



## INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION AND MANAGEMENT

### CONTENTS

Sr. No.	TITLE & NAME OF THE AUTHOR (S)	Page No.
1.	ETHICS AND IT- UNSOLVED ISSUES OF ONLINE BASED BANKING <i>DR. V V R RAMAN &amp; DR. VEENA TEWARI</i>	6
2.	PETROLEUM PROFIT TAX AND NIGERIA ECONOMIC DEVELOPMENT <i>ADEGBIE, FOLAJIMI FESTUS &amp; FAKILE, ADENIRAN SAMUEL</i>	11
3.	WOMEN ECONOMIC EMPOWERMENT THROUGH SELF HELP GROUPS: A STUDY IN ANDHRA PRADESH <i>DR. B. V. PRASADA RAO, S. R. PDALA &amp; DR. NEDURI SURYANARAYANA</i>	19
4.	THE ROLE OF CELEBRITY ADVERTISING ON BRAND PREFERENCE <i>OKORIE NELSON &amp; ADEYEMI ADEROGBA</i>	27
5.	WOMEN BUILDING BUSINESSES IN A MAN'S WORLD – THE SAGA OF WOMEN ENTREPRENEURSHIP <i>J. EDUKONDALA RAO</i>	34
6.	COMMUNITY DEVELOPMENT INITIATIVES IN ENGINEERING COLLEGES IN BENGALURU, INDIA <i>PROF. B.N.BALAJI SINGH</i>	38
7.	BANKING ON IT: PROBLEMS AND PROSPECTS IN STATE BANK OF INDIA <i>TIMIRA SHUKLA &amp; ANITA SINGH</i>	45
8.	BUSINESS RISK ANALYSIS THROUGH GINNI'S COEFFICIENT: A STUDY OF SELECT IT COMPANIES IN INDIA <i>DR. DEBASISH SUR &amp; DR. SUSANTA MITRA</i>	49
9.	EMOTIONAL COMPETENCY CLUSTERS AND STAR PERFORMER IN SOFTWARE PROJECT TEAM <i>DR. A VELAYUDHAN, DR. S. GAYATRIDEVI &amp; MS. S. SRIVIDYA</i>	56
10.	IMPACT OF FLEXI-TIME (A WORK-LIFE BALANCE PRACTICE) ON EMPLOYEE PERFORMANCE IN INDIAN IT SECTOR <i>DR. S. SUMAN BABU, DR. U. DEVI PRASAD, FAKHRUDDIN SHEIK &amp; K. BHAVANA RAJ</i>	65
11.	TRIPS, TECHNOLOGY AND EXPORTS: EVIDENCE FROM THE INDIAN PHARMACEUTICAL INDUSTRY <i>MADHUR MOHIT MAHAJAN</i>	72
12.	CORPORATE SOCIAL RESPONSIBILITY (CSR) OF A TOBACCO COMPANY: A PARADIGM PERSPECTIVE OF AN EXCLUSIVE CASE <i>DR. S. P. RATH, PROF. BISWAJIT DAS &amp; PROF. RAKESH KATYAYANI</i>	79
13.	REFLECTIONS OF SELF HELP GROUPS AND THEIR MAMMOTH GROWTH IN THE STATE OF TAMILNADU, INDIA <i>R. LAKSHMI &amp; PROF. DR. G. VADIVALAGAN</i>	85
14.	CONSUMERS' PERCEPTION ON MATCHING QUALITY OF CELEBRITY AND BRAND FEATURES IN ADVERTISEMENT <i>DR. P. RAJA, PROF. (DR.) R. ARASU &amp; D. KARTHIK</i>	88
15.	ROLE OF THE URBAN COOPERATIVE BANKS IN THE AFTERMATH OF GLOBAL FINANCIAL CRISIS: A STUDY WITH REFERENCE TO VELLORE DISTRICT <i>E. GNANASEKARAN &amp; PROF. (DR.) M. ANBALAGAN</i>	92
16.	RISK ASSESSMENT OF DEFAULT BEHAVIOUR OF HOUSING LOANS OF A PUBLIC SECTOR BANK (AN EMPIRICAL STUDY) <i>SHUBHA B. N &amp; DR. (MRS.) S. GOMATHI</i>	102
17.	DYNAMICS OF IPO – A STUDY WITH REFERENCE TO SELECTED CORPORATE SECTORS <i>DR. P. NATARAJAN &amp; S. BALAJI</i>	106
18.	RETURN - BASED PERFORMANCE ANALYSIS OF SELECTED EQUITY MUTUAL FUNDS SCHEMES IN INDIA – AN EMPIRICAL STUDY <i>DR. R. SHANMUGHAM &amp; ZABIULLA</i>	113
19.	A STUDY ON PROBLEMS AND PROSPECTS OF EXPORTING INDIAN HIGHER EDUCATIONAL SERVICES <i>DR. SHEELAN MISRA</i>	120
20.	PERFORMANCE APPRAISAL OF CENTRAL COOPERATIVE BANKS IN INDIA IN LIBERAL ECONOMIC SCENARIO <i>DR. SUBRATA MUKHERJEE &amp; DR. SAMIR GHOSH</i>	127
21.	ROLE OF INFLATION IN INVESTMENT DECISIONS - AN ANALYTICAL STUDY <i>DR. SAMBHAV GARG</i>	134
22.	EMPOWERMENT OF WOMEN IN GADAG DISTRICT- A STUDY OF SELF HELP GROUPS ENTREPRENEURS <i>DR. A. S. SHIRALASHETTI</i>	138
23.	AN EVALUATION OF COOPERATIVE SOCIETIES FINANCED BY ICDP IN HIMACHAL PRADESH – A STUDY OF KULLU DISTRICT <i>DR. GAGAN SINGH &amp; MAST RAM</i>	145
24.	MANAGEMENT OF DETERMINANTS OF WORKING CAPITAL – AN UPHILL TASK <i>BHAVET</i>	153
25.	DEPOSIT MOBILIZATION IN ICICI AND SBI BANKS IN INDIA <i>ESHA SHARMA</i>	157
	REQUEST FOR FEEDBACK	162

