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RESULTS & DISCUSSION

FINDINGS

RECOMMENDATIONS/SUGGESTIONS

CONCLUSIONS

LIMITATIONS

SCOPE FOR FURTHER RESEARCH

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APPENDIX/ANNEXURE

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- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
- Hunker, H.L. and A.J. Wright (1963), "Factors of Industrial Location in Ohio" Ohio State University, Nigeria.

CONTRIBUTIONS TO BOOKS

- Sharma T., Kwatra, G. (2008) Effectiveness of Social Advertising: A Study of Selected Campaigns, Corporate Social Responsibility, Edited by David Crowther & Nicholas Capaldi, Ashgate Research Companion to Corporate Social Responsibility, Chapter 15, pp 287-303.

JOURNAL AND OTHER ARTICLES

- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

CONFERENCE PAPERS

- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–23

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- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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WEBSITES

- Garg, Bhavet (2011): Towards a New Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

PATIENT SATISFACTION TOWARDS HEALTH CARE AND PHARMACEUTICAL CARE SERVICES: A STUDY OF SELECTED HOSPITALS IN GUNTUR CITY, ANDHRA PRADESH, INDIA

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ABSTRACT
Health care organization is a sector where patient is the main focus where improving the patient outcome is the imperative function and it is an important and commonly used indicator for measuring the quality in health care. Patient satisfaction affects clinical outcomes, patient retention and medical malpractice claims. It affects the timely, efficient and patient centred delivery of quality health care. A standard and validated questionnaire on health care services and pharmaceutical services was designed and collected the data from in-patients in 40 health care units. The present study involves 229 patients (care receivers) among which 50.2 % of patients were females and 49.8% of patients were males. Overwhelming number of care receivers were (93.4%) married. On an average care receivers were about 43.8 years of age with the standard deviation of about 10.6 years who availed health care services as in- patients. The analysis shows that about 51% of the respondents were suffering from organ related health problem whereas 45% of the respondents were suffering from general health problem. Very less percentage (about 3%) of the respondents were suffering from other types of health problems. In 229 patients, a significant number of participants 98.7%(226) were satisfied with drug therapy whereas 1.3%(3) of patients were not satisfied (z:14.754, significant at p<0.05 &0.01). It is evident from the study that treatment was ranked first (TWAS 1568) by the care receivers, followed by diagnostic service which was ranked second (TWAS 1528), whereas attention of health care professionals ranked third (TWAS 1460). Of the various areas of health care units under study, the care receivers have ranked drug information seventh (TWAS 409), while affordable cost ranked last i.e. eighth (TWAS 381). In our study, the overall response of the patient about pharmaceutical services was satisfactory. In conclusion, the principles of patient centred pharmaceutical care service and therapeutic drug monitoring with qualified clinical pharmacist has to be implemented and practiced so that we can able to achieve better patient satisfaction with improved positive therapeutic care outcome.

KEYWORDS
health care, quality, patient satisfaction, clinical outcome, pharmaceutical care, clinical pharmacist.

JEL CODES
I10, I11, M30.

INTRODUCTION
Patient satisfaction is one of the important goals of any health system, but it is difficult to measure the satisfaction and gauze responsiveness of health systems as not only the clinical but also the non-clinical outcomes of care do influence the customer satisfaction[1]. Patients' perceptions about health care systems seem to have been largely ignored by health care managers in developing countries. Patient satisfaction depends up on many factors such as: Quality of clinical services provided, availability of medicine, behaviour of doctors and other health staff, cost of services, hospital infrastructure, physical comfort, emotional support and respect for patient preferences[2]. Mismatch between patient expectation and the service received is related to decreased satisfaction[3]. Therefore, assessing patient perspectives gives them a voice, which can make public health services more responsive to people's needs and expectations[4,5].

In the recent past, studies on patient satisfaction gained popularity and usefulness as it provides the chance to health care providers and mangers to improve the services in the public health facilities. Patients' feedback is necessary to identify problems that need to be resolved in improving the health services. Patient satisfaction data can assist as an indicator of the quality of the service provided and act as a predictor of behaviour associated with health [6]. Patient satisfaction is an important and commonly used indicator for measuring the quality in health care. Patient satisfaction affects clinical outcomes, patient retention, and medical malpractice claims. It affects the timely, efficient, and patient-centered delivery of quality health care. Patient satisfaction is thus a proxy but a very effective indicator to measure the success of doctors and hospitals [7].

The present study was aimed to assess the patient satisfaction about the health care and pharmaceutical services provided to the in- patients in selected hospitals.

CARE RECEIVER
A Patient is any recipient of health care services. The patient is most often ill or injured and in need of treatment by a physician, nurse, psychologist, dentist, pharmacist or other health care provider or care giver.

An out-patient is a patient who is hospitalized for less than 24 hours. The treatment provided in this case is called ambulatory care.

An in-patient, on the other hand is 'admitted' to the hospital and stays overnight or for an indeterminate time, usually several days or weeks, though in some extreme cases, such as with coma or persistent vegetative state patients, stay in hospitals for years, sometimes until death. Treatment provided in this fashion is called in-patient care. The admission to the hospital involves the production of an admission note. The leaving of the hospital is officially termed discharge, and involves a corresponding discharge note.

In-patient care is the care of patients whose condition requires admission to a hospital. In the present study the data pertaining to health care and pharmaceutical care as perceived by in-patients (care receivers) in the selected hospitals is presented.

OBJECTIVES OF THE STUDY
To identify the key pharmaceutical care services and the role of pharmacist in health care team and to analyze the role of pharmacist in improvement of patient's quality of life and patient satisfaction.

RESEARCH DESIGN

After thorough review of the literature survey of pharmaceutical care and its impact on drug therapy management in health care system, the research study was designed.

DATA COLLECTION METHODS

Data was collected at primary and secondary levels.

PRIMARY DATA: Data was collected directly from the respondents of the sampling units using questionnaires.

SECONDARY DATA: The secondary data was collected from the official website soft the health care, pharmaceutical care, World Health Organization (WHO) reports, health policies and health reforms of various countries through journals, magazines, newspapers, websites etc.

RESEARCH AREA: Guntur city was chosen for Research area of study.

RESEARCH UNITS

a) Allopathic hospitals approved by District Medical & Health Office (DMHO), Guntur city up to 2018 and minimum 3 years old hospitals with in-patient service facility.
b) In-patient who stayed at least one complete day and underwent drug therapy.

SAMPLING FRAME

a) Sampling Frame of hospitals: Total 92 allopathic hospitals units approved by District Medical & Health Office (DMHO) in Guntur city upto 2018 and minimum 3years old Allopathic hospitals with In-patient service facility.
b) Sampling Frame of in-patients: The patients admitted due to ill-health who were hospitalized and stayed in the hospital as In-patients for at least one complete day and underwent allopathic drug therapy were included in the study

SAMPLE SIZE

a) Population Sample Size of hospitals: In this study more than 40 percent (40) of total population (92) was selected as sample size which will give more reliable solutions. Hence, the researcher has considered 40% population as sample size.
b) Population Sample Size of In-patient: Assuming that at least 50 percent of hospital beds were occupied from which sample size 7.5% (229) was taken.

MATERIALS AND METHODS

The study was conducted in selected health care units in Guntur city, Andhra Pradesh for a period of more than 1.5 years. Proper consent was obtained from the hospital authorities prior to study. All patients in the present study were in-patients only and they were enrolled in the study with inclusion and exclusion criteria. Healthcare in Guntur is provided by many facilities supported by both the government and private institutions. It is one of the top cities on the east coast region of India in providing excellent medical and health care facilities. The following in-patient parameters were investigated in the present study.

1] Age: Age of the respondents is one of the most important characteristics in understanding their views about the particular problem, by and large age indicates level of maturity of individuals in that sense age becomes more important to examine the response (Table 1).

2] Gender: Gender is an important variable in a given Indian social situation which is variably affected by any social or economic phenomenon and globalization is not an exception to it. Hence the variable gender was investigated in our study. Data related to gender of the respondents is presented in the table 2.

3] Marital Status: Marriage is one of the most important social characteristics. In a developing country like India, it has undergone many changes. The perceptions and attitudes of the person can also differ by the marital status of the persons because the marriage might make the persons little more responsible and matured in understanding and giving the responses to the questions asked. The details of the marital status of the care receivers is presented in table 3.

4] Nature of Health Problem: The nature of health problem of the respondents is an important variable because health is a dynamic state of well-being emergent from conducive interactions between an individual's potentials, life's demands and social and environmental determinants."

"Health results throughout the life course when an individual's potentials – and social and environmental determinants – suffice to respond satisfactorily to the demands of life.

Life's demands can be physiological, psychosocial, or environmental and vary across individuals and contexts, but in every case unsatisfactory responses lead to disease." In view of the above nature of health problem of the respondents was investigated. The data is presented in the table 4

5] Previous Treatment: Treatment is medical attention given to a sick or injured person or animal. Many patients are not getting the medical treatment they need. When we asked about their previous treatment. We received mixed responses. The data is presented in the table 5.

6] Reason for Shifting from one Hospital to Another: Expectations, with reference to healthcare, refer to the anticipation or the belief about what is to be encountered in a consultation or in the healthcare system. It is the mental picture that patients or the public will have of the process of interaction with the system. Patients come to a consultation with expectations which they may or may not be overtly aware of. These expectations may be openly presented or the physician may have to attempt to elicit them. Reactions to unmet expectations can range from disappointment to anger. Various reasons were expressed by 119 respondents are recorded. The data is presented in table 6.

7] Side Effects of the Previous Treatment: The treatment options for most of the patients probably included chemotherapy, radiation therapy and surgery. But the treatment often produces side effects including nausea, fatigue, diarrhoea, nails become dark, pigmentation. Treatment sometimes may also affects the nerves, blood vessels, hormones etc. Certain anti -cancer drugs have side effects these can vary from person to person. For patients such side effects can take over daily life. They can make patients uncomfortable at best and miserable at worst. Sometimes affecting their ability to stick to their treatments, or making treatments less effective than could be. Patients experiencing side effects with drugs should pay close medical attention. Hence the variable side effects of the previous treatment were investigated. The data was collected only from the respondents those who have taken treatment previously and it is presented in table 7.

8] Satisfaction of health care services and order of preferences: Measuring patients' satisfaction has become an integral part of hospital management strategies for quality assurance and accreditation process in most countries, distinguishing that lack of sufficient data can severely inhibit an organization's ability to understand its strengths and to target areas in which performance can be improved.

Measuring patient satisfaction is a way of assessing the process of care, describing the patient's viewpoint and evaluating care by reflecting patient views back into the system and through comparing facilities. Hence the data was collected from all 229 care receivers and it is presented in the table 8.

The table 9 shows the order of preferences in different areas of health care given by the care receivers.

9] Drug therapy: Drug therapy, also called pharmacotherapy, is a general term for using medication to treat disease. Drugs interact with receptors or enzymes in cells to promote healthy functioning and reduce or cure illness.

A drug therapy problem *(DTP)* is any undesirable event experienced by a patient that involves, or is suspected to involve, drug therapy, and that interferes with achieving the desired goals of therapy and requires professional judgment to resolve. The data is presented in table 10.

RESULTS AND DISCUSSION

As shown in the table 1, it is evident that the large number of respondents were above 40 years of age where as low percentage (0.9%) were below 10 years. The table 1 clearly shows that on an average care receivers were about 43.8 years of age with the standard deviation of about 10.6 years who availed health care services as in- patients.

TABLE 1: DISTRIBUTION OF CARE RECEIVERS ACCORDING TO AGE

Age in years	Frequency	Percentages
Below 10	2	0.9
11-20	3	1.3
21-30	17	7.4
31-40	49	21.4
41-50	108	47.2
51-60	38	16.6
Above 60	12	5.2
Total	229	100.0

It is quite clear from table 2 that out of the total respondents investigated in this study, the difference between the observed and the expected frequencies was not significant and hence there was no significant differences between number of male respondents and number of female respondents. The probability of males was exactly equal to the probability of females. The ratio between male and female respondents was found statistically 1:1.

As per descriptive statistics about 49.8% males and 50.2% females were involved in the present study. This can be concluded that the variation was common cause variation.

TABLE 2: GENDER OF THE CARE RECEIVERS

Gender	Frequency	Percentage
Male	114	49.8
Female	115	50.2
Total	229	100.0

Chi-square:0.0044, df: 1, p: 0.9471, α: 0.05 p >0.05

Table 3 shows that overwhelming number of the care receivers (93%) were married and remaining (7%) were unmarried.

TABLE 3: DISTRIBUTION OF CARE RECEIVERS ACCORDING TO MARITAL STATUS

Marital status	Frequency	Percentage
Married	212	92.6
Un-Married	17	7.4
Total	229	100.0

Table 4 shows that about 51% of the respondents were suffering from organ related health problem, whereas 45% of the respondents were suffering from general health problem. Very less percentage (about 3%) of the respondents were suffering from other types of health problems.

TABLE 4: NATURE OF THE HEALTH PROBLEM

Description	Frequency	Percentage
General	105	45.9
Related to Specific Organ	117	51.1
Any Other	7	3.0
Total	229	100.0

It can be concluded from the above table that more than 50% of the respondents were suffering from organ related health problem which is so serious issue and medication therapy management is needed. The drug therapy should be monitored under the supervision of professionally competent person.

As indicated in table 5, about 52% (119) of the respondents were taken treatment previously in other hospital, whereas 48%(110) of the respondents were not taken any treatment in any hospital.

The data was analyzed by binomial test –Z test. The result indicates that the test was not significant at p<0.05. Hence it was concluded that there was not enough evidence to claim that the population proportion was greater than 50%. Hence, 50% care receiver's health problems were not rectified in the previous health care units.

TABLE 5: OPINION ON PREVIOUS TREATMENT OF THE RESPONDENTS BEFORE JOINING AS IN-PATIENTS

Have you taken treatment in any other hospital?	Frequency	Percent
Yes	119	52.0
No	110	48.0
Total	229	100.0

Z Score: 0.595, One tailed test, p: 0.2759, α: 0.05, p>α

Not significant at p<0.05, 95% confidence interval :0.455-0.584.

As indicated in table 6, more than 50% (119) of the respondents under study had already undergone treatment previously in other hospitals, subsequently we asked all the 119 respondents about reasons for shifting from one hospital to other. Various reasons were expressed by all 119 respondents are recorded. The data is presented in table 6.

The table 6 shows the reasons given by the 52% (119) respondents out of total respondents i.e. 229 under study. The remaining 48%(110) of the respondents were not taken treatment in any hospital previously. Hence the data is presented only for 119 respondents. As indicated in the table 6 about 42%(50 out of 119) of the respondents were directed by the previous doctor for better treatment, whereas about 34% (41out of 119) of the respondents were discharged from the hospital due to lack of necessary medical facilities. About 17% (20 out of 119) of the respondents were shifted from the hospital due to failure of drug therapy. Very few of the respondents (6.7%) were not satisfied with the treatment in the previous hospital.

It can be concluded that more than 52%(119 out of 229) of the respondents have not received proper medical treatment previously and hence they were shifted from one hospital to other for better treatment which ultimately increases medical expenses, length of hospital stay and further delay in treatment.

TABLE 6: REASONS GIVEN BY THE RESPONDENTS FOR SHIFTING FROM ONE HOSPITAL TO ANOTHER

Reasons	Frequency	Percentage
Unsatisfactory Treatment	8	6.7
Not Relieved From Symptoms	20	16.8
Not Enough Facilities Available	41	34.5
Doctor Directed For Better Care	50	42.0
Total	119	100

The table 7 shows the side effects noticed by the patients who had taken treatment in previous hospital. As indicated in table 7, about 65% (78 out of 119) patients had experienced side effects with previous treatment whereas 35% (41 out of 119) patients did not exhibit any side effects.

The data was analyzed by binomial test –Z test at 5% level of significance. The result indicates that the test was statistically significant at p<0.05.

Hence, it was concluded that there was enough evidence to claim that population proportion was greater than 50%. Therefore, enormous number of care receivers had experienced side effects with the previous drug therapy.

The reason might be due to constitution of the body system and nature of drug substance and its chemical reaction. It is evident from table 7, overall 34% (78) of care receivers out of 229 under study had experienced different side effects. This might be due to lack of therapeutic drug monitoring system and improper drug therapy management in previous care units.

TABLE 7: OPINION ON SIDE EFFECTS OF THE PREVIOUS TREATMENT BEFORE JOINING AS IN-PATIENTS

Side effects of the previous treatment	Frequency	Percentage	Proportion
Yes	78	65.5	0.655
No	41	34.5	0.345
Total	119	100	1.0

Z score: 3.384, one tailed test, p: 0.0003, α :0.05, Significant at p<0.05,
95% confidence interval at 5% level of significance: 0.570 - 0.741.

The table 8 shows the responses given by the care receivers (229) about their health information obtained from hospital. It is clearly indicating that 88% (202) care receivers stated that they obtained clear information about their disease and health problem from the hospital where as 12%(27) care receivers said that they didn't get any clear information. The data was analyzed by binomial test –Z test at 5% level of significance.

The result indicates that the test was statistically significant at p<0.05. Hence it was concluded that there was enough evidence that population proportion was greater than 50%. Therefore, enormous number of care receivers were satisfied with hospital information about their health problem.

TABLE 8: WERE YOU SATISFIED WITH INFORMATION PROVIDED BY HOSPITAL WITH RESPECT TO YOUR HEALTH PROBLEM / DISEASE?

Response	Frequency	Percentage	Proportion
Yes	202	88.21	0.8821
No	27	11.79	0.1179
Total	229	100	1.00

Z score: 11.579, one tailed test, p:< 0.00001, α :0.05, Significant at p<0.05(and at p<0.01), 95% confidence interval at 5% level of significance: 0.8470 - 0.9172.

The order of preferences in different areas of health care given by the care receivers was investigated.

It is evident from the table 9 that treatment was ranked first (TWAS 1568) by the care receivers, followed by diagnostic service which was ranked second (TWAS 1528), whereas attention of health care professionals ranked third (TWAS 1460). Of the various areas of health care units, the care receivers have ranked drug information seventh (TWAS 409), while affordable cost ranked last i.e. eighth (TWAS 381). Majority of the care receivers have preferred treatment was ranked first among other areas of health care as this could be due to the fact that this might be the most effective area in health care. Care receivers have not preferred drug information and affordable cost which were ranked seventh and eighth respectively among others. It is inferred that the care receivers were unaware about drug information and they felt that the health care services were expensive.

TABLE 9: ORDER OF PREFERENCES IN DIFFERENT ASPECTS OF HEALTH CARE GIVEN BY CARE RECEIVERS

Performance Area (Different Aspects)	1 (8)	2 (7)	3 (6)	4 (5)	5 (4)	6 (3)	7 (2)	8 (1)	Overall Composite performance (TWAS)	Rank
a) Attention of health care professionals	140 (1120)	14 (98)	12 (72)	8 (40)	5 (20)	10 (30)	40 (80)	0 (0)	1460	**3**
b) Diagnostic service	120 (960)	50 (350)	3 (18)	15 (75)	2 (8)	39 (117)	0 (0)	0 (0)	1528	**2**
c) Treatment	170 (1360)	4 (28)	0 (0)	0 (0)	15 (60)	40 (120)	0 (0)	0 (0)	1568	**1**
d) Time punctuality	25 (200)	85 (595)	35 (210)	30 (150)	15 (60)	4 (12)	15 (30)	20 (20)	1277	6
e) DrugInformation	4 (32)	15 (105)	10 (60)	3 (15)	0 (0)	0 (0)	0 (0)	197 (197)	409	7
f) Administration of Intravenous Fluids/Injections	60 (480)	70 (490)	20 (120)	20 (100)	10 (40)	19 (57)	0 (0)	30 (30)	1317	5
g) Cleanliness	85 (680)	50 (350)	30 (180)	7 (35)	2 (8)	10 (30)	45 (90)	0 (0)	1373	4
h) Affordable cost and economical	18 (144)	2 (14)	3 (18)	1 (5)	0 (0)	0 (0)	5 (10)	190 (190)	381	8

The table 10 shows the opinion of care receivers about their drug therapy.

