

GLOBAL JOURNAL

OF MANAGEMENT AND BUSINESS RESEARCH: B

Economics and Commerce

Challenges of Record Keeping

Feedback Effects of Sovereign Debt

Highlights

Boro Rice Farming of Bangladesh

Influencing of Socioeconomic Impacts

Discovering Thoughts, Inventing Future

VOLUME 19 ISSUE 3 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 19 ISSUE 3 (VER. 1.0)

OPEN ASSOCIATION OF RESEARCH SOCIETY

© Global Journal of
Management and Business
Research. 2019.

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-id-1463/](http://globaljournals.us/terms-and-condition/menu-id-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
945th Concord Streets,
Framingham Massachusetts Pin: 01701,
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 Pvt Ltd
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 (Excluding Air Parcel Charges):

Yearly Subscription (Personal & Institutional)
250 USD (B/W) & 350 USD (Color)

EDITORIAL BOARD

GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH

Dr. John D. Theodore

American Military University JDT Management Consultants, President. D.B.A., Business Economy University of South Africa Ph.D. Aristotelian University Business Administration Ph.D. Administration, University of Kansas United States

Dr. Nermeen Fathy Ahmed Shehata

Ph.D., M.Sc., B.Sc in Accounting, Graduate Teaching Assistant and PhD Researcher Finance and Accounting Group Aston Business School, Aston University, United Kingdom

Professor Maura Sheehan

Professor, International Management Director, International Centre for Management & Governance Research (ICMGR) Ph.D. in Economics United Kingdom

Prof. Moji Moatamedi

Honorary Vice Chair Ph.D., at The University of Sheffield, MBA, Manchester Business School University of Manchester United Kingdom

Dr. Carl Freedman

B.A., M.A., Ph.D. in English, Yale University Professor of English, Louisiana State University, United States

Dr. Xiaohong He

Professor of International Business University of Quinnipiac BS, Jilin Institute of Technology; MA, MS, Ph.D., (University of Texas-Dallas) United Kingdom

Yue-Jun Zhang

Ph.D. Professor of International Business College of Business Purdue University Northwest Hammond, Indiana United States

Dr. Ali Dehghan

Ph.D. in Technology, MS.c. in Engineering Management, MS.c. in Marketing & e-commerce, BS.c in Electrical Engineering, Eastern Michigan University, United States

Dr. Charles A. Rarick

Ph.D in Policy Analysis and Administration, M.B.A in Management, B.S. in Accounting, Psychology, Purdue University Calumet, United States

Dr. Afroditi Anagnostopoulou

Ph.D in Operational Research, BSc in Management Science and Technology, Department of Management Science and Technology, Athens University of Economics and Business, Greece

Dr. Bettina Mrusek

Ph.D. in Business Administration from Northcentral University, Assistant Professor and Program Chair for the Master's in Aviation Maintenance at Embry Riddle Aeronautical University. United State

Dr. Mohamed M. Elheddad

Ph.D, M.Sc in Economics, BA (Honour) in Economics, Hull University Business School, University of Hull, United Kingdom

Dr. R. Allen Shoaf

B.A., M.A., Ph.D. Cornell University Cornell University,
Teaching Assistant in the English Department, University
of Florida, United State

Dr. Agni Aliu

Ph.D. in Public Administration, South East European
University, Tetovo, RM Associate professor South East
European University, Tetovo, Macedonia

Dr. Ivona Vrdoljak Raguz

University of Dubrovnik, Head, Department of
Economics and Business Economics,
Croatia

Dr. Dodi Irawanto

Ph.D., M.Com, B.Econ Hons. Department of
Management Faculty of Economics and Business
Brawijaya University Malang, Indonesia

Dr. Yongbing Jiao

Ph.D in Marketing, Masters Degree in School of
Management, Ningbo University of Technology,
China

Dr. Mohd Norfian Alifiah

Ph.D in Business Management (Finance), Master in
Business Administration (Finance), Bachelor of
Commerce (Accounting), Universiti Teknologi Malaysia,
Malaysia

