes a great role for the economic growth.

VI. Conclusion

Banks & NBFIs are both the key elements of a sound and stable financial system. Banks usually dominate the financial system in most of the countries because business, household & the public sectors all rely on the banking system for a wide range of financial products to meet their financial needs. However, by providing the additional and alternative financial needs, NBFIs have already gained considerable popularity both in developed and developing countries. In one hand these institutions help to facilitate long term investment and financing, which is often a challenge to the banking sector and on the other; the growth of NBFIs widens the range of products available for individuals & institutions with resources to invest.

In this paper we have examined the correlation between loan and advances & the total assets, correlation between deposits & investment, correlation between total assets & total assets to GDP ratios. The empirical evidence suggest that the financial indicators of NBFIs, deposits, investments and total assets are in part responsible for the future change in the per capita real GDP in Bangladesh. Importantly, the results indicate that NBFIs are the dominant market players of the financial sectors through which the financial resources are effectively channeled for savers to the users in the economy.

Increasing number of NBFIs over period indicates the popularity and acceptability of NBFIs in the financial market of Bangladesh. NBFIs operation not only provides demand side of fund a alternative sector of financing besides bank financial institution but also facilitate an sound competitive environment in the financial market. Traditional and highly standardized product design strategy creates a vacuum for NBFIs to widen their activities with custom design-quick tailor product strategy; more customers oriented non conventional financing activities. Role of NBFIs is also become very vital especially in the moments of economic distress that seems to be a cushion in the economy. Diversified investment sectors, long term investment plan, more customer tailored products etc. contributes to the overall economic stability and growth of NBFIs in the economy as well mitigate systematic risk in a large extent.

In this paper, it is observed that the loan and advances provided by NBFIs over the last 11 years time period is increasing according to the deposits. This increased the income for the NBFIs. Again with the passage of time NBFIs become more efficient in collecting deposits from least cost sources which increase its gap between the income and expenditure. Finally GDP in Bangladesh is increased over the last 11 years of NBFIs which contributes to the development of Bangladesh economy.

This study can be extended in two ways. Firstly, instead of focusing only on traditional financial analysis, the growth of NBFIs addresses by financial growth indicators and economic indicators to grab a clear picture of the industry, and secondly, a subsequent investigation can be done to identify the growth of NBFIs in other economic indicators like GNP, Income per capita and so on in relation with the growth of financial parameters of NBFIs.

References Références Referencias

1. Ahmed, M. N., & Chowdhury, M. I. (2007). Non-bank financial institutions in Bangladesh: An analytical review. *Working Paper Series: WP 0709*, Bangladesh Bank, Bangladesh.
2. Barai, M. K., Saha, S., & Mamun, A. A. (1999). Progress and prospects of non-bank financial institutions in Bangladesh. *Journal of Bangladesh Institute of Bank Management (BANK PARIKRAMA), 24*(1).
3. Beck, T., & Rahman, M. H. (2006). Creating a more efficient financial system: Challenges for Bangladesh *World Bank Policy Research Working Paper 3938*.
4. Carmichael, J., & Pomcerleano, M. (2002). *The development and regulation of non-bank financial institutions*. Washington, D.C., USA: The World Bank.
5. Hossain, M., & Shahiduzzaman, M. (2002). Development of non bank financial institutions to strengthen the financial system of Bangladesh. *Journal of Bangladesh Institute of Bank Management (BANK PARIKRAMA), 28*(1).
6. Islam, M. A., & Osman, J. B. (2011). Development impact of non-bank financial intermediaries on economic growth in Malaysia: An empirical investigation. *International Journal of Business and Social Science, 2*(14), 187-198.
7. R.W. Goldsmith (1969), *Financial Structure and Development*, Yale University Press, London.
8. Pirtea, M., Iovu, L. R., & Milos, M. C. (2008). Importance of non-banking financial institutions and of the capital markets in the economy: The case of Romania. *Theoretical and Applied Economics, 5*(5), 3-10.
9. Shrestha, M. B. (2007). *Role of non-bank financial intermediation: Challenges for central banks in the SEACEN countries*. Malaysia: The South East Asian Central Banks (SEACEN).
10. Sufian, F. (2008). The efficiency of non-bank financial intermediaries: Empirical evidence from Malaysia. *The International Journal of Banking and Finance, 5*(2), 149-167.
11. Uddin, S. M. S., & Suzuki, Y. (2011). Financial reform, ownership and performance in banking industry: The case of Bangladesh. *International Journal of Business and Management, 6*(7), 28-39.
12. Uddin, S.M.S., & Gupta, A.D, (2012). Concentration and Competition in the Non-Banking Sector: Evidence from Bangladesh. Global Journal of Management and Business Research. Volume XII Issue VIII Version I.
13. Vittas, D. (1997). The role of non-bank financial intermediaries in Egypt and other MENA countries. World Bank Policy Research Working Paper 1892, 1-41.

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A Study on Stock Split Announcements and its Impact on Stock Prices in Colombo Stock Exchange (CSE) of Sri Lanka

By Liu Hua & Skanthavrathar Ramesh
Huazhong University of Science and Technology, China

Abstract - In Sri Lanka, there is not much evidence linked to stock split announcements and stock prices behavior available to investors. This study, scrutinizes the stock price response to stock split declaration and a test of market efficiency in Colombo Stock exchange (CSE) by using a sample of 64 events (52 companies) from 14 different sectors of the emerging market during the period 2009 to 2012. Standard event study methodology is employed to find the results. The empirical results show that average abnormal return (1.46%) is statistically significant at 5% level on the stock split announcement day. This study finds that stock splits have a significant signal and information content in the Colombo Stock Exchange (CSE). On average, market positively reacts significantly to the announcement. Further, the large negative cumulative average abnormal return (-6%) is observed during the period of (0, 10). This results support the semi-strong form efficient market hypothesis for the sample companies within the study period since stock prices adjust so fast to public information that investor can not earn an abnormal return by trading in the stocks following the stock split announcement day.

Keywords : average abnormal returns, cumulative average abnormal returns event study, market efficiency and stock split.

GJMBR-C Classification : JEL Code: H54, P22

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I. Introduction

In any country, capital market is an important body in contributing to economic development. It has traditionally been viewed as an indicator or predictor of the economy. Colombo Stock Exchange (CSE) plays a major role in contributing much towards economic development in Sri Lanka. The CSE is the organization responsible for the operation of the stock market in Sri Lanka. CSE is an important emerging market of the region among the developing countries. It is recorded by the Fortune Magazine that "the CSE was named the second best emerging market in Asia". The CSE has 15 stock broking firms. Presently 287 companies are listed on the CSE; most companies' stocks do not frequently trade, representing twenty (20) business sectors with a market capitalization of 2167.6 billion rupees (over US$ 17.3 billion) as at 31st December 2012, which corresponds to approximately 29% of the Gross Domestic Product of the country.

Market capitalization of listed companies gradually increased from during the period of year 2009 to year 2012. It was Rs.1092 Bn in 2009 and moved up to Rs.2167.6 Bn in year 2012. Daily average turnover increased from Rs593.6 Mn in year 2009 to Rs. 884 Mn in year 2012. However, the CSE is concentrated, in those two main price indices such as All Share Price Index (ASPI) and Milanga Price Index (MPI). ASPI is used to measure the movement of share prices in all listed companies. MPI is used to measure the movement of share prices of 25 selected companies. These Companies have been selected on the basis of liquidity and market capitalization. With effect from 1 January 2013, the MPI was replaced by a newly introduced index, namely, S&P SL20 index. The S&P SL 20 index, which was introduced on 27 June 2012 to meet investors' demand for a transparent and a rule based benchmark.

CSE seems to be emerging trend in Sri Lanka. The peace process relatively stabilized political environment, foreign aid, low interest rate scenario, improved economic fundamentals and the increased profitability of listed companies had a positive impact on the performance of the CSE. Many believe (CSE Fact Book, 2005) that a decrease in stock prices signals a slowdown in the economy, whereas an increase in stock prices is evidence for economic growth. Stock split announcements have always been very common phenomena among firms and continue to be one of the least understood topics in finance. Stock split announcements were rare at CSE before the new Companies Act implemented in 2007 in Sri Lanka. The Study on the impact of stock splits announcement on stock returns has become more important as the number of listed companies announcing stock splits has increased. After implementing the new companies Act No.07 of 2007, stock split events were 69 during the period from 2008 to 2012.

The relationship between stock splits and stock return has been an interesting topic for researchers. It is evident from the theoretical perspectives that while

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stock split announcement increases the number of shares of a company, it decreases the price per share. A stock split usually takes place after an increase in the price of the stock, and it carries a positive stock price reaction (Carlos and Frank, 2009). However, stock splits usually increase stock prices with announcement (Gunnathilaka and Kongahawatte, 2011). Financial economists have sought to understand why markets react to stocks splits, since a stock split appears to be merely a cosmetic transaction that increases the number of shares outstanding. In a stock split, shareholders do not receive any tangible benefit; it is nothing more than an adjustment to the quantity of shares. Does it impact share return? Why do companies split shares if otherwise?

Researchers around the world have studied some of these impacts and these studies are known as 'event studies'. Event studies focus on the impact of various announcements like bonus issue, right issue, stock splits, earnings, dividends, mergers and acquisitions, stock repurchases, etc. Initially, event studies were undertaken to examine whether markets were efficient, in particular, how fast the information was incorporated in share price.

Therefore, the objective of this study is to analyze the extent to which a company's stock price would reflect the announcements of stock split according to the semi strong form efficiency which states that stock prices react so fast to all public information and that no investor can earn an abnormal return after the announcement is made. Information is key to the determination of the share prices and the key issue of the efficient capital market (Keane, 1986). An efficient market is one where the stock prices can quickly and fully reflect all available information about the assets. According to Fox and Opong (1999) an efficient market is one in which prices fully reflect available information. An implication of a semi – strong efficient market is that, no abnormal returns can be made from this information because adjustments had already been done in the stock price. The market has already been adjusted; therefore, the only way to outperform the market in this case would be using inside information.

II. Literature Review

Splits usually result in high market valuations, study done by Fama(1970) found that there is no evidence of abnormal return after the release of public information. They concluded that the market assimilates and takes into consideration public information very fast, within 5 to 15 minutes after the disclosure. This supports the idea that an investor acting on public information will not earn abnormal return. When this happens the market is said to be semi-strong form efficient. Grinblatt, Masulis and Titman (1984) indicated stock prices, on average, react positively to stock dividend and stock split announcements. Managers decide to split their stocks in order to lower the price of the stock and thereby attract more investors. As argued by Amihud and Mendelson [1986, as cited in Gunnathilaka et al. (2011)], the greater the liquidity of an asset, greater its value. Hence, firms may engage in liquidity-increasing policies to mitigate the cost and risk of liquidity. Stock split performs a signaling function of the firms' liquidity-improvement policy. Brennan and Copeland (1988) signaling model implies a positive relationship between stock splits and abnormal return.

Desai, Nimalendran and Venkataraman(1994) examined changes in trading activity around stock splits, and their effect on the volatility and the adverse information component of the bid ask spread. They found a significant increase in the volatility after the split. Abeyaratna, Bandara and Colombage (1999) examined the semi-strong form efficiency of the CSE using Granger causality test and a modified version of the market model on weekly indices of fourteen sectors for the period January 1993 to December 1997. Only three sectors (i.e., bank, finance and insurance; hotels and travels and manufacturing) are found to be semi-strong form efficient. A majority of the sectors lag the market indicating the possibility of predicting market movements of the EMH.

Wulff (2002) investigated the market reaction to stock splits, using a set of German firms. Similar to the findings in the U.S., he found significant positive abnormal returns around both the announcement and the execution day of German stock splits and observed an increase in return variance and in liquidity after the ex-day. Dhar, Goetzmann, Shepherd and Ning Zhu (2004) studied the trades of individual and professional investors around stock splits and found that splits bring about a significant shift in investor clientele. They found that a higher fraction of post-split trades are made by less sophisticated investors, as individual investors increase and professional investors reduce their aggregate buying activity following stock splits.

Huang, Liano and Pan(2005) using a sample of 2,335 stock splits over the 1963-1999 period, the split announcement year has the highest operating performance change and the operating performance change declines substantially over the subsequent four years. They also identified a negative relation between the stock split announcement effect and the operating performance during the four-year period following the announcement. Carlos et al (2009) found that the firms' public stock split announcements did not affect stock price on the announcement day. Results support the semi- strong form efficient market hypothesis since stock prices adjust so fast to public information that no investor can earn abnormal return by trading on the announcement day.

Devos, Elliott and Warr(2010) provided evidence that the decision to split a firm's stock is related to CEO incentives. CEOs that have option-based compensation are more likely to split their stock, and the degree of option convexity is a significant indicator of the magnitude of the split. To quantify CEO incentives, they use the delta and vega of the compensation package and find that higher delta and vega compensation is associated with a higher propensity to undertake a stock split. Gunnathilaka et al (2011) examined stock splits in Sri Lanka. Stock split announcements create significant positive market reaction and the sharp – adjustments in the stock prices on the day of announcement. It suggests that the market is informationally efficient. The stock's trading volume is improved significantly with the split announcement

Lei and Shrestha (-) Pointed out that three main theories are proposed to explain why firms split their stocks. They are liquidity, signaling, and optimal tick size theories. Liquidity theory is not supported except for the reverse split. The optimal tick size theory is also not supported for both the forward split and reverse split. Only the signaling theory is fully supported. Fernando, Krishnamurthy and Spindt (-) find that splitting funds experience significant increases (relative to non-splitting matched funds) in net assets and shareholders. Stock splits do appear to enhance marketability.

III. Data and Methodology

a) Sampling Design

For the purpose of measuring the stock split events on the share prices, an overall sample sixty four events (52 companies) listed in the CSE is selected which covers during the period of 2009 to 2012 which were selected by using judgmental sampling. This choice of the sample period is governed by the availability of data. Reasonable care has been exercised in order to select a large sample to derive more valid findings. The final selection criterion is the availability daily closing price and daily all share price index (ASPI) data in a manner that is necessary for the application of the 'event study method'. Daily closing price should be available for at least 150 days out of the total period of 161 days that include the 150 days estimation period (-11, -150) and the window period 21 days. Therefore, to be precise on testing the market efficiency, this study considers daily data which is important to measure the impact of the stock split announcements using the smallest feasible interval. Therefore, the table 1 reports the stock splits by split ratio for the sample period 2009-2012. One company offered seventy new shares for one (70:1) existing share, the highest split ratio in the sample. The second highest split factor was 35-for-1, and the lowest split ratios was 3:4.

Table 1 : Description of Sample According to Year of Announcement

	Number of Splits				
Split Ratio	2012	2011	2010	2009	Total Events
Ten-for-One	1	4	8	2	15
Two-for-One	1	11	7	1	20
Five-for-One	-	5	5	-	10
Three-for-Two	-	2	3	-	05
Others	2	5	7		14
Entire Sample	**4**	**27**	**30**	**3**	**64**

b) Data Source

In the present study, we used only secondary data which is the CSE's C-D. The study computes daily returns for individual securities on the basis of daily closing stock prices and its stock split announcement date. In cases where price for the non-traded on a given date, the following traded price is taken as the price for the non-trading date. The market return is calculated as the change in the *daily All Share Price Index'* (ASPI), which is the value-weighted price index of the entire share listed in the CSE.

c) Mode of Analyzes

This study uses the 'Standard Event Study Method' (Brown & Warner,1980,1985) to estimate the abnormal returns (AR), average abnormal returns (AARs) and cumulative average abnormal returns (CAARs) around stock split announcement (the event-day). In this study, researcher has taken 21 days around the event (stock split event date - day "0"), and study has designated -10,-9,-8 …………..,-1 as the 10 days prior to the event, 0 as the event day, and +1, +2, +3…………., +10 days after the event and AARs and CAARs were computed for 21 days surrounding (lead and lag 10 days) the event-day.

From below the market model, present study computes the alpha and beta coefficient in respect of each event over the estimation period. In our case, we use an estimation period of size 150 days (-11, -161). This market model is estimated through regression analysis.

The following market model is used:

$$R_{it} = \alpha i + \beta_i R_{mt} + e_{it} \quad \ldots\ldots \quad (1)$$

Where,

R_{it} = the rate of return on stock 'i' on day't',

R_{mt} = the rate of return on the market on day't',

α_i = the intercept term (alpha coefficient) of security i,

βi = Slope of a straight line (beta coefficient) of stock i, and

ε_{it} = regression error term of security i on day t.

R_{it} is the time t return on security i, calculated as

$$= (P_{it} - P_{it-1}) / P_{it-1} \ldots \qquad (1.1)$$

Where,

P_{it} is the market closing price per share i on day t.

P_{it-1} is the market closing price per share i on day $t\text{-}_1$

R_{mt} is the time t return on the CSE all-share price index calculated as

$$= (I_t - I_{t-1}) / I_{t-1 \ldots} \qquad (1.2)$$

Where,

I_{it} is the all-share price index on day t.

I_{t-1} is the all-share index on day $t\text{-}_1$.

Expected rate of return for each event is determined by using the estimates of alpha and beta in respect of each event as follows.

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} \ldots \qquad (2)$$

Where,

$E(R_{it})$ = expected return of stock i on day t in the window period,

α_i = estimate the market model intercept (alpha) of stock i, and

β_{it} = the estimated market model beta of stock i.

