

GLOBAL JOURNAL

OF MANAGEMENT AND BUSINESS RESEARCH: B

Economics and Commerce

The Organizational Learning

Fiscal and Monetary Policies

Highlights

Predict Inflation in Tunisia

Gross Capital Formation of India

Discovering Thoughts, Inventing Future

VOLUME 15

ISSUE 2

VERSION 1.0



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE

VOLUME 15 ISSUE 2 (VER. 1.0)

OPEN ASSOCIATION OF RESEARCH SOCIETY

© Global Journal of
Management and Business
Research. 2015.

All rights reserved.

This is a special issue published in version 1.0
of "Global Journal of Science Frontier
Research." By Global Journals Inc.

All articles are open access articles distributed
under "Global Journal of Science Frontier
Research"

Reading License, which permits restricted use.
Entire contents are copyright by of "Global
Journal of Science Frontier Research" unless
otherwise noted on specific articles.

No part of this publication may be reproduced
or transmitted in any form or by any means,
electronic or mechanical, including
photocopy, recording, or any information
storage and retrieval system, without written
permission.

The opinions and statements made in this
book are those of the authors concerned.
Ultraculture has not verified and neither
confirms nor denies any of the foregoing and
no warranty or fitness is implied.

Engage with the contents herein at your own
risk.

The use of this journal, and the terms and
conditions for our providing information, is
governed by our Disclaimer, Terms and
Conditions and Privacy Policy given on our
website [http://globaljournals.us/terms-and-condition/
menu-1463/](http://globaljournals.us/terms-and-condition/menu-1463/)

By referring / using / reading / any type of
association / referencing this journal, this
signifies and you acknowledge that you have
read them and that you accept and will be
bound by the terms thereof.

All information, journals, this journal,
activities undertaken, materials, services and
our website, terms and conditions, privacy
policy, and this journal is subject to change
anytime without any prior notice.

Incorporation No.: 0423089
License No.: 42125/022010/1186
Registration No.: 430374
Import-Export Code: 1109007027
Employer Identification Number (EIN):
USA Tax ID: 98-0673427

Global Journals Inc.

(A Delaware USA Incorporation with "Good Standing"; **Reg. Number: 0423089**)

Sponsors: *Open Association of Research Society*
Open Scientific Standards

Publisher's Headquarters office

Global Journals Headquarters
301st Edgewater Place Suite, 100 Edgewater Dr.-Pl,
Wakefield MASSACHUSETTS, Pin: 01880,
United States of America
USA Toll Free: +001-888-839-7392
USA Toll Free Fax: +001-888-839-7392

Offset Typesetting

Global Journals Incorporated
2nd, Lansdowne, Lansdowne Rd., Croydon-Surrey,
Pin: CR9 2ER, United Kingdom

Packaging & Continental Dispatching

Global Journals
E-3130 Sudama Nagar, Near Gopur Square,
Indore, M.P., Pin:452009, India

Find a correspondence nodal officer near you

To find nodal officer of your country, please
email us at local@globaljournals.org

eContacts

Press Inquiries: press@globaljournals.org
Investor Inquiries: investors@globaljournals.org
Technical Support: technology@globaljournals.org
Media & Releases: media@globaljournals.org

Pricing (Including by Air Parcel Charges):

For Authors:

22 USD (B/W) & 50 USD (Color)
Yearly Subscription (Personal & Institutional):
200 USD (B/W) & 250 USD (Color)

INTEGRATED EDITORIAL BOARD
(COMPUTER SCIENCE, ENGINEERING, MEDICAL, MANAGEMENT, NATURAL
SCIENCE, SOCIAL SCIENCE)

John A. Hamilton, "Drew" Jr.,
Ph.D., Professor, Management
Computer Science and Software
Engineering
Director, Information Assurance
Laboratory
Auburn University

Dr. Henry Hexmoor
IEEE senior member since 2004
Ph.D. Computer Science, University at
Buffalo
Department of Computer Science
Southern Illinois University at Carbondale

Dr. Osman Balci, Professor
Department of Computer Science
Virginia Tech, Virginia University
Ph.D. and M.S. Syracuse University,
Syracuse, New York
M.S. and B.S. Bogazici University,
Istanbul, Turkey

Yogita Bajpai
M.Sc. (Computer Science), FICCT
U.S.A. Email:
yogita@computerresearch.org

Dr. T. David A. Forbes
Associate Professor and Range
Nutritionist
Ph.D. Edinburgh University - Animal
Nutrition
M.S. Aberdeen University - Animal
Nutrition
B.A. University of Dublin- Zoology

Dr. Wenying Feng
Professor, Department of Computing &
Information Systems
Department of Mathematics
Trent University, Peterborough,
ON Canada K9J 7B8

Dr. Thomas Wischgoll
Computer Science and Engineering,
Wright State University, Dayton, Ohio
B.S., M.S., Ph.D.
(University of Kaiserslautern)

Dr. Abdurrahman Arslanyilmaz
Computer Science & Information Systems
Department
Youngstown State University
Ph.D., Texas A&M University
University of Missouri, Columbia
Gazi University, Turkey

Dr. Xiaohong He
Professor of International Business
University of Quinnipiac
BS, Jilin Institute of Technology; MA, MS,
PhD,. (University of Texas-Dallas)

Burcin Becerik-Gerber
University of Southern California
Ph.D. in Civil Engineering
DDes from Harvard University
M.S. from University of California, Berkeley
& Istanbul University

Dr. Bart Lambrecht

Director of Research in Accounting and Finance
Professor of Finance
Lancaster University Management School
BA (Antwerp); MPhil, MA, PhD
(Cambridge)

Dr. Carlos García Pont

Associate Professor of Marketing
IESE Business School, University of Navarra
Doctor of Philosophy (Management),
Massachusetts Institute of Technology (MIT)
Master in Business Administration, IESE,
University of Navarra
Degree in Industrial Engineering,
Universitat Politècnica de Catalunya

Dr. Fotini Labropulu

Mathematics - Luther College
University of Regina
Ph.D., M.Sc. in Mathematics
B.A. (Honors) in Mathematics
University of Windsor

Dr. Lynn Lim

Reader in Business and Marketing
Roehampton University, London
BCom, PGDip, MBA (Distinction), PhD,
FHEA

Dr. Mihaly Mezei

ASSOCIATE PROFESSOR
Department of Structural and Chemical
Biology, Mount Sinai School of Medical
Center
Ph.D., Eötvös Loránd University
Postdoctoral Training,
New York University

Dr. Söhnke M. Bartram

Department of Accounting and Finance
Lancaster University Management School
Ph.D. (WHU Koblenz)
MBA/BBA (University of Saarbrücken)

Dr. Miguel Angel Ariño

Professor of Decision Sciences
IESE Business School
Barcelona, Spain (Universidad de Navarra)
CEIBS (China Europe International Business School).
Beijing, Shanghai and Shenzhen
Ph.D. in Mathematics
University of Barcelona
BA in Mathematics (Licenciatura)
University of Barcelona

Philip G. Moscoso

Technology and Operations Management
IESE Business School, University of Navarra
Ph.D in Industrial Engineering and
Management, ETH Zurich
M.Sc. in Chemical Engineering, ETH Zurich

Dr. Sanjay Dixit, M.D.

Director, EP Laboratories, Philadelphia VA
Medical Center
Cardiovascular Medicine - Cardiac
Arrhythmia
Univ of Penn School of Medicine

Dr. Han-Xiang Deng

MD., Ph.D
Associate Professor and Research
Department Division of Neuromuscular
Medicine
Davee Department of Neurology and Clinical
Neuroscience
Northwestern University
Feinberg School of Medicine

Dr. Pina C. Sanelli

Associate Professor of Public Health
Weill Cornell Medical College
Associate Attending Radiologist
NewYork-Presbyterian Hospital
MRI, MRA, CT, and CTA
Neuroradiology and Diagnostic
Radiology
M.D., State University of New York at
Buffalo, School of Medicine and
Biomedical Sciences

Dr. Roberto Sanchez

Associate Professor
Department of Structural and Chemical
Biology
Mount Sinai School of Medicine
Ph.D., The Rockefeller University

Dr. Wen-Yih Sun

Professor of Earth and Atmospheric
SciencesPurdue University Director
National Center for Typhoon and
Flooding Research, Taiwan
University Chair Professor
Department of Atmospheric Sciences,
National Central University, Chung-Li,
TaiwanUniversity Chair Professor
Institute of Environmental Engineering,
National Chiao Tung University, Hsin-
chu, Taiwan.Ph.D., MS The University of
Chicago, Geophysical Sciences
BS National Taiwan University,
Atmospheric Sciences
Associate Professor of Radiology

Dr. Michael R. Rudnick

M.D., FACP
Associate Professor of Medicine
Chief, Renal Electrolyte and
Hypertension Division (PMC)
Penn Medicine, University of
Pennsylvania
Presbyterian Medical Center,
Philadelphia
Nephrology and Internal Medicine
Certified by the American Board of
Internal Medicine

Dr. Bassey Benjamin Esu

B.Sc. Marketing; MBA Marketing; Ph.D
Marketing
Lecturer, Department of Marketing,
University of Calabar
Tourism Consultant, Cross River State
Tourism Development Department
Co-ordinator , Sustainable Tourism
Initiative, Calabar, Nigeria

Dr. Aziz M. Barbar, Ph.D.

IEEE Senior Member
Chairperson, Department of Computer
Science
AUST - American University of Science &
Technology
Alfred Naccash Avenue – Ashrafieh

PRESIDENT EDITOR (HON.)

Dr. George Perry, (Neuroscientist)

Dean and Professor, College of Sciences

Denham Harman Research Award (American Aging Association)

ISI Highly Cited Researcher, Iberoamerican Molecular Biology Organization

AAAS Fellow, Correspondent Member of Spanish Royal Academy of Sciences

University of Texas at San Antonio

Postdoctoral Fellow (Department of Cell Biology)

Baylor College of Medicine

Houston, Texas, United States

CHIEF AUTHOR (HON.)

Dr. R.K. Dixit

M.Sc., Ph.D., FICCT

Chief Author, India

Email: authorind@computerresearch.org

DEAN & EDITOR-IN-CHIEF (HON.)

Vivek Dubey(HON.)

MS (Industrial Engineering),

MS (Mechanical Engineering)

University of Wisconsin, FICCT

Editor-in-Chief, USA

editorusa@computerresearch.org

Sangita Dixit

M.Sc., FICCT

Dean & Chancellor (Asia Pacific)

deanind@computerresearch.org

Suyash Dixit

(B.E., Computer Science Engineering), FICCTT

President, Web Administration and

Development , CEO at IOSRD

COO at GAOR & OSS

Er. Suyog Dixit

(M. Tech), BE (HONS. in CSE), FICCT

SAP Certified Consultant

CEO at IOSRD, GAOR & OSS

Technical Dean, Global Journals Inc. (US)

Website: www.suyogdixit.com

Email: suyog@suyogdixit.com

Pritesh Rajvaidya

(MS) Computer Science Department

California State University

BE (Computer Science), FICCT

Technical Dean, USA

Email: pritesht@computerresearch.org

Luis Galárraga

J!Research Project Leader

Saarbrücken, Germany

CONTENTS OF THE ISSUE

- i. Copyright Notice
- ii. Editorial Board Members
- iii. Chief Author and Dean
- iv. Contents of the Issue

1. An Analysis of Contributions of Household Sector, Private Corporate Sector and Public Sector in Gross Domestic Savings and Thus Gross Capital Formation of India. **1-6**
2. Can we Predict Inflation in Tunisia? *an Analysis Following an Unobserved Components Model*. **7-12**
3. Non-Practicing the Dialogue as a Factor of Non-Development of the Organizational Learning. **13-18**
4. Interaction between Fiscal and Monetary Policies: Directions of Causality in Case of Jordan 1990-2011. **19-26**
5. Stock Market Anomalies: Case of Calendar Effects on the Tunisian Stock Market. **27-37**

- v. Fellows and Auxiliary Memberships
- vi. Process of Submission of Research Paper
- vii. Preferred Author Guidelines
- viii. Index



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE

Volume 15 Issue 2 Version 1.0 Year 2015

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

An Analysis of Contributions of Household Sector, Private Corporate Sector and Public Sector in Gross Domestic Savings and Thus Gross Capital Formation of India

By K. Anandakumar & P. Glorinthal

Velammal Institute of Technology - Affiliated to Anna University, India

Abstract- It is an unquestionable fact that gross domestic saving is one of the most contributing factors of economic growth of a nation. It plays concrete role in fostering investment, production, employment and eventually the economic growth. The present paper endeavors to analyze and exemplifies the contributions of household sector, private corporate sector and public sector in Gross Domestic Savings (GDS) and thus Gross Capital Formation (GCF) of India. The study is based on secondary data from 2000-2013. The statistical tools like Percentage, ANOVA, Correlation and Regression analysis are used for data analysis. The analysis divulges that the maximum contribution to GDS and GCF is made by household sector followed by private corporate sector and then public sector.

Keywords: *gross domestic savings, gross capital formation, household sector, private corporate sector, public sector.*

GJMBR - B Classification : JEL Code : A10



Strictly as per the compliance and regulations of:



An Analysis of Contributions of Household Sector, Private Corporate Sector and Public Sector in Gross Domestic Savings and Thus Gross Capital Formation of India

K. Anandakumar^a & P. Glorinthal^o

Abstract- It is an unquestionable fact that gross domestic saving is one of the most contributing factors of economic growth of a nation. It plays concrete role in fostering investment, production, employment and eventually the economic growth. The present paper endeavors to analyze and exemplifies the contributions of household sector, private corporate sector and public sector in Gross Domestic Savings (GDS) and thus Gross Capital Formation (GCF) of India. The study is based on secondary data from 2000-2013. The statistical tools like Percentage, ANOVA, Correlation and Regression analysis are used for data analysis. The analysis divulges that the maximum contribution to GDS and GCF is made by household sector followed by private corporate sector and then public sector.

Keywords: gross domestic savings, gross capital formation, household sector, private corporate sector, public sector.

Gross Domestic Savings = Gross Domestic Product – Final Consumption Expenditure.

The money thus saved is either held in reserve with public or is ploughing back for further investments which are known as Capital Formation. *Capital Formation* is one of the driving forces for the holistic economic development and insufficient or lack of capital formation in the economy may usher to under development of the economy. There are three important segments contributing to gross domestic savings and capital formation viz. household sector, private corporate sector and public sector. Considering the importance of domestic savings in capital formation and thus economic growth, this paper attempts to analyze and exemplify the contributions made by household sector, private corporate sector and public sector in gross domestic savings and thus the capital formation.

II. OBJECTIVES OF THE STUDY

The focal objective of the study is to analyze the contribution of private sector in terms of private corporate and household sector and public sector in

Author α: K. Anandakumar, Assistant Professor, Velammal Institute of technology, Chennai-601204.

e-mail: samuelkanandakumar@gmail.com

Author o: P. Glorinthal, Assistant Professor, K C S Kasi Nadar Arts and Science College, Chennai-21.

I. INTRODUCTION

Investment made by the government is the momentous factor for enhancing and sustaining economic prosperity. In order to finance investment required, a nation suppose to generate ample domestic savings or it has to scrounge abroad and / or develops FDI. According to Solow and Harrod Domar Growth Model, saving is a crucial factor for the economic growth of any nation, since it generates opportunities for investment which in turn boost up production and stimulates employment. Domestic savings aid in sustaining high growth rates through its impact on investment and also perform as a channel for magnetizing FDI whereas the over dependence on peripheral financing may erode competitiveness through an overvalued currency, providing additional motives for wanting to stimulate domestic saving.

gross domestic savings and thus the capital formation of India.

- The other objectives are

To explore the flow of savings of each sector to the Gross Domestic Savings in order to ascertain the dominant contributing sector.

- ✓ To throw light on sectors having more contribution towards the capital formation.
- ✓ To measure the strength and statistical significance of each sector's contribution as predictors of GDS and GCF.
- ✓ To rank the sectors based upon the highest contribution in terms of gross domestic savings and gross capital formation.

III. NATURE OF THE STUDY

The present study is of analytical nature and makes use of secondary data. The relevant secondary data has been collected from reports of Union Budget of India 2014 and the following economic survey 2013-2014, the Ministry of Commerce and Industry, Department of Industrial Promotion and Policy, Government of India, Centre for Monitoring Indian

Economy, Reserve Bank of India, World Investment Report and World Bank national accounts data.

IV. REVIEW OF LITERATURE

Khan and Reinhart (1990) in their empirical study titled "Private investment and economic growth in developing countries" formulated a simple growth model that separates the effect of private sector and public sector and supported the notion that private investment has a larger direct effect on growth than does public investment.

The empirical studies conducted by Hadji Michael (1996), Ben- David (1998), Hernandez-Cata (2000), Ndikumana (2000) in Africa, Asia and Latin America have established that there exists critical linkage between capital formation and the rate of growth. This exemplifies that capital formation is a key to economic growth.

Econometric evidence due to work done by Beddies 1999, Ghura and Hadji Michael 1996, Ghura 1997 indicates that private capital formation has a stronger, more favorable effect on growth rather than government capital formation probably because private capital formation is more efficient and less closely associated with corruption.

Mishra et al. (2010) studied the dynamic relationship between savings and investment in India for the period 1950-51 to 2008-09 by employing Johansen cointegration technique and Granger causality test via Vector Autoregressive framework. The authors found the presence of long run equilibrium relationship between saving and investment in India. The Granger causality test revealed directional causal relationship between the variables under study.

Inuwa Nasiru and Haruna M. Usman (2013) in their paper "The Relationship between Domestic Savings and Investment: The Feldstein-Horioka Test

Using Nigerian Data" found that there is a long run relationship between savings and investment. The study used the reduced-form bi-variate model of Feldstein and Horioka (1980) to examine the long-run relationship between domestic saving and investment and measure the degree of international capital mobility.

Kanu, Success Ikechi & Ozurumba, Benedict Anayochukwu (2014) have employed multiple regression technique to study the impact of capital formation on the economic growth of Nigeria. It was ascertained that in the short run, gross fixed capital formation had no significant impact on economic growth; while in the long run; the VAR model estimate indicates that gross fixed capital formation, total exports and the lagged values of GDP had positive long run relationships with economic growth in Nigeria.

V. DATA ANALYSIS AND INTERPRETATION

a) *Analysis of Contributions of Household Sector, Private Corporate Sector and Public Sector to Gross Domestic Savings and Gross Capital Formation*

The following table shows the contributions of Household sector, Private Corporate Sector and Public Sector to Gross Domestic Savings and Gross Capital Formation from 2000 to 2013. It is clearly found that household sector contributes 73% to GDS and occupies the most dominant variable of GDS. The private corporate sector with its share of 22% to GDS holds second major contributor of GDS. Together, the private sector (Household + Private corporate) contributes 95% to GDS. It is then followed by public sector with a share of only 5%. Correspondingly, the household sector with its contributions of 68% occupies predominant position in total Gross Capital Formation and then followed by private corporate sector having 21% and public sector having only 5% and the rest 7% by other variables which are beyond the scope of this study.

Table No1 : Contributions of Household Sector, Private Corporate Sector and Public Sector to Gross Domestic Savings and Gross Capital Formation

Year	Gross Domestic Savings				Gross Capital Formation (Rupees in Crores)
	Household Sector (Rupees in Crores)	Private Corporate Sector (Rupees in Crores)	Public Sector (Rupees in Crores)	Total (Rupees in Crores)	
2000-2001	463750	81062	-29266	515545	528299
2001-2002	545288	76906	-36820	585374	571146
2002-2003	564161	99217	-7148	656230	627743
2003-2004	657587	129816	36372	823775	762416
2004-2005	763685	212519	74499	1050703	1064041
2005-2006	868988	277208	88955	1235151	1279754
2006-2007	994396	338584	152929	1485909	1531433

2007-2008	1118347	469023	248962	1836332	1900762
2008-2009	1330873	417467	54280	1802620	1931380
2009-2010	1630799	540955	10585	2182338	2363132
2010-2011	1800174	620300	201268	2621742	2841457
2011-2012	2054737	658428	111295	2824459	3200633
2012-2013	2212414	713141	117919	3043474	3521399
TOTAL	15005199	4634626	1023830	20663652	22123595
% age contribution to GDS	73	22	5	100	
% age contribution to GCF	68	21	5	93 (Others = 7%)	

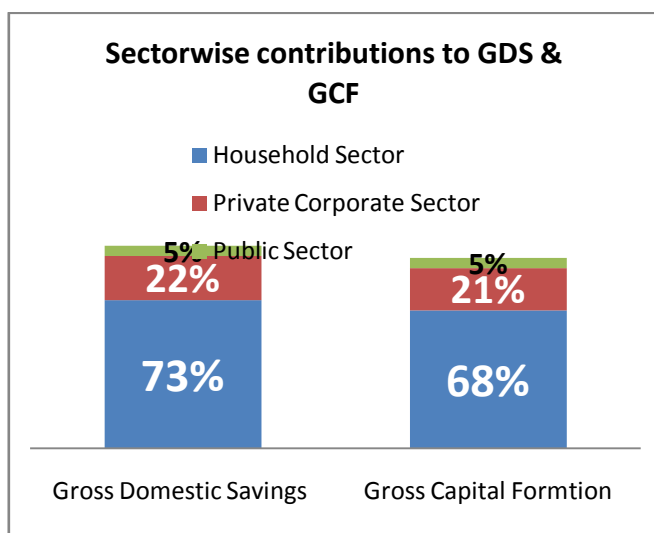


Figure No 1 : Sector wise Contribution to GDS & GCF

The above figure illustrates that household sector occupies the first rank in contributions towards GDS and GCF followed by private corporate sector and public sector

Table No 2 : Correlation Analysis

SECTOR	Gross Domestic Savings			Gross Capital Formation		
	R	R ²	P Value	R	R ²	P Value
Household Sector	0.991	0.982	0.000	0.995	0.989	0.000
Private Corporate Sector	0.996	0.991	0.000	0.991	0.981	0.000
Public Sector	0.605	0.366	0.029	0.573	0.328	0.041

The value R determines the strength of relationship. The value of R between household sector and GDS is 0.991 which signifies more strong relationship between them and the relation is significant since the P value 0.000 is less than 0.05. Similarly, the R value between Private Corporate sector and GDS is

b) Analysis of Relationship between Contributions of Household Sector, Private Corporate Sector and Public Sector to Gross Domestic Savings

Table 2 reveals the strength of relationship between contributions of sectors to GDS and Capital Formation of a country.