It is clearly evident from the above table that 98.7% (226) care receivers stated that they were satisfied with drug therapy whereas a few care receivers 1.3%(3) said that they were not satisfied with drug therapy. The data was analyzed by binomial test –Z test at 5% level of significance.

The result indicates that the test was statistically significant at p<0.05. Hence it was concluded that there was enough evidence that population proportion was greater than 50%. Therefore, enormous number of care receivers were satisfied with the given drug therapy. This might be due to the fact that they were relieved from their disease symptoms.

TABLE 10: WERE YOU SATISFIED WITH DRUG THERAPY?

Response	Frequency	Percentage	Proportion
Yes	226	98.7	0.987
No	3	1.3	0.013
Total	**229**	**100**	**1.0**

Z score: 14.754, one tailed test(Right), p:< 0.00001, α :0.05, Significant at p<0.05 (and at p<0.01),
95% confidence interval at 5% level of significance: 0.9745-0.9993.

CONCLUSIONS

- Lack of administrative support was considered a major obstacle to pharmaceutical care provision.
- In all health care units under study the pharmaceutical care activities and intervention outcomes were noticed by nurses and they were rarely documented.
- All hospitals under study at present had no plan to adopt pharmaceutical care.
- Many physicians and nurses did not know the role and contribution of clinical pharmacist in health care system.
- Majority of care receivers felt that they were not received clear information about their medication and they wanted to know the purpose of their medication and the patient counselling sessions.
- Many commented that no one had ever gone through all their medicines with them and nobody explained their purpose, usage and storage, type of food recommended during drug therapy etc.
- There was no cross verification and checking of patient prescriptions by the expert in pharmacy.

- No therapeutic drug monitoring by clinical pharmacist/ clinical technician was observed in all selected care units.
- Nurses played a key role in drug therapy management in all selected care units.

SUGGESTIONS

- The findings of the study suggest that the role of pharmacists should be changed from product – oriented to patient-oriented.
- Pharmaceutical care activities and intervention outcomes should be documented.
- Pharmacist's role should be activated and utilized to add value to patient care and reduce overall health care cost, prevent adverse drug reactions, reduce drug interactions and drug related problems.
- Ward round pharmaceutical care services and patient centred pharmaceutical care services are very essential to avoid drug related morbidity and mortality.
- Health care organizations should implement proven medication safety practices and standard therapeutic guidelines.
- Ensure that people do not suffer unnecessarily from illness caused by inappropriate or inadequate consumption of medicines.
- Lack of administrative support is considered a major obstacle to pharmaceutical care provision. Hence, necessary support should be provided.
- There is a need to update the existing pharmacy department and need to expand its pharmaceutical services.
- Separate health care teams are need to be constituted based on the type of disease and nature of illness. The team should normally consist of doctor, nurse, clinical pharmacist / clinical technician, senior pharmacist and junior pharmacist.
- State and central governments should take all possible measures to control the bad practices in healthcare profession and introduce policies to improve the quality of care, to reshape care around the patient and improve access to care and make better use of the skills and expertise of all health care professionals.

REFERENCES

1. Agrawal D. Health sector reforms: Relevance in India. *Indian J Community Med. 2006*;31: 220–2.
2. Jenkinson C, Coulter A, Bruster S, Richards N, Chandola T. Patients' experiences and satisfaction with health care: Results of a questionnaire study of specific aspects of care. *Qual Saf Health Care.* 2002; 11:335–9. [PMC free article] [PubMed]
3. McKinley RK, Roberts C. Patient satisfaction with out of hours primary medical care. *Qual Health Care.* 2001; 10:23–8. [PMC free article] [PubMed]
4. World Health Organization. The World Health Report 2000-Health Systems: Improving Performance. Geneva: WHO; 2000.
5. Rao KD, Peters DH, Bandeen-Roche K. Towards patient-centered health services in India- a scale to measure patient perceptions of quality. *Int J Qual Health Care.* 2006; 18:414–21. [PubMed]
6. Pascoe GC. Patient satisfaction in primary health care: A literature review and analysis. Evaluation and program planning. 1983;6(3-4):185-210.
7. Bhanu Prakash. Patient satisfaction. *J. Cutan. Aesthet. Surg*, 2010;3(3):151-155.

EARNING VOLATILITY SCENARIO PRE AND POST IMPLEMENTATION OF IFRS IN SELECTED INDIAN COMPANIES

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ABSTRACT

The study analyses the impact of the required introduction of IFRS requirements on earnings volatility, and extra precisely on earnings management. We focus impact IFRS on selected companies in India. We find that the earnings volatility during pre and post-IFRS period are not the same in the selected companies. In different words, the IFRS adoption has influenced (reduced) the Earning Before tax and Provision to Total Assets in terms of income volatility or standard deviation, IFRS adoption because of the use of fair value accounting. The findings show that IFRS adoption leads to higher earnings volatility for IFRS adopting companies in India. Our findings confirm that sharing policies aren't a sufficient situation to create a commonplace business language, and that management incentive and countrywide institutional elements play a crucial role in framing financial reporting traits. We endorse that the IASB, the SEC and the EU commission have to now dedicate their efforts to harmonizing incentives and institutional elements instead of harmonizing accounting standards requirements.

KEYWORDS

earning volatility, earning management, IFRS, Indian companies.

JEL CODES

M40, M41, M42.

INTRODUCTION

International Financial Reporting Standards (IFRS) convergence, in current years, has grown momentum all over the world. As the capital markets become increasingly general in nature, more and more investors see the need for a common set of accounting standards. International Financial Reporting Standards (IFRS) are designed as a joint worldwide language for commerce. The International Financial Reporting Standards (IFRS) are a set of rules and standards for preparing a financial statement. The IFRS are issued by an organization called the International Accounting Standards Board (IASB). the goal of the IFRS is to standardize the regulation and procedures for financial statement preparation around the world. Currently, several countries have their own sets of standards for accounting rules and laws for plan preparation of financial statements.

Across the globe, many countries are beginning to conform to IFRS with the globalization of international financial markets, the idea of adopting a common language for financial reporting to develop international comparability has become widespread. Of all the possible methods in which of implementing one financial language, adoption of International Financial Reporting Standards (any further IFRS, which encompass vintage and revised IAS) was the technique decided on by Europe and lots of different countries. More than one hundred countries have united to need or permit adoption of IFRS, or have mounted timelines for the adoption of IFRS. In current years, Brazil, Canada, China, and India have all committed to formal timelines for the adoption of IFRS, and Japan has created 2011 its goal for convergence to IFRS. Those in favour of implementing IFRS argued that a shared set of standards could make it easier to evaluate the financial performance of companies throughout the exclusive country.

This would enhance the effectiveness of competition for international funds and make international capital markets more efficient, leading to a lower cost of capital for firms. this expected benefits are based on the premise that mandating the use of IFRS increases transparency and improves the quality of financial reporting. However, there is evidence that accounting standards play only a limited role in determining observed reporting quality.

The application of accounting standards involves tidy judgment and therefore the use of personal info, and as a result, IFRS (like the other set of accounting standards) give managers with substantial discretion. however way this discretion is employed depends on firm-specific characteristics (reporting incentives and operative characteristics), (D. C. Burgstahler, Hail, & Leuz, 2006), and national legal establishments (Ball, Kothari, & Robin, 2000) In this text, we tend to analyze whether or not the obligatory introduction of IFRS standards had a bearing on earnings volatility, and a lot of exactly on earnings management. This paper makes 2 contributions to the literature.

First, we focus on firms in India in which the early adoption of IFRS become now not possible before the transition date. Past literature has studied the economic consequences of IFRS adoption (Leuz, 2003); (Barth, Landsman, & Lang, 2008)however the papers involved analyzed firms that voluntarily adopted IFRS in jurisdictions in which one of these steps turned into viable (e.g., Germany, Switzerland). Although in one paper, (Jeanjean & Stolowy, 2008) they found that the pervasiveness of earnings management did not decline after the introduction of IFRS, and in fact, increased in France. This choice bias should doubtlessly cause overestimation of the predicted benefits of the transition to IFRS, that is inferred solely from studying firms that determined it in their concern to adopt IFRS earlier than their application changed into obligatory. The compulsory nature of the alternate across all public firms in our personal pattern removes any sample choice bias

Second, most of the past literature has targeted the economic consequences of adopting IFRS. As an instance, (Verrecchia & Leuz, 1999) analyze the impact of IFRS adoption on trading volumes. In this paper, we concentrate on the effect of pre and post IFRS adoption on earnings volatility. this is an additional direct gauge of the impact (if any) of IFRS adoption on financial reportage quality.

We concentrate on nine companies, namely Airtel, Dabur, Dr Reddy, Infosys, Mindtree, Noida, Tata motor, Tata TCS, Wipro. We select these nine companies because they are IFRS first-time adopters – we determined earnings volatility for a period of ten years (five years prior to IFRS adoption and five years after IFRS adoption. The companies must have at least four observations for each period (before and after) to be included in the analysis. We analyse the distribution of earnings to discover whether companies in these companies have managed their earnings to avoid losses any less after the implementation of IFRS rather than to the pre-IFRS period.

Our paper is a problem for some caveats. First, our findings can be depending on our proxy for earning volatility control: the choice to keep away from losses. But, the use of different metrics (which includes the discretionary accruals model) is complex, because the adoption of IFRS is just too recent to offer enough statistics for researchers. It's miles probably that the effects of IFRS adoption in phrases of profits management will not be seen for some time. It may take numerous years until financial analysts and financier can efficaciously examine financial statements of firms from different countries. The volatility of earnings means that the quantity that is attributed to shareholders will maintain on fluctuating. This is generally a quantity that the company's management is sure that it's far able to pay out to shareholders. This amount can then handiest be increased whilst the management foresees a favourable future ahead for the company(Brockington, 1993).

OBJECTIVES OF THE STUDY

This study intends to examine the impact of IFRS on the earnings volatility in Indian companies following implementation of IFRS. To answer the research questions, the research objectives are as follows:
1 To review the conceptual framework of earnings volatility as well as to understand the differences between IFRS and Indian Accounting Standard (IAS).
2 To investigate the earnings volatility of the companies under the study before and after IFRS adoption.
3 To compare the earnings volatility in IFRS and non-IFRS adopting companies.

DATA AND METHODOLOGY

This paper utilises a sample of the Indian public and private companies with adopting IFRS for ten years including five years before and five years after adoption. This research used data extracts from consulting income Statement and consulting balance sheets of the selected companies. The companies' financial information was gotten from the companies' website and the period of collecting information was taken ten years for companies adopted with IFRS and non-adopted with IFRS. The select study period also was covered the period before IFRS adoption (2011) and after IFRS adoption in India. Public and private companies' information was employed in order to analyze the study.

INDIA AND IFRS

In May 2006 the board of the Institute of Chartered Accountants of India (ICAI) conducts an assembly with the motive of the dialogue approximately adoption and implementation of IFRS for big agencies especially individuals who are listed inside the stock marketplace with a huge amount of turnover. In this assembly, the board expects to represent the higher picture of 49 Indian firms, in addition, to symbolize a better idea in finance and accounting profession within the global so it could create better opportunities for professional and expert Indian human beings in accounting region and additionally other jobs in overseas nations. In the Accounting Standards Board (ASB) has been discussed a number of the principle issues became concerning regulations and regulatory troubles to Arrange financial statements some other turbulence because of convergence with IFRS in India regarding a position of the financial surrounding of the country.

Companies in India are also raising capital from foreign countries and are involved in diversification, investment and cross-border mergers. Funds are moving across borders of many countries. If organizations report as consistent with the rules prescribed with the aid of the local regulatory our bodies, investors could observe the accounting standards throughout numerous countries earlier than making an investment. International Financial Reporting Standards (IFRS) came into Effect in 2011 in India with the main purpose of establishing a common set of accounting standards to promote the comparability of financial statements around the globe (Gupta, 2012).

Indeed, sound accounting standards underline the trust that investors vicinity in financial reportage information and so play a totally crucial position in a tributary to the monetary improvement of a country. The "Institute of Chartered Accountants of India" (ICAI) is the accounting requirements-formulating body in the country, has constantly created efforts to formulate superiority accounting standards and has been triple-crown in doing accordingly the greater part of the nations in everywhere throughout the world moving towards International Financial Reporting Standards (IFRSs) rather than their national accounting standards.

Financial reporting in India is present process a momentous transformation as a result of the adoption of Indian Accounting Standards (Ind AS) which are converged with International Financial Reporting Standards (IFRS). The notification of those IFRS converged requirements top off substantial gaps that exist in the modern accounting guidance, and India can declare to have financial reporting standards which might be cutting-edge and clearly at par with the leading universal standards. This may, in flip, improve India's region in universal ratings on company governance and transparency in financial reporting. Around a hundred and fifty countries have already adopted IFRS of their economy. But in India, MCA has the resolution to move for complete convergence of IFRS via 2018 thru IND AS (Kantayya & Panduranga, 2017).

In India, there are two sets of Accounting Standards: First, the existing Indian Accounting Standards (IAS) which will be applicable to all companies which are not required to adopt IFRS converged standards. and second, Indian Accounting Standards, as converged with IFRS (IND-AS) which will be relevant to companies operating in India in a phased manner (IFRS in India, ASA-2011). In early 2010, the Ministry of Corporate Affairs (MCA) issued various press releases on the IFRS roadmap and convergence plan for India specifying the convergence date to be 1 April, 2011, through 2014 for select Indian companies. (IFRS in India, PWC-2010). consequently, the Accounting Standards issued by the ICAI have supported the IFRSs. However, wherever departure from IFRS is secure, keeping visible the Indian conditions, the Indian Accounting Standards are changed to that extent.

EARNING VOLATILITY

Earning volatility is one of the key determinatives of danger and of the ensuing marketplace rate of a stock. earning's volatility refers to stable or volatile the profits of firms. A company whose earnings oscillate by an extremely deal is a risky investment. Such risky earnings make it very hard for management to devise beforehand. Frequently when funds ought to be borrowed for lengthy-time period investments. This will imply, the primary problem, and resulting in utmost cases. Therefore, managers attempt now not simplest to maximize earnings but also to adumbration normalize them. Normalizing a variable approach minimizing version and thereby lowering its volatility. Volatility in earnings also refers to the probability that actual earnings will vary from the anticipated earnings because of certain macro and microeconomic situations. (Wolfgang & Opfer, 2003).

Minimise the loss in portfolio earnings under extreme conditions given a certain level of expected earnings under normal conditions – equivalent to maximising expected earnings to earnings tail risk. suggest that earnings volatility is a result of recognizing unrealized gains and losses from changes in fair value (Barth, Landsman, & Wahlen, 1995).

THE IMPACT OF IFRS ON ADOPTERS' EARNINGS VOLATILITY

Managing with earnings volatility and uncertainty within the delivery and demand for regulatory capital, the impact of IFRS, it is allowing better management of the interaction of delivering and demand dynamics for regulatory capital, combining a financial framework with regulatory capital and new loss recognition regulation. Stakeholders pay close attention to earnings as they have significant impacts on stock prices. Typically, they prefer higher earnings with lower earnings volatility. With IFRS, the earnings volatility is expected to decrease significantly across the portfolio. Minimise the portfolio's earnings volatility given a certain level of expected earnings – equivalent to maximising expected earnings to earnings volatility ratio.

To test the impact of IFRS adoption on companies' earnings volatility, this thesis follows the method used by (Boubakri, Cosset, Fischer, & Guedhami, 2005)where a univariate test is led to testing the volatility changes by comparing the mean earnings volatility before and after IFRS adoption. Given constraints on data availability, and consequently the difficulties of implementing the methods based on accruals, in this paper we want to discover whether companies managed their earnings to avoid losses any less after the implementation of IFRS.As (Glaum, Lichtblau, & Lindemann, 2004)remind readers, threshold-oriented earnings management studies (D. Burgstahler & Dichev, 1997)) analyze the distributions of reported earnings and find that the frequencies of small losses are unusually low, whereas the frequencies of small profits are extraordinarily high. Without earnings management, we would expect the distribution to be relatively smooth around thresholds.

Paired-samples t-test is used to compare the mean difference between the pre- and post-adoption earnings volatility for the adopters' sample. The null hypothesis is the earnings volatility of IFRS adopters before and after IFRS are the same. the earnings volatility is determined for a period of ten years (five years prior to IFRS adoption and five years after IFRS adoption. The companies must have at least four observations for each period (before and after) to be included in the analysis. After the mean changes of pre- and post-IFRS adoption is compared. Using Paired-sample t-tests a non-parametric test is then performed to test the significant changes in the median of earnings volatility. The null hypothesis is that the median difference in earnings volatility before and after IFRS adoption is the same.

RESEARCH DESIGN AND SAMPLE

This study uses the standard deviation of earnings before taxes and provisions (SDEAR) to see the impact on earnings volatility because the changes in fair value amounts are recorded in profit and loss. Items such as gains/ (losses) on available-for-sale securities and gains/ (losses) on cash flow hedging instruments are reported in the income statement. These items directly affect operating income, earnings before taxes and provisions, and net income. However, only earnings before taxes and provisions are used as main variables to measure earnings in this study. This is because earnings before taxes and provisions are commonly used as a profitability measure in the companies because tax and provisioning systems differ across companies.

To determine earnings volatility, this thesis follows the method used by (Fiechter, 2011), where the standard deviations are calculated as follows:

σEAR before = STDV (EBTP it/Average total assets it) (1)

σEAR after = STDV (EBTP it/Average total assets it) (2)

Equation (1) is calculated to measure earnings volatility for the period before IFRS adoption by standard deviation, while Equation (2) measures the earnings volatility for the period after IFRS adoption through standard deviation as well.

The variable has been employed in this model is Ratio of Earning before tax and provision to total assets or Ratio EBTP: TA.

ANALYSIS AND DISCUSSION

Mean pre and post values of earning volatility of the selected companies and results of paired samples ‘t’ tests.

TABLE 1

Earnings Volatility		Mean	S. D	Change	t	Sig
Ratio EBTP: TA (Ratio of Earning before tax and provision to total assets	Pre	0.21	0.25	-0.03	.919	.363
	Post	0.18	0.11			

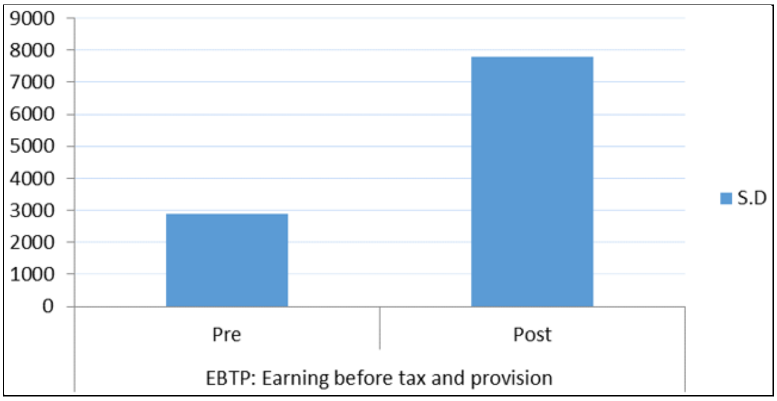
Ratio EBTP: TA (ration Earning before Tax and Provision to Total Assets): As far as ratio of EBTP to TA is considered, we find a significantly change from pre to post Ratio EBTP: TA. The standard deviation pre and post Ratio EBTP: TA were 0.25 and 0.11 respectively.: paired samples ‘t’ test revealed a significant difference between pre to post ratio EBTP to TA (t=.919; p=.363)

FINDING

Therefore, the null hypothesis is not rejected meaning that the earnings volatility during pre and post IFRS period are not the same in the selected companies. In other words, the IFRS adoption has influenced (reduced) the Earning Before tax and Provision to Total Assets in terms of income volatility or standard deviation.

S.D pre and post scores on Ratio EBTP: TA (Ratio of Earning before tax and provision to total assets)

CHART 1
STANDARD DEVIATION



With 95% confidence, EBTP can be said to have a significant difference before and after IFRS. (p-value = 0.0001) and after IFRS has increased.