Compute the AR for each firm included in the sample for each of the days being studied. AR is the difference between the realize rate of return and the expected rate of return. The ARs are computed using the following model.

$$AR_{it} = R_{it} - E(R_{it}) \ldots\ldots \qquad (3)$$

Where,

AR_{it} = abnormal return of stock i on day t, and

R_{it} = the rate of actual return of stock i on day t in the window period.

After computation of abnormal return, we compute the average abnormal return (AARs) for each event date is calculated as simple average of abnormal returns for each day across the sample.

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{it} \quad \text{-------} \qquad (4)$$

Where,

AAR_t = average abnormal return for day t in the window period, and

N = number of events in the sample.

The statistical significance of AAR_t is measured through the student t statistic as specified below.

$$T(AAR_t) = \frac{AAR_t}{\sigma(AAR_t)} \quad \text{-----} \qquad (5)$$

Finally, we calculate the cumulative average abnormal returns (CAARi) which are the sum of the individual average abnormal returns over the period of time. The cumulative average abnormal returns ($CAAR_T$) for a given period is determined as follows,

$$CAAR_T = \sum_{i=1}^{T} AAR_t \quad \text{-----} \qquad (6)$$

Where,

AR_{it} = abnormal return of stock i on day t, and

R_{it} = the rate of actual return of stock i on day t in the window period.

a) Hypotheses

This study is conducted with the following hypotheses.

H_1: Stock split announcements have significant impacts on the share prices of the stocks traded on CSE.

H_2: Colombo Stock Exchange (CSE) is consistent with the semi-strong form efficient market.

IV. Empirical Results

We present descriptive statistics for each of the sector stocks returns in our sample. The mean (Mean), standard deviation (StDev), minimum (Min), maximum (Max) and skewness (Skew) were calculated for each of the 52 companies' stocks over the 4-year period and are reported in table 2. The returns for 9 sectors stocks showed positive skewness, an indication that the return distributions of the stocks in our sample have a 67% (NSSA-43) of being positive. The positive skewed companies would be more attractive for investors to invest in future.

.*Table 2 :* Descriptive and Statistical Information for Sectors

Sector	Sample Companies	Mean(%)	St.Dev	Min (%)	Max (%)	Skew	NSSA
Banks, Finance and Insurance	14	-0.3552	0.7165	-1.4800	1.3002	0.8102	19
Hotels and Travels	07	-0.4202	1.4752	-4.3859	2.3966	-0.7752	09
Manufacturing	06	-0.5960	1.1650	-2.9976	2.4063	0.6266	07
Beverage, Food and	02	0.2049	3.7049	-5.3927	9.6629	0.8815	02

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Tobacco							
Chemicals and Pharmaceuticals	01	-1.1810	3.4450	-7.2421	7.3963	0.6992	02
Trading	03	-0.7301	2.8135	-3.9823	4.8072	0.8513	03
Health Care	02	0.12831	2.13019	-4.0586	5.1095	0.27838	02
Land and Property	01	1.2516	4.0075	-4.4444	10.6219	1.1477	01
Information Technology	01	-1.7101	3.05314	-8.8273	3.5647	-0.7065	01
Services	01	-0.0080	1.4051	-3.1425	2.4162	-0.1880	02
Diversified Holdings	06	-0.8210	1.8126	-3.8646	3.4741	0.6364	06
Investment Trust	03	-1.0756	1.9893	-5.8545	3.2945	-0.0386	04
Power and Energy	01	0.4974	3.8569	-6.7198	8.8464	0.3476	01
Plantations	04	-0.4995	2.0089	-6.8652	3.2363	-1.3946	05

Note : 'Mean' is the AAR for each sector over the sample period; 'StDev' is the standard deviation of returns while 'Min' and 'Max' are the minimum and maximum AAR respectively; 'Skew' is the skewness for each of the sectors stock distributions; 'NSSA' refers to the number of stock split announcement events for each stock in the study; 'Sector' refers to the sector classification for each firm as classified on the CSE

Table 3, presents the daily percentage average abnormal returns (AARs %), daily percentage cumulative average abnormal returns (CAARs %) and T value of AARs % of the 21 days window period. T (AARs) indicates significance for the investigation period (t= -10 to +10). The number of events with positive and negative abnormal returns in each day is summarized under the column plus: minus sign.

Table 3 : Average Abnormal Returns (AARs) of Overall Sample

Event Date	AARs %	CAARs %	T(ARs)	Sig.	+ : - Sign
-10	0.05	0.05	0.072		31:33
-9	0.47	0.51	0.678		25:39
-8	-1.26	-0.80	-1.840	*	16:48
-7	-0.60	-1.86	-0.867		21:43
-6	-0.25	-0.84	-0.362		23:41
-5	-0.78	-1.03	-1.136		20:44
-4	-0.65	-1.43	-0.942		27:37
-3	-0.10	-0.75	-0.150		23:41
-2	0.32	0.22	0.470		33:31
-1	-0.32	0.01	-0.460		33:31
0	**1.46**	**1.14**	**2.119**	**	33:31
1	-1.63	-0.17	-2.370	**	20:44
2	0.17	-1.46	0.245		27:37
3	-0.53	-0.36	-0.771		24:40
4	-0.72	-1.25	-1.046		25:39
5	-1.10	-1.81	-1.594		20:44
6	-0.24	-1.33	-0.348		27:37
7	-0.74	-0.98	-1.076		23:41
8	-1.04	-1.78	-1.515		18:46
9	-1.06	-2.10	-1.539		19:45
10	-0.53	-1.59	-0.773		22:42
	** Significant at 5 % * Significant at 10%				

The values of AARs presented in table 3 shows that they are fluctuating returns both positive and negative returns around the event day. These are positive on 30 percent (3days) before and 10 percent (1 day) after the event day. It is negative on 70 percent (7 days) before and 90 percent (9 days) after the event day. During the 21 days selected for the study, the AARs are negative for more number of days than they are positive both pre and post the event day. Therefore, the trend indicates that it is possible to earn negative returns on most majorities of the days around the event day. The number of positive versus negative sign is 33:31 on the event day and 20:44 on day 1.

The level of significance is used 5% and 10%. In this study, the AARs is significantly lower during pre-split period except day "- 8" which is statistically significant at 10 % level. This significant AARs of -1.26% recorded in the period prior to the announcement date reflect leakage of the information (Insider information - directors, senior officers or major shareholders). This may be information of stock split declaration leaks out to the market before the announcement made by the companies. We also find magnitude of the share price reaction of AARs on day 0 is positive of 1.46 %, this is statistically significant at 5% level. This implies that the market absorbs very quickly the favorable signal released by the announcement of the stock split made by the companies. Therefore, this evidence suggests that on the stock split announcement day 0 provide stronger signal to the market than other days. This is clearly shown that stock split announcements provide stronger significant positive information to the firms. Results here support the first hypothesis H_1: Stock split announcements have significant impacts on the share prices of the stock traded on CSE. Therefore, the H_1 is accepted. Surprisingly, the largest significant negative AARs of -1.63% is found on day +1, which refers to the first day after the announcement is made due to bad signal in the market. It is statistically significant at 5 % level. This means that the return is negative on average during the immediate day after the event day at 95% of the chance.

Evidence depicts the CAARs during the (-10, -1) period is -3.1% and the CAARs for the (0, +10) period is -6 %. Finally it is -2% over the window period of 21 days. These negative CAARs during the widow period disclosures recommend that stock split announcement do convey information which market uses in revising their stock prices. This speed response has the potential of generating negative AARs based on publicly available information, which runs counter to the semi- strong efficient market hypothesis. This quick responsiveness may be attributed to a fast in disseminating the stock split information to market participants. It may be a result of the efficiency of the information dissemination process. Under semi- strong efficient market, nobody would be able to earn abnormal returns using the available information. Semi-strong form tests are the test of the speed of the price adjustments to publicly available information. This similar evidence can be found in stock price reaction to stock split, Fama, Fisher, Jensen and Roll.(1969) found that there was considerable market reaction prior to the stock split announcement and the CAARs tapered off after the event day. They concluded that the market is efficient in the semi-strong form. The investors cannot earn abnormal returns by trading in the stocks after the stock split announcements. Results here confirm the second hypothesis H_2: Colombo Stock Exchange (CSE) is a semi-strong form efficient market for the sample companies within the study period. Therefore the H_2 is accepted.

Figure 1 : AARs and CAARs Values

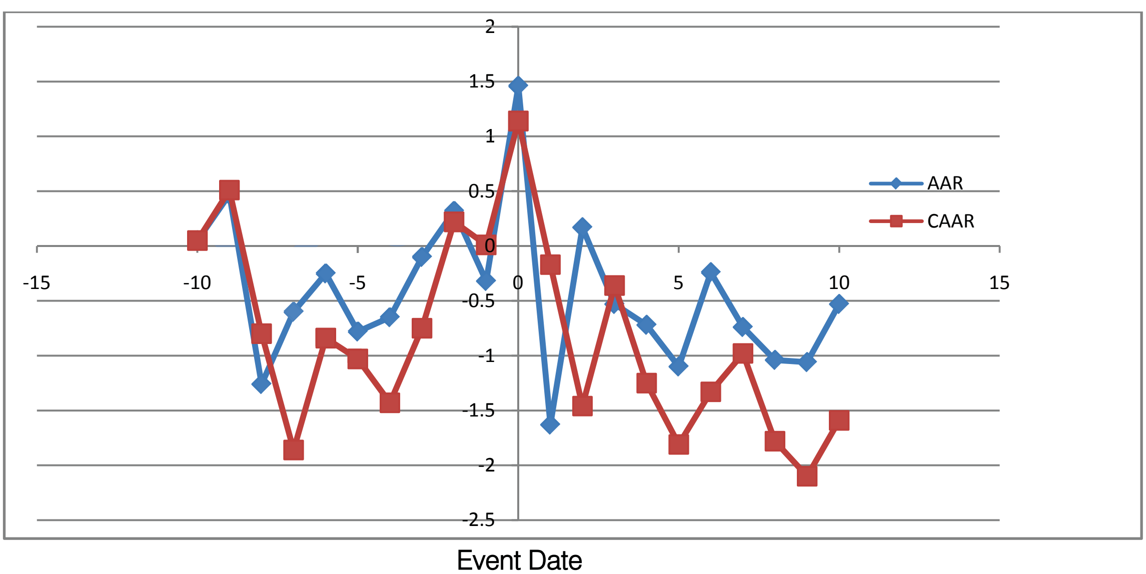

Figure 1 shows that the value of AARs and CAARs has minor fluctuating yield that is both positive and negative before and after the event day. This is clear that positive significant AARs and CAARs are earned on the day of the split announcement. It is confirmed that the market perceives stock split announcement as good information about the future of the firm. This also confirms our hypotheses.

Table 4 : Direction of Abnormal Returns (ARs) on Day 0

Direction	Number of Events	Percentage of Events
Positive	33	52%
Negative	31	48%
Total Events	64	100

In addition, table 4 indicates that ARs are evenly distributed over the window period for the 64 events. Results shown as 52 % of the days are positive abnormal returns and 48% of the days are negative abnormal returns. When we compute ARs into AARs (Day "0"=1.46%) which indicates more favorable positive signals than negative signals since some of the sample companies ARs are greater and compensate the negative or less ARs of other sample companies.

V. Discussion

To test the impact of stock split announcements on stock prices by examining the sample of 64 events from 52 companies in different sectors of emerging market of the Colombo Stock Exchange (CSE) during the period 2009 to 2012. The results of the study show that there is dominant pattern in negative average abnormal returns (AARs) around the window period. However, AARs of 1.46% are statistically significant (t = 2.119) at 5% level on the announcement date. Therefore, there is a positive quick market response to announcements on the event day. The empirical results of this study are consistent with many theoretical models suggest that announcement of stock split convey favourable information about future operating performance of the companies. The findings of the market reaction to stock split announcement support the informational content of the stock split which promulgates the manager's assessment of future potential growth of the firm.

The cumulative average abnormal returns for the (0, +10) period is -6%. This quick response to the split announcements of the sample companies is potentially due to the relatively higher liquidity of stocks. It indicates that there seem to be significant perfections in the process of generation and transmission of information in addition to the timing of the response being influenced by the liquidity of stock trading. Further, the result of the study shows evidence for an increase in the liquidity of the stock after the ex - split days. It confirms liquidity hypothesis. The quick and speed adjustment of price in the post split period to information implies that the market is informational efficient. This is support with informational dissemination process. The dissemination of information is fundamental to get better investment decisions by academicians, practitioners, policy makers and investors for making suitable policy formulations for their companies.

In Sri Lanka, there is less evidence documented than developed and other developing market related to stock split announcements and stock price behaviour in CSE. The sample size was very low, so that the results of the study were only indicative. The market response on stock split announcements is significant which shows split do signal good information to the market's future prospects and it confirms that in signaling hypothesis. This finding is consistent with work of Gunnathilaka and Kongahawatte, (2011) on stock price behaviour of CSE in Sri Lanka.

This study support the semi-strong form of efficient market hypothesis, it is inconsistent with work of Dissa Bandara,D.B.P.H.and Perera,K,D,I(2011). They studied the impact of dividend announcements of CSE in Sri Lanka. On the other hand, the study of P.Samarakoon (2005) in Colombo Stock Exchange of Sri Lanka reveals that results also confirmed that the Sri Lankan Stock market is indeed predictable and inefficient in the sense of weak - form market efficiency. The result found here contrast with the finding on semi-strong form of efficient market hypothesis. Furthermore, G.Abeyratna, W.M.Guneratne Bandara and S.R.N.Colombage (1999) in Colombo Stock Exchange of Sri Lanka tested the semi – strong version of efficient market hypothesis. The study indicates that the majority of the sectors (11 out of 14 sectors) are not a semi – strong form of efficient market which had not independent relationship with the market. This finding also contradicts semi- strong form of efficient market hypothesis.

VI. Conclusion

The study examined stock split announcements in Sri Lanka, in particular whether or not announcements of stock splits impact on stock price movement and then test semi strong form efficiency holds for the emerging market of Colombo Stock Exchange (CSE) in Sri Lanka. This study addresses how and when does the Sri Lankan stock market respond to announcement of stock splits? This issue is investigated using the standard event study methodology.

The study finds significant market reactions on the split announcement day. The information of the split is absorbed by the market on the event day (Day "0"), indicating information efficiency. It is evident from the empirical results of the event day that provide statistically significant at 5% level. The shareholders are able to earn positive AARs of 1.46% to the split announcement day. They obtain positive AARs 24% of the days (16 days) and negative AARs 76% of the days (5 days) surround the 21 days window period. This indicates that most of the days earned negative AARs around the event day. There is an evidence of a negative anticipatory effect (CAARs = -3.1%) during the pre announcement period (-10,-1) and also large negative CAARs (-6%) is observed during the post announcement period of (0, 10) due to investors adjustment quickly to the information and a less amount of time passes before the prices fully incorporates relevant information in split announcement. This speed response has the potential of negative generating abnormal returns based on publicly available information, which runs counter to the semi strong efficient market hypothesis. Above findings reveal that average abnormal returns are positive significant to the stock split announcement day and sample companies of Colombo Stock Exchange is a semi strong form efficient market. However, capital market efficiency not only depends on information such as historical price, public and private information but also on the implementation of the existing rules and regulations of the stock market and administrative efficiency of the same.

There are fewer attempts taken to study of stock split announcement and impact on stock prices in Sri Lankan context. The future research could be extended on this phenomenon for different sectors and comparison for effect of bonus issue and cash dividend announcement. Also this study could be further expanded in other areas like right issue, earnings, mergers and acquisitions, stock repurchases and their impact on stock prices. Furthermore, a study can be conducted to extend this study too, since this study considers only a limited number of variables. It is obvious that economic, political variables and trading frequency may be important for determinations of stock prices.