0.996 which symbolizes the intense relationship between them and the relation is significant (P value = 0.000 < 0.05). Correspondingly, the value of R between Public sector and GDS is 0.605 which denotes modest relationship between them and the relation is significant (P Value=0.029 < 0.05). The

analysis of three different values of R strongly reveals that the contribution made by Public Sector is not competent in comparison with other two sectors.

In the same way, the values of R between different sectors and GCF indicate the degree of relationship between them. The scrutiny of different R discloses that public sector has less contribution to Gross capital Formation.

c) Hypothesis Testing

H₀: The average contributions made by household sector, Private Corporate Sector and Public Sector to GDS and GCF are equal.

H₁: The average contributions made by household sector, Private Corporate Sector and Public Sector to GDS and GCF are not equal.

Table No 3 : ANOVA Table
Amount in Crores

Sectors	Mean	Standard Deviation	F value	P Value	Decision
Household Sector	1154246.08	599260.81	28.53	0.000	P value < 0.05, ∴ H ₀ is Rejected
Private Corporate Sectors	356509.69	230453.11			
Public Sectors	78756.15	87390.121			

From the above ANOVA table, since the null hypothesis is rejected it is concluded that the average contributions made by household sector, Private Corporate Sector and Public Sector are not equal. Based on Tukey's HSD test (Table No: 4), it is found that

the contributions made by household sector is varying from other two sectors. Comparing mean values in the table No: 3, it is found that household sector's contribution to GDS and GCF is more than other two sectors.

Table No 4 : Tukey's HSD Test to determine homogeneous subset
Amount in Rupees

Sectors	N	Subset for alpha = 0.05	
		1	2
Public Sector	13	78756.15	
Private Corporate Sector	13	356509.7	
Household Sector	13		1154246.1
Sig.		0.155	1

d) Analysis of relationship between Contributions of Household Sector, Private Corporate Sector and Public Sector to Gross Capital Formation

A Multiple Regression Analysis is conducted to predict causal relationship among a dependent variable (Gross capital Formation) and independent variables such as contributions of household sector, private corporate sector and public sector.

The value R called as coefficient of correlation indicates a measure of the quality of the prediction of

the dependent variable (Gross Capital Formation). From the table 5, the value R = 0.999 which indicates a good level of prediction.

From the table 5, R² = 0.998 indicates that 99.8% of the variability of the dependent variable (Gross Capital Formation) is explained by the independent variables (*Contributions of Household Sector, Private Corporate Sector and Public Sector to Gross Capital Formation*).

Table No 5 : ANOVA Table - Test for Regression Model Fit

ANOVA ^b								
	Model	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.	R	R ²
1	Regression	1.267E13	3	4.223E12	1743.157	.000 ^a	.999 ^a	.998
	Residual	2.180E10	9	2.423E9				
	Total	1.269E13	12					
a. Predictors: (Constant), Public Sector's Contribution , Household Sector's Contribution, Private Corporate Sector's Contribution								
b. Dependent Variable: Gross Capital Formation								

The above ANOVA table exemplifies that the regression model is a good fit of the data since F (3, 9) = 1743.157, p < .05. Hence it is concluded that the contributions made by household sector, private corporate sector and public sector statistically significantly predict the gross capital formation.

Table No 7 shows the statistical significance of the independent variables. It is obvious that the p values for household sector and public sector are less than 0.05 which reveals that those sectors' contributions are statistically significant in determining the gross capital formation. But the p value for private corporate sector is

greater than 0.05, implies the statistically not significant contribution to capital formation of that sector. Fitting the model to the data obtained from table no: 7, it is established that

$$GCF_{pred} = -224138.294 + 1.442 (\text{Household Sector Contribution}) + 0.513 (\text{Private Corporate Sector}) + 0.999 (\text{Public Sector}).$$

Table No 6 : Statistical significance of the independent variables

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-224138.294	50951.793		-4.399	.002
	Household Sector's Contribution	1.442	.185	.840	7.797	.000
	Private Corporate Sector's Contribution	.513	.541	.115	.948	.368
	Public Sector's Contribution	.999	.342	.085	2.923	.017

a. Dependent Variable: Gross Capital Formation

a. To be sum it up

"A multiple regression analysis is performed to envisage gross capital formation from contributions of household sector, private corporate sector and public sector. It is found that the first two variables are statistically more significant than the third variable. $F(3, 9) = 1743.157$, $p < .05$, $R^2 = 0.998$. All the three variables added statistically significantly to the prediction, $p < 0.05$."

Table No 7 : Relationship between GDS and GCF

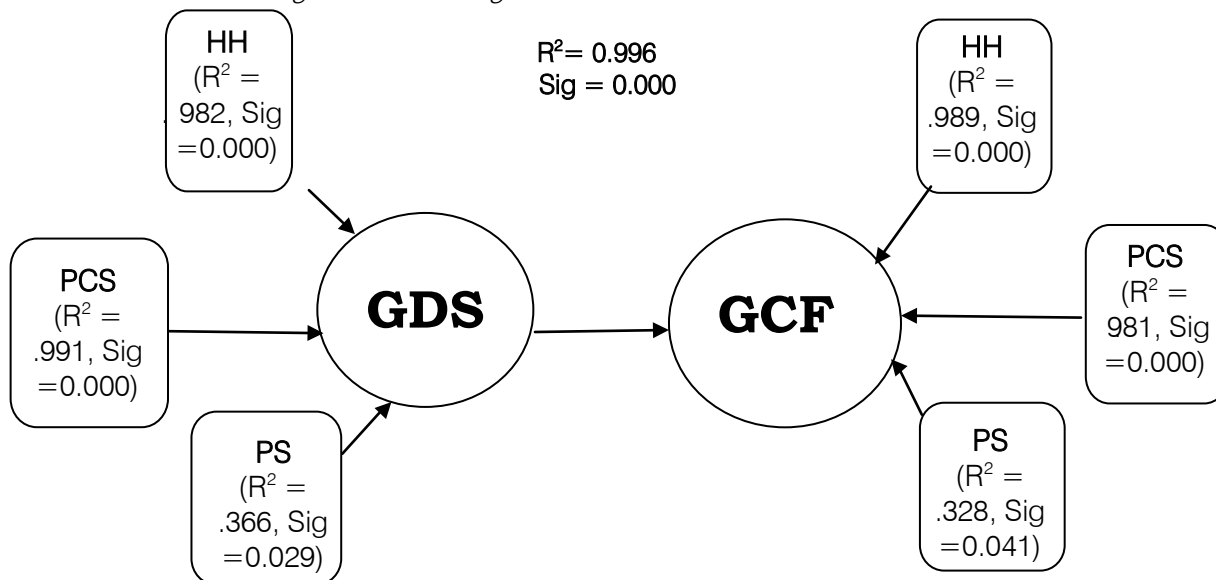
Variables	R	R ²	Adjusted R ²	Regression Significant	Coefficients			
						B	t	Sig
Predictor : GDS	0.998	0.996	0.996	0.000	Constant	-160993.212	-4.265	0.001
Dependent Variable : GCF					GDS	1.172	55.835	0.000

Table 7 shows the contribution of GDS to GCF. The value of $R = 0.998$ indicates that there exist a powerful relationship between GDS and GCF i.e. the contribution of GDS to GCF is more whenever there is hike in GDS. The regression significant value 0.000 ($p < 0.05$) implies that the regression model is the best fit

for the data and the independent variable (GDS) is statistically more significant to predict the dependent variable (GCF) ($p < 0.05$). The linear relationship between GDS and GCF can be established as

$$GCF_{predicted} = (-160993.212) + 1.172 (GDS)$$

e) Research model showing the statistical significance of contributions of each sector to GDS and GCF



Note: HH – Household Sector, PCS – Private Corporate Sector, PS – Public Sector

VI. CONCLUSION

Gross Domestic Savings and Capital Formation are keys to economic growth. The central opinion of this paper is that all the three sectors such as household, private corporate and public sector are statistically significant in determining the Gross Domestic Savings and Gross Capital Formation. Of which, the paper discovered that the Household sector's contribution is more than other two sectors. It is also found that the rise in GDS leads to more capital accumulation which will enhance productive capacity of the nation and in turn stimulate growth of the economy.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Kanu, Success Ikechi & Ozurumba, Benedict Anayochukwu (2014), the impact of capital formation on the economic growth of Nigeria, Global Journal of HUMAN-SOCIAL SCIENCE: E Economics Volume 14 Issue 4 Version 1.0.
2. Inuwa Nasiru and Haruna M.Usman (2013), The Relationship between Domestic Savings and Investment: The Feldstein-Horioka Test Using Nigerian Data, CBN Journal of Applied Statistics Vol. 4 No.1 (June, 2013).
3. Mishra, P.K., Das, J.R., and Mishra, S.K. (2010): "The Dynamics of Savings and Investment Relationship in India." European Journal of Economics, Finance, and Administration Sciences, Vol. 18, pp.164- 172.
4. Hernandez-Cata, E. (2000), —Raising Growth and Investment in Sub-Saharan Africa: What Can be done?" Policy Discussion Paper: PDP/00/4, International Monetary Fund, Washington, D .C.
5. Ndikumana, L. (2000), —Financial Determinants of Domestic Investment in Sub-Saharan Africa, World Development, 28 (2), pp.381-400.
6. Beddies, C. (1999), —Investment, Capital Accumulation and Growth: Some Evidence from Gambia: 1964-1998. IMF Working Paper 99/117, August. Ben-David, D. (1998), —Convergence Clubs and Subsistence Economies, Journal of Development Economics, 55, pp.155-171.
7. Collier, P. and J.W. Gunning (1999), —Explaining African Economic Performance, Journal of Economic Literature, 37, March, pp.64- 111.
8. Ghura, D. and T. Hadji Michael (1996), —Growth in Sub-Saharan Africa, Staff Papers, International Monetary Fund, 43, September.
9. Ghura, D. (1997), —Private Investment and Endogenous Growth: Evidence from Cameroon, IMF Working Paper 97/165, December.
10. Khan, M.S., and C.M. Reinhart (1990), —Private Investment and Economic Growth in Developing Countries, World Development, 18 (1), pp. 19-27.



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE

Volume 15 Issue 2 Version 1.0 Year 2015

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Can we Predict Inflation in Tunisia? *an Analysis Following an Unobserved Components Model*

By Bechir FRIDHI

University of Carthage, Tunisia

Abstract- Empirical analysis on the prediction of inflation is becoming more and focus on advanced economies. At least three factors explain this. First, the predominance of agriculture in developing countries makes it dependent inflation climatic conditions of economic activity (eg, Phillips curve). Then, the limits on the quality and frequency data are often limiting factors. Finally, emerging markets are likely to suffer sudden crises and reversals of macroeconomics variables and it is therefore difficult to identify an economic regularity. However, a growing body of research has begun to analyze the inflation forecasts in emerging and developing leading indicators for inflation.

Keywords: forecasting inflation, phillips curve, economic regularity, underlying inflation.

GJMBR - B Classification : JEL Code : P44



Strictly as per the compliance and regulations of:



Can we Predict Inflation in Tunisia?

An Analysis Following an Unobserved Components Model

Peut-on prévoir l'inflation en Tunisie ?
Une étude suivant un modèle à composantes inobservables

Bechir FRIDHI

Abstract- Empirical analysis on the prediction of inflation is becoming more and focus on advanced economies. At least three factors explain this. First, the predominance of agriculture in developing countries makes it dependent inflation climatic conditions of economic activity (eg, Phillips curve). Then, the limits on the quality and frequency data are often limiting factors. Finally, emerging markets are likely to suffer sudden crises and reversals of macroeconomics variables and it is therefore difficult to identify an economic regularity. However, a growing body of research has begun to analyze the inflation forecasts in emerging and developing leading indicators for inflation.

Keywords: forecasting inflation, phillips curve, economic regularity, underlying inflation.

Résumé: Les études empiriques sur la prévision de l'inflation sont de plus en plus nombreuses et portent principalement sur les économies avancées. Au moins trois facteurs expliquent cela. Tout d'abord, la prédominance de l'agriculture dans les pays émergents rend l'inflation plus dépendante des conditions climatiques que de l'activité économique (par exemple, courbe de Phillips). Ensuite, les limites quant à la qualité et la fréquence des données sont souvent des facteurs contraignants. Enfin, les marchés émergents sont susceptibles de subir des crises soudaines et des renversements de variables macro-économiques et il est donc difficile de dégager une régularité économique. Toutefois, un nombre croissant d'études a commencé à analyser les prévisions d'inflation dans les pays émergents et à élaborer des indicateurs avancés pour l'inflation.

Mots clés : prévision de l'inflation, courbe de phillips, régularité économique, inflation sous-jacente.

I. INTRODUCTION

Forecast inflation will become an essential task for the Central Bank of Tunisia (BCT) due to delays in the transmission of monetary policy on the economy, particularly on inflation. Thus, to be able to react in time, the BCT will base its monetary policy decisions not on past inflation but inflation expectations, the accuracy of these forecasts are an

essential element of the inflation targeting framework. For example, it will determine the magnitude of the deviations permitted in relation to the inflation target and the time required returning inflation to the midpoint of the target range. To forecast inflation in Tunisia, it is essential to understand the dynamics and explore ways of underlying calculations of inflation. Studies in this area report several technical preconditions for inflation targeting, including:

- i) Institutional independence: Within a framework of inflation targeting, the primary objective of monetary policy is that of low inflation.
- ii) A healthy financial system: To reduce the risk of conflict with financial stabilization objectives and ensure the efficient transmission of monetary policy, the banking system must be strong and well developed capital markets.
- iii) Good infrastructure and analysis capabilities: The statistical requirements for inflation targeting are more stringent than for other regimes and monetary authorities must have a well- developed ability to forecast inflation.

Tunisia has taken important steps to establish a framework for targeting inflation, especially in regard to i) and ii). The amendment last year to the law governing the BCT strengthened the independence of the central bank and defined price stability as the primary objective of monetary policy. To boost the financial system, the authorities have recently adopted a number of measures to improve the credit culture, promoting good governance and strengthening the legal framework for banks. However, a reliable methodology for forecasting inflation is not yet available. The present work aims to: analyze trends in inflation in Tunisia, to calculate underlying inflation measures and to develop a simple framework for forecasting inflation.

II. THE SPECIFIC TARGETING RULES

The concept of targeting rule returns to [L. Svensson (1998)]. It consists in setting the interest rate in order to obtain the variable targeting criteria. A concrete example of targeting rules would be that of the

Author: Enseignant chercheur à la Faculté des Sciences Economiques et de Gestion de Nabeul (Université de Carthage, Tunisie).
Membre du Laboratoire de Recherche : Intégration Economique Internationale (L.I.E.I) (Université Tunis El-Manar, Tunisie).
e-mail: bechir.fridhi@gmail.com

Bank of England which has made a simple rule targeting of adjusting the interest rate in order to bring the inflation forecasts, with the two- year horizon in the target range.

This rule, both simple and operational, is not necessarily optimal. According Svensson, a targeting rule is optimal if the marginal substitution rate (TMS) and the incremental rate of transformation (TMT) between the target variables are equal.

Svensson illustrated the optimal targeting rules from a simple example, formulated a relationship of supply (Phillips Curve) and demand relationship (IS curve):

$$\Pi_{t+r,t} = \Pi_{t+r+1,t} + \alpha_x x_{t+r,t} + \alpha_z z_{t+r,t} \quad (1)$$

$$\text{avec } x_{t+r,t} = \beta(i_{t+r,t} - \Pi_{t+r+1,t}) + \beta_z z_{t+r,t}$$

$\Pi_{t+r+1,t}$ and $x_{t+r,t}$: expectations of inflation and output performed $t+r+1$ in t , α_x and β_x : positive constants, α_z and β_z : Suitable dimensional vectors.

$z_{t+r,t}$: Column vector representing the "deviation", ie the difference between the real model and the simplified version of the New Keynesian model. The values of these deviations are determined by the "judgments" of monetary authorities.

The identification of the optimal targeting rule requires the specification of the (TMT) and (TMS) that of between forecasts targeted variables and establish the condition of their equality.

This condition, identified by Svensson, is of the following form:

$$\Pi_{t+r,t} - \Pi^* = \frac{-\lambda}{\alpha_x} (x_{t+r,t} - x_{t+r-1,t}) \quad (2)$$

In this example, the targeting rule, called "targeting the forecast of inflation" (inflation- forecast targeting) is based on the following steps:

- Define deviations, $z^t \equiv \sum_{r=0}^{\infty} z_{t+r,t}$ by judgments;
- Prepare forecasts of inflation and output, $\Pi^t \equiv \sum_{r=1}^{\infty} \Pi_{t+r,t}$,
- $x^t \equiv \sum_{r=0}^{\infty} x_{t+r,t}$ Who determine the targeting rule (2) and the supply relationship;
- Identify interest rates,
- $i_t \equiv \sum_{r=0}^{\infty} i_{t+r,t}$ Who determine demand relationship;
- Announcer Forecasts of inflation and output and adjust the interest rate accordingly.

This approach avoids the specification of a reaction function which is always complicated, since it is to specify how the monetary authorities should respond optimally to deviations that are determined only by judgments.

The advantage of targeting rules as specified (2) is to be empirically verifiable by publishing forecasts targeted variables. Its main drawback is, cons, related to the need to identify a precise way the (TMT) between the target variables, which is not always obvious to all models of the relationship of supply.

III. TARGETING INFLATION FORECASTS

The major difficulty in the implementation of an inflation targeting regime is related to the inability of the Central Bank to fully control inflation. This imperfection is due to uncertainty about the monetary transmission mechanisms and deadlines that are attached to; Also the influence of factors other than monetary policy actions. From then on, it would be useful to anticipate well in advance, the evolution of inflation. The forecasts on the level of inflation can be used as effective intermediate objectives of monetary policy.

[King (1994)], which was the first to evoke the idea of using inflation forecasts as an intermediate target, he argued his idea by the need to take account of a period of time between the handling of interest rates and the expected effects on the level of inflation.

According to Svensson, the implementation of a policy based on targeting inflation forecasts may be considered according to a specific rule, as defined in the example (2). Just, indeed, to impose restrictions $\lambda = 0$ in order to move to a strict regime of inflation targeting in which the specific rule targeting becomes:

$$\Pi_{t+r,t} = \Pi^* \quad (3)$$

r : Minimum horizon assignment of the rate of inflation.

This is to establish the conditions of interest rates in order to obtain estimates of the rate of inflation in a given horizon (shortest horizon for which the rate of inflation may be affected), which will within the target range.

IV. UNDERLYING INFLATION AS AN ESTIMATOR OF OVERALL INFLATION

The inflation is a new concept in the literature. It was introduced in the early 1970. However, it has been formally identified for the first time by [Echstein (1981)] in the early 1980s.

There is still no consensus on the concept of core inflation in relation to divergences on the basis of inflation in the recent economic theory.

Echstein (1981) developed an econometric model of the US economy. In this model, the inflation rate is divided into three components, namely:

underlying inflation, inflation linked to the supply shocks and inflation driven by demand.

According to [Roger (1998)] if the aggregate supply curves in the short term is given by:

$$\Pi_t = \Pi_t^{LT} + g(x_{t-1}) + v_t \quad (4)$$

Where:

Π_t : Global Inflation rate applying on the date t ;

Π_t^{LT} : Long-term inflation rate;

Π_t^{CT} : Short-term inflation rate;

Π_t^{SJ} : Inflation rate underlying;

x_{t-1} : An indicator of excess supply or aggregate demand;

v_t : A measure of inflationary pressures due to temporary supply shocks.

Then the inflation proposed by Echstein, is defined as:

$$\Pi_t^{CT} = \Pi_t - g(x_{t-1}) - v_t = \Pi_t^{LT} \quad (5)$$

While underlying inflation, Π_t^{SJ} is given by $\Pi_t^{SJ} = g(x_{t-1}) + v_t$. Under this definition, transient movements have no effect on core inflation. Therefore, the latter should not be cyclic.

[Quah and Vahey (1995)] for their part, explain the long-term verticality of the Phillips curve, generally accepted in economic theory, and identify the underlying inflation as " component of the observed inflation has no impact in the medium term and long term on actual production "

The observed inflation and divided into two parts, one respecting the long-run neutrality (underlying inflation), the other not (non-underlying inflation).

