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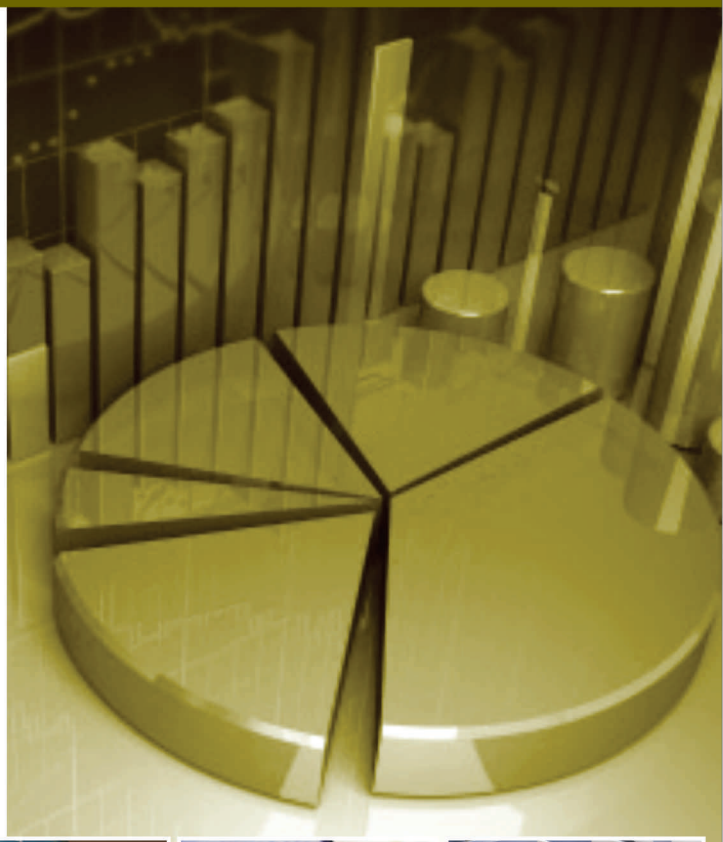

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Executive Remuneration in Indian Banking Industry: An Empirical Study

Arindam Ghosh and Amir Jafar

Abstract

Notionally, employees and executives of public sector banks are better off compared to their private sector counterparts. This well being is attributed to the security of job and most importantly a well regulated pay structure guided by the Pay Commission of India. Even if this notion is true in broad sense for the baseline to middle level employees of Indian banks, the reality is somehow different for the key functionaries of this industry. The exploratory study conducted here involving top 10 Indian banks according to the rating of Bombay Stock Exchange as on the end of second quarter of 2014-15 financial year shows that top-notch employees i.e. executives of Indian private banks are well off compared to the executives of public banks. In order to statistically validate the observation obtained in an exploratory study, an explanatory or causal research has been performed in this study with the help of independent sample t-test. The dataset used for this test has the Gross Executive Remuneration (GER) - a collective entity involving all compensation components for all executives of an organisation in a given financial year, as element and they are measured for 5 successive years i.e. 2010-11 to 2014-15. Finally, the empirical analysis supports the observation of the exploratory study i.e. private sector banks in India are better payers of executive remuneration. This result, therefore, contradicts the aforementioned conviction about executive compensation practices in Indian banking industry.

Keywords: *Indian Banking Industry, Public and Private Sectors, Executive Compensation.*

Introduction

Indian banking industry has witnessed unprecedented turmoil in the year of 2018 with two critical corporate governance debacles viz. Punjab National Bank fraud and alleged violation of listing agreement norms by Ms. Chanda Kochhar, the CEO of ICICI Bank. Ironically, these two remarkable incidents have adequately balanced the everlasting tussle between public and private sectors in Indian economy as one from each sector was involved in business malpractices. In this context, this research has attempted to comprehend either public or private governance system in Indian banking industry. As executive remuneration is one of the vital elements of corporate governance, we have decided to relate the nature of ownership and administrative control in Indian banks (either public or private control) with the pattern of remuneration obtained by the key managerial personnel of such banks.

Objectives of the Study

In line of the above discussion, this research is based on two following objectives:

1. To comprehend the executive remuneration system in Indian banking industry.
2. To identify how the difference in control on banks (e.g. public or private) impacts the executive remuneration in India.

Review of Literature

Nirtaut (1990) has constructed a case on erstwhile Continental Bank Corporation of Illinois, Chicago. At that time, Continental Bank had undergone a merger with BankAmerica Corporation in August 1994 (Business Wire, 1997). At the time, Continental Bank was struggling hard to overcome a financial setback. In order to ensure resurgence, all employees having completed one year of service were made eligible for employee stock ownership plan (ESOP) in view of promoting entrepreneurial culture and practices. In the study, the author has cited that the bank gained initial benefits. However, this study was not very particular about the distribution of ESOP for top professionals of the organisation. The author has cited according to the Internal Revenue Code, 1986, which not more than one-third of an allocation can be provided to highly remunerated employees.

A study done in banking industry of China reveals that the state-owned firms restrict the magnitude of executive compensation (Luo & Jackson, 2012).

On the basis of a study conducted on American banks, John & Qian, 2003, have stated that the role of regulations and corporate governance in CEO compensation is crucial. They have also added that CEO compensation in banks should not solely align with the equity interest because this may influence them to make "high-risk investments" (risky loans, risky real-estate investments etc). The work is based on secondary database i.e. Standard and Poor's ExecuComp Database with 623 sample CEOs with years from 1992 to 2000 for 120 commercial banks. The pay-for-performance sensitivity is examined and it is found to be lower than the manufacturing sector because of the risk-aversion nature of the banking industry.

Executive Remuneration System in Indian Banking Industry: An Exploratory Study

The top 10 banking organisations have been selected for this study based on the market capitalization ranking by Bombay Stock Exchange (BSE) at the end of the second quarter of 2014-15. It has identified through research that total compensation imposes less risk to stockholders (Gray & Cannella, 1997) and the same approach has been followed here as well with the following remuneration components:

- Basic pay
- Perquisites
- Other fringe benefits
- Performance-based incentives
- " Employees stock options schemes (ESOS)
- Allowances
- Joining bonus
- Commission based on net profit
- Company's contribution to retiral funds

Gross Executive Remuneration (GER) is a cumulative entity having various fixed and variable pay components in it. The fixed component is predominantly the basic pay and the variable components are different allowances, perquisites, joining bonus and other benefits, commission based on net profits, performance-based incentives, and employer contribution to funds as well as employee stock options.

Methodology of the Study

In order to obtain distribution pattern of executive compensation, we have randomly selected 4

(four) organisations out of the 10 aforementioned organisations from the banking industry. Nevertheless, being an exploratory study, this section does not attempt to make any definitive interpretation of compensation trend for executives. This section, therefore, just provides an overview of the compensation practices for executives of Indian banking industry.

It is observed that the concentration of remuneration is around the fixed and non-performance linked components of executive compensation in Indian banks. Another significant observation is that the private sectors banks pay more to their executives compared to their public sector counterparts like Bank of Baroda and State Bank of India (Ref: Tables 1A to 4A of Annexure).

Fig.1: Components of Executive Compensation – Axis Bank Ltd.

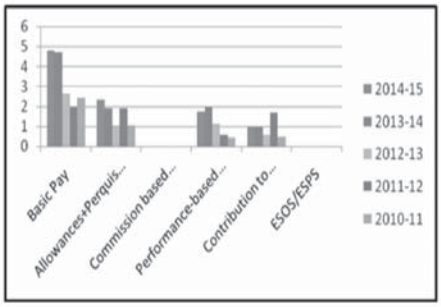


Fig.2: Components of Executive Compensation – HDFC Bank Ltd.

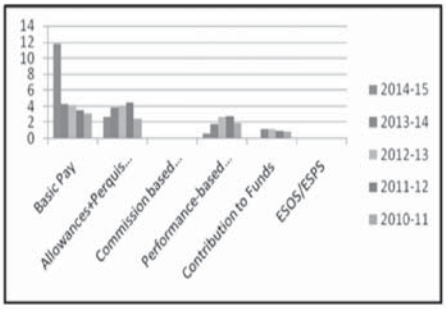


Fig.3: Components of Executive Compensation – Bank of Baroda

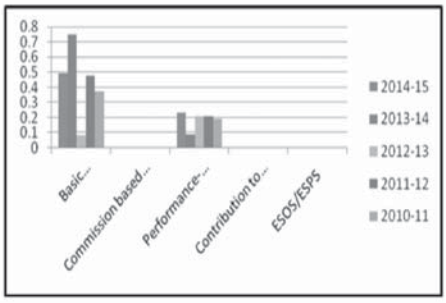
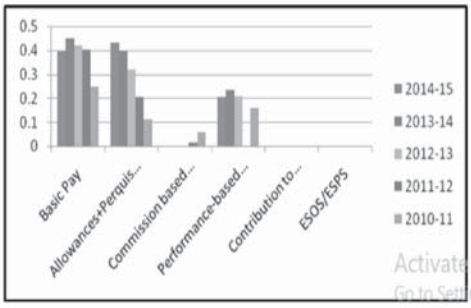


Fig. 4: Components of Executive Compensation – State Bank of India

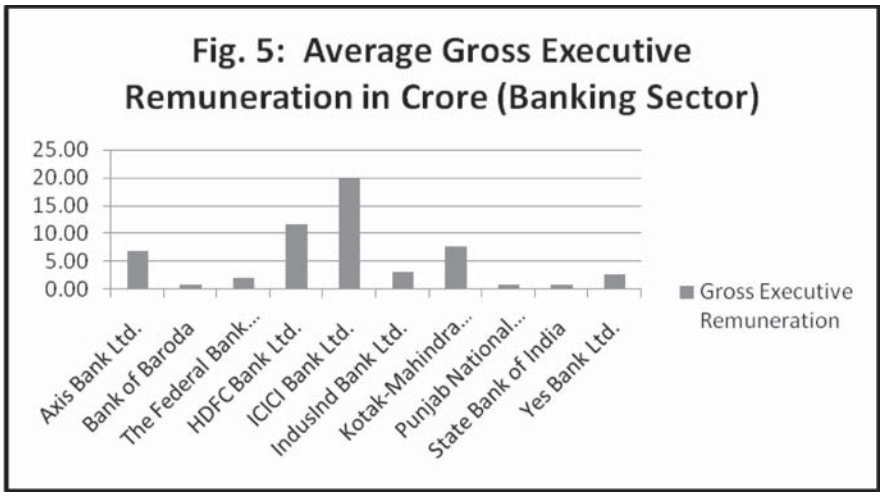


To understand an overall scenario of executive remuneration practices in Indian banks, a 3-yearly centered moving average of aforementioned GER has been calculated for all 10 sample banks. That average has been termed as Average Gross Executive Remuneration (AGER).

The list of 10 sample banks is provided underneath:

- Axis Bank Ltd.
- Bank of Baroda
- The Federal Bank Ltd.
- HDFC Bank Ltd.
- ICICI Bank Ltd.
- IndusInd Bank Ltd.
- Kotak Mahindra Bank Ltd.
- Punjab National Bank
- State Bank of India
- Yes Bank Ltd.

According to Table 5A in Annexure, ICICI Bank is the highest payer of AGER and Bank of Baroda pays least to its executives. Other two notable public-sector banks i.e. SBI and PNB are also near the bottom line with AGER less than 1 crore. Other than that, HDFC, Kotak-Mahindra, and Axis Bank pay handsomely to their top-notch functionaries.



Impact of Public and Private Sectors on Executive Remuneration in Indian Banking Industry: An Explanatory Study

In alignment with the research problem and objective of study, this section of article concentrates on identifying the causal relationship between the control of Indian banks with reference to public and private ownership and executive remuneration. In relationship with the observation that private sector banks pay their executives better than their public sector counterparts, an explanatory study has been conducted in this section.

Methodology of the Study

The dataset for this study contains 50 observations for 10 selected Indian banks over the span of 5 continuous financial years (2010-11 to 2014-15). These 10 banking organisations are selected through quota sampling method from the BSE listed top 100 organisations at the end of second quarter in 2015. The elements of this dataset are 5-year GERs instead of centered AGER for respective banks in order to allow better variability. Table 1 presents the dataset below:

Table 1: Gross Executive Remuneration Values in Crore: Banking Industry

Financial Years	*Axis Bank . Ltd*	*Bank of Baroda*	*The Federal Bank Ltd.*	*HDFC Bank Ltd.*	*ICICI Bank Ltd.*	*IndusInd Bank Ltd.*	*Kotak-Mahindra Bank Ltd.*	*Punjab National Bank*	*State Bank of India*	*Yes Bank Ltd.*
2014-15	9.8586	0.4758	1.6258	15.0967	65.8879	8.1573	24.3846	1.0074	1.0305	12.1980
2013-14	9.5566	0.8414	1.9078	11.0845	15.8642	3.6754	7.0806	1.2198	1.0803	2.4401
2012-13	5.3246	1.0413	2.6087	11.9487	15.4506	3.4347	4.3353	0.8010	0.9504	2.0334
2011-12	6.0758	0.6857	2.1989	11.7666	12.5806	0.0000	6.2086	0.5803	0.6235	0.0000
2010-11	4.3580	0.5654	1.6590	8.2652	10.2271	3.0382	5.2892	0.5942	0.5769	1.4145

[Source: Obtained and Computed from Annual Report: 2010-11 to 2014-15]

Independent sample t-test has been performed in this study to compare the means of executive compensation of two distinct groups of employers, the public and private sector banks of India.

Null Hypothesis (H0): The gross executive compensation is same for both public and private sectors i.e. public and private sector control does not have any effect on executive compensation.

Alternative Hypothesis (H1): The gross executive compensation is different for both public and private sectors i.e. public and private sector control has some effect on executive compensation.

Data Analysis and Interpretation:

Independent Variable: Public and private sector control - measured on nominal scale and is categorical in nature.

Dependent Variable: Executive Compensation - measured on continuous scale.

Descriptive Statistics: Table 2 includes the descriptive statistics of two sample groups - public sector and private sector banks of India. The mean of Gross Executive Remuneration (GER) is remarkably higher for private sector banks; however, the standard deviation is also higher for the private sectors.

Table 2: Group Statistics

	Types of Banks	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*
Gross Executive Remuneration in Crore	Public Sector Banks	15	.8049	.23572	.06086
	Private Sector Banks	35	8.7725	11.35886	1.92000

(Source: Computed)

In Table 3, the test titled as "equal variances assumed" is the Levene's Test of Equality of Variances that checks the homogeneity of variances between two groups. In this study, the significance value is less than p = 0.05, therefore at 5% level of significance, the homogeneity assumption is not accepted and the risk of false rejection of null hypothesis exists. In order to test the equality of means between the groups, the t-test result with "equal variance not assumed" shows the t value of -4.148 at 34.068 degrees of freedom which is significant at 5% level of significance also.

Table 3: Independent Samples Test

		Levene's Test for Equality of Variances		*t-test for Equality of Means*						
		F	*Sig.*	*T*	*df*	*Sig.(2-tailed)*	*Mean Difference*	*Std. Error Difference*	*95% Confidence Interval of the Difference*	
									Lower	*Upper*
Gross Executive Remuneration in Crore	Equal variances assumed	6.525	.014	-2.700	48	.010	-7.96752	2.95051	-13.89993	-2.03512
	Equal variances not assumed			-4.148	34.068	.000	-7.96752	1.92096	-11.87110	-4.06395

(Source: Computed)

Conclusion of the Study

The result of the independent sample t-test shows that the mean of gross executive compensation

is not equal for both public and private sectors as the null hypothesis is not accepted. Therefore, it can be finally concluded that the difference in ownership control has significant impact on Indian banks. It can be further stated that the outcome of the exploratory study - executives of private banks are better remunerated, is established through the explanatory research as well.

Scope of Further Research

This study in future can be extended considering the other control variables. Such control variables have to be explored in contemporary and extant literature. As the mean of Gross Executive Remuneration in private sector is showing higher-degree of variance than public sector, the latent dimensions responsible for hefty payment of key managerial personnel in private sector also have to be explored. The same can be performed for public sector banks to identify the limiting factors for executive compensation.

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Annexure: Tables

Table 1A: Executive compensation system in Axis Bank Ltd.

Financial Year	*Executive Name*	*Designation*	*Basic Pay*	*Allowances +Perquisites +Joining Bonus +Other Benefits*	*Commission based on Net Profits*	*Performance -based incentives*	*Contribution to Funds*	*Total Remune-ration*	*ESOS/ESPS*	*Gross Executive Remune-ration*
2014 - 2015	Smt. Shikha Sharma	Managing Director & CEO	2.2171	1.0928		0.67533	0.45	4.436		9.859
	Somnath Sengupta	Executive Director	0.5626	0.6094		0.64570	0.11	1.932		
	Shri V. Srinivasan	Executive Director & Head (Corporate Banking)	1.5166	0.3313		0.42638	0.31	2.583		
	Shri Sanjeev K. Gupta	Executive Director & CFO	0.5138	0.2896		0.00000	0.10	0.908		
	Sanjeev Kapoor	Company Secretary						0.000		
2013 - 2014	Smt. Shikha Sharma	Managing Director & CEO	2.1240	0.9987		0.84355	0.43	4.398		9.557
	Somnath Sengupta	Executive Director	1.2449	0.7094		0.57824	0.25	2.786		
	Shri V. Srinivasan	Executive Director & Head (Corporate Banking)	1.3534	0.2044		0.53987	0.28	2.373		

Financial Year	*Executive Name*	*Designation*	*Basic Pay*	*Allowances +Perquisites +Joining Bonus +Other Benefits*	*Commission based on Net Profits*	*Performance -based incentives*	*Contribution to Funds*	*Total Remune-ration*	*ESOS/ESPS*	*Gross Executive Remune-ration*
	Shri Sanjeev K. Gupta	Executive Director & CFO						0.000		
	Sanjeev Kapoor	Company Secretary						0.000		
2012 - 2013	Smt. Shikha Sharma	Managing Director & CEO	1.5498	0.8538		0.38017	0.32	3.099		5.325
	Somnath Sengupta	Executive Director	0.5154	0.0818		0.32369	0.10	1.026		
	Shri V. Srinivasan	Executive Director & Head (Corporate Banking)	0.5812	0.0854		0.41513	0.12	1.200		
	Shri Sanjeev K. Gupta	Executive Director & CFO								
	Sanjeev Kapoor	Company Secretary						0.000		
2011 - 2012	Smt. Shikha Sharma	Managing Director & CEO	1.5207	0.8241		0.33854	0.31	2.992		6.076
	Shri S. K. Chakrabarti	Deputy Managing Director	0.4100	1.0636		0.22009	1.39	3.083		
	P. J. Oza	Company Secretary					0.00	0.000		
2010-2011	Smt. Shikha Sharma	Managing Director & CEO	1.3542	0.6080		0.26042	0.28	2.498		4.358
	Shri M. M. Agrawal	Executive Director	0.6458	0.3224		0.15180	0.13	1.251		
	Shri S. K. Chakrabarti	Deputy Managing Director	0.4116	0.1134			0.08	0.609		
	Somnath Sengupta	Executive Director & CFO						0.000		
	P. J. Oza	Company Secretary						0.000		

[Source: Obtained and Computed from Annual Report: 2010-11 to 2014-15]

Table 2A: Executive compensation system in HDFC Bank Ltd.

Financial Year	*Executive Name*	*Designation*	*Basic Pay*	*Allowances +Perquisites +Joining Bonus +Other Benefits*	*Commission based on Net Profits*	*Performance -based incentives*	*Contribution to Funds*	*Total Remune-ration*	*ESOS/ESPS*	*Gross Executive Remune-ration*
2014 - 2015	Aditya Puri	Managing Director	5.5544	1.5029		0.338464	0	7.396	0.000	15.097
	Paresh Sukthankar	Dy. Managing Director	4.1806	0.8528		0.18535	0	5.219	0.000	
	Kaizad Bharucha	Executive Director	2.0008	0.3964		0.08487	0	2.482	0.000	
2013 - 2014	Aditya Puri	Managing Director	2.3805	1.5298		1.51361	0.64274	6.067	0.000	11.085
	Harish Engineer	Executive Director	0.6075	1.0176		0.16422	0.164025	1.953	0.000	
	Paresh Sukthankar	Dy. Managing Director	1.2150	0.9294		0.16422	0.32805	2.637	0	
	Kaizad Bharucha	Executive Director	0.0867	0.3194		0.00000	0.0216865	0.428	0	

Financial Year	*Executive Name*	*Designation*	*Basic Pay*	*Allowances +Perquisites +Joining Bonus +Other Benefits*	*Commission based on Net Profits*	*Performance -based incentives*	*Contribution to Funds*	*Total Remune-ration*	*ESOS/ESPS*	*Gross Executive Remune-ration*
2012 - 2013	Aditya Puri	Managing Director	1.9838	1.2606		1.23841	0.5356125	5.018	0.000	11.949
	Harish Engineer	Executive Director	1.1046	1.4412		0.73898	0.298242	3.583	0.000	
	Paresh Sukthankar	Dy. Managing Director	1.1046	1.2054		0.73898	0.298242	3.347	0	
2011 - 2012	Aditya Puri	Managing Director	1.7250	1.1876		1.51205	0.46575	4.890		11.767
	Harish Engineer	Executive Director	0.8979	2.5616		0.62833	0.2424195	4.330		
	Paresh Sukthankar	Dy. Managing Director	0.8979	0.7774		0.62833	0.2424195	2.546		
2010-2011	Aditya Puri	Managing Director	1.5000	1.0819		0.92699	0.405	3.914		8.265
	Harish Engineer	Executive Director	0.7776	0.6833		0.51525	0.209952	2.186		
	Paresh Sukthankar	Dy. Managing Director	0.7776	0.6624		0.51525	0.209952	2.165		

[Source: Obtained and Computed from Annual Report: 2010-11 to 2014-15]

Table 3A: Executive compensation system in Bank of Baroda.

Financial Year	*Executive Name*	*Designation*	*Basic Pay*	*Allowances +Perquisites +Joining Bonus +Other Benefits*	*Commission based on Net Profits*	*Performance -based incentives*	*Contribution to Funds*	*Total Remune-ration*	*ESOS/ESPS*	*Gross Executive Remune-ration*
	S.S. Mundra	Chairman & MD		0.1209		0.07000				
	P. Srinivas	Executive Director		0.1411		0.05500		0.196		
	B.B. Joshi	Executive Director		0.0190		0.03601				
	K.V. Rama Moorthy	Executive Director		0.0095		0.01492		0.024		
	U C Singhvi	CFO						0.000		
	Ashok Dangaich	Dy General Manager Corporate A/Cs & Taxation						0.000		
2013 - 2014	S.S. Mundra	Chairman & MD		0.2513		0.01151		0.263		0.841
	P. Srinivas	Executive Director		0.1696		0.03145		0.201		
	Sudhir Kumar Jain	Executive Director		0.0453		0.03145		0.077		
	Ranjan Dhawan	Executive Director		0.1748		0.01655		0.191		
	B.B. Joshi	Executive Director		0.1095				0.109		
2012 - 2013	M. D. Mallya	Chairman & MD		0.2445		0.08000		0.325		1.041
	S.S. Mundra	Chairman & MD		0.0350				0.035		
	Rajiv Kumar Bakshi	Executive Director		0.1753		0.06500		0.240		
	N. S. Srinath	Executive Director		0.0676		0.06500		0.133		
	P. Srinivas	Executive Director		0.1201				0.120		
	Sudhir Kumar Jain	Executive Director		0.1222				0.122		
	Ranjan Dhawan	Executive Director		0.0666				0.067		
2011 - 2012	M. D. Mallya	Chairman & MD		0.1737		0.08000		0.254		0.686

Financial Year	*Executive Name*	*Designation*	*Basic Pay*	*Allowances +Perquisites +Joining Bonus +Other Benefits*	*Commission based on Net Profits*	*Performance -based incentives*	*Contribution to Funds*	*Total Remune-ration*	*ESOS/ESPS*	*Gross Executive Remune-ration*
	Rajiv Kumar Bakshi	Executive Director		0.1547		0.06500		0.220		
	N. S. Srinath	Executive Director		0.1472		0.06500		0.212		
2010-2011	M. D. Mallya	Chairman & MD		0.1387		0.08000		0.219		0.565
	Rajiv Kumar Bakshi	Executive Director		0.1187		0.06500		0.184		
	N. S. Srinath	Executive Director		0.1153		0.02048		0.136		
	V. Santhanaraman	Executive Director				0.02725		0.027		

[Source: Obtained and Computed from Annual Report: 2010-11 to 2014-15]

Table 4A: Executive compensation system in State Bank of India

Financial Year	*Executive Name*	*Designation*	*Basic Pay*	*Allowances +Perquisites +Joining Bonus +Other Benefits*	*Commission based on Net Profits*	*Performance -based incentives*	*Contribution to Funds*	*Total Remune-ration*	*ESOS/ESPS*	*Gross Executive Remune-ration*
2014 - 2015	Arundhati Bhattacharya	Chairman	0.0960	0.1034		0.03830		0.238	0.000	1.030
	Hemant G.	MD & Group Contractor Executive (International Banking)	0.0080	0.0104		0.05000		0.068	0.000	
	A. Krishna Kumar	MD & Group Executive (National Banking)	0.0640	0.0692		0.05000		0.183	0.000	
	S. Vishvanathan	MD & Group Executive (Associates & Subsidiaries)	0.0078	0.0101		0.05000		0.068	0.000	
	B. Sriram	MD	0.0641	0.0685				0.133	0.000	
	V. G. Kannan	MD	0.0641	0.0685				0.133	0.000	
	P. Pradeep Kumar	MD & Group Executive (Corporate Banking)	0.0926	0.0998		0.01563		0.208	0.000	
2013 - 2014	Arundhati Bhattacharya	Chairman	0.0465	0.0433		0.00000		0.090	0.000	1.080
	Arundhati Bhattacharya	Managing Director	0.0163	0.0132		0.00000		0.030	0.000	
	Pratip Chaudhuri	Chairman	0.0480	0.0378		0.06000		0.146	0.000	
	Hemant G. Contractor	MD & Group Executive (International Banking)	0.0960	0.0859		0.05000		0.232	0.000	
	A. Krishna Kumar	MD & Group Executive (National Banking)	0.0960	0.0859		0.05000		0.232	0.000	

Financial Year	Executive Name	Designation	Basic Pay	Allowances +Perquisites +Joining Bonus +Other Benefits	Commission based on Net Profits	Performance -based incentives	Contribution to Funds	Total Remune-ration	ESOS/ESPS	Gross Executive Remune-ration
	S. Vishvanathan	MD & Group Executive (Associates & Subsidiaries)	0.0920	0.0823		0.02500		0.199	0.000	
	P. Pradeep Kumar	MD & Group Executive (Corporate Banking)	0.0239	0.0215		0.00000		0.045	0.000	
	Diwakar Gupta	Managing Director	0.0320	0.0250		0.05000		0.107	0	
2012 - 2013	Pratip Chaudhuri	Chairman	0.0960	0.0742		0.06000		0.230	0.000	0.950
	Hemant G. Contractor	MD & Group Executive (International Banking)	0.0933	0.0719		0.05000		0.215	0.000	
	Diwakar Gupta	Managing Director	0.0933	0.0719		0.05000		0.215	0.000	
	A. Krishna Kumar	MD & Group Executive (National Banking)	0.0933	0.0719		0.05000		0.215	0.000	
	S. Vishvanathan	MD & Group Executive (Associates & Subsidiaries)	0.0434	0.0312		0.00000		0.075	0.000	
2011 - 2012	Pratip Chaudhuri	Chairman	0.0944	0.0481	0.008			0.150	0.000	0.624
	R. Sridharan	Managing Director	0.0408	0.0222				0.063	0	
	Hemant G. Contractor	MD & Group Executive (International Banking)	0.0891	0.0454				0.135	0	
	Diwakar Gupta	Managing Director	0.0891	0.0454	0.007			0.141	0	
	A. Krishna Kumar	MD & Group Executive (National Banking)	0.0891	0.0454				0.135	0	
2010-2011	O. P. Bhatt	Chairman	0.0960	0.0427	0.015	0.06000		0.214	0.000	0.577
	S. K. Bhattacharyya	Managing Director	0.0560	0.0247	0.021	0.05000		0.152	0.000	
	R. Sridharan	Managing Director	0.0960	0.0426	0.022	0.05000		0.211	0.000	

Table 5A: Average Gross Executive Remuneration in Crore across Indian Banking Industry

Banking	Axis Bank Ltd.	Bank of Baroda	The Federal Bank Ltd.	HDFC Bank Ltd.	ICICI Bank Ltd.	IndusInd Bank Ltd.	Kotak-Mahindra Bank Ltd.	Punjab National Bank	State Bank of India	Yes Bank Ltd.
AGER	6.83	0.80	2.15	11.66	19.93	3.21	7.70	0.84	0.87	2.73

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Enduring Gender Gaps in the Access and Usage of Finance: Blockage towards Sustainable Financial Inclusion

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Abstract

Financial inclusion is globally strategized as an effective instrument for achieving economic growth and poverty reduction. The financial inclusion data published by the World Bank through the Global Findex Report 2014 portrays a huge leap in access to banking services and the financial system around the globe. But it is equally significant to take note of the pertinent gaps cited in the report regarding the achievement of financial inclusion benchmarks. Evidences of significant gender gaps prevailing in the ownership of accounts and usage of savings and credit products across countries is highlighted in the report. 1.1 billion out of the 2 billion adults that do not have bank account, are women. Although the financial inclusion gap across countries is showing downward trends over time, the gender gap remains steady at seven percentage points between 2011 and 2014.This alarming trajectory of gender exclusion is quite noteworthy in the context of feminization of poverty trends particularly in developing economies emerging out of lack of access and control over economic resources. For financial inclusion to be sustainable, committed efforts should be made to make it more gender inclusive. This paper studies the significance of the gender gap in financial inclusion, identifies the major barriers towards women's financial inclusion and also reviews some among the global best practices towards reducing the gender gap in financial inclusion.