References Références Referencias

1. Abeyratna,G., Bandara,W,M,G., and Colombage, S.R.N. (1999).Lead-Lag Relationships in Stock Returns: A test of market efficiency in Sri Lanka. Sri Lankan Journal of Management, 4.
2. Brown, S. and J. Warner (1980). “Measuring Security Price Performance”, Journal of Financial Economics, 8, pp205-258.
3. Brown, S. and J. Warner (1985). “Using Daily Stock Returns: The Case of Event Studies”, Journal of Financial Economics, 14, pp3-31.
4. Carlos,G, A., and Frank, B, W.(2009). “The impact of Stock Split Announcements on Stock Price: A Test of Market Efficiency”, ASBBS Annual Conference, Vol.16, No. 1.
5. Central Bank of Sri Lanka. (2012).Equity Market, Annual Report, pp.210-212.
6. Colombo Stock Exchange. (2005). Fact Book.
7. Colombo Stock Exchange. (2003). Hand Book.
8. Colombo Stock Exchange. (2012). Fact Book.
9. Desai, A., Nimalendran, M., and Venkataraman, S. (1994). “Changes in Trading Activity Following Stock Splits and Their Effect on Volatility and the Adverse Information Component of the Bid-Ask spread”, Rutgers University Conference on Recent Developments in Asset Pricing and Optimal Trading Strategies.
10. Devos, E., Elliott,W,B.,and Richard S. Warr, R, S., (2010). “The Role of CEO Compensation in Stock Splits”.
11. Dissa Bandara, D.B.P.H., & Lalith,S.P. (2002). “Dividend Announcements, Firm Size and Dividend Growth in the Sri Lankan Stock Market”, Sri Lankan Journal of Management, 7(3 & 4).
12. Dissa Bandara, D.B.P.H., and Perera,K,D,I., (2011). “The Impact of Dividend Announcements: Reconciliation of Sri Lankan Evidence over the Last Two Decades”, 8th International conference on Business Management, pp.68-74.
13. Emenuga, C. (1989). “An Econometric Analysis of the Relationship between Money Supply and Stock Prices in Nigeria”, unpublished MSc Thesis, Department of Economics, University of Ibadan.
14. Fama, E., Fisher, L., Jensen, M., and Roll, R., (1969). ”The Adjustment of Stock Prices to New Information”, International economic Review, Vol.20, No.2, pp.1-21.
15. Fox, A.F., and Opong, K.K. (1999). “The Impact of Board Changes on Shareholders’ Wealth: Some UK Evidence”, Corporate Governance An International Review, 7, 385–396.
16. Grinblatt,M,S., Masulis,R,W.,and Titman,S.(1984). “The Valuation Effects of Stock Splits and Stock Dividends”, Journal of Financial Economics, 13, pp.461-490.
17. Gunnathilaka,C., and Kongahawatte,S.(2011).”Stocks Splits in Sri Lanka: Valuation Effects and Market Liquidity”, 8th International conference on Business Management,pp.90-94.
18. Huang,G,C., Liano,K.,and Pan,M,S.,(2005). “The Information Content of Stock Splits”.
19. Keane,S.(1986). “The Efficient Capital Market Hypothesis on Trial”, Financial Analyst Journal, 19-34.
20. Lei,Z., and Shrestha,K.(--). “A New Study on the Impacts of Stock Split”.
21. Malliarjunappa, T. (2003). “Stock Price Reaction to Dividend Announcement”, International Conference on Management of AIMS.472-481.
22. Matome, T.T. (1998). “The Price Discovery Process of the Namibian Stock Exchange and the Informational Content of the Share Index”, Savings and Development, XXII(3).
23. Mehndiratta,N. and Gupta,S.(2010). “Impact of Dividend Announcement on Stock Prices”, International Journal of Information Technology and Knowledge Management, Vol.2, No.2, pp.405-410.
24. Osei, K.A. (1998). “Analysis of Factors Affecting the Development of an Emerging Capital Market: The Case of the Ghana Stock Market”, African Economic Research Consortium Research Paper 76.
25. Samarakoon, L.P. (2005). “Efficiency of the Sri Lankan Stock Market”, Sri Lankan Journals of Business Economics.
26. Shelina,A., and Misir,A.M (2006). “Capital Market Efficiency: Evidence from the Emerging Capital

Market with Particular Reference to Dhaka Stock Exchange (DSE)", South Asian Journal of Management, Vol.12, No.3, pp.35-51.

27. Wulff,C.(2002). "The Market Reaction to Stock Splits – Evidence from Germany", Schmalenbach Business Review, Vol.54, pp.270-29.

Appendix 1 reports 3 events and their respective alphas and betas for the study period 2009.

Appendix 1

Event	Sample Company Name	Stock Name	Sector	Announcement Date	α	β
1	Hotel Services	SERV-N-000	Hotels and Travel	11-May-09	0.00155	-2.40576
2	Asiri	ASIR-N-0000	Health Care	14-Dec-09	0.00246	0.60909
3	Chevron	LLUB-N-0000	Manufacturing	18-Dec-09	0.00258	0.26779

Appendix 2 presents 30 events and their respective alphas and betas for the study period 2010.

Appendix 2

Event	Sample Company Name	Stock Name	Sector	Announcement Date	α	β
1	Renuka Holdings	RHL-X-0000	Hotels and Travel	26-JAN-10	0.004609	0.333366
2	Renuka Holdings	RHL-N-0000	Hotels and Travel	26-JAN-10	0.031743	-1.27129
3	Tokyo Cement	TKYO-N-0000	Manufacturing	01-FEB-10	0.003023	-0.07086
4	Sampath	SAMP-N-0000	Banks, Finance and Insurance	25-MAR-10	0.005059	0.052902
5	Kelani Cables	KCAB-N-0000	Manufacturing	31-MAR-10	0.00686	0.075029
6	Sunshine Holding	SUN-N-0000	Diversified Holdings	05-APR-10	0.009102	1.291998
7	SMB Leasing	SEMB-N-0000	Banks, Finance and Insurance	21-APR-10	-0.00359	0.628033
8	First Capital	CFVF-N-0000	Banks, Finance and Insurance	20-MAY-10	-0.00193	0.173858
9	Amana	ATL-N-0000	Banks, Finance and Insurance	16-JUN-10	0.000825	-0.45432
10	Commercial Bank	COMB-N-0000	Banks, Finance and Insurance	21-JUN-10	0.000792	-0.4527
11	Commercial Bank	COMB-X-0000	Banks, Finance and Insurance	21-JUN-10	-0.00113	0.028093
12	Hemas Holdings	HHL-N-0000	Diversified Holdings	08-JUL-10	-0.00183	-0.0213
13	Touchwood	TWOD-N-0000	Land and Property	15-JUL-10	-0.0024	-0.06802
14	Vidullanka	VLL-N-0000	Power and Energy	27-JUL-10	0.000794	0.034896
15	John Keells	JKL-N-0000	Services	31-AUG-10	-0.00056	0.071952
16	Trans Asia	TRAN-N-0000	Hotels and Travel	06-SEP-10	0.005327	-0.31998
17	CFT	CFT-N-0000	Trading	17-SEP-10	0.001422	-0.59678
18	Watawala	WATA-N-0000	Plantations	27-SEP-10	-8.2E-05	-0.03268
19	Richard Pieris	RICH-N-0000	Diversified Holdings	08-OCT-10	-0.00265	0.101513
20	Aitken Spence	SPEN-N-0000	Hotels and Travel	11-OCT-10	0.001285	0.330631
21	Sampath Bank	SAMP-N-0000	Banks, Finance and Insurance	12-OCT-10	0.011779	-0.00031
22	Ceylon Investment	CINV-N-0000	Investment Trust	26-OCT-10	0.008561	0.003394
23	Elpitiya Plantations	ELPL-N-0000	Plantations	26-OCT-10	0.004877	0.167485
24	Central Industries	CIND-N-0000	Manufacturing	28-OCT-10	0.005478	-0.49875
25	Kelani Tyres	TYRE-N-0000	Manufacturing	08-NOV-10	0.003004	0.37409
26	Bogawantalawa	BOPL-N-0000	Plantations	22-NOV-10	0.007586	0.735569
	Tea					
27	Ceylon Guardian Inv	GUAR-N-0000	Investment Trust	22-NOV-10	-0.00211	0.067851
28	Lanka Orix Leasing	LOLC-N-0000	Banks, Finance and Insurance	22-NOV-10	0.006327	-0.12693
20	Aitken Spence Hotel	AHUN-N-0000	Hotels and Travel	26-NOV-10	0.006435	0.118968
30	Nawaloka Hospitals	NHL-N-0000	Health Care	29-NOV-10	0.002443	0.112295

Appendix 3 shows 27 events and their respective alphas and betas for the study period 2011.

Appendix 3

Events	Sample Company Name	Stock Name	Sector	Announcement Date	α	β
1	Vallibel Finance	VFIN-N-0000	Banks, Finance and Insurance	8-Feb-11	0.009655	-0.72266
2	Browns Beach	BBH-N-0000	Hotels and Travel	8-Mar-11	0.001546	0.626757
3	Nat. Dev. Bank	NDB-N-0000	Banks, Finance and Insurance	5-Apr-11	0.003721	-0.14971
4	Singer Sri Lanka	SINS-N-0000	Trading	6-Apr-11	0.005827	0.123497
5	HNB	HNB-X-0000	Banks, Finance and Insurance	6-Apr-11	0.003802	-0.27814
6	HNB	HNB-N-0000	Banks, Finance and Insurance	6-Apr-11	0.005609	-0.09584
7	Malwatte	MAL-N-0000	Plantations	8-Apr-11	0.003772	0.118374
8	Malwatte	MAL-X-0000	Plantations	8-Apr-11	0.008026	-0.98219
9	E- Channelling	ECL-N-0000	Information Technology	18-Apr-11	0.00433	-0.05195
10	Fort land	CFLB-N-0000	Diversified Holdings	6-May-11	0.011536	0.074609
11	Serendib Hotels	SHOT-N-0000	Hotels and Travel	6-May-11	0.007764	-0.83452
12	Serendib Hotels	SHOT-X-0000	Hotels and Travel	6-May-11	0.00853	-0.4377
13	Pan Asia	PABC-N-0000	Banks, Finance and Insurance	8-Jun-11	0.009338	-0.15463
14	Union Assurance	UAL-N-0000	Banks, Finance and Insurance	29-Jun-11	0.003927	0.165377
15	JKH	JKH-N-0000	Diversified Holdings	30-Jun-11	0.003415	-0.06713
16	Ahot Properties	AHPL-N-0000	Hotels and Travel	1-Jul-11	-0.00365	0.027075
17	Trans Asia	TRAN-N-0000	Hotels and Travel	4-Jul-11	0.003151	-0.06361
18	Print Care PLC	CARE-N-0000	Manufacturing	4-Jul-11	-0.00296	1.098619
19	Tea Smallholder	TSML-N-0000	Beverage, Food and Tobacco	5-Jul-11	0.002558	0.218206
20	John Keells	JKL-N-0000	Services	5-Jul-11	-0.00289	-0.31359
21	Cold Stores	CCS-N-0000	Beverage, Food and Tobacco	18-Aug-11	-0.00916	1.034091
22	Central Finance	CFIN-N-0000	Banks, Finance and Insurance	25-Aug-11	-0.00212	0.174668
23	Commercial Bank	COMB-X-0000	Banks, Finance and Insurance	15-Sep-11	-2.4E-05	-0.05674
24	Commercial Bank	COMB-N-0000	Banks, Finance and Insurance	15-Sep-11	-0.00034	0.010417
25	Eastern Merchant	EMER-N-0000	Trading	20-Sep-11	0.025433	1.044238
26	Morisons	MORI-N-0000	Chemicals and Pharmaceuticals	28-Dec-11	0.013374	-0.08958
27	Morisons	MORI-X-0000	Chemicals and Pharmaceuticals	28-Dec-11	0.011019	0.29546

Appendix 4 describes 4 events and their respective alphas and betas for the study period 2012.

Appendix 4

Events	Sample Company Name	Stock Name	Sector	Announcement Date	α	β
1	Kandy Hotels	KHC-N-0000	Hotels and Travel	17-JAN-2012	0.002461	-0.60909
2	HDFC	HDFC-N-0000	Banks, Finance and Insurance	08-MAR-2012	0.008199	-0.2713
3	Swarnamahal Fin	SFS-N-0000	Banks, Finance and Insurance	02-APR-2012	0.007692	-0.1961
4	Regnis	REG-N-0000	Manufacturing	04-APR-2012	0.003098	-0.29366

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Lamps - A Pattern of Financing to Tribes under Cooperative Sector in Mayurbhanj District of Odisha (India)

By Alaka Manjari Bhuyan, Dr. Upendra Nath Sahu & Dr. Priti Ranjan Hathy

Govt. Polytechnic, India

Abstract - India has the second largest tribal population in world. Tribal people, scheduled castes and tribes constitute the poor and weakest section of India's population.

Orissa is the 9th largest State with an area of 155,707 km2, and 11th largest in terms of population with 41.94 million people, about 3.47 percent of India"s population, as per the provisional estimates of 2011 census. In the development of the tribal areas, the cooperatives, of late, have been playing an important role, provision of credit, marketing and procurement of tribal produce, distribution of agricultural inputs, fertilizer, consumer goods etc, are all under taken by the cooperatives in tribal areas.

The objective of this paper is to critically review major tribal policies, programmes and an impact study on the socioeconomic status of the tribal's resulting from the service rendered by the LAMPS in Odisha. The paper also tries to review various methods i. e the quantative measurement and qualitative assessment of the services rendered by the LAMPS, the pattern of financing to the tribal's and conducting an impact study on the economic status of the tribal's resulting from the service rendered by the LAMPS in Mayurbhanj district in Odisha.

Keywords : socio-economic status; fund utilization ;large-sized agricultural and multi-purpose societies (LAMPS); analysis & analysis of variance (anova); cooperative banking system.

GJMBR-C Classification : JEL Code: G01

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I. Introduction

Odisha, one of the most illustrious states of India, is gifted with the oldest and richest cultural heritage. Mayurbhanj is the largest district of Odisha, in a developing stage, presents a panorama of many millennia in the human history. Mayurbhanj has crossed the geographical boundary and has achieved worldwide recognition for its beauty, vigor and Marvel of Arts. The forest is the important source of earning of the Government and the inhabitants as well. Timber fuel, wood, leather, cans, bamboo, kendu leaves constitute a major revenue of the district. Mayurbhanj district is divided into 4 subdivisions, 26 Tehsils, 26 C.D. Blocks, 382 gram Panchayats, 28 Police Stations, 4 Towns, 6 Fire Stations, 3950 Villages and 10 assembly constitutions .

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II. Review of Literature Tribes of Mayurbhanj

Mayurbhanj is the largest and most tribally concentrated district of Odisha. Out of 62 tribal communities found in Odisha, 45 types of tribes are found in Mayurbhanj alone which comes under Tribal Sub-Plan Scheme. They belong to different social stock, speak languages from different families and show considerable variation in their basic economy. Economically, they are most vulnerable among the weaker sections of the community.

Inadequate health service is another matter of great concern. The health centers are not yet available in the backward, remote, hilly areas where the tribal concentration is very high.

Despite the progress made by Commercial Banks and Regional Rural Banks in dispensation of production and investment credit to seasonal agriculture operations and other allied activities, the agricultural credit co-operatives continued to be the principal institutional agencies in the sphere of agricultural activities. The main thrust at present is on gearing up the co-operative credit institutions to meet the credit needs of the weaker sections of the society. The Primary Agricultural Credit Societies (PACS) in the tribal areas have been restructured as Large sized Agricultural Multipurpose Society (LAMPS) so as to provide a package of service of credit, marketing and supply of consumer articles to the tribal at a single contact point.

LAMPS are functioning in the district of Mayurbhanj to provide credit facilities to the rural poor. The Large size Multipurpose Cooperative Societies are popularly known as LAMPS. Accordingly 223 LAMPS were set up in 118 Blocks spread over 9 Districts by the end of 1977-78 in Orissa while 53 LAMPS were organized in Mayurbhanj district in Odisha.

III. Tribals in India and the Development Policy

Relating to the developmental proposition of the tribal in India different plan programmes and developmental strategies have been implemented since long back, right from 1949 to 21st century. Though various attempts have been made by the Government, Non-Government and Voluntary Organizations for the uplift of tribal people, but these efforts are found to be paralyzed because plan and performance are two means of economic development. Plan without performance is meaningless and performance without plan is uneconomic. Hence the Tribal in India have the focal point both state and Central Govt. for lifting them up and to create them as an asset for nation.

In Odisha the tribal population varies from district to district in the state. In Odisha there have been 62 tribal communities and 13 primitive tribal groups constituting 19.42 % of the total population of the state.

Mayurbhanj is a tribal dominated district. Out of 62 types of tribals in Odisha, Mayurbhanj houses 30 tribes according to 2001 census.

IV. The Tribal Problem

Tribals in India as well as Odisha and Mayurbhanj have been experiencing diverse problems. Taking the advantage of their illiteracy, simplicity and ignorance, the money lenders, the middle man and of unscrupulous trader enter in to the tribal regions and exploit them through various dubious means. Besides, they are also facing problems of land alienation, exorbitant rate of interest, wide spread poverty and indebtedness, bondage, exploitation, leading to sell of child and starvation death. The main problem among these is poverty and indebtedness. Majority tribes live under poverty line. Indebtedness is almost inevitable , since heavy interest is to be paid to these money lenders.These miseries of tribals are due to rapid growth of population, pressure on land holdings, illiteracy, deforestation, inadequate infrastructural and social service facilities etc.

V. Cooperative Approach for Tribal Development

To eliminate the age old exploitation and repression of tribals in different economic activities, LAMPS (Large sized Multipurpose Cooperative Societies) are created at block level with branches . Accordingly 223 LAMPS were setup in 118 Blocks spread over 9 districts by the end of 1977-78 in Odisha while 53 LAMPS were organized in Mayurbhanj District. For credit purposes, the LAMPS have to be serviced by the Central Cooperative banks (CCB), for supply of input and marketing and agricultural produce to the Regional Cooperative marketing Society (RCMS) and marketing for minor forest produce to the Tribal Development Cooperative Societies (TDCS).

To save the poor cultivators from the exploitation of the money-lenders, the cooperative movement started in Odisha as early as in 1903. By the cooperative credit societies Act, 1904 several cooperative societies were established in North Odisha.

VI. Relevance of the Study

The tribals live with inadequate food, insufficient clothes and temporary shelters. The tribals are where they were inspite of the implementation of many programmes specially meant for them. LAMPS are based on services motive. In the Cooperation philosophy, service predominates profit. LAMPS offer plentiful opportunities to empower the tribal to face the challenges and problems. Thus it is imperative to pursue a study on the role of the LAMPS in Mayurbhanj, an economically tribal district in Odisha.