**CHIEF PATRON****PROF. K. K. AGGARWAL**

Chancellor, Lingaya's University, Delhi  
 Founder Vice-Chancellor, Guru Gobind Singh Indraprastha University, Delhi  
 Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

**PATRON****SH. RAM BHAJAN AGGARWAL**

Ex. State Minister for Home & Tourism, Government of Haryana  
 Vice-President, Dadri Education Society, Charkhi Dadri  
 President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

**CO-ORDINATOR****BHAVET**

Lecturer, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana

**ADVISORS****PROF. M. S. SENAM RAJU**

Director A. C. D., School of Management Studies, I.G.N.O.U., New Delhi

**PROF. M. N. SHARMA**

Chairman, M.B.A., Haryana College of Technology & Management, Kaithal

**PROF. S. L. MAHANDRU**

Principal (Retd.), Maharaja Agrasen College, Jagadhri

**EDITOR****PROF. R. K. SHARMA**

Dean (Academics), Tecnia Institute of Advanced Studies, Delhi

**CO-EDITORS****DR. SAMBHAV GARG**

Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana

**EDITORIAL ADVISORY BOARD****DR. AMBIKA ZUTSHI**

Faculty, School of Management & Marketing, Deakin University, Australia

**DR. VIVEK NATRAJAN**

Faculty, Lomar University, U.S.A.

**PROF. PARVEEN KUMAR**

Director, M.C.A., Meerut Institute of Engineering & Technology, Meerut, U. P.

**PROF. H. R. SHARMA**

Director, Chhatrapati Shivaji Institute of Technology, Durg, C.G.

**PROF. MANOHAR LAL**

Director & Chairman, School of Information & Computer Sciences, I.G.N.O.U., New Delhi

**PROF. ANIL K. SAINI**

Chairperson (CRC), Guru Gobind Singh I. P. University, Delhi

**PROF. SANJIV MITTAL**

University School of Management Studies, Guru Gobind Singh I. P. University, Delhi

**PROF. SATISH KUMAR**

Director, Vidya School of Business, Meerut, U.P.

**PROF. ROSHAN LAL**

Head & Convener Ph. D. Programme, M. M. Institute of Management, M. M. University, Mullana

**DR. ASHWANI KUSH**

Head, Computer Science, University College, Kurukshetra University, Kurukshetra

**DR. BHARAT BHUSHAN**

Head, Department of Computer Science & Applications, Guru Nanak Khalsa College, Yamunanagar

**DR. VIJAYPAL SINGH DHAKA**

Head, Department of Computer Applications, Institute of Management Studies, Noida, U.P.