Keywords: *Financial Inclusion, Gender Gap, PMJDY, SDG, Women Empowerment*

Women's Financial Inclusion: Global Scenario

Economic and civic implications of female involvement in the formal financial system of an economy stand as a pivotal point of public discourse nowadays. To be a part of the formal financial system economically empowers the female citizens of any country. Researches confirm that people partaking in the financial system empower them to start and expand productive activities, spend for education, mitigate risk, and manage financial shocks. Financial inclusion primarily defined as the "the process of providing access to financial services and timely and adequate credit needed by vulnerable groups such as weaker sections and low income groups at an affordable cost" (Rangarajan Committee, 2008) encompasses various innovative measures to economically empower women by improving the access and usage of finance. The financial inclusion gender gap refers to the difference between women's and men's access or usage of financial products and services expressed in percentages.

Globally, of the 2 billion adults that do not have bank account, 1.1 billion are women. In 2014, 58 per cent of women worldwide had an account, compared to 65 per cent of men, up from 47

per cent of women and 54 per cent of men in 2011. (Demirguc-Kunt, 2015) Although the financial inclusion gap is showing a downward trend over the years from 2011- 2014, a considerably static gender gap of 7 percentage points exists internationally. (Global Findex, Report, 2014) The most distressing fact is that in developing economies the gender gap is even higher, at nine percentage points. The gender gap is wider when usage rather than access is used to scale financial inclusion.

Table 1: Gender Disaggregated Global Financial Inclusion Statistics

Key Indicators	*Men (% ages 15+)*	*Women (% ages 15+)*
Bank account	65	58
Formal savings	29	26
Formal credit	12	10

Source: Compiled from World Bank's Global Findex Report, 2014

As per the Global Findex database published by the World Bank in 2014, among developing regions, the Middle East continues to have a particularly large gender gap in relative terms, with women half as likely as men to have an account. South Asia has the largest gender gap on average in absolute terms, at 18 percentage points.

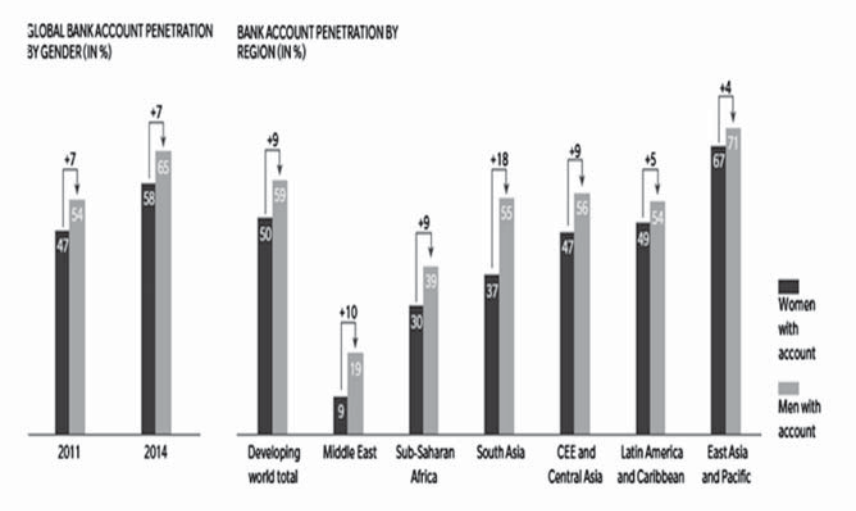

Figure 1: Gender and Region wise Global Bank Account Penetration

Source: World Bank's Global Findex data 2011 & 2014 published in Women's World Banking Report

Review of Literature

Access to the formal financial arrangement can escalate resource ownership and function as a catalyst for better economic empowerment among women. A simple bank account can equip the women with a safe saving destination, reliable payment mode, one to one relation with the employer, government or other authorities. It can also open up avenues for better investment in education, health, entrepreneurial activities etc. Yet, more than one billion women worldwide remain largely outside the formal financial system (Demirgüç-Kunt, 2013).

Numerous studies present evidences across the globe regarding the varying degrees of gender exclusion in the financial sector. A wide-ranging sources, including the OECD/INFE financial literacy survey, World Bank Global Findex Database, G 20 Financial Inclusion indicators etc. offer indication of gender variances in different facets of financial inclusion like financial access, usage of financial products and services, financial literacy, financial behavior etc. The Global Gender Gap Report (2011) reflects the fact that despite of the laudable initiatives to enhance women's financial access like micro finance, SHG-Bank linkage programmes etc. gender inequalities still prevails as a burning issue in Indian economy. The worsening figures of gender gap in the attainment of the financial inclusion objectives is quite disturbing as it cleanly wipes out the active participation and contribution of nearly half of the world's population towards economic prosperity. Furthermore, it is a clear violation of the basic human rights indeed as unequal access to financial resources is a reflection of inferior status of women in any society. A gender gap therefore not only affects women but also the whole nation by derailing economic growth. (Fin Mark Trust, August 2016)

Cross country analysis involving 98 developing nations using the Global Findex data by Asli Demirguc-Kunt ,Leora Klapper and Dorothe Singer (2013), in their World Bank research paper titled "Financial Inclusion and Legal Discrimination Against Women Evidence from Developing Countries" portrays the vivid picture of substantial gender gaps in ownership of accounts and usage of savings and credit products. Even after controlling for a host of individual characteristics including income, education, employment status, rural residency and age, gender remains significantly related to usage of financial services. The study also attributes legal discrimination against women and predominant gender standards for the cross country differences in financial inclusion gender gap.

Gender Gap: A Bane of India's Financial Inclusion Drive

As per the Report of the Committee on Medium-term Path on Financial Inclusion published by RBI in December 2015, the financial inclusion drive in India is successfully moving ahead as a powerful intervention for the economic progress of the country. Though a quantum jump is visible in the domain of increasing banking access through the initiation of programmes like Pradhan Mantri Jan Dhan Yojana (PMJDY) and Jan Dhan Aadhaar Mobile (JAM) trinity, comparatively high exclusion of women still prevails as a worrying concern for the authorities.

Table 2: Individual Savings Bank Account of SCBs - Female Population

	Total female population			*Rural female population*			*Total female population*		
	Number of female's savings bank accounts per thousand of female population			*Amount outstanding per female's savings bank account (in thousand)*					
	2006	*2010*	*2015*	*2006*	*2010*	*2015*	*2006*	*2010*	*2015*
Minimum among states/ UTs	49	60	277	4	4	3	9	10	6
Maximum among states/ UTs	712	893	1577	25	31	43	31	45	60
Median of States/ UTs	146	189	588	9	10	8	14	18	16
All India	143	196	536	7	7	7	14	17	15

Source: RBI Report of the Committee on Medium-term Path on Financial Inclusion, December 2015

The report highlights gender gap as the bane of financial inclusion specifically in emerging economies. Though substantial expansion has happened in terms of account density including female accounts between 2006-2015, the gender disparity is quite visible. The patriarchic framework of our country coerces women folk encounter countless restraints to be financially included. The RBI data pinpoint the fact that higher the share of rural and women population, the lower the financial inclusion. The empirical examination done by the RBI regressing numerous indicators of financial inclusion on the share of rural and female population stand testimonial to the highlighted fact.(RBI Report of the Committee on Medium-term Path on Financial Inclusion, December 2015; Box 1.1: The effects of women and rural population on financial inclusion)

A very recent research paper published by the World Bank titled "'Making It Easier To Apply For A Bank Account: A Study of the Indian Market" (2017) made a remarkable comment on India's prestigious ongoing financial inclusion programme, Pradhan Mantri Jan Dhan Yojana (PMJDY) that there exists a significant 10% gender gap in account opening under the scheme. Among the different states Madhya Pradesh recorded the biggest gap of 21%. (The Hindu, January 06, 2018). The World Economic Forum's 2016 Gender Gap Report ranked India 136 out of 144 countries in terms of economic partaking and opportunities for women. As financial literacy constitutes an integral part of the financial inclusion mission, significantly low level of financial literacy specifically among the rural womenfolk add fire to the gender gap concerns in inclusive finance. It is quite noteworthy to mention the results of the 2015 survey on financial literacy conducted by Standards & Poor declaring 80% of Indian female respondents were financially illiterate.

Women's Financial Inclusion: A Strategy for Sustainable Development Goal (5)

Moving far beyond the targets of U N Millennium Development Goal 3, the Sustainable Development Goal 5 entitled "Gender Equality" prioritize on the economic empowerment of women to reduce the gender disparities spanning across different domains. Focus was given on committed efforts to ensure women's equal access to resources, asset ownership, control over land and other forms of property, access to finance etc. which will ultimately lead to their full and effective participation and equal opportunities for leadership at all levels of decision-making. The new Sustainable Development Goals (SDGs) framework entrusts that proper implementation of financial inclusion policies can be effectively strategize for improving the access of women to formal financial services, transactions, payments, savings, credit, and insurance. Through SDG 5, United Nations also underline the necessity and significance of constructive application of modern technology in designing and executing the policies for women empowerment. Technological innovations like USSD based mobile banking, internet kiosks are doing wonder around the world in delivering creative financial inclusion tools.

Bridging the Financial Inclusion Gender Gap: Evidences of Best Practices

- Diamond Bank and BETA account in Nigeria: With the collaboration of Women's World Banking, the Diamond Bank in Nigeria starts up a tailor made financial product called BETA account specifically targeting women's financial inclusion. Under the scheme, an agent known as a "BETA Friend" assists people in own community to open a bank account and process transactions. Account opening has made so simplified taking few minutes only through mobile application processed by these agents without any sought of complex forms or identity documents. There exist no restrictions of keeping minimum balances. The scheme particularly targets the small women entrepreneurs and shop keepers who wish to save small amount of

money on a daily basis. Recent statistics shows that BETA account initiative has delivered financial services to nearly 38,600 women in Lagos.

- Grameen Bank in Bangladesh: Banks in Bangladesh has introduced the SIMPLIFIED KYC norms and No frill accounts in the context of persistent low level of financial literacy among women and rural population. In order to improve the asset ownership capability of women, the Grameen Bank now offers special loans for assets registered in women's names. Much importance is also given to the collection of updated gender-disaggregated information regarding access and usage of such accounts.
- M-Pesa Mobile Banking in Kenya: Being a classic example for the constructive application of technological innovations in the mission of financial inclusion, the M-Pesa Mobile Banking is currently the leading mobile money service in Kenya, accounting for more than 27,000 agents who handle over 30 million transactions daily. Nawiri Dada Campaign in Kenya also claims global attention in the field of spreading financial education through information communication technology. A weekly TV show airing smart storylines to inspire poor income Kenyan women to open and use bank accounts is an integral part of the campaign. 140,000 new accounts opened there as part of such a media campaign reflects on the fact that much can be done by our authorities to change the financial attitude and behavior of the illiterate rural womenfolk in India.
- Program Keluarga Harapan (PKH) in Indonesia: Under this 2007 instituted financial inclusion programme in Indonesia, conditional cash allocations to women are connected to savings accounts, based on domestic association in regionally delivered health and education services.
- Self-Employed Women's Association (SEWA) in India: Through the provision of intense training covering a range of topics from introduction to financial planning, regular money management practices, scheduling future events, debt management, insurance, risk control, and constructing a financial plan, SEWA is contributing a lot towards the betterment of financial literacy among women.
- Bhamashah Yojana in Rajasthan: Encompassed with the triple goals of women empowerment, financial inclusion and family-based benefits, Government of Rajasthan introduced Bhamashah Yojana in 2014 to transfer financial and non-financial benefits of governmental schemes directly to women recipients in a transparent way. It delivers the benefits of an array of government schemes through a centralized e-governance platform. Account holders are also offered with Bhamashah smart cards.

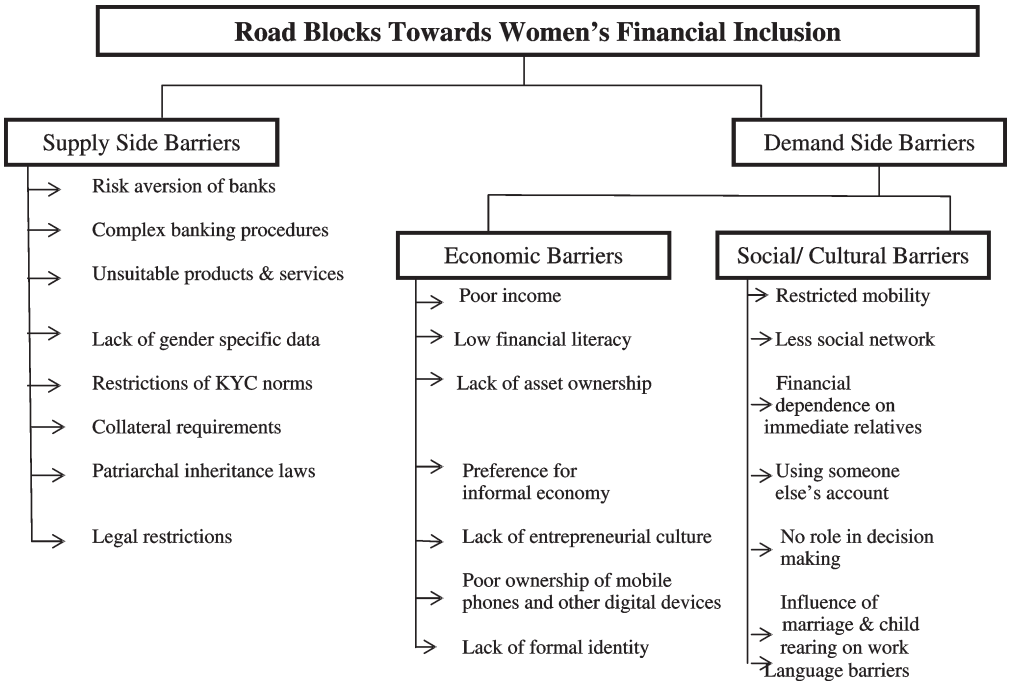

Figure 2: Barriers Towards Women's Financial Inclusion

Source: Compiled by the authors

Road Ahead for Better Financial Inclusion of Women

- Collaborated visionary efforts of multiple stakeholders comprising of government & non-government institutions, central bank, ministry of finance, non-banking financial providers, telecommunication service providers, mobile manufacturing companies, public sector representatives, civil citizens etc. is needed for enhancing the status of financial inclusion of women in India.
- Implementation of more tailor made financial products and services for female population focusing on inconsistent, low income earners and products enabling them to manage everyday transactions and risks.
- Authentic collection and analysis of nationwide gender-disaggregated data is quintessential for better policy designing.
- RBI in its 2015 Report of the Committee on Medium-term Path on Financial Inclusion, focuses on the severity of the issue of prevailing financial inclusion gender gap in India and urge the policy makers to come up with innovative interventions like 'Sukanya Shiksha' complementing the programmes like 'Sukanya Samridhi Yojana', 'Beti Bachao,Beti Padhao'. The policy is envisaged to be interlinked with the education system by crediting a nominal amount, in the name of each girl child belonging to the lower income group who enrolls in middle school. Such a step will persuade the school authorities, the lead bank and its designated branch to act appropriately by opening a bank account in the name of the girl child for social cash transfer.
- Implementation of more programmes like Kudumbasree in Kerala for expanding the social network of women.

- Simplified banking procedures and less stringent regulations for account opening and usage is crucial for reducing the barriers to entry, especially in remote and tribal areas.
- More policies should be initiated by the government to reform the restrictive legal, economic, social and cultural framework affecting the financial inclusion of women.
- Scrutinizing and ratifying certain informal providers could advance women's financial inclusion.

Conclusion

Equipping the women folk comprising the half of world's population with innovative and operative financial tools is critical to the attainment of multiple goals like economic development, poverty reduction, risk mitigation, economic empowerment of women etc. Those dreams will match up with the reality if and only if the existing scenario of financial inclusion mission across the globe become more gender inclusive in nature addressing explicitly the multi-faceted specific barriers facing by women citizens.

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Measurement of Financial Health of Sun Pharmaceutical Industry Ltd Through Z-Score Model

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Abstract

There many ingredients to measure the financial health of the company. The objective of the study is to measure the financial health of the Sun Pharmaceutical Industry Ltd using Z score for the seven-year period. The study uses Pearson and Spearman correlation-coefficient to draw inference on hypotheses framed. The testing of hypotheses shows that there is significant correlation between two variables ratios in all hypotheses framed. Z score value shows that the company was in healthy zone in the first two years but it was too healthy during the next two years. Afterwards, it backed to healthy zone.

Keywords: *Working Capital to Total Asset Ratio, Retained Earnings to Total Asset Ratio, EBIT to Total Asset Ratio, Value of Equity and Total Liabilities Ratio, Total Asset Turnover Ratios, Correlation-Coefficient and Z-score.*

Introduction

Finance is a significant facet of every business. Both excessive as well as inadequate finance are dangerous from the business point of view. In other words, finance is the backbone of any business. Any business without finance is a wingless bird. Therefore, financial analyst is responsible to monitor the financial position of the business regularly. The performance of the company is judged by its financial statement, which throws light on the operational efficiency and financial position of the company (Suriyamurthi, S. and Velavan, M.2010).

Distress analysis is a part of financial analysis which shows whether there is any possibility of bankruptcy of a company in near future or not. Actually bankruptcy refers to the situation when a company is unable to pay its debts. As a result, it reduces employment opportunities, Government earnings, industrial growth etc. and also deeply effects on the surrounding areas where the entity belonged. So, it is very clear that the prediction of bankruptcy of business firms has a great value to the stakeholders (Geethalakshmi, A. and others 2017).

About the Company

Sun Pharma is the world's fourth largest specialty generic pharmaceutical company and India's top pharmaceutical company. A vertically integrated business, economies of scale and an extremely skilled team enable company to deliver quality products in a timely manner at affordable prices. It provides high-quality, affordable medicines trusted by customers and patients in over 150 countries across the world. Sun Pharma's global presence is supported by 50 manufacturing facilities spread across 5 continents, R and D centres across the globe and

multi-cultural workforce comprising over 50 nationalities. Sun Pharma fosters excellence through innovation supported by strong R and D capabilities comprising about 200 scientists and R and D investments of over 7 percent of annual revenues (http://www.sunpharma.com).

Literature Review

The past studies have been reviewed to find out strength and weakness of the present study:

Geethalakshmi, A. and et al. (2017) conducted study of selected five pharmaceutical companies to measure their financial health through Z score for the period of 10 years. The study has found that all these companies has a good growth in the future in all aspects. Raiyani, J.R. and Bhatasna (2011) in their found that out five companies in textile industry, two companies Siyaram Silk Mills Ltd.(SSML) and Welspun India Ltd. were financially healthy during the study which have high Z score based on average score. Suriyamurthi, S. And Velavan, M. (2010) conducted study to assess the overall financial performance of the EID Parry Sugars Ltd through z-score for the period of 10 years and it concluded that financial health of the company was good during the study period. Velavan, et al. (2018) found that financial health of sample unit were tested through Z score and finally concludes the Seshasayee Paper and Boards limited and Newsprint and Paper Limited were healthy. Sanesh, C. (2016) has found that out of 50 companies, 26 companies are in safe zone, nine are in grey zone and five in distress zone. The sectors of poor performer are electric generation, distribution, metals, oil and gas sector. Kannadhasan, M. (2014) in the study found that financial health of Wendt India Limited using Z score model is good during the study period and concluded that five years average score ratio differ significantly .

The various earlier literature review reveal that these have measured the financial strength of various companies using Z-score model. But there is hardly any single literature of Sun Pharma Ltd undertaken in connection with its financial measurement by using this model.

Problem Statement

The continued existence of the company is directly associated with financial strength of the company. The various stakeholders consider the financial strength of the company before making investment in the company. The sound financial position is vital for the company. There many ingredients to measure the financial health of the company. Among them, model developed by Altman is one of the most used models to measure the financial soundness of it. The present study makes attempt to investigate into the financial strength of Sun pharmaceutical Industry Ltd.

Objectives of the Study

The study is undertaken with objective to measure the financial health of the Sun Pharmaceutical Industry Ltd through five ratios by using Z score for the seven- year period.

Hypotheses of the Study

Based on literature review, certain hypotheses have been framed keeping in mind objectives

A firm must maintain an adequate amount of working capital to carry out its daily activity and it increases the liquidity of the firm towards the total capitalisation. Working capital is the excess of current asset over current liabilities. Total assets indicate fixed and current asset of the firm. There establishes relationship between working capital and total asset with the following null hypothesis framed.

Ho1: There is no significant correlation between working capital and total asset of the firm.

A company should retain adequate amount out of profit earned during the year. The amount of earnings which is not paid to the shareholders and reinvested in the business for future requirements of the firm is termed as retained earnings. The firm with high retention of profits does not utilise much debt as it finances its assets through retention of profit. Total assets indicate fixed and current asset of the firm. There establishes relationship between retained earnings and total assets with the following null hypothesis framed.

Ho2: There is no significant correlation between retained earnings and total asset of the firm.

The earnings before income and tax (EBIT) measure the operating performance of the company. It is the earning power of the firm free from tax and interest. It is considered important because the ultimate existence of the firm depends on the earning power of its assets. Total assets indicate fixed and current asset of the firm. There establishes relationship between EBIT and total assets with the following null hypothesis framed

Ho3: There is no significant correlation between EBIT and total assets of the business firm.

Equity is the measurement of total market value of share of the firm. The term debt comprises both current and long term liabilities of the firm. The long term solvency of the firm can be measured with the help of debt-equity ratio. There establishes relationship between market value of equity and book value of total liabilities with the following null hypothesis framed.

Ho4: There is no significant correlation between market value of equity and total liabilities.

The asset turnover is important ingredients of a firm during the year. It differs from one firm to another firm which is based on sales generating capacity of the firm. It is the measurement of management capacity to face competitive conditions. Total assets indicate fixed and current asset of the firm. Hence, there establishes relationship between sales and total assets of the business firm with the following null hypothesis framed.

Ho5: There is no significant correlation between sales and total assets of the business firm.

Research Methodology

The present study is of empirical nature. It mainly depends on the secondary sources of data. The secondary sources of data have been obtained from referred research journals, annual report of the company collected from its website and internet sources. The present study covers the period of seven years ranging from 2010-11 to 2016-17 which is the sample size of the study. The parameters of the study to measure the financial health of the company are through use of various ratios viz. working capital to total asset ratio, retained earnings to total asset ratio, EBIT to total asset ratio, value of equity and total liabilities ratio and total asset turnover ratios. The study uses descriptive statistics viz. mean and standard deviation to analyze data during the study period. It has employed inferential statistics viz. Pearson correlation-coefficient and Spearman correlation-coefficient to draw inference on hypotheses framed based on its objectives.

The condition of normal distribution of data is required to be satisfied before using the parametric test. The normal distribution of data has been checked by conducting normality test. The normality test shows P value is greater than significant level of 0.05 in four parameter ratios considered for the study, hence, use of parametric test viz. Pearson correlation-coefficient is justified. If normal distribution of data is not fulfilled viz. P value is less than 0.05 in one parameter ratio, hence, non parametric test viz. Spearman correlation-coefficient is used in this case.

Technique Applied for Analysis

Edward I. Altman, a financial Economist at New York University's Graduate School of business has developed model known as 'Z' score approach about 40 years ago. The present study makes use of this model to analyze financial health of the company. Table-A shows specific parameter used in the study and Table-B presents guidelines of Z score value.

Table: A

Financial Ratio	*Co-efficient of the ratio*
Networking capital to total assets (X1)	1.2
retained earnings to total asset ratio (X2)	1.4
EBIT to total asset ratio (X3)	3.3
Market value of equity and total liabilities ratio (X4)	0.6
total asset turnover ratios (X5)	1.0
Z score = (X1*1.2) + (X2*1.4) + (X3*3.3) + (X4*0.6) + (X5*1.0)	

Source: Raiyani, J.R. and Bhatasna, 2011

Table: B

Z-score	*Zones*	*Remarks*
Below 1.8	Not Healthy	Its failure is certain and extremely likely within two years.
1.8 - 2.99	Healthy	Financial viability is considered healthy.
Above 3.0	Too Healthy	Its financial health is viable and there is no risk of a fall.

Source: Suriyamurthi, S. and Velavan, M, 2010

Analysis and Empirical Result

The various parameter ratios considered to measure the financial health of the company has been analyzed for the period of seven years to draw the result of the present study below:

Table 1: Working capital to Total Asset Ratio of Sun Pharma Ltd (Amount in Rs. Million)

Year	*Working capital*	*Total Assets*	*Ratio(In times)*
2010-11	58621.70	124176.4	0.472
2011-12	76748.80	164740.0	0.466
2012-13	86617.80	205826.7	0.421
2013-14	126968.70	293708.2	0.432
2014-15	135488.30	501600.6	0.270
2015-16	167973.40	555302.7	0.302
2016-17	150666.30	614102.4	0.245
Mean			0.373
S.D.			0.097

Source: Compiled from annual report of the company

Table 2: Pearson Correlation-Coefficient of Working Capital to Total Asset Ratio

		Working Capital	Total assets
Working Capital	Pearson Correlation	1	.940
	Sig.(2-tailed)		.002
	N	7	7

Source: SPSS calculation

**. Correlation is significant at the 0.01 level (2-tailed)

Table 1 shows the working capital to total assets ratio of pharmaceutical company. It is observed from the study that ratio declined from 0.472 in 2010-12 to 0.270 in 2014-15. The ratio was highest at the beginning of the study period and lowest during 2016-17. The mean ratio of working capital to total assets was 0.373 during the study period with standard deviation of 0.097. Pearson correlation-coefficient shows that P value is less than 0.05. Hence, null hypothesis can not be accepted. It can be said that there is significant correlation between working capital and total assets ratio of pharmaceutical company (Table 2).

Table 3: Retained Earnings to Total Asset Ratio of Sun Pharma Ltd (Amount in Rs. Million)

Year	*Retained Earnings*	*Total Assets*	*Ratio (In times)*
2010-11	93797.60	124176.4	0.755
2011-12	121322.20	164740.0	0.736
2012-13	148861.70	205826.7	0.723
2013-14	183178.30	293708.2	0.624
2014-15	216743.10	501600.6	0.432
2015-16	251630.40	555302.7	0.453
2016-17	306456.90	614102.4	0.499
Mean			0.603
S.D.			0.140

Source: Compiled from annual report of the company

Table 4: Pearson Correlation-Coefficient of Retained Earnings to Total Asset Ratio

		Retained Earnings	*Total assets*
Retained Earnings	Pearson Correlation	1	.972
	Sig.(2-tailed)		.000
	N	7	7

Source: SPSS calculation

**. Correlation is significant at the 0.01 level (2-tailed)

Retained earnings to total assets ratio of pharmaceutical company is presented in Table 3. The study observed that this ratio declined from 0.755 in 2010-12 to 0.432 in 2014-15. The ratio was highest at the beginning of the study period and lowest during 2014-15. The mean ratio of working capital to total assets was 0.603 during the study period with standard deviation of

0.140. Pearson correlation-coefficient shows that P value is less than 0.05. Hence, null hypothesis can not be accepted. It can be said that there is significant correlation between retained earnings to total assets ratio of pharmaceutical company (Table 4).

Table 5: EBIT to Total Asset Ratio of Sun Pharma Ltd (Amount in Rs. Million)

Year	*EBIT*	*Total Assets*	*Ratio (In times)*
2010-11	20391.80	124176.4	
0.164			
2011-12	33564.70	164740.0	0.203
2012-13	43214.20	205826.7	0.210
2013-14	45830.90	293708.2	0.156
2014-15	64029.00	501600.6	0.128
2015-16	65706.30	555302.7	0.118
2016-17	90478.70	614102.4	0.147
Mean			0.161
S.D.			0.035

Source: Compiled from annual report of the company

Table 6: Pearson Correlation -Coefficient of EBIT to Total Asset Ratio of Sun Pharma Ltd

		EBIT	*Total assets*
EBIT	Pearson Correlation	1	.955
	Sig.(2-tailed)		.001
	N	7	7

Source: SPSS calculation

**. Correlation is significant at the 0.01 level (2-tailed)

Table 5 shows the EBIT to total assets ratio of the company during the study period. It is observed from the study that this ratio increased to 0.203 and 0.210 during next two years. It declined during 2013-14, 2014-15 and 2015-16. In 2016-17, it was increased to 0.147. The mean ratio of EBIT to total assets was 0.161 during the period with standard deviation of 0.035. Pearson correlation-coefficient proves that P value is less than 0.05. Hence, null hypothesis can not be accepted. It can be said that there is significant correlation between EBIT to total assets ratio of pharmaceutical company (Table 6).

Table 7: Debt-Equity Ratio of Sun Pharma Ltd (Amount in Rs. Million)

Year	*Value of Equity*	*Total Debts*	*Ratio (In times)*
2010-11	1035.60	3650.60	0.284
2011-12	1035.60	2649.90	0.391
2012-13	1035.60	1982.10	0.522
2013-14	2071.20	24890.10	0.083
2014-15	2071.20	75724.40	0.027
2015-16	2406.60	83164.20	0.029

Year	*Value of Equity*	*Total Debts*	*Ratio (In times)*
2016-17	2399.30	80910.00	0.030
Mean			0.195
S.D.			0.204

Source: Compiled from annual report of the company

Table 8: Spearman Correlation-Coefficient of Debt-Equity Ratio of Sun Pharma Ltd

		Equity	*Debt*
Spearman's rho	Correlation co-efficient	1	.954
	Sig.(2-tailed)		.001
	N	7	7

Source: SPSS calculation

**. Correlation is significant at the 0.01 level (2-tailed)

Debt-equity ratio of pharmaceutical company is presented in Table 7. The study observed that this ratio increased to 0.391 and 0.522 in next two years. Afterwards, it started declining during the next three years 2013-14, 2014-15 and 2015-16. It was slightly increased to 0.030 in 2016-17. The mean ratio of debt-equity was 0.195 during the study period with standard deviation of 0.204. Spearman's correlation-coefficient shows that P value is less than 0.05. Hence, null hypothesis can not be accepted. It can be said that there is significant correlation between debt-equity ratio of pharmaceutical company (Table 8).