TABLE 2: DESCRIPTIVE STATISTICS

	Pre IFRS				Post IFRS			
	Mean	Std. Deviation	Minimum	Maximum	Mean	Std. Deviation	Minimum	Maximum
Earning Before Tax & Provision/total assets	0.18727	0.1353	0.0034	0.648	0.17828	.1052410	0.0429	0.3799

From the above table, it is observed that in absolute terms, mean of Earning Before Tax & Provision, Total assets and Earning Before Tax & Provision/total assets are more in after IFRS adoption as compared to before IFRS adoption. Even though the after IFRS increases compared to before IFRS in absolute terms, the testing of hypothesis of impact on earnings volatility using the t-test statistic at 5% level of significance. Reports our descriptive statistics for the three items, concerning the variables Income before extraordinary items, earning before tax and provision and the variable of interest/ Lagged total assets. In the table, the means are visibly much lower than the means after IFRS. This is similar to the phenomenon found in Glaum et al.’s (2004, p. 56) paper. It may be explained by the skewness of accounting variables but is not a problem for our research, as we concentrate more specifically on observations close to zero.

THE COMPARISON OF EARNINGS VOLATILITY BETWEEN IFRS ADOPTERS AND NON-ADOPTERS

To compare the earnings volatility of IFRS adopting companies and non-IFRS adopting companies before and after IFRS adoption, Independent-sample t-tests are employed. Earnings volatility is calculated based on Equation (1) and Equation (2). Similar to the previous section, earnings volatility is calculated for a period of ten years (five years prior to IFRS adoption and five years after IFRS adoption, for both adopters and non-adopters.

All companies use in this research with years of before adoption IFRS and after adoption of IFRS.

TABLE 3

Name of the company	Full years	Years Adoption with IFRS	Years non-adoption with IFRS
1) INFOSYS	2002-2016	2006-2016	2002-2005
2) DABUR	2005-2016	2009-2016	2008-2005
3) WIPRO	2005-2016	2010-2016	2009-2005
4) NOIDA TOLL BRIDGE	2005-2016	2006-2016	2007-2005
5) AIRTEL	2005-2016	2011-2016	2010-2005
6) TATA MOTOR	2005-2016	2013-2016	2012-2005
7) TATA TCS	2005-2016	2012-2016	2011-2005
8) MINDTREE	2007-2016	2012-2016	2011-2007
9) DR. REDDY'S LABORATORIES	2005-2016	2009-2016	2008-2005

TABLE 4: PRE AND POST SCORES ON RATIO EBTP: TA (RATIO OF EARNING BEFORE TAX AND PROVISION TO TOTAL ASSETS)

Company	Pre-score		Post score		Difference
	Mean	S. D	Mean	S. D	
Airtel	.1225	.06208	.0493	.00487	.06
Dabur	.2449	.03791	.2043	.03678	.00
Dr. Reddy	.0757	.06264	.1255	.03732	.02
Infosys	.3430	.05666	.3024	.01383	.04
Mindtree	.1513	.06383	.2441	.03141	.03
Noida	.0330	.02116	.0647	.01451	.00
Tata motor	.0772	.03988	.0812	.01619	.02
Tata TCS	.3242	.03590	.3552	.01662	.02
Wipro	.5137	.63561	.1779	.01696	.61
Total	.2095	.24804	.1783	.10524	.14

Results of repeated measure ANOVA on pre and post scores on EBTP: Earning before tax and provision of different companies.

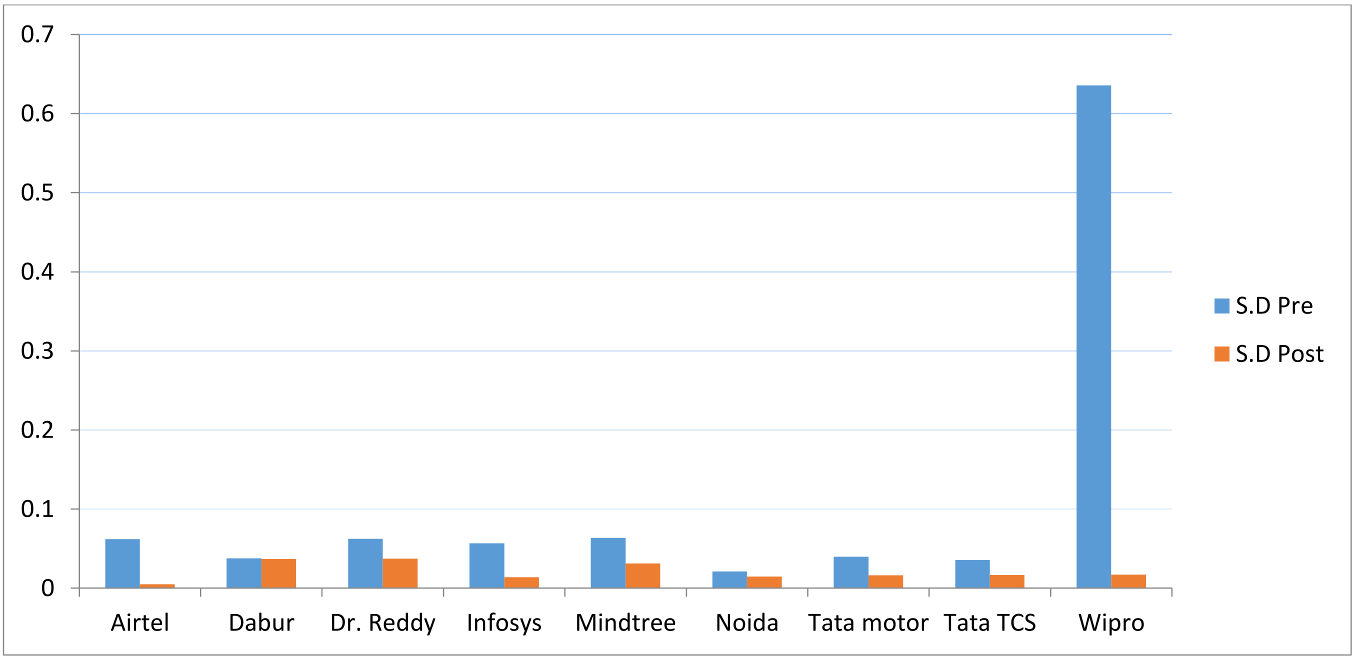
TABLE 5

Source of variation	Sum of Squares	df	Mean Square	F	Sig.
Within subject effects					
Intercept	541080133.334	1	541080133.334	119.791	.000
Change x company	589928708.652	8	73741088.582	16.326	.000
Error	162607899.645	36	4516886.101		
Between subject effects					
Intercept	2323114429.922	1	2323114429.922	321.075	.000
company	2028216054.609	8	253527006.826	35.040	.000
Error	260475370.313	36	7235426.953		

A significant increase in the EBTP scores were observed from pre to post. The pre-score for EBTP was 2628.65, which later increased to 7532.52 in the post. The increase of 4903.88 units from pre to post scores was found to be statistically significant. F value of 119.791 was found to be highly significant at.000 level. Further, company wise comparison for pre to post scores in EBTP was also found to be significant. F value of 16.326 was found to be significant at.000 level. This indicates that there was differential increase of EBTP for different companies. From the table it is evident that Mind tree and Infosys companies recorded maximum increase of 328.79 and 322.63 respectively, and Airtel recorded minimum increase in EBTP from pre to post. The other companies also recorded increase from 162.01 (Noida) to 268.79 (Tata motor) and others in between.

Pre and post SD scores on Earning before tax and provision

CHART 2



CONCLUSION AND DISCUSSION

Sharing incentives and institutions versus sharing rules in this article, we analyse whether the mandatory introduction of IFRS standards had an impact on earnings volatility, and more precisely on earnings management. We concentrate on nine companies, namely, Airtel, Dabur, Dr Reddy, Infosys, Mindtree, Noida, Tata motor, Tata TCS and the Wipro.

The nine companies were selected because they are IFRS first-time adopters: early adoption of IFRS was not possible in any of them. We find that the pervasiveness of earnings management did not decline after the introduction of IFRS, and in fact increased in Wipro company. Our findings confirm that sharing rules is not sufficient in itself to create a common business language. This is consistent with the idea that management incentives and national institutional factors play an important role in framing financial reporting characteristics, probably more important than accounting standards alone. We therefore suggest that the IASB, the SEC and the European Commission should now devote their efforts to creating common goals rather than harmonizing accounting standards.

Specifically, harmonization of legal enforcement systems, contest policies, marketplace access conditions, and effectiveness of the legal method are elements that seem better able to guarantee similar accounting practices throughout companies. therefore, we are able to assert that earnings quality is very too important an issue to depends on accounting standards alone. The findings display that IFRS adoption results in better earnings volatility for IFRS adopting companies in India. That is parallel with findings from (Iatridis & Rouvolis, 2010) that used a pattern of European companies. But caution must be exercised in decoding the findings because the volatility of earnings is probably pushed by the global financial disaster in 2008. Finally, this isn't supported, because the consequences of the univariate check-in do not find enough evidence to conclude that IFRS adopting companies have more earnings volatility than that of non-adopting corporations.

REFERENCES

1. Ball, R., Kothari, S., & Robin, A. (2000). The effect of international institutional factors on properties of accounting earnings. *Journal of accounting and economics, 29*(1), 1-51.
2. Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of accounting research, 46*(3), 467-498.
3. Barth, M. E., Landsman, W. R., & Wahlen, J. M. (1995). Fair value accounting: Effects on banks' earnings volatility, regulatory capital, and value of contractual cash flows. *Journal of banking & finance, 19*(3-4), 577-605.
4. Boubakri, N., Cosset, J.-C., Fischer, K., & Guedhami, O. (2005). Ownership structure, privatization, bank performance and risk taking. *Journal of Banking and Finance, 29*(8), 2015-2041.
5. Brockington, R. B. (1993). *Dictionary of accounting and finance*: Pitman.
6. Burgstahler, D., & Dichev, I. (1997). Earnings management to avoid earnings decreases and losses. *Journal of accounting and economics, 24*(1), 99-126.
7. Burgstahler, D. C., Hail, L., & Leuz, C. (2006). The importance of reporting incentives: Earnings management in European private and public firms. *The Accounting Review, 81*(5), 983-1016.
8. Fiechter, P. (2011). The effects of the fair value option under IAS 39 on the volatility of bank earnings. *Journal of International Accounting Research, 10*(1), 85-108.
9. Glaum, M., Lichtblau, K., & Lindemann, J. (2004). The extent of earnings management in the US and Germany. *Journal of International Accounting Research, 3*(2), 45-77.
10. Gupta, R. K. (2012). *Impact on Economic Activities by Adoption of International Financial Reporting Standards by Indian Companies.* Dissertation, Christ University.
11. Jeanjean, T., & Stolowy, H. (2008). Do accounting standards matter? An exploratory analysis of earnings management before and after IFRS adoption. *Journal of accounting and public policy, 27*(6), 480-494.
12. Kantayya, R., & Panduranga, V. (2017). A Comparative Study of Balance Sheets Prepared under Indian GAAP and IFRS with Special Reference to Select IT Companies. *Europe, 44*, 29.
13. Leuz, C. (2003). IAS versus US GAAP: information asymmetry–based evidence from Germany's new market. *Journal of accounting research, 41*(3), 445-472.
14. Iatridis, G., & Rouvolis, S. (2010). The post-adoption effects of the implementation of International Financial Reporting Standards in Greece. *Journal of international accounting, auditing and taxation, 19*(1), 55-65.
15. Verrecchia, R. E., & Leuz, C. (1999). *The Economic Consequences of Increased Disclosure*. Retrieved from
16. Wolfgang, B., & Opfer, H. (2003). Macroeconomic factors and stock returns in Germany. *Centre for Finance and Banking, Justus Liebig University*.

THE TESTING OF HOMOGENEITY & FINANCIAL DISTRESS: A STUDY ON MAHARATNA COMPANIES

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ABSTRACT

Public sector companies play a vital role for the economic growth of the nation. In the post liberalization period the alteration in the public sector polices changed the scenario from controlled economy to market economy. In this modern competitive era, with the increasing number of companies, sickness in industry also flowed by it, which becomes a major problem for nation's economy and growth. The present study mainly concerned to reveal the financial soundness of Maharatna companies during the period 2015-19 through the use of ratio analysis, composite ranking based on selected financial indicators and through the use of other statistical measures like- Kendall's Coefficient of Concordance & Altman Z score model.

KEYWORDS
maharatna companies, financial performance, ultimate financial ranking.

JEL CODES
G30, G33.

INTRODUCTION

The primary goal of financial management is to maximize the wealth of shareholders and for public companies it is maximization of stock price. Apart from this on the basis of the present scenario financial management also plays a crucial role in the management, survival and future growth of the companies. Before the independence of India, there were only a few public sector companies in the country this includes, Indian Railways, the Port Trusts, the Posts and Telegraphs, All India Radio and the Ordinance Factory however after the independence a great emphasis has given on the expansion of PSUs as public sectors were used as a tool for the self-reliant growth of the nation's economy. The Public Sector Enterprises in India are run by the Government under the Department of Public Enterprises of the Ministry of Heavy Industries and Public Enterprises. The government grants the status of Maharatna, Navratna and Miniratna to certain Central Public Sector Enterprises (CPSE) based upon the profit made by them. The Maharatna status gives more autonomy and authority to a company than the other categories such as Navratna or Miniratna. In the year 2009, the government of India decided to grant Maharatna status to certain CPSEs. Currently, there are eight **Maharatna PSUs**, including **BPCL** that was recently added to the list. Below is the complete list of companies/PSUs that fall under the Maharatna status:

1. Bharat Heavy Electricals Limited (BHEL)
2. Coal India Limited (CIL)
3. Gas Authority of India Limited (GAIL)
4. Indian Oil Corporation Limited (IOCL)
5. National Thermal Power Corporation Limited (NTPC)
6. Oil and Natural Gas Corporation Limited (ONGC)
7. Steel Authority of India Limited (SAIL)
8. Bharat Petroleum Corporation Limited (BPCL)
9. Hindustan Petroleum Corporation Limited (HPCL)
10. Power Grid Corporation of India Limited (PGCIL)

Liberalization of the economy in 1991 evolved a paradigmatic alternation in the policy of the Govt. of India relating to the public sector enterprises. The enterprises lost the monopoly assured by the government. This shift in public sector policy changed the scenario from controlled economy to market economy, full govt. ownership to disinvestment, unlimited life to threat of liquidation, employment generation to manpower rationalization, liberal budget support to withdrawal of support, departmental Board to independent Board and limited autonomy to enhanced autonomy. This study mainly focused to measure the financial soundness of the Maharatna companies in order to help the investors to better understand the financial positions of the company.

REVIEW OF LITERATURE

Batth et al. (2018) conducted this research to analyze the financial health of 7 Maharatna companies & 17 Nabaratna Companies through using the Altman Z score model. According to the result it can be observed that out of 24 companies, 11 companies belong to the safe zone, 2 are in grey zone and the rest 11 are belongs to the danger zone. In this study it can also be observed that despite of having good financial position the market capitalization values of those companies are low.

Malla (2011) mainly focused on the revival and restructuring of the sick industries in this research paper. This study reveals that being very selective regarding rehabilitation the government is not willing to eject further resources in support of those units which are irretrievably sick rather government willing to take potentially viable units will for rehabilitation to restore them to health. Later Companies (Amendment) Bill, 2001, Sick Industrial Companies (Special Provisions) Repeal Bill, 2001, Narasimham Committee etc also focused on the matter of revival and restructuring of sick industry

Navulla et al. recited that with the increasing number of companies, sickness in industries also flowed by it which is easy to understand but difficult to control. This research paper mainly concerned with the facts to combat the industrial sickness problem in India through analyzing the types of sickness, reasons, adverse effect of sickness along with preventives measure which is provided by the Government in India. This paper also suggests that Banks, business people, government and other financial institution must be careful to deal with the concept of industrial sickness.

Sarlija er al. mainly concerned with the fabrication of three separate financial distress prediction models that will track the changes in a relative importance of financial ratios throughout three consecutive years (2006-09) on the basis of the financial data of 2000privately owned SMEs in Croatia through using the logistic regression. The findings of this study state that financial ratios are very much important to predict the financial distress during the economic downturn. Even it also helps to understand the behavior of SMEs in the period of pre-recession and during the time of recession.

Pal (2013) concentrated to evaluate the financial soundness of the public sector steel companies in India namely SAIL & RINL under liberalized era through the ratio analysis and applying the descriptive statistic over the financial data for a period of 20 years (1992-93 to 201-11). The outcomes of this study reveal that though the performance of both the companies are good in some case and also poor from some other extent. Both the companies mainly have to focus on the inventory management and with this RINL also have to reduce the proportion of debt in its capital structure for better result.

OBJECTIVES OF THE STUDY
1. To gauge the financial soundness of Maharatna companies considering some selected indicators of its financial performance.
2. To inspect whether there is any uniformity among the selected indicators of financial performance of the companies.
3. To measure the financial health of the company by using Altman Z score model.

RESEARCH METHODOLOGY
The data regarding the Maharatna Companies for the period 2015-2019 used in this paper are collected from secondary source i.e. published financial reports of the companies and Capaitaline database. To analyze the financial performance of the companies four dimension of financial performance such as liquidity, solvency, operational efficiency and profit earning capacity are taken into consideration. CR, QR, AQR are used to judge the liquidity position of those companies. DER& ICR are treated here to measure the long term solvency of the companies. The operational efficiency of the companies has been measured here through CETR, WCTR & FATR. Lastly, ROI & NPM are taken into consideration to appraise the profit earning capacity of the companies. To rank the financial performance of the companies for each separated year under study a comprehensive rank test is carried out. Beside this, Kendall's coefficient of concordance and Altman Z score model are also used here to investigate whether there is any equality among the financial indicators or not and to measure the financial health of the companies respectively.

PRESENTATION OF DATA, ANALYSIS & DISCUSSION

TABLE 5.1.a: ANALYSIS OF FINANCIAL PERFORMANCE OF SAIL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	0.83	0.31	0.328	0.7	1.8	0.94	3.72	1.25	6.01	4.57
2016	0.63	0.25	0.017	0.9	-1.9	0.75	7.24	0.84	-7.63	-10.29
2017	0.55	0.21	0.016	1.1	-0.7	0.81	10.80	0.87	-3.49	-6.37
2018	0.68	0.29	0.013	1.3	0.58	0.89	10.21	0.97	2.87	-0.83
2019	0.78	0.31	0.012	1.2	1.8	1.06	7.69	1.08	9.19	3.25
Source: Compiled and computed from the published Financial Statements of SAIL										

TABLE 5.1.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators										
	R_A	**R_B**	**R_C**	**R_D**	**R_E**	**R_F**	**R_G**	**R_H**	**R_I**	**R_J**	**∑R**	**UR**
2015	1	1.5	1	5	1.5	2	5	1	2	1	20	**1**
2016	4	4	2	4	5	5	4	5	5	5	39	**5**
2017	5	5	3	3	4	4	1	4	4	4	37	**4**
2018	3	3	4	1	3	3	2	3	3	3	25	**3**
2019	2	1.5	5	2	1.5	1	3	2	1	2	21	**2**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.3232 *[computed s value=323.2; tabulated s value=231.2]* **Source: Authors' own tabulation**											

OBSERVATIONS

I. Liquidity Ratio: One of the popular metric to access the liquidity position of a company is CR. The result depicts that a fluctuating trend is presented among the CR of SAIL and also these ratios do not satisfy the standard norm of CR i.e. 2 during any year under the study period. Even relating to QR & AQR though an upward trend can be observed still these ratios also do not satisfy the standard norm of QR& AQR i.e. 1 &0.5 respectively in any period.

II. Solvency Ratio: In case of DER & ICR although an upward and fluctuating trend can be observed respectively still it can be state that the long term financial health of SAIL is not up to the mark as these ratios are lower than the standard norm i.e. 2in both case.