**DR. KULBHUSHAN CHANDEL**

Reader, Himachal Pradesh University, Shimla, Himachal Pradesh

**DR. ASHOK KUMAR CHAUHAN**

Reader, Department of Economics, Kurukshetra University, Kurukshetra

**DR. SAMBHAVNA**

Faculty, I.I.T.M., Delhi

**DR. MOHINDER CHAND**

Associate Professor, Kurukshetra University, Kurukshetra

**DR. MOHENDER KUMAR GUPTA**

Associate Professor, P. J. L. N. Government College, Faridabad

**DR. VIVEK CHAWLA**

Associate Professor, Kurukshetra University, Kurukshetra

**DR. VIKAS CHOUDHARY**

Asst. Professor, N.I.T. (University), Kurukshetra

**DR. SAMBHAV GARG**

Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana

**ASSOCIATE EDITORS****PROF. NAWAB ALI KHAN**

Department of Commerce, Aligarh Muslim University, Aligarh, U.P.

**PROF. ABHAY BANSAL**

Head, Department of Information Technology, Amity School of Engineering &amp; Technology, Amity University, Noida

**DR. ASHOK KUMAR**

Head, Department of Electronics, D. A. V. College (Lahore), Ambala City

**DR. ASHISH JOLLY**

Head, Computer Department, S. A. Jain Institute of Management &amp; Technology, Ambala City

**DR. PARDEEP AHLAWAT**

Reader, Institute of Management Studies &amp; Research, Maharshi Dayanand University, Rohtak

**DR. SHIVAKUMAR DEENE**

Asst. Professor, Government F. G. College Chitgappa, Bidar, Karnataka

**SUNIL KUMAR KARWASRA**

Vice-Principal, Defence College of Education, Tohana, Fatehabad

**PARVEEN KHURANA**

Associate Professor, Mukand Lal National College, Yamuna Nagar

**SHASHI KHURANA**

Associate Professor, S. M. S. Khalsa Lubana Girls College, Barara, Ambala

**ASHISH CHOPRA**

Sr. Lecturer, Doon Valley Institute of Engineering &amp; Technology, Karnal

**MOHITA**

Lecturer, Yamuna Institute of Engineering &amp; Technology, Village Gadholi, P. O. Gadholi, Yamunanagar

**SAKET BHARDWAJ**

Lecturer, Haryana Engineering College, Jagadhri

**TECHNICAL ADVISORS****AMITA**

Lecturer, E.C.C., Safidon, Jind

**MONIKA KHURANA**

Associate Professor, Hindu Girls College, Jagadhri

**SURUCHI KALRA CHOUDHARY**

Head, Department of English, Hindu Girls College, Jagadhri

**NARENDRA SINGH KAMRA**

Faculty, J.N.V., Pabra, Hisar

**FINANCIAL ADVISORS****DICKIN GOYAL**

Advocate &amp; Tax Adviser, Panchkula

**NEENA**

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

**LEGAL ADVISORS****JITENDER S. CHAHAL**

Advocate, Punjab &amp; Haryana High Court, Chandigarh U.T.

**CHANDER BHUSHAN SHARMA**

Advocate &amp; Consultant, District Courts, Yamunanagar at Jagadhri

## **CALL FOR MANUSCRIPTS**

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments & practices in the area of Computer, Business, Finance, Marketing, Human Resource Management, General Management, Banking, Insurance, Corporate Governance and emerging paradigms in allied subjects. The above mentioned tracks are only indicative, and not exhaustive.

Anybody can submit the soft copy of his/her manuscript **anytime** in M.S. Word format after preparing the same as per our submission guidelines duly available on our website under the heading guidelines for submission, at the email addresses, [info@ijrcm.org.in](mailto:info@ijrcm.org.in) or [infoijrcm@gmail.com](mailto:infoijrcm@gmail.com).

## **GUIDELINES FOR SUBMISSION OF MANUSCRIPT**

### **1. COVERING LETTER FOR SUBMISSION:**

Dated: \_\_\_\_\_

The Editor  
IJRCM

Subject: Submission of Manuscript in the Area of (Computer/Finance/Marketing/HRM/General Management/other, please specify).

Dear Sir/Madam,

Please find my submission of manuscript titled ' \_\_\_\_\_ ' for possible publication in your journal.

I hereby affirm that the contents of this manuscript are original. Furthermore It has neither been published elsewhere in any language fully or partly, nor is it under review for publication anywhere.

I affirm that all author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name(s) as co-author(s).