VII. Objective of The Study

The purpose of the study endeavours to undertake a comprehensive enquiry into the following:

- Studying the membership coverage into cooperative fold and pattern of financing to the tribal's,
- Studying the marketing of agricultural and forest minor produce of tribal's by the LAMPS,
- Conducting an impact study on the economic status of the tribal's resulting from the service rendered by the LAMPS,
- Examining the socio-economic factors responsible in detaching the tribal's from the rest population,
- Observing the professionalism in the LAMPS ,and
- Suggesting necessary policy measure to be pursued by LAMPS to minimize the big gap between the tribal and non-tribal.

VIII. Scope and Limitation of the Study

The study pertains to both quantative measurement and qualitative assessment of the services rendered by the LAMPS to the tribals in Mayurbhanj district. While an indepth analysis on the role of the LAMPS in the uplift of the tribals in Mayurbhanj is undertaken, a general and brief discussion is devoted for the LAMPS operating in the other districts of Odisha. The study reference period of the study covers fifteen years viz. from 1992-93 to 2006-07.

IX. Hypothesis

Tribals are beset with numerous problems in respect of poverty, unemployment, indebtness, communication inability, depopulation and migration.

Still they are the people of simple living without high thinking. The exploitation of their simplicity by other worsens their economic status. LAMPS are the kingpins of the cooperative banking system. They are the base level institutions with direct contact with the tribals living in the countryside. LAMPS work with cooperative sprit and strength. They may persuade, motivate and socialize the tibals towards desirable direction.

X. Statistical Methodology

Mayurbhanj is an economically backward as well as a tribal district in Odisha. The study will be pursued with both primary and secondary data. The secondary data required for the study will be collected from the Audit reports of LAMPS of Mayurbhanj Central Cooperative Bank. For the impact study, out of 53 LAMPS, 5 LAMPS will be considered at random. Again 10% of tribal beneficiary from the LAMPS so selected will be examined and analysed in details.

Consistent with the objective of the study different techniques are used for the analysis of data. The data analyses are undertaken mostly with the help of several managerial and statistical devices, comparative and experimental methods of analysis are adopted. Various statistical tools like Coefficient Variation, t-test, Correlation coefficient, Multiple Regression Analysis & Analysis of Variance (ANOVA) are adopted for analysis. Here, for regression analysis and for other statistical tool is used to examine the cause, result, effect and trend.

a) Functional Analysis

In order to examine the contribution of the factors in causing more development of tribal, linear model is used. The analysis is based on multiple regression technique. The specification and justification of variables included in the analysis are used as

$Y = f\,(X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ X_5\ X_9\ X_{10}\ X_{11}\ X_{12})$

Where Y = Development

Composition of members	-	X_1	Receipt of deposit	-	X_2
Borrowing & SAO	-	X_3	Loans & advances	-	X_4
Working capital	-	X_5	Investment	-	X_6
Cost of management	-	X_7	Consumer business		X_8
Working fund	-	X_9	Fund utilization	-	X_{10}
Total demand	-	X_{11}	Total collection	-	X_{12}

The form of equation fitted for production is given below linear model

$Y = C_0+C_1X_1+C_2X_2+C_3X_3+C_4X_4+C_5X_5+C_6X_6+C_7X_7+C_8X_8+C_9X_9+C_{10}X_{10}+C_{11}X_{11}+C_{12}X_{12}$C.V. is used to know the data variation collected from the study area. Formula of coefficient of variation is $C.V. = \frac{\sigma}{x} x100$.

The correlation co-efficient is a statistic descriptive of the magnitude of the relation between two variables. The main purpose of the study is to find out the relationship between the variables.

b) Karl Pearson's Coefficient of Correlation

Correlation in statistics refers to relationship between any two, or more variables. Two variables are said to be correlated if with a change in the value of one variable there arises a change in the value of *another* variable.

1) that there is linear relationship between the two variables;
2) that the two variables are casually related which means that one of the variables is independent and the other one is dependent; and
3) a large number of independent causes are operating in both variables so as to produce a normal distribution.

There are different methods of studying correlation between any two or more series. But for measuring the correlation between any two variables i.e. simple correlation, Karl Pearson's co-efficient method is used.

Karl Pearson's Coefficient of Correlation (r) =

$$\frac{N\sum XY - \sum X.\sum Y}{\sqrt{N\sum X^2 - (\sum X)^2}.\sqrt{N\sum Y^2 - (\sum Y)^2}}$$

X = given, or reduced values of the first variable
Y = given, or reduced value of the second variable, and
N = number of pairs of observations of X and Y.

The value of 'r' lies between ±1.

Positive value of 'r' indicates positive correlation between two variables, changes in both the variables take place in same direction, where as negative values of 'r' indicates a negative correlation i.e. changes in the two variables taking place in opposite direction. A zero value of 'r' indicates that there is no association between two variables.

c) The student's t-test of the null hypothesis

Which follows t-distribution with (n-1) degrees of freedom.

We compute the t-statistic for each Ci

The null hypothesis is $C_i = 0$. $\overset{*}{t} = \dfrac{\hat{C}_i - C_i}{S.E.\left(\hat{C}_i\right)}$

if $\overset{*}{t}$ < t (tabulated), we accept the null hypothesis i.e. we accept that $\hat{C}_i$ is not significant.

if $\overset{*}{t}$ > t (tabulated), we reject the null hypothesis and we accept the alternative one. i.e. $\hat{C}_i$ is statistically significant.

Thus, greater the value of $\overset{*}{t}$ the stronger the evidence that Ci is statistically significant.

d) Analysis of Variance test

In the analysis, the total variations are split into explained and unexplained variation. This suggests that one can compute an analysis of variance type of table for analysis.

F-statistic is computed as

$$F = \frac{\text{Mean sum of square of explained sum square}}{\text{Mean sum of square of residual sum square}} = \frac{\sum y_i^2 / k-1}{\sum e_i^2 / n-k}$$

since our model consists of five explanatory variable

$$\text{so, } F = \frac{\sum y_i^2 / 4-1}{\sum e_i^2 / n-4} = \frac{\hat{C}^2 \sum x_i^2}{\sum e_i^2 / n-4}$$

The null hypothesis H_o is $C_i = 0$

if calculated F > tabulated F with (k-1) and (n-k) degrees of freedom with chosen level of significance we reject the null hypothesis and accept that the data is significant.
If calculated F < tabulated F, then we accept the null hypothesis and conclude that data is not significant

Table 1 : Analysis of variance Table for Two-way Anova

Source of variation	Sum of squares(SS)	Degrees of freedom (d.f.)	Mean square (MS)	F-ratio
Between columns treatment	$\sum \frac{(T_j)^2}{n_j} - \frac{(T)^2}{n}$	(c – 1)	$\frac{\text{SS between columns}}{(c - 1)}$	$\frac{\text{MS between columns}}{\text{MS residual}}$
Between rows treatment	$\sum \frac{(T_i)^2}{n_i} - \frac{(T)^2}{n}$	(r – 1)	$\frac{\text{SS between rows}}{(r - 1)}$	$\frac{\text{MS between rows}}{\text{MS residual}}$
Residential or error	Total SS – (SS between columns + SS between rows)	(c-1)(r-1)	$\frac{\text{MS residual}}{(c-1)(r-1)}$	
Total	$\sum X_{ij}^2 - \frac{(T)^2}{n}$	(c, r -1)		

Where, the total value of individual item (or their coded values as the case may be) in all the samples and call it *T.*

Steps involved

i. Use the coding device, if same simplifies the task.

ii. Find T = Total of all the values individual items (or their coded value)

iii. Correction factor = $\frac{(T)^2}{n}$

iv. Find out the square of all the item values (or coded value)

v. Total variance = sum of squares of deviation

$$S = \text{Total SS} = \Sigma X_{ij}^{2} - \frac{(T)^2}{n}$$

vi. SS between columns = $\Sigma \frac{T_j^{\,2}}{n_j} - \frac{(T)^2}{n}$

vii. SS between rows = $\Sigma \frac{(T_i)^2}{n_i} - \frac{(T)^2}{n}$

viii. Error variance = SS for residual = Total SS – (SS between columns + SS between rows)

ix. Degree of freedom for total variance = (C.r – 1)

x. Degree of freedom for variance between columns = C – 1

xi. Degree of freedom for variance between rows = r – 1

xii. Degree of freedom for residual variance = (c-1) (r-1)

xiii. Mean square = MS (between column) = $\frac{\text{SS between columns}}{C-1}$

xiv. MS (between rows) = $\frac{\text{SS between rows}}{r-1}$

xv. MS (Residual error) = $\frac{\text{SS residual}}{(c-1)(r-1)}$

XI. Empirical Analysis of Tribal Development under Cooperative Sector Rendered by Lamps in Mayurbhanj District

The tribal of of Mayurbhanj district lives with inadequate food, insufficient clothes and temporary shelters. In spite of implementation of many programmes and policies the livelihoods of tribal are not so developed. Though LAMPS offer plentiful opportunities to empower tribal, the tribal faces many challenges. Statistical tools like Mean, standard deviation, co-efficient of variation, correlation co-efficient, multiple regression, ratio has been adopted to examine the cause, effect and trend for the development of tribal under co-operative sector. To accomplish the objectives of the study i.e. performance, professionalism, role, spirit and strength of the LAMPS in the uplift of the tribal in Mayurbhanj district different techniques considered for the following analysis.

Table 2 : Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [SIRSA]

Factors	Mean	S.D.	C.V.
Composition of members (X_1)	4504.40	± 322.71	7.16
Receipt of deposit (X_2)	23.60	±32.44	137.46
Borrowing & SAO (X_3)	11369.80	±4916.80	43.24
Loans & advances (X_4)	10787.20	±4940.10	45.80
Working capital (X_5)	13739.40	±49894.06	36.35
Investment (X_6)	1703.00	±609.48	35.79
Cost of management (X_7)	517.40	±174.14	33.66
Consumer business (X_8)	2993.40	±986.67	32.96
Working fund (X_9)	13671.80	±5006.24	36.62
Fund utilization (X_{10})	3145.60	±14530.65	461.94
Total demand (X_{11})	16965.60	±4495.61	26.50
Total collection (X_{12})	12321.40	±3673.59	29.81

In the above table it is observed that there is less variation in case of Composition of members (X_1) followed by Total demand (X_{11}), this shows more consistency of data collected from the study area. It is also found that in case of the Fund utilization (X_{10}) there is more variation i.e. 461.94, which shows less consistency of data in the study area so far as utilization of fund is concerned.

Table 3 : Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [KULIANA]

Factors	Mean	S.D.	C.V.
Composition of members (X_1)	4010.80	± 456.64	11.39

Receipt of deposit (X_2)	242.80	±128.93	53.10
Borrowing & SAO (X_3)	12121.00	±7152.08	59.01
Loans & advances (X_4)	16489.40	±3912.47	23.73
Working capital (X_5)	20682.80	±4166.45	20.14
Investment (X_6)	3019.20	±835.68	27.68
Cost of management (X_7)	415.20	±100.51	24.21
Consumer business (X_8)	3218.00	±1751.23	54.42
Working fund (X_9)	20560.20	±4166.36	20.26
Fund utilization (X_{10})	45166.00	±7470.79	16.54
Total demand (X_{11})	22054.20	±3161.39	14.33
Total collection (X_{12})	13836.80	±3568.00	25.79

In the above table it is observed that there is less variation in case of Composition of members (X_1) followed by Total demand (X_{11}), this shows more consistency of data collected from the study area. It is also found that in case of the Borrowing (X_3) there is more variation i.e. 59.01, which shows less consistency of data in the study area so far as borrowing & SAO is concerned.

c) Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [DEULI]

It is observed that there is less variation in case of Composition of members (X_1) followed by Working fund (X_9), this shows more consistency of data collected from the study area. It is also found that in case of the Fund utilization(X_{10}) there is more variation i.e. 118.16, which shows less consistency of data in the study area so far as Fund utilization is concerned.

d) Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [CHITRADA]

It is observed from the analysis that there is less variation in case of Receipt of deposit (X_2) followed by Composition of members (X_2), this shows more consistency of data collected from the study area. It is also found that in case of the Borrowing (X_3) there is more variation i.e. 52.57, which shows less consistency of data in the study area so far as Fund utilization is concerned.

e) Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [BETNOTI]

It is also observed that there is less variation in case of Fund utilization (X_{10}) followed by Borrowing (X_3), this shows more consistency of data collected from the study area. It is also found that in case of the Working capital (X_5) there is more variation i.e. 245.63, which shows less consistency of data in the study area so far as working capital is concerned.

f) Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [BAISINGA]

It is observed that there is less variation in case of Composition of members (X_1) followed by Cost of management (X_7), this shows more consistency of data collected from the study area. It is also found that in case of the Investment (X_6) there is more variation i.e. 53.76, which shows less consistency of data in the study area so far as Investment is concerned.

g) Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [BANGRIPOSI]

It is also observed that there is less variation in case of Composition of members (X_1) followed by Cost of management (X_7), this shows more consistency of data collected from the study area. It is also found that in case of the Investment (X_6) there is more variation i.e. 53.76, which shows less consistency of data in the study area so far as Investment is concerned.

h) Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [BISOI]

It is observed that there is less variation in case of Composition of members (X_1) followed by Consumer business (X_8), this shows more consistency of data collected from the study area. It is also found that in case of the Receipt of deposit (X_2) there is more variation i.e. 131.19, which shows less consistency of data in the study area so far as Receipt of deposit is concerned.

i) Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [BADAMTALIA]

It is observed from the analysis table that there is less variation in case of Composition of members (X_1) followed by Total collection (X_{12}), this shows more consistency of data collected from the study area. It is also found that in case of the Consumer business (X_8) there is more variation i.e. 223.65, which shows less consistency of data in the study area so far as Consumer business is concerned.

Table 4 : Mean, Standard Deviation and Coefficient of Variation (C.V.) of various factors under the LAMPS [JOSHIPUR]

Factors	Mean	S.D.	C.V.
Composition of members (X_1)	6318.40	± 1201.19	19.01
Receipt of deposit (X_2)	59.20	82.68	139.66
Borrowing & SAO (X_3)	14885.80	11159.14	74.97
Loans & advances (X_4)	14018.40	4896.43	34.93
Working capital (X_5)	15029.60	3724.41	24.78
Investment (X_6)	1389.00	815.64	58.72
Cost of management (X_7)	477.60	164.82	34.51
Consumer business (X_8)	2895.40	1954.54	67.51
Working fund (X_9)	1925.00	3577.36	185.84
Fund utilization (X_{10})	31261.20	8990.13	28.76
Total demand (X_{11})	19255.00	8598.22	44.65
Total collection (X_{12})	16148.20	5541.97	34.32

In the above table it is observed that there is less variation in case of Composition of members (X_1) followed by Working capital (X_4), this shows more consistency of data collected from the study area. It is also found that in case of the Working fund (X_9) there is more variation i.e. 185.84, which shows less consistency of data in the study area so far as Working fund is concerned.

It is observed from the above tables that in most of the Large size multipurpose cooperative societies (LAMPS) there are less variation in case of Composition of members. But there diverge among the LAMPS so far as more variation is concerned.

i) In case of Co-operative Sector SIRSA, DEULI and CHITRDA the study reveals that Fund utilization as the less consistency.
ii) In case of Co-operative Sector KULIANA the study reveals that Borrowing as the less consistency.
iii) In case of Co-operative Sector BETNATI the study reveals that Working capital as the less consistency.
iv) In case of Co-operative Sector BAISINGA and BANGRIPOSI the study reveals that Investment as the less consistency.
v) In case of Co-operative Sector BISOI the study reveals that Receipt of deposit as the less consistency.
vi) In case of Co-operative Sector BADAMITALIA the study reveals that Consumer business as the less consistency.
vii) In case of Co-operative Sector JOSHIPUR the study reveals that Working fund as the less consistency.

However, it is more importance to examine the relationship of one factor to another than to measure performance in either alone, relationship among factors can be studied by adopting the method of correlation (r).