Dr. Gabriel Dwomoh

Ph.D in Human Resource Management, MBA in
Finance, Industrial Management, Universidad
Empresarial De Costa Rica, Ghana

Dr. Carlos Garcia Pont

Associate Professor of Marketing IESE Business School,
University of Navarra Doctor of Philosophy
(Management), Massachusetts Institute of Technology

Dr. Mehdi Taghian

Senior Lecturer Faculty of Business and Law BL Deakin
Business School Melbourne Burwood Campus
Australia

Dr. Wing-Keung Wonn

Ph.D., University of Wisconsin-Madison, Department of
Finance and Big Data Research Center Asia University,
Taiwan

Dr. Tsutomu Harada

Professor of Industrial Economics Ph.D., Stanford
University Doctor of Business Administration Kobe
University, Japan

Dr. Shnke M. Bartram

Department of Accounting and Finance Lancaster
University Management School Ph.D. (WHU Koblenz)
MBA/BBA (University of Saarbrucken), United Kingdom

Dr. Mohsen Ben Salem Brahmi

Ph.D in Economics ICT Management (Honors), Campus
Southern Scientific IAE Business Administration School,
France

Dr. Gorzen-Mitka Iwona

Ph.D in Economic Science, Management Science Specialty
Czestochowa University of Technology, Faculty of
Management Internal Auditor - Polish Institute of Internal
Control, Poland

Dr. Bhavesh O. Vanparia

Ph.D in Management, BBA, MBA in Marketing, PGD in
Research Methodology, Veer Narmad South Gujarat
University, India

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

(MIT) Master in Business Administration, IESE,
University of Navarra Degree in Industrial Engineering

Dr. Nigel Raylyn D'Silva

Ph.D in Econometrics, MBA in International Business,
B.Sc in Statistics, N. L. Dalmia Institute of Management
Studies & Research, Affiliated to Mumbai University,
India

Dr. Albrecht Classen

M.A. (Staatsexamen), Ph.D. University of Virginia,
German Director, Summer Abroad Program, Medieval
Europe Travel Course, Arizona

Dr. Ramzi Trabelsi

Ph.D in Economics Master in International Finance and
Macroeconomics Bachelor in Economics: Finance,
Money and Bank, High business school of Tunisia

Development Department Co-ordinator, Sustainable
Tourism Initiative, Calabar, Nigeria

Paul Thaddeus Kazibudzki

Doctor of Economic Sciences (Ph.D) Principal subjects /
occupational skills covered Field: Economics Discipline:
Management Sciences Name and type of organisation
providing education and training Institute of Organization
and Management in the Industry, Poland

Dr. Anas AL-Qudah

Assistant Professor Ph.D Financial Management Master
Degree Financial Management BA Accounting, UBFS-
University of Banking and Financial Sciences, Jordan

Dr. Brandon S. Shaw

Ph.D in Economics ICT Management (Honors), Campus
Southern Scientific IAE Business Administration School,
France

CONTENTS OF THE ISSUE

- i. Copyright Notice
 - ii. Editorial Board Members
 - iii. Chief Author and Dean
 - iv. Contents of the Issue
-
1. Challenges of Record Keeping for Engcobo Small, Micro and Medium Businesses, South Africa. *1-11*
 2. China- U. S. A Trade Friction on Bilateral Trade. *13-23*
 3. Volatility & Relationship of Gold & Gold ETF in India. *25-30*
 4. Influencing of Socioeconomic Impacts Through Mustard Inclusion in Fellow Period Preceding Boro Rice Farming of Bangladesh: A Field Study. *31-45*
-
- v. Fellows
 - vi. Auxiliary Memberships
 - vii. Preferred Author Guidelines
 - viii. Index



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

Volume 19 Issue 3 Version 1.0 Year 2019

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

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

Challenges of Record Keeping for Engcobo Small, Micro and Medium Businesses, South Africa

By Zolile Myeko & Vuyolwethu Madikane

Cape Peninsula University of Technology

Abstract- The study investigated challenges to record keeping practices experienced by small, micro, medium businesses in Engcobo Local Municipality. The objective of this study is to look at the barriers of record keeping when growing small, micro, medium businesses. The study used a mixed research method. We collected data through an interview schedules and questionnaires from eighty-five (85) participants. The questionnaires' data were analyzed using a Statistical Package for Social Sciences (SPSS), and the personal interviews data was analyzed using content analysis. The findings showed that the majority of our participants did not implement proper record keeping practices and that they did not understand the importance and the role of keeping records for their businesses. This study conveys information that contributes and helps small, micro, medium businesses owners to keep business records and to practice good record keeping practices, to maintain accurate business records of transactions.