Table 9: Total Asset Turnover Ratio of Sun Pharma Ltd (Amount in Rs. Million)

Year	*Sales*	*Total Assets*	*Ratio(In times)*
2010-11	58130.50	124176.4	0.468
2011-12	81269.40	164740.0	0.493
2012-13	114087.10	205826.7	0.554
2013-14	161995.10	293708.2	0.552
2014-15	275708.80	501600.6	0.550
2015-16	278880.70	555302.7	0.502
2016-17	302642.30	614102.4	0.493
Mean			0.516
S.D.			0.035

Source: Compiled from annual report of the company

Table 10: Pearson Correlation -Coefficient of Total Asset Turnover Ratio of Sun Pharma Ltd

		Sales	*Total Assets*
Sales	Pearson Correlation	1	.994
	Sig.(2-tailed)		.000
	N	7	7

Source: SPSS calculation

**. Correlation is significant at the 0.01 level (2-tailed)

Table 9 shows total asset turnover ratio of the company during the study period. It is observed from the study that ratio increased to 0.493 and 0.554 during next two years. It declined to 0.552, 0.550, 0.502 and 0.493 during four succeeding years. The mean value of total assets turnover ratio was 0.516 during the period of study with standard deviation of 0.035. Pearson correlation-coefficient proves that P value is less than 0.05. Hence, null hypothesis can not be accepted. It can be said that there is significant correlation of total assets turnover ratio of pharmaceutical company (Table10).

Table 11: Z-Score Value of Sun Pharma Ltd

Year	*WC/TA*	*RE/TA*	*EBIT/TA*	*Equity/TD*	*Sales/TA*	*Z score*
2010-11	0.57	1.06	0.54	0.17	0.47	2.81
2011-12	0.56	1.03	0.67	0.23	0.49	2.98
2012-13	0.51	1.01	0.69	0.31	0.55	3.07
2013-14	0.52	2.06	0.51	0.05	0.55	3.69
2014-15	0.32	0.60	0.42	0.02	0.55	1.91
2015-16	0.36	0.63	0.39	0.02	0.50	1.90
2016-17	0.29	0.70	0.49	0.02	0.49	1.99
Mean	0.45	1.01	0.53	0.12	0.51	0.70

Source: Computed from annual report of the company

Altman provides the guidelines for determining the financial health of the company known as Z score model in which the business is heading. As per the guidelines, Z score of the sun pharma was computed during the seven year period. Z score is considered healthy (2.81 and 2.98) during two years 2010-11 and 2011-12. The Z score was too healthy obtaining score 3.03 and 3.67 from 2012-13 to 2013-14. Afterwards, the score declined to healthy position securing 1.91, 1.90 and 1.99 score during the next three years from 2014-15 to 2016-17.

Conclusion and Policy Implication

It is observed from the study that the working capital to total assets ratio was highest in first year and lowest in seven year during study period. There is significant correlation between working capital to total assets ratio of the firm. The retained earnings to total assets ratio was highest in first year and lowest in fifth year. There is significant correlation between retained earnings to total assets ratio of the firm. The EBIT to total assets ratio was highest in third year and lowest in six year. There is significant correlation between EBIT to total assets ratio of the company. The debt-equity ratio of it was highest in third year and lowest in fifth year. There is

significant correlation between debt-equity ratio of the company. The total asset turnover ratio was highest in third year which was lowest in second and seven year. There is significant correlation of total assets turnover ratio of the firm. The company was in healthy zone in the first two years but it was too healthy during the next two years. Afterwards, there is down trend of the financial position which is in healthy zone. It is recommended that the company should make effort to strengthen the financial position. For this, the company should make financial planning after considering the perspective of financial position in order to become too much healthy and competitive in the market in future.

Limitation and Scope for Further Study

The study is restricted to one pharmaceutical company only. As the present study is based on secondary sources of data, the reliability of the sources also influences the result of the study. Moreover, sample size of the study is seven years only. There is still scope to conduct further study in other pharmaceutical company to measure financial health through Z score. A comparative study to measure financial soundness between two pharmaceutical companies can also be made by applying this model.

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Impact of Pradhan Mantri Jan Dhan Yojana on Rural Poor

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Abstract

Hon'ble Prime Minister, Shri. Narendra Modi announced on 15 August, 2014"Pradhan Mantri Jan-Dhan Yojana (PMJDY)" which is a National Mission for financial inclusion. The objective of the scheme is ensuring access to various financial services to the excluded sections i.e. weaker sections & low income groups. The present study made an attempt to know the benefits availed by rural poor and its impact under PMJDY.The study is based on primary and secondary data. Primary data was collected through structured questionnaire and secondary data was collected from published articles, journals and official websites of PMJDY. Multistage sampling method is used in the study .Chi-square test have been used in the study. Findings shows that the benefits under PMJDY is not benefiting the rural poor. In order to make the scheme more effective, researchers suggested to conduct financial literacy programs and also increase the bank branches network.

Keywords: *Financial Inclusion, PMJDY, Rural Poor, Financial Literacy Programs, Bank Branches.*

1. Introduction

Despite of India completing 72 years of independence and increased rate of GDP over the years, only 35% of adults have bank account in financial institutions which shows the penetration level is very low in India compared to the developed economies.[1] The RBI and Government of India have taken continuous efforts since 2005 to increase financial inclusion, but the results are not impressive because a vast population, particularly the rural population still remains unbanked.[2] Therefore to increase the penetration level and support financial inclusion Pradhan Mantri Jan Dhan Yojana (PMJDY) was announced on 15thAugust, 2014 and launched on 28 August, 2014. The objective of PMJDY is to ensure 'access to various financial services like availability of basic savings bank account, access to need based credit, remittances facility, insurance and pension to the excluded sections, i.e., weaker sections and low income groups'.

2. Review of Literature

As stressed by Hart (1998), a literature review can explain the techniques in which the topic has been previously explored and used, but it can also specify where the topic may be directed.[3]

Mr. Shiddaramappa.I Malligar & Mr. Bangarappa Bankapur (2016) observed that nearly 19.34

1 Pinal Barot (2017), "Financial Inclusion in India". Imperial Journal of Interdisciplinary Research , Vol: 3, Issue: 4, ISSN: 2454-1362, 1098-1104.

2 Badar Alma Iqbal &Shaista Sami (2017)," Role of banks in financial inclusion in India". Contaduría y Administración, Vol: 62, Issu:2,644-656.y

3 Hart, C. (1998). Doing a literature review: Releasing the social science research imagination. London: Sage (Chap. 2).

crore accounts were opened out of which 15.14 crore accounts were opened in public sector banks, 3.48 crore in Regional Rural Bank and 0.73 crore accounts in private banks. The performance of public sector banks is comparatively more than RRB's and private banks. PMJDY is, no doubt, a big move towards financial inclusion and elimination of poverty both in rural and semi-urban areas, but would be more effective only if it overcomes challenges like improvising banking infrastructure facilities and over-all monitoring.[4]

Ahmed Hussain (2015) examined that conversion of Indian economy into a cashless and digital economy includes various pillars like, universal access to banking facilities, providing basic banking accounts, financial literacy, credit guarantee funds, Micro Finance and pension schemes. The main goal of the scheme is to bring all households under financial inclusion, and also curb corruption, generate employment opportunities and improve standard of living. [5]

Dr. Harpreet Kaur & Kawal Nain Singh (2015)investigated that initiatives taken by RBI and other banks, towards achieving financial inclusion includes a) opening no frill accounts b) relaxation on know your customer norms c) engaging Business Correspondence d) use of technology, adoption of EBT f) general credit cards etc. Some of the suggestions to improve financial inclusion in India includes: 1. Participation of private banks 2. Customized products 3. Technology enhancement 4. Need for composite financial services 5. Setting of biometric, ATMs in the rural areas6. Better staffing policies and door step banking services 7. Removing usage fee on ATM's for use of other banks ATM's and 8. Simplification of documentations etc. Thus the success of the scheme strengthens to resolve the co-ordination, dedication, commitment, trust, satisfaction, opportunism and continuity by all the stakeholders. [6]

Rajeev Singh Bhandari (2015) is of the opinion that, in order to achieve the overall progress of PMJDY, the following were evaluated 1. Number of zero balance account were increased 2. Rupay debit card issued also increased significantly 3.total bank account opened by Public sector banks, Rural Regional Banks and Private Banks also increased, out of which public sector bank has contributed more compared to other banks 4. Average deposit per bank account, state wise revealed that, out of 29 states, Kerala (2158.33), Punjab (2133.37) Himachal Pradesh (2049.64) were in top three positions.[7]

3. An Overview of Pradhan Mantri Jan Dhan Yojana in India

Pradhan Mantri Jan-Dhan Yojana (PMJDY) is a National Mission for Financial Inclusion to ensure access to financial services, namely, Banking/ Savings & Deposit Accounts, Remittance, Credit, Insurance, Pension in an affordable manner.

3.1 Financial Inclusion in India before PMJDY:

In India the concept of financial inclusion was first coined in the year 2005 by K.C. Chakraborthy, the chairman of Indian Bank. Mangalam village in India became the first village where banking services were provided to all households. Know Your Customers

4 Mr. Shiddaramappa.I Malligar & Mr. Bangarappa Bankapur (2016), "Performance of Pradhan Mantri Jan-Dhan Yojana", Indian Journal of Applied Research, Volume: 6, Issue: 1, ISSN-2249-555X, 15-18.

5 Ahmed Hussain (2015),"Pradhan Mantri Jan Dhan Yojana, the most intensive financial inclusion scheme in India". International Journal of Core Engineering and Management, Vol: 2, Issue: 3, 254-266.

6 Dr. Harpreet Kaur & Kawal Nain Singh (2015), "Pradhan Mantri Jan Dhan Yojana (PMJDY): A Leap towards Financial Inclusion in India". International Journal of Engineering Research in Management & Technology, Vol: 4, Issue: 1, ISSN: 2278-9359, 25-29.

7 Rajeev Singh Bhandari (2015), "A Statistical Note: Financial Inclusion-PMJDY". International Journal of Science Technology & Management, Vol: 4, Issue: 02, ISSN (print): 2394-1529, 175-184.

norms were relaxed in order to open accounts with deposits less than Rs. 50,000. Therefore to ensure financial inclusion several initiatives were taken by RBI namely, nationalization of banks, expansion of bank branches, establishment of co-operative and RRBs formation of SHGs etc. The other initiative taken by RBI in the year 2006, is in order to ensure greater financial inclusion and increase out-reach of banking sector, banks used services of NGO/ SHGs, MFI as intermediaries in providing banking services through "Business facilitators and Business Correspondents".

According to 2011 census report out of total 24.67 crore households in India, only 14.48 crore (58.7%) households have access to formal banking services and out of 16.78 crore rural households, only 9.14 crore (54.46%) were availing banking services. Only 5.34 crore (67.68%) households out of 7.89 crores were availing services of the banks in urban areas. In the year 2011, banks covered 74,351 villages, in those places where the population is more than 2,000 (as per 2001 census report) under "Swabhimaan" campaign but resulted in limited scope and impact.

3.2 Progress of PMJDY in India:

Table No. 1: Table Showing the Current Status of Pradhan Mantri Jan - Dhan Yojana

Pradhan Mantri Jan - Dhan Yojana
(All figures in Crore)
Beneficiaries as on 25/07/2018

Bank Name / Type	*Beneficiaries at rural/semi-urban centre bank s branche*	*Number of Beneficiaries at urban metro centre bank branches*	*Number of Rural-Urban Female Beneficiaries*	*Number of Total Beneficiaries*	*Deposits in Accounts (In Crore)*	*Number of Rupay Debit Cards issued to beneficiaries*
Public Sector Banks	13.99	12.00	13.62	25.99	63879.32	19.58
Regional Rural Banks	4.37	0.81	2.84	5.18	14011.94	3.69
Private Sector Banks	0.60	0.40	0.53	1.00	2202.51	0.93
Grand Total	18.97	13.20	16.99	32.17	80093.77	24.20

Source: https://www.pmjdy.gov.in/account.

Table No. 2: Table showing the Number of Accounts and Balance in Accounts as on 1 August 2018.

Bank Type	*Number of Accounts (Crore)*					
	Rural	*Urban*	*Total*	*Female*	*Balance in Accounts (Crore)*	*Number of Rupay Cards*
Public Sector Banks	14.02	12.03	26.05	13.52	Rs. 64,388.62	19.64
Regional Rural Banks	4.39	0.81	5.20	2.85	Rs. 14,072.06	3.70
Private Banks	0.60	0.40	1.00	0.53	Rs. 2,214.15	0.93
Total	19.02	13.23	32.25	16.90	Rs. 80,674.82 Crore (US$12 billion)	24.27

Source: https://www.pmjdy.gov.in/account.

4.1 Objectives of the study

1. To know the benefits availed by rural poor under PMJDY

2. To assess the impact of the PMJDY on the rural poor

4.2 Research Hypothesis

The hypothesis is framed to test whether the scheme is impacting the beneficiaries of Halehalli & Poojena Agrahara.

Ho: There is no significant relationship between place of survey and the impact of the scheme on the beneficiaries.

H1: There is significant relationship between place of survey and the impact of the scheme on the beneficiaries.

4.3 Research Design and Methodology

The study is descriptive in nature where in survey method was used to collect the data and analytical research methodology was used to analyse and to draw the interpretations.

a. Scope of the study:

The study have been confined only to Bangalore urban district & Bangalore rural district of Karnataka and focused only on PMJDY scheme.

b. Sample Method:

Multistage sampling method was adopted for the study.

c. Sample size:

57 rural households of Halehalli (Bangalore north taluk, Bangalore urban district) and Poojena Agrahara (Hosakote taluk, Bangalore rural district) have been selected for the study to know the impact of the scheme.

d. Sources of Data:

Both primary and secondary data was used for the study. The primary data was collected through interview schedules and secondary data was collected from articles, journals and official websites of department of financial services, PMJDY.

e. Tools of Analysis:

Data collected for the study have been analysed in the form tables. And chi-square test have been used for the study.

5. Discussion & analysis:

Table No. 3: Table Showing the Demographical Variables of the Households.

Sl.No.	*Particulars*	*Variables*	*% age*
1	Gender	Male	33.3
		Female	66.7
2	Qualification	No Schooling	28.1
		Up to 5th Standard	10.5
		Up to 10th Standard	45.6
		Up to 12th Standard	10.5
		Graduate	3.5
		Post Graduate	1.8
3	Bank Account with Cheque book	Yes	42.1
		No	57.9

Sl.No.	*Particulars*	*Variables*	*% age*
4	Type of Bank account	Current Account	0
		Saving Account	94.7
		Fixed Deposit Account	1.8
		Loan Account	3.5
5	Awareness about the schemes	Yes	47.4
		No	52.6
6	Source of awareness of the schemes	Relatives	5.3
		Friends	8.8
		Newspaper	1.8
		Bank Correspondents	31.6
		Television	0
		Not Applicable	52.6

Source: Survey data

From the above table it is analysed that, out of 57 households, 45.6% of the households are qualified upto 10th standard, 57.9 % of the households have bank account with cheque book, 94.7 % of the households have savings account, 52.6 % of the households were not aware about the scheme and 31.6 % of the households got to know the source of the scheme through bank correspondents.

Table No. 4: Table Showing the Benefits Availed by Rural Poor of Halehalli and Poojena Agrahara.

Sl.No.	*Benefits of the Scheme*	*No. of households*	*% of households*
1	No minimum balance required	21	36.8
2	Interest on the deposits	1	1.75
3	Accidental insurance cover of Rs. 1 lakhs is given	0	0
4	Life cover of Rs. 30,000 is payable on the death of the beneficiary	0	0
5	Easy money transfer facility is available	0	0
6	Overdraft facility up to Rs. 5,000 is available	0	0
7	Access to pension & insurance products	0	0
8	Direct benefit transfer of Government Scheme	3	5.26
Total households availing benefits		25	43.85
Total households not availing the benefits		32	56.14
Total number of households		57	100

Source: Survey data

From the above table it is analysed that, out of total 57 households only 36.8 % have been benefitted by 'No minimum balance', 5.26% have been benefitted by 'Direct benefit transfer', 1.75% have been benefitted by 'Interest on the deposits' and other variables like Accidental insurance cover, Life cover, Easy money transfer facility, Overdraft facility and Access to pension and insurance products have not benefitted the households.

The above analysis inferred that, most of the households have opened No minimum balance account in order to avail overdraft facility of Rs. 5,000/-, 5.26 % of households were benefitted under direct benefit transfer as they have been receiving LPG Subsidy from the Government and in other cases none of the households have been benefitted by the scheme.

6. Testing of Hypothesis

Ho: There is no significant relationship between place of survey and the impact of the scheme on the beneficiaries.

H1: There is significant relationship between place of survey and the impact of the scheme on the beneficiaries.

Table No. 6: Impact of the Scheme on the Rural Poor.

The Chi-square test is a non-parametric test used to examine the independence of factors, in the present study since each impacting factor is analysed separately mean or standard deviation is not computed. Therefore chi-square test is chosen.

Place of survey is independent variable and each impacting factor is a dependent variable.

Impacting variables of the Scheme	*Chi square value*	*DF*	*p value*	*Result*
Interest paid on deposits increased income level	25.171	4	0.000	Significant @ 1%
Accidental Insurance Coverage helped the family members to meet the financial emergency	18.749	4	0.001	Significant @ 1%
Life cover payable after the death of the beneficiary has helped the family members financially	16.830	4	0.002	Significant @ 1%
Easy money transfer facility under the scheme has helped to reduce the bank charges	27.308	4	0.000	Significant @ 1%
Overdraft facility provided under the scheme has helped to meet financial needs	16.14	4	0.003	Significant @ 1%
Access to the pension and insurance products has helped to plan future financial needs	14.44	4	0.006	Significant @ 1%

From the above table it could be understood that, the p value indicating relationship between place of survey and variables impacting the scheme. The impacting variables like interest paid on the deposits increased income level found to be 0.000, accidental insurance coverage helping family members to meet financial emergency it 0.001, life cover payable after the death of beneficiary in helping family members financially is 0.002, easy money transfer facility helped to reduce bank charges is 0.000, overdraft facility provided helped in meeting financial needs is 0.003 and access to the pension and insurance products helped in planning future financial needs is 0.006. And the corresponding chi-square values computed are 25.171, 18.749, 16.830, 27.308, 16.14 & 14.44 respectively.

Since the p value is less than 0.01 (at 1 % level of significance) in all the above cases, it falls in rejection region. Hence the alternative hypothesis is accepted.

It can be concluded that, there is significant relationship between place of survey and the impact of the scheme on the beneficiaries

Findings:

i. Only 42.1 % of the households have bank accounts with cheque books and 94.7% of households have opened savings account.

ii. 47.4% of the households were aware about the Pradhan Mantri Jan Dhan Yojana Scheme and awareness was known through Bank Correspondents.

iii. Most of the households aware of the scheme have opened bank account to receive overdraft facility of Rs. 5,000.

iv. Most of the households felt distance is one of the hindrance for visiting the bank.

v. The Chi-square test proved that, there is a significant relationship between the impact of the scheme and the beneficiaries of Halehalli and Poojena Agrahara.

vi. The public sector banks have made the maximum contribution towards opening bank accounts both in rural and urban areas (26.05) and also in maintaining (Rs. 64,388.62 crores) balances in the accounts when compared to Regional Rural Banks and Private Banks.

Conclusion:

"Pradhan Mantri Jan Dhan Yojana is no doubt one of greatest step taken by the Government to eradicate poverty". The real success lies only if the services reach the households at minimum cost. Even though all the households have bank account but the purpose of the scheme is not completely served. It is clear from the present study that, the rural poor have not benefitted by PMJDY.

Suggestions:

i. Banks have to take steps in increasing the level of awareness about PMJDY scheme and it's benefits, because the findings shows only 47.4 % were aware of the scheme and among the awareness group most of them are only aware of ' No Minimum Balance Account' and are not fully aware about the other benefits of the scheme.

ii. In order to make the PMJDY scheme more effective under financial inclusion, banks have to provide training to the Business Correspondents.

iii. As the study proved that the scheme is not benefitting the rural poor, the banks can take initiative of conducting financial literacy programs to the account holders to know the unique features and benefits of the scheme.

iv. RBI has to increase its bank branches network in rural areas as most of the household of Poojena Agrahara (Hosakote taluk, Bangalore rural district) expressed that , they have to travel long distance (Hosakote taluk) in order to make the transactions.

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Private Equity Investment Future Scope in European Region

K. Madhava Rao

Abstract

According to Forbes' Elton (2017), many of the institutions and pension funds evaluating the private equity investments in the Eurozone are increasingly wary. In the aftermath of the 2008 financial crisis and its knock-on effect on many areas of the economy and especially private equity, the core question being asked is "why should we invest in Western Europe?" Elton (2017) argues that the future of private equity in Europe s bright. This is because, on a returns basis, the investments in private equity in Europe have performed as well as, or better than, those in the United States. For example, the recent five-year spread of net internal rate of return for private equity investments was pegged at 12.5 percent in Europe compared to the US' 11.6 percent. In the 15-year spread, the gap was even wider. This underscores the superiority of the private equity investment in Europe, which then builds faith and trust in the markets. It is also a crucial forecast for the private equity investment sector in Europe. The study will use both qualitative and quantitative approaches to collect both primary and secondary data for analysis to address the subject matter of this study. The primary data will be obtained through a questionnaire survey, and an interview approaches as well. The following are the

Keywords: *Private Equity, Venture Capital, Financial Crisis, GDP, R&D, Eurozone.*

Introduction

Background Analysis

According to Bernstein et al. (2016), a surface view indicates that the US market is more attractive to investors than the European region for private equity investment. Since the US is the leading alternative in which to invest capital, Europe has been losing much of the business to the US markets. This is especially because economic growth in the Eurozone has lagged that of the US for several years after the 2008 global financial crisis. The European Stock firms reported an earnings growth for the first time in four years. The other barriers facing Europe are the cultural and language diversity, which makes doing business increasingly challenging across borders. With more nonperforming loans in the banking system, rising sovereign debts, and severe unemployment in several parts of the continent forming a mounting price tag, Europe will have to address these issues comprehensively to stand a chance of enhancing or improving the environment for private equity investment (Bloom et al., 2015). Since it is facing force competition from the US markets, there is a need to develop and maintain a favourable environment for investors.

However, comparatively, Western Europe offers the best potential for growth, expansion, and investment opportunities in the medium and long-term future. For example, the region boasts

more large-scale enterprises per unit of GDP than any other region in the world. In terms of indexes indicating attractive conditions for investment, most countries in Western Europe rank relatively highly (Engel and Stiebale, 2014). This is partly because they have developed a robust legal, regulatory, and tax frameworks. Many of the investors that have an insight into the local relationships, cultures, and interactions established through local presence have experienced advantages in investments in the European region when it comes to private equity and other opportunities (Engel and Stiebale, 2014). The diversities of culture and language present massive challenges to the investors, and they are also significant barriers to new entries into the business. Therefore, in a way, they help protect the existing businesses from a surge in competition in the market by new entrants.

The current strong performance of private equity investments in Europe does not offer a guarantee of smooth sailing over the next 5 to 10 years. The dynamism of the markets and the volatility of the core global influencing factors such as oil and economic stability of China and the US mean that it 'is hard to give a solid projection regarding the continued performance of private equity markets in Europe (Engel and Stiebale, 2014). However, whatever the path the macro-economy of the region adopts, there are strong reasons to anticipate a continued provision of enabling and good investment opportunities in the European markets, especially the private equity investments. The sectors that will prove valuable are the ones that have held their own during turbulent times such as the recessions. These include cards and payments, healthcare providers, medical technology, as well as the software industry (Europe, 2016). The investors with the skills and understanding to find and vet them will ensure that they will continue down the path of impressive performance in the market. This might remain the same even in the event of the restructuring of the Eurozone.

Purpose and Need for the Study

The political and economic destiny of the European Union is massively in doubt. With the Brexit vote in the UK, the EU has lost one of its most developed, advanced, and economically important members. The resultant talks for the exit of the UK from the EU have been acrimonious and lacking in a direct and shared cause for either the EU or the UK. This has thrown much of the future of the EU in doubt. With massive economic problems affecting the likes of Greece, Spain, and Portugal, as well as the hot political topics such as immigration have added to the uncertainty. The surge of ethno-nationalism in many European countries such as France and the Netherlands has many investors on edge regarding putting their money in the European region. Coupled with the lagged recovery from the 2008 global financial crisis, many investors have chosen the US, Europe's direct alternative for investment. Therefore, there is a need to understand the current environment as well as a forecast of the medium and far future regarding investments, especially the private equity investments in Europe.

Objectives of the Study

I. The study aims to evaluate the status of private equity investment in Europe today. In this case, it will analyse the response to the 2008 financial crisis and the impact of the slow European recovery from the crisis.

II. The study also aims to evaluate the economic and political factors influencing the level of private equity investment in Europe, compared to the US.

III. The study also targets to establish a pattern of the investor behaviour and the economic

macro- and micro-factors that might affect the future of private equity investment in the European region in the future.

Scope of the Study

The study will limit itself to the analysis of private equity investment in the European region. It will especially focus on Western Europe and its business factors as well as the prevailing economic and political environment that might influence investment in private equities and the rest of the markets as well. The study will seek to define private equity, evaluate the business environment in Europe, and compare the level of investment in the region to that of the US, its main competitor. Additionally, the study will focus on the immediate history, present, and an attempt at forecasting the future of private equity investment in the EU. The study will also evaluate the current European talks regarding the exit of the UK from the EU; these talks have a significant impact on the markets and are likely to have a lasting influence on the structure and private equity investment in Europe.

Literature Review

The Role of Private Equity in the European Small and Medium-Sized Enterprises (SMEs)

With a representation of 99 percent of all businesses, SMEs are a major asset to the European economic structure. Additionally, the small businesses are responsible for around 86 million jobs translating to 65.5 percent of all the European jobs. At the same time, European SMEs face a financing problem; in fact, 15 percent of all SMEs in Europe mentioned financing as the most pressing challenge facing their business model (Froud et al., 2015). On the other hand, 24 percent of these SMEs do not have confidence that they will get the financing they need in the future. Statistics also indicate that Europe lags the US when it comes to technology-based innovation. According to Meryl Lynch of the US, around 69 percent of global firms are developed in North America compared to 3 percent in Europe. During the different stages of an SME lifecycle, there seems to be a surge in the capital in the wider economy (Engel and Stiebale, 2014). This is a massive contribution to the economy that helps create opportunities for private equity investment as well as creating a wider environment that attracts investors and raises their confidence levels. Therefore, Europe is significantly underperforming when it comes to technology-based innovation and enabling the environment to help the sprouting of SMEs that provide the investments opportunities and also giving the economy a boost and an expansion of GDP (Korteweg and Sorensen, 2017). Consequently, Europe continues to lose investors to the US markets and the larger North America, including Canada that has established a targeted emphasis on SMEs.

In Europe, a will fails before they establish a self-sustaining model that can develop a steady flow of revenue. Some of the reasons for this predicament include the failure to rise follow-on funding within a timeframe that helps sustain the business. Moreover, a lack of focus on research and development (R&D) and innovation means that such SMEs are always at a disadvantage in the ultra-competitive market, especially with the surge of globalization (Engel and Stiebale, 2014). It also means that the business cannot bring new products or establish a competitive edge in the market over the competition. Additionally, organizational and managerial challenges mean that the firms cannot expand quickly enough and adapt to the market to compete favourably (Inderst, 2013). Studies in Europe indicate that the business enterprises backed by private equity are often unlikely to fail compared to the firms on a high average productivity of around 6.9 percent.

Equity capital is one of the primary sources of financing for high-growth, SMEs, and innovative start-ups. However, the use of private equity to fund startups and SMEs is massively atypical in the European markets. Its use represents a small percentage of all business start-ups. In fact, around 6 percent of small firms and 4 percent of micro-firms employ equity finance. However, equity financing is one of the most important financing sources in Europe because accelerated growth characterizes most of the enterprises with this funding compared to the majority of European SMEs and startups (Inderst, 2013). At the same time, these enterprises also have a high level of innovation in services and products as well as organizational, process, growth, and employment potential. These firms also have a high chance of scaling up and internationalizing as well.

The reluctance of European banks to fund SMEs because of the perceived risks means that alternative funding has emerged as the leading source of financing for the small business industry including external equity. According to the experience obtained from implementing the EU funded equity instruments, the equity demand among small firms and startups is likely to remain strong (Lopez-de-Silanes et al., 2015). However, this also means that the best SME startup prospects secure equity funding. In many cases, private equity investors seek businesses with the best health in the market and the highest chances of enhancing their value in the market through innovation.

Trends of Private Equity in Europe

Since the early 2000s, a majority of private sector investors have left the European private equity markets (Inderst, 2013). The 'dot com crash' of the early 2000s was one of the leading causes of reduced confidence in European markets and the shrinking of investment opportunities as well. Additionally, the 2007-to-2008 financial crisis hit Europe hard; this was especially pronounced in the banking and investment sectors (Lopez-de-Silanes et al., 2015). This further accelerated the exit plans of any investors in private equities throughout Europe, and many of them chose the stability and relative predictability of the US markets and North America as a whole.

However, this argument can be checked by the fact that the private equity industry has only existed in Europe since the 1980s, and that the markets have typically experienced fluctuations that reflect economic cycles as well as market shocks. However, in recent times, European markets have experienced frequent and pronounced fluctuations of capital financing supply and thus a fall in private equity investments (Braun et al., 2017). An analysis of the investment data in Europe indicates that its scale and size are only around half those of the US markets. This shows that the European momentum on private equity investment has stalled or is retrogressing because of the increasing challenges and uncertainty that investors associate with the European markets. Therefore, many economies in the region need to establish an enabling environment for the expansion of opportunities and an education in volatility of the markets.