Also, if our/my manuscript is accepted, I/We agree to comply with the formalities as given on the website of journal & you are free to publish our contribution to any of your two journals i.e. International Journal of Research in Commerce & Management or International Journal of Research in Computer Application & Management.

**Name of Corresponding Author:**

Designation:

Affiliation:

Mailing address:

Mobile & Landline Number (s):

E-mail Address (s):

2. **INTRODUCTION:** Manuscript must be in English prepared on a standard A4 size paper setting. It must be prepared on a single space and single column with 1" margin set for top, bottom, left and right. It should be typed in 12 point Calibri Font with page numbers at the bottom and centre of the every page.

3. **MANUSCRIPT TITLE:** The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.

4. **AUTHOR NAME(S) & AFFILIATIONS:** The author (s) full name, designation, affiliation (s), address, mobile/landline numbers, and email/alternate email address should be in 12-point Calibri Font. It must be centered underneath the title.

5. **ABSTRACT:** Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain background, aims, methods, results and conclusion.

6. **KEYWORDS:** Abstract must be followed by list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.

7. **HEADINGS:** All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.

8. **SUB-HEADINGS:** All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.

9. **MAIN TEXT:** The main text should be in a 8 point Calibri Font, single spaced and justified.

10. **FIGURES & TABLES:** These should be simple, centered, separately numbered & self explained, and titles must be above the tables/figures. Sources of data should be mentioned below the table/figure. It should be ensured that the tables/figures are referred to from the main text.

11. **EQUATIONS:** These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.

12. **REFERENCES:** The list of all references should be alphabetically arranged. It must be single spaced, and at the end of the manuscript. The author (s) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow **Harvard Style of Referencing**. The author (s) are supposed to follow the references as per following:

- All works cited in the text (including sources for tables and figures) should be listed alphabetically.
- Use (ed.) for one editor, and (ed.s) for multiple editors.
- When listing two or more works by one author, use --- (20xx), such as after Kohl (1997), use --- (2001), etc, in chronologically ascending order.
- Indicate (opening and closing) page numbers for articles in journals and for chapters in books.
- The title of books and journals should be in italics. Double quotation marks are used for titles of journal articles, book chapters, dissertations, reports, working papers, unpublished material, etc.
- For titles in a language other than English, provide an English translation in parentheses.
- Use endnotes rather than footnotes.
- The location of endnotes within the text should be indicated by superscript numbers.

**PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:**

**Books**

- 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.

**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**

- Chandel K.S. (2009): "Ethics in Commerce Education." Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

**Unpublished dissertations and theses**

- Kumar S. (2006): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

**Online resources**

- Always indicate the date that the source was accessed, as online resources are frequently updated or removed.

**Website**

- Kelkar V. (2009): Towards a New Natural Gas Policy, Economic and Political Weekly, Viewed on February 17, 2011 <http://epw.in/epw/user/viewabstract.jsp>

## ROLE OF INFLATION IN INVESTMENT DECISIONS - AN ANALYTICAL STUDY

DR. SAMBHAV GARG

ASST. PROFESSOR

M. M. INSTITUTE OF MANAGEMENT  
MAHARISHI MARKANDESHWAR UNIVERSITY  
MULLANA – 133 203

### ABSTRACT

*In today's complex business environment, making capital budgeting decisions are among the most important and multifaceted of all management decisions as it represents major commitments of company's resources and have serious consequences on the profitability and financial stability of a company. It is important to evaluate the proposals rationally with respect to both the economic feasibility of individual projects and the relative net benefits of alternative and mutually exclusive projects. The growing internationalization of business brings stiff competition which requires a proper evaluation and weightage on capital budgeting appraisal issues viz. different project life cycle, impact of inflation, analysis and allowance for risk. Therefore financial managers must consider these issues carefully when making capital budgeting decisions. Inflation is one of the important parameters that govern the financial issues on capital budgeting decisions. This paper aims to analyze the issues in the area of effects of inflation on capital budgeting decisions for optimum utilization of scarce resources.*

### KEYWORDS

Capital Budgeting Decisions, Financial Stability, Economic Feasibility.

### INTRODUCTION

Managers evaluate the estimated future returns of competing investment alternatives. Some of the alternatives considered may involve more risk than others. For example, one alternative may fairly assure future cash flows, whereas another may have a chance of yielding higher cash flows but may also result in lower returns. It is because, apart from other things, inflation plays a vital role on capital budgeting decisions and is a common fact of life all over the world. Inflation is a common problem faced by every finance manager which complicates the practical investment decision making than others. Most of the managers are concerned about the effects of inflation on the project's profitability. Though a double digit rate of inflation is a common feature in developing countries like India, the manager should consider this factor carefully while talking such decisions.