These authors estimated the inflation using a structural vector autoregression model (SVAR) combining inflation and output. They assume that the observed changes in the measurement of inflation is caused by two types of disturbances are not correlated. The first of these disturbances has no impact on production in the medium or long term. The second has unlimited effects observed inflation and production but does not influence on core inflation.

According to [Roger (1998)], the definition of [Quah and Vahey (1995)] of the underlying inflation is characterized by:

$$\Pi_t^{CT} = \Pi_t - v_t = \Pi_t^{LT} + g x_{t-1} \quad (6)$$

While short-term inflation is defined as: $\Pi_t^{CT} = v_t$

V. THE INFLATION: THEORETICAL BASIS AND PRACTICAL

Unfortunately, the concept of core inflation is rarely defined with precision and calculation methods remain to multiple and varied day. Overall, there are three methods to calculate: for econometric modeling, exclusion and more recently by estimating a structural vector autoregression (VAR Structural).

A first step is to break down the inflation rate into a trend component and a cyclical component, or by the filter [Hodrick and Prescott (1980)] or by use of different decomposition techniques available. A second method proceeds by elimination of components deemed too volatile in the price index, particularly sensitive to external shocks or economic policy.

Our study focuses on the exclusion in the first stage food and energy because the exclusion of these two categories of products is due to high price volatility, dominated by fluctuations in supply on which the monetary policy has no influence. In a second step we will exclude the price index for consumer eight components likely to be the source of large changes in relative prices or exposed to significant supply shocks.

VI. ESTIMATION AND FORECASTING OF INFLATION IN TUNISIA

The data used in our econometric study come from the databases of IFS (International Financial Statistics) of the IMF. We consider the following sets of Tunisian quarterly basis over the period from the first quarter 1994 to fourth quarter 2014, the index of consumer prices (IPC), the index of industrial production (IPI), the real exchange rate (TCR) , money supply (M1) and money supply (M2). All series are seasonally adjusted except the exchange rate. All variables are expressed in logarithms.

The study charts and correlogram shows that all autocorrelations and partial autocorrelations concerned first series are significantly different from zero and slowly declining. This is indicative of non-stationary series. It is then necessary to verify this intuition by applying statistical tests of stationarity.

In what follows, we will initially estimate the trend and the cycle of the price index for consumption from various decomposition methods tend cycle.

Among these methods we are interested in unobserved component models proposed by [Harvey (2001)].

Within the framework of these models, the study series can be decomposed additively into a trend T_t , cycle C_t and irregular component ε_t . These are the "trend+ cycle" model which is based on an independent formulation of the trend and the cycle. Each of these components is then subject to a separate estimate.

$$\begin{aligned} Y_t &= T_t + C_t + \varepsilon_t \\ T_t &= T_{t-1} + \beta_{t-1} + \eta_t \\ \beta_t &= \beta_{t-1} + \xi_t \end{aligned} \quad (7)$$

The irregular component ε_t is a white noise.

The stochastic nature of the trend is determined by the variance of the innovations of the level (σ_η^2) and slope (σ_ξ^2) of the trend. When these are both zero ($\sigma_\eta^2 = \sigma_\xi^2 = 0$), we obtain a deterministic trend. When only

the variance of the innovations of the level ($\sigma_\eta^2 = 0$) is set equal to zero, a random walk is obtained with drift. In the case where only the variance of the innovations acting on the slope (σ_ξ^2) is zero, we obtain a smooth trend "Slowly Moving Smooth Trend".

The results of the estimation of unobserved component models on the quarterly change in the price index for the Tunisian consumption are presented in the following table:

Table 1 : Statistical Quality Diagnostics

	$\sigma_\eta^2 = 0$ <i>et</i> $\sigma_\xi^2 = 0$	$\sigma_\eta^2 \neq 0$ <i>et</i> $\sigma_\xi^2 = 0$	$\sigma_\eta^2 = 0$ <i>et</i> $\sigma_\xi^2 \neq 0$
$\sqrt{PEV}$ (Standard deviation of the forecast error)	1.625	0.241	0.238
N (Normality statistics)	7.670**	4.482	1.019
$H(h)$ [Statistical heteroscedasticity]	6.646**	1.131	1.043
$Q(p, q)$ [Statistical correlation]	10.620**	24.09**	10.710**
R_D^2 (Correlation coefficient)	-0.440	0.004	0.032

Source: Estimates of the Author

Note: Unsatisfactory tests the null hypothesis are indicated by ** at the 5% level.

The standard deviations were multiplied by 100.

To improve predictions, we need additional information. To do this, we must make use of other economic indicators. The estimated model is defined from the following equation:

$$IPC_t = \alpha L IPC_t^{LT} + \beta L Y_t + \delta L Z_t + \varepsilon_t$$

The latter is similar to a reduced form of the Phillips curve. The index of consumer prices depends on its long-term IPC^{LT} , component of the output gap Y_t , and the index of industrial prices IP_t .

The different statistics from the estimated model are shown in the following table:

Table 2 : Decomposition trend-cycle

	<i>IPC</i>	<i>IPI</i>
Diagnostics		
$\sqrt{PEV}$ (Standard deviation of the forecast error)	0.238	2.867
N (Normality statistics)	1.019	8.003
$H(h)$ [Statistical heteroscedasticity]	1.043	0.540

$Q(p, q)$ [Statistical correlation]	10.610**	18.200**
R_D^2 (Correlation coefficient)	0.031	0.295
Parameters		
σ_δ (Standard deviation of the irregular component)	0.000	2.349
σ_h (Standard deviation of the innovations of the trend)	0.000	0.000
σ_ε (standard deviation of innovations on the slope of the trend)	0.044	0.162
Cycle		
Frequency	0.006	0.300
cycle period in years	83.325	1.744

Source: Estimates of the Author

Note: Unsatisfactory tests the null hypothesis are indicated by ** at the 5% level.

The standard deviations were multiplied by 100.

The empirical results obtained by different methods showed that there are as many differences as similarities between the different estimates of trend and cyclical components.

The unobserved components model Harvey has enabled us to provide the underlying price trend in Tunisia. It presents oriented upward trend and should continue to be in the future.

In a multivariable universe, the joint use of the index of consumer prices and industrial production index in an unobserved components model allowed us to highlight the dynamic interrelationships between these variables.

VII. CONCLUSION

Unlike other monetary policy regimes, that of inflation targeting assigns fundamental importance forecast, including that of the evolution of inflation which is the main intermediate target of monetary policy. Indeed, when the monetary authorities detect a deviation from the expected level of inflation relative to the target, they employ the necessary actions to eliminate this deviation. It should be noted that the consideration of inflation as the main objective for the Central Bank reduced significantly, the role of other formal intermediate targets, such as the exchange rate or monetary aggregates, since in case of conflict, it is the objective related to the level of inflation prevail. That

said, monetary authorities considering aimed at targeting regime explicit inflation, should develop econometric models for their work to support forecasting. This step is particularly important because of the role of forecasts in choosing the timing of the company corrective action.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Armstrong C. (1951), « Seasonal variations and calendar influences », The American Statistician, Vol°5-5, pp 10-10.
2. Bryan M. F., Cecchetti S. G. (1993), « The Consumer Price Index as a Measure of Inflation », Federal Reserve Bank of Cleveland Economic Review, n°4, pp 15–24.
3. Bryan M. F., Cecchetti S. G., Wiggins R. L. II (1997), « Efficient Inflation Estimation », NBER Working Paper n° 6183.
4. Kim C.J., Nelson C.R. (1999), State-Space Models with Regime-Switching: Classical and Gibbs-Sampling Approaches with Applications, MIT Press.
5. Le Bihan H., Sédillot F. (1999), « Quatre indicateurs d'inflation sous-jacente : application et interprétation. Banque de France », Notes d'études et de recherche, n°69, décembre.
6. Marques C. R., Neves P. D., Sarmiento L. M. (2000), « Evaluating Core Inflation Measures », Banco de Portugal, Working Paper, n° 3-00.

7. Quah D. Vahey S. P. (1995), « Measuring Core Inflation », *Economic Journal*, n°105, September, pp 1130-1144.
8. Roger S. (1998), « Core Inflation: Concepts, Uses and Measurement ». Reserve Bank of New Zealand. Discussion paper G98/9, July, Wellington, New Zealand.
9. Roger S. (2000), « Relative Prices, Inflation and Core Inflation », International Monetary Fund (IMF) Working Paper WP/00/58, Washington D.C., IMF.
10. Silver M. (2006), « Core Inflation: Measurement and Statistical Issues in Choosing Among Alternative Measures », International Monetary Fund (IMF) Working Paper WP/06/97, Washington D.C., IMF.





GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE

Volume 15 Issue 2 Version 1.0 Year 2015

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Non-Practicing the Dialogue as a Factor of Non-Development of the Organizational Learning

By Konstantin Petkovski, Fanche Joshevska & Violeta Milenkovska

University "St. Kliment Ohridski", Macedonia

Abstract—Today we live in conditions of constant struggle for achieving financial power which enables dominance of the negative power and influence over the lives of others. This leads to destruction of the moral, ethical and other value norms alike, and the life in the organization becomes a place where we are seen through the prism of material asset. A world dominated by financial capital does not know the individual life values.

Keywords: *dialogue, listening, respect, suspension, speaking, areas of conversation, organizational learning.*

GJMBR - B Classification : *JEL Code : F63*



NONPRACTICINGTHE DIALOGUEAS A FACTOR OF NONDEVELOPMENT OF THE ORGANIZATIONAL LEARNING

Strictly as per the compliance and regulations of:



Non-Practicing the Dialogue as a Factor of Non-Development of the Organizational Learning

Konstantin Petkovski ^α, Fanche Joshevska ^σ & Violeta Milenkovska ^ρ

Abstract- Today we live in conditions of constant struggle for achieving financial power which enables dominance of the negative power and influence over the lives of others. This leads to destruction of the moral, ethical and other value norms alike, and the life in the organization becomes a place where we are seen through the prism of material asset. A world dominated by financial capital does not know the individual life values. Such a civilization, or if you prefer cultural fragmentation results in a dangerous state of alienation of employees, feeling not belonging in the organizational systems where an individual spends his working life, which in itself brings demotivation which is a prerequisite for reduced productivity both on the individual and on the organizational level.

Dialogue is the place where these conditions can change a lot in a positive direction. That is a process and a situation in which an individual is preparing for a better way of behavior in the organizational systems. Respect of the laws of ethics are the foundation of the behavior of individuals in the realization of the dialogue. Over time, and under the influence of the ethical norms, the participants in the dialogue form their mental models, which itself incorporate the necessity of development of the organizational learning. It creates conditions in which the employees are not only seen as executors of the given organizational tasks, without taking into consideration their intellectual capacity that is the basis for building the intellectual capital of the organization.

Keywords: *dialogue, listening, respect, suspension, speaking, areas of conversation, organizational learning.*

I. INTRODUCTION

Why dialogue? If this question was asked a little less than two decades ago, certainly and without thinking there would have been an answer according to our belief, as well as the belief of many people, that it is a conversation between two people, and that as a term freely in any occasion, to the extent of vulgarization, may be used at any time and by everyone. Today, in regard of the present and as a result of many years of research we will conclude that it is a necessity which creates opportunities to release the spirit of the individual and developing common mental abilities of the group.

Author α: PhD, Full time professor, University "St. Kliment Ohridski" Bitola, Republic of Macedonia. e-mail: ninopet@t-home.mk

Author σ: PhD, Part time professor, University of tourism and management, Skopje Republic of Macedonia. e-mail: fjoshevska@yahoo.com

Author ρ: PhD, Professor, University of tourism and management, Skopje Republic of Macedonia. e-mail: v.milenkovska@utms.edu.mk

Exercising the dialogue is a necessity for achieving the capacity for its conduct. By analyzing this process can be found their bright, but for certain individuals their dark sides as well. If in this process the individual enters accidentally, without intention to participate and with a resistance to it, it will certainly be put in a position to develop a sense of outrage, and the dialogue would be characterized as something insignificant. Usually they are people who stubbornly believe only in its truth and are not willing to learn. Such individuals have internal reason not to acknowledge themselves. For others it is a process of upgrading.

The dialogue is a process that creates space for its participants to explore and find solutions for usually difficult subjects. If accepted as a method of work, it should be distinguished with great care, tenderness and high level of ethics by each of his every participants. Each individual in the process of dialogue should build a clear view of the way in which is necessary to handle their own strength (i.e. to build their self-control), as well as the leading force of the process, where it is necessary to develop a sense of freedom as part of a team or group that realizes this type of communication. This conversation allows getting to deeper understandings, perceptions, new models and routes that lead to the only truth, i.e. the collective thought.

This process results in a change of mental models, which allows individual and collective changes based on the elements of personal and shared success. The path that reaches these changes is long and arduous. It is a process for which only desire is not enough, but also great knowledge which is based on the ways of achieving the ecology of the thought, ie overcoming everything that is pathological in it.

The dialogue is a way to overcome the uncertainty and the potential problems of the future. Initially, its participants do not have (and should not have) identical views on certain issues. But such an open way of communication, which creates conditions each member to be equal with others, allows progressive harmonization of the various opinions and transform the destructive conflicts in constructive. Using this method or means of communication, the group comes to "common meaning" and "collective identity".

II. SKILLS FOR INTERACTION

The interaction is conditioned by the development of the four skills. The skill of listening can

be defined as an ability to hear the speech of others, our own speaking and own congestion which occurs as a result of someone else's views that we disagree with and leave it on the side. Respect, is a skill that allows to see the best and most grateful features of each speaker. Listening and respect are skills that are mutually correlate. Listening as a process is impossible to get realized if there is not a positive attitude towards the one who speaks. Developing the skill to respect, with each participant in the dialogue, increases the positive energy, which later grows into a collective energy of the team. In this context may be noted the need to overcome the fear and embarrassment from others, to look ridiculous in front of the other interlocutors in participating in the dialogue. The practice shows that the sense of fear and embarrassment from the others to tell their own truth is common case that brings bad consequences. An individual who does not have the strength and courage to find and express their own truth is frustrated and behaves negatively to his interlocutors.

The internal pressure that the individual feels is reason big enough to cause inability to listen and respect. As for that, the need of speaking with your own voice once again confirms its necessity in the process of interaction. The fourth skill is suspension. If the hearing shows the individual's ability to concentrate in keeping the dialogue, respect is a skill that encourages a positive attitude of the individual to his interlocutors and allows positive energy in building teams that implement the dialogue. Speaking is a skill that shows the ability of the individual to self-analysis, "looking and digging" for his "silence" and the courage to tell his own truth. The suspension is a skill that shows the size of the man to suspend its own, but also the views of all members of the team that performs the dialogue. If there is this skill, then there are chances of building collective thought. The development of the suspension is a condition for coming to collective truth, much bigger and more real than the individual. Team members who have not developed such skills are not able, or do not have the foundation for building a dialogue that will run in all its fields.

Listening, respect, suspension and speaking with its own voice are skills that the modern man can hardly praise with. The modern pattern of living built individual paradigms for living and working that is based on fear, discouragement and lack of determination to tell their own truths. The modern man (especially in the countries of transition) suppressed by the traditional way of behavior, built for years in the past, had lost or perhaps had deeply suppressed the ability to apply the four skills of interaction.

III. THE DIALOGUE AND ITS FUNCTION OF DEVELOPMENT OF THE ORGANIZATIONAL LEARNING

The organizational location or headquarters where the dialogue that can be successfully accomplished is the team. Formed by a number of people it gives the opportunity for overcoming the problems and making decisions for them, that will be based on the common thought of its members. The dialogue is the place where the negative energies, the threat from the environment and imposing opinions of others, in the mutual communication of the team members are unknown elements. You can reach its essence with systemic view of the individual and the team. His highest form is the one that is directed to its essence.

It is a process that enables the exchange of suggestions, beliefs and solutions through which each individual becomes richer and more powerful in the proper implementation of its activities as part of the group. Through the ability to express different aspects of a problem, each individual contributes to the development of the organizational system, and thus the organizational learning. The dialogue allows overcoming the crisis in the common opinion, while different beliefs are transformed into creative beliefs. Its foundation is based on building a common vision, which at some point rises to the level of a shared vision.

Analyzing the team, which applies the dialogue about things we learn about his real function. These teams represent a coherent whole. As a strategy of the organizational learning, the dialogue enables exploration of the source, the essence and core of things. This process reveals the assumptions that lie in it and their interconnection. The challenge that encourages enables recognition of the new thoughts that occur in every individual, after which evolves the process of their integrating into a new process where all the members of the group led to a shared vision.

Complex processes in the activities of organizational systems impose higher form of intelligence of each member. Using the dialogue creates a joint intelligence which becomes a function of the organizational system, which set in this way would move across the road to success. In the everyday practice, where the ability to interact is not developed in moments of conflict situations, its implementation is failing. Group members retreat and refuse to participate in a situation reminiscent of the "war". This environment is characterized by a state of "paralyzed dilemma" resulting from the closure of the team members themselves. It hinders the process of dialogue.

A very common occurrence in our organizational systems is the support of the so called dysfunctional learning i.e. maintaining the "status quo"

position. These areas dominated by the unproductive energy are brought into a state of accelerated "aging" and probably "dying" of the organizational systems. The only way to overcome this problem is the application of dialogue as a discipline that will provide a different way of thinking. Moving to the four fields of its development creates opportunities for creative decision making and implementation of necessary daily changes that put the organization in a state of constant growth and development.

IV. FIELDS OF CONVERSATION

Each interaction is implemented in a particular location which is characterized by a variety of conditions and features. During its performance, with each participant are present feelings directly influenced by the type and quality of energy that comes from the middle where such an interaction is performed. Different qualities of the environment are called fields of conversation. (Isaacs, NW, 1999) Their structural elements are the atmosphere, energy and memory of the participants in the interaction called dialogue, which can only be performed by creating the conditions for building the denominator.

The dialogue is moving through the fields of conversation. Passes from one field to another, without an announcement or immediately noticeable manifestations. Its movement is perfect and is accomplished through four fields of conversation, which are characterized by a variety of features, as well as their own crises. In the first field the participants talk with a dose of seeming calmness and politeness. Consequently appears crisis that occurs in each participant and develops a sense of frustration due to the inability to achieve the dialogue. If the group has experienced the crisis of its own emptiness, then it moves to the second field of the "disintegration of the container." In this field of conversation, the listening and respect are low, while the suspension does not exist at all. Then occurs "crisis of suspension" as a result of the need to impose their views to each individual. Such talks move chaotically through different routes. Overcoming this situation can be achieved if it is made collective switching of the group in the area of "reflection", where each participant will see the reasons for their own behavior as a result of what is created a situation in which arises equal accepting of others and their own truths based on what will be built the collective thought. The group moves to the third field that allows the formation of a collective identity. In the fourth field of conversation, the group reaches culmination of interaction and creativity.

V. EMPIRICAL RESEARCH

The value of the dialogue is displayed in its procedural dimension. It means that this value comes

from the process of building a capacity for its guidance, indicating that the survey is based on the principle of qualitative paradigm. The test was done during 2013 and 2014. During the implementation of the research were applied procedures and instruments for recording the changes that occur during the performance of the dialogue. Based on the interpretation of the qualitative records are determined the progress and development of the capacity for dialogue. As a result of the need for interpretation of quantitative-qualitative relations, a big part of the data is processed quantitatively. For this purpose it was used the method of observation, for whose needs have been used previously prepared lists for observation.

Along with this method to achieve the objectives of the survey, was also used the experimental method. For its needs are established experimental and two control groups. Each group numbered 30 participants. Through the experimental group was aimed to investigate the impact of the functional training in the acquisition of theoretical knowledge and practical skills for developing and maintaining dialogue. On the other hand, the second element of the experimental factor was the impact of the integrator in the running dialogue through its fields of conversation. All other conditions (structure and number of group members, as well as the topics for dialogue) were identical for all three groups. The survey was conducted over a period of three months.

In order to understand the impact of theoretical knowledge for skills development, and thus the way of building capacity for dialogue, the experimental group was put in a situation for its implementation without basic knowledge of it. The first attempt for a dialogue was conducted through three fields. We got low marks as expected, due to the low level of skill to respect. On Fig. 1 are represented the movements of the dialogue through eight circles of which the first three are held in the first field of the conversation, in the next four circles is felt the moving to the early stages of the second field and in the last round of group conversation it returned again to first field of courtesy.

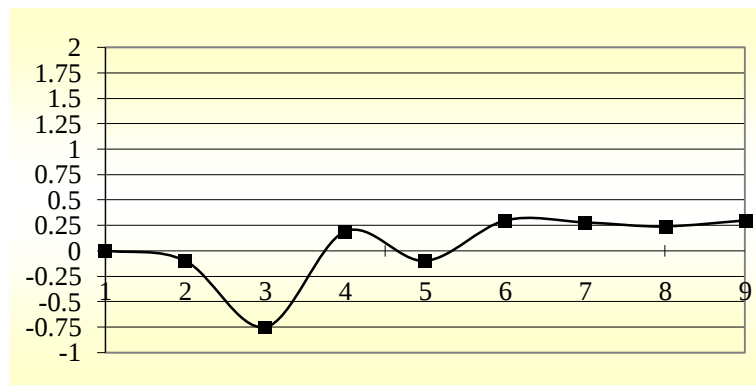


Figure 1 : Graphic-numerical display for the movement of the dialogue through the fields of conversation

The experimental group used to develop skills to engage in dialogue every day. Therefore, occurred the need of identifying the impact of the integrator. Consequently, was conducted a dialogue in experimental and one of the control groups, except that in the control group that did not go to the functional training and had no theoretical and practical knowledge of this process, active participation took trained

integrator, while the experimental group conducted the process of dialogue with the participation of the integrator who was not competent and had no skills arising from this role. Consequently was get data, as shown in Fig. 2 of which can be found the necessity of trained integrator, which usually is one of the skills of the team leader or the group.