Private equity investment, as well as fundraising, has significantly suffered in the aftermath of the 2008 financial crisis. This has especially been the case since the onset of the sovereign debt crisis. Since 2009, strong patterns have emerged in the private equity space; the main pattern is that there is an overall less of everything. This has been caused by the slow growth or recovery of Europe in the aftermath of the crisis (Braun et al., 2017). Additionally, regulation, deleveraging, as well as a surge in the cautiousness of investors have reduced the availability of capital. The sovereign debt crisis significantly worsened the situation by driving down the confidence in the Euro currency. At the same time, Private equity exits have also suffered. IPOs have

experienced difficulties in the markets as well since the financial crisis. The private equity-backed businesses flotations have also suffered significantly (Bertoni et al., 2015). The European environment has made it significantly difficult to sell companies between private equity firms; this accounts for the around 50 percent of the private equity exits every year.

Methodology

Research Design

The study primarily aimed to use both qualitative and quantitative data approaches. The qualitative data was mainly used to provide the meanings, definitions, descriptions, and analyses of the core concepts and phenomena encountered during the study. On the other hand, quantitative data provided the numerical proportions of the data. In this case, the data was presented in the form of percentages, fractions, and ratios as well. Therefore, quantitative data provided the extent, scale, and level of private equity investment in Europe and its relationship with the prevailing political and economic environment (Braun et al., 2017). The mixed approach provided an effective avenue to evaluate the core aspects of private equity investments in the European region by analysing all the phenomena encountered without leaving out others, as tends to happen when only one of the methods is utilized.

Data Collection

This study employed both primary and secondary data.

Secondary Data

Secondary data provides the background understanding of the subject matter. In this case, secondary data was used to evaluate the trends, evolution, and chances of private equity investments in Europe since the early 2000s. This allowed this study to assess the development of private equity investments during the 'dot com crash,' the 2008 financial crisis, and the sovereign debt crisis. Additionally, secondary data makes it possible to do a comparative analysis over a period to establish trends and patterns (Bertoni et al., 2015). This approach was preferred because it is easy and inexpensive to collect invaluable data and use it for this study. Moreover, it provides a snapshot in time of the prevailing trends in the European economy; this is an important facet of this study that seeks to evaluate the status of private equity investment currently and establish the possible changes in the future (Ledenyov, 2014). The data was chiefly collected from books, journals, peer-reviewed articles, periodicals, annual publications, financial statements, and government-sponsored reports throughout the EU and the individual countries as well.

Primary Data

The use of primary data approaches often provides an accurate snapshot of the prevailing economic conditions, patterns, and trends of private equity investments in Europe. The main challenges facing the use of primary data is the vastness of Europe and the difficulty of establishing an adequate and representative sample throughout Europe (Braun et al., 2017). However, this weakness was mitigated through the use of both questionnaires and interviews as well as the consideration of secondary data. The tools used to collect primary data in this study are discussed below:

Questionnaire Survey

The survey focused on individuals that work at or run small businesses that provide private equity investment opportunities. Equity financing of SMEs is not a common trend in Europe;

however, most of these firms are often successful and have a strong R&D foundation that gives then a competitive edge in the market. The study used the snowball sampling approach. In this case, the study chooses an initial 20 recipients of the questionnaire through the email; these participants are encouraged to forward the questionnaires to individuals that meet the criteria of the study. This way, the recipients/participants can increase exponentially, and at the end of the day, the study gained a sufficient sample from which to collect data. The study focused on 100 participants' sample.

This method was preferred because it gives the researcher an efficient platform to collect data from as many respondents as possible without necessarily incurring an increased cost.

Interview Approach

This method was primarily used to collect data from the major investors in private equities in Europe or those that have decided to exit the UK markets and choose the UK. This approach will evaluate the decision-making process of private equity investors. This will allow the study to establish the core factors that have led to the decline of the private equities industry in Europe. Understanding the factors that drive confidence among investors and thus get them making commitments will go a long way to realizing the fundamentals of private equity investment in Europe and its current status. This approach was preferred because it gives the researcher the chance to ask questions directly, clarify and expound on the core issues and phenomena emerging in the research process. Engaging the investors also provides a sneak view of their thoughts and expectations regarding the future of private equity investments in Europe as well as North America.

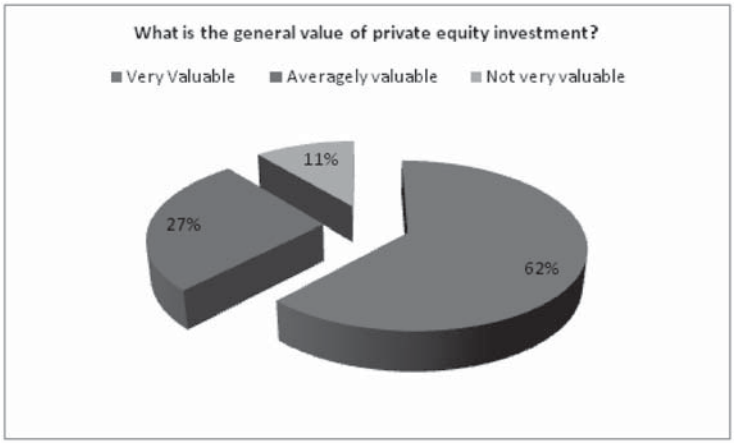
The mixed method as applied in this study provides an effective mechanism through which the researcher could self-appraise and evaluate the study. This allowed the significant elimination or reduction of bias. It also allows the researcher to carry out a comparative analysis to get rid of redundancy or weak or unsupported arguments in the study.

Data Analysis

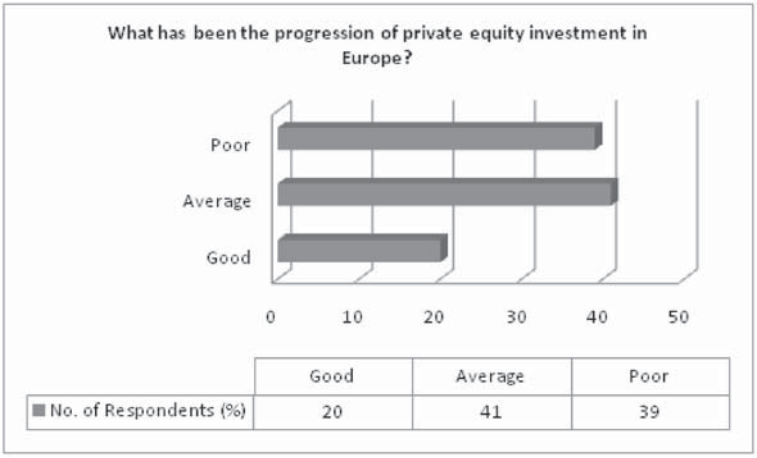
The study mainly utilized MS Excel to collect, record, present, and analyse data. The collected qualitative data was converted to quantitative data and registered in the form of tables, charts, and graphs. A comparative analysis approach was also utilized to evaluate the secondary and primary data collected in the study.

Results Analysis and Discussion

Around 62 percent of the respondents indicated that the equity investment sector is massively valuable to the investors as well as the European markets and economy. Therefore, attracting investors is a crucial undertaking of the European governments and the EU authorities as well. However, such a charm offensive should have a solid economic structure and prospects behind it. In this case, the European region has significantly underperformed. In comparison to the US, Europe does not offer equity investors the confidence of returns and an infrastructure that not only encourages such investment but facilitates it.



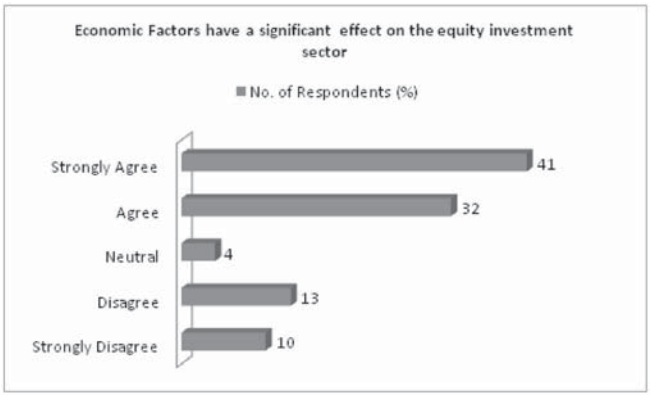
The fact that around 38 percent of the respondents think that the markets in Europe are either average or poor is a massive source of concern. It indicates a significant fall of the once stellar reputation of the Europe region to investors. Instead, more and more of these investors are opting for North America. Therefore, this study indicates that there has been a gradual decline of the equity investment sector in Europe. The 2008 global financial crisis as well as the subsequent biting sovereign debt crisis has negatively affected the faith and confidence of investors in the Europe region as the attractive and lucrative market it used to be. This is coupled with the 39 percent of the respondents that think that the progression of the sector in Europe has been "poor," as indicated below.



This demonstrates a general apprehensiveness and caution when it comes to equity investments in Europe. This can be as a result of the overall unpredictability of the markets, the dynamism and volatility of the risks facing the economy, and the inability of investors getting their investment's worth.

Political and economic factors have a massive influence on the structure and progression of the Europe region's economy and relationship with internal and external investors. Economically, the reluctance of European banks to fund SMEs because of the perceived risks means that alternative funding has emerged as the leading source of financing for the small business industry

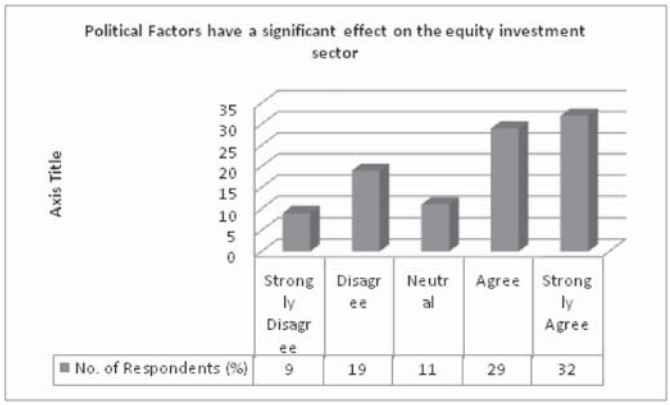
including external equity. According to this study, a combined 73 percent of the respondents indicated that economic factors have a massive role in influencing the behavior and decision-making of investors.



In this case, the gradual erosion of confidence has led to a massive shift in mentality among investors towards equity investments in the European region.

The study demonstrates that the equity demand among small firms and startups is likely to remain strong (Lopez-de-Silanes et al., 2015). However, this also means that the best SME startup prospects secure equity funding. In many cases, private equity investors seek businesses with the best health in the market and the highest chances of enhancing their value in the it through innovation. Additionally, the focus on the small businesses in Europe does not offer the best support for this sector to thrive. The study indicates that SMEs provide massive contributions to employment creation, revenue, innovation, and poverty reduction. They also offer diverse investment opportunities to investors. This is a massive contribution to the economy that helps create opportunities for private equity investment as well as wider environment that attracts investors and raises their confidence levels.

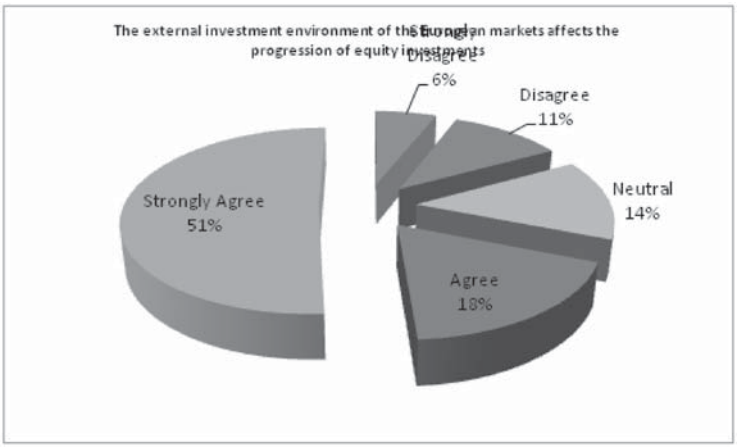
Around 61 percent of the respondents argue that political factors have affected the viability and attraction of Europe for equity investments as illustrated below.



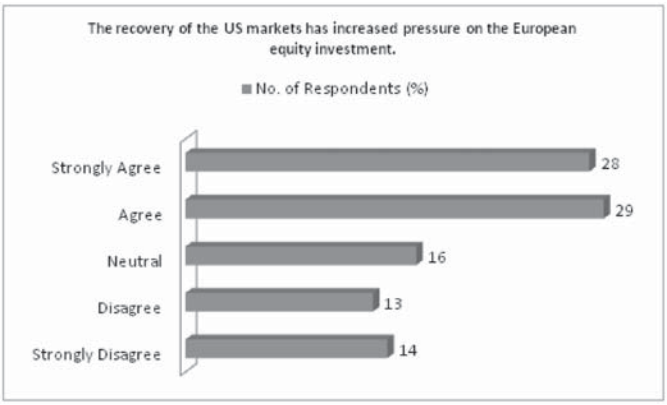
Therefore, Europe is significantly underperforming when it comes to technology-based innovation and enabling the environment to help the sprouting of SMEs that provide the

investments opportunities, and also giving the economy a boost and an expansion of GDP (Korteweg and Sorensen, 2017). Consequently, Europe continues to lose investors to the US markets and the larger North America, including Canada that has established a targeted emphasis on SMEs.

According to the study, averagely, the European venture capital funds are significantly small in comparison to the competitive US market. Additionally, the external environment has a massive influence on the investor decision-making as illustrated below.



As a result, large pension funds and institutional investors are massively deterred from making investments in European private equities because of the small ticket size which often plays below the minimum level viable for investment. At the same time, the low confidence in private equity investment in Europe acts as a vicious cycle that scars more and more investors of the European markets. Since such private equity investment is massively dependent on confidence, this provides a massive challenge to the European markets to instil such trust in order to increase the levels of investments. Additionally, the increased confidence in the US model possesses a massive and ubiquitous threat to the European private equity investments and investors (Stowell, 2017). Conventionally, larger venture capital funds generate impressive returns to the investors.

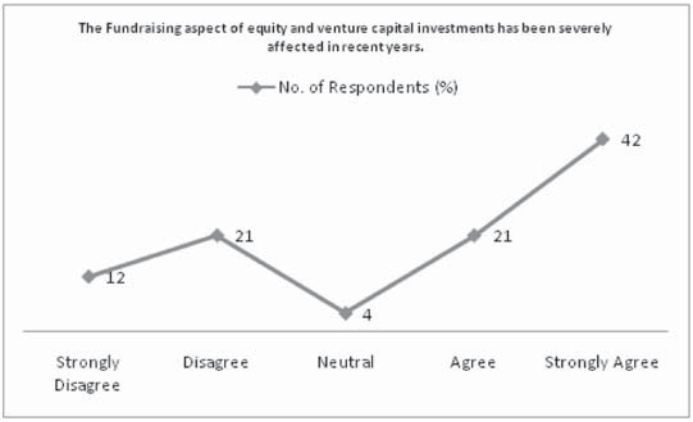


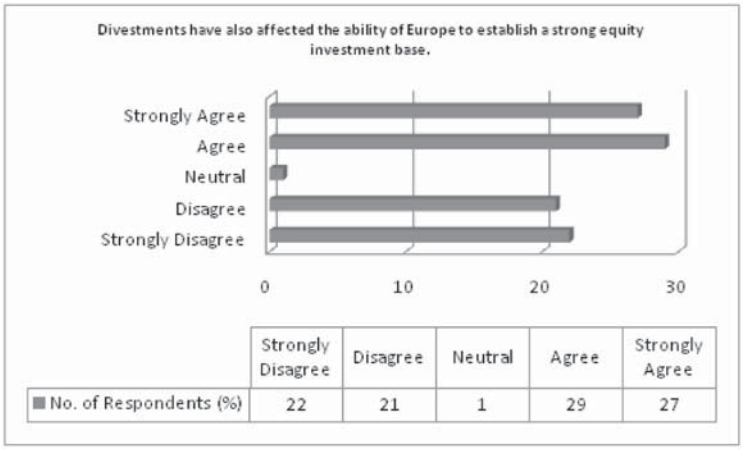
However, there is always need to trade-off between the fund size and the performance. Therefore, despite adopting a large-scale venture capital and approach to private equity investment, this

does not necessarily serve the best interests of the European regions to attract investors in a sustained manner. Studies indicate that if an individual private equity investment becomes too big, there is an increased chance of a decline in performance in the market (Braun et al., 2017). This is especially the case if such investments are in small sectors of the market.

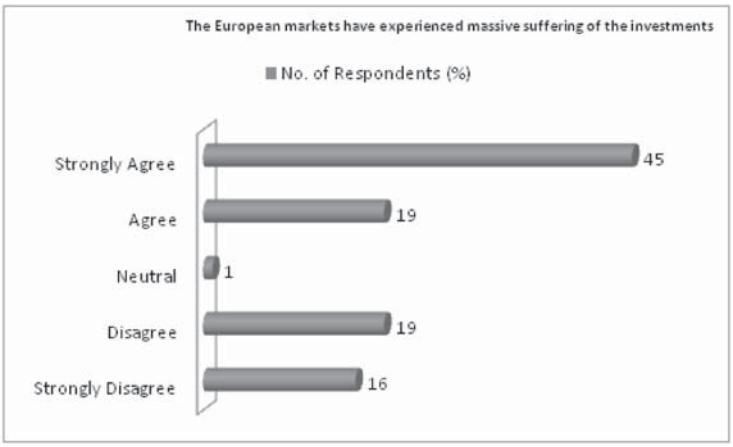
The study found that the venture capital market in Europe lacks an overall transparency compared to that of the US markets. Many of the venture capital funds do not have an extended track record, and in many instances, they inadequately report on their activities and the performance of their investments as well. This study found out that while the Invest Europe approach has introduced a code of conduct aimed at streamlining the private equity sector and introduce self-regulatory reporting standards, these aspects have not been broadly applied and implemented in the European industry (Hotchkiss et al., 2014). This has led to a massive fall in confidence in the European markets and the available investment opportunities. In many cases, investors favour the transparency exhibited by many firms on Wall Street in the US and North America as a whole.

The study also found out that the segmentation and spread of the European private equity industry across different geographies and cultures increase the level of volatility and uncertainty. For example, investing in a German enterprise is wildly different from investing in Greece, Spain, and Portugal even though these countries operate in the Eurozone (Braun et al., 2017). Whereas in the US, there is a massive level of concentration and coordination for the venture capital market, firms, and the entire industry as well. The European region experiences a huge degree of heterogeneity regarding the maturation of the venture capital market for every state. Moreover, there is massive variance in the structure of the scope of exits and the market size as well throughout the Europe. The study also argues that there is the differential in the state of development of private equity investment opportunities throughout different EU countries. This distorts the view of the European investment openings. A small number of countries such as the Germany and France have a high concentration of equity financing supply, seed, and early-stage venture capital activities. This means that many of the remaining countries do not have anywhere near the level of activities and investment chances as these major economies. The inequality here creates a false narrative of a Europe-wide investment opportunity, which turns out to be a fallacy (Fang et al., 2015). On the other hand, the US provides a uniform spread of chances of investment throughout the country. This makes the US a more reliable investment destination for private equity compared to the European region. This includes the aspects of fundraising, divestments, and investments.





	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
No. of Respondents (%)	22	21	1	29	27



The study also evaluated the extent of divergence in the status of maturation of markets as well as the geographic spread of private equity activities and deal flow poses a difficulty to stakeholders and potential investors. The diversity of culture and geography in Europe presents an increased multi-dimensional challenge facing investors. This is because the diversity does not translate to a diversity of solutions and opportunities for investment. In many instances, the opportunities for investment are concentrated in major cities such as Berlin and Paris, which give Europe a chance to compete globally with the likes of the US which have concentrated opportunities as well (Fang et al., 2015). However, counter suggestions have sought to strengthen the venture capital ecosystem throughout the region. However, this reduces the competitive value of the European region as the destination for private equity investments. Additionally, this study established that a huge number of investors are wary of making private equity investments in the European markets because of the historical under-performance. For example, some countries such as Sweden do not allow public pension funds to make investments in venture capital because of the risk of massively low returns (Inderst, 2013). As a result, many private pension funds, as well as institutional investors, remain primarily out of the market. Therefore, the major source of investors includes the equity groups, high net worth individuals and other public investors regionally and nationally as well.

Conclusion

This study also indicates that a majority of private sector players in private equity investments exited the European region in the post-2007 to 2008 financial crisis. An analysis of this study shows that the US market is more attractive to investors than the European region for private equity investment. Since the US is the main alternative in which to invest capital, Europe has been losing much of the business to the US markets. This is especially because economic growth in the Eurozone has lagged that of the US for several years after the 2008 global financial crisis. The European Stock firms reported an earnings growth for the first time in four years. The other barriers facing Europe are the cultural and language diversity, which makes doing business increasingly challenging across borders. Despite concerted efforts in the EU to enhance cyclical recovery and performance of the markets, many of these businesses and individuals have not returned. However, the situation shows an overall upward trend for the private equity investments in Europe. In 2016, around 40 percent of the funds realized from institutional investors were found to be from outside Europe. This indicates that a steady surge in awareness of the enhanced performance returns in the European private equity investments over the last two to three years.

Scope for Further Studies

There is a need to evaluate some of the emerging issues as indicated below:

1. How can Europe restore the confidence of investors in its equity investment sector?
2. How can Europe compete favourably with the US?
3. What steps can be taken to reduce Europe's vulnerability to crises such as the 2008 global crisis and especially the sovereign debt crisis?

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Appendices

Appendix 1: Questionnaire

1. What is the general value of private equity investment?
   a. Very Valuable b. Averagely valuable c. Not very valuable
2. What has been the progression of private equity investment in Europe?
   a. Good b. Average c. Poor

Rate the Following Prompts as Follows:

1- Strongly Disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree

Prompt	*1*	*2*	*3*	*4*	*5*
Political Factors have a significant effect on the equity investment sector Economic Factors have a significant effect on the equity investment sector					
The external investment of the European markets affects the progression of equity investments					
Europe did not effectively respond to the 2008 global economic crisis as well as the sovereign debt crisis as well, this affected the status of equity investment.					
The recovery of the US markets has increased pressure on the European equity investment.					
Brexit has further increased pressure on equity investments and faith in the European markets by investors.					
Fundraising aspect of equity and venture capital investments have been severely affected in recent years.					
The European markets have experienced massive suffering of the investments					
Divestments have also affected the ability of Europe to establish a strong equity investment base.					

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Impact of Capital Flight on Domestic Investment: An Indian Introspection

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Abstract

Capital flight can be defined as "the transfer of assets abroad in order to reduce loss of principal, loss of return, or loss of control over one's financial wealth due to government-sanctioned activities". Recent study showed that capital flight has negative impact on domestic investment. The objective of this study is to find out the relationship between capital flight and domestic capital formation in India. The study uses 18 years data ranging from 2000 to 2017 to investigate the above mentioned objectives. The methodology used is to first check whether the variables in the time series are stationary or not. For this purpose, the various stationarity tests like Augmented Dickey-Fuller (ADF) test, was undertaken. After checking for the stationarity of the variables, the study uses VAR and Granger Causality test to investigate the short run relationship among the variables. The study concludes that in India, both capital flight and gross capital formation are affecting each other. Previous year's capital flight growth has causal effect on growth of domestic investment of current year and previous year's domestic investment growth has causal effect on growth of capital flight of current year. The study is exclusively based on secondary data which are mainly available from various reports of government and semi-government organizations, research publications and the renowned books in this particular topic and also relevant websites on the Internet in this field.

Keywords: *ADF, Capital Flight, Domestic Investment, Granger Causality, VAR*

Capital flight can be defined as "the transfer of assets abroad in order to reduce loss of principal, loss of return, or loss of control over one's financial wealth due to government-sanctioned activities". These undeclared, undocumented or illicit transfers can deprive capital scarce economies of critical financial resources. This is important because most of the authors have all highlighted the dangers of capital flight, and supported the notion that the loss of these resources would starve economies of the reserves and foreign exchange needed to reduce debt, increase domestic investment and support government expenditure and other productive measures such as manufacturing, health, education and public infrastructure that could contribute to increased economic growth and development.

Capital flight is one of the most important problems for developing countries which often lack the necessary financial resources to promote growth and development. One of the most challenging issues for developing countries is to stimulate investment to achieve high growth rates. Economic theory generally suggests that freely moving capital flows can promote investment and growth. After the 1990s, many developing countries have been prescribed to

liberalize their capital accounts and followed a number of standard policy solutions in order to attract foreign capital inflows to finance investment as well as their rising debt stocks. However, various studies show that capital flows actually take place in the opposite direction as the residents of these countries move the already scarce capital to the more advanced ones. This process of accumulation of foreign assets by the private sector is labeled "capital flight" since the 1980s and it has come to be viewed as one of the major economic problems in many developing countries. Capital flight is a concern for capital-scarce developing countries because of four main reasons. First of all, flight of capital reduces domestic investment by constraining savings and can have serious effects on growth and development .In general, it can be assumed that if these funds are held at home, they can be utilized to reduce the level of external indebtedness and the inherent liquidity constraints in bridging the foreign-exchange gap .Furthermore, it is feared that the flight of capital from developing countries may send a signal to foreign private investors about the risks involved leading to a decline in, or even a cessation of, private capital flows .Third, the loss of capital through capital flight erodes the domestic tax base in developing countries. Last but not the least, capital flight is also likely to have adverse impacts on equality, as wealthy citizens evade higher taxation by channeling funds abroad, while the poorer citizens face higher tax rates.

Because of the above mentioned adverse effects of capital flight on the economies of developing countries, it is important to understand what capital flight means and how it is measured.

1. Conceptual Issues: Normal Capital Outflows or Flight Induced Capital Ouflows?

Capital flight is a complex phenomenon that is difficult to define. For this reason, over the years, different authors have proposed different definitions of capital flight. The biggest conceptual problem, arises when studying the issue of capital flight is the distinction between 'normal capital outflows' and 'flight induced or abnormal (i.e. capital flight)' outflows of capital. Therefore, to distinguish capital flight from normal capital outflows, scholars have employed several criteria based on volume, motive and the direction of the capital flows.

In terms of volume, while a "normal" capital outflow suggests investment portfolio diversification, an "abnormal" capital outflow refers to widespread currency speculation, especially when it leads to cross-border movements of private funds that are large enough to affect national financial markets. Capital flight, in this sense, occurs because of the expectation of unfavorable changes in political or economic conditions such as large devaluations, which lead to a loss in the value of the capital. This type of definition does not differentiate capital outflows according to who is performing the activities (i.e. it does not make a distinction between resident or nonresident capital outflows).

Some authors emphasize the motivation behind capital outflows. Dooley (1986) for example, considers the intention for capital outflows and sees capital flight as all resident capital outflows based on the desire to place wealth beyond the control of the domestic authorities. Therefore, as long as capital outflows are reported to the authorities, they are not considered as capital flight. However, when the residents flee capital abroad to avoid taxes or government regulations, this type of capital outflow constitutes capital flight. The problem related with this definition is the difficulty in understanding the motive of the capital outflow since in open economies, residents can always engage in international transactions in the normal course of the business activities.

Capital flows can also be differentiated into legal or illegal flows and capital flight is sometimes associated with "illegal flows". Trade misinvoicing is an important category of illegal capital

flows. Exporters may report higher values of exported goods to obtain subsidies from the government or importers report lower values of imported goods to avoid customs taxes and trade quotes. By doing so, they obtain foreign currency, which they flee abroad. In addition to trade misinvoicing, there are other illegal forms of capital outflows such as money laundering, smuggling and human trafficking etc. However, the nature of these activities makes it difficult to estimate capital outflows associated with these activities.

The authors, who emphasize the direction of capital flows, consider the origin of the flows. Kindleberger (1987) for example, makes a distinction between 'normal' and 'abnormal' capital flows and defines capital flight as "an abnormal capital movement that takes place from a country with a higher rate of interest to a country with a lower rate of interest". According to this approach, capital outflows from developed countries are viewed to be the result of portfolio diversification and are not considered as capital flight, while capital outflows undertaken by residents in the developing countries are considered as capital flight because in terms of two gap model of development, the transfer of capital abroad by domestic residents can have various welfare effects.

There are also studies, which argue that capital flight should not be distinguished from normal capital outflows. These studies consider capital flight as a subset of capital outflows. According to this definition, capital flight is one side of a two way flow and capital flight can co-exist with massive inflows of capital. This definition is often called "residual" or "broad" definition of capital flight, which means that items that are not accounted for in officially recorded capital flows are captured in the residual and this estimate gives capital flight.

2. Methodological Issues: Measuring Capital Flight

Different definitions of capital flight discussed above lead to different measures. Over the years, the following methods have been proposed in the literature:

1. Residual Method (World Bank, 1985; Morgan Guaranty, 1986)
2. Dooley Method (Dooley, 1986)
3. Trade Misinvoicing Method (Bhagwati, 1964)
4. Hot Money Method (Cuddington, 1986)
5. The Asset Method (Hermes and Lensink, 1992)

These methods can be classified into two groups as "direct" and "indirect" measures of capital flight. The first three methods are called indirect measures, while the last two methods are direct measures, which utilize the data directly taken from Balance of Payments statistics (BOP) or Bank of International Settlements (BIS).

Calculation of capital flight estimates requires direct information about country assets abroad. However, this information is usually very difficult to obtain. Statistics on bank deposits are available from the Bank of International Settlements but these statistics suffer some limitations. The IMF also reports the assets of nonbanks in 33 banking center but it does not distinguish between the official and private sectors. Since the coverage of the direct data does not include all resident flows, indirect methods are used to estimate capital flight (Schneider, 2003b). Now, we will take a look at the Residual Method as a part of our study.

2.1 Residual Method

Among different measures to identify the magnitude of capital flight, the residual method received more attention and was used in the majority of the studies done on this subject.