In practice, the managers do recognize that inflation exists but rarely incorporate inflation in the analysis of capital budgeting, because it is assumed that with inflation, both net revenues and the project cost will rise proportionately, therefore it will not have much impact. However, this is not true; inflation influences two aspects viz. Cash Flow, Discount Rate and hence this study is an attempt to analyze the issues in the area of effects of inflation on capital budgeting decision for optimum utilization of scarce resources. In discussing how the inflation effects on capital budgeting decision, this paper has been divided into two parts. In the first part, discussion is about inflation, how to measure the inflation and the effects of inflation on GDP. In the second part, effects on inflation of capital budgeting decisions, comprising how to deal with expected and unexpected inflation while forecasting cash flows and determining the discount rate in particular.

### OBJECTIVES OF THE STUDY

To analyse the impact of inflation on investment decision  
To examine and analyse the degree of risk associated with inflation and capital Budgeting  
To suggest some measures for taking sound Investment decisions

### RESEARCH METHODOLOGY

The study is Descriptive in nature; therefore the statistics have been obtained from different reliable sources such as news papers, Journals, Magazines etc.

### OVERVIEW OF INFLATION

Everyone is familiar with the term 'Inflation' as rising prices. This means the same thing as fall in the value of money. For example, a person would like to buy 5 Kgs of apple with Rs. 100, at the present rate on inflation, say, zero. Now when the inflation rate is 5%, then the person would require Rs. 105 to buy the same quantity of apples. Thus, Inflation is a monetary ailment in an economy and it has been defined in so many ways, which can be defined as "the change in purchasing power in a currency from period to period relative to some basket of goods and services."

When analyzing Capital Budgeting Decision with inflation, it is required to distinguish between expected and unexpected inflation. The difference between unexpected and expected inflation is of crucial importance as the effects of inflation, especially its redistributive effect, depend of whether it is expected or not. Expected inflation refers to the loss the manager anticipates in buying power over time whereas unexpected inflation refers to the difference between actual and expected inflation. If rate of inflation is expected, then the manager take steps to make suitable adjustments in their proposals to avoid the adverse effects which could bring to them.

### MEASURING INFLATION

Inflation is measured by observing the change in the price of a large number of goods and services in an economy, usually based on data collected by government agencies. The prices of goods and services are combined to give a price index or average price level, the average price



of the basket of products. The inflation rate is the rate of increase in this index; while the price level might be seen as measuring the size of a balloon, inflation refers to the increase in its size. There is no single true measure of inflation, because the value of inflation will depend on the weight given to each good in the index.

The common measures of inflation include Consumer price indexes (CPIs), Producer price indexes (PPI s), Wholesale price index (WPIs), commodity price indexes, GDP deflator, and Employment cost index. Table showing the rate of inflation in India (2000-2008) based on WPI, based on CPI and growth rate in GDP is given table 1.

**TABLE 1: RATE OF INFLATION IN INDIA (2000-2008)**

Year	Based on WPI	Based on CPI	Growth rate in GDP
2000	4.9	2.5	4.4
2001	1.6	5.2	5.6
2002	4.4	3.2	4.4
2003	3.4	2.27	4.5
2004	5.5	2.68	8.5
2005	6.5	3.39	6.5
2006	4.4	3.24	8.6
2007	5.4	2.85	8.9
2008	4.6	3.85	8.8

Source: Indiabudget.nic.in

#### INFLATION AND GROSS DOMESTIC PRODUCT (GDP)

Inflation and GDP growth are probably the two most important macroeconomic variables. The Gross Domestic Product (GDP) is the key indicator used to measure that health of a country's economy. The GDP of a country is defined as the market value of all final goods and services produced within a country is defined as the market value of all final goods and services produced within a country in a given period of time. Usually, GDP is expressed as a comparison to the previous quarter or year. For example, if the year-to-year GDP was up by 3%, it means that the economy has grown by 3% over the last year.