Keywords: record keeping, small, micro, medium businesses, challenges, engcobo local municipality, south africa.

GJMBR-B Classification: JEL Code: M20



Strictly as per the compliance and regulations of:



Challenges of Record Keeping for Engcobo Small, Micro and Medium Businesses, South Africa

Zolile Myeko ^α & Vuyolwethu Madikane ^σ

Abstract- The study investigated challenges to record keeping practices experienced by small, micro, medium businesses in Engcobo Local Municipality. The objective of this study is to look at the barriers of record keeping when growing small, micro, medium businesses. The study used a mixed research method. We collected data through an interview schedules and questionnaires from eighty-five (85) participants. The questionnaires' data were analyzed using a Statistical Package for Social Sciences (SPSS), and the personal interviews data was analyzed using content analysis. The findings showed that the majority of our participants did not implement proper record keeping practices and that they did not understand the importance and the role of keeping records for their businesses. This study conveys information that contributes and helps small, micro, medium businesses owners to keep business records and to practice good record keeping practices, to maintain accurate business records of transactions. It is therefore recommended that small, micro, and medium businesses learn to use good record keeping and link the records keeping practice with business performance, to keep accurate records for their organizations.

Keywords: record keeping, small, micro, medium businesses, challenges, engcobo local municipality, south africa.

I. INTRODUCTION

Record keeping plays an imperative role in the success of the small, micro and medium businesses (SMMBs) worldwide. The small, micro, and medium businesses are popular in urban and rural areas of South Africa. The small, micro, and medium businesses reduce the unemployment rate and increase poverty alleviation in South Africa through job creation. According to Ghasia et al., (2017), proper record keeping enhances better performance and productivity in business ventures. Good record keeping assists SMMBs owners to improve business performance, and make the right business decisions in their business ventures. According to Danford et al., (2014), record keeping is very crucial because it involves the capturing, the maintenance and creating the provision for authentic and readily available records of business ventures. Good record keeping promotes the survival of business ventures through monitoring and evaluating their business progress (Ghasia et al., 2017).

Author α: Office of the registrar, Cape Peninsula University of Technology, South Africa. e-mail: myekoz@cput.ac.za

Author σ: e-mail: madikanev@cput.ac.za

According to Danford et al., (2014), previous studies revealed that in Tanzania, most of the SMMEs operated their business ventures without considering the impact of poor record keeping on their businesses.

Record keeping in SMMBs is a new player in the academic world. Ghasia et al., (2017) argues that there are very few empirical research projects about record keeping in SMMBs, particularly regarding connections with local government. Some scholars are still paying little attention to the matter of record keeping in the SMMBs' environment. According to Ghasia et al., (2017), most scholars spend their time exploring the dynamics of the SMEs performance and yet they ignore the role of record keeping. The scholars pay particular attention to certain things in the SMMBs, such as best performance and productivity. Interestingly, this study adds to what is currently known as record keeping challenges by investigating record keeping in the Engcobo SMMs. No research study has focused on the business records kept by the SMMBs owners in the Engcobo Local Municipality; even though there are limited empirical research studies regarding record keeping in small business in local government (Ghasia et al., 2017).

The study findings have been drawn from an empirical research study and quantitative and qualitative research. In this study SMMBs, SMMEs, and SMM's will be use interchangeably.