This method was first introduced by the World Bank (1985). It measures capital flight by comparing the sources of capital inflows (i.e., net increases in external debt and the net inflow of foreign investment) with the uses of capital flows (i.e., the current account deficit and additions to foreign reserves). The discrepancy between these two gives the amount of capital flight. Capital flight according to this measure is estimated as follows:

$$KF_t = \Delta D_t + FI_t - CA_t - \Delta R_t \qquad (1)$$

Here ΔD refers to the change in external debt, FI is net foreign investment flows (the sum of foreign direct investment and portfolio equity flows) , CA is current account deficit and ΔR is the change in foreign reserves.

3. Impact of Capital Flight on Investment and Growth

Empirical studies by different authors have all found negative a relationship between investments to capital flight. They find that as more capital is shifted abroad and invested or stored, the supply of capital available domestically is reduced, and the direct and indirect reductions in domestic investment levels are intensified. Furthermore, econometric estimates for countries in the Franc Zone, for the period 1970 to 2005, also indicate that capital flight significantly decreases domestic investment and postulates that a one dollar increase in capital flight lowers domestic investment by 4.5 cents.

This observed negative relationship between capital flight and domestic investment occurs through various channels. Firstly, capital flight leads to the loss of resources as capital is transferred abroad. This removal of domestically available resources directly alters the desire for domestic investment by individuals and thus the level of aggregate domestic investment. The lost resources transferred abroad also indirectly affect domestic investment as capital, which may be normally saved in the domestic financial system, is diverted externally. Thus, the resources of banks become smaller inhibiting the banks' ability and willingness to provide credit to the private sector to finance domestic investment. The lower levels of private sector credit lead to a more noteworthy point as longer term investments are generally enhanced by domestic forces rather than external sources. Furthermore, the level of domestic investment is also reduced indirectly as capital flight also lowers the taxable income and government revenue.

Another route identified is the uncertainty and fear that capital flight causes. The existence of capital flight in an economy indicates the possibility of future economic failures such as; increases in the level of external indebtedness, taxes and exchange rate instability. This expectation of economic failures is evaluated as part of the cost to domestic investment and cause domestic investors to become more cautious reduces their levels of domestic investment. Considering it is an economic axiom that investment is a main component in the calculation of GDP, it is not implausible to conclude that its' decline reduces GDP as it reduces the productive capacity for sustainable long term development.

Additionally theoretical and empirical research has identified capital flight as a direct contributor to the reductions in the growth rate of an economy. Supporting evidence for this negative causal relationship has been identified in several countries including Indonesia, Nigeria, Iran, Cameroon, Philippine and other developing and transition countries.

This reduction in the rate of growth occurs via the loss in resources, lower investment and reduction in productivity. As capital flight increases the transfer of domestic resources abroad the level of demand for goods and services and thus domestic production is reduced. Additionally, the decline in the taxable income reduces the potential revenue generating power

of the government and the resources to finance government expenditure thus the rate of growth in an economy. Capital flight also undermines sustainable development by increasing the dependence on external resources such as aid that are needed to replace the gap left by the fleeing of domestic capital. In particular, the inability of domestic firms to repay foreign debts may force them to lay off workers, causing unemployment and a further decrease in real output.

From the above analysis it is clear that generally capital flight have negative impact on domestic capital formation .The objective of this study is to find out the relationship between capital flight and domestic capital formation in India. The study tries to answer the question that previous year's growth in capital flight affects current domestic investment or not and vice verse. More specifically the hypotheses are as follows:

1. Previous year's capital flight growth has causal effect on growth of domestic investment of current year or not.
2. Previous year's domestic investment growth has causal effect on growth of capital flight of current year or not.

4. Data and Methodology of the Study

The study uses 18 years data ranging from 2000 to 2017 to investigate the above mentioned objectives, the study defines variables such as:

Growth of capital flight as CFG_t = (capital flight at t - capital flight at t-1), growth of gross capital formation as $GCFG_t$ = (gross capital formation at t - gross capital formation at t-1),

The methodology used is to first check whether the variables in the time series are stationary or not. For this purpose, the various stationarity tests like Augmented Dickey-Fuller (ADF) test, was undertaken. A series is said to be stationary if the mean & covariance are constant over time & the auto-covariance of the series depends only on the lag between two time periods & not on the actual time at which the co-variance is calculated.

After checking for the stationarity of the variables, the study uses VAR and Granger Causality test to investigate the short run relationship among the variables.

A VAR system contains a set of m variables, each of which is expressed as a linear function of p lags of itself and of all of the other m - 1 variable, plus an error term. With two variables, x and y, an order-2 VAR would be the two equations:

$$y_t = \beta_{10} + \beta_{11}\, y_{t-1} + \beta_{12}\, y_{t-2} + \alpha_{11}\, x_{t-1} + \alpha_{12}\, x_{t-2} + U_{1t} \qquad (2)$$

$$x_t = \beta_{20} + \beta_{21}\, x_{t-1} + \beta_{22}\, x_{t-2} + \alpha_{21}\, y_{t-1} + \alpha_{22}\, y_{t-2} + U_{2t}$$

The VAR is a natural framework for examining Granger causality. Consider the two-variable system in equations (1). The first equation models yt as a linear function of its own past values, plus past values of x. If x Granger causes y (which we write as), then some or all of the lagged x values have non-zero effects: lagged x affects yt conditional on the effects of lagged y.

The null hypothesis (x does not Granger cause y) in this VAR is

$$H0: \quad \alpha_{11} = \alpha_{12} = 0$$

This can be tested using a standard Wald F or χ^2 test. Similarly, the null hypothesis (y does not Granger cause x) can be expressed in the VAR as

$$H0: \quad \alpha_{21} = \alpha_{22} = 0$$

Running both of these tests can yield four possible outcomes, as shown in Table1: no Granger

causality, one-way Granger causality in either direction, or "feedback," with Granger causality running both ways.

Table 1: Granger Causality Test Outcome

	Fail to reject $\alpha_{11} = \alpha_{12} = 0$	*Reject* $\alpha_{11} = \alpha_{12} = 0$
Fail to reject $\alpha_{21} = \alpha_{22} = 0$	no Granger causality	x Granger causes y
Reject $\alpha_{21} = \alpha_{22} = 0$	y Granger causes x	x Granger causes yy Granger causes x

5. Analysis and Findings

5.1 Calculation of Capital Flight by Residual Method for India

As we discussed earlier ,by residual method capital flight is the difference between the sources of capital inflows (i.e., net increases in external debt and the net inflow of foreign investment) with the uses of capital flows (i.e., the current account deficit and additions to foreign reserves).Table 2 shows the measurement of capital flight. Total sources of capital inflow are the sum of direct investment, portfolio investment and change in debt (sum of column 3, 4 & 6). The total uses of capital flows are the sum of current account balance and change in reserve (summation of column 2 & 5). Column 8 of the Table 2 depicts the values of CF in India.

Table 2: Measurement of CF by Residual Method

year	*Current account balance (miln. $)*	*Direct investment (miln. $)*	*Portfolio investment (miln. $)*	*change in reserve (miln. $)*	*change in debt (miln. $)*	*Capitalflight = ΔDt+ FIt - CAt -ΔRt (miln. $)*
-1	-2	-3	-4	-5	-6	-7
2000	-2666.00	3272.00	2590.00	5085	1427	-461.61
2001	3400.00	4734.00	1952.00	8044.96	-879.94	1161.11
2002	6345.00	3217.00	944.00	22177.49	4820.51	-6850.99
2003	14083.00	2388.00	11356.00	31883.69	10822.90	6766.19
2004	-2470.00	3713.00	9287.00	28140.62	4177.19	-13433.42
2005	-9902.00	3034.00	12494.00	5624.70	-4316.72	-4315.42
2006	-9565.00	7693.00	7060.00	40078.83	21997.90	-12892.96
2007	-15737.00	15892.83	27433.20	97754.57	33484.30	-36680.70
2008	-27915.00	19816.05	-14031.10	-19835.31	15353.10	13058.65
2009	-38,181 |	17966.00	32396.04	20643.97	21231.40	12768.92
2010	-47909.00	11834.14	28243.20	22061.57	24380.40	-5513.12
2011	-78179.00	22060.68	16573.11	1176.05	22386.70	-18334.85
2012	-87843.00	19819.35	26704.04	-99.39	42922.30	1701.80
2013	-32257.00	21564.14	4801.88	-1588.56	35301.90	30999.68
2014	-26789.00	31251.38	40934.04	26614.97	37750.70	56532.15
2015	-22088.00	36020.99	-4503.15	28718.32	25584.50	6296.22
2016	-14350.00	35612.18	7611.57	8178.23	-24828.20	-4132.68
2017	-48661.00	30286.08	22114.92	50042.47	---	-46302.55

Source: ADB-www.adb.org and authors' own calculation

5.2 Relation between CFG and GCFG

Unit root tests viz. ADF test was conducted on the variables CFG and GCFG, the results of which are summarized in Table 3. The ADF test indicate the stationarity of all the two time series at level as it rejects the null hypothesis of non-stationarity at 5% level of significance for CFG and GCFG.

Table 3: Results of ADF and Phillips-Perron test

Variable	*ADF*	*Macknan Approx P-value for Z(t)*
CFG	-3.705	.004*
GCFG	-3.625	.005*

* Significant at 5%
Source: authors' calculation

To examine the relationship between RGDPG and PPPG, the following VAR equations are estimated:

$$CFG_t = \beta_{10} + \beta_{11} CFG_{t-1} + \beta_{12} CFG_{t-2} + \beta_{13} CFG_{t-3} + \beta_{14} CFG_{t-4} + \alpha 11\, GCFGt\text{-}1 + \alpha_{12} GCFG_{t-2} + \alpha_{13} GCFG_{t-3} + \alpha_{14} GCFG_{t-4} + U_{1t} \quad (2)$$

$$GCFGt = \beta_{20} + \beta_{21} GCFG_{t-1} + \beta_{22} GCFG_{t-2} + \beta_{23} GCFG_{t-3} + \beta_{24} GCFG_{t-4} + a_{21} CFGG_{t-1} + \alpha_{22} CFG_{t-2} + \alpha_{23} CFGG_{t-3} + \alpha_{24} CFGG_{t-4} + U_{2t}$$

The result of the VAR analysis (Granger causality test) is summarized in table 4.

Table 4: Granger Causality Wald tests between CFG and GCFG

Equation	*Excluded*	*chi2*	*Prob > chi2*
CFG	GCFG	8.065	.08**
GCFG	CFG	23.516	.00*

*Significant at 5%, ** Significant at 10%,
Source: authors' calculation

The results of the Granger causality test depicts that lagged CFG Granger Causes GCFG and lagged GCFG Granger Cause CFG. The two variables CFG and GCFG affect each other in short run.

6. Conclusion

In this paper, we provide a review of the theoretical and empirical literature on capital flight. First of all, we examine some of the conceptual and methodological problems regarding the meaning and measurement of capital flight. Various meanings have been attributed to this concept based on the distinction between normal and abnormal capital flows. In terms of the measurement techniques, different papers have utilized different approaches to estimate the magnitude of capital flight. However, the residual method seems to be the most commonly used method by the academic community in recent papers.

Capital flight is one of the fundamental problems of developing countries. Previous studies have documented the importance capital flight and have advocated the dangers of capital flight and supported the notion that the loss of these resources would starve economies of the reserves and foreign exchange needed to reduce debt, increase investment and support government

expenditure and other productive measures that could contribute to increase economic growth and development.

We found from the above analysis that in India, both CFG and GCFG are affecting each other. Previous year's capital flight growth has causal effect on growth of domestic investment of current year and previous year's domestic investment growth has causal effect on growth of capital flight of current year.

To conclude growth and investment are too key areas of concern for any economy. There is a need to reduce the country's vulnerability to capital flight; these lost funds must be channeled into productive areas and warrant more study on its linkages to income inequality as the costs to the poorer citizens must be considered.

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A Strategic Study on the Impact of the Growth of Textile and Readymade Garments Industries in Bangalore

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Abstract

The Textile and Readymade Garments Industries precisely called as the T & RMG industries plays a vital role in the production of the readymade clothing for the various age groups with respect to their requirements. Nowadays the T & RMG industries have been using the automation technology for the production of their Goods, Bangalore District of Karnataka State in India is the main and major producer of the T & RMG goods where the number of the T & RMG industries have been established in and around the Bangalore City. In this paper we are going conduct a brief study on the Factors that affects the growth of the T & RMG industries that are established in and around the Bangalore city with the help of the PESTEL Analysis. Through this analysis we can conclude the factors that are impacting and reducing the growth rate of the T & RMG industries. The Detailed study also produces the evidences of the various problematic situation that are faced by the T & RMG industries with respect to the growth and annual turnovers.

Keywords: *Textile and Readymade Garments Industries, Automation Compliable Industries, Bangalore Industrial City.*

Introduction

India is known for its top notch articles of clothing for men and the vast majority of the piece of clothing makers are in the Small and Medium-expansive scale industry. Indian sub-mainland is the second biggest producer of articles of clothing after China being the worldwide pioneer in piece of clothing production. India's Garment Industry has been quickly &steadily developing in most recent ten years. Fares have been ascending as there is an expansion in requests from universal purchasers joined by an ascent of interests in the article of clothing area of the nation. The Indian Garment Industry is of real significance to the Indian economy as it contributes generously to India's fare winning, it is assessed and dissected that one out of each six families in the nation relies upon this part either in a roundabout way or specifically for its employment. From everywhere throughout the world the Retailers additionally progressively come to India pulled in by low creation costs. The extensive brands among them are Wal-Mart, Tesco, and M&S.

India's Garment Industry was an un-sorted out segment a couple of decades prior, yet now this is viewed as the efficient part and among the best on the planet. It comprises of talented form

architects, devoted producers, exporters, providers, stockiest, retailers, and wholesalers. Indian Garment Industry has cut out a specialty in the worldwide markets and earned a notoriety for its solidness, quality and appearance. The present changing shopper inclinations - purchasing marked attire and design embellishments, significant blast in the article of clothing retail industry, individuals shopping at office and markdown stores, shopping centers, with rising dispensable wages, government strategy concentrated on quick track material fare development, and aspiring objectives have made a few speculation openings in India.

Government has even attempted to incorporate advantages for Garment Industry. The yearly arrangement for 2007-08 figured by Indian government to advance the material area of India, incorporates plans for drawing in remote direct speculations, mark advancement through open private association (PPP) for worldwide acknowledgment of Indian brands, exchange places for encouraging business and picture building, mold center points as a steady commercial center for Indian form, normal consistence code for making attire principles to assist purchasers, and preparing communities for creating HR. Indian piece of clothing industry`s has a decentralized creation structure - subcontracting, which is generally safe and low capital-has served the business well however has barred Indian items from the mass market for garments, which requests predictable quality for extensive volumes of a solitary thing.

History and Background Study of T&Rmg Industries in Bangalore

The article of clothing businesses in India are packed in Bangalore where some of the biggest fare places of the nation are existing. Today abroad purchasers see Bangalore as an imperative area for sourcing of articles of clothing after Bombay and Delhi. Brand pictures are being felt in this locale and there is an extraordinary potential for creation of significant worth included products. Article of clothing enterprises in Bangalore began from the time of British. M/s. Bangalore dressmaking Co. was the main unit, began to make piece of clothing in Bangalore amid 1940, which was begun by Mr. Vittal Rao. Amid the standard of British, there was a need of apparel dress materials. This drove to the advancement of RMG ventures in Bangalore. Aside from RMG ventures, there were silk weaving businesses in Bangalore, which prompted the advancement of silk exporters too. After India's autonomy in 1947, the ventures begun grabbing gradually to cook the requirements of dresses of the regular man and nearby market. The business began prospering. The majority of RMG businesses are moved in Bommanahalli and Peenya modern domain. After the de-reservation of pieces of clothing, enormous players like Maftlal, Arvind Mills, and so forth begun entering the field and involved puts in the part which in a roundabout way influenced the little scale division. There are around 3000 RMG units in and around Bangalore.

The greater part of the purchasing offices on the planet have set up their branch office in the city. Separated from this, Apparel Park, at Doddaballapur has begun working bigly. In India, RMG units are gathered in the urban communities like Delhi, Mumbai, Kolkata, Bangalore, Chennai, Jaipur, Tirupur, and Ludhiana. There is an alternate at last items made at Bangalore and different spots. RMG are mostly made for send out house. There are numerous SSI units primarily doing occupation work giving backings to the SME like GE, Aravind form, Sonal Holding, Texport Syndicate units in the bunch. The innovation and assembling process are same as utilized in different locales.

The economy of Bangalore is inseparably stirred up with that of readymade piece of clothing industry. 30 percent of the Readymade Garments of the nation are made in this district. This is third greatest readymade piece of clothing fabricating bunch in the nation. Till 1990 the business

execution of this group (chiefly trades) and the development of new units continued expanding relentlessly. Nonetheless, after 1990 till 2000 the impact of progression was gradually felt and the level of rivalry kept on increasing. Amid 2000-2003, around 30 percent of units were shut because of need of requests and rivalries. Different units are running great yet at the same time a portion of the units are intending to shut down because of money related, advertising and work issues, which were uncovered amid the visits. A standout amongst the most critical characteristics of Readymade Pieces of clothing Cluster Bangalore is the presence of between firm and Intra-firm linkage. The firms are generally coordinated on a level plane and not vertically. As a result of high size of tasks and sub-contracting relationship, the bunch is fit for executing all sorts of requests. Indeed, even there are firms, which have no assembling base yet at the same time book huge requests, and get the items made through fabricators and execute the requests.

There are few firms, which are vertically incorporated and do most of the tasks in house. The extensive sizes of task and sub-contracting plans have brought about adaptable specialization.

Objectives of the Study is as follows:

- To conduct a Theoretical Survey to Exploit the factors that are impacting the growth of Textile and Readymade Garment Industries
- To Expedite the Internal and External factors of the T & RMG industries with respect to the Man Power, Production and Annual Turn Overs.
- To analysis the overall with growth performance with the last financial year growth performance to conclude the average performance in the Production.

Analysis and Findings

We conduct two analysis namely SWOT analysis and PESTEL analysis for the verify the parameters that affects the growth of development.

SWOT ANALYSIS:

Strength

1. Favorable Economic Condition
2. Transportation Facility
3. Bank Support System
4. Hybrid Machinery Support
5. Women Empowerment
6. Labour Law Enforcement
7. Contribution Towards the GDP
8. Categorized Support from Central/State Government
9. Poverty Alleviation
10. Production and Distribution

All the Strengths is being defined from the overall performance and structural ahead on the growth of the Textile and Ready-Made Garment Industry

Weakness

1. Improper Safety Measures
2. Lack of Education Towards Machinery
3. No Proper Medical Facilities to Employees
4. Lack of Proper Sanitation Facility to Employees

5. High Working Hours
6. No Proper Market
7. Import and Export Failures
8. Poor Accommodation Facility
9. Division in Gender
10. Communication Gap

Opportunities

1. High Demand in Western Countries
2. More Skilled Technology Implementation
3. More Skilled Manpower Promotions
4. Bulk Human Resources Utilization

Threat

1. Political Threats towards Protest, National Bandh etc.
2. No Proper Sector for Economic Stabilization
3. High Competitive Market
4. No Proper Designs for the Establishment

SWOT analysis is a framework used to evaluate a company's competitive position by identifying its strengths, weaknesses, opportunities and threats. Specifically, SWOT analysis is a foundational assessment model that measures what an organization can and cannot do, and its potential opportunities and threats.

Pestel Analysis

Political Analysis:

In a development Country like India, The Karnataka State which contributes its best way through the Development and Production in the Textile and Ready-Made Garments Industries. But these development is impacting by some of the Political pressures which reduced the performance in the production of Goods.

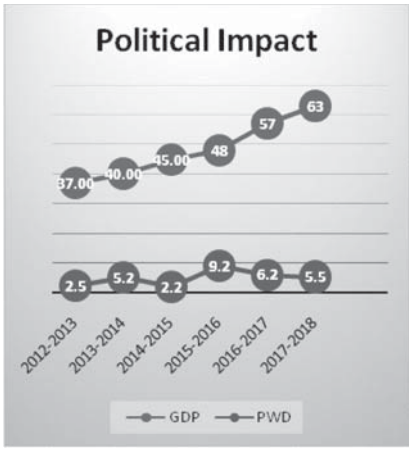
The Factors that impacting the Growth in T & RMG Industries are:

1. Absence of Proper Law Enforcement Towards Safety of the Labours.
2. High Definitive Prospective towards demanding and threating in the high profiled industries
3. Corruption and Black Money
4. Labour Offices Being Monitored and Impacted by Politically Influenced Person
5. No Proper Democratic Ruling and Labour Law Implementations

The Naïve Government of Karnataka is assisting in establishing the best outcome of the Textile and Readymade Garment Industries through efficiently implementation and announcing number of opportunities through District Wise Industrial Centers (DIC)

Terms of Years	*% Industries Contributing to GDP*	*Production wise Distribution*
2012-2013	37%	2.5%
2013-2014	40%	5.2%
2014-2015	45%	2.2%
2015-2016	48%	9.2%
2016-2017	57%	6.2%
2017-2018	63%	5.5%

The Industries were got an big impact on the production in the financial years of 2012-2013, 2014-2015,2017-2018 due to the major political situations that is being created in the Karnataka State.



Economic Analysis:

Garment Sector is providing the efficient support in increasing the GDP for the Entire Nation. The Karnataka State itself with number T & RMG Industries Implemented In and Around the Bangalore City alone contributes the 5.2% GDP towards the Overall GDP. And also it provides the 11.62% of the Total Economic Support to the Nation through the Production of the Textile and Readymade Garments. With the Number of Factors that make the Performance rate to be reduced. But the Economic Strategy of contributing to the country is not reduced. Karnataka's textile industry contributes to 20% of the garment production taking place in the country, which is valued at USD 1.56 billion. The state is responsible for 8% of the national exports in the textile sector. 35% of the country's raw silk production takes place in Karnataka. The silk exports of Karnataka account for 24% of the silk goods export value at the national level. The state also contributes to 11% of the country's total wool production. 6% of the cotton produced in the country comes from Karnataka

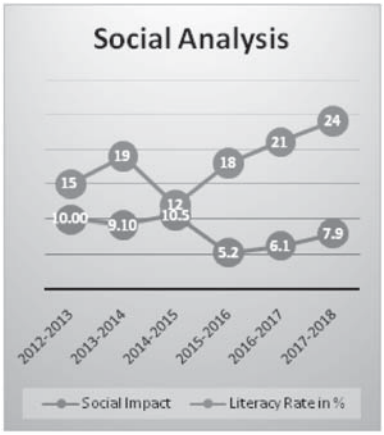
Social Analysis

While coming to the Social analysis of the Textile and Readymade Garment industries. The Increase in demand of the Productivity of the modern clothing styles. The Social Reformer is very much utilized in the field of the T & RMG Industries. The Workers who hails from the In and Around the Bangalore Area who responds from the Labour Class and Under the Poverty Line for the daily wages.

1. Woman strengthening has been accomplished in private and open segment.
2. They are adding to expand investment funds.
3. They are intrigued populace control.
4. Economic dissolvability of lady has been accomplished.
5. Their Children are getting instructed more.
6. Awareness about Health care has been expanded
7. Standard of living is expanding step by step
8.

Years	*Social Impact*	*Literacy Rate*
2012-2013	10%	15%
2013-2014	9.1%	19%
2014-2015	10.5%	12%
2015-2016	5.2%	18%
2016-2017	6.1%	21%
2017-2018	7.9%	24%

This analysis is performed to constitute the impact of social strategies on the labour environment and also the increase in the literacy rate among the labours on the adaptation of the modern wear far.



Technological Analysis

Karnataka is the state with middle level of the literacy rate. The Employees and the state-mans in the state are having the high literacy rate. Whereas the Lower and Poverty Line Workers have enough Literacy rate to adapt the new technological initiatives in the field of the Textile and Readymade Garment industries. The Government should devise suitable measures to facilitate that the Textile Industry grows at the rate of 18 per cent per annum. The Government should also take efforts to address the labour laws related issues aiming at achieving the above growth. The required skilled labour force should be generated by creating new infrastructure and also by strengthening the existing ones.

Ecological Analysis

The Government of Karnataka is initiating many Startup systems of the Ecological Preservation of the Pollution and Safeguard of the Ecological Systems. The various initiatives which includes Incentives for development of Common Effluent Treatment Plan (CETP), Green Field Textile Parks, and Brown Field Textile Parks, based on the zonal classification as per the new textile policy. This classifies the industries wise support and staminate the ecological preservation.

Legal Analysis

Government dependably empowers pieces of clothing industry by its steady hands more often than not. That is the reason an expansive number of organizations have been set up here

furthermore, there in the city. In any case, ongoing flame in some remarkable pieces of clothing organization has drawn the sight of the administration. It has expanded some lawful and consistence issues. The laborers don't get legitimate wages and compensation, working condition and wellbeing from the organizations. That is the reason government has mediated on this issue by authorizing the peace framework.

Other Supportive Analysis by the Government

Government of Karnataka has provided number of Supportive System to the Industries for the more production of the goods and products. The T & RMG industries has got the better support from the classification given by the government.

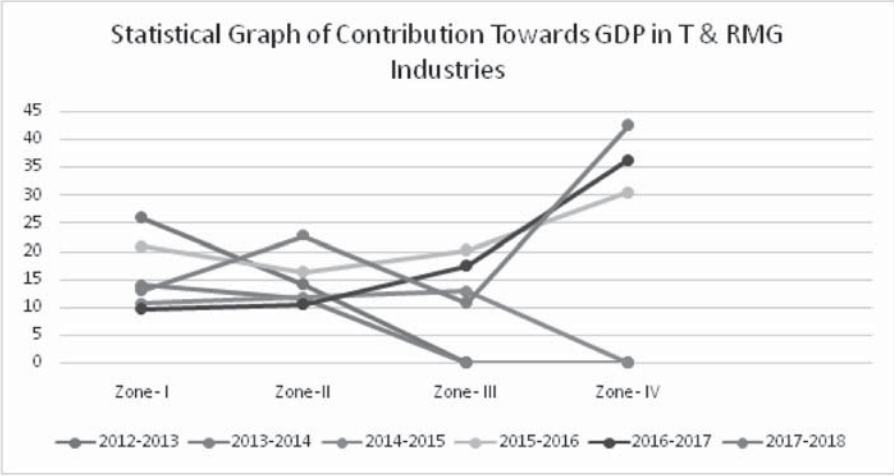
Some of the Salient Supportive move by the Government.

1. Credit linked capital subsidy
2. Power subsidy
3. ESI/ EPF reimbursement
4. Stamp duty and entry tax reimbursement
5. Interest subsidy for small and medium investors for projects of up to Rs. 990 million
6. Units involving investments of Rs. 100 million to Rs. 990 million are entitled to receive credit linked capital subsidy in the range of 15% to 20%, with an upper limit cap of Rs. 60 million
7. Micro, small, and medium enterprises (MSMEs) investing up to Rs. 100 million will also receive credit linked capital subsidy in the range of 15% to 20%, but the upper limit cap will be of Rs. 20 million
8. Entrepreneurs belonging to various categories such as Scheduled Tribes and Scheduled Castes, women, ex-servicemen, physically challenged, and minorities are entitled to receive additional subsidy
9. Integrated textile units are to benefit from a special credit linked capital subsidy plan

Zonal Wise Distribution	*2012-2013*		*2013-2014*		*2014-2015*		*2015-2016*		*2016-2017*		*2017-2018*	
Zone - I	7.1%	7.5%	3.1%	5.2%	2.8%	3.2%	6.2%	3.2%	2.1%	3.1%	2.8%	2.2%
(Includes Bangalore North and East District)	5.5%	5.9%	2.2%	3.5%	2.9%	1.8%	5.1%	6.3%	2.2%	2.3%	3.1%	4.8%
Zone - II	5.1%	4.9%	2.8%	1.9%	2.9%	2.3%	6.1%	2.2%	1.8%	2.8%	10.1%	6.8%
(Includes South and West District)	2.2%	1.9%	3.8%	2.9%	2.8%	3.7%	5.1%	2.8%	3.1%	2.8%	3.9%	1.9%
Zone - III	NA	NA	NA	NA	3.8%	3.9%	5.1%	4.1%	2.9%	2.1%	3.1%	2.3%
(Includes Chickballapur, Tumakur, Kalburgi)	NA	NA	NA	NA	2.3%	2.8%	5.1%	5.9%	6.2%	6.3%	2.1%	3.2%
Zone - IV	NA	NA	NA	NA	NA	NA	8.1%	8.6%	9.8%	9.2%	11.1%	11.8%
(Includes Anekal Taluk)	NA	NA	NA	NA	NA	NA	7.5%	6.4%	8.2%	9.1%	12.8%	6.8%

Table consist of the Production Rate of T & RMG Industries with respect to their Contribution to GDP in the Quarterly based of April-June, July-September, October-December and January-March Respectively

10. Existing units are entitled to receive a subsidy of 15% to 20% with an upper limit cap of Rs. 10 million for modernization of their units
11. Cooperative spinning mills are entitled to receive a subsidy of 20% with an upper limit cap of Rs. 20 million for the purpose of revival and upgradation of their units
12. Development of apparel and textile parks across various locations like Bangalore, Gulbarga, Davangere, Bellary
13. Identification of Doddaballapur, Tumakuru, and Kalburgi as potential zones for development of textile parks



Conclusion

The Textile and Readymade Garments Industries exactly called as the T and RMG enterprises assumes an indispensable job in the creation of the readymade garments for the different age bunches as for their necessities. These days the T and RMG enterprises have been utilizing the computerization innovation for the creation of their Goods, Bangalore District of Karnataka State in India is the significant maker of the T and RMG products where the quantity of the T and RMG businesses have been built up in and around the Bangalore City. This paper is a concise report on the factors that influences the development of the T and RMG ventures that are set up in and around the Bangalore city with the assistance of the PESTEL Analysis. Through this examination we can close the elements that are affecting and diminishing the development rate of the T and RMG businesses. The Detailed examination likewise creates the confirmations of the different dangerous circumstance that are looked by the T and RMG ventures as for the development and yearly turnovers

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Impact of Blockchain Technology on Banking Sector

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Abstract

Blockchain technology was first introduced in the year 2008 in Nakamoto's whitepaper as the underlying technology of Bitcoin .Blockchain technology is bound to make a positive difference in industries that rely on the security and safety of assets. Banks stands out the most in this list, since they belong to the oldest as well as the most important industry in the world. Even though, banks nowadays have shifted most of their features online, users still have to access the official website or perform other operations in a number of tiring steps. Although the way these services are accessed has been adapted to new technologies such as mobile applications, the processes remained the same. The time spans needed to complete transactions are still long and banks tend not to update their system, which does not allow several features that could ease clients' processes and ends up frustrating end users. There are many issues that blockchain technology can fix in the current banking system. The present study focus on blockchain technology implementation in banks and its impact on business transactions and payment settlements.