A significant change in GDP, whether increase or decrease, usually reflects on the stock market. The reason behind this is that, a bad economy usually means lower profits for companies, which in turn means lower stock prices. Investors really worry about negative GDP growth. Therefore growth in GDP reflects both on growth in the economy and price changes (inflation). GDP deflator is based on calculations of the GDP: it is based on the ratio of the total amount of money spent on GDP (nominal GDP) to the inflation corrected measure of GDP (constant price of real GDP). It is the broadest measure of the price level. Deflators are calculated by using the following formula:

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

Current price figures measure value of transaction in the prices relating to the period being measured. On the other hand, Constant price figures express value using the average prices of a selected year, this year is known as the base year. Constant price series can be used to show how the quantity or volume of goods has changed, and are often referred to as volume measure. The ratio of the current and constant price series is therefore a measure of price movement, and this forms the basis for the GDP deflator. The GDP deflator shows how much a change in the base year's GDP relies upon changes in the price level. It is also known as the "GDP implicit price deflator". Because it isn't based on a fixed basket of goods and services, the GDP deflator has an advantage over the Consumer Price Index. Change in consumption patterns or the introduction of new goods and services are automatically reflected in the deflator.

#### INFLATION AND CAPITAL BUDGETING DECISIONS

Capital budgeting results would be unrealistic if the effects of inflation are not correctly factored in the analysis. For evaluating the capital budgeting decisions; we require information about cash flows-inflows as well as outflows. In the capital budgeting procedure, estimating the cash flows is the first step which requires the estimation of cost and benefits of different proposals being considered for decision-making. The estimation of cost and benefits may be made on the basis of input data being provided by experts in production, marketing, accounting or any other department. Mostly accounting information is the basis for estimating cash flows. The Managerial Account's task is to design the organization's information systems or Management Accounting System (MAS) in order to facilitate managerial decision making. MAS parameters have to be designed on the basis of commonalities in the decision process of executives involved in strategic capital budgeting decisions.

#### INFLATION AND CASH FLOWS

As mentioned above, estimating the cash flows is the first step which requires the estimation of cost and benefits of different proposals being considered for decision-making. Usually, two alternatives are suggested for measuring the 'Cost and benefits of a proposal i.e., the accounting profits and the cash flows. In reality, estimating the cash flows is most important as well as difficult task. It is because of uncertainty and accounting ambiguity.

Accounting profit is the resultant figure of the basis of several accounting concepts and policies. Adequate care should be taken while adjusting the accounting data, otherwise errors would arise in estimating cash flows. The term cash flow is used to describe the cash oriented measure of return, generated by a proposal. Though it may not be possible to obtain exact cash-effect measurement, it is possible to generate useful approximations based on available accounting data. The costs are denoted as cash outflows whereas the benefits are denoted as cash inflows. The relation between cash flows and Accounting Profit is discussed in the subsequent Para, before a detailed discussion of effect of Inflation and cash flows is done.

**CASH FLOWS VS ACCOUNTING PROFIT**

The evaluation of any capital investment proposal is based on the future benefits accruing for the investment proposal. For this, two alternative criteria are available to quantify the benefits namely, Accounting Profit and Cash flows. This basic difference between them is primarily due the inclusion of certain non-cash items like depreciation. This can be illustrated in the Table2:

**TABLE 2: A COPARISON OFCASH FLOW AND ACCOUNTING PROFIT APPROACHES**

Accounting Approach			Cash flow Approach		
Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
Revenue		1000	Revenue		1000
<b>Less: Expenses</b>			<b>Less: Expenses</b>		
Cash Expenses	400		Cash Expenses	400	
Depreciation	200	600	Depreciation	200	600
Earnings Before Tax		400	Earnings Before Tax		400
Tax @ 50%		200	Tax		200
Earning after Tax		200	Earning after Tax		200
			Add: Depreciation		200
			Cash flow		400

**EFFECTS OF INFLATION ON CASH FLOWS**

Often there is a tendency to assume erroneously that, when, both net revenues and the project cost rise proportionately, the inflation would not have much impact. These lines of arguments seem to be convincing, and it is correct for two reason. First, the rate used for discounting cash flows is generally expressed in nominal terms. It would be inappropriate and inconsistent to use a nominal rate to discount cash flows which are not adjusted for the impact of inflation. Second, selling prices and costs show different degrees of responsiveness to inflation. Estimating the cash flows is a constant challenge to all level of financial managers. To examine the effects of inflation on cash flows, it is important to note the difference between nominal cash flow and real cash flow. It is the change in the general price level that creates crucial difference the two.