III. Efficiency ratio: The Higher the CETR, WCTR & FATR ratios, the better the operational efficiency of the company. The CETR & FATR ratios are ranged within 2, which isn't high but the WCTR ratios are much higher than these two.

IV. Profitability Ratio: It can be observed from the result that both in case of ROI & NPM there was a drastic fall in the year 2016 and also a major fluctuating trend can be noticed among these ratios during the study period.

To measure the financial soundness of SAIL more unerringly during the study period, a comprehensive rank test was enacted, in which the values of all the selected financial performance indicators of each separated year were combined in a composite score and the **UR** is done based on that composite score of each year through following the principle that the lower the composite score, the higher the financial performance and vice versa. This ranking depicts that the company possess the best position on the basis of the overall financial performance in the year 2019 followed by the years 2015, 2016, 2017 & 2018. To investigate whether there was any uniformity among the selected financial performance indicators of SAIL during the study period **Kendall's coefficient of concordance (W)** is also carried out. According to the result of this test the calculated value of s is greater than the tabulated value of s (*323.2>231.2).* So it can be concluded that there is a uniformity among the selected dimensions of financial performance of the company during the study period was noticed.

TABLE 5.2.a: ANALYSIS OF FINANCIAL PERFORMANCE OF BHEL USING SELECTED FINANCIAL PERFORMANCE INDICATOR

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	2.19	1.73	0.54	3.66	24.35	0.97	1.14	6.48	4.84	4.70
2016	2.18	1.71	0.49	0.08	-54.06	0.93	1.09	6.22	-1.18	-2.66
2017	2.13	1.76	0.53	1.1	2.49	1.07	1.24	7.55	2.38	1.74
2018	1.94	1.70	0.51	0.9	7.23	1.19	1.38	8.84	4.42	2.78
2019	1.67	1.31	0.33	0.7	8.17	1.64	1.98	9.48	5.66	4.00
Source: Compiled and computed from the published Financial Statements of BHEL										

TABLE 5.2.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators											
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	1	3	1	4	1	4	4	4	2	1	25	**1**
2016	2	2	4	2	5	5	5	5	5	5	40	**4**
2017	3	1	2	3	4	3	3	3	4	4	30	**3**
2018	4	4	3	5	3	2	2	2	3	3	31	**5**
2019	5	5	5	1	2	1	1	1	1	2	24	**2**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.162												
[computed s value=162; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATIONS

I. Liquidity Ratio: Here in results, the CR shows an ideal ratio for continuous 3 years, but there is a sudden decrease in the year 2019. Same can be said for QR & AQR.

II. Solvency Ratio: The DER is maximum in the year 2015, after that it is showing a decreasing trend, the ICR is maximum in the same year, then becomes negative in the year 2016 & in the other years it is showing a fluctuating trend.

III. Efficiency Ratio: All the ratios (CETR, WCTR & FATR) are having an increasing trend over the years; all are maximum in the year 2019.

IV. Profitability Ratio: In both ROI & NPM, we are having a negative figure in the year 2016, ROI is maximum in the year 2019 & NPM is at maximum in the year 2015

In the same way, we had computed UFR of the company, which shows the best position in the year 2015, followed by the years 2019, 2017, 2016 & 2018. If we look at the **Kendall's Co-efficient of Concordance (w),** the computed value of s is less than the tabulated value (162<231.2). So it can be concluded that there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.3.a: ANALYSIS OF FINANCIAL PERFORMANCE OF CIL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	4.73	4.70	4.17	0	56.99	0.044	0.046	1.18	67.35	3457.16
2016	3.23	3.15	2.26	0	-134.5	0.038	0.038	0.48	85.54	10024.2
2017	2.77	2.72	1.63	0	-105.2	0.11	0.13	0.87	81.76	5001.75
2018	1.17	1.16	0.27	0	-35.12	0.48	1.14	0.84	54.45	2549.63
2019	2.68	2.64	0.35	0	586.5	0.55	0.76	1.94	57.78	1120.58
Source: Compiled and computed from the published Financial Statements of CIL										

TABLE 5.3.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators											
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	1	1	1	3	2	4	4	2	3	3	24	**1**
2016	2	2	2	3	5	5	5	5	1	1	31	**4**
2017	3	3	3	3	4	3	3	3	2	2	29	**2.5**
2018	5	5	5	3	3	2	1	4	5	4	37	**5**
2019	4	4	4	3	1	1	2	1	4	5	29	**2.5**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.88												
[computed s value=88; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATIONS

I. Liquidity Ratio: In this case, the CR, QR & AQR are showing a fluctuating trend over the years.

II. Solvency Ratio: For CIL, the company has no short term & long-term debt, so the ratio is 0 in all the years. But, except in 2015, ICR is giving negative figures in all the other years, that also in a fluctuating manner.

III. Efficiency Ratio: The CETR & WCTR are very minimum all over the years, the FATR is maximum in the year 2019 & showing a fluctuating trend also.

IV. Profitability Ratio: The ROI is excellent in all the cases & it is maximum in the year 2016. The NPM is in a very good position in this company, minimum in the last year i.e in 2019.

If we look at the UFR of the company, it is best in the year 2015, followed by the years 2017, 2019, 2016 & 2018. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is much lower than the tabulated value of s(88<231.2). So, it can be said that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.4.a: ANALYSIS OF FINANCIAL PERFORMANCE OF GAIL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	1.06	0.85	0.46	6.34	12.86	1.73	94.08	1.77	7.08	5.35
2016	0.99	0.83	0.47	4.56	5.96	1.62	-410.62	1.61	5.45	4.42
2017	1.09	0.89	0.25	1.78	12.28	1.46	63.66	1.49	13.17	7.27
2018	1.02	0.83	0.33	0.43	26.29	1.55	259.13	1.56	14.95	8.60
2019	1.10	0.86	0.22	0.39	66.58	1.82	77.20	1.86	17.34	8.02
Source: Compiled and computed from the published Financial Statements of GAIL										

TABLE 5.4.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators											
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	3	3	2	1	3	2	2	2	4	4	26	**2**
2016	5	3.5	1	2	5	3	5	3	5	5	37.5	**5**
2017	2	1	4	3	4	5	4	5	3	3	34	**4**
2018	4	3.5	3	4	2	4	1	4	2	2	28.5	**3**
2019	1	2	5	5	1	1	3	1	1	1	22	**1**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.1537												
[computed s value=153.7; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATION

I. Liquidity Ratio: The CR & QR of this company is not fluctuating too much, still they are not satisfying the ideal norms in any of the years, in the study period. The AQR is lying within the range of 0.22 – 0.47. It is maximum in the year 2016.

II. Solvency Ratio: The DER & ICR both showing a very fluctuating trend all over the years. The ICR had shown its maximum value in the year 2019, and also fulfilling the standard norms in each year.

III. Efficiency Ratio: The CETR is not so much fluctuating for this company, lying within the range of 1.46-1.82. The WCTR drastically, shows a negative figure in the year 2016. The FATR is more or less stable all over the years in the study period.

IV. Profitability Ratio: The trend of ROI & NPM is improving from the year 2017 & it came to its best position in the year 2019.

In this case, **UR** is best in the year 2019, followed by the years 2015, 2018, 2017 & 2016. The **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (153.7<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.5.a: ANALYSIS OF FINANCIAL PERFORMANCE OF IOCL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	0.99	0.52	0.326	20.47	3.33	4.30	-502.71	4.27	1.20	4.28
2016	0.88	0.40	0.015	17.93	6.45	3.37	-37.02	3.09	3.23	8.00
2017	0.72	0.24	0.014	10.63	8.64	4.35	-10.05	3.03	5.30	22.73
2018	0.76	0.28	0.004	5.86	10.44	4.44	-12.91	3.31	5.03	24.86
2019	0.81	0.35	0.009	9.07	6.83	4.66	-18.18	3.71	3.20	18.14
Source: Compiled and computed from the published Financial Statements of IOCL										

TABLE 5.5.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators											
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	1	1	1	1	5	4	5	1	5	5	29	**1.5**
2016	2	2	2	2	4	5	4	4	3	4	32	**5**
2017	5	5	3	3	2	3	1	5	1	2	30	**3.5**
2018	4	4	5	5	1	2	2	3	2	1	29	**1.5**
2019	3	3	4	4	3	1	3	2	4	3	30	**3.5**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.006												
[computed s value=6; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATIONS

I. Liquidity Ratio: For this company, the liquidity position is not so good during the study period as its CR, QR & specially the AQR are much lower than the standard ratio in each single year.

II. Solvency Ratio: The DER is showing a decreasing trend, minimum is in the year 2018. The ICR shows a fluctuating trend all over the years.

III. Efficiency Ratio: The CETR & FATR are more or less stable all over the years, showing the maximum value in the year 2019 & 2015 respectively. The WCTR is showing negative figures, throughout the study period, that also in a fluctuating manner.

IV. Profitability Ratio: The ROI has an increasing trend all over the years. But the trend of NPM is very fluctuating, maximum is in the year 2018.

For this Company, the UR is best in the two of the years, given similar ranks, i.e 2015 & 2018, followed by the years 2017, 2019 & 2016. If we look at the **Kendall's Co-efficient of Concordance (w),** the computed value of s is much lesser than tabulated value (6<231.2), so it can't be expected that there will be any uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.6.a: ANALYSIS OF FINANCIAL PERFORMANCE OF NTPC USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	1.22	0.98	0.50	9.52	4.72	0.52	10.17	0.54	14.04	6.17
2016	0.87	0.67	0.14	10.48	4.21	0.46	-16.30	0.45	15.20	5.94
2017	0.75	0.58	0.08	12.17	4.35	0.46	-7.94	0.43	11.99	8.30
2018	0.88	0.70	0.09	13.97	4.10	0.43	-11.61	0.42	12.39	7.57
2019	0.79	0.65	0.04	13.67	3.69	0.44	-7.55	0.42	13.01	7.45
Source: Compiled and computed from the published Financial Statements of NTPC										

TABLE 5.6.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators											
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	1	1	1	5	1	1	1	1	2	4	18	**1**
2016	3	3	2	4	3	2.5	5	2	1	5	30.5	**2.5**
2017	5	5	4	3	2	2.5	3	3	5	1	33.5	**4**
2018	2	2	3	1	5	4	4	4.5	4	2	30.5	**2.5**
2019	4	4	5	2	4	3	2	4.5	3	3	34.5	**5**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.176												
[computed s value=176; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATIONS

I. Liquidity Ratio: In this case, after 2015 the CR decreased and the within the range of 0.75-0.88 over the other years. The QR & AQR also follows the same trend being maximum in the year 2015.

II. Solvency Ratio: Being much higher than the standard norms the DER & ICR portraying a good solvency position of this company. The ICR is lying within the range of 3.69 - 4.72, over the years, being maximum in the year 2015**.**

III. Efficiency Ratio: The CETR & FATR is more or less stable over the years, but we can't say it is in a good position. The WCTR is positive only in the year 2015 & becomes negative after that, throughout the study period.

IV. Profitability Ratio: The ROI & NPM is not that much fluctuating for this company in the study period. The ROI is maximum in the year 2016 & lying within the range 11.99-15.20 over the years. The NPM is lying within the range 5.94-8.30.

If we look at the UR, it was in best position in the year 2015, followed by 2016, 2018, 2016 & 2019. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value(176<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.7.a: ANALYSIS OF FINANCIAL PERFORMANCE OF ONGC USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			Solvency Ratio		Efficiency Ratio			Profitability Ratio	
	CR [A]	QR [B]	AQR [C]	DER [D]	ICR [E]	CETR [F]	WCTR [G]	FATR [H]	ROI [I]	NPM [J]
2015	1.57	1.26	0.51	0.33	9656.6	0.60	7.54	0.65	9.38	21.39
2016	1.72	1.41	0.61	0	18.82	0.55	6.01	0.60	7.91	20.81
2017	1.55	1.23	0.57	0	21.64	0.52	7.28	0.56	11.59	23.03
2018	0.44	0.30	0.05	3.99	20.15	0.67	-3.05	0.55	12.56	23.47
2019	0.61	0.44	0.02	3.43	17.03	0.78	-5.98	0.68	16.61	24.37
Source: Compiled and computed from the published Financial Statements of ONGC										

TABLE 5.7.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators											
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	2	2	3	3	1	3	1	2	4	2	23	**5**
2016	1	1	1	3.5	4	4	3	3	5	1	26.5	**2.5**
2017	3	3	2	3.5	2	5	2	4	3	3	30.5	**2.5**
2018	5	5	4	1	3	2	4	5	2	4	35	**1**
2019	4	4	5	2	5	1	5	1	1	5	33	**4**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.0947												
[computed s value=94.7; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATIONS

I. Liquidity Ratio: If we look at the CR, it's giving a fluctuating trend over the years. The same we can say for QR & AQR. The QR & AQR are in their best position in the year 2016.

II. Solvency Ratio: The DER is showing 0 in two of the years, in those years the company had no debts. If we look at the ICR, it's terribly fluctuating, being maximum in the year 2015 (9656.6) & minimum in the year 2019 (17.03).

III. Efficiency Ratio: The CETR is lying within the range 0.52-0.78, over the years. The WCTR is negative in the years 2018 & 2019. The FATR is not that much fluctuating over the years.

IV. Profitability Ratio: The ROI & NPM, both showing an increasing trend over the years, being maximum in the year 2019.

For this Company, if we look at the UR, it was in best position in the year 2016, followed by 2016, 2017, 2019 & 2015. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (40<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.8.a: ANALYSIS OF FINANCIAL PERFORMANCE OF BPCL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			Solvency Ratio		Efficiency Ratio			Profitability Ratio	
	CR [A]	QR [B]	AQR [C]	DER [D]	ICR [E]	CETR [F]	WCTR [G]	FATR [H]	ROI [I]	NPM [J]
2015	0.93	0.48	0.065	17.27	13.72	9.29	-101.22	8.51	13.70	2.13
2016	0.88	0.45	0.098	20.35	19.92	5.83	-52.25	5.24	16.77	3.92
2017	0.79	0.33	0.003	10.56	23.27	5.98	-21.90	4.69	23.79	3.97
2018	0.83	0.36	0.005	7.54	14.54	5.95	-30.64	4.98	21.87	3.37
2019	0.99	0.53	0.036	12.84	8.91	5.61	-491.84	5.55	17.19	2.39
Source: Compiled and computed from the published Financial Statements of BPCL										

TABLE 5.8.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators										
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	2	2	2	2	4	1	4	1	5	5	28	**2**
2016	3	3	1	1	2	4	3	3	4	2	36	**1**
2017	5	5	5	5	1	2	1	5	1	1	30	**3**
2018	4	4	4	4	3	3	2	4	2	3	34	**5**
2019	1	1	3	3	5	5	5	2	3	4	32	**4**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.04												
[computed s value=40; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATIONS

I. Liquidity Ratio: The liquidity position of this company is not so good since the three ratio- CR, QR & AQR are much lower than the standard norms

II. Solvency Ratio: The DER & ICR, both showing a fluctuating trend, the DER is at it's maximum in the year 2016 & the ICR is maximum in the year 2017.

III. Efficiency Ratio: The CETR is maximum in the year 2015 & then remain stable over the years. The WCTR is showing minimum figures throughout the years, that also in a fluctuating mode. The FATR is maximum in the year 2015, & after that more or less stagnant.

IV. Profitability Ratio: The ROI is maximum in the year 2017 & showing a fluctuating trend. The NPM is within the range 2.13-3.97.

For this Company, if we look at the **UR,** it was in best position in the year 2016, followed by 2015, 2017, 2019 & 2018. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (94.7<231.2), so it shows that, there is no uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.9.a: ANALYSIS OF FINANCIAL PERFORMANCE OF HPCL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	1.16	0.62	0.22	50.31	6.87	5.67	52.92	6.35	6.23	1.32
2016	1.03	0.55	0.20	42.84	9.97	4.98	256.64	5.08	8.84	2.51
2017	0.72	0.31	0.004	16.92	17.84	7.45	-14.58	4.93	29.21	3.31
2018	0.78	0.39	0.03	12.85	17.24	6.97	-20.88	5.23	24.77	2.89
2019	0.76	0.40	0.02	16.47	13.86	7.49	-20.06	5.45	21.48	2.19
Source: Compiled and computed from the published Financial Statements of HPCL										

TABLE 5.9.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators										
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	1	1	1	1	5	4	2	1	5	4	26	**1**
2016	2	2	2	2	4	5	1	4	4	4	30	**2.5**
2017	5	5	5	3	1	2	5	5	1	1	33	**5**
2018	3	4	3	5	2	3	3	3	2	2	30	**2.5**
2019	4	3	4	4	3	1	4	2	3	3	31	**4**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.026												
[computed s value=26; tabulated s value=231.2]												
Source: Authors' own tabulation												

OBSERVATIONS

I. Liquidity Ratio: For this Company, the CR & QR are highest in the year 2015, showing a decreasing trend over the study period. The AQR is very minimum all over the years, minimum in the year 2017.

II. Solvency Ratio: The DER & ICR is showing opposite trend to each other, the DER is showing decreasing trend whereas ICR is showing increasing trend over the years but on an overall basis both are portraying a favorable solvency position of the company as both the ratio are higher than the ideal norm.

III. Efficiency Ratio: The CETR is showing a fluctuating trend over the years. The WCTR is maximum in the year 2016 & after 2016 all the figures are negative. The FATR again here, showing a decreasing trend, being maximum in the year 2015.

IV. Profitability Ratio: The ROI improves a lot from the year 2017 & the NPM also improved from the year 2017

For this particular Company, if we look at the **UR,** it was in best position in the year 2015, followed by 2016, 2018, 2019 & 2017. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (26<231.2), so it shows that, there is no chance of uniformity among the selected dimensions of financial performance of the company during the study period.

TABLE 5.10.a: ANALYSIS OF FINANCIAL PERFORMANCE OF PGCIL USING SELECTED FINANCIAL PERFORMANCE INDICATORS

Year	Financial Performance Indicators									
	Liquidity Ratio			**Solvency Ratio**		**Efficiency Ratio**			**Profitability Ratio**	
	CR [A]	**QR [B]**	**AQR [C]**	**DER [D]**	**ICR [E]**	**CETR [F]**	**WCTR [G]**	**FATR [H]**	**ROI [I]**	**NPM [J]**
2015	0.36	0.33	0.12	17.31	2.59	0.15	-1.23	0.13	3.64	28.98
2016	0.40	0.36	0.13	19.54	2.50	0.14	-1.36	0.13	3.93	28.97
2017	0.38	0.35	0.11	21.50	2.52	0.17	-1.39	0.15	9.57	29.24
2018	0.40	0.36	0.07	23.59	2.38	0.18	-1.55	0.16	9.86	27.69
2019	0.62	0.59	0.11	25.87	1.99	0.42	-2.18	0.35	10.04	29.12
Source: Compiled and computed from the published Financial Statements of PGCIL										

TABLE 5.10.b: RANK OF FINANCIAL PERFORMANCE INDICATORS & COMPUTATION OF UR

Year	Ranks of Financial Performance Indicators											
	R_A	R_B	R_C	R_D	R_E	R_F	R_G	R_H	R_I	R_J	∑R	UR
2015	5	5	2	5	1	4	1	4.5	5	3	23	**5**
2016	2.5	2.5	1	4	3	5	2	4.5	4	4	26.5	**2.5**
2017	4	4	3.5	3	2	3	3	3	3	1	30.5	**2.5**
2018	2.5	2.5	5	2	4	2	4	2	2	5	35	**1**
2019	1	1	3.5	1	5	1	5	1	1	2	33	**4**
Kendall's coefficient of concordance among the selected financial performance indicators (W) is 0.110 *[computed s value=110; tabulated s value=231.2]* **Source: Authors' own tabulation**												

OBSERVATIONS

I. Liquidity Ratio: If we look at the CR here, it suddenly reaches to the maximum in the year 2019, in the other years it doesn't varies that much. The QR also follows the same trend. The AQR is very minimum here, throughout the study period.