Keywords: *Blockchain, Digital Currencies, Banking, Transaction, E-Payments, DLT.*

1. Introduction

A blockchain is a digital ledger created to capture transactions conducted among various parties in a network. It is a peer-to-peer, Internet-based distributed ledger which includes all transactions since its creation. All participants (i.e., individuals or businesses) using the shared database are "nodes" connected to the blockchain, each maintaining an identical copy of the ledger. Every entry into a blockchain is a transaction that represents an exchange of value between participants (i.e., a digital asset that represents rights, obligations or ownership). In practice, many different types of blockchains are being developed and tested. However, most blockchains follow this general framework and approach.

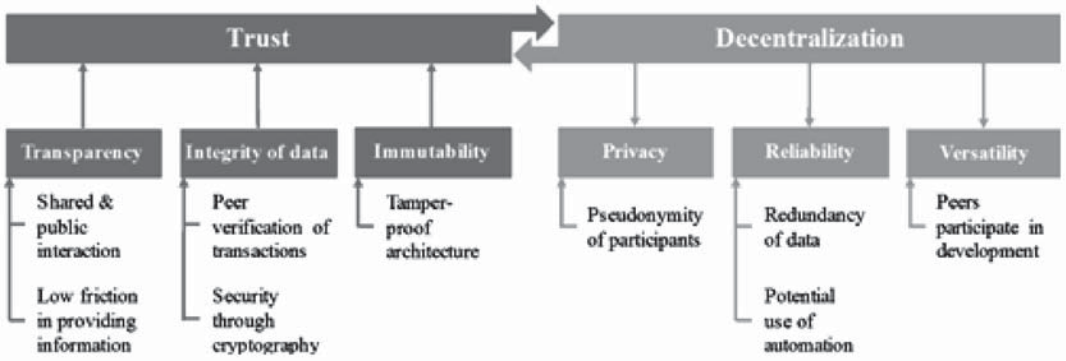
When one participant wants to send value to another, all the other nodes in the network communicate with each other using a pre-determined mechanism to check that the new transaction is valid. This mechanism is referred to as a consensus algorithm. Once a transaction has been accepted by the network, all copies of the ledger are updated with the new information. Multiple transactions are usually combined into a "block" that is added to the ledger. Each block contains information that refers back to previous blocks and thus all blocks in the chain link together in the distributed identical copies. Participating nodes can add new, time-stamped transactions, but participants cannot delete or alter the entries once they have been validated and accepted by the network. If a node modified a previous block, it would not sync with the rest of the network and would be excluded from the blockchain. A properly functioning

blockchain is thus immutable despite lacking a central administrator.

Characteristics of a Blockchain

As a near real-time and distributed digital ledger, a blockchain has several unique and valuable Characteristics that, over time, could transform a wide range of industries:

1. **Near Real-Time Settlement:** A blockchain enables the near real-time settlement of transactions, thus reducing risk of non-payment by one party to the transaction.
2. **Distributed Ledger:** The peer-to-peer distributed network contains a public history of transactions. A blockchain is distributed, highly available and retains a secure record of proof that the transaction occurred.
3. **Irreversibility** A blockchain contains a verifiable record of every single transaction ever made on that blockchain. This prevents double spending of the item tracked by the blockchain.
4. **Censorship Resistant:** The economic rules built into a blockchain model provide monetary incentives for the independent participants to continue validating new blocks. This means a blockchain continues to grow without an "owner". It is also costly to censor.



Source: Dave Birch (2015), Robeco

Benefits of a Blockchain

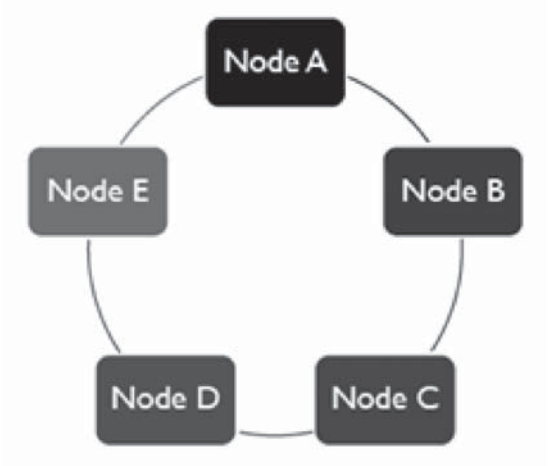
1. A major advantage of blockchain technology is its distributed nature. In today's capital markets, the transfer of value between two parties generally requires centralized transaction processors such as banks or credit card networks. These processors reduce counterparty risk for each party by serving as an intermediary but centralize credit risks with themselves. Each of these centralized processors maintains its own separate ledger; the transacting parties rely on these processors to execute transactions accurately and securely. For providing this service, the transaction processors receive a fee. In contrast, a blockchain allows parties to transact directly with each other through a single distributed ledger, thus eliminating one of the needs for centralized transaction processors.
2. In addition to being efficient, the blockchain has other unique characteristics that make it a breakthrough innovation. Blockchain is considered reliable because full copies of the blockchain ledger are maintained by all active nodes. Thus, if one node goes offline, the ledger is still readily available to all other participants in the network.

3. A blockchain lacks a single point of failure. In addition, each block in the chain refers to the previous blocks, which prevents deletion or reversing transactions once they are appended to the blockchain. Nodes on a blockchain network can come and go but the network integrity and reliability will remain intact as long as it is being used. In this way, no single party controls a blockchain and no single party can modify it or turn it off.

Distributed Ledger Technology for the Financial Industry

Distributed ledger technology is gaining popularity fast. Blockchain, the best known example of a distributed ledger, might be highest on people's swear-jar list due to its daily cheerleading in all kinds of news outlets, while to others it is still a vague or unknown concept. The actual path of development is best summarized by Amara's law: "We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run." Perhaps it is hyped now, but potentially efficiency-disruptive in the long run.

Figure-2 Distributed Ledger



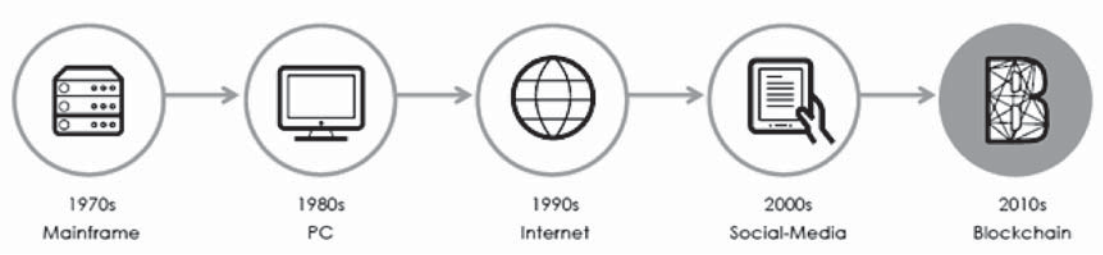
Blockchain Administration 3.0

We view the developments in distributed ledger technology as important efficiency gains and therefore dubbed it 'administration 3.0'. We think of administration 1.0 as paper format ledgers. Administration 2.0 is in our view the transition from paper to digital ledgers. Thanks to new technology we are now moving to administration 3.0, which is a decentralized distributed ledger. This decentralized feature is an extremely important concept and is in our view going to fuel a new wave of efficiency innovations. Although this might be disruptive to some, we think the overall impact of this new technology will be positive to incumbents. Banks, insurance companies and asset managers have the ability to reduce their cost-base substantially by using blockchain technology. Although we will focus on the implications of distributed legers for the financial industry, the use cases for other industries are growing by the day. Technical challenges and regulation form barriers to implementation though, which is why we expect an evolutionary development path.

In this paper we describe the distributed ledger technology and applications. We then take a closer look at the impact on banking, insurance and asset management. When talking about distributed ledgers, we often automatically use the word blockchain. There are two important

points to remember for the rest of this paper. Firstly, the real innovation is distributed ledger technology and the applications that are being developed around it (smart contracts). Blockchain is an example of a distributed ledger, but not necessarily the only one nor the final surviving one. Throughout this paper we will use both words interchangeably, though. Secondly, blockchain technology was developed as the underlying technology of a crypto currency concept named Bitcoin, but meanwhile has developed far beyond its initial use. In its current form, Bitcoin is one of many applications of blockchain. We will focus on distributed ledger technology and not on crypto currencies.

Figure-3 Developments in Technology



Source: Robeco

Main Properties of Distributed Ledger Technology

1) Reconciliation through cryptography
2) Availability of many copies
3) Granular access control (view keys for regulators and validating keys for miners)
4) Irreversibility; to prevent tampering with previous transactions

Hashing is an Essential Feature of Blockchain

Hashing and time stamping are key functions of blockchain technology. Hashing is the process of running a computer algorithm over content in order to create an alphanumeric character that cannot be back-computed into the original content. It allows validating a claim and determining sequential priority. A hash is always the same if the underlying asset has not changed. Hashing only works one-way. This implies it is not possible to trace back what the hash represents from validating the transaction.

2. Review of Literature

1. This article analyses and synthesizes(Josep Lluis de la Rosa, 2018) the key findings in scouting current and future applications of BT to OI in key areas apart from the IP management or the OI for smart cities, notably digitization of the collaborative work and smooth cooperation across boundaries of companies by means of smart contracts
2. In this paper (Friedrich Holotiuk, Francesco Pisani, and Jürgen Moormann, 2017) research delivers insights into how changes in payments, due to blockchain technology, progress and in what directions firms have to think to overhaul their BMs.
3. This paper will depart from (Tapscott, 2016) and (de la Rosa et al., 2016) will have emphasis on reviewing articles of high quality combined with the most recent posts in social media. This paper focuses on the main OI contributions within the largest academic journals and

within the majority of OI conferences (WOIC, OIS, OI2.0 etc.).

3. Objectives

To study the Blockchain Technology impact on Banking and its operations overview of blockchain technology with its benefits emphasizing on the applications of the technology in the Indian Banking Sector.

4. Methodology

For the purpose of the study secondary data were used. The data required for the study were collected from the secondary data source which includes websites, journals, magazines, census reports and books.

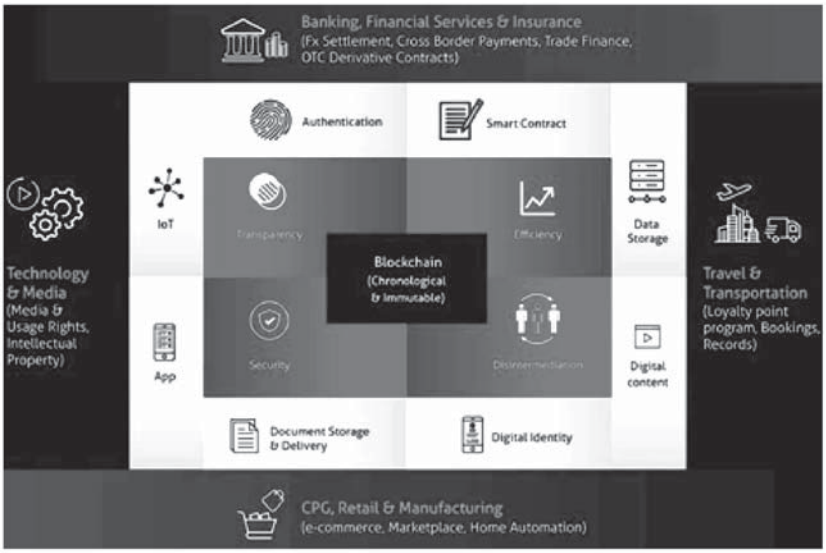
5. Discussion and Conclusion

BLOCKCHAIN is undoubtedly one of the most talked about technologies in the financial services industry today. Blockchain Technology (BCT)/Distributed Ledgers lead the trend of Gartner Inc.'s Hype Cycle for Emerging Technologies, which allow organizations to connect with new business and payment ecosystems. The shift from a centralized technical infrastructure to distributed, ecosystem-enabling platforms is laying the foundations for new business models in payments, digital banking and financial transaction technologies. Financial services industry is currently the leader in experimenting with the technology. A number of initiatives that are already underway are driving its progression to an industrial solution which will yield several important benefits in the context of transfer of assets within business networks. Blockchain holds the potential for all participants in a business network to share a system of records which will provide consensus, provenance, immutability and finality around the transfer of assets within the business network. The reason blockchain can be potentially disruptive is that the distributed ledgers may lead to new business models and the existing processes could move away from a hub and spoke model with intermediaries. Typically, in the banking industry/ financial services, the key transactions in the processes are to underpin asset ownership and asset or value transfer. In order to conclude/settle a transaction, data messages are exchanged between the banks/financial institutions, sometimes including 'trusted' intermediaries. Despite the efforts to reduce the complexities and increase the interconnectedness of participants' transaction records, business networks are still typically exchanging data or messages between them to conclude transactions. As a result, the processes are sometimes inefficient, expensive, and vulnerable.

BCT has the potential to address certain limitations of the current processes by modernizing, streamlining and simplifying the traditional siloed design of the financial industry infrastructure with a shared fabric of common information. The advantages brought by BCT can be broadly classified into cost savings, efficiency, and transparency. Cost Savings Fraud Prevention: As BCT is built on the concept of sharing information across parties and consensus during transactions; it saves on reconciliation cost between banks and prevents losses because of documentary frauds.

Advantages of Blockchain Technology in Banking and Finance

Figure-4



Source: "Blockchain for Banks: An Implementation Guide

Save Costs on Forex Volatility: BCT used in cross border payments can help the consumers and banks to take advantage of the forex marketplace to get the best deal transparently from the market players. Since the transactions are processed in near real-time, the players need not suffer through the vagaries of currency volatility.

Save Costs over Delayed Settlements: In case of a distributed payment network, BCT ensures the transaction settlement information is also processed simultaneously along with the payment messages. Since, the payments and settlements happen in real-time, the participating banks and financial institutions can enjoy reduced pressure on the treasury management to keep their settlement accounts well-funded.

Efficiency Resilience through Redundancy: Being a distributed architecture by design, BCT enables the network to be operated by all permissioned nodes in the ecosystem. All the important members of the payment ecosystem - banks, financial institutions shall effectively become the participating nodes in the BCT network. In the case of an untoward event affecting the ecosystem (like war, floods, earthquakes, cyber-attacks), even if some nodes of the network are unavailable, the consensus algorithms built as a part of the BCT network ensure a transaction can be approved by the remaining nodes in the network. BCT also brings in a high level of redundancy in the network, as the copy of the ledger is available with all the nodes in the network.

Reduced Time for Processing: Most of the conventional banking processes are linear and hierarchical, akin to the assembly line of the manufacturing industry, e.g., maker-checker/cross check/approval processes. While the makerchecker-approver process helps the banks and FIs to gain control and puts the emphasis on ownership of decisions, it delays in decision making and can lead to longer processing time, costs and lower customer satisfaction. BCT can radically alter the way such transactions are processed by banks and FIs today. In BCT, the transaction is

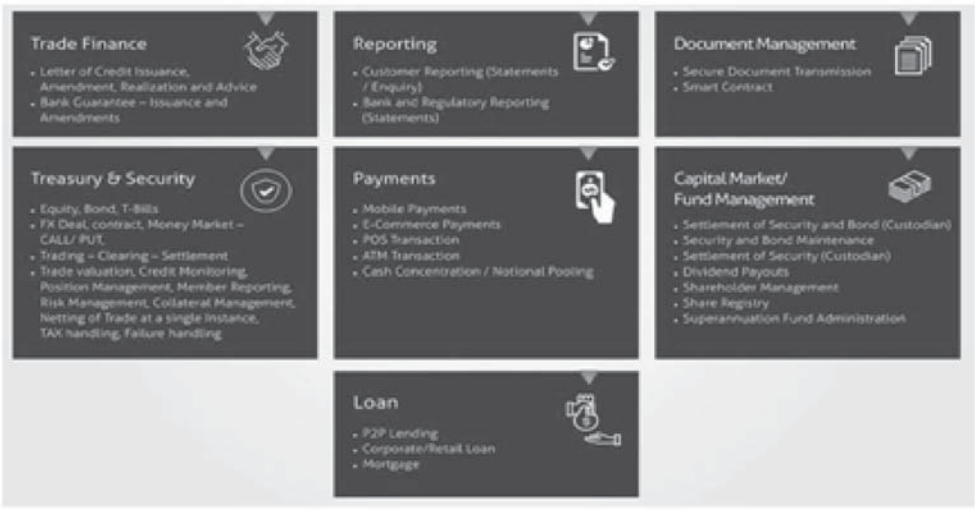
relayed to all the approving nodes simultaneously, as and when the approvals are provided, the information is updated in the ledgers of all the nodes, instantly.

Thus, BCT can help in improving the speed of processing transactions by reduction in decision making time across the organizations resulting in reduced cost of processing and enhanced transparency of decisions to all participating nodes. Smart Contracts are business terms that are embedded in the transaction database and gets automatically executed when certain business conditions are met. Smart Contract feature in the BCT enables speed of processing and helps banks to create and execute complex business rules that have minimal human intervention and it can address the market needs that could not be satisfied before. Faster settlements: Blockchain can also help to address KYC and identity management challenges as a lot of the data to prove identity is already in digital form and BCT could enable instant verification. Use of BCT can reduce duplicative recordkeeping, eliminate reconciliation, minimize error rates and facilitate faster payment/asset settlement. In turn, faster settlement means less risk in the financial system and lower capital requirements. One of the most frequently suggested example where BCT can be readily applied to banking is in the Trade Finance area. A trade finance solution with letter of credit, bill of lading and multi-signature solutions based on BCT would include the following features:

1. Carriers issue bill of lading on the BCT as a digital asset
2. Banks issue letter of credit as a digital asset on the BCT
3. Multi-signature contracts
4. Smart-contract-enabled, event-based fund release to ensure speed and transparency

Although blockchain is imagined as an open system for transaction processing across the financial system, banks are initially looking inward, experimenting with the distributed ledger approach to create efficiencies and a single version of digital truth. Subsequently, onboard other external parties in the ecosystem for mutual benefits with a permission-based ledger system that can move cash and assets in real-time to settle market transactions.

Figure-5 Potential use-cases for Blockchain Technology



Source: "Blockchain for Banks: An Implementation Guide"

Five ways blockchain technology could impact traditional banking they are: Five ways blockchain technology could disrupt traditional financial institutions in five areas they are:

1. Payments
2. Clearance and Settlement Systems
3. Fundraising
4. Securities
5. Loans And Credit

The advantages brought by BCT can be broadly classified into

1. Cost Savings
2. Efficiency
3. Transparency

1. Cost Savings:

Fraud Prevention: As BCT is built on the concept of sharing information across parties and consensus during transactions; it saves on reconciliation cost between banks and prevents losses because of documentary frauds.

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- Carriers issue bill of lading on the BCT as a digital asset
- Banks issue letter of credit as a digital asset on the BCT
- Multi-signature contracts
- Smart-contract-enabled, event-based fund release to ensure speed and transparency.

Saving in Decision Making Time: BCT helps in improving the rate of processing transactions by reducing decision making time, thus resulting in reduced cost of processing and enhanced

transparency of decisions to all the participating nodes. As BCT brings transparency to the system, availability of audit trails brings in the necessary control and trust to the participating members which may help improve the services through continuous innovation.

Transparency

Immutable Transactions: Maintaining an immutable record of transaction events in a chronological order being a main pillar of its architecture, BCT guarantees much desired attributes to banking and financial transactions such as immutability and finality Although blockchain is imagined as an open system for transaction processing across the financial system, banks are initially looking inward, experimenting with the distributed ledger approach to create efficiencies and a single version of digital truth. Subsequently, onboard other external parties in the ecosystem for mutual benefits with a permission-based ledger system that can move cash and assets in real-time to settle market transactions.

Provenance: In the area of payments, while the exchange of messages reasonably offer clarity on each step in the payment process, BCT could add to it by providing provenance and

auditability for these messages and thus bringing about transparency and efficiency in the processes leading to reduction in overall settlement time and risk.Provenance ensures the finality of the ownership of the asset and it saves efforts and processes to prevent double collateralization of the same asset. As a ledgering technology, blockchain will not replace the payment systems or the messaging systems deployed by banks, but these systems will connect to the blockchain, augmenting existing business networks and providing increased discoverability and trust.

Conclusion

Although blockchain has been around since 2009, nobody envisaged its use in the banking industry. Today, it has become the technology to beat in almost in the financial industry. Here are a few ways it can impact on the banking industry. This unique technology offers the banking industry many unique opportunities. But certain challenges must be overcome for noticeable impacts to occur in the banking sector. To deploy this technology in the banking sector, it must conform and follow recent privacy laws. This is necessary to protect individual and organizational data as well as the safety of such data. More so, the need for regulatory functions and oversight needs to be addressed by relevant authorities. The financial sector is synonymous with huge data. Hence, data scalability must be sorted out prior to deploying blockchain in the financial sector. In summary, blockchain can impact and revolutionize the banking sector. The only thing needed is its right application and use.

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Performance Appraisal through Camel Model Approach: A Comparative Study of Nationalized Banks and Private Banks in India

Geetanjali Rudra

Abstract

A sound financial system is basic for the development of a solid and lively economy. Research affirms that nations with a well develop banking system grow faster than those with a weaker one. This supervisory framework to judge the execution has achieved significant and impressive change over the prior frameworks as far as financial, managerial and recuperation system effectiveness. The present study is totally based on the CAMEL Model in order to measure the performances of three nationalized banks and three private sector banks. The Camel Model approach incorporates vital parameters like Capital Adequacy, Assets Quality, Management Efficiency, Earnings Quality, and Liquidity. The data were collected from the annual reports of three nationalized banks, namely, State Bank of India, IDBI Bank, Bank of Maharashtra and three private sector banks namely HDFC Bank, ICICI Bank and AXIS Bank covering the period of ten years starting from 2006-2007 to 2015-2016. The basis for the selection of the banks was based on their performances in terms of CAMEL. The study is analytical in nature and shows that the performances of private sector banks under the CAMEL Framework are significantly better than the nationalized banks.

Keywords: *Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality and Liquidity.*

Introduction

Liberalization initiated in 1991 enabled the entry of private sector banks as well as the foreign banks in India, as an outcome of it the public sector banks were forced to face cutthroat competitions from these banks. These foreign and private sector banks are providing better services with the aid of technology and with their attractive policies. As a result of it, the public sector banks also realized the importance of technology as well as product innovations. The last two decades witnessed tremendous use of product innovation and high use of technology therefore by these public sector banks. In pursuance of the above background, it is worthwhile to examine the performances of private as well as nationalized banks based on CAMEL model, which is basically a ratio based model for evaluating the performances of the banks and ranking or rating them accordingly.

Camel Concept

CAMEL model is a rating system developed in the early 80's in the U.S. the model was devised to monitor the banks overall condition. The present CAMEL model is the advanced version of

the Uniform Financial Institutions Rating System (UFIRS) which was implemented by the U.S. banking institution in 1979. This system is internationally accepted to assess five components:

- **C-** Capital Adequacy
- **A-** Assets Quality
- **M-** Management Capability / Efficiency
- **E-** Earnings
- **L-** Liquidity (also called asset liability management).

Every single component is rated on a scale of one to five, one being the best and five being the worst. Apart from individual component rating a composite rating is also done in order to get a synopsis of the bank's entire financial performance. In the above background it is imperative to study the financial soundness of three nationalized bank and three private sector bank by using the CAMEL Model.

Review of Literature

Researchers, academicians and policy makers have assessed the performance of banking and financial sectors from different perspectives and in different time periods. A brief review of some important studies is carried out here which highlights the need for the present research work.

Studies Carried Out by International Researchers, Academicians and Policy Makers:

Schumpeter (1934) opined the significance of banking system on the level and growth rate of national income in fostering economic development via the identification and funding of productive sector.

Eichel and Bender (1984) stated that performance appraisal can also be called as the Achilles heel of management. Although leaders of many public organizations strive to be employee focused or employee centered, a lack of emphasis is given to a process intended to assist the employee in achieving both personal and organizational goals.

Barker and Holdsworth (1993) found that even if the information's are available publicly the CAMEL model is successful in controlling that level of diversified conditions and is effective in measuring the performance of the banks. CAMEL system further acts as a bank's failure predicting model. The rating is designated based on both quantitative and qualitative information about the bank.

Cascio (1998) describes appraisal of performance as a process to improve employee's work by encouraging them to realize their own potentials and to use it to their fullest in achieving the organizational goals as well as enabling the managers to take work related decisions. He goes on to define effective appraisal performance as a tool to observe and judge feedback process. He claims that performance appraisal is both a measurement process as well as an intensely emotional process. He also claimed that performance appraisal is a human process applied in almost all organizations regardless of industry, the only concept is every organization adopts it differently.

Studies Carried Out by National Researchers, Academicians and Policy Makers:

Padmanabhan Working Group (1995) emphasized that for rating Indian commercial banks and foreign banks operating in India two rating models can be applied, one is the CACS and the other one is the CAMEL.

Rao and Datta (1998) conducted a study based on CAMEL to assess the performance of all nationalized banks for the year 1998. The study found that Corporation Bank has the best rating followed by Oriental Bank of Commerce, Bank of Baroda, Dena Bank, Punjab National Bank, etc. And the worst rating was found to be of Indian Bank preceded by UCO Bank, United Bank of India, Syndicate Bank and Vijaya Bank.

Veni (2004) studied the capital adequacy requirement of banks and the measures adopted by them to strengthen their capital ratios. The author highlighted that the agencies who are using CAMEL model gives maximum importance to CAR in order to rank banks deposits and bonds.

Srivastava Shefali and Thakur YS (2006) have conducted a study on Performance Appraisal System at the State Bank of India to find out the changes initiated in the system since liberalization. The authors suggested that in order to enhance human resources, there is a need to refurbish the performance evaluation system as well as the rewarding system keeping in consideration key result areas, qualitative aspects and all other attributes.

Importance of the Study

With increase in competition from the private sector banks as well as foreign banks, the public sector banks were forced to restructure their activities and as a result of it they became more professionalized in their activities. The public sector banks shifted towards an economic oriented model, leaving aside the decades old social approach. Against this background, it is imperative to measure the performances of the commercial banks through a measurement system that provides an opportunity to assess their performance.

Methodology

For the study, statistical data will be collected from various annual reports published periodically by the various Nationalized Banks and Private Banks as well as from RBI Published bulletins. The present study covers a period of 10 years from 2007 to 2016. Statistical techniques like percentage, averages and coefficient of variation will be applied. CAMEL Model will be applied to test the hypothesis.

Expected Results

In the present world banks plays an important role in economic growth and economic development of the country as it helps to provide monetary assistance to the industries. It plays a key role in financial assistance as well for financial transactions. Therefore, it can be said that banks are backbone of any country. Thus, this study is helpful for both private as well as for nationalized banks to develop healthy competition and improve their services as well as their market share. This study is also helpful for the customer or general mass, they will become aware of the facilities provided by the both the banks and thus will be benefited by availing the better facilities without any risk.

Objective of the Study

This study has the following objective:

- To study the performances of Public Sector Banks and Private Sector Banks in India as assessed by CAMEL Model.

Hypothesis of the Study (Ho)

- There is no significant difference in the performances of Public Sector Banks and Private Sector Banks in India as assessed by CAMEL model.

Limitations of the Study:

As the research work is mainly based on secondary data; the study may incorporate the following limitations:

- The financial performance of the banks is shown just for the last ten years, ending 2016. Hence, any uneven trend before or beyond the set period will be the limitations of the study.
- This analysis is based on only monetary information, analysis of the non monetary factors are ignored.
- As per the requirement of the study some data have been grouped and sub grouped.

Evaluation of Performance of Commercial Banks

The performances of the banks were analyzed applying CAMEL rating system which will enable us to significantly evaluate the items of the balance sheets of these banks and how they affects their performances. The present study incorporates CAMEL model to measure the capital adequacy, asset quality, management efficiency, earning quality and liquidity of three nationalized banks, namely State Bank of India, IDBI Bank & Bank of Maharashtra and three private sector banks namely HDFC Bank, ICICI Bank and Axis Bank.