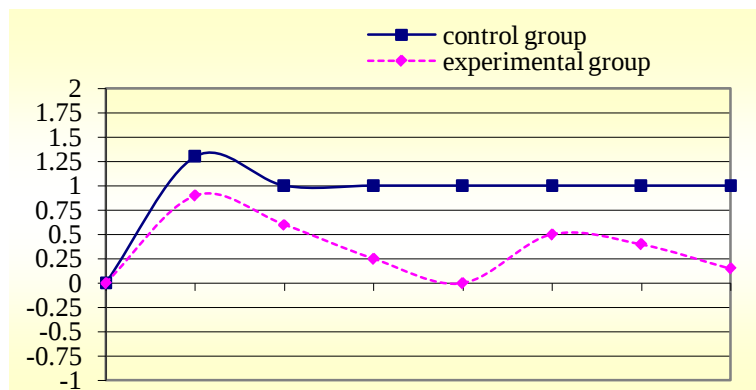


Figure 2 : Common chart data of the experimental and the control group

The everyday development of the skills for dialogue, as well as the well-known topic of conversation, enabled the group to enter the third field (Fig. 3). The data obtained from the observation showed a very low level of application of the suspension, by

which was practically confirmed the crisis of suspension which is a feature of the second field, but when it exceeds, it creates secure conditions for entry into the third field of the dialogue.

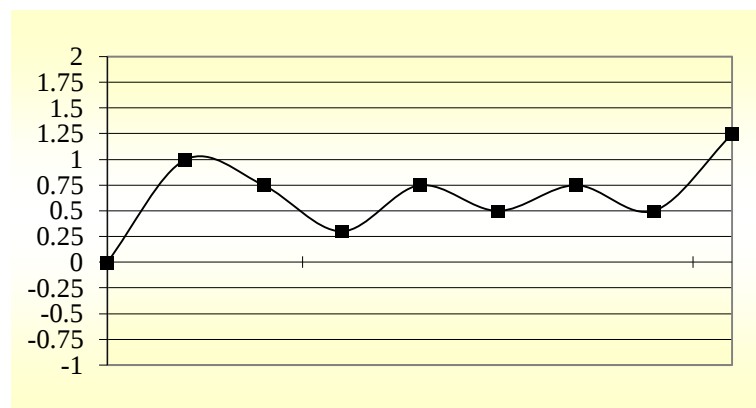


Figure 3 : Graphic-numeric display for the movement of the dialogue through the fields of conversation

In the further course of the research was measured the capacity for a dialogue and its movement through the fields of the conversation between the experimental and the control group. What we wanted to achieve was once again to ascertain the impact of the

formal training to develop the capacity for dialogue and the influence of the trained integrator. These two conditions were provided in the experimental group. The movement of the dialogue is represented in Fig. 4.

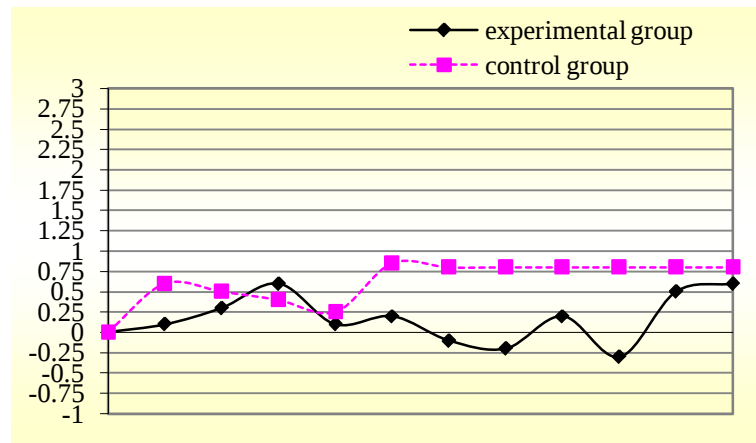


Figure 4 : Common graphic-numerical display for the data of the experimental and the control group

The movement of the dialogue and its development during the whole training is presented in Fig. 5. The experimental group is characterized by a constant development of the skills for his guidance, as well as active participation of the trained integrator. The control group 1 was having a dialogue led by trained integrator, while the control group 2 was trying to do it

without developing the skills of its guidance, and without the participation of an integrator. The achievements of the experimental group once again confirmed the theoretical established fact that there can only be dialogue if the participants have developed capacity (skills) for its guidance, and active participation of the team leader who usually takes the role of integrator.

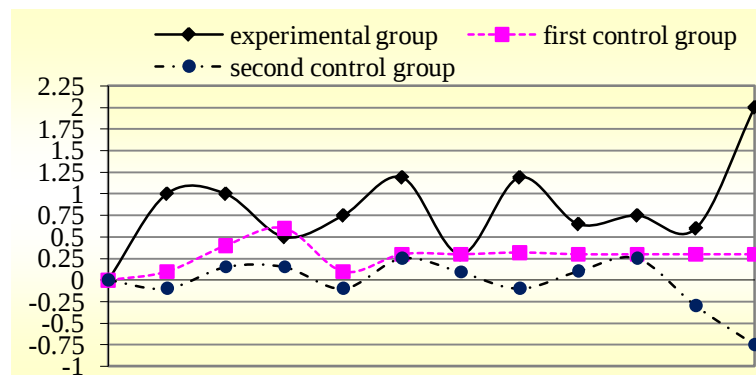


Figure 5 : Graphic-numerical display for the development of the capacity dialogue

VI. CONCLUSION

Developing the capacity to engage in a dialogue is a process that must be realized continuously and for long periods. The prerequisite for its continuous building are conditions and need for development of the organizational learning. What can be concluded is that the organizations in our environment can not praise themselves as systems which wish to practice this type of learning that provides the basis for the constant evolving and growing of the organization. In the absence of a developed system of organizational learning, raising the capacity for dialogue is possible only with the

introduction of trained integrator to facilitate the dialogue (team leader) and frequent formal training for the leading activity and roles of participants in the dialogue that will develop skills for its guidance. By the permanent practice of the dialogue are created opportunities to develop personal mastery, are built mental models, is reached the common vision of the organization, is practiced the everyday learning as a teamwork. The dialogue is subject into the development of systemic thinking, as the fifth discipline, which builds the causal connection between the other four elements. This opens opportunities for developing a system of organizational learning.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Isaacs, N. W. (1999): Dialogue and the art of thinking together, Currency New York .





GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE

Volume 15 Issue 2 Version 1.0 Year 2015

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Interaction between Fiscal and Monetary Policies: Directions of Causality in Case of Jordan 1990-2011

By Hussein Ali Al-Zeaud

Al al-Bayt University, Jordan

Abstract- This paper is an effort to explore the interaction between fiscal and monetary policies in Jordan through investigating the short-term and long-term relationship between government expenditure as a fiscal policy, money supply as a monetary policy, and inflation as a result and cause of these policies. Using annual data for the period 1990-2011, the study applies cointegration test, Granger-causality, and VECM techniques to inspect the long-term and short-term relationship and the directions of causality, also the speed of adjustment toward long-term equilibrium between the variables.

Keywords: *fiscal policy, monetary policy, government expenditure, money supply, inflation, granger-causality, co-integration, jordan.*

GJMBR - B Classification : *JEL Code : O23*



Strictly as per the compliance and regulations of:



Interaction between Fiscal and Monetary Policies: Directions of Causality in Case of Jordan 1990-2011

Hussein Ali Al-Zeaud

Abstract- This paper is an effort to explore the interaction between fiscal and monetary policies in Jordan through investigating the short-term and long-term relationship between government expenditure as a fiscal policy, money supply as a monetary policy, and inflation as a result and cause of these policies. Using annual data for the period 1990-2011, the study applies cointegration test, Granger-causality, and VECM techniques to inspect the long-term and short-term relationship and the directions of causality, also the speed of adjustment toward long-term equilibrium between the variables. The estimation of cointegration, Granger-causality and VECM tests reveal that there is no significant direct interaction between government expenditure as fiscal policy and money supply as monetary policy or indirect interaction through inflation among them. This study does not provide much support for the hypothesis that government expenditure causes monetary expansion and, therefore, leads to inflation or vice versa.

The study suggests that policies makers should considered these findings while designing the fiscal and monetary policies to deal with the economic problem, and pay attention to others factors which induce inflation especially the external factors mainly international prices of food and oil.

Keywords: *fiscal policy, monetary policy, government expenditure, money supply, inflation, granger-causality, co-integration, jordan.*

1. INTRODUCTION

Jordan has been experiencing economic deformations, which includes chronic deficits in the budget and trade account, high level of unemployment and public debt. Theoretically, there are a number of factors that cause economic deformations, so the government of Jordan has taken a number of fiscal and monetary measures as tools to tackle these problems and to achieve economic stabilization. Monetary policy is controlled by the Central Bank of Jordan, which is responsible to take on monetary measures to provide the appropriate amount of domestic liquidity (Money Supply) in order to encourage growth, and to sustain the stability of the Jordanian dinar. Tools of monetary policy include open market operations, discount policy and reserve requirements. These tools affects both real variables (real GDP, Unemployment ...) and nominal variables (inflation and

the exchange rate ...) in the short-term, but, in the long-term, only nominal variables could be controlled by these tools. On the other hand, Ministry of Finance is responsible for Fiscal policy, which involves deliberate changes in government expenditures and taxes to control economic activity. Government budget is the main tool through which fiscal policy is carried out. Government expenditures are a vital element of aggregate demand. So, it directly affect the level of economic activity; while transfer payments and taxes affect disposable income and consequently influence the other two major elements of aggregate demand, consumption and investment. Therefore, Fiscal policy works through changes in government budget like increasing expenditure to induce economic growth and creation of jobs. This may induce inflation and possible crowding out effect, which in turn affects interstate rate. Likewise, government expenditure is affected by Inflation and interest rate.

The interaction between fiscal and monetary policies and the different agencies responsible for implementation of these policies imply there are no exclusive effective fiscal and monetary measurements for dealing with these deformations, given that each policy has its own supporters. So, most countries have been adopting monetary policy, fiscal policy, or a mix of both policies to tackle their economic problems.

In the late 1980s, Jordan started to face serious economic problems, seeing that inflows of both official transfers and remittances fell, with substantial unfavorable consequences on budgetary revenues. Initially, the authorities resorted to external borrowing to fill the revenue gap, leading to a sharp increase in external debt. In 1989, Jordan had a 30-35 percent unemployment rate and was struggling with its inability to pay its loans. Structural weaknesses in Jordan's public finances and balance of payments were soon exposed, leading the authorities to request the country's first arrangement with the International Monetary Fund (IMF) in 1989 to facilitate orderly external financial relations and reverse a sharp decline in economic growth.

Thus, Economic reforms were initiated as part of an agreement between Jordan and the IMF. The key objectives of the economic reforms in the kingdom focused on the reduction of public debts, reduction of

*Author: Al al-Bayt University, Mafraq, Jordan.
e-mail: husseinhah@yahoo.com*

the government expenditures, controlling of inflation, tax reforms, credit policy reforms, investment incentives, privatization and easier trade policies. Nevertheless, a highly growing population and the unstable political situation in the region have been major impediments to immediately reaping the benefits of IMF-introduced economic reforms.

During 2011-2012 Jordan's economy has been suffering from exogenous shocks. Repeated and extensive disruption to the flow of natural gas from Egypt due to the damage of the Sinai Peninsula pipeline, together with high and rising oil prices have required imports of expensive fuel products for electricity generation. At the same time, regional tensions and the global economic downturn have adversely affected tourism, worker remittances, and foreign direct investment. As a result, growth has slowed. Despite improvement in tourism income and remittances in 2012, along with the projected decline in oil prices, the external current account deficit is expected to widen to an estimated 14 percent of GDP in 2012, from 12 percent of GDP in 2011.

In response to the negative external shocks, the Jordanian government has asked for financial assistance from the IMF, and adopted another reform program. In this context, it took significant measures to bring back fiscal and energy policies to a sustainable path.

Government expenditure may exceed its revenue for a given period. This generates budget deficit, so it is important to find remedy for financing government expenditure to eliminate the negative effects. Government expenditure could be financed by increasing seigniorage revenue. In this case the central bank is assumed to print money for the treasury department without there being any obligation on the part of the government to pay interest or repay the principal. As the government spends this cash it simultaneously increases aggregate demand and the currency in circulation, leading to the growth of the financial wealth of the private sector and of the broad money supply. Broad money demand, private consumption and private investment are affected with a lag of two or three periods. In turn, it increases price level which induces inflation. Likewise, inflation is critical in the determination of government revenue and spending which induces government expenditure.

General notions imply that steadily high government expenditures increase inflation and inflation induces government expenditure. However, the results of empirical studies which examines this issue are inconclusive, demonstrating that the link from government expenditures to monetary expansion and then to inflation and vice versa from inflation to government expenditure might be less crucial in determining the track of relationship. Furthermore, lack of monetization in the face of increasing government

expenditures presents an additional argument on that point. Nevertheless, even when a central bank does not monetize the budget deficit, adjustments in the private sector to higher deficit policies may lead to inflation.

In general, there is little disagreement that in the long-run inflation is primarily a monetary phenomenon. Jordan's experience is not different in that respect as inflation is generally associated with monetary expansion. Therefore, a rise in the general price level can most often be traced to money supply growth. However, the developments in the fiscal sector are also considered to be an important factor in explaining price fluctuations.

Following five years of inflation running below 2%, as measured by the change in the consumer price index, it has started to climb in the last few years, reaching 5.4% in 2007. However, it is still lower than its record high of 6.3% recorded the previous year. Inflationary pressures continue in 2008 with inflation hitting 12% on the back of the full liberalization of oil prices in the domestic market which took place in early February 2008. It will also be affected by the general salary increases in the public sector and the escalation in food and metal prices in the international market. The government also raised the price of water and electricity. Data show that inflation in September of 2008 reached 20% year on year. Then, it slows down to reach 5.5% in 2011.

Both domestic and foreign factors have had a say in the rise in consumer prices in Jordan over the last five years. Rising international prices of food, oil and metals, as well as the weakening of the US dollar against other major currencies, were major external factors contributing to higher inflation rates, whereas expansionary fiscal and monetary policies were among the leading domestic factors.

This paper aims to explore the interaction monetary policy and fiscal policy in Jordan for the period 1990 – 2011, through investigation of the short-term and long-term relationship, and direction of causality among between supply of money (M2) as monetary policy, government expenditure (G) as fiscal policy and inflation (INF) as a result and cause of these policies.

The rest of the paper is organized as follows. Section 2 provides a brief review of literature. Section 3 shows model specification for the study. The methodology is introduced in Section 4, while Section 5 contains data description and empirical findings. Section 6 concludes the study.

II. LITERATURE REVIEW

In economic literature, numerous models have been developed to analyze the long-run relationship among government expenditure, money supply and inflation. However, evidence from the empirical literature is mixed:-

Sulaiman D Mohammad, S Khurram Arslan Wasti, Irfan Lal and Adnan Hussain (2009) investigate long run relationship among M2, inflation, government expenditure impact and economic growth in case of Pakistan. Using Johnson co integration test to find out long run association and Granger causality test to find out bilateral and unilateral causality, based on annual data from 1977 to 2007. The finding shows that there is unidirectional causality running from public expenditure cause to money supply inflation, and bidirectional causality between money supply and inflation. This study lends support for the hypothesis that government expenditure causes monetary expansion and, therefore, leads to inflation. As well, Ignacio Lozano (2008) analyzed the evidence of the causal long-term relationship between government expenditure, money growth and inflation in Colombia considering the standard (M1), the narrowest (M0-Base) and the broadest (M3) definitions of money supply. Using a vector error correction (VEC) model with quarterly data over the last 25 years, the study found a close relationship between inflation and money growth on the one hand, and between money growth and fiscal deficit, on the other. Likewise, Agha and Khan (2006) examine the long-run relationship between inflation and fiscal indicators in Pakistan for the period 1973-2003. The empirical results, using Johansen co-integration analysis, indicate that in the long-run inflation is not only related to fiscal imbalances but also to the sources of fiscal deficit financing. The authors conclude that inflation in Pakistan is strongly affected by government's bank borrowing for budgetary support as well as fiscal deficits and, consequently, that fiscal policy is an important factor in explaining price movements. Also, the study by Catao and Terrones (2003) shows that there is a strong positive relationship between government expenditures and inflation among developing countries as well as countries characterized by high inflation, but not among advanced economies with low-inflation. Durevall and Ndung'u (2001), using a dynamic error correction model of inflation for Kenya, find that money supply affects prices only in the short-run. Vieira (2000) investigates the relationship between fiscal deficit and inflation in the case of six major European economies. The results provide little support for the proposition that government expenditure has been an important contributing factor to inflation in these economies over the last 45 years. Similarly, De Haan and Zelhorst (1990) analyze the relationship between government expenditure and money growth in developing countries. The overall conclusion of this study does not provide much support for the hypothesis that government expenditure causes monetary expansion and, therefore, leads to inflation.

III. MODEL SPECIFICATIONS FOR THE STUDY

Using annual data from CBJ's database and IMF's database the present paper examines the relationship between government expenditure, money supply and inflation in Jordan, while our model will be:

$$INF_t = \alpha + \beta_1 M2_t + \beta_2 G_t + U_t \quad (1)$$

Where G_t is government expenditure, $M2$ is money supply and INF_t is inflation which is measured by consumer price index (CPI_t) while α and β are the coefficient to be estimated and the U_t is error term.

This can be reformulated to examine the link between government expenditure and other variables as follows:-

$$G_t = \alpha + \beta_1 M2_t + \beta_2 INF_t + U_t \quad (2)$$

Taking the logarithm form of equation (1) will yield equation (3) below with "ln" standing for the natural logarithm

$$\ln G_t = \alpha + \beta_1 \ln M2_t + \beta_2 \ln INF_t + U_t \quad (3)$$

IV. ECONOMETRIC METHODOLOGY

The objective of this section is to examine the presence of interdependence and the direction of causality between government expenditure, money supply and inflation in Jordan.

In order to examine the relationship and the directions of causality between government expenditure, money supply and inflation in Jordan, a two-step procedure is adopted. The first step investigates the existence of a long-run relationship between the variables through a co-integration analysis. The second step explores the causal relationship between the series as follows:-

a) Long run relationship

We perform our investigation of existence of co-integration which clarifies the long run relationship between variables in two steps. First, we test for unit root vs. stationary. Then we test for no co-integration vs. co-integration.

b) Unit root test

The objective of unit root test to empirically examine whether a series contains a unit root. Since many macroeconomic series are non stationary (Nelson and Plosser 1982), unit root test are useful to determine the order of integration of the variables and, therefore, to provide the time-series properties of data. If the series contains a unit root, this means that the series is non-stationary. Otherwise, the series will be categorized as stationary. In order to implement a more rigorous test to verify the presence of a unit root in the series, an Augmented Dickey-Fuller (ADF) is employed.

c) Co-integration test

Johansen and Juselius procedure is applied to test for the existence of co-integration. The Johansen technique enables us to test for the existence of non-unique co-integration relationships in more than two variables cases. Through Johansen procedure of co-integration two tests statistics are suggested to determine the number of co-integration vectors determined based on a likelihood ratio test (LR): the trace test (λ_{trace}) and the maximum eigenvalues test statistics (λ_{max}).

d) Granger-causality test

Pair wise causality relationship between variables should be tested through the implementation Granger causality test; Granger (1969), the concept of "causality" assumes a different meaning with respect to the more common use of the term. The statement(y) Granger causes (x) or vice versa, in fact, does not imply that (y) and (x) is the effect or the result of (y) and (x), but represents how much of the current (y) and (x) can be explained by the past values of (y) and (x) and whether adding lagged values of (y and x) can improve the explanation. For this reason, the causality relationship between (y and x) can be evaluated by estimating the following regressions:

$$\Delta Y_t = \beta_0 + \sum_{i=1}^m \beta_{1i} \Delta Y_{t-i} + \sum_{i=1}^n \beta_{2i} \Delta X_{t-i} + \varepsilon \quad (4)$$

$$\Delta X_t = \beta_0 + \sum_{i=1}^n \beta_{1i} \Delta Y_{t-i} + \sum_{i=1}^m \beta_{2i} \Delta X_{t-i} + \varepsilon \quad (5)$$

Where (m and n) represents the lag length and should set equal to the longest time over which one series could reasonable help to predict the other.

Following this approach, the null hypothesis that (x) does not granger cause (y) in regression (4) and that (y) does not Granger cause (y) in regression (5) can be tested through the implementation of a simple F-test for the joint significance of, respectively, the parameters β_{1i} and β_{2i} . Following the equations (4) and (5) were estimated using four lags of each variable which should represent and adequate lag-length over which one series could help to predict the other.