To evaluate performance of LAMPS in the study area it is customary in measurement to describe the correlation between two tests as high, marked or substantial, low or negligible. Here the descriptive level applied as –

* `r' from 0.00 to ±0.20 denotes negligible relationship (weak)

** `r' from ±0.20 to ±0.40 denotes low correlation (moderate)

*** `r' from ±0.40 to ±0.70 denotes substantial or marked relationship (good)

**** `r' from ±0.70 to ±1.00 denotes high or very high relationship (strong).

XII. COEFFICIENT OF CORRELATION (R)

Table 5 : Correlation Coefficient (`r' value) between factors in case of SIRSA

Factors	Compo-sition of members (X_1)	Receipt of deposit (X_2)	Borro-wing & SAO (X_3)	Loans & advances (X_4)	Working capital (X_5)	Invest-ment (X_6)	Cost of management (X_7)	Cons-umer business (X_8)	Working fund (X_9)	Fund utilization (X_{10})	Total demand (X_{11})	Total colle-ction (X_{12})
Composition of members (X_1)	1.00											
Receipt of deposit (X_2)	-0.70**	1.00										

	*											
Borrowing & SAO (X_3)	0.93** **	-0.56***	1.00									
Loans & advances (X_4)	0.98** **	-0.67***	0.97** **	1.00								
Working capital (X_5)	0.96** **	-0.54***	0.97** **	0.99** **	1.00							
Investment (X_6)	0.66***	-0.77** **	0.91** **	0.98** **	0.95** **	1.00						
Cost of management (X_7)	0.69***	-0.93** **	0.62***	0.73** **	0.62***	0.83** **	1.00					
Consumer business (X_8)	-0.69***	0.99** **	-0.59***	-0.69***	-0.56***	-0.78** **	-0.96** **	1.00				
Working fund (X_9)	0.96** **	-0.54***	0.97** **	0.99** **	1.00** **	0.95** **	0.62***	-0.56***	1.00			
Fund utilization (X_{10})	0.96** **	-0.72** **	0.98** **	0.99** **	0.97** **	0.97** **	0.76***	-0.74** **	0.96** **	1.00		
Total demand (X_{11})	0.59***	-0.27**	0.37**	0.54***	0.58***	0.61***	0.33**	-0.21**	0.58***	0.43***	1.00	
Total collection (X_{12})	0.93** **	-0.91** **	0.81** **	0.90** **	0.82** **	0.95** **	0.86** **	-0.89** **	0.82** **	0.91** **	0.52***	1.00

It reveals from the above table that correlation coefficient (`r') value –

1. In case of Co-operative Sector **SIRSA** there exists strong and positive correlation and changes in same direction in most of the cases between compositions of members with other factors considered for the study. There also exists weak correlation between consumer business and total demand.
2. In case of Co-operative Sector **KULIANA** there exists strong and positive correlation only between composition of members with investment, fund utilization and weak relationship with loan & advances, Rest of factors shows good or moderate relationship. It is also found that there exists weak relationship between working capital with cost of management ; borrowing with loans & advances, working capital, cost of management ; fund utilization with total demand.
3. In case of Co-operative Sector **DEULI** there exists strong and positive correlation in most of the cases between compositions of members with other factors considered. There also exists weak correlation between composition of members with receipt of deposit and borrowing ; receipt of deposit with borrowing, investment ; borrowing with investment and total collection.
4. In case of Co-operative Sector **CHITRADA** there exists strong and positive correlation between composition of members with receipt of deposit, loans & advances, working capital, working fund and fund utilization. There also exists weak correlation between composition of members with total collection ; receipt of deposit with borrowing, investment ; borrowing with investment and total collection ; receipt of deposit with total demand ; borrowing with investment; working capital with total demand; working fund with total demand.
5. In case of Co-operative Sector **BETNATI** there exists strong and positive correlation in most of the cases between composition of members with other factors considered. It is also found that correlation matrix between the most of factors shows high relationship i.e. strong relationship. This indicates that Betnati Co-operative sector have utmost role for the development of tribal in the study area.
6. In case of Co-operative Sector **BAISINGA** there exists strong and positive correlation in most of the cases between composition of members with other factors considered. It is also found that correlation matrix between the most of factors shows high relationship i.e. strong relationship. This indicates that Baisinga Co-operative sector have attitude towards development of tribal in the study area.
7. In case of Co-operative Sector **BANGIRIPOSI** there exists strong and positive correlation in most of the cases between composition of members with other factors considered. It is also found that correlation matrix between the most of factors shows high relationship i.e. strong relationship. This indicates

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that Bangiriposi Co-operative sector have significant role for the development of tribal in the study area.

8. In case of Co-operative Sector **BISOI** there exists strong and positive correlation in most of the cases between composition of members with other factors considered. There also exists weak correlation between composition of members with total collection; receipt of deposit with consumer business, total demand; borrowing with consumer business, total demand, total collection; loans & advances with total demand, total collection; working capital with consumer business, total demand; investment with total demand; consumer business with working fund; working fund with total demand.
9. In case of Co-operative Sector **BADAMITALIA** there exists strong and positive correlation in most of the cases between composition of members with other factors considered. There also exists weak correlation between composition of members with cost of management and total collection; receipt of deposit with working capital, fund utilization, total demand, total collection; loans & advances with cost of management, total collection; working capital with total collection; investment with cost of management, total collection; cost of management with consumer business, fund utilization; consumer business with total collection.
10. In case of Co-operative Sector **JOSHIPUR** there exists strong and positive correlation in most of the cases between composition of members with other factors and rest of factors concerned shows good or moderate relationship. There also exists weak correlation between receipt of deposit with cost of management, consumer business; borrowing with loans & advances, consumer business; loans & advances with working capital, consumer business, working fund; consumer business with total demand, total collection.

XIII. Regression Results

Below table describes the main regression results. It shows the effect of the indicators adopted for the study. An analysis has been made to know the effect and significant contribution of factors towards development of tribal under LAMPS in the study area.
For multiple regression analysis Independent variables taken are

(1) Independent variables are $X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12}$

(2) Dependent Variable – Development (Y)

Table 6 : Effect of factors for development of tribal under Co-operative sector SIRSA

Coefficients

Factors	Unstandardized Coefficients	Standardized Coefficients
	B	Beta
(Constant)	-509.245	
X_3	0.495	0.793
X_7	1.331	0.076
X_{11}	0.159	0.232
X_{12}	4.352	0.052

In most variables the calculated value of the coefficient (Beta) in the regression equation is either perverse or insignificantly different from zero. It shows the factor borrowing (X_3) have more effect on development in the study area. Next followed by the factor `total demand' have effect on development. Factors like cost of management and total collection have positive impact on development. It is observed that the **borrowing** and SAO has some contribution towards development of tribal in case of co-operative sector SIRSA in the study area.

Table 7 : Effect of factors for development of tribal under Co-operative sector KULIANA

Coefficients

Factors	Unstandardized Coefficients	Standardized Coefficients
	B	Beta
(Constant)	-2436.017	
X_3	0.129	0.519
X_8	0.483	0.475
X_{10}	0.230	0.964
X_{12}	9.258	0.186

In most variables the calculated value of the coefficient (Beta) in the regression equation is perverse. It shows the factor fund utilization (X_{10}) have more effect on development in the study area. Next followed by the factor `borrowing' have effect on development of tribal. Factors like consumer business and total collection have positive impact on development. It is observed that the **fund utilization** have significant contribution towards development of tribal under co-operative sector KULIANA in the study area.

c) Effect of factors for development of tribal under Co-operative sector DEULI

In most variables the calculated value of the coefficient (Beta) in the regression equation is either perverse or insignificantly different from zero. It shows the factor total collection (X_{12}) have more effect on development of tribal. Next followed by the factor receipt of deposit have effect on development of tribal. Factor like borrowing have positive impact on development. In another case factor like investment have negative impact on development in the study area. It is observed that the **total collection** have significant contribution towards development of tribal under co-operative sector DEULI in the study area.

d) Effect of factors for development of tribal under Co-operative sector CHITRADA

In most variables the calculated value of the coefficient (Beta) in the regression equation is perverse. It shows the factor composition of members (X_1) have more effect on development in the study area. Next followed by the factor `total collection' have effect on development of tribal. Factors like cost of management and consumer business have positive impact on development. It is observed that the **composition of members** have significant contribution towards development of tribal under co-operative sector CHITRADA in the study area

e) Effect of factors for development of tribal under Co-operative sector BETNATI

In most variables the calculated value of the coefficient (Beta) in the regression equation is perverse. It shows the factor borrowing (X_3) have more effect on development in the study area. Next followed by the factor `total demand' have effect on development of tribal. Factors like loans & advances and total collection have positive impact on development. It is observed that the **borrowing** have significant contribution towards development of tribal under co-operative sector BETNATI in the study area in comparison to rest of the factors.

f) Effect of factors for development of tribal under Co-operative sector BAISINGA

In most variables the calculated value of the coefficient (Beta) in the regression equation is either perverse or insignificantly different from zero. It shows the factor borrowing (X_3) have more effect on development of tribal. Next followed by the factor total collection have effect on development of tribal. Factor like investment have positive impact on development. In another case factor like cost of management have negative impact on development in the study area. It is observed that the **borrowing** have significant contribution towards development of tribal under co-operative sector BAISINGA in the study area.

g) Effect of factors for development of tribal under Co-operative sector BANGIRIPOSI

In most variables the calculated value of the coefficient (Beta) in the regression equation is either perverse or insignificantly different from zero. It shows the factor borrowing (X_3) have more effect on development of tribal. Next followed by the factor cost of management have effect on development of tribal. Factor like investment and total collection have negative impact on development in the study area. It is observed that the **borrowing** have significant contribution towards development of tribal under co-operative sector BAISINGA in the study area.

h) Effect of factors for development of tribal under Co-operative sector BISOI

In most variables the calculated value of the coefficient (Beta) in the regression equation is perverse. It shows the factor investment (X_6) have more effect on development in the study area. Next followed by the factor `consumer business' have effect on development of tribal. Factors like receipt of deposit and total collection have positive impact on development. It is observed that the **investment** have significant contribution towards development of tribal under co-operative sector BISOI in the study area in comparison to rest of the factors considered for the study.

i) Effect of factors for development of tribal under Co-operative sector BADAMTALIA

In most variables the calculated value of the coefficient (Beta) in the regression equation is perverse. It shows the working capital (X_5) have more effect on development in the study area. Next followed by the factor `composition of members' have effect on development of tribal. Factors like receipt of deposit and total collection have positive impact on development. It is observed that the **working capital** have significant contribution towards development of tribal under co-operative sector BADAMTALIA in the study area in comparison to rest of the factors.

Table 8 : Effect of factors for development of tribal under Co-operative sector JOSHIPUR

Coefficients

Factors	Unstandardized Coefficients	Standardized Coefficients
	B	Beta
(Constant)	5100.626	
X_3	0.227	0.915
X_4	0.183	0.324
X_8	-6.884	-0.049
X_{12}	3.366	0.067

In most variables the calculated value of the coefficient (Beta) in the regression equation is either perverse or insignificantly different from zero. It shows the factor borrowing (X_3) have more effect on development of tribal. Next followed by the factor loans & advances have effect on development of tribal. Factor like total collection have positive impact on development of tribal. In another case factor like consumer business have negative impact on development in the study area. It is observed that the borrowing have significant contribution towards development of tribal under co-operative sector JOSHIPUR in the study area.

XIV. ANALYSIS OF VARIANCE

In the analysis, the total variations are split into explained and unexplained variation.

Table 7 : Analysis of Variance (ANOVA) for the factors considered under Cooperative sector SIRSA in the study area

Source of variation	Sum of Square	Degree of Freedom	Mean Square	F-statistic (Calculated)
Between Row	535776701.7667	4	133944175.442	*6.9840*
Between Row & Column	5403027336.4170	55	98236860.6621	*5.1222*
Between Column	4559169606.1830	11	414469954.198	*21.6111*
Residual (error)	843857730.2333	44	19178584.7780	
Total	10061.8833	59	100657695.562	

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167 .

In case of the above table between the factors (row) and between the factors (column) are significant. The calculated value is 6.9840 and 21.6111 respectively. This shows calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance. Between the factors (Row & column) it shows significance only at 5% level. Here the calculated valued is 5.1222.

Table 8 : Analysis of Variance (ANOVA) for the factors considered under Cooperative sector KULIANA in the study area

Source of variation	Sum of Square	Degree of Freedom	Mean Square	F-statistic (Calculated)
Between Row	134199891.7667	4	33549972.9417	*2.4576*
Between Row & Column	9805036064.8330	55	178273382.9970	*13.0590*
Between Column	9204373321.0000	11	836761211.0000	*61.2948*
Residual (error)	600662743.8333	44	13651425.9962	
Total	9939235956.6000	59	168461626.3830	

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167.

In case of the above table between the factors (column) and between the factors (row & column) are significant. The calculated value is 61.2948 and 13.0590 respectively. This shows calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance. Between the factors (row) it shows insignificant. Here the calculated value is 2.4576.

c) Analysis of Variance (ANOVA) for the factors considered under Cooperative sector DEULI in the study area

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167 .

In case of the above table between the factors for all the sources of variation is insignificant. It is found that calculated `F' value is less than tabulated `F' value both at 5% and 1% level of significance.

d) Analysis of Variance (ANOVA) for the factors considered under Cooperative sector BETNATI in the study area

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167 .

In case of the above table between the factors (column) and between the factors (row & column) are significant. The calculated value is 29.8480 and 6.7696 respectively. This shows calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance. Between the factors (row) it shows insignificant. Here the calculated valued is 1.5111.

e) Analysis of Variance (ANOVA) for the factors considered under Cooperative sector BETNATI in the study area

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167

In case of the above table between the factors for all the sources of variation are highly significant. It is found that calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance.

f) Analysis of Variance (ANOVA) for the factors considered under Cooperative sector BAISINGA in the study area

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167

In case of the above table between the factors for all the sources of variation are highly significant. It is found that calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance.

g) Analysis of Variance (ANOVA) for the factors considered under Cooperative sector BANGIRIPOSI in the study area

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167

In case of the above table between the factors for all the sources of variation are highly significant. It is found that calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance.

h) Analysis of Variance (ANOVA) for the factors considered under Cooperative sector BISOI in the study area

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167.

In case of the above table between the factors for all the sources of variation are significant. It is found that calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance.

i) Analysis of Variance (ANOVA) for the factors considered under Cooperative sector BADMTALIA in the study area

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167.

In case of the above table between the factors for all the sources of variation are significant. It is found that calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance.

Table 9 : Analysis of Variance (ANOVA) for the factors considered under Cooperative sector JOSHIPUR in the study area

Source of variation	Sum of Square	Degree of Freedom	Mean Square	F-statistic (Calculated)
Between Row	367006834.0667	4	91751708.5167	*3.6721*
Between Row & Column	5947394860.6670	55	108134452.0120	*4.3278*
Between Column	4848010667.5330	11	440728242.5030	*17.6390*
Residual (error)	1099384193.1330	44	24986004.3894	
Total	6314401694.7330	59	107023757.538	

Tabulated value of F-test at 5% level of significance for (11,4) degree of freedom = 3.3567 and tabulated value of F-test at 1% level of significance for (11,4) degree of freedom = 5.2167.

In case of the above table only between the factors (column) is significant. The calculated value is 17.6390. This shows calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance. Here it is also found that between the factors (row) and between the factors (row & column) shows insignificant and the calculated value is 3.6721 and 4.3278 respectively. This shows calculated `F' value is less than tabulated `F' value both at 5% and 1% level of significance.

XV. Asset/Liability Ratio Analysis

The Asset/Liability Ratio can be a useful quick tool in evaluating credit. Debt Ratio is a financial ratio that indicates the percentage of a co-operative sector's assets that are provided via debt. It is the ratio of total debt (the sum of current liabilities and long-term liabilities) and total assets (the sum of current assets, fixed assets, and other assets such as 'goodwill').

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$$\text{Debt ratio} = \frac{\text{Total Liability}}{\text{Total Assets}}$$

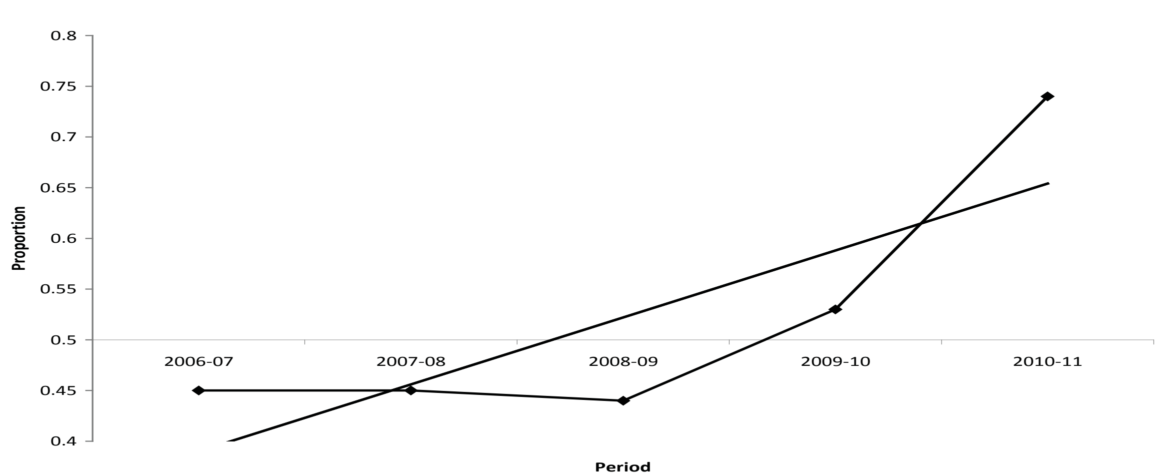
The higher the ratio, the greater risk will be associated with the firm's operation. Total liabilities divided by total assets. The debt/asset ratio shows the proportion of the co-operative sector assets which are financed through debt. If the ratio is less than 0.5, most of the sector's assets are financed through equity. If the ratio is greater than 0.5, most of the sector's assets are financed through debt. Co-operative sector with high debt/asset ratios are said to be "highly leveraged," not highly liquid as stated above. A sector with a high debt ratio (highly leveraged) could be in danger if creditors start to demand repayment of debt.