Capital Adequacy Ratio

Capital Adequacy Ratio of banking sector helps the depositor's in developing their risk perception about any particular bank. It enables the depositors to understand the financial health of any particular bank. It also provides a significant base for the financial manager to maintain adequate level of capitalization. Capital adequacy ratio develops and maintains depositor's confidence and prevents the banks from bankruptcy by promoting stability and efficiency of the financial system. Basically, Capital Adequacy ratio is the ratio of capital of any bank in relation to its weighted assets and current liabilities. In accordance with the guidelines of RBI, scheduled commercial banks in India should maintain a Capital Adequacy ratio of 9%, but the public sector banks are required to maintain it around 12%. The high capital adequacy ratio is favorable, but if the CAR is below the standard norms the banks cannot go for the expansion of its activities. It is calculated as follows:

$$\text{Capital Adequacy Ratio} = \frac{(\text{Tier I+Tier II})\text{Capital})}{(\text{Risk Weighted Assets})} * 100$$

Table No. 1: Statement Showing Capital Adequacy Ratio (%)

	Capital Adequacy Ratio (%)					
Year	*Nationalized Bank*			*Private Bank*		
	State Bank of India	*IDBI Bank*	*Bank of Maharashtra*	*HDFC Bank*	*ICICI Bank*	*AXIS Bank*
2006-07	12.34	13.73	12.06	13.1	14.92	11.57
2007-08	13.54	11.95	10.85	13.6	13.96	13.73
2008-09	14.25	11.57	12.05	15.69	15.53	13.69
2009-10	13.39	11.31	12.78	17.44	19.41	15.8
2010-11	11.98	13.64	13.35	16.22	19.54	12.65
2011-12	13.86	14.58	12.43	16.52	18.52	13.66
2012-13	12.92	13.13	12.59	16.8	18.74	17

Capital Adequacy Ratio (%)						
Year	*Nationalized Bank*			*Private Bank*		
	State Bank of India	*IDBI Bank*	*Bank of Maharashtra*	*HDFC Bank*	*ICICI Bank*	*AXIS Bank*
2013-14	12.96	11.68	10.79	16.1	17.7	16.07
2014-15	12.79	11.76	11.94	16.8	17.2	15.09
2015-16	13.94	11.67	11.2	15.5	16.64	15.29
Mean	13.2	12.5	12.0	15.8	17.2	14.5
Rank (Sector wise)	1	2	3	2	1	3
Overall Rank (All Banks)	4	5	6	2	1	3
S.D.	0.7	1.2	0.8	1.4	1.9	1.7
CV %	5.5	9.2	7.0	8.9	11.2	11.6
Growth	13.0	-15.0	-7.1	18.3	11.5	32.2
Average Annual Growth	1.3	-1.5	-0.7	1.8	1.2	3 . 2

Source: Compiled from the annual reports of the respective Banks (From 2007 - 2016) and author's own calculations.

Interpretation

As it is evidently observed from the table no.1, among Nationalized Banks, the Capital Adequacy ratio in the year 2006-07 was highest of the IDBI Bank when it was 13.73% while ICICI bank holds the highest percentage among private Banks i.e. 14.92%. Year 2007-08 witnessed the highest CAR of State Bank of India with 13.54% among Nationalized Banks and ICICI Bank with 13.96% among private banks. Next year, SBI again maintained the highest CAR with 14.25% and HDFC Bank with 15.69%. In the year 2009-10, SBI managed with highest CAR i.e. 13.39%, while ICICI Bank had the highest among private banks when it was 19.41%, followed by HDFC Bank with 17.44% and AXIS Bank with 15.8%. In the year 2010-11, among Nationalized Banks IDBI Bank secured the highest ratio with 13.64%, followed by Bank of Maharashtra and State Bank of India with 13.35% and 11.98% respectively, while in the Private Banks ICICI Bank has the highest CAR with 19.54% followed by HDFC Bank with 16.22% and AXIS Bank with 12.65%. The next year saw IDBI Bank ranked first among Nationalized Banks with 14.58%, followed by State Bank of India and Bank of Maharashtra with 13.86% and 12.43%. Among private Banks ICICI bags the first position with CAR of 18.52%, followed by HDFC and AXIS Bank with 16.52% and 13.66% respectively. In contrast, in the year 2012-13 IDBI Bank had the highest CAR among Nationalized Banks with 13.13%, while State Bank of India secured second rank with 12.92% and Bank of Maharashtra stood third with 12.59%. Among private Banks, ICICI Bank has the highest CAR with 18.74%, followed by AXIS and HDFC Bank with 17% and 16.8% respectively. Further, in the next year, SBI has a highest CAR with 12.96%, followed by IDBI Bank and Bank of Maharashtra with 11.68% and 10.79% respectively, Among Nationalized Banks. While in the year 2013-14, among private banks, HDFC Bank ranks first with 16.10% with AXIS Bank securing second highest with a very close margin with 16.07%. In the year 2014-15 State Bank of India has a highest CAR among Nationalized Bank with 12.79%, followed by Bank of Maharashtra and IDBI Bank with 11.94% and 11.76% respectively. Among private Banks, ICICI Bank has the

highest ratio with 17.2%, followed by HDFC and AXIS Bank with 16.8% and 15.09% respectively. In 2015-16 the ranking went as SBI followed by Bank of Maharashtra and IDBI Bank with 11.20% and 11.67% respectively. While private Banks went as 16.64%, 15.5% and 15.29% of ICICI, HDFC and AXIS Bank respectively. Sector-wise ranking displays SBI in the lead among Nationalized Banks and ICICI among private. ICICI also leads in overall ranking, followed by HDFC and AXIS Banks while Nationalized Banks lag behind.

Asset Quality Ratio

The Asset Quality ratio measures the loan impairment charge, i.e., the writing off of worthless goodwill for the year as a percentage of loans and advances to customers. This ratio is also known as a loan loss ratio. Asset Quality ratio determines the component of non-performing assets as a percentage of Net Advances. Nonperforming asset (NPA) are those assets on which interest is overdue for than 90 days/ 3 months. It is a tool to measure the quality of asset when no provisions on account of loss on NPAs are made by the management. Higher Net NPA to Net Advances ratio reflects increasing bad quality of loans. It is calculated as follows:

$$\text{Net NPA to Net Advances Ratio} = \frac{(\text{Net NPA})}{(\text{Net Advances})} * 100$$

Table No. 2: Statement Showing Net NPA to Net Advances Ratio %

	Net NPA to Net Advances Ratio					
Year	*Nationalized Bank*			*Private Bank*		
	State Bank of India	*IDBI Bank*	*Bank of Maharashtra*	*HDFC Bank*	*ICICI Bank*	*AXIS Bank*
2006-07	1.56	1.12	1.21	0.43	1.02	0.72
2007-08	1.78	1.3	0.87	0.47	1.55	0.42
2008-09	1.79	0.92	0.79	0.63	2.09	0.4
2009-10	1.72	1.02	1.64	0.31	2.12	0.4
2010-11	1.63	1.06	1.32	0.19	1.11	0.29
2011-12	1.82	1.61	0.84	0.18	0.73	0.27
2012-13	2.1	1.58	0.52	0.2	0.77	0.36
2013-14	2.57	2.48	2.03	0.27	0.82	0.4
2014-15	2.12	2.88	4.19	0.25	1.61	0.44
2015-16	3.18	6.78	6.35	0.28	2.98	0.7
Mean	2.03	2.08	1.98	0.32	1.48	0.44
Rank (Sector wise)	2	3	1	1	3	2
Overall Rank (All Banks)	5	6	4	1	3	2
S.D.	0.50	1.78	1.86	0.15	0.74	0.15
CV %	24.77	85.61	94.24	45.35	49.88	34.63
Growth	103.85	505.36	424.79	-34.88	192.16	-2.78
Average Annual Growth	10.38	50.54	42.48	-3.49	19.22	- 0 . 2 8

Source: Compiled from the annual reports of the respective Banks (From 2007 - 2016) and author's own calculations.

Interpretation

Table no.2 represents Net NPA to Net Advances ratio, which in the year 2006-07 was highest in SBI with 1.56 followed by Bank of Maharashtra and IDBI Bank with 1.21 and 1.12 among Nationalized Bank respectively. The next year witnessed the ratio ranking as State Bank of India being the highest, followed by IDBI Bank and Bank of Maharashtra with 1.78, 1.30 and 0.87 respectively, among Nationalized Banks, while Private Banks experienced the ranking as ICICI Bank followed by HDFC and AXIS Bank respectively with 1.55, 0.47 and 0.42. In the year 2008-09, ratio was highest of SBI with 1.79 followed by IDBI and BOM with 0.92 and 0.79, whereas the same year saw highest ratio of ICICI Bank i.e. 2.09 followed by HDFC and AXIS Bank with 0.63 and 0.40. In comparison, in the year 2010-11 highest ratio resided with SBI i.e. 1.63 led by Bank of Maharashtra with 1.32 followed by IDBI Bank with 1.06 among Nationalized Banks and among Private Banks the ratio ranking goes as ICICI Bank followed by AXIS Bank and HDFC Bank with ratios 0.29 and 0.19 respectively. During the next year, the ratio was the highest in SBI with 1.82 led by IDBI Bank and Bank of Maharashtra with ratios 1.61 and 0.84 respectively among Nationalized Banks. Among Private Banks, ICICI Bank holds the highest ratio, i.e. 0.73 followed by AXIS and HDFC Bank with ratios 0.27 and 0.18. The year 2012-13 saw the highest ratio of SBI as 2.1, while IDBI Bank had the ratio as 1.58 among Nationalized Banks. In the same category Bank of Maharashtra secured third rank with the ratio 0.52. Among private Banks, ICICI Bank has the highest ratio as 0.77 followed by AXIS Bank and HDFC Bank with ratios 0.36 and 0.20. The following year Net NPA to Net advanced Ratio among Nationalized Banks was highest in SBI led by IDBI Bank and Bank of Maharashtra with ratios 2.57, 2.48 and 2.03 respectively. Among private banks, ICICI Bank topped the list with ratio 0.82 followed by AXIS and HDFC Bank with 0.40 and 0.27 respectively. In the year 2014-15, highest was the Bank of Maharashtra with 4.19 followed by IDBI Bank and State Bank of India with 2.88 and 2.12 ratios respectively. Among Private Banks ICICI Bank had the highest ratio as 1.61, led by AXIS and HDFC Bank with 0.44 and 0.25 respectively. In the year 2015-16, Nationalized Banks experienced the ratio as highest in IDBI Bank with 6.78 followed by the BOM and SBI with 6.35 and 3.18 while among private Banks ICICI was the highest with 2.98 followed by AXIS and HDFC Bank with 0.7 and 0.28 observing the sector-wise rank, BOM stands 1st followed by SBI and IDBI Bank while HDFC Bank stands 1st led by AXIS and ICICI Bank.

Management Efficiency

The next component of the CAMEL Model is to measure the management efficiency, which involves adherence to the preset norms; ability of the banks to plan according to the ever changing and dynamic business environment as well as to study how proactive, innovative is these banks in developing new business products for its ever increasing customers. In order to calculate the management efficiency, business per employee has been calculated. Business per employee tries to assess the efficiency of all the employees of a bank in creating business for the bank. Generally a high Business per employee ratio is good because it indicates higher productivity and effective use of the bank's resources. It is calculated as follows:

$$\text{Business per Employee Ratio} = \frac{(\text{Total Business})}{(\text{Total Employees})}$$

Table No. 3: Statement showing Business per Employee (In millions)

Business Per Employee (in millions)						
Year	*Nationalized Bank*			*Private Bank*		
	State Bank of India	*IDBI Bank*	*Bank of Maharashtra*	*HDFC Bank*	*ICICI Bank*	*AXIS Bank*
2006-07	35.7	138.72	40.49	60.7	102.7	102.4
2007-08	45.6	180.92	51.57	50.6	100.8	111.7
2008-09	55.6	203.03	63.6	44.6	115.4	106
2009-10	63.6	241.74	76.2	59	76.5	111.1
2010-11	70.47	234.64	82.5	65.3	73.5	136.6
2011-12	79.84	238.71	96.7	65.4	70.8	127.6
2012-13	94.4	256.4	125.6	75	73.5	121.5
2013-14	106.4	246.5	143.9	89	74.7	123
2014-15	123.4	262.1	157.4	101	83.2	137.1
2015-16	141.1	251.8	181.8	113.9	94.3	148.4
Mean	81.61	225.46	101.98	72.45	86.54	122.54
Rank (Sector wise)	3	1	2	3	2	1
Overall Rank (All Banks)	5	1	3	6	4	2
S.D.	34.31	39.40	47.87	22.33	15.63	15.03
CV %	42.04	17.48	46.94	30.82	18.06	12.26
Growth	295.24	81.52	349.00	87.64	-8.18	44.92
Average Annual Growth	29.52	8.15	34.90	8.76	-0.82	4.49

Source: Compiled from the annual reports of the respective Banks (From 2007 - 2016) and author's own calculations.

Interpretation

Table no.3 signifies Business per employee (in millions) of three Nationalized and three private banks. In the year 2006-07 it was the highest of IDBI Bank when it was 138.72 followed by Bank of Maharashtra and State Bank of India which was 40.49 and 35.7 respectively. Among private banks, ICICI Banks ranks first with 102.7 followed by AXIS and HDFC Bank with 102.4 and 60.7 respectively. Further, in the next year among Nationalized Banks IDBI yet again secures the highest BPE when it was 180.92 while Bank of Maharashtra stood second with 51.57 followed by 45.6 while in the same year among Private Banks AXIS Bank held the topmost position when it was 111.7 followed by ICICI and HDFC Bank with 100.8 and 50.6. In the year 2008-09, IDBI bank had the highest business per employee as 203.03 followed by Bank of Maharashtra and State Bank of India with 63.6 and 55.6 among Nationalized Banks.

Among private banks, ICICI Bank had the highest BPE as 115.4 followed by AXIS and HDFC bank with 106 and 44.6 BPE respectively. It can be noted that in the next year IDBI Bank again managed to maintain the topmost position with 241.74 BPE followed by Bank of Maharashtra and State Bank of India with 76.2 and 63.6 respectively. Among private banks, AXIS Bank stands first with 111.1 BPE followed by ICICI bank with 76.5. HDFC bank had the lowest of the three with 59. In the year 2010-11, IDBI Bank yet again secured the first position among Nationalized Banks with 234.64 followed by Bank of Maharashtra and State Bank of India with 82.5 and 70.47

respectively. Among private banks, AXIS bank secured the highest BPE with 136.6 followed by ICICI Bank and HDFC bank 73.5 and 65.3 respectively. In the year 2011-12, IDBI again had the highest BPE with 238.71 followed by Bank of Maharashtra and State Bank of India with 96.7 and 79.84 respectively.

Among private banks, AXIS bank had the highest BPE followed by ICICI Bank and HDFC bank with 127.6, 70.8 and 65.4 respectively. The consecutive year saw IDBI bank again having the highest BPE as 256.4 followed by Bank of Maharashtra and State Bank of India with 125.6 and 94.4. Among private banks in the same year, AXIS Bank had the highest BPE with 121.5 followed by HDFC and ICICI Bank with 75 and 73.5. In the year 2013-14, State Bank of India and Bank of Maharashtra with 106.4 and 143.9 was led by IDBI Bank with 246.5. Among private banks, the ranking went as AXIS bank, HDFC bank and ICICI bank with BPE as 123, 89 and 74.7 respectively. Observing the next year, we note that among Nationalized Banks IDBI Bank continues to topmost position with BPE 262.1 followed by Bank of Maharashtra and SBI with 157.4 and 123.4.

While among private banks AXIS bank had the highest BPE with 137.1 followed by HDFC and AXIS bank with 101 and 83.2. In the year 2015-16 IDBI Bank again maintains first position with 251.8 followed by 181.8 and 141.1 of the BOM and SBI. Among private banks AXIS bank secured highest BPE 148.4, followed by HDFC and ICICI bank with 113.9 and 94.3 IDBI bank holds first position in both sectors-wise ranking and overall ranking.

Earning Quality

Earning Quality depicts the capability of a bank to earn regularly. It also describes the possibilities of earnings in the future. Earning Quality gains significance on the fact that the major part of a bank's income come from non -core activities, i.e., investments, treasury operations and so on. The best indicator used to measure earning is the Return on Assets. Higher return on asset ratio shows better earning capability of the banks. It is calculated as follows:

$$\text{Return on Average AssetsRatio} = \frac{(\text{Net Profit})/}{(\text{ Average Assets })} * 100$$

Table No. 4: Statement showing Return on Average Assets Ratio (%)

	Return on Average Assets Ratio (%)					
Year	*Nationalized Bank*			*Private Bank*		
	State Bank of India	*IDBI Bank*	*Bank of Maharashtra*	*HDFC Bank*	*ICICI Bank*	*AXIS Bank*
2006-07	0.84	0.67	0.76	1.33	1.09	1.1
2007-08	1.01	0.67	0.75	1.32	1.12	1.24
2008-09	1.04	0.62	0.72	1.28	0.98	1.44
2009-10	0.88	0.53	0.7	1.53	1.13	1.67
2010-11	0.71	0.73	0.47	1.58	1.35	1.68
2011-12	0.88	0.82	0.55	1.77	1.5	1.68
2012-13	0.91	0.72	0.74	1.9	1.7	1.7
2013-14	0.65	0.41	0.3	2	1.76	1.78
2014-15	0.68	0.29	0.33	2.02	1.86	1.83
2015-16	0.46	-1.09	0.07	1.92	1.49	1.72

Return on Average Assets Ratio (%)						
Year	*Nationalized Bank*			*Private Bank*		
	State Bank of India	*IDBI Bank*	*Bank of Maharashtra*	*HDFC Bank*	*ICICI Bank*	*AXIS Bank*
Mean	0.81	0.44	0.54	1.67	1.40	1.58
Rank (Sector wise)	1	3	2	1	3	2
Overall Rank (All Banks)	4	6	5	1	3	2
S.D.	0.18	0.56	0.24	0.29	0.31	0.24
CV %	22.21	128.03	44.51	17.62	22.31	15.32
Growth	-45.24	-262.69	-90.79	44.36	36.70	56.36
Average Annual Growth	-4.52	-26.27	-9.08	4.44	3.67	5.64

Source: Compiled from the annual reports of the respective Banks (From 2007 - 2016) and author's own calculations.

Interpretation

It is distinctly observed from the table no.4, State Bank of India has the highest Return on average assets ratio i.e. 0.84% among Nationalized Banks. Bank of Maharashtra stands second highest with 0.76%, while IDBI Bank has the lowest ratio to 0.67%. Relatively speaking, among private banks HDFC Bank has the highest ratio with 1.33%, followed by AXIS Bank and ICICI Bank with 1.1% and 1.09% respectively. In the year 2007-08, State Bank of India had the highest ratio 1.01%, followed by Bank of Maharashtra and IDBI bank with 0.75% and 0. 67% respectively among Nationalized Banks. In the same year among private banks, the rating went as HDFC Bank is the first, followed by AXIS and ICICI Bank with ratios 1.24% and 1.12% respectively. The consecutive year witnessed SBI with the highest ratio when it was 1.04%, followed by Bank of Maharashtra and IDBI Bank with ratios 0.72% and 0.62% respectively. Among the private banks, ICICI Bank and HDFC Bank with ratios 0.98% and 1.28%, respectively led by AXIS Bank with 1.44%. In the year 2009-10 State Bank of India attained highest ratio with 0.88%, followed by Bank of Maharashtra and IDBI Bank with ratios 0.53% and 0.7%. Talking about private Banks, AXIS Bank had the highest ratio when it was 1.67%, while HDFC and ICICI Bank stood second and third with 1.53% and 1.13% respectively. In the following year, IDBI Bank led among Nationalized Banks with a ratio 0.73%, while State Bank of India succeeded with 0.71% followed by Bank of Maharashtra with 0.47%. In the same year among private banks ranking went as AXIS bank, HDFC bank and ICICI bank with 1.68%, 1.58% and 1.35% respectively.

In the year 2011-12 State Bank of India had an upper hand among Nationalized Banks with 0.88%, followed by IDBI Bank and Bank of Maharashtra with 0.82% and 0.55% respectively. As noted among private banks, HDFC bank had the highest ratio with 1.77%, followed by AXIS and ICICI bank with 1.68% and 1.50%. During the next year, State Bank of India had the highest ratio when it was 0.91%. Bank of Maharashtra and IDBI had a close margin of difference with 0.74% and 0.72%. Among private banks, HDFC Bank secured highest rank among the three, with 1.90%, while ICICI and AXIS Bank had equal ratios of 1.70%. In the year 2013-14, State Bank of India had the highest ratio with 0. 65%, followed by IDBI Bank and Bank of Maharashtra with 0.41% and 0.30% respectively. The same year witnessed the ranking among private banks as HDFC Bank, AXIS Bank and ICICI Bank with 2%, 1.78% and 1.76% respectively. In the year 2014-15 State Bank of India continued to remain at the highest ratio with 0.68%, followed by

Bank of Maharashtra and IDBI Bank with 0.33% and 0.29% respectively. Among private banks HDFC Bank had the highest ratio with 2.02%, followed by ICICI and AXIS Bank with 1.86% and 1.83%.

A look at the year 2015-16 makes us note that State Bank of India continues the highest ratio with 0.46%, followed by Bank of Maharashtra and IDBI Bank with 0.07% and -1.09% respectively. Among private HDFC Bank had the highest ratio, i.e. 1.92%, followed by AXIS and ICICI Bank with 1.72% and 1.49%. According to the sector-wise ranking SBI and HDFC Bank stand first in their respective sectors. In the overall ranking HDFC Bank stands first, AXIS and ICICI Banks hold second and third positions respectively.

Liquidity

The liquidity of a bank shows its ability to meet its financial responsibilities. Maintaining accurate level of liquidity is vital for ensured growth and earnings. Banks need to be extra careful in investments in order to generate extra profit on their investment as well as to offer liquidity to the depositors. High Liquidity ratio illustrates the bank's efficiency. For measuring the liquidity of banks liquid assets to total assets ratio was applied, which measures the overall liquidity position of the bank. It is calculated as follows:

$$\text{Liquid Assets to Total Assets Ratio} = \frac{(\text{Liquid Assets})}{(\text{ Total Assets })}$$

Table No. 5: Statement Showing Liquid Assets to Total Assets Ratio

	Liquid Assets to Total Assets Ratio					
Year	*Nationalized Bank*			*Private Bank*		
	State Bank of India	*IDBI Bank*	*Bank of Maharashtra*	*HDFC Bank*	*ICICI Bank*	*AXIS Bank*
2006-07	0.14	0.12	0.09	0.14	0.16	0.12
2007-08	0.12	0.1	0.87	0.14	0.15	0.14
2008-09	0.13	0.09	0.1	0.13	0.14	0.13
2009-10	0.11	0.08	0.12	0.16	0.16	0.11
2010-11	0.13	0.1	0.08	0.16	0.12	0.11
2011-12	0.1	0.08	0.1	0.13	0.15	0.07
2012-13	0.09	0.08	0.07	0.12	0.13	0.08
2013-14	0.1	0.07	0.06	0.13	0.12	0.1
2014-15	0.12	0.13	0.09	0.12	0.14	0.13
2015-16	0.14	0.14	0.1	0.11	0.16	0.12
Mean	0.12	0.10	0.17	0.13	0.14	0.11
Rank (Sector wise)	2	3	1	2	1	3
Overall Rank (All Banks)	4	6	1	3	2	5
S.D.	0.02	0.02	0.25	0.02	0.02	0.02
CV %	14.84	24.02	147.17	12.29	10.96	20.12
Growth	0.00	16.67	11.11	-21.43	0.00	0.00
Average Annual Growth	0.00	1.67	1.11	-2.14	0.00	0.00

Source: Compiled from the annual reports of the respective Banks (From 2007 - 2016) and author's own calculations.

Interpretation

The table no.5 states Liquid Assets to Total Assets Ratio of three Nationalized Banks and three private banks. In the year 2006-07 State Bank of India had the highest ratio among Nationalized Banks when it 0.14 followed by IDBI Bank and Bank of Maharashtra with 0.12 and 0.09 respectively, whereas among private Banks ICICI has the highest ratio i.e. 0.16 followed by HDFC Bank and AXIS Bank with 0.14 and 0.12.The next year, Bank of Maharashtra had the highest ratio when it was 0.87. State Bank of India with 0.12 had the second highest followed by IDBI Bank with 0.10 among Nationalized Banks. ICICI Bank had the highest among private banks with 0.15 followed by AXIS and HDFC Bank with an equal ratio of 0.14. In the year 2008-09, SBI secured the highest ratio with 0.13 followed by Bank of Maharashtra and IDBI Bank with 0.10 and 0.09 respectively.

Among private banks, ICICI Bank had the highest ratio with 0.14 followed by equal ratios of 0.13 of AXIS and HDFC Bank. In the year 2009-10, we note that Bank of Maharashtra has the highest ratio among Nationalized with a ratio of 0.12 followed by SBI and IDBI Bank with 0.11 and 0.08 respectively. In contrast, among private banks HDFC and ICICI Banks secure an even ranking with ratio 0.16 followed by AXIS Bank at 0.11. In the consecutive year, SBI secures the first position with ratio 0.13. IDBI Bank had the second highest ratio of 0.10 followed by Bank of Maharashtra with 0.08.

In the year 2010-11, State Bank of India and Bank of Maharashtra had ratios as 0.13 and 0.08 respectively. IDBI Bank had the ratio of 0.10, it is clear that SBI was the highest, followed by IDBI Bank and Bank of Maharashtra. Among private banks ranking went as HDFC Bank, ICICI Bank and HDFC Bank with ratios 0.16, 0.12 and 0.11 respectively. In the year 20011-12, Among Nationalized Banks, SBI and Bank of Maharashtra had the highest ratio when it was 0.10 followed by IDBI Bank, as 0.08. Alongside, among private banks ICICI Bank had the highest ratio of 0.15 followed by HDFC and AXIS Bank with ratios 0.13 and 0.07 respectively. During the next year, with small differences the ranking went as SBI, IDBI Bank and Bank of Maharashtra 0.09, 0.08 and 0.07 respectively.

Among private banks, ICICI Bank had the highest ratio when it was 0.13 followed by HDFC and AXIS Bank with ratios 0.12 and 0.08 respectively. In the year 2013-14, SBI again had the highest ratio of 0.10 followed by Bank of Maharashtra and IDBI Bank with ratios 0.07 and 0.06 respectively. Among private Banks, HDFC Bank had the highest ratio when it was 0.13. It was followed by ICICI Bank and AXIS Bank with ratios 0.12 and 0.10 respectively. The next year witnessed IDBI Bank with the highest ratio when it was 0.13 followed by the State Bank of India and BOM with 0.12 and 0.09 respectively among Nationalized Banks. Relatively, among private banks, ICICI Bank had the highest ratio when it was 0.14 which was followed by HDFC and AXIS Bank with ratios 0.13 and 0.12 respectively. In the year 2015-16, SBI and IDBI Bank had equal ratios of 0.14 followed by Bank of Maharashtra when it was 0.10. Among private banks, ICICI Bank had the highest ratio when it was 0.16 followed by AXIS and HDFC Bank with ratios 0.11 and 0.12 respectively.

A look at the sector-wise ranking makes us note that among Nationalized Banks BOM holds the first position followed by State Bank of India and IDBI Bank, HDFC Bank. Among private banks, the ranking goes as ICICI Bank, HDFC Bank followed by AXIS Bank. According to the overall ranking, BOM holds the first position, ICICI second followed by HDFC Bank.

Conclusion

Table No. 6: Sector-wise Ranking: Overall Performance

Sector wise Ranking: Overall Performance							
Name of Nationalized Bank	*C*	*A*	*M*	*E*	*L*	*Average*	*Rank*
State Bank of India	1	2	3	1	2	1.8	1
IDBI Bank	2	3	1	3	3	2.4	3
Bank of Maharashtra	3	1	2	2	1	1.8	1
Name of Private Sector Bank	C	A	M	E	L	Average	Rank
HDFC Bank	2	1	3	1	2	1.8	1
ICICI Bank	1	3	2	3	1	2	2
AXIS Bank	3	2	1	2	3	2.2	3

Source: Author's own calculations.

Interpretation

The above table represents Sector-wise overall performance of three nationalized banks and three Private Banks based on CAMEL Model. It is evident Bank of Maharashtra and State Bank of India are both ranked first among the nationalized banks with an average of 1.8 while ICBI bank alongside is ranked third with an average of 2.4. Also, among private banks HDFC bank stands in the first place with an average of 1.8 followed by ICICI bank securing second position with an average of 2. AXIS Bank is ranked third with an average of 2.2.

Table No. 7: Composite Ranking: Overall Performance (All Banks)

Composite Ranking: Overall Performance (All Banks)							
Name of Nationalized Bank	*C*	*A*	*M*	*E*	*L*	*Average*	*Rank*
State Bank of India	4	5	5	4	4	4.4	5
IDBI Bank	5	6	1	6	6	4.8	6
Bank of Maharashtra	6	4	3	5	1	3.8	4
HDFC Bank	2	1	6	1	3	2.6	1
ICICI Bank	1	3	4	3	2	2.6	1
AXIS Bank	3	2	2	2	5	2.8	3

Source: Author's own calculations.

Interpretation

Table No.7, depicts composite ranking based on overall performance of three Nationalized and three private banks with respect to the CAMEL approach. It is distinctly noted that HDFC and ICICI Bank secure even ranking with first position by attaining equal composite average, i.e. 2.6. AXIS Bank stands third with a composite average of 2.8 followed by the Bank of Maharashtra. State Bank of India has an average of 4.4 hence securing fifth position. IDBI Bank obtained the last position with an average of 4.8.

Suggestions

The following suggestions could be laid down based on the findings:

i Amongst the nationalized banks, Bank of Maharashtra and amongst the private sector banks AXIS Bank needs to increase its Capital Adequacy Ratio in order to maintain its depositors' good spirits and to support the proficiency of its financial system.

ii The IDBI Bank and ICICI bank should give due importance to the management of their assets since, the quality of assets is a vital factor to measure the degree of financial potency.

iii The State Bank of India and HDFC Bank should improve its management efficiency in order to take important decisions based on the level of risk involved.

iv The IDBI Bank and ICICI Bank must strive to develop the quality of its core banking activities, i.e., their lending activities in order to raise income.

v The IDBI Bank and AXIS Bank must give topmost significance to its liquidity position and should try to improve it.

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A Critical Analysis of Core and Non-Core Cash Flows of Listed Indian Companies

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Abstract

For knowing the correct cash position of the company, cash flow statement plays a vital role. There are three types of cash flows in the cash flow statement. Operating cash flow or the core cash flow, cash flow from investments and cash flow from financing activities; both these cash flows are non-core cash flows. It becomes very important for the companies to predict future cash flows correctly as the very existence of the organization depends upon the sound cash position. In this research paper, the researcher has made an honest attempt to critically analyze both the cash flows, i.e. core and non-core ones. For this purpose, 20 listed companies on Indian stock exchanges have been considered for the research. Firstly, the averages have been calculated for all the financial figures for a period of ten years and then the 14 different cash flow ratios have been calculated.