A nominal cash flow means the income received in terms rupees. On the other hand, a real cash flow means purchasing power of your income. The manager invested Rs. 100000 in anticipation of 10 per cent return at the end of the year. It means that the manager will get Rs. 11000 after a year irrespective of changes in purchasing power of money toward goods or services. The sum of Rs. 11000 is known as nominal terms, which includes the impact of inflation. Thus, Rs. 11000 is a nominal return on investment of the manager. On the other hand, (Let us assume the inflation rate is 5 per cent in next year. Rs. 11000 next year and Rs. 10476.19 today are equivalent in terms of the purchasing power if the rate of inflation is 5 per cent.) Rs. 476.19 is in real terms as it adjusted for the effect of inflation. Though the manager's nominal rate of return is Rs. 1000, but only Rs. 476 is real return. The same has been discussed with capital budgeting problem.

ABC Ltd is considering a new project for manufacturing of toys involving a capital outlay of Rs.6 Lakhs. The capacity of the plant is for an annual production capacity 60000 toys and the capacity utilization is during the 3Years working life of the project is indicated below:

Year	1	2	3
Capacity Utilization	60	75	100

The selling price per toy is Rs. 15 and contribution is 40 per cent. The annual fixed costs, excluding depreciation are to be estimated Rs. 28000 per annum. The depreciation is 20 per cent and straight line method. Let us assume that in our example the rate of inflation is expected to be 5 per cent.

**TABLE 3: A COMPARISON OF REAL CASH FLOW AND NOMINAL CASH FLOW**

Particulars/Year	1	2	3
Sales Revenue	360000	450000	600000
Less: Variable Cost	216000	270000	360000
Depreciation	120000	120000	120000
Fixed Cost	28000	28000	28000
Earning before Tax	4000	32000	100000
Tax @ 50%	-	16000	50000
Profit after tax	-	16000	50000
Real Cash flow	116000	136000	170000
Inflation Adjustment	$(1.05)^{-1}$	$(1.05)^{-2}$	$(1.05)^{-3}$
Nominal Cash flow	121800	149940	196796

Therefore, the finance manager should be consistent in treating inflation as the discount rate is market determined. In addition to this, a company's output price should be more than the expected inflation rate. Otherwise there is every possibility is to forego the good investment proposal, because of low profitability. And also, future is always unexpected, what will be the real inflation rate (may be more or less). Thus, in estimating cash flows, along with output price, expected inflation must be taken into account. In dealing with expected inflation in capital budgeting analysis, the finance manager has to be very careful for correct analysis. A mismatch can cause significant errors in decision making. Therefore the finance manager should always remember to match the cash flows and discount rate as mentioned below.

**TABLE 4: MATHC UP CASH FLOWS AND DISCOUNT RATE**

Cash flows	Discount rate	Yields
Nominal Cash flow	Nominal discount rate	Present Value
Real cash flow	Real discount rate	Present Value



**INFLATION AND DISCOUNT RATE**

The discount rate has become one of the central concepts of finance. Some of its manifestations include familiar concepts such as opportunity cost, capital cost, borrowing rate, lending rate and the rate of return on stocks or bonds<sup>11</sup>. It is greatly influenced in computing NPV. The selection of proper rate is critical which helps for making correct decision. In order to compute net present value, it is necessary to discount future benefits and costs. This discounting reflects the time value of money. Benefits and costs are worth more if they are experienced sooner. The higher the discount rate, the lower is the present value of future cash flows.

For typical investment, with costs concentrated in early periods and benefits following in later periods, raising the discount rate tends to reduce the net present value. Thus, discount rate means the minimum requisite rate of return on funds committed to the project. The primary purpose of measuring the cost of capital is its use as a financial standard for evaluating investment projects.

**EFFECTS OF INFLATION ON DISCOUNT RATE**

Using of proper discount rate depends on whether the benefits and costs are measured in real or nominal terms. To be consistent and free from inflation bias, the cash flows should match with discount rate. Considering the above example, 10 per cent is a nominal rate of return on investment of the manager. On the other hand, (Let us assume the inflation rate is 5 per cent, in next year), though the manager's nominal rate of return is 10 per cent, but only 4.76 percent is real rate of return. In order to receive 10 per cent real rate of return, in view of 5 per cent expected inflation rate, the nominal required rate of return would be 15.5%. The nominal discount rate ( $r$ ) is a combination of real rate ( $K$ ), expected inflation are ( $\alpha$ ). This relationship is known as *Fisher's effect*, which may be stated as follows:

$$r = (1-K) (1- \alpha) - 1$$

The relationship between the rate of return and inflation in the real world is a tough task to explain than the theoretical relationship described above. Experience shows that deflation of any series of interest rates over time by any popular price index does not yield relatively constant real rates of interest. However, this should not be interpreted as the current rate of interest is properly adjusted or the actual rate of inflation, but only that it will contain some expected rate of inflation. Furthermore, the ability of accurately forecasting the rate of inflation is very rare.