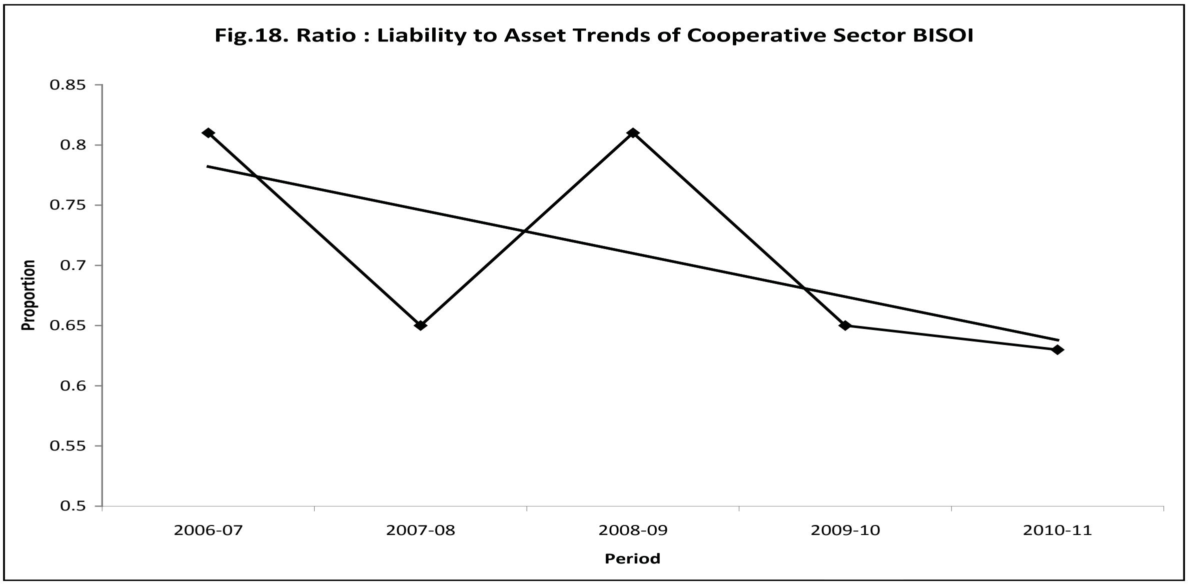
XVI. Asset/Liability Ratio of Selected LAMPS in the Study Area

SL.	LAMPS	Period	Ratio-liability to asset
1		2006-07	0.63
2		2007-08	0.83
3	SIRSA	2008-09	0.74
4		2009-10	0.69
5		2010-11	0.67
6		2006-07	0.68
7		2007-08	0.76
8	KULIANA	2008-09	0.75
9		2009-10	0.65
10		2010-11	0.68
11		2006-07	0.45
12		2007-08	0.45
13	DEULI	2008-09	0.44
14		2009-10	0.53
15		2010-11	0.74
16	CHITRADA	2006-07	0.41
17		2007-08	0.46
18		2008-09	0.61
19		2009-10	0.69
20		2010-11	0.69
21		2006-07	0.65
22		2007-08	0.73
23	BETNOTI	2008-09	0.75
24		2009-10	0.77
25		2010-11	0.65
26		2006-07	0.50
27		2007-08	0.47
28	BAISINGA	2008-09	0.46
29		2009-10	0.45
30		2010-11	0.51
31		2006-07	0.61
32		2007-08	0.77
33	BANGRIPOSI	2008-09	0.79
34		2009-10	0.74
35		2010-11	0.72
36		2006-07	0.81
37		2007-08	0.65
38	BISOI	2008-09	0.81
39		2009-10	0.65
40		2010-11	0.63
41		2006-07	0.76
42		2007-08	0.67
43	BADAMTALIA	2008-09	0.98
44		2009-10	0.95
45		2010-11	0.82
46		2006-07	0.66
47		2007-08	0.80
48	JOSIPUR	2008-09	0.87
49		2009-10	0.86
50		2010-11	0.62

The above liability to asset ratio (proportion) represented through trend analysis below.

Fig.13. Ratio : Liability to Asset Trends of Cooperative Sector DEULI





XVII. Summary and Conclusion

The purpose of this study is to identify the role of TRIBAL DEVELOPMENT UNDER COOPERATIVE SECTOR and the performance evaluation of LAMPS in Mayurbhanj District (India). The research problem have been persuaded to accomplish the objectives analytically.

For the analysis and interpretation of the study, data have been selected from primary and secondary sources. The primary data has been collected from the selected block area by conducting a sample questionnaire survey. Mayurbhanj is a tribal dominated district having 26 blocks. Based on the above sampling design, the data have been collected . The secondary data has been collected from various published sources of the Central and State Government such as the Census of India volumes, statistical abstract, selected socio-economic statistics, per capita Net State Domestic Product of States, different websites, Economic Survey, Central Government Publications, District Statistical Hand books has been used in this study. Though LAMPS offer plentiful opportunities to empower tribal, the tribal faces many challenges. Statistical tools like Mean, standard deviation, co-efficient of variation, correlation co-efficient, multiple regression, ratio has been adopted to examine the cause, effect and trend for the development of tribal under co-operative sector. To accomplish the objectives of the study i.e. performance, professionalism, role, spirit and strength of the LAMPS in the uplift of the tribal in Mayurbhanj district different techniques have been analysed and interpreted .

It is observed from the above tables that in most of the Large size multipurpose cooperative societies (LAMPS) there are less variation in case of Composition of members. But there diverge among the LAMPS so far as more variation is concerned.

It is observed that the **fund utilization** have significant contribution towards development of tribal under co-operative sector KULIANA . The **total collection and composition of members** have significant contribution towards development of tribal under co-operative sector DEULI and CHTRADA respectively in the study area.

It is also found that the **borrowing** have significant contribution towards development of tribal under co-operative sector BETNATI and BAISINGA in the study area in comparison to rest of the factors and have significant contribution towards development of tribals . A review of the flow of funds to these micro-projects suggests that, although there is a standing instruction that 75 percent of the grant is to be spent on income generation programmes, in practice, since the state government is suffering a financial crunch and is unable to provide the necessary expenditure, there is often a slippage of funds from the programme head to the establishment head. Inconsistencies in the flow of funds are observed in respect of the period of release and quantity of funds allotted. This affects the physical achievements of the project and their impact on the development of vulnerable communities. As a result, the timely supply of various inputs, of institutional credit, and of training in improved dry-land farming and dissemination of knowledge on crop diversification are yet to have much impact on these communities

Like all financial ratios, a co-operative sector debt ratio should be compared with their industry average or other competing firms. Total liabilities divided by total assets. The debt/asset ratio shows the proportion of the co-operative sector assets which are financed through debt. The relationship between the category of borrower like marginal, small, large with all most all the micro factors showing good and strong degree of relationship, which means borrower increases the micro factors considered in the study area and vice versa. It can be concluded from the above table that the relationship between the borrowers with the micro factors, changes in same and positive direction, it shows micro factors considered for the study have positive roles for development of tribal in Mayurbhanj district. The district of Mayurbhanj is extremely important from anthropological point of view. It is inhabited by all the Scheduled tribe found in the eastern region of India. the Adivasis of Mayurbhanj though not educated and advanced in their day to day lives, still have a great culture of their own. They are simple, credulous and gullible people who even in the scientific age also believe in magic, witch craft, spirit and ghost. For generations they have been exploited by their non-tribal counter parts. Thus their life style is less in tune with the vein of Society. The problem of moneylending in Scheduled Areas in which tribals live has not been solved through regulation, as desired by the state. Money lending has inflated the interest rate and encouraged bonded labour in tribal areas. The functioning of credit institutions in Orissa does not have organic linkages with tribal marketing networks and such formal institutions have not been attuned to the needs of the tribal economy. The state government has not been able to make effective use of penal provisions in the legislation to counter evasion by moneylenders. Unless tribal people are provided with long-term support to increase their purchasing capacity and to enhance their income level, it is fruitless to expect to see their socio-economic development. Even though LAMPs have played a vital role in the advancement of credit cum marketing of products, it is indispensable to bring the tribals under cooperative fold for relieving them from the clutches of the private money lenders-cum-traders. Because of the tribals fail to receive a fair and remunerative return for their products and if the exploitative elements continue to deny them the fruits of their labour, mere increase in the financial resources in five year plans for tribal welfare and execution of tribal development programmes may not benefit them to the extent contemplated.

XVIII. Bibliography

a) Books

1. Patnaik, M. and Mishra, M. (1996) 'Non Timber Forest Products: A policy analysis, a background paper prepared for the national workshop, Committee for Protection of Natural Resources Orissa.
2. Sethi Krishnalal (1996) 'Commentary on M.P. Forest Manual', Published by The Lawyers Home, Indore.
3. Singh Katar Cooperative Management of Natural Resources Pages: 272: Institute for Rural Management, Anand, Vishwa Ballabh :
4. Singh, Katar and Mohanty, Dilip Kumar "A study of a sabaigrass processing and marketing cooperative society in Orissa." (In: Cooperative management of natural resources. New Delhi; Sage Publications, 1996).
5. Tewari, D.N. (1994) ' Tropical Forest Produce', International Book Distributors, Dehradun
6. Y. Huang; H. Wang; D.S. Zou; Z.W. Feng; H. Huang; S.L. Wang Soil and Management Cabi Publishing Volume 20 Number 2 ,2004.
7. Kumar, V. (1987), Indian Industry Predicting success or failure, Common Wealth Publishers, P-93.
8. Harman, H. H., Modern Factor Analysis, Chicago University, Chicago Press.
9. Harman, H. H. and Jones, W. H. (1966), "Factors Analysis by minimizing residuals", Psychometrika.
10. Cattle, R. B. (1966), "The meaning and strategies use of Factor Analysis", Hand Book of Multivariate Experimental Psychology, Chicago, Rand Mc Mally.
11. Satpathy, M. D. & Sahoo, P. K. (1993), "Bivariate Discriminant Score as a Forewarning Signal of Corporate Health", Sankalpa, Vol. 1, No.2, Dept. of Business Administration, Utkal University, PP 13-21.
12. Tatsuka, M. M. (1971), Multivariate Analysis, John Willey and sons, New York.
13. Johnson, P. O. (1966), Statistical Methods in Research, Asia Publishing House.
14. Fisher, R. A. (1936), "The use of Multiple Measurement in Taxonomic problems" Annals of Eugenics, PP 184-185.
15. Overall, J. E. and Klett, J. C. (1972), Applied Multivariate Analysis, Mc Graw Hill, PP 243-279.
16. Kaveri, V. S. (1980), Financial Ratios as Predictors of Borrowers Health, Sultan Chand and sons, P 140.

b) Journals

1. Chowdhury, M.K., "West Bengal Forest Development Corporation Limited in Retrospect and Perspective", Indian Forester, September 1991.
2. Patnaik L.K. (1991) ' Forest Development in Orissa-Role of Orissa Forest Development Corporation', Indian Forester, September 1991.
3. Birchall, J.: "Neither Public nor Private: the Cooperative third way" in Journal of Cooperative Studies, 85, 68-75, (1996).
4. Birchall, J., "Cooperative values, principles and practices: a commentary" Journal of Cooperative Studies 30.2, 1997 pp.42-69, (1997b).

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Risk-Return Analysis of Three Asset Portfolio using Islami Banks - Evidence from Dhaka Stock Exchange

By Abdul Kadar Muhammad Masum, Dr. Abdul Hamid Chowdhury & Md. Abul Kalam Azad

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Abstract - This paper aims at analyzing performance of Shahjalal Islami Bank Ltd. (SJIBL) at micro level. The study is based on 18 companies of Dhaka Stock Exchange (DSE). As population, 93 listed companies of DSE are purposively selected from a total of 544 companies. Ratio analysis, Individual stock analysis and Portfolio analysis have done using data between 2005 and 2011. A three stock portfolio analysis has been made compiling three financial industries namely; Banking, Insurance and Financial Institutions. Evidence from the study reveals that SJIBL has high return and low risk characteristics. Portfolio result depicts that combination of Islamic Banks' (IB) stock in portfolio investment can accelerate portfolio return and can reduce risk.

GJMBR-C Classification : JEL Code: H54, G32

RISK-RETURN ANALYSIS OF THREE ASSET PORTFOLIO USING ISLAMI BANKS - EVIDENCE FROM DHAKA STOCK EXCHANGE

Strictly as per the compliance and regulations of:

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Abdul Kadar Muhammad Masum [α], Dr. Abdul Hamid Chowdhury [σ] & Md. Abul Kalam Azad [ρ]

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I. Introduction

Islamic Banking has offered a new era of defining risk return relationship. Traditional theory suggests for higher return for adopting high level of risk and vice versa. But IB claims for higher return with relative lower risk and hence claims an alternative solution for a sustainable financial future. Firstly, depositor's money should be considered as equity. This transformation of depositors as equity reduces the financial leverage ratio and as a result the risk of IB as measured by standard deviation of profit profitability declines sharply. Secondly, the risk in IB depends as the level of the coverage of interest charges ratio since interest is omitted in deposit holders and is replaced by profit sharing the fixed interest payment is completely eliminated. Therefore, the coverage of interest charge ration will we either very high meaningless consequently. However, Qureshi (1984) claims that equity based financing in the Islamic framework will increase the exposure of risk.

The prime objective of the paper is to analyze various profitability ratios and their risk levels of SJIBL and compare its performance with banking industry in Bangladesh and to perform Portfolio analysis of SJIBL in order to determine it's the risk diversification characteristics.

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II. Data and Variables

Sample selection: Out of 22 Industries under Dhaka Stock Exchange, three Financial Industries (a total number of 18 out of 93 Companies) are purposively selected for the study of which SJIBL is one of the main. These Companies are selected based on their length of the operation and Paid up Capital. Out of the thirty Banks, all six privately owned Islamic Banks are selected for comparison purpose. The reason behind such selection is the nonexistence of the public Islamic Banks in the country. Number of Selected Financial Institutions and Insurance Companies is 4 of 22 and 8 of 41 respectively.

Data Source: Only secondary data is used in the study using panel data for desired analysis. Research has been conducted through three different methods. First, for the last seven years various profitability ratios and their risk levels (standard deviation and coefficient of variation) are calculated for SJIBL only. Second, for four years rates of return of SJIBL's stock and standard deviations are compared with the other common stocks listed in DSE. Third, the behavior of SJIBL's stock is investigated in three-stock portfolios in order to determine a pattern of risk diversification. For ratio analysis, data is gathered from the financial statements and annual reports of the individual banks, annual reports and quarterly statistical bulletins of 2005-2011.

a) Financial Models

Stock Analysis: When assessing the bank's performance, income statements do not always reveal the whole story. To assess a bank's performance potential, bank stock price movements can be analyzed (Madura, 1992). Here, the intention is to determine the risk-return characteristics of the stocks listed in Dhaka Stock Exchange, and then compare SJIBL stock with the others. Therefore, the annual returns of each stock for a period of Four years between 2008 and 2011 are calculated with the help of a formula shown in Appendix (Formula 1).

Portfolio Analysis: The portfolio behavior of SJIBL's stock is determined by taking the following steps;

Firstly, the stocks of 18 actively trading companies registered with the DSE are classified into three industries according to their lines of business. Then each industry's weight has been calculated:

Table 1 : Industry Equity (*) (million BD) Weight

SL.No	Name of the Industry	Quantity	Equity(*) (million BD)	Weight (%)
1	Bank (6 out of 30)	06	69318	83%
2	Financial Institutions (4 out of 22)	04	8441	10%
3	Insurance (8 out of 45)	08	5192	7%
	Total	18	82951	100

Source : Annual Report of Respective Institutions

Secondly, three-stock portfolios have been established by taking one stock from each sector every time. This process resulted in creating 192 portfolios ($^{18}C_3$ = 192). As the weight of stocks in the portfolio, the weight of the related industry has been used.

In the last stage, returns and standard deviations of these industries weighted 192 portfolios have been calculated with the help of a formula shown in Appendix (Formula 2)

III. Literature Review

Risk is the potential that a chosen action or activity (including the choice of inaction) will lead to a loss (an undesirable outcome). The notion implies that a choice having an influence on the outcome exists (or existed). Potential losses themselves may also be called "risks".

Major Risk faced by Islamic Banking Products Types of Contract	Major Risks	Risk Classification
Murabahah	Credit risk	Unsystematic risk
Musharakah	Market risk, Agency risk	Systematic risk
Mudarabah	Market risk, Agency risk	Systematic risk
Ijarah Thumma Al-Bay	Credit risk	Unsystematic risk
Ijarah Wa Iktina	Operational risk, Payment risk	Unsystematic risk
Salam	Delivery risk	Systematic risk
Istisna'	Delivery risk	Systematic risk
Bay' Al-Enah	Credit risk	Unsystematic risk
Tawarruq	Credit risk	Unsystematic risk
Commodity Murabahah	Credit risk	Unsystematic risk

Source : Rosli and Zaini (2008)

Khan and Ahmed (2001) discuss that Islamic banks not only face risks that conventional bank face but they also have to deal with the new and unique risk as a result of their unique asset and liability structure. According to them, this new risk exists due to the compliance of Shariah requirement. Among the nature of operations in Islamic financial institutions majority are based on profit and loss sharing, as such it is perceived that such transactions pose lower risk. While profit and loss sharing contracts expose Islamic financial institutions to a specific risk related the each type of contract and Qureshi (1984) claims that equity based financing will increase the exposure of the Islamic bank to risks.

In the case of Islamic banks, risks will vary depending upon the types of instruments used in the transactions either in deposit or financing. Sundararajan and Errico (2002) and Venardos (2006) argue that Islamic banks will face greater challenges in identifying and handling risk than conventional banks because of the complexities arising from the nature of the risk for each contract and profit loss sharing concept of certain financing product.

While, Rosly and Zaini (2008) and Hassan and Dicle (2005) discuss that, the nature of risk faced by the capital owners in an Islamic bank varies and is unique in accordance to the types of financial instruments it uses, the people it hires to manage the bank and its degree of transparency.