Keywords: *Cash Position,Cash Flow, Core and Non-Core Cash Flows, Listed Indian Companies*

Introduction:

Financial statements like Trading, Profit & Loss A/c & Balance sheets are always considered as important source to reach the figure of profit. Though these statements give us the figures of profit, they are the notional ones. This is because; some non-cash expenses & non-cash incomes are included in this amount of profit. Hence we cannot get the real picture of cash flow. Hence, cash flow statement plays a vital role in knowing the real cash flow amount. It clearly mentions the cash inflow & outflow & thus we can know what the net cash flow is.

While preparing cash flow statement, there are three different cash flows which are considered such as 'cash flow from operating activities, cash flow from investing activities & cash flow from financing activities. That means cash flows from core & non-core activities are considered here. Cash flow ratios help us to understand the real cash position of the company. This information is helpful to all the stakeholders for taking correct decisions.

The cash flow ratios undoubtedly help the management to predict the future cash flows. If any company is having sound financial position that clearly means it is having sound cash position. The sound cash position clearly indicates that the company is having better liquidity or working capital. When any company fails to maintain this liquidity, it might end up even in the closure of the same. Cash flow prediction helps the company to keep track on the liquidity position of the company. Hence it becomes very important to predict the future cash flows with great care & accuracy.

For predicting future cash flows, one needs to understand that whether core and non-core cash flows act differently or otherwise. The honest attempt in choosing this topic is to know & critically analyze the core & non-core cash flows of any business concern & what different impact they give while predicting future cash flows. In this paper, the core and non-core cash flow information about 20 listed companies have been considered for the research. Firstly, the averages have been calculated for all the financial figures for a period of ten years and then the 14 different cash flow ratios have been calculated.

Research Problem Statement:

As we know there are two types of cash flows i.e. core and non-core. Core cash flow means cash flow from operations or cash flow from the core business whereas non-core cash flow includes cash flow from financing activities and cash flow from investment activities. There are more fluctuations in the core cash flows as it is directly related to the basic business activity & the micro as well as macro economic factors have some kind of impact on the business and so as on the cash flow generated out of it. That is why it becomes essential for a businessman to pay attention towards the accurate prediction of the future cash flows because if prediction goes wrong, then the company may have to face financial crunch and it might turn into the liquidation as well.

Research Methodology:

- This study is purely based on the secondary data.
- Total 20 companies listed on Indian stock exchanges have been chosen randomly for the study.
- The financial data regarding these companies is availed through the reliable database source i.e. CMIE (Centre for monitoring Indian Economy) for a period of last ten years (2005 to 2015).
- The averages for 10 years of the financial figures are calculated initially and then 14 different cash flow ratios have been calculated and the inferences have been drawn from them.

Data Analysis:

- Before calculating the ratios, the researcher has calculated the averages of the basic figures of the financial data for the period of 10 years from 2005 to 2015.
- For doing analysis, the following 14 ratios have been used.
- In the following table, the name of the ratio, its formula and the general analysis of the ratio has been given.
- Different ratios have been calculated in Microsoft Excel.

Sr. No.	*Ratio*	*Formula*	*Analysis*
1	Cash flow Margin	Average of CFO/ Average of Sales	This ratio tells us the actual cash flow from operation i.e. core cash flow of the company in comparison with the total revenue i.e. total core income.
2	PAT to Sales	Average of PAT/ Average of Sales	This ratio decides the proportion of net income to total core income.

Sr. No.	*Ratio*	*Formula*	*Analysis*
3	CFO to Total Income	Average of CFO/ Average of Total Income	The proportion of cash flow from operations to total income i.e. core plus non-core income.
4	CFI to Total Income	Average of CFI/ Average of Total Income	The proportion of cash flow from investments (one part of non-core cash flow) to total income i.e. core plus non core income.
5	CFF to Total Income	Average of CFF/ Average of Total Income	The proportion of cash flow from financing (second part of non-core cash flow) to total income i.e. core plus non core income.
6	CFI to Sales	Average of CFI/ Average of Sales	It decides the proportion of cash flow from investments (one part of non-core cash flow) to total core cash flow.
7	CFF to Sales	Average of CFF/ Average of Sales	It decides the proportion of cash flow from financing (second part of non-core cash flow) to total core cash flow.
8	CFI to (CFO + CFF)	Average of CFI/ Average of (CFO + CFF)	This ratio tells us the proportion of cash flow from investments to the summation of cash flow from operations and cash flow from financing activities; i.e. how much cash flow is generated from investments in proportion with other two cash flows.
9	Cash flow yield	Average of CFO/ Average of PAT	It tells us the liquidity position of the company by comparing the cash flow from core activities to net profit after taxes.
10	CFO to Non-core Income	Average of CFO / Average of Non-core Income	The proportion of core cash flow to non-core income
11	CFI to Non-core Income	Average of CFI / Average of Non-core Income	The proportion of one part of non-core cash flow to non-core income
12	CFF to Non-core Income	Average of CFF / Average of Non-core Income	The proportion of second part of non-core cash flow to non-core income
13	Sales to Non-core Income	Average of Sales / Average of Non-core Income	The proportion of core income to non-core income
14	PAT to Non-core Income	Average of PAT/ Average of Non-core Income	The proportion of net income to non-core income

Company wise Findings:

1. ABB India Ltd.

- The cash flow margin is 3.24% i.e. the actual cash flow position is 3.24% of the total sales.
- Whereas the Profit after tax is 4.18% of total sales. Hence we can get to know that how profit can be misleading. (1% more)
- Total Cash Flow from operations in the total income of the company is 3.21%, Cash Flow from investment is 2.55% of total income which is little less than CFO's contribution and CFF's contribution to total income is just 0.84%. This shows that Core and Non Core Cash Flows have the different impact on the total income.
- Cash Flow from Investment to Sales is showing negative ratio i.e. -2.57% and cash flow from financing to sales is also showing negative ratio i.e. -0.85%.
- The ratio of Cash Flow from investment to (CFO + CFF) is also showing negative ratios -107.83%.
- If we do the comparison between cash flow from operations & profit after tax, the ratio which is called cash flow yield. It is showing 77.47% i.e. CFO is 77.47% of PAT which is a good sign.
- CFO to noncore income is 454.67% which shows that company's cash flow from operations is more than its noncore income.
- Similarly as figures of CFI & noncore income & CFF to noncore income also show negative ratios.
- If we see the ratio of sales to noncore income i.e. core to noncore income, it is 14053.11% i.e. core income is more & compared to that noncore income is very less & that is why even PAT is more than noncore income.
- If we compare CF margin with another ratio i.e. cash flow from operations to noncore income, we will find out that cash flow margin is 3.24% whereas CFO to noncore income is 454.67%. We can understand that noncore income is very less.
- Similarly PAT to Sales is 4.18% whereas PAT to noncore income is 586.91%.

2. ACC Ltd.

- Company's CFO i.e. core cash flow is 16.79% of Sales.
- Company's PAT to Sales is 12.58%.
- CFO to total income is 16.05%, whereas CFO to noncore income is 364.02%. Hence the noncore income is less.
- If we compare core & noncore income through the ratio Sales to noncore income, it is 2167.56% which shows that company's core income is more than that of noncore one.
- The ratio CFI to (CFO+CFF) is negative, which means that company has done heavy investments especially in long term assets.
- If we see the cash flow yield, it is 133.48% which means CFO is more than PAT which is a good sign as company is having good amount of liquid cash.
- CFI to Sales, CFF to Sales similarly CFI to total income & CFF to total income are negative ratios. This is because, company has made heavy investments. It has used its cash flow for paying debenture holders etc.

3. **Ajanta Pharma Ltd.**
   - Company's CFO is 16.37% of Sales whereas PAT is 13.94% of Sales.
   - Company is having negative CFI & CFF which shows that company has invested heavily in fixed assets. Also company has utilized its cash flow for repaying debenture holders.
   - Company's cash flow yield is 117.41% which is again a good sign of liquidity position of the company.
   - If we see the core and noncore income figures through the ratio, i.e. Sales to noncore income, it is 8010.21% which shows that company's noncore income is very less.
4. **Adani Enterprises Ltd.**
   - Company's cash flow margin is just 1.47% of Sales i.e. company's credit management is not proper.
   - The PAT is just 2.40% of Sales.
   - Company has blocked its funds into fixed assets. It can be seen from the ratio CFI to (CFO+CFF) which is negative i.e. 94.29%.
   - Company's CFO to noncore income is 24% & PAT to noncore income is 39.51%.
   - Company's core income in terms of Sales is more than that of noncore income. This can be seen with the ratio Sales to noncore income which is 1649.32%.
5. **Ambuja Cements Ltd.**
   - Cash Flow margin of the company is 19.49% i.e. CFO is 19.49% of Sales.
   - PAT is 16.25% of Sales.
   - CFI & CFF are showing negative figures, which shows the company has heavy investments in fixed assets & used its cash flow for repayment of its debenture holders.
   - Company's noncore income is less as compared to its core income. (Sales to noncore income ratio is 1772.64%)
   - Cash flow yield is showing 119.96% which is a good sign of liquidity position of company.
   - Company's noncore income is less as compared to core income.
6. **Ashok Leyland Ltd.**
   - Company's cash flow margin is 7.20% only. Company has to pay attention on its amount to be collected from debtors.
   - PAT to Sales is just 3.67%.
   - Company has made huge investments in long term assets. The ratio CFI to (CFO + CFF) is showing negative figure i.e. -101.51%.
   - Company's cash flow yield is 195.90% which shows very good liquidity position.
   - If we compare PAT to core income, it is just 3.67% & PAT to noncore income, it is 170.88%.
7. **Asian Paints Ltd.**
   - Company's cash flow margin is 9.89% i.e. company's credit sales are more.
   - Company's liquidity position is very good which can be known through cash flow yield i.e. 101.52%.

- Cash flow from operations to core income is just 9.89% whereas cash flow from operations to non-core income is 774.22% which shows that the company's non-core income is very less.

8. Bharat Forge Ltd.

- The cash flow margin of the company is 16.36% whereas PAT to sales is 10.68%.
- CFI & CFF are showing negative figures which again show that company has blocked its funds in the long term assets (negative CFI) & company has spent money on the redemption of debentures (negative CFF).
- Cash flow yield is 153.13% which is a good sign of liquidity.
- PAT to non-core income is 352.87%, similarly, CFO to non-core income is 540.35%.
- Core to non-core income ratio is 3303.04%.

9. Bharti Airtel Ltd.

- Company's cash flow margin i.e. CFO to Sales is 34.14% which is pretty good, PAT to Sales is 19.02%.
- The ratio of CFI to the (CFO+CFF) shows minus 99.29% i.e. the company has good amount of investments in the fixed assets.
- The cash flow yield is showing 179.48% which is a very good sign of liquidity position.
- CFO to non-core income is 1075.13% and PAT to non-core income is 599.02%.

10. Cadila Healthcare Ltd.

- Company's cash flow margin is 18% & PAT to sales is 20.64%.
- CFI to (CFO+CFF) is -94.90% which means that the company has done heavy investments in the long term assets.
- Cash flow yield is 87.22% which shows good amount of liquidity position.
- CFO to Sales is just 18% whereas CFO to non-core income is 98.36%.
- Core to non-core income is 546.50%.

11. Century Textiles & Inds Ltd.

- Company's cash flow margin is 9.10% & PAT to Sales is 2.82%.
- Cash flow yield is 322.83% which is a pretty good sign of liquidity.
- CFO to non-core income is 675.09% & CFO to total income is 8.98%. Hence we can get to know that company's core income is far more than of non-core income.

12. Cipla Ltd.

- Company's cash flow margin is 14.28% & PAT to Sales is 15.76%.
- Company's CFI to non-core income is -606.38% which shows that company is having huge investments in the fixed assets.
- Company's core income 4159.83% of its non-core income.

13. Coal India Ltd.

- Company's cash flow margin is 1013.12% & PAT to Sales is 1105.70%.
- Company's CFO to non-core is 83.43%.

- PAT to non-core income is 91.05%.
- Company's core income to non-core income ratio is 8.23% which means that company has concentrated more on non-core business activities.

14. Colgate Palmolive Ltd.

- Company's CFO is 15.23% of sales.
- Company has done huge investments in the long term assets. This is visible through CFI to (CFO+CFF) ratio. This ratio is negative (-61.70%).
- Company's CFO to non-core income ratio is 744.50% and PAT ton non-core income ratio is 721.23%. This shows that company's non-core income is less than its core income.
- Cash flow yield is 103.23% which is showing high amount of liquidity.

15. DLF Ltd.

- Cash flow margin is just 7.26% which means the company should pay attention towards credit management.
- Company's PAT to sales is 36.20% which is pretty good.
- The company is having bulk investments in the long term assets, which is clear with the ratio i.e. CFI to (CFO+CFF).
- Cash flow yield is low i.e. 20.04% which says that the company has to pay attention towards the liquidity or working capital aspect.
- Company's core to non-core income ratio is 297.87% which shows that company's core income is much more than that of non-core one.

16. Dabur India Ltd.

- Company's CFO to Sales is 14.81% whereas company's PAT to Sales is 13.86%.
- Company has done heavy investments and that is why company's CFI is negative. Even CFO is negative which shows that the company has paid out dividends and/or paid the amount towards the redemption to its debenture holders.
- Company's cash flow yield is 106.81% which says that it has got good amount of liquidity.
- Core to non-core income ratio is 5758.50% which says that the company has more amount of core income than the non-core one.

17. Dr. Reddy's Laboratories Ltd.

- Company's cash flow margin is 13.16% whereas PAT to Sales is 16.20%.
- Company has done investments and that is why it is having negative CFI. But the company has positive CFI which says that company must have raised capital through fresh issue of shares/debentures or other loans.
- Cash flow yield is 81.25% which is fair in terms of liquidity.
- Company's core to non-core income ratio is 3312.26% which means the company has more amount of core income than the non-core one.

18. Emami Ltd.

- The company's CFO has got 18.63% of contribution to total sales. PAT to Sales is 14.68%.
- Again company has done huge investments in fixed assets which we can know with the

help of the ratio i.e. CFI to (CFO+CFF) which is negative -79.05%.

- Company is having better liquidity position which we can know with the help of cash flow yield which is 126.91%.
- Company's core to non-core income ratio is 2175.48% which says that it has more amount of core income than the non-core one.

19. Glaxosmithkline Consumer Healthcare Ltd.

- The company has its cash flow margin at 13.39% whereas PAT to Sales is 12%.
- Company has CFO showing positive figure and CFI & CFF showing negative ones.
- Company's liquidity position is pretty good which we can know with the ratio cash flow yield. It is 111.56%
- Company's core income is much more than its non-core one. The ratio of core to non-core income is 2898.69%.

20. Grasim Industries Ltd.

- Company's CFO to sales is 15.54% & PAT to sales is 16.49%.
- Company's CFO to total income is 14.79% whereas CFO to non-core income is 304.47% which clearly indicates that the company has high core income and less amount of non-core income.
- Company's cash flow yield is 94.27% which shows fair amount of liquidity.

Broader Findings:

- Cash flow margin is a true picture of cash position of the company than PAT to Sales.
- Normally, companies have negative CFI which is a good sign and it shows that there is huge investment in capital assets.
- Negative CFF arises because of redemption of shares and/or debentures, dividend payouts; whereas positive CFF means the company has raised the funds through fresh issue of shares and/or debentures.
- Cash flow yield is a sign of liquidity. The company's liquidity position can be known with the help of it.
- Out of 20 companies, only one company named Coal India Ltd., has got more non-core income than the core one which is clear from the ratio i.e. core income to non-core income.
- The contribution of CFO to total income is more than the contribution of CFI to total income and CFF to total income.
- Free cash flow over the years available to the equity shareholders can be the best yardstick to predict the future cash flow of the company and thereby overall growth of the company. A company can take important strategic decisions if it is available with ample free cash flow with it. It is important even for the investors while taking an investment decision.

Conclusion:

With the help of cash flow ratios, one can clearly understand the overall financial health of the company. Not only this, but the actual liquidity position of the company can also be known with the help of cash flow ratios e.g. cash flow yield. We can also get to know the proportion of core and non-core income in the total income. Negative cash flow from investments is a good sign and it shows that the company is spending much on capital assets.

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Auditing of Banks With Risk Management and Compliance Risk: A Case Study of Iraqi Private and Government Banks

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Abstract

As hazard is explicitly capacity to restore, the more hazard a bank takes, it can plan to profit. Be that as it may, more serious risk additionally builds the threat that the bank may bring about tremendous misfortunes and be constrained bankrupt. Truth is told, today, a bank must run its activities in view of two objectives - to produce benefit and to remain in business. Banks, thusly, attempt to guarantee that their risk-taking is educated and judicious. Along these lines, keeping up an exchange off amongst exposure and return is the matter of exposure to the board. Also, exposure to the board in the managing an account portion is a key issue associated with money related framework dependability. Unsound risk management works on administering bank lending frequently assumes a focal part in money related disturbance.

Keywords: *Auditing, Banks, Risk Management, Compliance Risk*

1. Introduction

Credit risk is all the more just characterized as the capacity of a bank borrower to disregard to assemble its commitments as per the concurred terms. At the end of the day, credit hazard can be described as the hazard that the interest or focal or both won't be gainful as ensured and is assessed by viewing the degree of favorable circumstances that are underneath standard. Credit chance is borne by all moneylenders and will prompt significant issues, if over the top. For most banks, progresses are the greatest and most clear wellspring of recognition chance. It is the most recognition hazard, even more so in the Iraq circumstance where the NPA dimension of the managing an account structure is in a general sense high. The Asian Fiscal crisis, which rose as a result of ascending in NPAs to over 30% of the total assets of the budgetary course of action of Indonesia, Malaysia, South Korea, and Thailand, includes the essentialness of the board of credit hazard. There are two variations of recognition chance which are examined as follows:(a) Counterparty Risk: This is a variety of recognition chance and is related to non-execution of the exchanging accomplices because of counterparty's refusal as well as powerlessness to perform. (b) Country Risk: This is moreover a kind of credit hazard where not perform of a borrower emerges because of requirements or confinements forced by a country. Here, the reason of non-execution is outside segments on which the borrower or the counterparty has no control.

Credit Hazard depends upon both outside and inside components. The inward components join

1. Inadequacy in credit course of action and association of development portfolio.

2. Deficiency in evaluating borrower's cash-related position before loaning.
3. Extreme dependence on certifications.
4. Bank's mistake in the post-endorse development, and so forth.

The real outside components

1. The state of the economical.

2. Swings in the product price, remote exchange rates and loan costs, and so on.

Risk at the zenith level might be envisioned as the likelihood of a banks' money related wellbeing being disabled because of at least one unforeseen variables. For example, these could be default in reimbursement of loans by borrowers, change in the value of benefits or interruption of task because of reason like the innovative disappointment. While the initial two components might be delegated credit hazard and market chance, for the most part.

2. Regulatory Risks In Banking

The worldwide banking industry is confronting testing times. In all actuality, the scale and pace of keeping money authoritative change are wonderful. Broad banks need manage various wards and numerous schedule for new bearings. There are higher disciplines for resistance and the headings themselves frequently mirror another the tone of open and political protection from banks.

The direction is one section-yet a noteworthy part-of the test confronting banks. In any case, we trust that for banks and other budgetary establishments to accomplish superior in the years to come, they should change their tasks what's more, construction while watching out for three enormous and between related troubles in similar:

1. Expanding benefit and lifting returns on value. While administrative activities duplicate, the fundamental condition for banks is definitely not inviting. From 2000 to 2007, the built up economies' best performing banks had a normal profit for the value of 26%. Today, a considerable lot of these equivalent banks are seeing returns in single digits.For example, organized items or exclusive exchanging diminished-numerous banks currently have littler accounting reports, less use and less open doors for conceivably productive risk-taking. Capital likewise remains a noteworthy concern, attached intently to administrative requests for bigger stores, yet in addition to banks' craving to insure themselves in case of unexpected troubles .
2. The wide extending administrative change will influence each part of banks' plans of action, activities, and foundation. The "to-do" list for banks is forcing. At a less, budgetary organizations firms should set up the convincing organization for their managerial activities; change and modify back, hazard limits for patch up current client on-boarding and information accumulation forms; set up stronger systems for operational risk, and create emergency management designs. Also, directions force more stronger endeavours went for controlling monetary wrongdoing, including hostile to illegal tax avoidance measures and enhancement of solution for consistency with the Foreign Account Tax Compliance Act (FATCA). These wrap extended uncovering structures and new Know Your Client (KYC) forms and will require a significant dimension for both U.S. also, non-U.S. banks.

3. Literature Review

In dissertation "Study on Analysis of Impact of Basel II in Iraq: A Qualitative Approach" describes

the Basel Accords are international universally accepted norm for Credit risks, market risks and operational risks. Creating nations like Iraq that are in blast phase of its budgetary division requests a framework like Basel II which would give the banks a risk to lessen they acknowledge risk weights and additionally diminish their financial capital. It is a qualitative study undertaken to explore why emerging economies would adopt the Basel norms.

In the research article "Risk Management in Iraq Banks: Some Emerging Issues" has analysed the emerging issues in risk management since the implementation of Basel-II in Iraq. In this research study the risk management is assumed to be the significant challenge brought in by the Basel II norms. As the monetary segment particularly the saving money industry in most developing economies including Iraq is going through a procedure of progress. Rising worldwide rivalry, expanding deregulation, presentations of imaginative items and administration conveyance channels have pushed risk management to the front line of the present monetary scene. Capacity to break down and measure the dangers and take fitting locus will be the way to progress. This research paper endeavours to talk about top to bottom, the significance of hazard management process and tosses light on difficulties and openings with respect to the execution of Basel-II in Iraq Saving money Industry.

The exploration examine additionally thinks about the schedule banks performance using the dependent variable as ROA. Foreign banks have been considered as benchmarked group as their ROA is highest among the scheduled banks.

In the working paper "Credit Risk Measurement and Procyclicality" examined the 2nd path linkages between credit hazard estimation and the macro economy factors. Firstly, it discusses whether credit risk is high or low during prosperity in the economy. Further it surveys how macroeconomic contemplations are fused into credit hazard models and the hazard estimation approach under the capital Accord II. At last, it assesses what impact these estimation approaches are probably going to have on the full-scale economy, especially through their job in affecting the bank' upper dimension.

Research Method

3.1. Research Problem Statement

Do CRM practices vary among the PSBs and Does CRM practices influences the performance and profitability of PSBs?

The research methodology of the selected topic follows in these dimensions;

3.2. Research Investigation Questions

This section of the research design helps the researcher to draft their questions. Formulating questions provides a direction to build hypothesis and achieve the research objectives. The study focuses on the PSBs comprehensive approach towards the credit risk administration. find out the extent of overall status of implementation. The research investigates the performance measures to show the impact of CRM. In this regard the researcher would like to address the following questions:

- What is the current status of implementation of CRM approaches in banks as prescribed by Basel II framework?
- Are there any differing issues and challenges among banks pertaining to the implementation of Basel II?

- What is the level of difference in constituents of CRM practices adopted by the banks with reference to credit risk assessment, scoring, mitigating, monitoring and controlling strategies?
- Magnitude of issues and challenges faced by the banks in the process of performing the CRM practices?
- Resulted outcomes from Credit Risk Management practices post Basel II implementation?
- Application of CRM practices is correlated with the performance measures of banks?

3.3. Research Objectives

The main destinations of the investigation are:

- To look at the status of Credit Hazard administration rehearses post Basel II implementation of Public Sector Banks
- To investigate the extent PSBs differ in their application of Credit Risk Management practices
- To analyse the issues and challenges faced by the PSBs in following the Credit Risk Management practices and Basel II norms as a whole
- To evaluate and correlate the impact of Credit Hazard The board rehearses on the execution of banks
- To impact of CRM on the gainfulness of banks post Basel II implementation

4. Results

In the section we present the theoretical framework, it was concluded that the study dealt with respondents drawn from PSBs. Responses from these banks were solicited to test the theoretical model based on Impact of CRM practices on the performance and profitability of banks post Basel II implementation. This chapter tests the reliability and validity of the scales used by administering Cronbach Alpha tests. This is followed by the testing of hypotheses by applying statistical techniques, Friedman test, Correlation Analysis, Step Wise Multiple Regression and ANOVA tests.

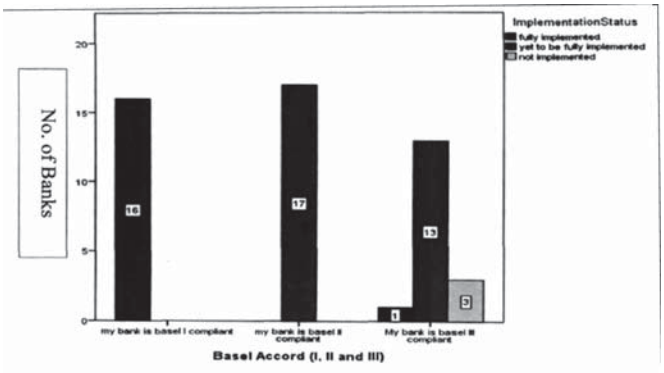

Fig.1. Status of Basel Implementation in Iraq

The above clustered chart shows the association between the Basel Accord and its implementation status. The x- axis represents the Basel accord - I, Basel accord - II and Basel accord - III and the Y-axis shows the count i.e. the number of banks implementation status of Basel accord. The

blue colour bar represent the option of folly implementation of Basel-I accord, green bar in the chart represents the status of yet to be folly implemented of Basel-II accord and bar yellow stands for implementation status of Basel Accord -III. The clustered bar chart has been used to compare the implementation status of Basel accord in the Public sector banks. The difference in mean Basel accord and its implementation seems to be very less as observed from the chart.

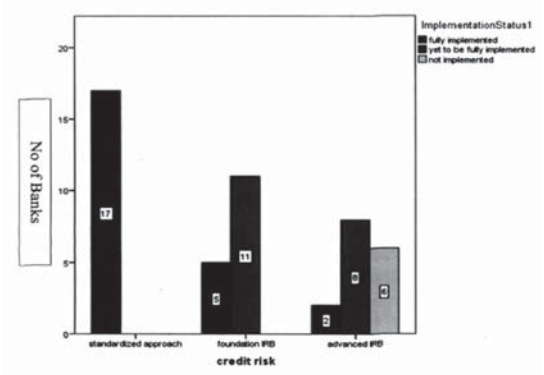

Fig.2. Status of Implementation of various Credit and Compliance Risk Approaches

The above clustered bar chart shows the relationship between various approaches of credit risk and its implementation status under Basel accord - II. The X-axis represents the various approaches of credit risk rating models of the Basel accord - II and the Y-axis shows the count i.e. the number of banks implementing the various approaches of credit risk measurement techniques. The blue colour bar represent the option of fully implementation of approaches of credit risk, green bar in the chart represents the status of yet to be fully implementation of Basel-II accord credit risk approaches and bar yellow stands for implementation status of credit risk measurement approaches under Basel Accord - II. The clustered bar chart has been used to compare the implementation status of various approaches of credit risk models in the Public sector banks. The difference in mean credit risks various approaches of Basel accord and its implementation seems to be very high as observed from the chart.

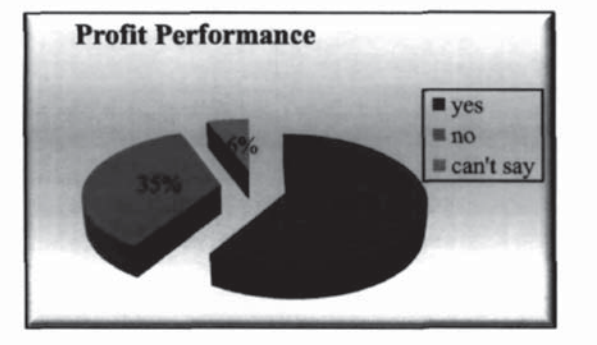

Fig.3. Profit Performance in Risk Management

From the above frequency distribution table it is observed that 10 banks (i.e. 58.8%) said yes for profit performance is a challenge for them. 6 banks (i.e. 35.3%) of the sample population have responded that profit performance is not an issue at their end. And only 1 bank (i.e. 5.9%) of the whole sample population is doubtful about the response. On the whole it can be concluded that

profit performance can be one of the challenges among the PSBs.

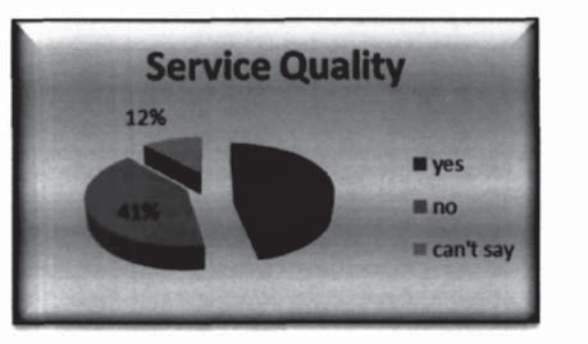

Fig.4. Service Quality

The respondent banks were asked to rate whether service quality is a challenge in their business operations post Basel-II implementation. The responses can be seen from the above frequency distribution table. It is observed that 8 banks (i.e. 47.1%) from the sample population said yes accepting the fact that service quality is indeed a challenge posed in front of them post Basel-II implementation. Approximately, 7 banks (41.2%) said no and disagree that service quality is not a challenge in their day to day business operations. Whereas, only 2 banks (i.e. 11.8%) out of the whole sample population is indifferent towards the parameter.

5. Conclusion

A close look at the effectiveness of credit risk management practices since 2007 onwards is undertaken in this study relating to the PSBs in Iraq. The study provides an overview of Iraq banking industry, its structure, development and the current status of banks in terms of their ownership, size and scale of operations. PSBs predominantly occupy the maximum market share among the SCBs in the Iraq Banking sector. The study includes the comprehensive establishment details of the PSBs under study. Further, this study will provide the preliminary understanding of strategies implemented by the PSBs in their credit risk management practices. The research study also brings into focus the RBI initiatives towards Basel II and Credit Risk management, along with its significance for credit monitoring, loan review mechanism and provisioning for NPAs.

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