II. Solvency Ratio: The DER here lies within the range 17.31-25.87, showing an increasing trend over the years, being, maximum in the year 2019. The ICR doesn't fluctuate that much here, lying within the range 1.99-2.59.

III. Efficiency Ratio: The CETR & FATR are minimum here, over all the years, being maximum here in the year 2019. The WCTR here shows negative figures over all the years.

IV. Profitability Ratio: The ROI here showing an increasing trend over the years, being maximum in the year 2019. The NPM here doesn't fluctuate that much, which lies within the range 27.69-29.24, being maximum in the year 2017.

For this Company, if we look at the **UR,** it was in best position in the year 2018, followed by 2016, 2017, 2019 & 2015. **Kendall's Co-efficient of Concordance (w)** shows that the computed value of s is less than the tabulated value (110<231.2), so it can be concluded that, there is no uniformity among the selected dimensions of financial performance of the company during the study period

TABLE 5.11: ALTMAN Z-SCORE AVERAGE VALUES OF MAHARATNA COMPANIES

Year	SAIL	BHEL	CIL	GAIL	IOCL	NTPC	ONGC	BPCL	HPCL	PGCIL
2015	1.38	1.60	9.82	2.77	2.81	1.02	1.64	4.30	3.60	0.51
2016	0.80	1.11	8.50	2.58	2.53	0.84	1.47	3.46	3.35	0.49
2017	0.86	1.42	8.48	2.78	2.45	0.87	1.40	6.87	3.31	0.62
2018	1.07	1.28	7.78	2.83	2.57	0.84	1.11	3.29	3.47	0.61
2019	1.22	1.01	4.94	2.74	2.38	0.67	1.95	3.37	3.34	0.53
Average Z-Score	**1.06**	**1.28**	**7.90**	**2.74**	**2.55**	**0.85**	**1.51**	**4.26**	**3.41**	**0.55**
Decision	**Danger Zone**	**Grey Zone**	**Safe Zone**	**Grey Zone**	**Grey Zone**	**Danger Zone**	**Grey Zone**	**Safe Zone**	**Safe Zone**	**Danger Zone**

OBSERVATIONS

According to the Altman Z-Score model, out of 10 Maharatna company 3 companies namely- CIL, BPCL & HPCL are belonging to the safe zone. Even the Z-Score of these three companies for 5 consecutive years are also more than 2.99, which indicates that financial performance of these companies are quite excellent and among these three companies the performance of CIL is the best as the Z-Score of it is the highest in each case. Again out of 10 Maharatna companies 4 companies namely- BHEL, GAIL, IOCL & ONGC are belonging to the grey zone where their average Z-Score values are ranged between1.21 & 2.99. Even it can be observed that in case of BHEL Z-Score value is in danger zone in the year 2016 & 2019 and the same can be observed in case of ONGC in the year 2018. Though these companies are not in danger zone yet, still they have to work to improve their financial performance. Now the rest 3 companies namely- SAIL, NTPC & PGCIL belong to danger zone as their Z-Score value is lower than 1.21. They also can be termed as sick company on the basis of Z-Score values. Among these three companies the Z-Score value is lowest in case of PGCIL which indicates that out of these 10 Maharatna companies the financial performance of PGCIL is worst.

6. CONCLUSION

- After making the analysis it can be conclude that relating to the liquidity position out of 10 Maharatna companies, 6 companies, namely- SAIL, IOCL, NTPC, BPCL, HPCL & PGCIL are in a poor condition whereas the short term solvency level of only 2 Maharatna companies- BHEL & CIL are quiet favorable. The liquidity position of GAIL is medium.
- Regarding the solvency, it can be state that except SAIL & BHEL the long term solvency level of the rest is in a good position. Performance of SAIL & BHEL in this case is poor and medium respectively.
- In case of efficiency it is noticeable that except NTPC, BPCL & HPCL the operating efficiency of the rest are medium. Out of these 3 companies the efficiency level of BPCL & HPCL is good but in respect of NTPC the efficiency level is very poor.
- With reference to the profitability it is visible that except SAIL the profit earning capacity of others Maharatna companies are quiet admirable whereas this profit earning capacity of SAIL is medium.
- The analysis of composite scores of each company based on selected performance indicators reveals that out of 10Maharatna companies, 5 companies, namely- SAIL, BHEL, CIL and HPCL are in their best position in the year 2015.
- A considerable degree of uniformity among the financial performance indicators can be observed only in case of SAIL during this study period.
- Outcome of financial distress analysis through Altman Z-Score expressed that mainly 3 companies- SAIL, NTPC & PGCIL are not in a sound condition, whereas CIL, BPCL & HPCL are in safe zone. And the rest- BHEL, GAIL, IOCL & ONGC are in grey zone.

REFERENCES

1. Agarwal,V and Taffier, R (2007), Comparing the performance of market based and accounting based bankruptcy prediction models, available at:http://ssrn.com/abstract=968252.
2. Bemmann, Martin, Improving the Comparability of Insolvency Predictions (2005). Dresden Economics Discussion Paper Series No. 08/2005. Available at SSRN:http://ssrn.com/abstract=731644
3. Chakraborty K. (2014). Linkage between Efficiency of Assets Management and Profitability during the Post-liberalisation Era: A Study on Select Companies of Indian Public Sector. J. Inst. Public Enterp, 37(3-4):1-17
4. Chiung-Ying Lee and Chia-Hua Chang (2010), Application of company financial crisis early warning model –Use of Financial Reference Database, International Journal of Business and Economic Sciences, 2(1), 40-45
5. Datt R, Sundharam KPM (2002). Indian Economy, Mittal Publications, New Delhi pp. 99-127
6. Goswami, D. & Hazarika, p."Stages and Symptoms of Industrial Sickness- A Mathematical Model Applied to a Few Small Scale Industrial Units in NE Indian State of Assam", ISBN: 978-1-61804-098-5
7. Gupta S, Jain PK, Yadav SS, Gupta VK (2011). Financial performance of Disinvested Central Public Sector Enterprises in India: An Empirical Study on Select Dimensions. J. Appl. Fin. Bank. 1(4):57-106.

8. Hui, H and Jhao, Jing- Jing (2008), Relationship between corporate governance and financial distress: An empirical analysis of the distressed companies in China, International Journal of Management, 25 32-28
9. Jones, F.L (1987), Current techniques in bankruptcy prediction, Journal of Accounting Literature, 6 131-164
10. K. Srinivas and V. Apparao: "Sickness causes in cooperative sugar factories in Andhra Pradesh - a case study" www.elixirpublishers.com (Elixir International Journal), K.Srinivas et al./ Elixir Mgmt. Arts 43 (2012) 7033-7039
11. Khan AQ (1990). Efficiency Profile of Public Enterprises in India, Vohra Publishers and Distributors, Allahabad pp. 30-43
12. Maitlo, M. G. "Sickness in Small-Scale Industries of Sindh: Causes & Remedies". A Case Study of Larkana Estate Area, Australian Journal of Basic and Applied Sciences, 1(4): 860-865, 2007, ISSN 1991-8178.
13. Mallik AK, Sur D (2004). Financial Performance of Indian Enterprises in the Post-Liberalisation Era: A Case Study of National Thermal Power Corporation Limited. Res. Bull. 25:59-69.
14. Pursell,G. Industrial Sickness, Primary and Secondary: "The Effects of Exit Constraints on Industrial Performance", The World Bank Economic Review, Vol. 4, No. 1 (Jan., 1990), pp. 103-114, Oxford University Press
15. Sur D, Panja R (2014). Profitability Trends in NTPC Ltd. during the Pre- and Post- liberalisation Periods: A Comparative Study. J. Inst. Public Enterp. 37(1&2):78-90.
16. Sur D, Yadav SK (2014). Trends in Asset Management Efficiency in Maharatna Central Public Sector Enterprises: A Cross-Sectional Analysis. J. Inst. Public Enterp. 37(3 & 4):78-90.
17. V.K. Joshi, "Management of Industrial Sickness" (Jaipur, 1987). pp.57-59

A STUDY ON THE CAUSES OF THE DOWNFALL OF NBFCs IN INDIA: A CASE ANALYSIS OF DHFL & IL& FS

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ABSTRACT

Non-bank finance companies are in the businesses related to loans and advances, and other types of economic activity. NBFC plays an important role in providing affordable financial services. NBFC indirectly stimulates the economy. It deals with Asset Mobilization, loan syndication, leasing, hire-purchase, insurance business, Employment generation, expansion of the financial market; raising living standards NBFC is much more important for a growing economy such as India. The current Scenario shows the crisis in organisations like DHFL (Deewan Housing Finance Ltd) and IL & FS (Infrastructure Leasing and Financial services) has a greater impact on our Indian economy. The presence of NBFC s in a country would only drift the economy in the right direction. In the past few years these institutions have been experiencing a liquidity crunch and shrinkage in credit extension due to non-repayment by the borrowers. The objective of this study is to highlight the major causes for the downfall of these institutions with special focus on DHFL and IL&FS.

KEYWORDS

NBFCs, hire-purchase, leasing, credit syndication.

JEL CODES

G20, G23.

INTRODUCTION

NBFCs (Non-Banking Financial Companies) are financial institutions involved in the business of accepting deposits, conveying credit and assume a significant job in channelizing the rare budgetary assets to capital development. They supplement the job of the financial institution in meeting the expanding budgetary necessities of the corporate segment, conveying credit to the unexplored ventures. They are not only confined to trade financing but also commercial loans, lease financing and Property financing. At present, there is no independent regulator for the NBFCs in India, therefore they come under the governance of the Reserve Bank of India. On an annualized basis, the NBFC sector outperformed the banking sector in most years between 2006 and 2013. This means that it grew by 22% per year. As it turned out, this contributes more to the annual economy.

NBFCs assume a significant job in advancing comprehensive development of the nation, by obliging the fund related requirements of bank declined clients. Further, NBFCs regularly take lead job in offering fund related assistance to Micro, Small, and Medium Enterprises (MSMEs) generally reasonable to their business. NBFCs do assume a basic job in taking an interest in the advancement of an economy by giving a fillip to transportation, wealth creation, credit in rustic fragments and to help economically more fragile areas of the general public.

REVIEW OF LITERATURE

1. Viswanathan (2010) in the study titled "the global financial crisis and its impact on India" contemplated worldwide impact of global financial crisis and its effect on India. In spite of worldwide emergency, India, China and Brazil had the option to continue the development rate and were not influenced by the emergency. The effect made was not uniform over the nations. Littler developing markets had development sway in littler manner. The investigation recognized that the financial institutions in India ought to be still exceptionally controlled and ceaselessly observed. The Reserve Bank of India has several mechanisms to control the liquidity in the system. The volume of its forex reserves permits it to participate in the international forex market to get a better platform for global trade.
2. D.K. Naurial and Bimal Kishore Sahu "The Economic Growth of the Financial Crisis in India. The "outside sector" in their study suggested that the financial crisis had a negative impact GDP, but imports, exports and FDI proved to have stimulating effects through technical effects and other external effects. The paper says that the global recover although the economy is crucial to India's economic growth, the impact of the global recession can be minimized through the use of stimulating financial and financial instruments by the RBI.
3. Deepak Mohanty (2018) "Global Financial Crisis and the Indian Economy**".** The study depicted that in spite of sound essentials and no immediate exposure to the sub-prime resources, India was influenced by worldwide money related emergency through all the channels – exchange, monetary and certainty channels – reflecting expanding globalization of the Indian economy than what is evident regarding conventional markers. The strategy reactions to the worldwide emergency were quick and auspicious and have travelled through unmistakable stages since the second 50% of 2008-09. Reserve Bank presented a thorough scope of traditional and unpredictable measures to restrict the effect of the antagonistic worldwide advancements measures attempted in light of the emergency were ended meaning come back to ordinary pace of movement

OBJECTIVES OF THE STUDY

The study primarily focuses on the following two basic objectives:

1. Analyse the various causes that led to the downfall of the non-banking finance companies in India during the tenure of 2018-2019 and its impact in the Indian economy.
2. The study also highlights on causes that led to the downfall of two large NBFCs i.e. DHFL and IL& FS

SCOPE OF THE STUDY

The study has been undertaken on the non-banking finance companies of India, primarily focussing on the recent problems faced, an analysis of the causes and its impact on the Indian economy.

To fulfil the objective, the financial year of 2018-19 has been selected as during this tenure the global economy faced recession and India was no exception specifically because the lending by NBFCs had been tightened due to liquidity crunch and non-repayment by the borrowers.

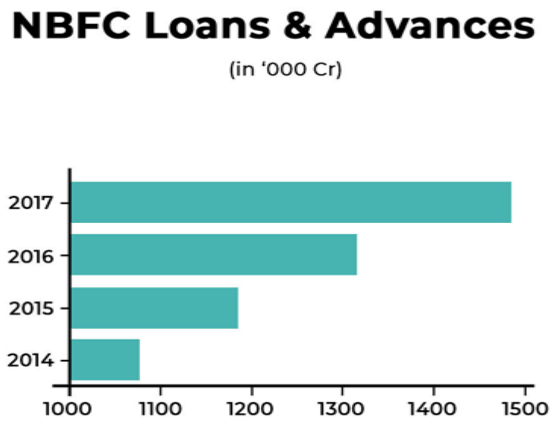
RESEARCH METHODOLOGY

This is a causal study as it deals with the analysis of various causes for the non-performance of NBFCs in India and its effect on the economy. The data collection is from secondary source by exploring the various secondary resources as company websites, newspapers, books and magazines. These sources were navigated to obtain various data and information. The variables that have been chosen for the purpose of the study is 'Net Profit of the different quarters, lending ratio, percentage of Non-performing assets.

EFFECT OF THE DOWNFALL OF NBFCs IN INDIA

NBFC centres around business identified with credits and advances, procurement of offers, stock, securities, debentures, guaranteed by and several other operations of venture capital financing.

FIGURE 1: LOANS & ADVANCE BY NBFCs



Source: www.Businessline.com

The observation from figure 1 reflects the rising credit syndication by NBFCs since 2014. This lending spree surpassed the lending by banks too. In September 2018, IL & FS were defaulted for a number of payments. The corporations and foundations that were his generous creditors were astonished. The market panicked and spread to the sectors. ICRA and CARE, the rating agencies downgraded from AA to default overnight. Previously, the same bonds had an AAA rating, which implies that the probability of default is close to zero. Other IL &FS bonds were also significantly reduced.

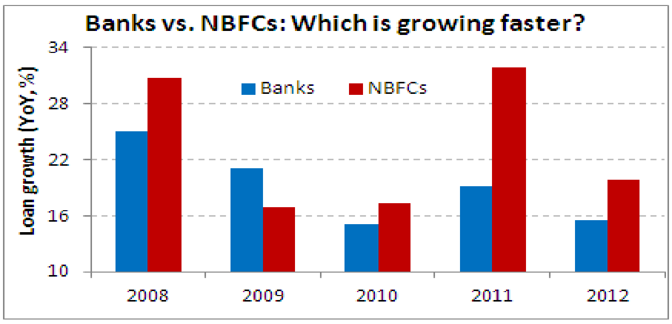
It was time for a thorough reassessment. Panic hit Sensex, and NBFC stocks fell in the following days. The investor received a warning. This has led to a general loss of confidence in the NBFC sector. The event also raised concerns about the rating methods used by rating agencies. He also questioned the role of independent audit agencies, as they could not have foreseen this, despite having access to the company's balance sheet. The situation worsened when DHFL, Reliance Capital Finance, as well as Reliance Home Finance, Stock prices decreased. Borrowings from banks' balance sheets have become NPAs (non-performing assets) and this has affected the entire financial ecosystem.

This liquidity crisis has forced banks and the NBFC to be afraid of lending. Borrowers, whose survival depended on NBFC lending, were in trouble and this disaster further aggravated the quality of banking and NBFC assets. For example, in the automotive sector, where showrooms and customers depend on NBFC funding; car sales fell dramatically and the real estate, sector lacked funds to complete the project but creditors denied credit due to liquidity problems. It hit construction plans and properties were not completed hence could not be sold to repay loans. Such debtors have been defaulted. Financial stress caused by delays, the accumulation of interest and harsh business conditions has become a solvency issue and the vicious cycle of market slowdown has begun. The companies remained with good assets, but could not borrow them.

Even 45-50% of NBFC funding came from mutual funds. But funds such as DSP, HDFC and others have suffered from IL and FS fraud and stopped NBFC funding after the financing ceased, the NBFC was forced to issue money to pay all maturities. There was a reduction in its financing, and subsequently, in January-March, the rate of GDP growth fell to 5.6% of GDP. This was reflected in the lack of buying cars, buying properties.

Third, real estate companies received most of NBFC funding worth $ 80,000 because they hardly received any loans from banks. The NBFIs provided these companies with money to start new projects, for construction and financing. According to the Kotak Mahindra report, total car and car sales in the country are approximately Rs 5 million. Monthly sales may also be around Rs 40,000 crores. Now, a 20% decrease in rupee sales by Rs 5 million would be approximately Rs 1 million, which is financed. Consequently, there is negative growth. Despite the fact that around Rs 60 billion will be profitable, of which the dealer network may also be Rs 10-15 billion.

FIGURE 2: COMPARISON OF LENDING –BANK VS NBFCs



Source: www.Economictimes.com

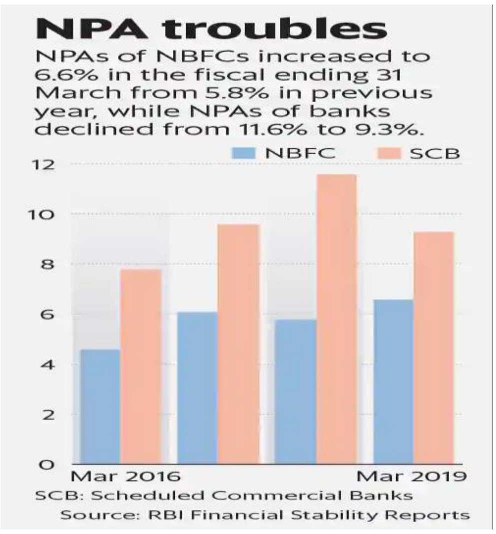
The figure 2 enumerates the increasing rate of lending by the NBFCs since 2008, which even surpassed the lending by the banks. But the situation altered in the mid of 2018 when even the lending by the NBFCs shrunk

ANALYSIS OF THE CAUSES OF NBFC CRISIS

1. IL&FS, a leading company in the NBFC sector, was established in 1987 when a consortium of banks decided that a financial institution was urgently needed for infrastructure and financial development. Due to funding and revenue from infrastructure development in the 1990s, IL&FS has become a leading contributor to the country's many infrastructure projects.
2. When economic growth slowed to below expected levels, projects stalled and payments to the company were delayed.

3. The NBFC crisis started when IL&FS stopped paying SIDBI in August 2018 on ICD (Inter-Corporate Deposit, a non-insured company with a lack of money from a fund-rich company). Payments for Commercial papers were suspended. This clearly indicated that liquidity was low and the economy was spreading like wildlife among other sectors of the economy. The reason for compliance is mainly compliance with Asset and Liability Management (ALM)
4. There is a mismatch in the Asset Liability management these institutions.
5. The Rise of Non-performing assets of NBFCs is considered another reason for its downfall. Due to the non-repayment by the borrowers on a large scale which resulted in a huge volume of bad debts.

FIGURE 3: NPA OF NBFCs & COMMERCIAL BANKS



Source: RBI stability report

The graph in figure 3 shows the comparison of the proportion of non-performing assets by banks and Shadow banks which highlights that as the lending by non-banks exceeded the banks from 2016 to 2019 hence the volume of NPA also exceeds which is not a good sign for a healthy economy. There should be stringent credit assessment criteria governing the financial institutions.