Rosly and Zaini (2008) explain that risk associated with each single product can further be broken down into major and non-major risk. Major risk means the risk that dominates the product in use. Due to the unique nature in each product offered by Islamic banks, Kahf (2005) argues Islamic banks need variant "risk identification processes", different risk management approaches & techniques and require different kind of supervision as well. Table I identifies major risk for each type of contracts or instruments used in Islamic banks.

According to Turen (1996) and Sundararajan and Errico (2002), Islamic financial institutions can be

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riskier than conventional financial institutions due to several reasons including the specific nature of risk and unlimited number of ways to finance a project using either profit & loss sharing or non-profit & loss sharing contracts. Lack of standardization in each type of contract is also another factor that is why Islamic financial institutions are riskier than its companion.

Akkizidis and Khandelwal (2008) explains that the scarcity of hedging instrument, undeveloped inter-bank money markets and a market for government securities which are Shariah compliant, make Islamic financial institutions more vulnerable to unfavorable events than conventional financial institutions. Cihak and Hesse (2008) also argues that Islamic financial institutions pose risk to the financial system that in many regards differ from those posed by the conventional financial system.

IV. Analysis

Table II shows that Return on Assets of SJIBL is higher than the commercial banking sector. Risk of such profitability was measured by coefficient of variation depicts much smaller result for SJIBL than the commercial banking sector. So, risk position of SJIBL is lower than other commercial banks.

Table 2 : Ratio Analysis of SJIBL in comparison with Total Banking Industry

	Return on assets (%)		Gross income/risk weighted assets		Return on Equity	
Years	*All banks	**SJIBL	*All banks	**SJIBL	*All banks	**SJIBL
2005	0.70	1.72	4.41	5.15	15.01	34.46
2006	0.79	2.17	4.45	6.43	14.13	38.44
2007	0.89	2.60	4.66	7.10	13.78	23.21
2008	1.16	2.26	5.10	6.14	15.60	25.58
2009	1.37	2.08	5.03	5.26	21.72	25.10
2010	1.78	3.01	4.01	4.59	20.97	30.71
2011	1.52	1.26	4.18	3.72	20.31	25.51
Mean	1.17	2.16	4.55	5.48	17.36	29.99
SD	0.40	0.56	0.41	0.94	3.48	6.33
C.V.	0.34	0.26	0.09	0.17	0.20	0.21

*Source : *Bangladesh Bank Report, **Annual Report of Respective Banks*

The above figure shows that ROA of SJIBL for the period of 2005-2011 results all time higher than that of all bank average for the same period. It signifies average higher return of SJIBL compared to all banks average. However, the ROA also signifies that the overall performance of the management to generate profit for the period is high. Table also reveals that Gross income/risk weighted assets on average is higher in SJIBL than the commercial banking sector. With the profitability of equity holders, measured by net profit after tax over total equity, SJIBL results higher than the industry average. The standard deviation of SJIBL is higher than other commercial banks. So, in this stage, risk level of SJIBL is higher than other commercial banks. The profitability measures used here indicate that SJIBL has achieved a higher profitability in terms of ROA, except with a slightly lower ROE ratio.

Table 3 : Average annual returns, standard deviations and coefficient of variations of the stocks registered with Bangladesh Stock Exchange

S/L	Institution	Code	Average Annual Returns (AR)	Ranking of AR	Standard deviation (SD) of (AR)	Ranking of SD	Coefficient of variations (CV)	Ranking of CV
1	Fereast Islami Life	A	0.200	18	0.347	15	1.737	19
2	Social Islami Bank Ltd	B	0.236	15	0.274	9	1.163	10
3	Al-Arafah Islami Bank	C	0.370	6	0.359	18	0.971	8
4	First Sec. Islami Bank	D	0.274	10	0.374	20	1.367	13
5	Exim Bank	E	0.287	9	0.338	14	1.179	11
6	Islami bank BD Ltd	F	0.148	21	0.051	1	0.344	1
7	Green Delta Ins.	G	-0.070	26	0.363	19	-5.209	-
8	Reliance Ins.	H	0.214	16	0.167	4	0.778	7
9	Shahjalal Islami Bank	I	0.378	5	0.251	6	0.663	4
10	ICB	J	0.261	13	0.450	24	1.720	18
11	Prime Fin. & Inv.	K	0.141	22	0.295	11	2.084	22
12	Premier Les. & Fin.	L	0.293	8	0.352	16	1.203	12
13	IDLC Finance	M	0.243	14	0.353	17	1.449	16
14	Eastern Ins.	S	0.298	7	1.083	26	3.633	24

15	BGIC	O	0.067	24	0.125	3	1.872	21
16	Peoples Ins.	P	-0.062	25	0.275	10	-4.436	-
17	Pragati Ins.	Q	0.071	23	0.214	5	3.019	23
18	Asia Pacific Gen Ins	R	0.465	4	0.327	13	0.703	5

Source : Results have been compiled from the panel data.

As is seen from Table III, the average annual return of SJIBL has a ranking of five from the top in the total market. But, if only the commercial banking sector is considered, SJIBL's stock achieved the best performance. In terms of standard deviation of annual returns of SJIBL scored the sixth lowest risks in total market. But if only commercial banks are considered, SJIBL has the lowest deviation of annual returns among all the commercial banks. Ranking by coefficient of variation shows that SJIBL has the fourth lowest risk in the total stock market. But if only commercial banking stocks are considered, again, SJIBL offers the lowest risk. Instead of risk minimization, this finding can be expressed as profit maximization (the reciprocal of coefficient of variation), i.e. for a given level of risk, SJIBL has the fifth highest average return and the highest average return among all the commercial banks listed in the stock exchange.

It should be noted that this result does not necessarily hold in a portfolio context, where the appropriate risk measure is not only the standard deviation or coefficient of variation but is also the correlation coefficient.

Table 4 : Ranking of (3-stock) 32 Portfolios on the basis of Portfolio Standard Deviation

CODE	Portfolio SD	Portfolio CV	Rank of PCV	CODE	Portfolio SD	Portfolio CV	Rank of PCV
IKH	0.2504	0.7300	65	IJA	0.2624	0.7412	81
IMP	0.2511	0.7520	66	IJG	0.2625	0.7831	82
IKO	0.2603	0.7824	67	ILH	0.2639	0.7367	83
IKQ	0.2605	0.7823	68	ILO	0.2639	0.7588	84
IKP	0.2607	0.8054	69	ILQ	0.2641	0.7587	85
IMH	0.2608	0.7342	70	ILP	0.2642	0.7798	86
IMO	0.2609	0.7609	71	IKR	0.2645	0.7335	87
IKA	0.2609	0.7629	72	ILA	0.2645	0.7407	88
IMQ	0.2610	0.7605	73	ILG	0.2646	0.7821	89
IKG	0.2610	0.8078	74	IMR	0.2649	0.7144	90
IMA	0.2614	0.7422	75	IJR	0.2659	0.7136	91
IMG	0.2615	0.7841	76	IKN	0.2675	0.7667	92
IJH	0.2618	0.7375	77	IMN	0.2679	0.7460	93
IJO	0.2618	0.7595	78	ILR	0.2680	0.7133	94
IJQ	0.2620	0.7594	79	IJN	0.2689	0.7451	101
IJP	0.2622	0.7810	80	ILN	0.2709	0.7442	114

Source : Results have been compiled using Formula 2 (Appendix)

Table IV exhibits the findings of risk-return positions of portfolios. Out of the total of 192 portfolios, the results of 32 portfolios have been given. As is seen from Table III, the least risky portfolio (INZ) is composed of the stocks of Shahjalal Islami Bank Limited, United Leasing and Asia Insurance. In the same way, all portfolios ranked from the range of 65 to 114. It assumes that all the portfolios are in moderate risky position. This fact can be considered as another evidence of the low risk level of SJIBL and risk reducing quality of SJIBL's stock in portfolio diversification.

Table 5 : Ranking of (3-stock) 32 Portfolio on the basis of Portfolio Return for SJIBL

CODE	Portfolio Return	Ranks of PR	CODE	Portfolio Return	Ranks of PR
ILR	0.3757	1	IJQ	0.3450	30
IJR	0.3726	2	IJO	0.3447	31
IMR	0.3708	3	IMQ	0.3432	32
ILN	0.3640	7	IKH	0.3430	33
IJN	0.3609	8	IMO	0.3429	34
IKR	0.3606	9	IKA	0.3420	36
IMN	0.3591	10	ILP	0.3388	39
ILH	0.3582	11	ILG	0.3383	41
ILA	0.3571	13	IJP	0.3357	46
IMH	0.3552	14	IJG	0.3352	48
IJH	0.3550	15	IMP	0.3339	49
IJA	0.3540	17	IMG	0.3335	50

IMA	0.3522	20	IKQ	0.3330	51
IKN	0.3489	23	IKO	0.3327	52
ILQ	0.3481	25	IKP	0.3237	61
ILO	0.3478	26	IKG	0.3231	62

Source : Results have been compiled using Formula 2 (Appendix)

All 32 portfolio returns consisting SJIBL's stocks presented in Table V depicts that high portfolio return has ensured through using SJIBL's stock. The ranking of all these portfolios scored from the range of 01 and 62 which means all the top scores are in the favor of SJIBL advocating for higher portfolio return through mixing Islmai banks as portfolio asset.

Figure 1: Normal Distribution of Portfolio Return of SJIBL

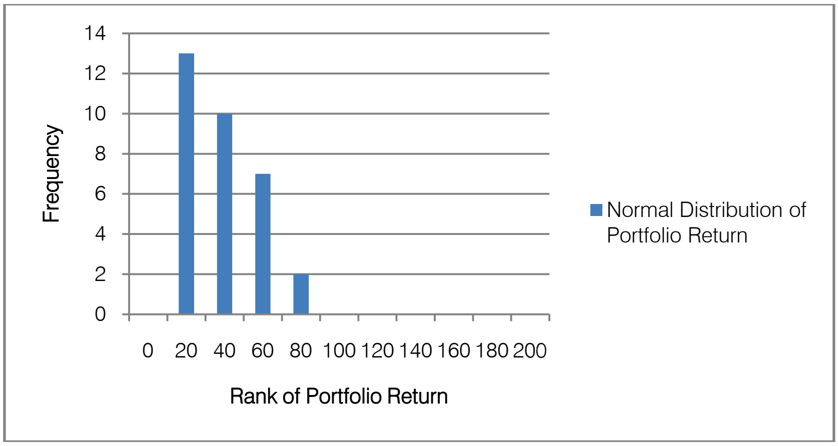

Figure I, depicts the normal standard distribution of the results of the total 192 portfolio return as ranked and plotted where 1 means top rank and 192 means lowest portfolio return. The return of SJIBL are almost fitted on the top chart and created a positively squad normal distribution suggest for higher portfolio return using Islami banks.

Table 6 : Ranking of Portfolio Performance of SJIBL

Bank	Mean	Median	Rank
AIBL	36.90	39	2
EXIM	90.18	88.50	3
FISBL	104.65	105	4
IBBL	176.5	176.50	6
SIBL	142.65	144.5	5
SJIBL	28.09	28	1

A simple ranking analysis among the selected Islami banks' portfolio performance as presented in Table V depicts that SJIBL ranked top in portfolio performance. The median of total 32 portfolios scored only 28 and placed SJIBL as first among the other Islami banks. AIBL, EXIM, FISBL, SIBL and IBBL ranked 2nd, 3rd, 4th, 5th and 6th position respectively. The pioneer of SJIBL's portfolio return and overall performance of all six banks out of total 192 portfolio presumes a high return and low risk attitude of Islami banks' in portfolio performance.

V. Findings

Ratio Analysis: Results from the previous section shows that SJIBL has performed better on an average compared to the commercial banking sector as a whole in terms of its management efficiency (ROA). At the same time, risk level of this bank is lower as compared to total Banking Industry. The ratio of gross income over risk-weighted assets of SJIBL is performing better than the industry and exhibits a higher risk as compared to Commercial Banks Industry as a whole. As for the profitability of equity holders, SJIBL's result is considerably higher than the industry average. The risk level of this profitability of SJIBL is higher than the industry average.

Stock Analysis: If only the commercial banking sector is considered, SJIBL achieved the first best performance. As compared to other commercial banks this higher return might be due to the better risk management of SJIBL. Profit maximization for a given level of risk, SJIBL has the fifth highest average return on DSE, and the highest average return among all the commercial banks listed in stock exchange, while both risk and return are simultaneously considered, SJIBL is superior.

Portfolio Analysis: In terms of Portfolio Coefficient of Variance, it can be considered as an evidence of the low risk level of SJIBL and risk reducing quality of SJIBL's stock in portfolio diversification. Again, considering Portfolio Return, SJIBL's stock has not only risk reducing quality (due to low coefficient of correlation with the stock of other sector) but also generate higher return in portfolio diversification.

VI. Conclusion

The risk level of an Islamic bank is the combined effect of the three new statutes governing the operations of this institution, namely deposit holders are replaced by equity holders, interest payments to depositors are converted into profit or loss sharing, and loans to customer are transformed into capital participation. Portfolio analysis, however, also supports the above statement. Of course, it is expected that in the future, after the analysis of risk-return characteristics of Islamic banking institutions in other countries, these preliminary conclusions will be examined to establish general principles and final terminations.

References Références Referencias

1. AKKIZIDIS, I. & KHANDELWAL, S. K. (2008). *Financial Risk Management for Islamic Banking and Finance*. New York: Palgrave Macmillan.
2. CIHAK, M. & HESSE, H. (2008). *Islamic Banks and Financial Stability: An Emprical Analysis.* International Monetary Fund Working Paper, WP 08(16).
3. HASSAN, M. K., & DICLE, M. F. (2005*). Basel II and Regulatory Framework for Islamic Banks.* Journal of Islamic Economics, Banking and Finance, 1(1).
4. QURESHI, D. M. (1984). *Capital Financing in Islamic Banking.* Pakistan and Gulf Economist, (December, 15), 8
5. KAHF, M. (2005). *Basel II: Implications for Islamic Banking.* Paper presented at the 6th International Conference on Islamic Economics and Banking
6. KHAN, T., & AHMED, H. (2001). *Risk Management: An Analysis of Issues in Islamic Financial Industry.* Occasional Paper Islamic Research and Training Institute
7. MOUNIRA, BA , *Managing Risks and Liquidity in an Interest Free Banking Framework: The Case of the Islamic Banks,* International Journal of Business and Management, Vol. 3, No. 9, pp. 83
8. ROSLY, S. A., & ZAINI, M. A. M. (2008). *Risk-Return Analysis of Islamic Banks' Investment Deposits and Shareholders' fund.* Managerial Finance, 34(10), 695-707.
9. SUNDARARAJAN, V., & ERRICO, L. (2002). *Islamic Financial Institutions and Products in The Global Financial System: Key Issues in Risk Management and Challenges Ahead. IMF Working Paper, 02(192)* http://en.wikipedia.org/wiki/Malaysia. Retrieved 18 March 2010.
10. TUREN, S. (1996*). Performance and Risk Analysis of the Islamic Banks: The Case of Bahrain Islmaic Bank.* Journal of King Abdul Aziz University: Islamic Economic, 8, 3-14. in 1407H:132-145.

VII. Appendix

Formula 1

$$r_i = \frac{(Pt - Pt\text{-}1) + Ct}{Pt\text{-}1}$$

Where,
Pt = market price at the end of period (t)
Pt - 1 = market price at the end of period (t - 1)
Ct = cash flow income received during the (t) the period
ri = rate of return on common stock (i)
Formula 2

$$E(R_p) = \sum_{j=0}^{N} \mathrm{X_i} \,.\, E\,(\mathrm{R_i})\ \&\ \sigma_p = \left[\sum_{i=0}^{N} \mathrm{X_i^2} \,.\, \sigma_i^2 + \sum_{i=j}^{N} . \sum_{\substack{j=1 \\ i\neq j}}^{N} . X_i \,.\, X_j \,.\sigma_i \,.\sigma_j \,.\, r_{i,j}\right]^{1/2}$$

Here,

$E(R_p)$	Portfolio Return
X_i	Percentage of the Portfolio Investment in (i)
X_j	Percentage of the Portfolio Investment in (j)
σ_i	Standard Deviation of Returns on Stock (i)
σ_j	Standard Deviation of Returns on Stock (j)
$E\,(\mathrm{R_i})$	Return on Stock (i)
$r_{i,j}$	Correlation Coefficient between the Returns of Stock (i) and (j)
σ_p	Portfolios Standard Deviation

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Prospects Analysis of an Islamic Capital Market in Bangladesh

By Md. Abul Kalam Azad, Mohammad Rokibul Kabir, Faruk Bhuiyan & Abdul Kadar Muhammad Masum
International Islamic University Chittagong, Bangladesh

Abstract - Dominant growth of Islamic financial system has ushered in a new era of alternative world economic approach-Islamic Financial System (IFS). It is a well-established fact that Interest (Riba) has negative comportment for an efficient capital market. Greedy intent of making quick buck increases the riskiness of the market. This study ventures deep into full potential of an Islamic Capital Market (ICM) for the flow of funds in Bangladesh. Both the international and domestic challenges are decelerating the opportunities. But, continuous upsurge of Islamic investors and stable market confidence for such market might overcome the snags. The present paper investigates the functioning of Islamic securities and examines the possibilities of their development within the existing regulations and economic determinants in Islamic countries for example Bangladesh.