II. STATEMENT OF RESEARCH PROBLEM

There are little information and knowledge about the concept of record keeping amongst the SMMBs owners in the Engcobo Local Municipality. Poor record keeping has hurt SMMBs in the Engcobo Local Municipality. The challenge of record keeping in the small businesses at local government level has received little attention from scholar's worldwide (Ghasia et al., (2017). Webster et al., (1999) asserts that worldwide, no information or academic discussion about the record keeping in SMMBs in local government has taken place. According to Danford et al., (2014), since 2012, Tanzania, for the first time, has admitted that record keeping was a greater problem contributing towards the performance and success of Small businesses. Record

keeping made a main contribution to the performance and the success of small businesses.

Danford et al., (2014) emphasizes that the small businesses faced unique challenges regarding record keeping in their business ventures. Most SMMBs owners pay more attention to making and sell their products rather than on keeping their books and records correct (Kengere et al., 2010).

III. OBJECTIVES OF THE STUDY

The objectives of this study are as following:

- To investigate the challenges of record keeping faced by Engcoco small, micro, medium businesses
- To identify the causes of poor record keeping in Engcoco small, micro, medium businesses.
- To investigate how Lack of proper record keeping impacts Engcoco small, micro, medium businesses.
- To zoom into solutions on how to address record-keeping challenges at Engcoco small, micro, medium businesses.

IV. RESEARCH QUESTIONS

Due to the above objectives, the following questions are necessary.

- What is the record- keeping challenges facing Engcoco small, micro and medium businesses?
- Why Engcoco small, micro, and medium businesses faced record-keeping challenges?
- What can be done to solve poor record- keeping for Engcoco small, micro, and medium businesses?

V. LITERATURE REVIEW

a) *Definition of records keeping*

According to Musah and Ibrahim (2014) and Danford et al., (2014), record keeping refers to the process that involves the capturing, the maintaining and the provision of authentic and readily available business records. According to Nketsiah (2018), record keeping refers to documents created or received and maintained by an organization or by an individual, in pursuance of legal obligations or in transacting business.

The emphasis is that throughout the world, all organizations create records daily maintain them in a proper manner, and disposes of them through destroying or keeping permanent records. According to Roper and Millar (1999) record-keeping practice passes through various stages such as the current stage, a semi-current stage, and a non-current stage. The current stage is when the records are maintained daily in an organization, the semi-current life cycle is whereby record are still use every quarter as part of referencing, while non-current records are where record are no longer used by the organization.

According to Walsham (2016), record-keeping refers to the skill of preserving and storing recorded information for important events and actions within business ventures. The emphasizes is that record-keeping is a particular skill that is used to manage all the recorded information regarding businesses. Abdul-Rahaman and Adejare (2014) describe record keeping as the process of identifying and classifying, storing and protecting essential business records. Record keeping is the process of keeping significance records for evidence and references for present, and future use.

b) *Theoretical framework*

This study draws from two different theoretical frameworks, namely the Record Continuum Model and the Decision Usefulness Accounting Theory. According to Ghasia et al., (2017), the Records Continuum Model and the Decision Usefulness Accounting Theory are theoretical frameworks that can be used to explain record keeping in small, micro, medium businesses. The Records Continuum Model emphasizes the importance of keeping good relationships going between records managers and archivists to address the issues of the life cycle of records, in all businesses. The model looks at records keeping in organizations in different ways; for example, a record manager focuses on current and future recorded information while the archivist looks at past, present and future use of recorded information in the organizations.

Mutua (2015) argues that the Decision Usefulness Accounting Theory plays a significance role in business management. The Decision Usefulness accounting theory explains all business processes that might lead to relevant information being made available to the decision maker of the business venture. The Decision Usefulness Accounting Theory is directly to the record- keeping in SMMBs by owners because it helps them to make correct decisions regarding their business ventures. Hendriksen (1965) argues that the Decision usefulness accounting theory provides a guideline to those who want to develop a clear financial statement of the state of a business venture, particularly small businesses.

c) *Challenges of Record-Keeping in Small, Micro, Medium Businesses*

i. *Lacking of proper record keeping*

According to Danford et al. (2014), poor record-keeping is a big challenge for SMMBS in all sectors, worldwide. It is clear that a lack of good record-keeping in SMMBs creates obstacles in the way of good business performance and success. Kengere et al., (2010) argues that a lack of proper record keeping causes a serious plight for SMMBs owners. Most of SMMBs owners spend their time focusing on purchasing and production rather than looking at record

keeping practices in their business venture (Mbona et al., 2010).