**IMPLICATIONS**

It is noted from the above analysis; effects of inflation significantly influence the capital budgeting decision making process. If the prices of outputs and the discount rates are expected to rise at the same rate, capital budgeting decision will not be neutral. The implications of expected rate of inflation on the capital budgeting process and decision making are as follows:

1. The company should raise the output price above the expected rate of inflation. Unless it has lower Net Present Value which may lead to forego the proposals and vice versa.
2. If the company is unable to raise the output price, it can make some internal adjustment through careful management of working capital.
3. With respect of discount rate, the adjustment should be made through capital structure.

**CONCLUSION**

It could be inferred from the above analysis that, effects of inflation are significantly influenced on capital budgeting decision making process. Though the inflation is a common problem, every finance manager encounters during their capital budgeting decision making process for optimum utilization of scarce resources especially in two major aspects namely cash flow and discount rate. To examine the effects of inflation on cash flows, it is important to note the difference between nominal cash flow and real cash flow. It is the change in the general price level that creates crucial difference between these two. Therefore, the finance manager should take into cognizance the effect of inflation. Otherwise possibilities are more to forego the good investment proposal, because of low profitability.

Using of the proper discount rate demands on whether the benefits and costs are measured in real or nominal cash flows. To be consistent, the cash flows should match with discount rate. A mismatch can cause significant errors in decision making. There should be consistency in treating the inflation in the cash flows and the discount rate. It is very difficult to take decision, free from effect of inflation as it is highly uncertain. Therefore, use of Gross Domestic Product deflator may be ideal while taking CBD since, it would be more rational and scientific and not on pick and choose method for project or programs that extend beyond the inflation rate for the sixth year of the budget forecast. The Administration's economic forecast is updated twice annually, at the time the budget is published in January and February and at the time of the Mid-Session Review of the Budget in July. Alternative inflation estimates, based on credible private sector forecasts, may be used for sensitivity analysis.

**REFERENCES**

- Aswath Damodaran (2009), "Corporate Finance – Theory and Practice", 2<sup>nd</sup> Edition, John Wiley & sons (Asia), Phi Limited, Singapore, pp 318-324
- Ahuja K, (2008) "Macro Economics", 2<sup>nd</sup> Edition, S. Chand & Company Limited. New Delhi, pp 346-353
- David F Larker (2001), "The perceived Importance of Selected Information Characteristics for Strategic Capital Budgeting Decision", *The Accounting Review*, Vol. LVI, No. 3, pp 519-538
- Geoffrey T Mills (2006), "The impact of inflation on Capital Budgeting and working capital", *Journal of financial and Strategic Decisions*, vol. 9, No. 1, spring, pp 79-87.
- Khan M Y & Jain P K, (2009), "Financial Management – Text, problems and cases", 4<sup>th</sup> Edition, Tata McGraw Hill Publishing Company Limited., New Delhi, pp 450 – 559.
- Panday I M, (2008), "Financial Management", 9<sup>th</sup> Edition, Vikas Publishing House Private Limited, New Delhi, pp 450-559
- Uri Benzion, Amon Rapport, Joseph Yagil (2007), "Discount Rates Inferred from Decisions: An Experimental Study", *Management Science*, Vol. 35, No. 3, pp. 210-28.
- <http://en.wikipedia.org>
- [www.investopedia.com](http://www.investopedia.com)

## **REQUEST FOR FEEDBACK**

**Esteemed & Most Respected Reader,**

At the very outset, International Journal of Research in Commerce and Management (IJRCM) appreciates your efforts in showing interest in our present issue under your kind perusal.

I would like to take this opportunity to request to your good self to supply your critical comments & suggestions about the material published in this issue as well as on the journal as a whole, on our E-mails i.e. **info@ijrcm.org.in** or **infoijrcm@gmail.com** for further improvements in the interest of research.

If your good-self have any queries please feel free to contact us on our E-mail **infoijrcm@gmail.com**.

Hoping an appropriate consideration.

With sincere regards

Thanking you profoundly

**Academically yours**

Sd/-

**Co-ordinator**