Keywords : *capital market, islamic capital market, islamic financial system.*

GJMBR-C Classification : *JEL Code: J49*

PROSPECTS ANALYSIS OF AN ISLAMIC CAPITAL MARKET IN BANGLADESH

Strictly as per the compliance and regulations of:

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Md. Abul Kalam Azad α, Mohammad Rokibul Kabir σ, Faruk Bhuiyan ρ & Abdul Kadar Muhammad Masum ω

Abstract - Dominant growth of Islamic financial system has ushered in a new era of alternative world economic approach-Islamic Financial System (IFS). It is a well-established fact that Interest (Riba) has negative comportment for an efficient capital market. Greedy intent of making quick buck increases the riskiness of the market. This study ventures deep into full potential of an Islamic Capital Market (ICM) for the flow of funds in Bangladesh. Both the international and domestic challenges are decelerating the opportunities. But, continuous upsurge of Islamic investors and stable market confidence for such market might overcome the snags. The present paper investigates the functioning of Islamic securities and examines the possibilities of their development within the existing regulations and economic determinants in Islamic countries for example Bangladesh.

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I. Introduction

Islamic Capital Market refers to the market where activities are carried out in ways which do not conflict with the principles of Islam. ICM represents an assertion of religious law in the capital market transactions where the market is free from prohibited activities and elements such as riba (usury), maisir (gambling) and gharar (ambiguity). A hectic effort has been put recently on educating western countries on various types of instruments available in the Islamic Financial System. Books, reports, websites and seminars are flourishing. A great deal of marketing has been done by main financial institutions (DB, Calyon) to advertise for their Islamic window. In this sense, the purpose of this research is, therefore, descriptive. This report aims at investigatating opportunities, needs and challenges of an Islamic capital market in Bangladesh.

II. Islamic Capital Market on the Global Front

Global economy has understood the signify-cance of Musilm wealth and their perception of investing in accordance with their own ideology by considering the following statistics highlighted by Darmin [1]

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- Muslims of the world today are now estimated at more than 1.5 billion, representing a sizeable 24 percent of total world population of 7 billion.
- Latent Islamic funds in global financial institutions is said to be at US$1.3 trillion while the Islamic financial market is estimated at US$230 billion in size, with an annual growth rate of 12-15 percent.
- There are over 250 Islamic financial institutions currently operating in about 75 countries worldwide, with more than 100 Islamic equity funds managing assets in excess of US$5.0 billion.

Today, the Islamic financial market runs parallel to the conventional financial market and provides investors with an alternative investment philosophy that is rapidly gaining acceptance. In addition, Islamic financial market does not prohibit participation from non-Muslims that creates unlimited upside to the depth and breadth of this market.

III. Proposed ICM Products for Bangladesh

a) Investment Deposit Certificates (Kuwait Finance House and Sudan Islamic Banks)

Kuwait Finance House (Kuwait) has issued three types of Investment Deposit Certificates. Profits are computed annually after deduction of actual maintenance and overhead expenses at the rate of 2.5 percent of annual returns. In this case, investment is made for an unspecified period of time. The investor is free to dispose of the certificates through sale or alienation, on the condition that he enters that in the records of the Kuwait Finance House [2].

In Sudan, Islamic banks, namely, Faisal Islamic Bank of Sudan, Sudan Islamic Bank and the Islamic Cooperative Development Bank, issue "Investment Deposit Certificates" are totally interest-free. The holder of the certificate authorizes the issuing party to utilize the certificates in the way that serves the benefit of both parties (i.e. the holder of the certificate as the fund provider and the Bank as a mudarib: entrepreneur).

b) Muqaradah Bonds (Jordan)

These bonds are issued by the Ministry of Endowments and Islamic Affairs and Sanctities in Jordan [3]. A muqaradah bond is an instrument of a fixed value issued in the name of its holder against the amount of money he has contributed towards the implementation of the project with the aim of making profitable investment. The instrument is transferable to a third party under intimation to the issuing party which thus registers the transfer of title.

c) *Islamic Transactions Certificates (Egypt)*

These bonds are issued by the Islamic Transactions branches of Bank Misr (Arab Republic of Egypt) for a nominal value of 1000 Egyptian pounds (or US dollars) and their multiples. The bond is nominal and is issued for a term of five renewable years. The prospectus of these bonds states that they are to be invested in Islamic projects and that the bank is mandated to act on behalf of their holders in determining the appropriate methods of investment, on the basis of unlimited mudarabah rules.

d) *IDB Investment Certificates*

These are investment certificates issued for financing trade among Islamic countries. They may also be used to finance certain other operations for specific purposes including leasing. Each certificate has a nominal value of one thousand US dollars and a term that is linked to the portfolio term, which is 25 years. The liability of the certificate holders including the Bank is limited to the value of the rights of each in the portfolio.

e) *Participation Term Certificate (Pakistan)*

These certificates are financial instruments issued by banks and financing institutions in Pakistan. These are negotiable certificates based on the principle of profit and loss sharing and aim at mobilising medium and long-term financial resources in the local currency for industrial and other projects. Ismail [4] explains an issue of Pakistan that issued a statutory law governing all legal matters related to these certificates,

Furthermore, the participation certificate holders have the right to transfer a certain part of their certificates into ordinary shares of the issuing company. The regulations also stipulate that the issuing party may grant shareholders the right of purchasing participation term certificates.

f) *Investment Council Unit Fund Certificates – Bangladesh*

These certificates are issued by the Investment Council in Bangladesh which is a governmental non-banking financing institution operating mainly on interest basis. However, the authority also arranges the establishment of unit funds operating on the basis of mudarabah. Each fund is totally independent in terms of assets and liabilities and has its own independent management. The funds' resources are mobilised together through the sale of the above mentioned certificates which are known under the names: ICB Unit Certificates and ICB Mutual Certificates [5].

g) *Qard Hasan Certificates (Interest-freeloan) – Malaysia*

Qard Hasan certificates are short-term certificates issued by the Malaysian government by virtue of a parliament decree, in order to obtain interest-free loans from banks, institutions and private individuals. This is the concept of Qard Hasan (interest-free loan) advocated by the Islamic shari'ah [6].

Such certificates will have an expansionary effect without generating inflationary tendencies from which most developing countries are now suffering.

IV. Shari'ah View of Current Islamic Securities

With regard to various Islamic securities viewed earlier- on the basis of mudarabah contracts, we shall now direct our attention to [7].

a) Clarifying certain rules concerning the application of the mudarabah terms in the field of securities,

b) Reviewing some of the shari'ah objections faced by the securities currently on the market.

Some Rules Relating to the Application of Mudarabah Conditions in the Field of Securities

i. An Islamic security may be issued on the basis of absolute or conditional mudarabah. In the case of absolute mudarabah, security holders grant their unconditional consent to the issuing party to utilise their funds in all fields of investment conforming to the shari'ah.
ii. There ought to be a specific date for calculating operating results and distribution of realised profits and specification of profit sharing rates between the issuing party -- as a mudarib (responsible for actual management of the project) whether wholly or partially -- and the holders of the securities as financiers and project owners. A typical example of these certificates is the securities issued by the Jeddah-based Islamic Development Bank and made available to businessmen in Islamic countries to finance foreign trade and other operations.
iii. In case of losses incurred by projects or operations financed through securities, the party in charge of actual management (the mudarib) may be able to meet the loss out of the financial reserves retained from profits realised in earlier periods. The security holders, being the capital owners, would have to meet any loss incurred just as they reap realised profits.
iv. Any omission of the conditions relating to profit and loss as well as any ambiguity in prescribing these conditions in the prospectus is considered as a violation of the mudarabah contract. It may

be noted that the prospectus of the IDB portfolio is very detailed and accurate in this respect, whereas in some other cases no details are given as to what can be expected in case of loss as if this possibility were totally ruled out. This is likely to raise a great deal of suspicion.

v. It must be pointed out here that the issuing party is bound by shari'ah to uphold the conditions under which the securities were issued whether it is acting as the end-user or just an agent for these accumulated securities.

vi. It is also to be noted that in all cases the project or the investment activity financed through securities has its own financial entity as distinct from that of the issuing party. It follows then that the property or assets of the issuing party are totally distinct from those of the project or the investment activity financed through securities [8].

Some Shari'ah Objections against Islamic Securities: Review and Comments

a) Shari'ah Objections to the Jordanian Muqaradah Bonds

i. Some criticism is raised against the use of the word "bond" to describe these financial instruments. A bond is defined in civil law as a perpetual debt on the issuing party commanding a fixed periodical return agreed upon on the date of issue which is a usurious interest.

ii. The law on the basis of which the muqaradah bonds have been issued does not sanction any right to bond holders with regard to the project ownership. Rather, it holds in trust the amounts they have paid which it returns to them at their value at the date of redemption. The Jordanian government guarantees the full settlement of the nominal value of the bonds on maturity.

iii. Muqaradah bond holders get their share of any realised profits. However they are not bound, as they should have been according to their status as fund providers in muqaradah contracts, to any commitments in the absence of profits, which mean that they do not incur losses. This is no doubt in conflict with the mudarabah contract which necessitate that fund providers should share profits when realised and should bear losses when incurred, whatever the amount, out of the principal.

b) Shari'ah Objections to the Participation

Term Certificates (PTC) of Pakistan: Due to certain similarities between the PTC of Pakistan and bonds transacted in the western markets, doubts have arisen as to the shari'ah permissibility of the PTCs. Mohamed [9] explains the issue of "guarantee" for the certificate's nominal value gives rise to objections on the same grounds mentioned in the previous section on the Jordanian muqaradah bonds. It may be argued that this arrangement was meant to provide a guarantee for the certificate holders in case the project using their funds fails to observe the terms of the mudarabah contract. However, this is not clearly stated in the available prospectus of such certificates.

c) Objections to the Investment Fund Certificates – Bangladesh [10]

Objections raised in this case are not related to the technique itself or the terms of issue, but rather to actual practices pertinent to utilisation of the resources mobilised through these certificates. Such resources are generally invested in profit generating activities, but any surplus funds are deposited with conventional banks and earn interest. Such a practice, naturally, is not Islamic, and whatever interest is realised through it, and distributed among the certificate holders, is not halal (shari'ah accepted) money. Some would even question the profits realised through investments in certain projects.

d) Doubts Surrounding the Certificates of Bank Misr Branch for Islamic Transactions

The Islamic transaction branches of conventional banks have been open to doubts and polemics regarding the seriousness of their Islamic financial transactions. Some hold the view that these branches are nothing more than fictitious windows opened for the sake of attracting savings of Muslims not wishing to deal with interest, and then to use these savings, along with other resources that may be accumulated by the bank, in conventional banking operations. The advocates of this view vindicate it through theoretical proofs based on the nature of banking activities and their methods of mobilising resources [11].

V. Islamic Capital Market in Bangladesh

In the context of the present development processes all contemporary Muslim countries combined with the endeavour to revive the application of shari'ah, In fact, these projects depend at the inception of their activities either on private individual financing and subscriptions from relatives and friends or on financing from Islamic banks. It may also be noted that some Islamic banks have already taken this step of getting into the financial market and have issued medium or long term securities in order to establish a new financing source that would enable them to respond to the needs of projects seeking growth. This trend is expected to increase in near future.

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Among these conditions is the one that requires the shari'ah-based economic activity to attain a degree of maturity to produce a favourable climate for bringing about "external surpluses" required for its sustenance. Muslim countries should have the capability to translate the relevant part of the Islamic shari'ah into the form of essential regulations and systems that would contribute to setting up a secondary stock market capable of meeting the challenges of our modern life [12].

These conditions may be realised in part or full in the foreseeable future in some Muslim countries that have some experience in the activities of stock markets and a strong Islamic economic movement. Based on the above, we find that the establishment of an Islamic secondary stock market will not come about as a natural development at present. In fact, what is required is to make preparations for this market through Islamic studies regarding its laws, regulations, objectives and functions.

It may also be noted that the success of establishing an Islamic secondary stock market and ensuring its survival and growth in the long run will not depend only on a good organisational structure to run its affairs and Islamic legislation to safeguard it, but also on the employment of human expertise and know-how that are Islam-oriented to perform its duties and to have peculiar characteristics that would distinguish it from the conventional stock markets [1].

VI. Recommendations

The best securities to a Muslim are those issued --

a) by ventures serving the objectives of Islamic economic activity,

b) projects expected to yield higher returns,

c) the Muslim buyer who acquires them will not feel embarrassed to take advantage of price changes through the sale of securities in his possession or repurchasing them later on for the benefit of achieving windfall profits from this transaction.

Preconditions of an Islamic capital market in Bangladesh -

Above critical understanding of available information suggests the following preconditions for ICM in Bangladesh:

a. Facilitating expansion of products and services in Islamic capital market

b. More effective mobilisation of Islamic funds

c. Strengthening tax, accounting and regulatory frame-work for ICM

d. Enhancing international value recognition of ICM

e. Sound economic and market fundamentals are important for instilling greater confidence among investors

f. Funds to be invested in markets complying with principles of securities regulations

And the master plan for the utmost result whish has proposed by Aggarwal and Yousef [13].

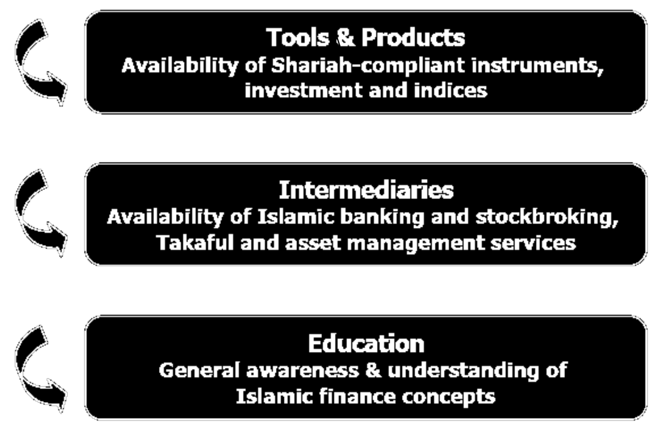

Figure : Principle Components of Successful Islamic Capital Market

VII. Conclusion

In order to underscore the need for an Islamic stock market, let us ask about the alternative in case it is not set up or no efforts are made to establish it. That probable alternative would be nothing but to continue to deal in the Islamic securities in the present stock markets in Muslim countries according to the existing rules and systems. Such a practice will be faced with many obstacles, unbalanced advantages and unca-lculated competition with interest-based securities, or securities issued by companies and institutions uncommitted and indifferent to the issues of *halal and haram*, thus leading to continued weakening of the tide of financing of shari'ah-based investment projects. This can only be achieved when the shari'ah-based investment projects realise actual success and go on expanding. There is a further step that is more ambitious and an advance towards the target. That step is to endeavour to adjust and develop the present rules governing the dealings in stock markets in the Muslim countries.

References Références Referencias

1. Darmin, N (2005), Islamic Finance Concept, a Contribution to the National Economic", *Jakarta: MES*.

2. Qureshi, DM (1986), The Role of Shari'ah-based Financial Instruments in Muslim Countries, 3rd

International Seminar on Developing A System of Financial Instruments, Kuala Lumpur.

3. Mirakhor, A (1995), Theory of an Islamic Financial System, *Encyclopaedia of Islamic Banking, London: Institute of Islamic Banking and Finance,* pp. 435.
4. Ismail, AH (1986), Sources and Uses of Funds - A Case Study of Bank Islam, Malaysia, *Journal of Islamic Thought,* vol. 04, issue. 07, pp. 34.
5. Abdullah, AA (1988), Available Means for Islamic Banks on International Markets, *State of the Art and Actual Practice,* Arab Banks Union Amman, Jordan, pp. 12.
6. Mannan, MA (2001), Investment and Stock Market from Islamic Perspective, *League of Arab States, General Secretariat, General Administration of Economic Affairs,* pp. 112.
7. Ahmed, AR (1986), Islamic securities in muslim countries' stock Markets and an assessment of the need For an islamic secondary market, *Financial Resources of the State in Modern Society from Islamic Perspective,* Islamic Development Bank, Egypt.
8. Ahmed, AR (1995), Studies in Islamic Economics, *Dar Al Jam'aat Al Misreyyah – Alexandria,* pp. 110-111.
9. Mohamed, MR (2008), MARC Welcomes AAOIFI's Sukuk Ruling, *available at www.marc.com.my*
10. Huq, MA (1986), Utilization of Financial Instruments - A Case Study of Bangladesh, *Developing A System of Financial Instruments,* Kuala Lumpur.
11. Nasser, SM (2001), Corporate Governance in Islamic Banks, *Journal of Economic Sciences and Public Administration,* Budapest University vol. XXII, no.3, pp. 34.
12. Mohamed, MR and Leong, M (2010), The Next Evolution In Rating Islamic Financing Instruments: From Islamic Debt Rating (ID) to Islamic Investment Quality Rating (IQ), *available at www.marc.com.my*
13. Aggarwal, RK and Yousef, T (2000), Islamic Banks and Investment Financing, Journal of *Money, Banking, and Credit,* vol.32, no.1, pp. 93-120.

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2. Ethical Guidelines,

3. Submission of Manuscripts,

4. Manuscript’s Category,

5. Structure and Format of Manuscript,

6. After Acceptance.

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- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else

Introduction:

The **Introduction** should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

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- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.

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- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

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- Describe the method entirely
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- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
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What to keep away from

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The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently.You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.

Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
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- Present a background, such as by describing the question that was addressed by creation an exacting study.
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- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

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- Never confuse figures with tables - there is a difference.

Approach

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- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
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- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

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References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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