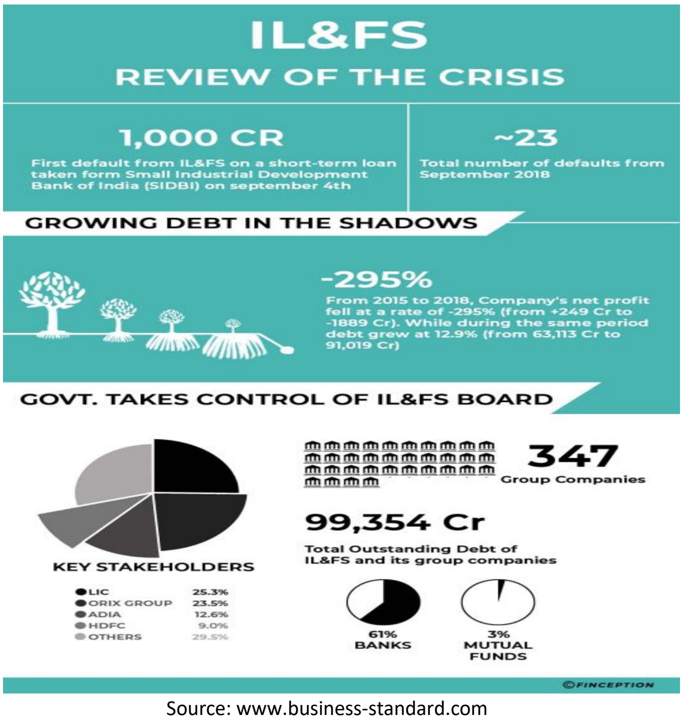
CASE OF IL& FS

IL and FS is India's one of the biggest foundation organizations which oversees framework subsidizing ventures across India built up in 1982. The IL&FS Ltd is an unlisted holding organization — which is the parent company to in any event 24 direct auxiliaries, 135 circuitous auxiliaries, four partner organizations and six joint endeavours. IL&FS has institutional investors including SBI, LIC, ORIX Corporation of Japan and Abu Dhabi Investment Authority (ADIA).

As on March 31st 2018. The biggest investors are LIC and ORIX Corporation with their stake at 25.34 percent and 23.54 percent, respectively. Other conspicuous investors incorporate are ADIA 12.56 % HDFC 9.02% CBI 7.67 % and SBI with 6.42 %. Main explanation behind disappointment of Debt-ridden IL&FS, in which different corporate had contributed through momentary instruments like Commercial papers and non-convertible debentures (NCDs), has been defaulting on its few obligation commitments since August 18. IL&FS' borrowings from banks and financial institutions adds to almost Rs 63,000 crores according to the accounting report of 2017-2018, this a case of asset liability mismatch that brought about the devastation of the enterprise.

The Infrastructure Leasing and Financial Services (IL&FS) has obligation of almost Rs 1 lakh crore — and is confronting an enormous liquidity mash at present. Investigators at Nomura Research have apparently evaluated that 64% of these credits are from banks, practically every one of them state-possessed. As indicated by reports, the IL&FS Financial Services Ltd has credit reimbursements worth $500 million (Rs 3,600 crore) coming up in the second half of this budgetary year. it has cash resources amounting up to just $27 million (around Rs 194 crore). The IL&FS Financial Services Ltd has just defaulted in reimbursing a momentary advance of Rs 1,000 crore to the Small Industries Development Bank of India (SIDBI). At least one auxiliary of IL&FS is additionally answered to have defaulted in reimbursing advance worth about Rs 500 crore.

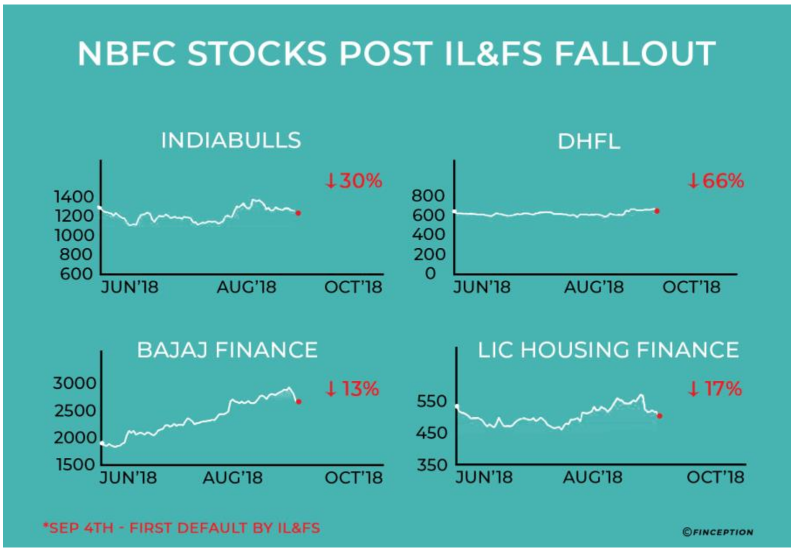
FIGURE 4: CURRENT SITUATION OF IL & FS



Source: www.business-standard.com

The figure4 enumerates the present stake holding pattern in IL& FS. As per Money Life, since IL&FS Financial Services Ltd is a Non-Banking Financial Company; it isn't secured under the Insolvency and Bankruptcy Code (IBC). On September 17,2018 FICO score office ICRA downsized the organization's financial soundness to ‘D' (default grade), after it couldn't meet its reimbursement commitment for present moment and long term borrowings worth more than Rs 12,000 crores.

FIGURE 5: STOCK TREND OF NBFCs POST IL&FS FALLOUT



Source: www.Financialexpress.com

The FIGURE 5 enumerates the stock trends of the NBFCs after the fall out of IL & FS. Credit rating agency CARE also downgraded several subsidiaries of IL&FS. According to reports, the company needs to immediately raise capital between Rs 3,000 crores and Rs 4,000 crores — and there are talks of the Life Insurance Corporation (LIC) bailing it out.

CASE OF DHFL

DHFL is a non-banking financing organization associated with essentially offering credits to home purchasers in India's level 2 and level 3 urban communities. Deewan Housing Finance Corporation (DHFL), a significant organization, has been in the news for all an inappropriate reason. DHFL has been confronting a liquidity emergency since September 2018.Its stock cost has fallen by around 90 percent over the previous year and there are anxieties about the reasonability of the organization. At that point, in January, the organization's advertisers were associated with a Rs 31,000 crores cash embezzlement. The organization denied these allegations on the audit of a chartered accountant but a mix of components put DHFL in a troublesome position, driving the organization to offer some of its businesses for sale so as to ensure that it could take care of debt repayments. On June 4, the organization neglected to pay about Rs 900 crore worth of interest dues, provoking the credit rating agencies to degrade the value of commercial paper.On July 14, DHFL detailed a total deficit of Rs 2,223 crore for the final quarter (Q4) of 2018-19. The outcome was Rs 134 crore of net profit that DHFL revealed in a similar quarter of the past financial year (2017-18). The whole year's outcome indicated a huge decline. The organization posted a deficit of Rs 1,036 crore in FY 19 while in FY 18, it had declared a net profit of Rs 1,240 crores, yet the organization extended new advances even as their current advances were transforming into non-performing resources (NPAs). DHFL's gross NPAs have ascended to 2.74 %. in the final quarter of the last money related year as against 0.96 percent during Q4 of FY18. DHFL's difficulties began after Infrastructure Leasing and Financial Services (IL&FS) — defaulted on its obligation commitments in September 2018. DHFL's accounts, also endured because of declining ventures and rising requests for meeting its commitments. As of Q4 FY 19, DHFL had nearly Rs 1.2 lakh crores of assets under administration.

DHFL's financial health is a cause of concern for the common man as because some of the biggest investors in DHFL are the nationalised banks and mutual funds. If DHFL somehow managed to battle in taking care of, the misfortunes, it would not spread over the financial world. As indicated by the rating organizations, DHFL has Rs 850 crores of extraordinary commercial papers of which Rs 750 crores is expected to mature in June 2019. The first CP development is due on June 7, 2019. Estimated cash outflows remains as high as Rs 6,200 crores till July 2019. This non-banking organization has missed interest payment of Rs 960 crores. Valuation standards require degradation in the value assets in the event of default of payment dues. The NAVs of some debt funds fell by 6-53 percent on June 4, reflecting a downtrend in DHFL’s commercial paper. As per the organization's recording in the Exchanges, it has paid over Rs 41,000 crores to meet its commitments during this period. It has sold over ₹30,000 crores of retail advances so far to meet its obligation commitments. The majority of the deal has been done through the transfer of a single asset or a portfolio of assets to financial entities through an assignment deed.

Additionally, for borrowers of DHFL (especially those with credits for under-developed houses) who have presented their records, the organization's hault on fund disbursement can be a reason for concern in case they are unable to raise funds from other lenders for the development of their property, they would be left with no recourse but to abandon their property. Regardless, life span of the bank and safe recovery of the title deed and different records kept as a security for the lodging advance is also a significant factor. If there should be an occurrence of DHFL, how well the organization can monetise its remaining resources would be the next challenge. Venture advances and SME credits comprise around 43 percent of DHFL's portfolio (as of Dec 2018). Of the Rs 89,387 crore credit book, about Rs 34,800 crore relates to extend advances, SRA advances (Slum Rehabilitation Authority) and mortgage loan portfolio.

The Enforcement Directorate on Thursday (14.3.2020) arrested Deewan Housing Finance Corporation promoters- Kapil Wadhawan and Dheeraj Wadhawan, in the alleged fraud caused to Yes Bank Ltd. The ED probe also found that DHFL promoters, Kapil Wadhawan and Dheeraj Wadhawan put up a proposal for the sanction of a loan of about Rs 1,700 crore from YBL in the name of Belief Realtors PVT Limited (BRPL) for Bandra Reclamation Project. Subsequently YBL bifurcated the loan into two parts as they were not sanctioned as one entity. Accordingly, Rs 750 crore was sanctioned in the name of BRPL and Rs 950 crore in the name of RKW project. The loan of Rs 750 was disbursed by the bank. The whole amount was siphoned off by the duo as the entire amount was transferred by M/s Belief Realtors Private Limited to M/s DHFL through maze of over 150 shell company M/s RKW Developers Private Limited without making investment in Bandra Reclamation Project for which the loan was sanctioned. The loan of Rs. 600 crore sanctioned by DHFL to DUVPL is a subsidiary of M/s Morgan Credits Pvt. Ltd. (MCPL). Morgan Credits, in turn, are equally held by Rana Kapoor's three daughters.

FUTURE OF DHFL

Wadhawan says DHFL is to submit the debt restructuring resolution after agreement with the creditors. The terms of the resolution will be finalized by July 25. DHFL is looking for a strategic investor, who would pump in fresh equity. However, uncertainty surmounts the circumstance and predictions cannot be made with certainty.

FINDINGS OF THE STUDY

The downfall of the NBFCs has a signalling effect. The investors start losing confidence in the domestic economy. The negative impact is observed in the financial markets by the withdrawal of Foreign Institutional Investors and foreign portfolio investors. The country fails to become a favourite destination for foreign investors despite several attempts of the government. The siphoning of funds by the promoters of the organisation should be under surveillance. The promoters' stake holding should not exceed 20% of the total stake holding. The auditors'' role is most crucial in this context. The corporate auditors should be impartial in their judgement and should make honest declarations in the greater interest of the nation.

CONCLUSION

India's economy as of now faces extreme difficulties, both local and worldwide. Some of these organizations like Jet, IL&FS and DHFL have made a story. The case of DHFL and IL &FS can have significant repercussions over the economy, which is as of now battling to set back to track. A high number of bankrupt organisations question the feasibility of NBFCs, and impact on various businesses. It will likewise order more noteworthy administrative consideration, when India's controllers need to fix more stringent standards of credit appraisal. The challenge is about the future roadmap to revive the funding institutions. Hence the regulators and the policymakers need to be more proactive in their policy making approaches.

LIMITATIONS OF THE STUDY

There were certain shortcomings in the study. Due to time constraint the study was constrained to the two NBFCs only- DHFL and IL & FS study. The study about the other NBFCs could not be undertaken. The collection of data is entirely based on the secondary sources. The corporate sources directly could not be explored for seeking relevant information relating to the study.

REFERENCES

1. D.K. Naurial and Bimal Kishore Sahu (2012), "The Economic Growth of the Financial Crisis in India", International Journal of Analytical Reviews", volume 4 (2012), Issue No. 8 (November), ISSN2348-1269, pp 34-40
2. Deepak Mohanty (2018), "Global Financial Crisis and the Indian Economy", International journal of case studies in Business, IT and Education", volume 6 (2018), Issue No.7 (March), ISSN 2581- 6942, pp 80-85
3. R. Balaji Kumar (2018), "A Study on Current Liquidity crunch faced by NBFC's & HFC's in India", International Journal of Innovative Research and Advanced Studies, volume 12 (2017), Issue 14, ISSN No.2394-4404, pp 25-32
4. Viswanathan (2010), "The global financial crisis and its impact on India", International Journal of Research in Commerce, Economics & Management, Volume No. 7 (2017), Issue No. 10 (October), ISSN 2231 – 4245, pp 45-51.

AN INVESTIGATION OF THE FACTORS IMPACTING ON FINANCIAL PLANNING AND MANAGEMENT IN SECTION 21 SCHOOLS IN THE SAYIDI CIRCUIT, KWA-ZULU NATAL

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ABSTRACT
School finances are a critical cornerstone for realizing planned objectives and delivering quality education. Adequate funding for a school's day-to-day activities and the fulfillment of set objectives rely on sound financial operations. This necessitates a paradigmatic shift by the School Governing Body (SGB) and principals to carefully manage school resources and exercise greater control over school expenditures. A unique set of skills and expert knowledge to understand and execute key fiscal processes and information is a major factor governing successful financial planning and management systems. However, there are a number of other factors that impact the efficient and economic management of school finances. A qualitative research approach, exemplified by in-depth interviews with purposefully selected school principals, created the platform to grasp the dynamics of Section 21 schools fiscal operations and to explore the factors that impact on financial planning and management. The findings revealed that the standards of financial management training offered to principals and School Governing Bodies by the Department of Education is poor and that many governing body members lack specialist knowledge and skills necessary for effective financial management. Results also indicated that poor school fees collections and inadequate state funding to quintile four and five schools is a critical element affecting the running of the school and its execution of key educational activities.

KEYWORDS
financial management, financial planning, school-based management, school funding, school fees.

JEL CODES
A29, I20, I21, I22, I24, I28.

INTRODUCTION
Since 1994, the significant political change and government democratisation in South Africa has been inaugurated by public education system reform dynamism. Such education reform is essentially characterised by international trends towards school-based management (Cheng, Ko & Lee, 2016; Sihono & Yusof, 2012; Hansraj, 2007). Following many countries worldwide, school-based management introduces a paradigm shift towards a more decentralised portal invoking key elements of participatory management and devolves key responsibilities and decision-making autonomy, including increased accountability for financial governance functions to schools (Theodorou & Pashiardis, 2016:73; Rangongo, 2011:13). This, according to Naidoo (2005:18), effectively places self-managed schools at the forefront to become progressively more responsible for managing quality education and for the planning and management of school finances.

A school, given its capacity to manage itself efficiently, qualifies for additional powers, under Section 21 of South African Schools Act (SASA) No. 84 of 1996 (RSA, 1996b), to expand the scope of control over matters of school governance. The school governing body (SGB) and principals are mandated, by virtue of the self-management and financial responsibilities assigned in Section 21 of the SASA, to take control of and manage school financial resources efficiently (Bisschoff & Mestry, 2009:12; Hansraj, 2007:20).

The principal must further ensure the efficient, economical and transparent use of school funds through proper prioritization, planning and budgetary provisions and must maintain accuracy of financial records so as to prevent irregular and wasteful expenditure of financial resources (KZN DoE, 2014:31-32). Greater decision-making and financial management powers thus, demand a bouquet of expertise, knowledge and skills to effectively satisfy the mandated responsibilities bequest to self-managed schools (Mestry, 2016:2).

The devolutionary financial management functions and powers of responsibilities to principals and SGBs of Section 21 schools are however, not without liabilities (DeBruin, 2014:7; Uwizeyimana & Moabelo, 2013:119; Makrwede, 2012:15 and Ntseto, 2009:38). Current research into school financial management in South Africa and in developing countries reveals that many schools encounter numerous challenges in fulfilling their financial planning and management obligations (Manamela, 2014; Mestry, 2013; Mokoena, 2013; Rangongo, Mohlakwana & Beckmann, 2016; Munge, Kimani & Ngugi, 2016 and Xaba, 2011). Skills deficit, lack of financial expertise and policies coupled with poor financial management training are some of the factors that have dire implications for effective management of school finances.

REVIEW OF LITERATURE
LEGISLATIVE AND POLICY FRAMEWORKS
It is necessary for sound fiscal decision-making to take place responsibly and within the realm of relevant policy frameworks so as to achieve value for money and meet strategic outcomes in respect to rendering high quality education (KZN DoE, 2014:9). Efficient administration of school funds thus requires a level of professional financial management as legislated by the government (Maronga, Weda & Kengere, 2013:97). To guide and strengthen the effective use of limited public resources, a series of legislative policies were developed to enforce and promote effective systems for South African public school financial management operations.

Prescribed financial regulations contained in the Public Finance Management Act 1, 1999 (PFMA), South African Schools Act, 84 of 1996 (SASA) and National Norms and Standards for School Funding (NNSSF) policy, 1998 as amended, inform school financial management so that financial practices bear the mark of efficiency,

consistency and accountability. Section 21 schools are required to operate within the regulated parameters of these prescribed policies to create a compliant and prudent school financial environment (Bisschoff & Mestry, 2009:40).
While schools do not pursue profits, the funding of schools is made possible by public revenue from National Treasury. Therefore, any financial planning and management tasks undertaken by a school must satisfy the provisions stipulated in the PFMA (Ndou, 2012:34). Based on the Act, the Department of Education (DoE) acting as the executive authority, assumes responsibility for fiscal policy formulation and stipulation of outcomes (KZN DoE, 2014:26). The school principal, serving as the "financial controller", oversees implementation of the policy by prescribing to basic financial management procedures that will deliver the desired outcomes outlined in the departmental budget (KZN DoE, 2014:28).
In line with Section 49 of the PFMA both the principal (accounting officer/financial controller for the DoE) and SGB (oversight and assurance authority) must abide by the Act. The aim of the PFMA is to ensure, that schools achieve their objectives in accordance with planned budgets and avoid deficit balances in such budgets (Rangongo, 2011:41). To ensure school finances and assets are safeguarded and managed legitimately, elements of financial management emphasized by Sections 38, 39, 40, 42, 43, 50 (a-b) and 51 of the Act must be adhered to (RSA, 1999). Principals and SGBs are further obliged to keep detailed records of financial transactions and financial statements for each financial year and to comply with audit commitments as legislated by Section 55 (RSA, 1999).
The decentralisation of control to foster active school-based management is strengthened by the promulgation of the South African Schools Act (SASA) No. 84 of 1996 (RSA, 1996b), (Anderson & Lumby, 2005:4). The SASA regulates acceptable practices and standards to direct the organisation, governance and funding of all public schools (Serfontein, 2010:94). The Act not only explicates the duties of the SGB but also underpins the responsibilities for sound management of public school revenue (Mestry, 2013:165).
Section 20 of the SASA stipulates the compulsory functions of all public schools. Such functions include the financial responsibilities as outlined in Chapter Four of the Act. Schools have a duty to endorse a school constitution, institute a school fund, maintain a school bank account (current cheque account), administer school fees, draw-up an annual budget, prepare financial statements and records of funds received and spent, fund raise to supplement resources, control school property and appoint an auditor (Mokoena, 2013:5). In terms of the department's funding allocation, schools abiding by Section 20 (referred to as Non-Section 21 schools) receive a paper budget from the PED (Provincial Treasury, 2010:58). Non-section 21 schools do not manage their own financial status and have to procure goods and services through departmental requisitions (Boateng, 2014:2).
Schools that request Section 21 functions in accordance with the SASA are mandated to comply positively with a management checklist as prescribed by legislation (Government Gazette No. 29179, 2006:37). The checklist examines school's constitutionality of the SGB and finance committee, administrative record keeping, capabilities for budgetary planning and accounting for public funds and capacity for sound fiscal decision-making (Bisschoff & Mestry, 2009:28). If the Department recognizes the managerial capacity of the school's stakeholders to take charge of the financial operations of the school, the school is granted Section 21 status and receives transfer of state funding directly into the school fund bank account to manage recurrent expenditure (Provincial Treasury, 2010:57).
Section 21 schools must bear additional financial management functions such as procuring textbooks, educational resources and equipment; paying for essential services such as water; funding repairs and upgrading the school's infrastructure; hiring and compensating additional support staff and raising additional income (Ndou, 2012:33). Similar autonomous school financial management functions are implemented in a number of countries including the USA, Australia, European Union and England (Theodorou & Pashiardis, 2016:75). While Section 21 schools are required to exercise greater control over funds, they enjoy the advantages of negotiating best prices and securing timeous delivery with efficient suppliers (Mestry, 2016:2; Mestry & Ndhlovu, 2014:8). Schools further benefit from a "roll over" of the budget, allowing them to save and utilize the unused portion of the state's allocation in the next financial year as the money is already in the school's bank account (Berry, 2012:24).
The SGB, by virtue of Section 30 of the SASA, is mandated to establish a finance committee to assist with financial matters. The finance committee facilitates proper management and control of school funds according to the prescribed processes outlined in the SASA (Sections 36; 37; 38; 42; 43; 44).
Section 34 (1) of the SASA is forthright in redressing past resource disparities in public school education by directing the provincial legislature to gear public revenue to fund schools on a just basis (KZN DoE, 2014:11). The declaration of the National Norms and Standards for School Funding (NNSSF) policy (RSA, 1998) as amended is the key operational mechanism for channeling state funds to public schools (Ndhlovu, 2012:60). Rakabe (2015:113) states that the NNSSF largely underpins PEDs funding policy frameworks to progressively minimise the resource gap between rich and marginalized schools. A resource-targeting table is utilized nationally to guide funding decisions so that the most needy and poorest schools receive a greater revenue contribution towards their recurrent costs (Provincial Treasury, 2010:53).
Following the SASA (Section 35 (1)) and the NNSSF legislation (Pars. 100 to 107), schools are separated into one of five national wealth quintile categories. The quintiles are based on poverty scores derived from a formula used to weight schools according to their rurality, infrastructure deficit, socio-economic conditions of the households in surrounding community, unemployment rate in community and levels of literacy (education) of community (Van Dyk & White, 2019:1; Department of Basic Education, 2017:12; Bodalina, 2012:34). The funds distributed to a school on a rand per learner basis are thus determined by the school's quintile ranking on the resource-targeting list (Provincial Treasury, 2010:54).