The results of stationarity and cointegration tests determine how Granger-causality test should be applied, as follows:

If the variables (y) and (x) are stationary, the standard Granger-causality test should be carried out by estimating the following regressions:-

$$Y_t = \alpha + \sum_{i=1}^m \beta_{1i} Y_{t-i} + \sum_{i=1}^n \beta_{2i} X_{t-i} + \varepsilon \quad (6)$$

$$X_t = \alpha + \sum_{i=1}^n \beta_{1i} Y_{t-i} + \sum_{i=1}^m \beta_{2i} X_{t-i} + \varepsilon \quad (7)$$

If the variables (y) and (x) are non-stationary and integrated of order (1), but, they are not co-integrated, the Granger-causality test could be carried out by estimating regression models (4 and 5) using the first difference series of both variables (Yoo and Kwak, 2004). In general, if the origin series of both variables are non-stationary and the variables are not co-integrated, the Granger-causality test could be performed by using the same order of integration for both series, and reforming model (5 and 6) to suit the order of difference series.

In model (4 and 6), (Y) is caused by past values of both (Y) and (X). Likewise, in model (5 and 7), (X) is caused by past values of the two variables. According to Granger, (X) causes (Y) in model (4 and 6) if (β_{2i}) is significant from zero, and that (Y) causes (X) in model (5 and 7) if (β_{1i}) is significant from zero. On other hand, (X) does not cause (Y) if (β_{2i}) in model (4 and 6) is insignificant from zero, and that (Y) does not cause (X) if (β_{1i}) in model (5 and 7) is insignificant from zero. These hypotheses can be verified depending on the joint significance of the parameters (β_{1i} , β_{2i}) which can be tested through the implementation of a simple F-test.

If the variables (Y) and (X) are non-stationary, integrated of the same order (d), and co-integrated which means that they have a long-run equilibrium relationship, the Granger-causality test should be carried out through estimating Error Correction Model (VECM) which could have the following form:

$$\Delta Y_t = \alpha + \sum_{i=1}^m \beta_{1i} \Delta Y_{t-i} + \sum_{i=1}^n \beta_{2i} \Delta X_{t-i} + \beta_3 \eta_{t-1} + \varepsilon \quad (8)$$

$$\Delta X_t = \alpha + \sum_{i=1}^m \beta_{1i} \Delta X_{t-i} + \sum_{i=1}^n \beta_{2i} \Delta Y_{t-i} + \beta_3 \eta_{t-1} + \varepsilon \quad (9)$$

Where (η_{t-1}) is error-correction term. The error correction term (η_{t-1}) is the lagged value of the residuals from the OLS regression of Y_t on X_t in (8), and the lagged value of the residuals from the OLS regression of X_t on Y_t in (9). In (8) and (9), ΔY_t , ΔX_t and ε_i are stationary, implying that their right-hand side must also be stationary. It is obvious that (8) and (9) compose a bivariate VAR in first differences augmented by the error-correction terms (η_{t-1}), indicating that ECM model and co-integration are equivalent representations.

According to Granger (1969; 1988), in a co-integrated system of two series expressed by ECM representation causality must run in at least one way. Within the ECM equation (8), (X_t) does not Granger cause (Y_t) if all $\beta_{2i} = 0$ and $\beta_3 = 0$. Equivalently, in

equation (9) (Y_t) does not Granger cause (X_t) if all $\beta_{2i} = 0$ and $\beta_3 = 0$. Also, (β_3 s) the parameters of the error correction term indicate the speed of adjustment of any short-run disequilibrium towards a long-run equilibrium between both variables.

The Granger-causality could be claimed if the parameters (β_{2i} and β_3) in (8) and, or (β_{2i} and β_3) in (9) are jointly significant from zero which can be tested by a simple F-test. Similarly, Long-run causality could be claimed if (β_3) the parameter of the error correction term in (8 or 9) is statistically significant which can be tested by t-test.

What have been mentioned above clarifies that testing of stationary then co-integration are an essential requirements which determine how we do Granger-causality test.

Finally, as co-integration, causality tests and VECM model are sensitive to lag length (m) the choice of the number of lag actually employed was assigned to

LR: sequential modified LR test statistic (each test at 5% level).

V. ESTIMATION AND INTERPRETATION OF RESULTS

This study uses annual observations for the period 1990-2011 for three variables: government expenditure (G), money supply (M2) and inflation (consumer price index (CPI)) in order to analyze the possibility of co-integration and causality relationship among them.

a) Unit root test

The first step in analysis is to test the unit roots in each variable. Consequently, we apply augmented Dickey-Fuller (ADF) unit root test on logarithms of G, M2 and INF (LG, LM2 and LINF). From the results of the ADF test presented in Table 1.

Table 1 : Unit Root Tests

Series	With intercept	With intercept and trend	Decision	Order of integration
Levels	ADF	ADF		
LG	-1.418137 [-3.012363]	-1.100418 [-3.644963]	Not stationary	-
LM2	0.722843 [-3.012363]	-0.773098 [-3.644963]	Not stationary	-
LINF	-0.030729 [-3.012363]	-1.361985 [-3.644963]	Not stationary	-
First difference				
ΔLG	-4.140659* [-3.020686]	-4.865945* [-3.658446]	stationary	I(1)
$\Delta LM2$	-3.190892* [-3.020686]	-3.622737 [-3.658446]	stationary	I(1)
$\Delta LINF$	-4.834829* [-3.020686]	-4.862575* [-3.658446]	stationary	I(1)

- Note: * test critical values which denotes significant at 5% level.

- The number in parenthesis is the [t] statistic value.

As a sum up, (LG, LM2 and LINF) are stationaries in the first difference. This implies that all the series are integrated of order one I(1). This making co-integration tests relevant.

b) Testing Co-integration and Error Correction mechanism

Since the first difference series are stationary, Let us examine the existence of co-integration between

variables on bivariate bases. Johansen-Juselius procedure is used to test for co-integration between variables. Tables 3-1,3-2,3-3 reports the results obtained from the co-integration tests and presents the result of the trace test (λ_{trace}) and maximum eigenvalues test (λ_{max}) statistics for the existence of long run equilibrium between the variables:

Table 3-1 : Co-integration test: (LG $\leftrightarrow$ LM2)

Null Hypothesis	λ_{trace}	λ_{max}
$r=0$	11.49574 [15.49471]	10.38150 [14.26460]
$r \leq 1$	1.114242 [3.841466]	1.114242 [3.841466]

- *terms in [] indicates 5% level critical value.

The null hypothesis of no Cointegration ($r=0$) based on both the trace test and the maximum eigenvalues test between government expenditure (LG) and money supply (LM2) could not be rejected at (5%)

level of significance. The estimated tests indicate that there is no Cointegration vector between the two variables.

Table 3-2 : Co-integration test: (LG $\leftrightarrow$ LINF)

Null Hypothesis	λ_{trace}	λ_{max}
$r=0$	16.87893 [15.49471]	14.40104 [14.26460]
$r \leq 1$	2.477893 [3.841466]	2.477893 [3.841466]

- *terms in [] indicates 5% level critical value.

The null hypothesis of no Cointegration ($r=0$) based on both the trace test and the maximum eigenvalues test between government expenditure (LG) and inflation (LINF) is rejected at (5%) level of

significance. However, the null hypothesis that ($r \leq 1$) could not be rejected. The estimated tests indicate that there is only one Cointegration vector between the two variables.

Table 3-3 : Co-integration test: (LM2 $\leftrightarrow$ LINF)

Null Hypothesis	λ_{trace}	λ_{max}
$r=0$	10.12480 [15.49471]	8.948506 [14.26460]
$r \leq 1$	1.176294 [3.841466]	1.176294 [3.841466]

- *terms in [] indicates 5% level critical value.

The null hypothesis of no Cointegration ($r=0$) based on both the trace test and the maximum eigenvalues test between money supply (LM2) and inflation (LINF) could not be rejected at (5%) level of significance. The estimated tests indicate that there is no Cointegration vector between the two variables.

c) Causality test

Now we can turn our attention to the question of direction of causality. It contains three elements: (a) does government expenditure cause money supply, or does money supply cause government expenditure? (b)

Does money supply cause inflation, or does inflation cause money supply? And (c) does government expenditure cause inflation, or does inflation cause government expenditure?

As the variables (LG) and (LINF) are non-stationary at level, integrated of the same order (d), and co-integrated, the Granger-causality test is carried out through estimating Vector Error Correction Model (VECM). Table 4-1 shows the findings of VECM for both variables government expenditure (LG) and inflation (LINF):-

Table 4-1 : Vector Error Correction Model.(LG $\leftrightarrow$ LINF)

Regression	ΔLG	$\Delta LINF$
CONSTANT	0.066760 [1.94392]	0.048762 [4.34105]
Error Correction Term (η_{t-1})	-0.173714 [-0.74059]	-0.225798 [-2.94314]
ΔLG_{-1}	0.006863 [0.02267]	-0.023081 [-0.23311]
$\Delta LINF_{-1}$	0.390044 [0.62228]	-0.225798 [-1.52933]
R^2	0.045572	0.469093
S.E	0.075045	0.024546

- *terms in [] are t - statistics.

The lagged error term coefficient (η_{t-1}) in (LG) equation is negative and statistically insignificant. Likewise, the lagged error term coefficient (η_{t-1}) in

(LINF) equation is positive and statistically significant. These results indicate that there is no long-run equilibrium relationship between the variables government expenditure and inflation Furthermore, the

estimates of the VECM does not support the existence of causation relationship in the short run between them.

Then, the existence of Granger-causality between government expenditure (LG) and money supply (LM2) are investigated by estimating regression

models (4 and 5) using the first difference series of each variable. Since, they are non-stationary at level and integrated of order (1), but, they are not co-integrated. Table 4-2 shows the results of estimation:

Table 4-2 : Granger-causality test (LG $\leftrightarrow$ LM2)

Regression	Lag	F-statistics	P-Value	Granger-causality
ΔLG on $\Delta LM2$ Null hypothesis: $\Delta LM2$ does not granger cause ΔLG	1	0.63976	0.4348	NO
$\Delta LM2$ on ΔLG Null hypothesis: ΔLG does not granger cause $\Delta LM2$	1	1.40816	0.2517	NO

The results of Granger-causality test in Table 4-2 reveal that there is no causation between government expenditure (ΔLG) and money supply ($\Delta LM2$).

Similarly, the existence of Granger-causality between money supply (LM2) and inflation (LINF) are

investigated by estimating regression models (4 and 5) using the first difference series of each variable. Since, they are non-stationary at level and integrated of order (1), but, they are not co-integrated. Table 4-3 shows the results of estimation:

Table 4-3 : Granger-causality test (LG $\leftrightarrow$ LM2)

Regression	Lag	F-statistics	P-Value	Granger-causality
$\Delta LM2$ on $\Delta LINF$ Null hypothesis: $\Delta LINF$ does not granger cause $\Delta LM2$	1	0.25069	0.6230	NO
$\Delta LINF$ on $\Delta LM2$ Null hypothesis: $\Delta LM2$ does not granger cause $\Delta LINF$	1	0.19143	0.6672	NO

The results of Granger-causality test in Table 4-3 reveal that there is no causation between money supply (LM2) and inflation (LINF).

The findings of Granger-causality test and VECM reveal that there is no significant direct interaction between government expenditure as fiscal policy and money supply as monetary policy or indirect interaction through inflation among them.

VI. CONCLUSION

In the last three decades Jordan has been suffering from serious Economic deformations, which includes chronic deficits in the budget and trade account, high level of unemployment and public debt. This highlights the need of efficient fiscal and monetary policies to tackle these problems and to achieve economic stabilization. The interaction between fiscal and monetary policies and the different agencies responsible for implementation of these policies imply there are no exclusive effective fiscal and monetary measurements for dealing with these deformations, given that each policy has its own supporters. So, most countries have been adopting monetary policy, fiscal policy, or a mix of both policies to tackle their economic problems.

In Jordan, notions imply that expansionary fiscal and monetary policies were crucial domestic factors in rise in consumer prices in the country over the last two

decades .whereas, raising international prices of food, oil and metals, as well as the weakening of the US dollar against other major currencies, were major external factors contributing to higher inflation rates in Jordan.

Based on annual data covering the period 1990-2011for Jordan. This study has used Granger-causality, cointegration and VECM techniques to investigate short-run and long-run relationships also the directions of causality between government expenditure as fiscal policy, money supply which belongs to monetary policy and inflation which is mainly induced by money supply and affects government expenditure and vice versa.

The estimation of cointegration, Granger-causality and VECM tests reveal that there is no significant direct interaction between government expenditure as fiscal policy and money supply as monetary policy or indirect interaction through inflation among them. This study does not provide much support for the hypothesis that government expenditure causes monetary expansion and, therefore, leads to inflation or vice versa. Which confirm the findings of De Haan and Zelhorst (1990) and Vieira (2000).

The study suggests that policies makers should considered these findings while designing the fiscal and monetary policies to deal with the economic problem, and pay attention to others factors which induce inflation especially the external factors mainly international prices of food and oil.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Agha, Asif Idrees and Muhammad Saleem Khan, 2006, "An Empirical Analysis of Fiscal Imbalances and Inflation in Pakistan", *SBP Research Bulletin*, 2(2), pp. 343-362.
2. Bilquees, Faiz, 2003, "An Analysis of Government expenditures, Debt Accumulation and Debt Instability", *The Pakistan Development Review*, 42(3), pp. 177-195.
3. Catao, Luis and Marco Terrones, 2003, "Fiscal Deficits and Inflation: A New Look at the Emerging Market Evidence", IMF Working Paper, No. 65,
4. Central Bank of Jordan database: (www.cbj.gov.jo).
5. Chaudhary, Mohammad Aslam and Naved Ahmad, 1995, "Money Supply, Deficit and Inflation in Pakistan", *The Pakistan Development Review*, 34(4), pp. 945-956.
6. De Haan, Jakob and Dick Zelhorst, 1990, "The Impact of Government Deficits on Money Growth in Developing Countries", *Journal of International Money and Finance*, 9(4), pp. 455-469.
7. Dickey D. A. and Fuller W. A. (1979) Distribution of the estimator for autoregressive time series with a unit root, *Journal of the American Statistical Association* 74, 427-431.
8. Durevall, Dick and Njuguna S. Ndung'u, 2001, "A Dynamic Inflation Model for Kenya, 1974-1996", *Journal of African Economics*, 10(1), pp. 92-125.
9. Dutta, Dilip and Nasiruddin Ahmed, 1997, "An Aggregate Import Demand Function for Bangladesh: A Cointegration Approach", Working Paper, No. 9703, Department of Economics and Business, Sydney: University of Sydney.
10. Granger, C. W. J (1969)," Investigating Causal Relations by Econometric Models and Cross-spectral Methods", *Econometrica*, Vol. 37, No. 3. (Aug., 1969), pp. 424-438.
11. Granger C. and Newbold P. (1974) Spurious regressions in econometrics, *Journal of Econometrics* 2, 111-120.
12. Johansen, Soren (1988), "Statistical Analysis of Cointegration Vectors", *Journal of Economics Dynamics and Control*, 12(2-3), pp. 231-254.
13. Johansen, Soren and Katarina Juselius, 1990, "The Maximum Likelihood Estimation and Inference on Cointegration - with Application to Demand for Money", *Oxford Bulletin of Economics and Statistics*, 52(2), pp. 169-210.
14. Khan, Ashfaq H. and Mohammad Ali Qasim, 1996, "Inflation in Pakistan Revisited", *The Pakistan Development Review*, 35(4), pp. 747-759.
15. MacKinnon, James. G., Alfred A. Haug and Leo Michelis, 1999, "Numerical Distribution Functions of Likelihood Ratio Tests for Cointegration", *Journal of Applied Econometrics*, 14(5), pp. 563-577.
16. Metin, Kivilcim, 1998, "The Relationship between Inflation and the Government expenditure in Turkey", *Journal of Business and Economic Statistics*, 16(4), pp. 412-422.
17. Nelson, Charles R. and Charles I. Plosser, 1982, "Trends and Random Walks in Macroeconomic Time Series: Some Evidence and Implications," *Journal of Monetary Economics*, 10(2), pp. 139-162.
18. Neyapti, Bilin, 1998, "Government expenditures and Inflation: An Analysis in the Light of Roles of Central Bank Independence and Financial Market Development", *Working Papers*, No. 997, Department of Economics, Ankara: Bilkent University.
19. Odhiambo, Nicholas M., 2005, "Financial Liberalization and Financial Deepening: Evidence from Three Sub-Saharan African Countries", *African Review of Money, Finance and Banking* (Savings and Development Supplement), 19(1), pp. 5-23.
20. Solomon, M. and Walter A. De Wet, 2004, "The Effect of a Government expenditure on Inflation: The Case of Tanzania", *SAJEMS NS*, 7(1), pp. 100-116.
21. Sulaiman D Mohammad, S Khurram Arslan Wasti, Irfan Lal and Adnan Hussain, 2009. " An Empirical Investigation between Money Supply Government Expenditure, Output & Prices: The Pakistan Evidence", *European Journal of Economics, Finance and Administrative Sciences*, ISSN 1450-2887 Issue 17 (2009)
22. Vieira, Carlos, 2000, "Are Fiscal Deficit Inflationary? Evidence for the EU", *Economics Research Paper*, No. 7, Loughborough: Loughborough University.
23. Washington, DC: International Monetary Fund (IMF) database. (<http://www.imf.org>).
24. Yoo S. H. and Kwak S. J. (2004) Information technology and economic development in Korea: A causality study, *International Journal of Technology Management* 27, 57-67.



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: B
ECONOMICS AND COMMERCE

Volume 15 Issue 2 Version 1.0 Year 2015

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Stock Market Anomalies: Case of Calendar Effects on the Tunisian Stock Market

By Jihen Jbenieni Gouider, Amira Kaddour & Azza Hmaid

University of Carthage TUNISIA

Abstract- The aim of this work is to analyze the effect of financial market anomalies, specifically calendar anomalies, on the behavior of financial investors in terms of decisions and profit. Analyzed in the context of Tunisian financial market into two periods; with two different political regimes, this work examines four calendar effects, which are the weekend effect, the end of the month effect, the January effect and Ramadhan one, contrary to previous studies that have focused on a single effect.

Keywords: *stock market, garch, financial sector sensitivity.*

GJMBR - B Classification : *JEL Code: H54*



STOCKMARKETANOMALIESCASEOFCALENDAREFFECTSONTHETUNISIANSTOCKMARKET

Strictly as per the compliance and regulations of:



RESEARCH | DIVERSITY | ETHICS

Stock Market Anomalies: Case of Calendar Effects on the Tunisian Stock Market

Jihen Jbenieni Gouider^α, Amira Kaddour^σ & Azza Hmaid^ρ

Abstract- The aim of this work is to analyze the effect of financial market anomalies, specifically calendar anomalies, on the behavior of financial investors in terms of decisions and profit. Analyzed in the context of Tunisian financial market into two periods; with two different political regimes, this work examines four calendar effects, which are the weekend effect, the end of the month effect, the January effect and Ramadhan one, contrary to previous studies that have focused on a single effect. The results of the empirical approach analyzing the stock market returns using Tunindex to determine whether there anomalies calendar on the Tunisian market, based on a GARCH specification showed that most of the anomalies exist on the Tunisian stock market; the weekend effect was determined, there is a yield variation between the beginning of the week (low and negative returns) and the end of the week; this variation is affected in terms of significance between the two periods under different political regimes. The effect of the holy month is twice higher than the rest of the year.

Keywords: stock market, garch, financial sector sensitivity.

I. INTRODUCTION

In era of behavioural finance, moral hazard and asymmetry of information, financial market seems to be affected by different subjective and non financial factors. In the case of this work we try to assess the impact of such elements on the financial market, specifically, calendar anomalies' effect on the stock market. In fact Kuhn (1970) initiated the term anomaly in the field of finance; in this case financial anomalies are factors far away from any central paradigm or theory. Fama (1970) presented the theory of weak form market efficiency, suggesting the limit of financial efficiency. Schwert (2003) highlighted through empirical investigation that these elements don't hold up over different sample period. Israel and Moskowitz (2011) using an analysis on US equity over 86 years and, international equity and assets, over 40 years, showed that trading costs or institutional and hedge fund ownership, affect significantly size, value, and momentum returns. Latif and al (2011) analysed market

Author^α : Assistant professor in Institute of Higher business studies of Carthage University of Carthage TUNISIA. Laboratory of research in economics and applied finance(IREFA).

e-mail: Jihene.jebeniani@gmail.com

Author^σ : Teaching Assistant in Finance and Accounting at the Higher Institute of Applied Languages and Computer of Beja. University of Jendouba TUNISIA. e-mail: amira.kaddour@hotmail.com

Author^ρ : Institute of Higher business studies of Carthage University of Carthage TUNISIA.

efficiency and its relevance to the different types of market anomalies, they stipulated that there is a consistent effect of these later on the market returns, the effect can be from oneperiod to other or constant over time.

Market anomalies are many; researches on this field had presented different types; we found fundamental anomalies, technical anomalies and calendar anomalies. These later are subject of our investigation.

In fact Hansen and Lunde (2003) tested the significance of this specific types, they assess, using of full universe sample, a significant effect on returns. Lim and Chia (2010) evaluated the weak form market efficiency, on the basis of 5 Asian stock market, they found different results from one market to an other; evidence of standard effect is not available. Khan and al (2012) investigated the effect of calendar anomalies on the case of Karachi stock exchange; results showed an impact on daily return and a little effect on month's one.

II. METHODOLOGY

The purpose of this paper is to analyse the evidence of calendar effect on Tunisian Stock market, for this end we use the following elements:

a) Period

From 02 January 2006, to 31 July 2013. This period encompasses the Tunisian revolution that led to the closure of the stock market for two weeks. We have a total of 1875 observations, after elimination of weekends and holidays.

This period is divided into two periods: the period before the revolution (2006-2010) and period after the revolution (2011-2013), in order to mitigate the availability of investigated calendar effect on these two periods.

b) Data

The data collected for our empirical study are daily data consisting Tunisian Stock Market Index TUNINDEX closing price. Tunindex is the main index of Tunis stock market; it is composed of fifty main market capitalization of the country. During our sample period, more precisely since 02/01/2009, the index Tunindex changed its method of calculation.

Indeed, it is not weighted by market capitalization but by floating capitalization.

This calculation method, already used by other major indices around the world, will ensure greater coherence between the stock market reality of companies and its translation in the indices. These data allowed us to calculate the daily performance that will be our dependent variable of the model.

Dependent variable: Performance

The daily performance of the index represents the dependent variable. The daily yield is calculated as the percentage of the logarithmic change in the retarded value of the index.

$$R_t = \ln(v_t / v_{t-1}) * 100$$

With: V_t is the Tunindex value of the day t .

V_{t-1} is the lag value of Tunindex du day $(t-1)$.

The monthly return, it is calculated as the geometric mean of the daily returns.

Independent variables: The explanatory variables will be classified according to the studied calendar effect:

- Weekend effect: we have five dummy explanatory variables that correspond to each day of the week: D1, D2, D3, D4, D5.

D1 = 1 if day t is a Monday, and 0 otherwise.

- The month's end effect: one explanatory variable dummy DTOM this period contains five days prior to the first day of the month and five days after, as follows:

DTOM = 1 if day t belongs to the period of the month's end, and 0 otherwise.

- The January's effect: there are 12 dummy variables for each month of the year: D1, D2...D12.

D1 = 1 if the month is January, and 0 otherwise.

- The Ramadan effect: one dummy explanatory variable DRAM, which is the period of the month of Ramadhan (30 or 29 days).

DRAM, = 1 if we are in the month of Ramadhan, and 0 otherwise.

c) Descriptive Statistics

Table 1 presents descriptive statistics of daily returns of Tunindex. The total number of observations is 1875. The average yield is positive (0.03699). The standard deviation is equal to (0.5215). The series has a negative Skewness (-0.6848), which is usually typical for all stock returns. A negative Skewness implies a higher probability of generating a negative return over a symmetric distribution. Similarly, the series displays a high Kurtosis, which means that the distribution is leptokurtic (distribution that rises high enough then falls relatively abruptly), with a value that is six times greater than the reference value of a normal distribution which is equal to 3. The series shows positive returns in 1055 times and 820 negative returns during the entire study period.

We present in Figure 4, the daily values of Tunindex and stock performance of the index during the period 02/01/2006 - 31/07/2013.

During the first years of the sample period, the Tunisian stock market was relatively stable. Then there was a period of rapid growth of Tunindex which peaked during the period December 2010-January 2011. The daily yields were stable at the beginning of the sample period, but they have experienced greater volatility at the end of 2010 to reach negative values with the end of the period (year 2013). This high volatility during the year 2011 can be explained by the Tunisian revolution.

i. Weekend effect

Table 2 shows the average daily returns for each of the five days of the week. The table shows that the only day that displays a negative return is Tuesday, (-0.0036), then Monday with a weak value equal to (0.0158). In contrast, the average return on Friday is positive and important equal to (0.1387). This proves that most of the cumulative average returns are generated during the second half of the week, from Wednesday to Friday.

Moreover, the volatility of returns (std. Dev) is important at the beginning of the week, especially on Monday and it decreases to its lowest level on Friday.

These results may indicate that the weekend effect is present in the Tunisian stock market but it occurs more precisely on Tuesday. Thus, we can clearly understand that the weak and negative returns occur during the first part of the week (Monday to Tuesday) and positive returns during the second part of the week (Wednesday to Friday).

ii. The month's end effect

Table 3 and 4 show that, the average yield during the first week of the month (0.0931) is higher than the other weeks of the month and twice high. Similarly, the number of positive returns during the period the month's end is 1.5 higher than the number of negative returns.

We can conclude that there is an end of the month effect on the Tunisian stock market.

iii. The January's effect

Many previous studies have verified the presence of end of year's effect, also known as the effect of January. According to this, the stock returns are higher in January compared to other months of the year. Table 5 and 6 show the average monthly returns for each of the 12 months of the year. As we can see, the average yield of January is positive but it is not the highest. On the other hand, we can also notice seasonality in months; the variances of January and February are higher compared to the rest of the month. We can therefore conclude that there is a January effect on the Tunisian stock market appearing during the first part of the month.

iv. *The Ramadan effect*

Several studies have shown that market activity increases during the month of Ramadan in Arab countries, and yields during this month are higher compared to other months. Indeed, from Table 7 shows that the average yield for the month of Ramadan is twice as high as the rest of the year. This effect can be explained by the change in the social mood. Indeed, during the holy month investors tend to be more optimistic that affects their investment decisions. To better study this effect, we have scaled the month of Ramadan in three dozen days, see Table 8.

We note that the performance of the first ten days is significantly higher than the rest of the month. As against, the lower yield has occurred during the second decade of the month. This reconfirms the existence of Ramadan effect on the Tunisian stock market.

d) *Estimation*

We empirically analyze the four effects and their impact on the dynamics of financial markets and investor decisions. The Ramadan effect was not treated well at the previous empirical studies due to lack of data. To achieve our aim, we will study these effects on the whole chosen period from 02/01/2006 until 31/07/2013 then we'll divide it into two periods:

- Before the Tunisian Revolution (02/01/2006 - 13/01/2011)
- After the Tunisian revolution (14/01/2011 - 31/07/2013).

$$R_t = a_1 D_{1t} + a_2 D_{2t} + a_3 D_{3t} + a_4 D_{4t} + a_5 D_{5t} + \lambda \sigma^2 + \varepsilon_t$$

$$\text{Where } \sigma^2_t = \theta_0 + \sum_{i=1}^q \theta_i \varepsilon^2_{t-i} + \sum_{i=1}^p \phi_i \sigma^2_{t-i}$$

From this equation, we can deduce the GARCH (1,1) that we will use in the following:

$$\sigma^2_t = \theta_0 + \theta \varepsilon^2_{t-1} + \phi \sigma^2_{t-1}$$

Whith:

R_t : return on day t

a_i : the average yield for each day of the week

D_{it} : dummy variable for the 5 days of the week

σ^2 : the conditional variance of the GARCH (1,1)

θ and ϕ : terms which represent the ARCH and GARCH effect with

$0 \leq \theta, \phi \leq 1$ and $(\theta + \phi) < 1$

ε_t : the error term.

The null hypothesis and the alternative can be expressed as follows:

H0: $a_1 = a_2 = a_3 = a_4 = a_5 = 0$.

H1: at least two coefficients are different from zero.

This comparison of the two periods will allow us to check whether the anomalies detected before the revolution still exist after the revolution and vis-versa, and see if the behavior of investors after the revolution has an impact on changes in share prices on the Tunisian market.

Most previous studies on the calendar anomalies have used the model of ordinary least squares (OLS) using dummy variables as proxy for abnormalities. Using conventional MCO in this manner can have two major drawbacks. First, the error term can cause a problem autocorrelation and heteroscedasticity. Second, the variance of the error term may not be constant in time. Both disadvantages can invalidate the assumptions of the OLS estimate.

Given these concerns, we will use the model autoregressive conditional heteroscedasticity, GARCH (1,1), to test the effects. ARCH models were first proposed by Engle (1982), they are widely used in financial modeling of time series with an instantaneous volatility time-dependent.

The ARCH model was, subsequently generalized by Bollerslev (1986) to propose the GARCH model. Most studies use the GARCH (1, 1) model which allows a general representation of processes of conditional volatility.

i. *The weekend effect*

To test for the weekend effect on the Tunisian stock market, the GARCH (p, q) has the following form:

The rejection of the null hypothesis implies that the average daily returns (a_t) are significantly different from each other. It follows that there is seasonality in daily returns between the different days of the week.

In this context, we postulate the following hypothesis:

Hyp1: There is a weekend effect on the Tunisian stock market.

ii. *End of the month Effect*

To examine the effect of the end of the month, the same form of the GARCH (1, 1) will be maintained:

$$R_t = a_1 D_{TOM} + a_2 D_{RM} + a_3 \sigma^2 + \varepsilon_t$$

With:

R_t : return on day t

a_1 : the average return period of rest of the month

a_2 : the average return of the late period of the month

D_{TOM} : dummy variable which corresponds to the end of the period of the month

D_{RM} : dummy variable corresponding to the period of the rest of the month

ε_t : the error term.

The null hypothesis and the alternative may be as follows

$H_0: a_1 = a_2 = 0$

$H_1: a_1$ and a_2 are different from zero.

The rejection of the null hypothesis implies that the average yield for the end of the period of the month and the rest of the month are significantly different which proves that there is end the month's effect on the Tunisian stock market.

Since there is no consensus on the definition of a specific window for the end of period, we will choose a window [-5, 5] and study the average returns of the index of the month on this interval. Therefore, on day -1 is the last trading day of the month, day 1 is the first trading day of the month, day 2 is the second trading day of the month and so on.

In this context, we will test the following hypothesis:

Hyp 2: There is an anomaly in end of the month on the Tunisian stock market.

iii. January Effect

To test for the January effect the GARCH (1, 1) model has the following form:

$$R_t = a_1 D_1 + a_2 D_2 + \dots + a_{12} D_{12} + a_{13} \sigma^2 + \varepsilon_t$$

R_t : the monthly return in month t

a_i : the average return in month t

D_i : dummy variables corresponding to the twelve months of the year

ε_t : the error term.

We considered the following hypothesis:

$H_0: a_1 = a_2 = \dots = a_{12} = 0$.

H_1 : At least two coefficients are different from zero.

The rejection of the null hypothesis implies that the average monthly returns (a_i) are significantly different from each other. It follows that there is seasonality in monthly returns.

In this case, we will apply the following hypothesis:

Hyp 3: There is seasonality in monthly returns.

– Ramadan effect

To test the presence of Ramadan effect, we will estimate the following model:

$$R_t = a_1 D_{RA} + a_2 D_{RAM} + a_3 \sigma^2 + \varepsilon_t$$

With:

R_t : appropriate return on day t

a_1 : the average return period of rest of the year

a_2 : the average return for the month of Ramadan

D_{RAM} dummy variable corresponding to the period of the month of Ramadan

D_{RA} : dummy variable that corresponds to the off Ramadan (rest of the year)

ε_t : the error term.

The null hypothesis and the alternative are as follows:

$H_0: a_1 = a_2 = 0$

$H_1: a_1$ and a_2 are different from zero

The rejection of the hypothesis means that the average return for the month of Ramadan and the rest of the year are significantly different; It follows that there is a significant Ramadan effect.

In this context, we will test the following hypothesis:

Hyp 4: There is a Ramadan effect on the Tunisian stock market.

iv. Stationarity test

A series is said to be stationary when its mean and variance are constant over time, that is to say, when there is no significant temporal variation. To test the stationarity of our time series, we will resort to increased Dickey Fuller test.

The assumptions of the test, are defined as follows:

H_0 : The series is non-stationary. The process admits a unit root.

H_1 : The series is stationary. The process follows an AR (1) does not admit a unit root.

This test involves estimating the following three models:

$$- \Delta Y_t = a Y_{t-1} + b + ct + \varepsilon_t$$

$$- \Delta Y_t = a Y_{t-1} + b + \varepsilon_t$$

$$- \Delta Y_t = a Y_{t-1} + \varepsilon_t$$

In our case, the results of the first test model are shown in Table 9. The value of the ADF test is less than the critical value and the p-value is less than 5%, which excludes the hypothesis of the existence of a unit root. We note that the trend was significant (p-value <5%). Therefore, we will differentiate the series and repeat the same test.

The results obtained are shown in Table 10. After differentiated the series once, the lack of a unit root is maintained and the trend became non-significant (p value > 5%). This proves that the series of performance is integrated of order 1 and shows no significant trend.

v. Heteroscedasticity test errors

This test is used to check if the error variance is constant for each case, which means that the error variances are constant on the first diagonal. The test assumptions are:

$$H_0: V(\varepsilon_{it}) = \sigma^2$$

$$H_1: V(\varepsilon_{it}) \neq \sigma^2$$

If the p-value <5% then the error term is said heteroscedastic.

The results of the Breusch-Pagan test are shown in Table 11. The value of the p-value is less than

5% then we conclude that the error term is heteroscedastic.

vi. Autocorrelation error test

We are in the presence of autocorrelation in errors when errors are bound by a reproduction process. To detect this problem, you have to use a residue analysis. The test for checking the presence of error autocorrelation is the Durbin Watson.

The corresponding test assumptions are:

$$H_0 : \rho = 0$$

$$H_1 : \rho \neq 0$$

The results of the Durbin Watson test are reported in the Table 12. The value of the p-value is less than 5%, which verifies the existence of autocorrelation of errors.

III. RESULTS

a) The weekend effect

The estimation's results of the first model are reported in Table 13, show that the average yield for the five days of the week for the period before the Revolution (02/01/2006 until 13/01/2011) and the period after the revolution (14/01/2011 to 31/07/2013) and for the entire study period. The results show that there is seasonality in average yields. Thus, it appears that the average yields are significantly different depending on week' days.

For the entire period, average yields are all negative except returns on Friday, which are the only positive and high (0.1328). The lowest yields occur during the first part of the week and they increase during the second. The lowest average yield is the Tuesday (-0.1253). As expected returns on Monday seem to be consistently low over the three periods, involving evidence of an effect of Monday, in the Tunisian stock market. Otherwise, average yields from Friday through periods seem to be the highest, suggesting the presence of a Friday effect.

Thus, for the period before the revolution, average yields are all negative except Friday, the lowest significant returns occur on Monday and Tuesday (-0.1303 -0.1871 and) from Wednesday the average yield increases to 0.1789 on Friday, which is the highest level of the week. Therefore, we can confirm the presence of a weekend effect on the Tunisian market during this period.

However the results in the context of the second sub-period (after Revolution) show that there is no significant associations between changes in stock returns and day of the week in the case of our sample. Indeed, we can notice that the daily average yields of the week are not significant, they are negative on Monday, Tuesday, Wednesday and Thursday and Friday positive. We can suggest that the disappearance of daily anomalies after the revolution can be caused by

pessimism and skepticism of investors during the severe recession of the market (after the revolution).

We can therefore conclude that there is a Monday and Friday effect on the Tunisian stock market for the entire period, which affirms the hypothesis of the presence of a weekend effect on the Tunisian stock market during these times. For the post revolution period, there is disappearance of daily anomalies.

These results are similar to results found in most previous studies especially those found by *Mehdianb and Stoica (2012)* on the Romanian market.

b) The month's end effect

Table 14 presents the average yields of the month's end period and the period of rest of the month. Let us recall that we chose the window [-5, 5] to the end of the month.

Table 14 presents the average returns of the month's end period and the rest of the month and that for the entire study period and the two sub-periods. First, we can notice that the return for the end of the month is statistically significant, positive and higher, whereas the return of the rest of the month is significantly negative for the period of (2006-2013).

Same conclusion for the period before the revolution, average yields are significant, the return of the end of the month is much higher, it is positive 0.1056 while the yield of the rest of the month is negative (-0.0641). In the case of the second sub-period, average yields are no longer significant; they became weak and even negative for the end of period.

For this, we can say for the whole sample period and for the first sub-period the existence of an end of month effect is statistically significant. Whereas on the second sub-period, we have not detected an effect of month's end, average yields are no longer significant, this can be explained by the lack of investor confidence and the recession that the Tunisian stock market known after the revolution.

c) The January's effect

Table 15 shows the average monthly returns. For the entire period, significant returns are those January, February, April, August, and September. The highest yield is in January (0.1235). The end of year returns (November, December) are the only negative but they are not significant. This proves the existence of a January effect on the Tunisian stock market for the total period of the sample.

The same conclusion can be deduced from the second column of the table. Significant average yields are those of January, April, August, September and October. The highest yields are from January and September. So we can conclude that there is an effect January on the Tunisian stock market during this period. Regarding the second sub-period, we can notice that all means returns are statistically insignificant except for the return of the month of March, which invalidates the

hypothesis of the existence of a January effect on the Tunisian stock market after the revolution.

In conclusion, the results in Table 15 prove the existence of a January effect on the Tunisian market during the entire period of the sample and the first sub-period. We can also note that, apart from the month of January, the months of August and September have high significant returns. Therefore, we suggest the existence of a Holiday effect on the Tunisian stock market.

On the other hand, and as in the case of daily returns, after the revolution all returns have become weaker and not significant. We can explain this by the lack of investors and prudence.

d) *The Ramadan effect*

Table 16 shows the average yields of the month of Ramadan and the rest of the year. The study of the entire period allowed us to record a significantly higher average performance during the month of Ramadan (0.0892) against a negative return for the rest of the year (- 0.0432). We therefore confirm the existence of Ramadan effect on the Tunisian market.

In line with the results already interpreted the pre-revolution period registered an average yield of 0.1085 during the month of Ramadan, which is statistically significant Whereas a significant average yield of 0.0562 for the rest of the year. The return of the month of Ramadan is 2 times higher than those of the off-Ramadan. In contrast, the second sub-period was marked by low and insignificant average return for the month of Ramadan and the rest of the year. Which excludes, the existence of Ramadan effect during this period (post- Revolution).

From Table 16, we confirm the hypothesis of the existence of Ramadan effect on the Tunisian stock market during the entire period and the first sub-period. By Wherease, during the second sub-period, returns are not significant which invalidates our hypothesis for this period.

IV. DISCUSSION

The results found allowed us to confirm the four assumptions. This means that there are on the Tunisian stock market the four expected effects.

The results found for the weekend effect is similar to the majority of the results of previous studies. Thus, many studies have shown the negative and low yields during the first half of the week (Monday and Tuesday) and high yields in the second. Lower yields and high volatility on Monday means that investors are prudent to take positions during the first day of the week when investor expectations are still not clear after the weekend.

It seems that this is consistent with the hypothesis of the closing of the market, French (1980). Also, low yields on Monday may be explained by the

lack of liquidity and market information after the weekend. This lack of information leads investors to avoid taking decisions on Mondays. The upward trend of the return on the Tunisian stock market confirms that the yield increases when more public information reaches the market during the week. This explains the low yield of Monday, and high performance on Friday.

The second proven effect on the Tunisian market is the end of the month effect seems to be similar to existing literature. In addition to important and positive returns during the month's end, we found a concentration of returns around the first ten days of the month. It was found that the first ten days of the month have higher average returns than the rest of the month.

The covering of balance sheets and the rebalancing of portfolios at the end of each month seem to explain the effect of the end of the month. Thus, the reason behind this trend may be cognitive beliefs of investors related to news of the coming months. With the start of the new month, investors are starting to buy in hoping to achieve more profit on the basis of new information which explains the high yields from the beginning of the month.

The third anomaly detected on the Tunisian stock market is January's effect. Thus we find significant returns higher during the month of January compared to other months. This result is in line with previous studies although a number of them confirm the absence of this anomaly in some markets. In the case of the Tunisian stock market, it seems that the assumption of covering balance sheets, portfolio rebalancing and the lack of information with the beginning of the year could explain as this anomaly. Thus, investors tend to buy at the beginning of the year and hope to earn more profit during the months when the information about the new year increase more and more. The hypothesis of investor sentiment could also explain the January effect. In fact, investors tend to be optimistic and in good spirits with the beginning of the year, which affects their investment decisions by purchasing securities during the period of January.

The last effect studied is that of Ramadan. By studying the average yields of the holy month and the rest of the year, we noticed that the average return for the month of Ramadan is much higher. This result is similar to the results of Redhead and Rodgers (2011) who studied the existence of this anomaly in Middle Eastern markets (Bahrain, Egypt, Jordan, Kuwait, Saudi Arabia, Turkey). They find a significant and positive effect on Ramadan most of the markets.

This anomaly can be explained by the positive mood that exists throughout the month of Ramadan. The result that we found through these calendar anomalies, stipulate important implications for investors. The existence of these anomalies on the Tunisian stock market is against the principle of efficiency of financial markets because it can generate abnormal economic

profits to investors by taking account of these anomalies.

All these anomalies and their effects on stock returns and volatility could allow investors to take advantage of price changes that are relatively regular, designing investment strategies representing predictable patterns. Also the presence of these anomalies can provide fund managers the ability for timing optimal decisions based on changes in daily and monthly price.

V. CONCLUSION

Through this paper, we examined the stock returns of Tunindex to verify the existence of calendar anomalies on the Tunisian market. The results show, for the sample period, the weak and negative returns during the first part of the week (Monday and Tuesday), and positive and high yields during the second half of the week (Wednesday, Thursday and Friday). The highest and the positive performance only occurs on Friday. This proves the existence of a weekend effect on the Tunisian market.