FINANCIAL MANAGEMENT IN SECTION 21 SCHOOLS

School financial management encompasses the acquisition, prioritization and management of funds and resources together with budget preparation, cash flow analysis, expenditure control and the safeguarding of assets (Heystek, 2013:67).
Effective financial planning requires an ability to articulate the objectives and goals of the school in fiscal terms. This is achieved by estimating the school's income from various sources; evaluating patterns of expenditure; identifying and prioritizing projects and expenditure items; anticipating the future costs of operations and controlling and tracking revenue and expenditure so as to use limited resources in the most efficient manner (KZN DoE, 2014:34). An integral component of financial planning is the drafting of a budget which is seen as a key instrument by which educational activities and resources are quantified and aligned to reveal financial crystallization of the school's intended plan of action to realise set goals (Naidoo, 2010:32). Du Plessis (2013:81) maintains that the budget supports the school development plan and links plans to resources and serves as a mechanism for organising the resources. Thus, the budget provides the foundation on which financial decisions in the school are based and revenue is monitored and evaluated to ensure financial sustainability (Kruger, 2008:239; KZN DoE, 2014:57). Section 21 schools must include the PED allocation as part of their income and are instructed to spend the subsidy amount as stipulated on textbooks, stationery, equipment, administration and maintenance. The budget must be monitored and controlled through periodic reviews to reveal areas where there are variances. Monthly and quarterly budget and variance reports are regulated requirements (KZN DoE, 2014:55-58).

FACTORS IMPACTING ON FINANCIAL PLANNING AND MANAGEMENT

Literature review has indicated the following as some factors that impact on financial planning and management in Section 21 schools.

I) GOVERNMENT LEGISLATION

Schools that prescribe to the ethical and responsible management of public revenue apply sound financial planning and management principles in accordance with legislated norms and standards. Yet, several SGBs struggle with interpretation and application of provincial policies, lack knowledge of DoE fiscal prescripts and disregard and fail to enforce legislation in their daily management of school funds (Rangongo et al., 2016:6; Uwizeyimana & Moabelo, 2013:119; Xaba, 2011:208).

II) SCHOOL FINANCE POLICY

The SGB must be able to understand and interpret financial legislation so that it can draft and update its own financial policies in accordance with the relevant national policies and regulations (Heystek, 2013:71). However, in communities where SGBs are only marginally literate, developing and implementing a finance policy is a struggle (Diamond, 2015:22; Xaba, 2011:206). Research by Rangongo et al. (2016:5) also mentions the lack of availability and violation of the school finance policy as a factor leading to financial mismanagement.

III) FUNCTIONALITY OF FINANCE COMMITTEE
A competent finance committee equipped with knowledge of the legislation governing school financial matters as well as accounting expertise to monitor and control school funds can make pertinent decisions in the best interests of the school. According to the KZN DoE many finance committees are ineffective because they do not know how to operate (KZN DoE, 2002b: 65). Uwizeyimana and Moabelo, (2013:119) found that finance committees do not spend the state allocation as recommended and fail to adhere to legislated procurement practices thereby providing opportunities for the misuse of public funds.

IV) NORMS AND STANDARDS FUNDING
Ndhlovu (2012:63) and Mestry (2013:175) opine that the criteria for awarding quintile rankings to schools is often not applied in a fair, sensitive or consistent manner resulting in schools that are located close to each other or having similar infrastructure being ranked differently. Department of Basic Education (2017:13) and Van Rooyen (2013:37) similarly finds that equity mechanisms to redistribute funds according to the national resource targeting table becomes problematic when schools in towns and suburbs receive insufficient allocations, yet learners commute to those schools from rural areas. Learners are disadvantaged because the quintile ranking and funding formula considers the location of the school and not genuine learner demographics (Van Dyk & White, 2019:4). Inadequate state funding at such schools adversely affects financial management in respect of recurrent cost allocations for learner and teacher support material, utility and maintenance costs and inevitably impacts on effective teaching and learning (Jansen, 2015). Boateng (2014:4), Mestry (2013:175), Bodalina (2012:35) and Thwala (2010:67) also report that PEDs do not always pay Norms and Standards allocations timeously. This hampers budgetary preparations and timely procurement of resources.

V) SOCIO-ECONOMIC FACTOR
South Africa spends 6% of total GDP on education but weakness in the South African economy impacts adequate funding from PEDs and parents are forced to make a larger financial contribution to schools (Rakabe, 2015:121; Bisschoff & Mestry, 2009:41). Schools in affluent socio-economic areas can command high school fees and have the capacity and commercial networks to access more funds to upgrade school infrastructure, facilities and resources (Berry, 2012:37; Mestry, 2013:170). However, Arendse (2011:356) maintains that the payment of school fees is a barrier to most parents as they are trapped in a cycle of poverty. Given that more than twelve million children emanate from households with a per capita income of less than R350 (Mouton, Louw & Strydom, 2013:38), the economic well being of such communities no doubt challenge school financial management. Heystek (2013:66) notes that schools with a high concentration of poor learners struggle to collect fees and lack the capacity to augment state funds through fund raising. Financial planning in these schools has to include stringent budgets and control mechanisms to ensure that limited funds are maximized optimally.

VI) FINANCIAL MANAGEMENT CAPACITIES OF THE PRINCIPAL AND SGB
Griesel (2011:10) states that financial management can be one of the most challenging responsibilities since many of the principals have no or very little training or expertise in financial management. A solid working knowledge of school financial policies and procedures is thus a pre-requisite if principals are to exercise genuine, prudent management of critical fiscal resources (Mokoena, 2013:7). SGB members in different schools possess varying levels of professional, managerial and financial experience and competencies that impacts their capacity to expel school governance (Bodalina, 2012:4). SGB members with adequate financial management ability can efficiently manage financial resources as mandated in the SASA (Sections 21 and 34-44). However, research by Basson & Mestry (2019), Diamond (2015), Manamela (2014), Mestry (2013), Bagarette (2012), Ndou (2012), Xaba (2011) and Naidoo (2010) reveal that several SGBs struggle to administer sound management over school finances due to limited training, poor literacy levels and lack of financial knowledge and skills. SGB members experience difficulty interpreting financial statements and reports and this coupled with the inability to understand budgetary and procurement processes leads to invalid inputs, poorly informed choices and delayed decision-making. Parents with weak levels of literacy rely on the principal for the daily management of finances but this can create opportunities for abuse of power and lack of transparency by principals (Molokoe & Ndandani, 2014:59; Bagarette, 2012:99). Investigations by Corruption Watch reveal that school principals are "the main culprits of corruption in schools, with embezzlement of school funds the most common illegal practice," Roane (2013).

VII) BUDGET AND BUDGETARY PROVISIONS
DoE policies direct that procedures be established for monitoring the budget and developing budget variance reports (KZN DoE, 2014:35). Fulfillment of this mandate calls for accurate skills and knowledge. Expertise are also needed to ascertain curriculum requirements and compile stationery requirements as per PED budget guidelines for LTSM (DoE, KZN Circular No. 48, 2013:1). Research by Xaba and Ngubane (2010) and Rangongo et al. (2016) revealed that mismanagement of school funds and overspending stems from a lack of transparency in financial planning, poor budget monitoring functions and non-compliance with policy requirements. Diamond (2015:23) and Naidoo (2010:5) aver that scarce financial skills of SGB members hamper effective budget preparation, implementation and control.

VIII) CAPACITY FOR MONITORING AND CONTROL OF FINANCES
The SGB and principal have to ensure that policies are developed to adequately handle school monies in accordance with departmental prescripts; written proof exists of the delegated responsibilities issued to individuals handling daily financial transactions such as finance officers; sound checks and balances are in place to prevent theft of school funds; the budget is adhered to as planned and financial records are properly maintained and safely stored (Clarke, 2009:113). However, inadequate monitoring and control of fiscal resources is a leading factor of financial mismanagement in schools (Rangongo et al., 2016:6). Rangongo (2011:57) pens that allocations transferred to schools "is wide open to abuse because the skills and capacity to monitor what is going on in the school is not sufficient." Weak internal controls and a lack of supervision and monitoring mechanisms lead to cash flow problems, wasteful expenditure and premature depletion.

Heystek (2013:73) observes that in many rural schools principals are full-time teachers and have limited administrative support and time to effectively manage or monitor school finances. The principal's role has become "increasingly complex" and "challenging" due to greater accountability for maintaining standards and budgets (Botha, 2012:264; Maforah & Schulze, 2012:227). Bagarette (2012:103) and Bodalina (2012:4) reveal that financial inexperience and skill deficiencies of the SGB "overburden" the principal as accounting financial officer. These factors can impact the capacity for monitoring and control of finances and can escalate levels of mismanagement (Uwizeyimana & Moabelo, 2013:115). Eleven percent of the cases reported to Corruption Watch relate to financial impropriety and mismanagement at schools (Roane, 2013).

IX) VALUES AND ATTITUDES
The sharing of financial management responsibilities and accountabilities sometimes leads to power struggles between SGBs and principals on how funds should be utilized (Botha, 2012:263; Xaba & Ngubane, 2010:140). The role of principals and SGBs in managing school finances is complex and since their functions overlap, conflicts and dilemmas arise (Mestry, 2013:163). However, to execute the core tenets of financial school management as espoused in the SASA, it is crucial for the principal and SGB to forge a partnership based on trust, respect and co-operation (Bagarette, 2012:98). Heystek (2013:69) opines that the principal and SGB must promote a common vision for the school which is expressed in and through transparent financial planning and management processes. If the principal and members of the SGB are not committed to an effective and ethical financial culture, this will create avenues for financial mismanagement and misuse of power (Rangongo et al., 2016:3).

IMPORTANCE OF THE STUDY
The importance of this study is to uncover the current financial management systems existing in schools and to explore the factors impacting on financial planning and management in Section 21 schools in the Sayidi Circuit in Kwa-Zulu Natal. From an academic perspective, the study contributes to existing literature in school financial management and focuses new perceptions on the factors impacting on efficient financial planning and management in Section 21 schools. The factors discussed in the study and the financial management challenges highlighted will allow principals to identify core areas that need intervention for the purpose of improving their school's financial management processes. Circuit and district managers from the Department of Education will also benefit from awareness of the factors impacting on financial planning and management in Section 21 schools and this may spur appropriate financial training and development programmes for principals and SGBs.

Secondly, from a professional outlook, the research provides a valuable platform for making appropriate recommendations to improve the decentralized system of financial management by drawing attention to how Section 21 schools can avert challenges arising from certain factors impacting on financial planning and management. The recommendations are aimed at empowering principals and SGBs to proficiently execute their financial responsibilities and also serve to highlight the mechanisms that DoE officials can enforce to enhance sound financial management and economic welfare in Section 21 schools.

STATEMENT OF THE PROBLEM

A school's ability to provide quality education and the overarching success of its educative endeavours largely depends on sound financial planning and management. Schools with a Section 21 status are tasked with the overall management of PED funding, school fees and fund raising, administration of accounting applications and financial management processes and control over financial decisions to ensure limited funds are expended optimally on resources and services.

The administration of school finances is complex and schools globally do experience challenges in adequately managing school funds (Myende, Samuel & Pillay, 2018:1). In South Africa, media publications by Corruption Watch (2013; 2015; 2018) unearthing evidence of various levels of mismanagement and corruption related to school funds bears testimony to the negative impact some factors, such as the weak competency of SGBs for monitoring and control, have on financial management systems. The reports by Corruption Watch also highlight the complexities surrounding the accountability factor for school finances, owing to the SASA labeling of the SGB as the financial manager of the school and the accountability and decision-making directive the DoE vests with the principal. Further, the increasing demand on the principal's role function that arises from having to balance an array of professional management duties with financial responsibilities is another factor impacting on sound financial management.

AIMS OF THE STUDY

The aim of this research is to investigate the factors impacting on financial planning and management in Section 21 schools in the Sayidi Circuit in Kwa-Zulu Natal.

OBJECTIVES OF THE STUDY

To explore the impact of legislation and policy frameworks on financial planning and management processes in Section 21 schools.

RESEARCH METHODOLOGY

Research Design and Method

Given the problem for research and the nature of the data, the research methodology for the purposes of this study was qualitative in nature. Qualitative research assists in gaining a deeper perspective of human behaviour and attitudes by exploring how individuals view the world and construct meaning out of their experiences (Nieuwenhuis, 2007:50; Tsvara, 2013:139).

Data was gathered from ten (10) Section 21 school principals using structured and semi-structured interviews. The interviews consisted of closed ended questions followed by open-ended questions. The structured, closed questions, asked at the start of the interviews, permitted the netting of useful information regarding fiscal profile of schools (enrolment, budget, quintile and fee status), access to fiscal legislation and training and financial administration and processes at schools. The semi-structured, open-response questions and probes followed thereafter and provided the platform to explore school financial planning and management in greater detail and ascertain the factors impacting on the systems underpinning financial planning and management in Section 21 schools.

The predetermined questions and the presentation followed an organised procedure to ensure the same lines of inquiry were pursued with all principals and to facilitate control over the line of questioning and allow data comparability from different interviews (Creswell, 2014:191). Data was gathered from three secondary and seven primary Section 21 schools in the Sayidi Circuit in KZN. Seven principals interviewed managed Section 21 schools in urban/semi-urban areas while three principals were managing schools located in rural/semi-rural areas. The format in which both closed-ended and open-ended questions were used added a strategic structure to the presentation and flow of the interview and allowed participants to disclose more information (Berry, 2012:62).

RESULTS AND DISCUSSION

The following themes emerged from an analysis of the data.

SECTION 21 SCHOOL FINANCIAL MANAGEMENT ADMINISTRATION AND PROCESSES

All principals concurred that a Section 21 status allowed schools greater control over finances but the status also necessitated special fiscal administration and practices. Principals A – J declared that they have a finance officer, appointed as legislated, to assist with aspects of fiscal management (KZN DoE, 2014:138) and have a finance committee (SASA, Section 30) but only five schools declared establishing a procurement committee. The lack of a procurement committee could compromise efficient procurement applications within applicable prescribed legislation.

Findings revealed that as per regulations contained in the SASA (Section 42(a)) and PFMA (Sections 50-51), principals administered financial records to keep abreast of funds received and spent, assets and financial transactions. Effective book keeping and electronic accounting systems were in place for daily recording of transactions as legislated by the SASA and PFMA and as per DoE regulations monthly bank reconciliations statements were also produced. The unqualified auditor's reports were proof that finance officers and principals kept adequate accounting records and were diligent in balancing and reconciling financial records.

The findings further revealed that principals accounted to the KZN DoE (Circular No. 48 of 2013) by providing compliance certificates that proved schools spent the Norms allocation responsibly within the stipulated spending guidelines for textbooks, stationery and equipment. Principals also stated that the submission of annual financial statements and audited financial reports to the Department (SASA, Section 42) ensured the levels of accountability that ultimately safeguarded the financial well-being of the school.

Most principals viewed time constraints as a major challenge for recording transactions and checking records. Some principals stated that the use of electronic systems for accounting was a challenge as both principal and finance officer had to be sufficiently capacitated. The findings also revealed that debt collection in fee-paying schools required added administration and monitoring which principals stated was a challenging endeavor.

IMPACT OF QUINTILE RANKING AND FEE STATUS ON FINANCIAL MANAGEMENT

Findings indicated that the quintile ranking determined the financial status of the school as it informed the amount of funding received from PEDs. The majority of principals viewed the current system as a major challenge because school quintiles were based chiefly on the area the school was located and not on the economic demographics of learners attending the school.

Principals revealed that the quintile system proved erroneous because schools with vastly different resources and fee generating capacity were grouped together and received the same allocation. Some schools in the same area also did not have the same quintile ranking. The findings showed that quintile four and five schools received the least funding per learner and principals depended more on income from school fees to manage the school. The transcripts revealed that financial challenges arise when high quintile schools situated in well-off communities accommodate poor learners that cannot afford to pay fees meant to augment state funding.

CHALLENGES WITH NORMS AND STANDARDS ALLOCATION

Participants echoed similar sentiments that the Norms allocation was insufficient to run a school and that the minimal funding placed enormous constraints on the schools financial planning and financial management operations. Principals mentioned that inadequate funds led to more stringent budgets. Expenditure was prioritized on critical items such as water and repairs were directed to only the most urgent areas of the school.

From the responses it was evident that the spending directives issued by the DoE for the funding allocation were too prescriptive and did not take into account the needs and contextual factors of different schools. Principals concurred that use of the subsidy should be a left to the discretion of the school, provided the school submits financial documents to the Department.

ROLES AND RESPONSIBILITIES FOR FINANCIAL MANAGEMENT

The findings revealed that a Section 21 status considerably heightened administrative and managerial responsibilities of principals and implored greater accountability. Participants accepted their role as chief accounting officers / financial controller but expressed concerns that enormous responsibilities such as managing school fees, supervising compilation of the budget and financial records, monitoring expenditure and procurement procedures, asset management, financial report writing and safely storing financial documents impacted on their professional duties. Some principals also viewed their role function as that of a business manager.

SCHOOL FINANCE POLICY

The majority of school principals concurred that they shouldered much of the responsibility for the establishment of a finance policy. Principals indicated that a sound knowledge of the legislative frameworks (SASA, PFMA, NNSSF) and PED financial prescripts was essential as these served as the key mechanisms to entrench compliance to applicable regulations by providing the foundation for the school finance policy to establish rules for administration of school funds and guidelines for fiscal management practices. Principals iterated that literacy levels and skills of SGB members impacted the scope and implementation of pertinent policy information that informed fiscal processes and implementation.