Regarding the first sub-period (before revolution), the effect Monday has disappeared because Monday and Tuesday returns are not significant. The yields of the second part of the week are always significant and high, and the highest yield was recorded on Friday. For post-revolution period, the yields are not significant. Next, we examined the effect of the end of the month and have found, for the entire period and for the pre-revolution period of end of the month is much higher than the rest of the month. It is almost 2.5 times greater. So, we can say that there is in fact end the month effect on the Tunisian market. As the case of daily returns, we are seeing non-significant returns during the period after the revolution.

Another effect has been studied is the effect of January. By examining the average yields of each month, we did not detect a significant effect on of January in the Tunisian market. In fact and in the three periods, the majority of returns are not significant, significant yields and the higher occur in the months of April, August and September. We have suggested the existence of a significant in fact Holiday.

Finally, we studied the existence of the Ramadan effect. From the results, we found a significant effect Ramadan; In fact the average yield of the holy month is twice as high as the rest of the year. This is valid for the entire period and the period before revolution. For the second sub-period, yields still not significant.

These results show, in general, the existence calendar anomalies on the Tunisian stock market. Most of the anomalies can be explained by the combination of various factors such as the suspension of trading during the weekend, portfolio rebalancing, the time of

the publication of information and investor sentiment. On the other hand, we can also deduce results found high volatility and lower stock returns after the revolution, which led to the disappearance of anomalies on the Tunisian market. This phenomenon can be explained by the uncertainty and lack of confidence among investors under the new country's situation.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Engle.,R.F.,1982, "Autoregressive conditional heteroscedasticity with estimates of the variance of United Kingdom inflation". *Econometrica* 50,987–1007.
2. Fama E., 1990, "Stock returns, expected returns and real activity", *Journal of Finance*, 44 (4), 1089-1107. DOI: 10.1111/j.1540-6261.1990.tb02428.x.
3. Fama, E., (1965). The behavior of stock prices. *Journal of Business* 38, 383-417.
4. Hansen and Lunde. (2003). Testing the significance of calendar effects. Working paper Brown University.
5. Israel,R., Moskowitz, T.J., (2013). The role of shorting, firm size, and time on market anomalies.*Journal of Financial Economics*<http://dx.doi.org/10.1016/j.jfineco.2012.11.005i>.
6. Khan and al., (2012). Calendar anomalies reality or an illusion. *Journal of economics and international finance*.
7. Kuhn, T. 1970. *The Structure of Scientific Revolutions*, (University of Chicago Press, Chicago).
9. Lim and Chia., (2010), *Stock Market Calendar Anomalies: Evidence from ASEAN-5 Stock Markets*. *Economics Bulletin* 30(2):996-1005.
10. Schwert, G. (2003). *Anomalies and market efficiency*. NBER, University of Rochester.

APPENDIX

Table 1: Descriptive statistics of daily returns over the entire study period

Statistics	value
Mean	0,03699
Std	0,5215
Skewness	-0,6848
Kurtosis	20,0215
Min (%)	-5.0037
Max (%)	4.1086
Positive returns	1055
Negative returns	820
Nbr of observation	1875

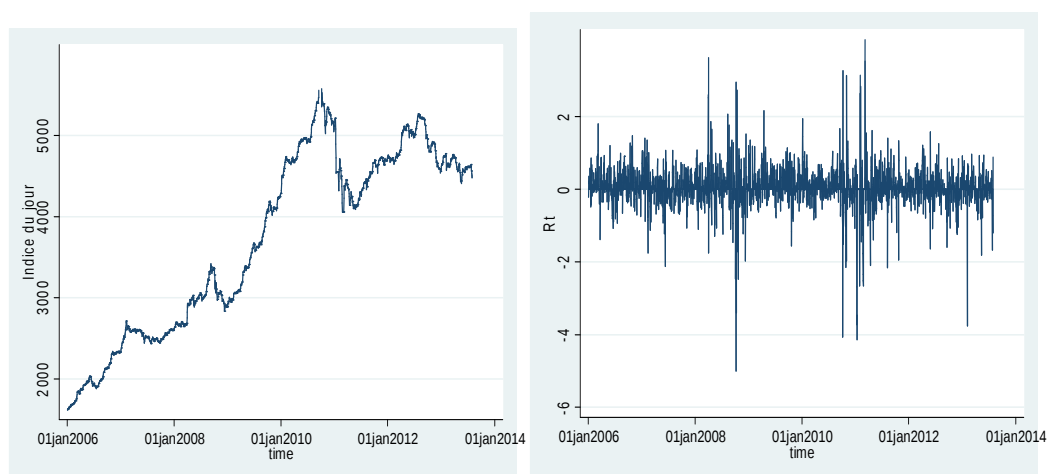


Figure 1: (a) and (b) Daily Values Tunindex, and stock performance of the index during the period 02/01/2006 - 31/07/2013

Table 2 : Descriptive statistics of daily stock returns

	<i>Mond</i>	<i>Tues</i>	<i>Wedn</i>	<i>Thursd</i>	<i>Frid</i>	<i>All</i>
Mean	0,0158	-0,0036	0,0479	0,0602	0,1387	0,037
Max	4,1086	3,5213	3,6133	3,2493	3,137	4,1086
Min	-5,0037	-3,727	-4,0708	-4,1439	-2,6618	-5,0037
Std. Dev	0,6585	0,6323	0,6444	0,5995	0,532	0,5215
Skewness	-0,6094	0,5948	-1,6324	-0,936	-0,4601	-0,6848
Kurtosis	17,2497	12,419	15,946	13,0118	9,9569	20,0215

Table 3 : Descriptive statistics of weekly stock returns.

	<i>Week 1</i>	<i>Week 2</i>	<i>Week 3</i>	<i>Week 4</i>
Moyenne	0,0931	-0,0074	0,0425	0,0169
Max	4,1086	3,5213	2,1631	1,6420
Min	-5,0037	-4,1439	-1,7194	-2,6618
Std. Dev	0,0931	-0,0074	0,0425	0,0170
Skewness	-0,2148	-1,4000	0,2467	-1,1469
Kurtosis	22,7564	16,8260	7,7395	10,3391

Table 4 : Descriptive statistics of stock market returns during the end of the month, excluding period of the end of the month

	<i>End of month</i>	<i>Hors période de fin du mois</i>
Moyenne	0,0560	0,0265
Max	3,6133	4,1086
Min	- 5,0037	- 4,1439
Std. Dev	0,5500	0,5049
Skewness	-1,2485	-0,2929
Kurtosis	22,6276	17,9054

Table 5 : Descriptive statistics of average monthly

	<i>Mean</i>	<i>Max</i>	<i>Min</i>	<i>Std. Dev</i>	<i>Skewness</i>	<i>Kurtosis</i>
January	0,063	1,935	-4,1439	0,6286	-3,1172	21,6741
February	-0,0109	3,137	-3,7572	0,6826	-0,7284	12,7009
March	0,0926	4,1086	-1,3861	0,5137	3,6575	26,8613
April	0,0986	3,6133	-2,0922	0,5508	1,5948	13,0122
May	-0,0074	1,5807	-1,8166	0,4249	-0,5021	6,1335
June	0,0394	1,0653	-2,1246	0,3767	-0,9617	8,3722
July	0,017	1,2485	-1,6699	0,3565	-0,4337	6,3689
August	0,1173	2,0638	-2,1555	0,4055	0,3434	10,4212
September	0,0847	1,6685	-1,6031	0,4399	0,1453	5,5671
October	-0,0509	3,2493	-5,0037	0,837	-1,4566	13,3656
November	-0,001	3,1269	-1,9721	0,4424	1,0162	16,5427
December	-0,0059	1,5108	-1,9722	0,3582	-0,4518	8,5492

Table 6 : Average yields of January.

	<i>First 10 days</i>	<i>Second 10 days</i>	<i>Last 10 days</i>
Mean	0,1919	-0,0374	0,0387
Max	1,935	1,3432	1,9452
Min	-2,6832	-4,1439	-2,6661
Std. Dev	0,5346	0,8359	0,4492

Table 7 : Descriptive Statistics of the average yields of the month of Ramadan and the rest of the year

	<i>ramadhan</i>	<i>No ramadhan</i>
Mean	0,0784	0,0332
Max	1,3993	4,1086
Min	-2,1556	-5,0037
Std. Dev	0,4439	0,5278
Skewness	-0,5394	-0,6850
Kurtosis	7,6657	20,4428

Table 8 : Descriptive statistics of average returns during the month of Ramadan.

	<i>Fisrt Ramadan 10 days</i>	<i>Second Ramadan 10 days</i>	<i>Third Ramadan 10 days</i>
Mean	0,1017	0,0397	0,0961
Max	1,3993	1,2738	1,0281
Min	-2,1556	-1,6699	-1,1974
Std. Dev	0,4992	0,4306	0,3912
Skewness	-0,6644	-0,7549	0,0508
Kurtosis	8,2359	7,6487	4,409

Table 9 : Results of the ADF test (Rt)

	ADF	Trend	Mackinnon p-value
Rt	-43,332	-0,0000336 (p-value=0,006)	0,00000

Table 10: Results of the ADF test (d.Rt).

	ADF	Trend	Mackinnon p-value	Integration order
d.Rt	-84,252	2,83 e-07 (p-value=0,984)	0,00000	1

Table 11: Heteroscedasticity result test.

	The calculated chi-square statistic	P-value
Rt	15,91	0,0001

Table 12: Results of the autocorrelation test errors.

	Chi-deux	P-value	DW
Rt	91,709	0,0000	1,231759

Table 13: Average yield depending on the day of the week.

	Monday	Tuesday	Wednesday	Thursday	Friday
Average return (all the period)	- 0,0911***	-0,1253***	-0,0557*	-0,0451	0,1328***
Average return (before Tunisian revolution)	-0,1303***	-0,1871***	-0,0686*	-0,0566	0,1789***
Average return (After Tunisian revolution)	-0,0061	-0,0343	-0,0254	-0,0169	0,0472

*p<0.1, **p<0.05, ***p<0.01

Table 14: Average yield for the period of the end of the month and the rest of the month.

	End of month period	Period of rest of month
Average mean	0,0762***	-0,0410**
Average return (before Tunisian revolution)	0,1056***	- 0,0641***
Average return (After Tunisian revolution)	-0,0015	0,0199

p<0.05, *p<0.01

Table 15 : Average mean for each month.

	Average mean	Average mean before Tunisian revolution	Average mean after Tunisian revolution
January	0,1235***	0,1656***	0,0582
Feb	0,0801*	0,0320	0,1097
March	0,0454	0,0106	0,1988**
April	0,0884*	0,1060*	0,0433
May	0,0220	0,0170	-0,0413
June	0,0554	0,0455	0,0803
July	0,0182	-0,0260	0,1135
August	0,1029**	0,1316***	0,0872
September	0,1078**	0,1684***	0,0241
October	0,0670	0,1017**	0,0055
November	-0,0017	0,0182	-0,0446
December	-0,0024	-0,0182	0,0220

*p<0.1, **p<0.05, ***p<0.01



GLOBAL JOURNALS INC. (US) GUIDELINES HANDBOOK 2015

WWW.GLOBALJOURNALS.ORG

FELLOWS

FELLOW OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (FARSB)

Global Journals Incorporate (USA) is accredited by Open Association of Research Society (OARS), U.S.A and in turn, awards “FARSB” title to individuals. The 'FARSB' title is accorded to a selected professional after the approval of the Editor-in-Chief/Editorial Board Members/Dean.



- The “FARSB” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSB or William Walldroff, M.S., FARSB.

FARSB accrediting is an honor. It authenticates your research activities. After recognition as FARSB, you can add 'FARSB' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, and Visiting Card etc.

The following benefits can be availed by you only for next three years from the date of certification:



FARSB designated members are entitled to avail a 40% discount while publishing their research papers (of a single author) with Global Journals Incorporation (USA), if the same is accepted by Editorial Board/Peer Reviewers. If you are a main author or co-author in case of multiple authors, you will be entitled to avail discount of 10%.

Once FARSB title is accorded, the Fellow is authorized to organize a symposium/seminar/conference on behalf of Global Journal Incorporation (USA). The Fellow can also participate in conference/seminar/symposium organized by another institution as representative of Global Journal. In both the cases, it is mandatory for him to discuss with us and obtain our consent.



You may join as member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. In addition, it is also desirable that you should organize seminar/symposium/conference at least once.

We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.





The FARSB can go through standards of OARS. You can also play vital role if you have any suggestions so that proper amendment can take place to improve the same for the benefit of entire research community.

As FARSB, you will be given a renowned, secure and free professional email address with 100 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders, Auto-Responders, Email Delivery Route tracing, etc.



The FARSB will be eligible for a free application of standardization of their researches. Standardization of research will be subject to acceptability within stipulated norms as the next step after publishing in a journal. We shall depute a team of specialized research professionals who will render their services for elevating your researches to next higher level, which is worldwide open standardization.

The FARSB member can apply for grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A. Once you are designated as FARSB, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria. After certification of all your credentials by OARS, they will be published on your Fellow Profile link on website <https://associationofresearch.org> which will be helpful to upgrade the dignity.



The FARSB members can avail the benefits of free research podcasting in Global Research Radio with their research documents. After publishing the work, (including published elsewhere worldwide with proper authorization) you can upload your research paper with your recorded voice or you can utilize chargeable services of our professional RJs to record your paper in their voice on request.



The FARSB member also entitled to get the benefits of free research podcasting of their research documents through video clips. We can also streamline your conference videos and display your slides/ online slides and online research video clips at reasonable charges, on request.





The FARSB is eligible to earn from sales proceeds of his/her researches/reference/review Books or literature, while publishing with Global Journals. The FARSB can decide whether he/she would like to publish his/her research in a closed manner. In this case, whenever readers purchase that individual research paper for reading, maximum 60% of its profit earned as royalty by Global Journals, will be credited to his/her bank account. The entire entitled amount will be credited to his/her bank account exceeding limit of minimum fixed balance. There is no minimum time limit for collection. The FARSC member can decide its price and we can help in making the right decision.

The FARSB member is eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get remuneration of 15% of author fees, taken from the author of a respective paper. After reviewing 5 or more papers you can request to transfer the amount to your bank account.



MEMBER OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (MARSB)

The ' MARSB ' title is accorded to a selected professional after the approval of the Editor-in-Chief / Editorial Board Members/Dean.

The “MARSB” is a dignified ornament which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., MARSB or William Walldroff, M.S., MARSB.



MARSB accrediting is an honor. It authenticates your research activities. After becoming MARSB, you can add 'MARSB' title with your name as you use this recognition as additional suffix to your status. This will definitely enhance and add more value and repute to your name. You may use it on your professional Counseling Materials such as CV, Resume, Visiting Card and Name Plate etc.

The following benefits can be availed by you only for next three years from the date of certification.



MARSB designated members are entitled to avail a 25% discount while publishing their research papers (of a single author) in Global Journals Inc., if the same is accepted by our Editorial Board and Peer Reviewers. If you are a main author or co-author of a group of authors, you will get discount of 10%.

As MARSB, you will be given a renowned, secure and free professional email address with 30 GB of space e.g. johnhall@globaljournals.org. This will include Webmail, Spam Assassin, Email Forwarders, Auto-Responders, Email Delivery Route tracing, etc.





We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.

The MARSB member can apply for approval, grading and certification of standards of their educational and Institutional Degrees to Open Association of Research, Society U.S.A.



Once you are designated as MARSB, you may send us a scanned copy of all of your credentials. OARS will verify, grade and certify them. This will be based on your academic records, quality of research papers published by you, and some more criteria.

It is mandatory to read all terms and conditions carefully.



AUXILIARY MEMBERSHIPS

Institutional Fellow of Open Association of Research Society (USA)-OARS (USA)

Global Journals Incorporation (USA) is accredited by Open Association of Research Society, U.S.A (OARS) and in turn, affiliates research institutions as “Institutional Fellow of Open Association of Research Society” (IFOARS).

The “FARSC” is a dignified title which is accorded to a person’s name viz. Dr. John E. Hall, Ph.D., FARSC or William Walldroff, M.S., FARSC.



The IFOARS institution is entitled to form a Board comprised of one Chairperson and three to five board members preferably from different streams. The Board will be recognized as “Institutional Board of Open Association of Research Society”-(IBOARS).

The Institute will be entitled to following benefits:



The IBOARS can initially review research papers of their institute and recommend them to publish with respective journal of Global Journals. It can also review the papers of other institutions after obtaining our consent. The second review will be done by peer reviewer of Global Journals Incorporation (USA). The Board is at liberty to appoint a peer reviewer with the approval of chairperson after consulting us.

The author fees of such paper may be waived off up to 40%.

The Global Journals Incorporation (USA) at its discretion can also refer double blind peer reviewed paper at their end to the board for the verification and to get recommendation for final stage of acceptance of publication.



The IBOARS can organize symposium/seminar/conference in their country on behalf of Global Journals Incorporation (USA)-OARS (USA). The terms and conditions can be discussed separately.

The Board can also play vital role by exploring and giving valuable suggestions regarding the Standards of “Open Association of Research Society, U.S.A (OARS)” so that proper amendment can take place for the benefit of entire research community. We shall provide details of particular standard only on receipt of request from the Board.



Journals Research
inducing researches

The board members can also join us as Individual Fellow with 40% discount on total fees applicable to Individual Fellow. They will be entitled to avail all the benefits as declared. Please visit Individual Fellow-sub menu of GlobalJournals.org to have more relevant details.



We shall provide you intimation regarding launching of e-version of journal of your stream time to time. This may be utilized in your library for the enrichment of knowledge of your students as well as it can also be helpful for the concerned faculty members.



After nomination of your institution as “Institutional Fellow” and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf.

The board can also take up the additional allied activities for betterment after our consultation.

The following entitlements are applicable to individual Fellows:

Open Association of Research Society, U.S.A (OARS) By-laws states that an individual Fellow may use the designations as applicable, or the corresponding initials. The Credentials of individual Fellow and Associate designations signify that the individual has gained knowledge of the fundamental concepts. One is magnanimous and proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice.



Open Association of Research Society (US)/ Global Journals Incorporation (USA), as described in Corporate Statements, are educational, research publishing and professional membership organizations. Achieving our individual Fellow or Associate status is based mainly on meeting stated educational research requirements.

Disbursement of 40% Royalty earned through Global Journals : Researcher = 50%, Peer Reviewer = 37.50%, Institution = 12.50% E.g. Out of 40%, the 20% benefit should be passed on to researcher, 15 % benefit towards remuneration should be given to a reviewer and remaining 5% is to be retained by the institution.



We shall provide print version of 12 issues of any three journals [as per your requirement] out of our 38 journals worth \$ 2376 USD.

Other:

The individual Fellow and Associate designations accredited by Open Association of Research Society (US) credentials signify guarantees following achievements:

- The professional accredited with Fellow honor, is entitled to various benefits viz. name, fame, honor, regular flow of income, secured bright future, social status etc.



- In addition to above, if one is single author, then entitled to 40% discount on publishing research paper and can get 10% discount if one is co-author or main author among group of authors.
- The Fellow can organize symposium/seminar/conference on behalf of Global Journals Incorporation (USA) and he/she can also attend the same organized by other institutes on behalf of Global Journals.
- The Fellow can become member of Editorial Board Member after completing 3yrs.
- The Fellow can earn 60% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.
- Fellow can also join as paid peer reviewer and earn 15% remuneration of author charges and can also get an opportunity to join as member of the Editorial Board of Global Journals Incorporation (USA)
- • This individual has learned the basic methods of applying those concepts and techniques to common challenging situations. This individual has further demonstrated an in-depth understanding of the application of suitable techniques to a particular area of research practice.

Note :

//

- In future, if the board feels the necessity to change any board member, the same can be done with the consent of the chairperson along with anyone board member without our approval.
- In case, the chairperson needs to be replaced then consent of 2/3rd board members are required and they are also required to jointly pass the resolution copy of which should be sent to us. In such case, it will be compulsory to obtain our approval before replacement.
- In case of “Difference of Opinion [if any]” among the Board members, our decision will be final and binding to everyone.

//



PROCESS OF SUBMISSION OF RESEARCH PAPER

The Area or field of specialization may or may not be of any category as mentioned in 'Scope of Journal' menu of the GlobalJournals.org website. There are 37 Research Journal categorized with Six parental Journals GJCST, GJMR, GJRE, GJMBR, GJSFR, GJHSS. For Authors should prefer the mentioned categories. There are three widely used systems UDC, DDC and LCC. The details are available as 'Knowledge Abstract' at Home page. The major advantage of this coding is that, the research work will be exposed to and shared with all over the world as we are being abstracted and indexed worldwide.

The paper should be in proper format. The format can be downloaded from first page of 'Author Guideline' Menu. The Author is expected to follow the general rules as mentioned in this menu. The paper should be written in MS-Word Format (*.DOC,*.DOCX).

The Author can submit the paper either online or offline. The authors should prefer online submission.Online Submission: There are three ways to submit your paper:

(A) (I) First, register yourself using top right corner of Home page then Login. If you are already registered, then login using your username and password.

(II) Choose corresponding Journal.

(III) Click 'Submit Manuscript'. Fill required information and Upload the paper.

(B) If you are using Internet Explorer, then Direct Submission through Homepage is also available.

(C) If these two are not convenient, and then email the paper directly to dean@globaljournals.org.

Offline Submission: Author can send the typed form of paper by Post. However, online submission should be preferred.



PREFERRED AUTHOR GUIDELINES

MANUSCRIPT STYLE INSTRUCTION (Must be strictly followed)

Page Size: 8.27" X 11"

- Left Margin: 0.65
- Right Margin: 0.65
- Top Margin: 0.75
- Bottom Margin: 0.75
- Font type of all text should be Swis 721 Lt BT.
- Paper Title should be of Font Size 24 with one Column section.
- Author Name in Font Size of 11 with one column as of Title.
- Abstract Font size of 9 Bold, "Abstract" word in Italic Bold.
- Main Text: Font size 10 with justified two columns section
- Two Column with Equal Column with of 3.38 and Gaping of .2
- First Character must be three lines Drop capped.
- Paragraph before Spacing of 1 pt and After of 0 pt.
- Line Spacing of 1 pt
- Large Images must be in One Column
- Numbering of First Main Headings (Heading 1) must be in Roman Letters, Capital Letter, and Font Size of 10.
- Numbering of Second Main Headings (Heading 2) must be in Alphabets, Italic, and Font Size of 10.

You can use your own standard format also.

Author Guidelines:

1. General,
2. Ethical Guidelines,
3. Submission of Manuscripts,
4. Manuscript's Category,
5. Structure and Format of Manuscript,
6. After Acceptance.

1. GENERAL

Before submitting your research paper, one is advised to go through the details as mentioned in following heads. It will be beneficial, while peer reviewer justify your paper for publication.

Scope

The Global Journals Inc. (US) welcome the submission of original paper, review paper, survey article relevant to the all the streams of Philosophy and knowledge. The Global Journals Inc. (US) is parental platform for Global Journal of Computer Science and Technology, Researches in Engineering, Medical Research, Science Frontier Research, Human Social Science, Management, and Business organization. The choice of specific field can be done otherwise as following in Abstracting and Indexing Page on this Website. As the all Global

Journals Inc. (US) are being abstracted and indexed (in process) by most of the reputed organizations. Topics of only narrow interest will not be accepted unless they have wider potential or consequences.

2. ETHICAL GUIDELINES

Authors should follow the ethical guidelines as mentioned below for publication of research paper and research activities.

Papers are accepted on strict understanding that the material in whole or in part has not been, nor is being, considered for publication elsewhere. If the paper once accepted by Global Journals Inc. (US) and Editorial Board, will become the copyright of the Global Journals Inc. (US).

Authorship: The authors and coauthors should have active contribution to conception design, analysis and interpretation of findings. They should critically review the contents and drafting of the paper. All should approve the final version of the paper before submission

The Global Journals Inc. (US) follows the definition of authorship set up by the Global Academy of Research and Development. According to the Global Academy of R&D authorship, criteria must be based on:

- 1) Substantial contributions to conception and acquisition of data, analysis and interpretation of the findings.
- 2) Drafting the paper and revising it critically regarding important academic content.
- 3) Final approval of the version of the paper to be published.

All authors should have been credited according to their appropriate contribution in research activity and preparing paper. Contributors who do not match the criteria as authors may be mentioned under Acknowledgement.

Acknowledgements: Contributors to the research other than authors credited should be mentioned under acknowledgement. The specifications of the source of funding for the research if appropriate can be included. Suppliers of resources may be mentioned along with address.

Appeal of Decision: The Editorial Board's decision on publication of the paper is final and cannot be appealed elsewhere.

Permissions: It is the author's responsibility to have prior permission if all or parts of earlier published illustrations are used in this paper.

Please mention proper reference and appropriate acknowledgements wherever expected.

If all or parts of previously published illustrations are used, permission must be taken from the copyright holder concerned. It is the author's responsibility to take these in writing.

Approval for reproduction/modification of any information (including figures and tables) published elsewhere must be obtained by the authors/copyright holders before submission of the manuscript. Contributors (Authors) are responsible for any copyright fee involved.

3. SUBMISSION OF MANUSCRIPTS

Manuscripts should be uploaded via this online submission page. The online submission is most efficient method for submission of papers, as it enables rapid distribution of manuscripts and consequently speeds up the review procedure. It also enables authors to know the status of their own manuscripts by emailing us. Complete instructions for submitting a paper is available below.

Manuscript submission is a systematic procedure and little preparation is required beyond having all parts of your manuscript in a given format and a computer with an Internet connection and a Web browser. Full help and instructions are provided on-screen. As an author, you will be prompted for login and manuscript details as Field of Paper and then to upload your manuscript file(s) according to the instructions.



To avoid postal delays, all transaction is preferred by e-mail. A finished manuscript submission is confirmed by e-mail immediately and your paper enters the editorial process with no postal delays. When a conclusion is made about the publication of your paper by our Editorial Board, revisions can be submitted online with the same procedure, with an occasion to view and respond to all comments.

Complete support for both authors and co-author is provided.

4. MANUSCRIPT'S CATEGORY

Based on potential and nature, the manuscript can be categorized under the following heads:

Original research paper: Such papers are reports of high-level significant original research work.

Review papers: These are concise, significant but helpful and decisive topics for young researchers.

Research articles: These are handled with small investigation and applications

Research letters: The letters are small and concise comments on previously published matters.

5. STRUCTURE AND FORMAT OF MANUSCRIPT

The recommended size of original research paper is less than seven thousand words, review papers fewer than seven thousands words also. Preparation of research paper or how to write research paper, are major hurdle, while writing manuscript. The research articles and research letters should be fewer than three thousand words, the structure original research paper; sometime review paper should be as follows:

Papers: These are reports of significant research (typically less than 7000 words equivalent, including tables, figures, references), and comprise:

- (a) Title should be relevant and commensurate with the theme of the paper.
- (b) A brief Summary, "Abstract" (less than 150 words) containing the major results and conclusions.
- (c) Up to ten keywords, that precisely identifies the paper's subject, purpose, and focus.
- (d) An Introduction, giving necessary background excluding subheadings; objectives must be clearly declared.
- (e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition; sources of information must be given and numerical methods must be specified by reference, unless non-standard.
- (f) Results should be presented concisely, by well-designed tables and/or figures; the same data may not be used in both; suitable statistical data should be given. All data must be obtained with attention to numerical detail in the planning stage. As reproduced design has been recognized to be important to experiments for a considerable time, the Editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned un-refereed;
- (g) Discussion should cover the implications and consequences, not just recapitulating the results; conclusions should be summarizing.
- (h) Brief Acknowledgements.
- (i) References in the proper form.

Authors should very cautiously consider the preparation of papers to ensure that they communicate efficiently. Papers are much more likely to be accepted, if they are cautiously designed and laid out, contain few or no errors, are summarizing, and be conventional to the approach and instructions. They will in addition, be published with much less delays than those that require much technical and editorial correction.



The Editorial Board reserves the right to make literary corrections and to make suggestions to improve briefness.

It is vital, that authors take care in submitting a manuscript that is written in simple language and adheres to published guidelines.

Format

Language: The language of publication is UK English. Authors, for whom English is a second language, must have their manuscript efficiently edited by an English-speaking person before submission to make sure that, the English is of high excellence. It is preferable, that manuscripts should be professionally edited.

Standard Usage, Abbreviations, and Units: Spelling and hyphenation should be conventional to The Concise Oxford English Dictionary. Statistics and measurements should at all times be given in figures, e.g. 16 min, except for when the number begins a sentence. When the number does not refer to a unit of measurement it should be spelt in full unless, it is 160 or greater.

Abbreviations supposed to be used carefully. The abbreviated name or expression is supposed to be cited in full at first usage, followed by the conventional abbreviation in parentheses.

Metric SI units are supposed to generally be used excluding where they conflict with current practice or are confusing. For illustration, 1.4 l rather than $1.4 \times 10^{-3} \text{ m}^3$, or 4 mm somewhat than $4 \times 10^{-3} \text{ m}$. Chemical formula and solutions must identify the form used, e.g. anhydrous or hydrated, and the concentration must be in clearly defined units. Common species names should be followed by underlines at the first mention. For following use the generic name should be constricted to a single letter, if it is clear.

Structure

All manuscripts submitted to Global Journals Inc. (US), ought to include:

Title: The title page must carry an instructive title that reflects the content, a running title (less than 45 characters together with spaces), names of the authors and co-authors, and the place(s) wherever the work was carried out. The full postal address in addition with the e-mail address of related author must be given. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining and indexing.

Abstract, used in Original Papers and Reviews:

Optimizing Abstract for Search Engines

Many researchers searching for information online will use search engines such as Google, Yahoo or similar. By optimizing your paper for search engines, you will amplify the chance of someone finding it. This in turn will make it more likely to be viewed and/or cited in a further work. Global Journals Inc. (US) have compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Key Words

A major linchpin in research work for the writing research paper is the keyword search, which one will employ to find both library and Internet resources.

One must be persistent and creative in using keywords. An effective keyword search requires a strategy and planning a list of possible keywords and phrases to try.

Search engines for most searches, use Boolean searching, which is somewhat different from Internet searches. The Boolean search uses "operators," words (and, or, not, and near) that enable you to expand or narrow your affords. Tips for research paper while preparing research paper are very helpful guideline of research paper.

Choice of key words is first tool of tips to write research paper. Research paper writing is an art. A few tips for deciding as strategically as possible about keyword search:



- One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, "What words would a source have to include to be truly valuable in research paper?" Then consider synonyms for the important words.
- It may take the discovery of only one relevant paper to let steer in the right keyword direction because in most databases, the keywords under which a research paper is abstracted are listed with the paper.
- One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher's skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

Acknowledgements: Please make these as concise as possible.

References

References follow the Harvard scheme of referencing. References in the text should cite the authors' names followed by the time of their publication, unless there are three or more authors when simply the first author's name is quoted followed by et al. unpublished work has to only be cited where necessary, and only in the text. Copies of references in press in other journals have to be supplied with submitted typescripts. It is necessary that all citations and references be carefully checked before submission, as mistakes or omissions will cause delays.

References to information on the World Wide Web can be given, but only if the information is available without charge to readers on an official site. Wikipedia and Similar websites are not allowed where anyone can change the information. Authors will be asked to make available electronic copies of the cited information for inclusion on the Global Journals Inc. (US) homepage at the judgment of the Editorial Board.

The Editorial Board and Global Journals Inc. (US) recommend that, citation of online-published papers and other material should be done via a DOI (digital object identifier). If an author cites anything, which does not have a DOI, they run the risk of the cited material not being noticeable.

The Editorial Board and Global Journals Inc. (US) recommend the use of a tool such as Reference Manager for reference management and formatting.

Tables, Figures and Figure Legends

Tables: Tables should be few in number, cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g. Table 4, a self-explanatory caption and be on a separate sheet. Vertical lines should not be used.

Figures: Figures are supposed to be submitted as separate files. Always take in a citation in the text for each figure using Arabic numbers, e.g. Fig. 4. Artwork must be submitted online in electronic form by e-mailing them.

Preparation of Electronic Figures for Publication

Even though low quality images are sufficient for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit (or e-mail) EPS (line art) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings) in relation to the imitation size. Please give the data for figures in black and white or submit a Color Work Agreement Form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

For scanned images, the scanning resolution (at final image size) ought to be as follows to ensure good reproduction: line art: >650 dpi; halftones (including gel photographs) : >350 dpi; figures containing both halftone and line images: >650 dpi.

Color Charges: It is the rule of the Global Journals Inc. (US) for authors to pay the full cost for the reproduction of their color artwork. Hence, please note that, if there is color artwork in your manuscript when it is accepted for publication, we would require you to complete and return a color work agreement form before your paper can be published.



Figure Legends: Self-explanatory legends of all figures should be incorporated separately under the heading 'Legends to Figures'. In the full-text online edition of the journal, figure legends may possibly be truncated in abbreviated links to the full screen version. Therefore, the first 100 characters of any legend should notify the reader, about the key aspects of the figure.

6. AFTER ACCEPTANCE

Upon approval of a paper for publication, the manuscript will be forwarded to the dean, who is responsible for the publication of the Global Journals Inc. (US).

6.1 Proof Corrections

The corresponding author will receive an e-mail alert containing a link to a website or will be attached. A working e-mail address must therefore be provided for the related author.

Acrobat Reader will be required in order to read this file. This software can be downloaded

(Free of charge) from the following website:

www.adobe.com/products/acrobat/readstep2.html. This will facilitate the file to be opened, read on screen, and printed out in order for any corrections to be added. Further instructions will be sent with the proof.

Proofs must be returned to the dean at dean@globaljournals.org within three days of receipt.

As changes to proofs are costly, we inquire that you only correct typesetting errors. All illustrations are retained by the publisher. Please note that the authors are responsible for all statements made in their work, including changes made by the copy editor.

6.2 Early View of Global Journals Inc. (US) (Publication Prior to Print)

The Global Journals Inc. (US) are enclosed by our publishing's Early View service. Early View articles are complete full-text articles sent in advance of their publication. Early View articles are absolute and final. They have been completely reviewed, revised and edited for publication, and the authors' final corrections have been incorporated. Because they are in final form, no changes can be made after sending them. The nature of Early View articles means that they do not yet have volume, issue or page numbers, so Early View articles cannot be cited in the conventional way.

6.3 Author Services

Online production tracking is available for your article through Author Services. Author Services enables authors to track their article - once it has been accepted - through the production process to publication online and in print. Authors can check the status of their articles online and choose to receive automated e-mails at key stages of production. The authors will receive an e-mail with a unique link that enables them to register and have their article automatically added to the system. Please ensure that a complete e-mail address is provided when submitting the manuscript.

6.4 Author Material Archive Policy

Please note that if not specifically requested, publisher will dispose off hardcopy & electronic information submitted, after the two months of publication. If you require the return of any information submitted, please inform the Editorial Board or dean as soon as possible.

6.5 Offprint and Extra Copies

A PDF offprint of the online-published article will be provided free of charge to the related author, and may be distributed according to the Publisher's terms and conditions. Additional paper offprint may be ordered by emailing us at: editor@globaljournals.org.

You must strictly follow above Author Guidelines before submitting your paper or else we will not at all be responsible for any corrections in future in any of the way.



Before start writing a good quality Computer Science Research Paper, let us first understand what is Computer Science Research Paper? So, Computer Science Research Paper is the paper which is written by professionals or scientists who are associated to Computer Science and Information Technology, or doing research study in these areas. If you are novel to this field then you can consult about this field from your supervisor or guide.

TECHNIQUES FOR WRITING A GOOD QUALITY RESEARCH PAPER:

1. Choosing the topic: In most cases, the topic is searched by the interest of author but it can be also suggested by the guides. You can have several topics and then you can judge that in which topic or subject you are finding yourself most comfortable. This can be done by asking several questions to yourself, like Will I be able to carry our search in this area? Will I find all necessary recourses to accomplish the search? Will I be able to find all information in this field area? If the answer of these types of questions will be "Yes" then you can choose that topic. In most of the cases, you may have to conduct the surveys and have to visit several places because this field is related to Computer Science and Information Technology. Also, you may have to do a lot of work to find all rise and falls regarding the various data of that subject. Sometimes, detailed information plays a vital role, instead of short information.

2. Evaluators are human: First thing to remember that evaluators are also human being. They are not only meant for rejecting a paper. They are here to evaluate your paper. So, present your Best.

3. Think Like Evaluators: If you are in a confusion or getting demotivated that your paper will be accepted by evaluators or not, then think and try to evaluate your paper like an Evaluator. Try to understand that what an evaluator wants in your research paper and automatically you will have your answer.

4. Make blueprints of paper: The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

5. Ask your Guides: If you are having any difficulty in your research, then do not hesitate to share your difficulty to your guide (if you have any). They will surely help you out and resolve your doubts. If you can't clarify what exactly you require for your work then ask the supervisor to help you with the alternative. He might also provide you the list of essential readings.

6. Use of computer is recommended: As you are doing research in the field of Computer Science, then this point is quite obvious.

7. Use right software: Always use good quality software packages. If you are not capable to judge good software then you can lose quality of your paper unknowingly. There are various software programs available to help you, which you can get through Internet.

8. Use the Internet for help: An excellent start for your paper can be by using the Google. It is an excellent search engine, where you can have your doubts resolved. You may also read some answers for the frequent question how to write my research paper or find model research paper. From the internet library you can download books. If you have all required books make important reading selecting and analyzing the specified information. Then put together research paper sketch out.

9. Use and get big pictures: Always use encyclopedias, Wikipedia to get pictures so that you can go into the depth.

10. Bookmarks are useful: When you read any book or magazine, you generally use bookmarks, right! It is a good habit, which helps to not to lose your continuity. You should always use bookmarks while searching on Internet also, which will make your search easier.

11. Revise what you wrote: When you write anything, always read it, summarize it and then finalize it.



12. Make all efforts: Make all efforts to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in introduction, that what is the need of a particular research paper. Polish your work by good skill of writing and always give an evaluator, what he wants.

13. Have backups: When you are going to do any important thing like making research paper, you should always have backup copies of it either in your computer or in paper. This will help you to not to lose any of your important.

14. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several and unnecessary diagrams will degrade the quality of your paper by creating "hotchpotch." So always, try to make and include those diagrams, which are made by your own to improve readability and understandability of your paper.

15. Use of direct quotes: When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

16. Use proper verb tense: Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

17. Never use online paper: If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

18. Pick a good study spot: To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

19. Know what you know: Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

20. Use good quality grammar: Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straight forward. put together a neat summary.

21. Arrangement of information: Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

22. Never start in last minute: Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

23. Multitasking in research is not good: Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

24. Never copy others' work: Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. Take proper rest and food: No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

26. Go for seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.



27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

32. Never oversimplify everything: To add material in your research paper, never go for oversimplification. This will definitely irritate the evaluator. Be more or less specific. Also too, by no means, ever use rhythmic redundancies. Contractions aren't essential and shouldn't be there used. Comparisons are as terrible as clichés. Give up ampersands and abbreviations, and so on. Remove commas, that are, not necessary. Parenthetical words however should be together with this in commas. Understatement is all the time the complete best way to put onward earth-shaking thoughts. Give a detailed literary review.

33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

34. After conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium through which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

INFORMAL GUIDELINES OF RESEARCH PAPER WRITING

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.



Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear

- Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

- Use standard writing style including articles ("a", "the," etc.)
- Keep on paying attention on the research topic of the paper
- Use paragraphs to split each significant point (excluding for the abstract)
- Align the primary line of each section
- Present your points in sound order
- Use present tense to report well accepted
- Use past tense to describe specific results
- Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives
- Shun use of extra pictures - include only those figures essential to presenting results

Title Page:

Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address (es) of all authors.



Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript-- must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

An abstract is a brief distinct paragraph summary of finished work or work in development. In a minute or less a reviewer can be taught the foundation behind the study, common approach to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Yet, use comprehensive sentences and do not let go readability for brevity. You can maintain it succinct by phrasing sentences so that they provide more than lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else

Introduction:

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

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

Approach:

- Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done.
- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.



- Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.
- Shape the theory/purpose specifically - do not take a broad view.
- As always, give awareness to spelling, simplicity and correctness of sentences and phrases.

Procedures (Methods and Materials):

This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

Methods:

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

What to keep away from

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

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



Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
- Despite of position, each figure must be numbered one after the other and complete with subtitle
- In spite of position, each table must be titled, numbered one after the other and complete with heading
- All figure and table must be adequately complete that it could situate on its own, divide from text

Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.



THE ADMINISTRATION RULES

Please carefully note down following rules and regulation before submitting your Research Paper to Global Journals Inc. (US):

Segment Draft and Final Research Paper: You have to strictly follow the template of research paper. If it is not done your paper may get rejected.

- The **major constraint** is that you must independently make all content, tables, graphs, and facts that are offered in the paper. You must write each part of the paper wholly on your own. The Peer-reviewers need to identify your own perceptive of the concepts in your own terms. NEVER extract straight from any foundation, and never rephrase someone else's analysis.
- Do not give permission to anyone else to "PROOFREAD" your manuscript.
- **Methods to avoid Plagiarism is applied by us on every paper, if found guilty, you will be blacklisted by all of our collaborated research groups, your institution will be informed for this and strict legal actions will be taken immediately.)**
- To guard yourself and others from possible illegal use please do not permit anyone right to use to your paper and files.



CRITERION FOR GRADING A RESEARCH PAPER (COMPILATION)
BY GLOBAL JOURNALS INC. (US)

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals Inc. (US).

Topics	Grades		
	A-B	C-D	E-F
<i>Abstract</i>	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
<i>Introduction</i>	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
<i>Methods and Procedures</i>	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
<i>Result</i>	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
<i>Discussion</i>	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



INDEX

A

Anayochukwu · 2, 6

D

Domar · 1
Durevall · 23, 29
Dysfunctional · 15

E

Exogenous · 21

H

Harrod · 1

J

Juselius · 24, 25, 29

L

Leptokurtic · 33

M

Markowitz · 48, 59
Mehdianb · 38

O

Ozurumba, · 2, 6

T

Tunindex · 31, 33, 41, 43

Z

Zelhorst · 23, 28, 29



save our planet

Global Journal of Management and Business Research

Visit us on the Web at www.GlobalJournals.org | www.JournalofBusiness.Org
or email us at helpdesk@globaljournals.org



ISSN 9755853



© Global Journals