Since a finance policy establishes regulations for financial practices; the internal accounting policy; systems of delegation and control procedures, the absence of a policy means that the school has no clear rules governing the execution of school financial management tasks. Research by Rangongo et al. (2016) found that the unavailability of a school finance policy is one of the causes of financial mismanagement in public schools.

LIMITED CAPACITY OF SGB FOR FINANCIAL MANAGEMENT

From the findings it was evident that SGBs were limited in their knowledge, skills and experience of financial management. Factors, stemming from the findings that challenge the SGB in executing financial management are that SGB members are often full time employees and do not have time to spend at school to oversee financial operations so financial management is entrusted to the principal. Many members are also elected onto the SGB for the first time and lack knowledge and experience of school financial management and this impacts effective contribution especially on issues of procurement, budgeting and policy formulation. Low levels of literacy and lack of financial expertise further mean that members struggle to understand policies and basic financial tasks legislated to Section 21 schools. SGBs receive inadequate training from the DoE and are not empowered to manage school finances thus their contribution to efficient fiscal processes such as monitoring and reporting is often minimal. Principals opined that the oversight function was transferred to them.

POOR EXPERTISE OF FINANCE COMMITTEE

While principals did indicate involvement of the finance committee in various financial functions, an interpretation of the views articulated by most participants, clearly indicated that principals, finance officers and SMT chiefly execute the fiscal duties of the committee. The findings denote that finance committee members with the exception of the educator representative, principal and finance officer, lack proper financial management expertise and know-how, which hampers their contribution to school fiscal operations.

INADEQUATE FINANCIAL MANAGEMENT TRAINING

The findings emphasize that principals were largely dissatisfied with the financial training offered by the DoE in the Sayidi Circuit. Principals opined that the duration of training was insufficient to cover pertinent aspects of school finances, facilitators were not capacitated and the fiscal content was devoid of detail. The DoE is required to train SGBs with the expertise to fulfill financial tasks (SASA, Section 19) but the findings showed that principals shouldered this responsibility because training by the DoE was minimal and ineffective. Some principals claimed that the training failed to meet the needs criteria of knowledgeable and skilled principals and SGBs. Principals stated that they favoured attending financial courses offered by NGOs and relied on their financial management experience.

EFFECTIVE FINANCIAL PLANNING

The findings showed that drawing up the budget in schools sampled was a consultative process and input from staff was deemed necessary when curriculum needs and expenses are prioritized so that limited funds are used optimally. Principals agreed that stakeholders must know the strategic goals and the school improvement plan when drawing up the budget. Specific goals such as upgrading facilities must be identified in advance, prioritized and budgeted for the following year. Income from fundraising must be reflected in the budget. Other factors impacting the budgeting process include that budgets are not always expense driven but may be based on the socio-economic conditions of parents and their ability to pay school fees. The non-payment of fees and exemptions policy is a factor that impacts the budget. The norms and standards amount received from the PED must be reflected in the budget. Possible late transfer of the subsidy must be considered so that cash flow is not compromised and funds are available to make purchases. The enrolment for the following year has to be taken into account as this impacts the school's income and planned objectives. Cognisance must be given to recurrent utility bills and salaries for additional teachers, cleaners and security. Increases in electricity and water accounts must be catered for. Limit for variances must be identified in advance. Working adjustments and formal adjustments for variances must be evaluated quarterly.

Principals accentuated that they assumed responsibility for controlling and monitoring the budget by ensuring that the school's current expenditure was in line with projected amounts. The budget was reviewed on a monthly basis and principals worked closely with the finance officer to monitor income so that they were aware of funds available and made informed decisions. Most principals used a budget-monitoring tool and made notes and constant comparisons for each item budgeted to facilitate appropriate adjustments for the following year. Principals stated that a budget report was presented to the SGB at meetings. A few principals expressed challenges in mindfully managing budgetary processes and estimating projections.

INTERNAL CONTROL OF SCHOOL FINANCES

An analysis of the data collected revealed that financial knowledge and appropriate training in internal control procedures is a factor facilitating efficient financial risk management operations. Time constraints was another factor that largely impacted internal control activities. Enormous demands emanating from professional management duties and financial management tasks were also found to impact regular control procedures. Participants also pointed out that internal control was easily facilitated when stakeholders understood the core goals of the schools and directed financial management practices to those outcomes.

CONCLUSIONS AND RECOMMENDATIONS

A solid understanding of school financial policies and directives and expert training in aspects of budgeting, reconciling fiscal records, financial reporting and monitoring and control emerged as the main contributing factors enabling proficient financial management.

It is recommended that the DoE must provide Section 21 schools with a resource pack containing all relevant primary Acts, policies and manuals so that principals and SGBs have access to pertinent information governing sound fiscal practices and procedures. It is further incumbent on the PED to develop and provide Section 21 schools with updated manuals if financial resources are to be managed efficiently in accordance with new regulations and accounting practices.

SUGGESTIONS

The following suggestions are aimed at improving the standard of financial management training:

- Frequency of training sessions must increase. Training should not only be provided when new governing bodies are elected but follow up sessions are also crucial.
- Aspects of financial planning and management must be explained in detail utilizing theory and practical examples. The use of languages other than English should be considered in training workshops to facilitate easy comprehension of training material and financial concepts so that governing body members become conversant in all school financial management endeavours.
- More time should be devoted to training, a few hours on one day is drastically insufficient to grasp pertinent aspects such as budget management, recording transactions and bank and cash books reconciliation. Training especially for SGBs should occur on weekends to obviate work commitments of parents.
- Facilitators must be experts, with qualifications in accounting and financial management. External service providers can also be solicited to issue a higher level of specialized training.

LIMITATIONS

- The researcher confined the study to a purposeful and convenient selection of Section 21, quintile three, four and five schools in KZN. The study encompassed research in three secondary and seven primary schools in the Sayidi Circuit and was limited to interviewing school principals. School principals were envisioned to be knowledgeable informants and the schools chosen were viewed to be accessible, information-rich sites with similar financial management responsibilities.
- Findings of the study were limited to the research conducted in the ten selected Section 21 schools in the Sayidi Circuit in KZN. The researcher wanted the research to reflect the financial management practices of an equitable number of secondary and primary rural/semi-rural and urban/semi-urban schools.
- The small sample size limited the results of the study and generalizations to other Section 21 schools in different Circuits could not be made. However, the researcher took utmost care to optimize the validity and reliability of findings and the limitations in no way to negate the outcomes emerging from this study.

SCOPE FOR FURTHER RESEARCH

The empirical study was directed at investigating the factors impacting on financial planning and management in Section 21 schools, primarily with a high quintile ranking and a fee-paying status. Future research can include investigating factors impacting on financial management in Section 21 schools within the poorest quintiles with non-fee paying statuses. Studies could also extend investigations in other Circuits and include research with SGBs, finance committee members, SMT and Circuit officials so as to enhance the scope of information assimilated about the factors impacting on school financial planning and management. The majority of participants interviewed expressed dissatisfaction with the quintile system and funding model used by the PED. It will be interesting to investigate the effectiveness of the current quintile system in ensuring equity and delivery of quality education in Section 21 schools. An examination of the transcripts revealed that principals assume ultimate responsibility and management for school financial resources because SGBs often lack critical skills and essential knowledge necessary to supervise fiscal practices. It will be valuable for future research to evaluate the validity of the control and authority functions directed at SGBs and to further explore inefficiencies and gaps in the SASA regarding the nature of the fiscal responsibilities issued to SGBs and how these gaps can be addressed.

REFERENCES

1. Anderson, L. and Lumby, J. (2005) Managing Finance and External Relations in South African Schools (Managing Schools in South Africa Series). Wakefield: Commonwealth Secretariat.
2. Arendse, L. (2011) The School Funding System and its Discriminatory Impact on Marginalised Learners, Law, Democracy and Development. 15, 339-360.
3. Bagarette, N. (2012) Partnerships between SGBs and Principals in Public Schools: Reasons for the Failure of the Partnerships, International Journal of Science Education. 4(2), 97-106.
4. Basson P. and Mestry, R. (2019) Collaboration between School Management Teams and Governing Bodies in Effectively Managing Public Primary School Finances, South African Journal of Education. 39(2), 1-11.
5. Berry, B.W. (2012) The Perception of Stakeholders on the Implementation of the National Norms and Standards for School Funding in Public Schools: Implications for Equity and Social Justice. Unpublished MEd Dissertation, University of Johannesburg.
6. Bisschoff, T. and Mestry, R. (2003) Financial School Management Explained. Second Edition. Cape Town: Maskew Miller Longman.
7. Bisschoff, T. and Mestry, R. (2009) Financial School Management Explained. Third Edition. Cape Town: Pearson Education South Africa.
8. Boateng, N.A. (2014) Technical Efficiency and Primary Education in South Africa: Evidence from Sub-National Level Analyses, South African Journal of Education. 34(2), 1-18.
9. Bodalina, K.N. (2012) The Perceptions and Experiences of Teachers of the Management of Physical Resources in Public Schools. Unpublished MEd Dissertation, University of Johannesburg.
10. Botha, R.J. (2012) The Role of the School Principal in the South African School Governing Body: A Case Study of Various Members' Perceptions, Journal of Social Science. 30(3), 263-271.
11. Cheng, Y.C., Ko, J. and Lee, T.T.H. (2016) School Autonomy, Leadership and Learning: A Reconceptualisation, International Journal of Education Management. 30(2), 177-196. Available from: http://www.emeraldinsight.com. [Accessed 5 March 2018].
12. Clarke, A. (2009) The Handbook for School Governors. Cape Town: Macmillan.
13. Corruption Watch (2013) Survey: Corruption in Schools on the Rise [online]. Available from: http://www.corruptionwatch.org.za. [Accessed 10 April 2014].
14. Corruption Watch (2015) Annual Report 2014: My Hands are Clean [online]. Available from: http://www.corruptionwatch.org.za. [Accessed 17 May 2020].
15. Corruption Watch (2018) CW's 2018 Analysis of Corruption Trends Report [online]. Available from: http://www.corruptionwatch.org.za. [Accessed 18 May 2020].
16. Creswell, J.W. (2014) Research Design: Qualitative, Quantitative and Mixed Methods Approaches. Fourth Edition. USA: Sage.
17. De Bruin, L. (2014) Budget Control and Monitoring Challenges for School Governing Bodies. Unpublished MEd Dissertation, North-West University.
18. Department of Basic Education, (2017) Select Committee on Education and Recreation: Poverty Ranking of Schools (Quintiles) [online]. Available from: http://pmg.org.za/committee-meeting/25629. [Accessed 4 March 2018].
19. Department of Basic Education, Province of KwaZulu-Natal (2013) Procurement of Stationery: 2014 Academic Year: Schools with function C. KZN Circular No. 48 of 2013, dated 17 May 2013. Pietermaritzburg: KZN Department of Education
20. Department of Basic Education, Province of KwaZulu-Natal (2014) Procurement of Other LTSM Items During the 2014/2015 Financial Year. KZN Circular No. 79 of 2014, Ref. No. 11/9/2 (LTSM), August. Pietermaritzburg: KZN Department of Education
21. Department of Basic Education. (2014) Government Gazette, Vol. 583, No. 37230 dated 17 January 2014. Pretoria: Government Printer.
22. Department of Basic Education. (2015) Government Gazette, Vol. 17, No. 38397 dated 16 January 2015. Pretoria: Government Printer.
23. Diamond, L. (2015) The Role of Parent Members of School Governing Bodies in School Financial Management. Unpublished MEd Dissertation, University of Cape Town.
24. Du Plessis, P.J. (2013) Budgeting Process, in J. van Rooyen (ed.) Financial Management in Education in South Africa. Pretoria: Van Schaik, pp. 77-98.
25. Griesel, I. (2011) The Teaching of Financial Management Principles to School Leaders in Disadvantaged Schools. Unpublished PhD Thesis, Nelson Mandela Metropolitan University.
26. Hansraj, I. (2007) The Financial Management Role of Principals in Section 21 Schools in South Durban, Kwa Zulu Natal. Unpublished Masters Thesis, University of South Africa.
27. Heystek, J.H. (2013) Financial Management in Context, in J. van Rooyen (ed.) Financial Management in Education in South Africa. Pretoria: Van Schaik, pp. 49-75.
28. Jansen, L. (2015) KZN Pupils Short-changed [online]. Durban: Kwa-Zulu Natal. Available from: http://www.iol.co.za. [Accessed 24 February 2018].
29. Kruger, A.G. (2008) Efficient Financial Management, in I. van Deventer and A.G. Kruger (eds.) An Educator's Guide to School Management Skills. Pretoria: Van Schaik, pp. 234-244.
30. KZN Department of Education (KZN DoE) (2014) School Funding Norms Policy Implementation Manual for Public Schools [online] 1-254. Available from: http://www.kzneducation.gov.za. [Accessed 4 August 2015].
31. Maforah, T.P. and Schulze, S. (2012) The Job Satisfaction of Principals of Previously Disadvantaged Schools: New Light on an Old Issue. South African Journal of Education. 37, 227-239.
32. Makrwede, F. (2012) Investigating Gaps in the Application of Financial Management Systems by Schools receiving Section 21 Funding. Unpublished MPA Thesis, University of Stellenbosch.

33. Manamela, K.P. (2014) Investigation into the Financial Problems of School Governing Bodies in Mogoshi Circuit, Capricorn District, Limpopo Province of South Africa. Unpublished MPA Dissertation, University of Limpopo.
34. Maronga, E., Weda, C.W. and Kengere, D.O. (2013) An Investigation on the Influence of Government Financial Management on Kenyan Public Secondary Schools: A Case of Sameta Division. International Journal of Scientific and Technology Research. 2(9), 96-101.
35. Mestry, R. (2013) A Critical Analysis of Legislation on the Financial Management of Public schools: A South African Perspective, De Jure Law Journal. 46(1), 162-177.
36. Mestry, R. (2016) The Management of User Fees and Other Fundraising Initiatives in Self-managing Public Schools, South African Journal of Education. 36(2), 1-11. Available from: http://www.sajournalofeducation.co.za. [Accessed 18 February 2018].
37. Mestry, R. and Ndhlovu, R (2014) The Implications of the National Norms and Standards for School Funding policy on Equity in South African Public Schools. South African Journal of Education [online], 34 (3), 1-11. Available from: http://wwwsajournalofeducation.co.za [Accessed July 20 2015].
38. Mokoena, P.K. (2013) Public School Principal's Understanding of their Role in Financial Management and the Implementation of Finance Policy. Unpublished MEd Dissertation, University of Pretoria.
39. Molokoe, K.B. and Ndandani, M. (2014) Farm Schools in South Africa: Issues and Challenges, in M.W. Legotlo (ed.) Challenges and Issues Facing the Education System in South Africa. Pretoria: Africa Institute of South Africa, pp. 43-62.
40. Mouton, N., Louw, G.P. and Strydom, G. (2013) Critical Challenges of the South African School System, International Business & Economics Research Journal. 12(1), 31-44.
41. Munge, M.N., Kimani, M. and Ngugi, D.G. (2016) Factors Influencing Financial Management in Public Secondary Schools in Nakuru County, Kenya, International Journal of Economics, Commerce and Management. IV(9), 91-114. Available from: http://ijemc.co.uk. [Accessed 23 February 2018].
42. Myende, P.E.; Samuel, M.A. and Pillay, A. (2018) Novice Rural Principals' Successful Leadership Practices in Financial Management: Multiple Accountabilities, South African Journal of Education. 38(2), 1-11.
43. Naidoo, B. (2010) Financial Management in Selected Public Primary Schools in Gauteng. Unpublished MEd Dissertation, University of South Africa.
44. Naidoo, J.P. (2005) Educational Decentralization and School Governance in South Africa: From Policy to Practice. Paris: International Institute for Educational Planning.
45. Ndhlovu, R.S.M. (2012) The Implications of the National Norms and Standards for School Funding Policy on Equity in Public Schools in the Tshwane West District. Unpublished PhD Dissertation, University of Johannesburg.
46. Ndou, N. (2012) Challenges Facing School Governing Bodies in the Implementation of Finance Policies in the Vhembe District. Unpublished MED Dissertation, University of South Africa.
47. Neuman, W. L. (2000) Social Research Methods: Qualitative and Quantitative Approaches. Fourth Edition. USA: Allyn and Bacon.
48. Nieuwenhuis, J. (2007) Analysing Qualitative Data, in K. Maree (ed.) First Steps in Research. Pretoria: Van Schaik, pp. 99-122.
49. Nieuwenhuis, J. (2007) Qualitative Research Designs and Data Gathering Techniques, in K. Maree (ed.) First Steps in Research. Pretoria: Van Schaik, pp. 70-97.
50. Ntseto, V.E. (2009) A Programme to Facilitate Principals' Financial Management of Public Schools. Unpublished PhD Thesis, University of the Free State.
51. Provincial Treasury, Kwa-Zulu Natal (2010) The State of Education in Kwa-Zulu Natal. A Report for KZN Treasury. April 2010. School of Education and Development: University of Kwa-Zulu Natal.
52. Rakabe, E. (2015) Equitable Resourcing of Schools for Better Outcomes: Submission for the 2015/16 Division of Revenue. The Financial and Fiscal Commission [online], 105-130. Available from: http://www.ffc.co.za. [Accessed 21 July 2015].
53. Rangongo, P., Mohlakwana, M. and Beckmann, J. (2016) Causes of Financial Mismanagement in South African Public Schools: The Views of Role Players, South African Journal of Education. 36(3), 1-10. Available from: http://files.eric.ed.gov. [Accessed 25 February 2018].
54. Rangongo, P.N. (2011) The Functionality of School Governing Bodies with Regard to the Management of Finances in Public Primary Schools. Unpublished MEd Dissertation, University of Pretoria.
55. Republic of South Africa (RSA) (1996b) The South African Schools Act No. 84 of 1996. Pretoria: Government Printers.
56. Republic of South Africa (RSA) (1999) Public Finance Management Act, Act 1 of 1999 (as amended by Act 29 of 1999). Pretoria: Government Printers.
57. Roane, B. (2013) Principals are most corrupt, says report. 1 March 2013, [online]. Available from: www.iol.co.za/news/principals-are-most-corrupt-says-report-1.1479297. [Accessed 27 May 2015].
58. Serfontein, E. (2010) Liability of School Governing Bodies: A Legislative and Case Law Analysis, Journal for Transdisciplinary Research in Southern Africa. 6(1), 93-112.
59. Sihono, T. and Yusof, R. (2012) Implementation of School Based Management in Creating Effective Schools, International Journal of Independent Research and Studies. 1(4), 142-152.
60. Theodoros, T. and Pashiardis, P. (2016) Exploring Partial School Autonomy: What Does It Mean for the Cyriot School of the Future? Educational Management Administration and Leadership [online], 44(1), 73-94. Available from: http://journals.sagepub.com. [Accessed 23 February 2018].
61. Thwala, S.M. (2010) The Management of No Fee Schools in Mpumalanga: A Case Study of Selected Secondary Schools. Unpublished MEd Thesis, University of South Africa.
62. Tsvara, P. (2013) The Relationship between the Management Strategies of School Principals and the Job Satisfaction Levels of Educators. Unpublished PhD Thesis, University of South Africa.
63. Uwizeyimana, D.E. and Moabelo, K.F. (2013), Do Public Schools Adhere to the Department of Education (DoE) Prescripts? A Case of Mamabolo Circuit in Limpopo, Journal of US-China Public Administration. 10(1), 111-120.
64. Van Dyk, H. and White, C.J. (2019) Theory and Practice of the Quintile Ranking of Schools in South Africa: A Financial Management Perspective, South African Journal of Education. 39(1), 1-9.
65. Van Rooyen, J.W. (2013) Legal Framework for the Funding of Education in South African Public Schools, in J. van Rooyen (ed.) Financial Management in Education in South Africa. Pretoria: Van Schaik, pp. 29-47.
66. Xaba, M.I. (2011) The Possible Cause of School Governance Challenges in South Africa, South African Journal of Education. 31, 201-211.
67. Xaba, M.I. and Ngubane, D. (2010) Financial Accountability at Schools: Challenges and Implications, Journal of Education. (50), 139-159.

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