Due to the lack of proper record-keeping in SMMBs, business owners are unable to maintain the progress of financial transactions in their business ventures. A lack of acceptable record-keeping practice in SMMBs affects financial institutions and government agencies, in terms of providing the necessary support to them when they want to borrow money.

According to Masuke (2010), SMMBs struggle to get funds from financial institutions and government agencies because they fail to keep accounting records and annual financial statements. The lack of proper record-keeping practice in SMMBs has hurt them when they need financial assistance. Most SMMBs neglect good record-keeping practice whereas it is extremely imperative for them to be successful and sustainable in their sectors. SMM's play an essential role in terms of reducing poverty and job creation in various countries worldwide (Mutalemwa, 2010). Because majority of SMM's are not registered, proper record-keeping practice is not a daily issue for them. Even though some of them are growing fast in terms of their business performance, but without proper record-keeping practices. The government fails to provide guidelines for SMMBs in terms of accounting records in their businesses (Mutalemwa, 2010).

The lower levels of education in SMMBs causes a problem of poor record-keeping in many business ventures. Danford et al., (2014) argues that the lower level of understanding of the importance and the non-compliance to proper record-keeping procedures causes the negative performance of many business ventures.

Musah and Ibrahim (2014), assert that a lack of proper record-keeping leads to the failure of many SMMBs because they are unable to provide records for necessary managerial decisions in their business ventures. The benefits of right way of record-keeping in business ventures are not doubted in terms of recording information when it's necessary, but the lack of proper record-keeping remains a big problem in SMMBs.

ii. *Lacking knowledge*

Musah and Ibrahim (2014), emphasize the lack of knowledge about the contribution made by poor record-keeping in small business ventures. However, recorded information can be collected manually or electronically. Most of the manually recorded information comprises sales, purchases on credit, cash payments, and receipt records (Musah & Ibrahim, 2014). Manually recorded information does not require technical skills to run as part of a business venture.

Most SMMBs do not understand the relationship between their businesses' performance and proper record-keeping. According to Muteti et al., (2018), small businesses face a big problem with the

lack of knowledge on record-keeping in their business ventures. The abovementioned statements indicate that the SMMBs do not regard record-keeping as a contributory factor to the success, and the business performance of their businesses. According to Muchira (2012), proper record-keeping is the best tool to improve a business's performance and to ensure the business's survival for a long time in its sector. This emphasizes that a lack of knowledge about the necessity of record-keeping in many SMMBs is a greater challenge because poor record-keeping affects the business's performance.

Even though lacking knowledge of record-keeping in SMMBs may be caused by various reasons, such as a lower level of education, or business management skills, inadequate personnel, and a lack of business information.

iii. *Lack of time*

According to Muteti et al., (2018), most SMMBs do not have the time to look after their business records because they are focused on selling their products. SMM's have a lot of work to do in their businesses, and therefore, they focus on other business needs and thus may not have enough time to look after their business records (Muchira, 2012). The business's profit motive forces SMMBs personnel to occupy various positions in their business, and thus, they neglect the maintenance of business records.

iv. *Manual records*

The SMM's face a challenge with keeping manual records for their organizations. According to Muteti et al. (2018), manual record-keeping is a serious challenge for many SMM's. Manual record-keeping needs somebody to be responsible for filling its business records. The SMM's has to employ an extra person to handle the filing of their business's recorded information regarding costs, which, in turn, affects the profitability of the organizations. This emphasizes the fact that SMM's owners should take record-keeping seriously as a contributory factor to the business's performance and success (Muchira, 2012).

v. *Lack of facilities*

Most of the SMM's face the challenge of a lack of business facilities in their firms. According to Muteti et al., (2018), SMM's experience this lack, particularly in respect of facilities in their workplaces or workstations. Shows that most of the SMM's do not have enough space to keep their products and their records in the same place. Proper record-keeping needs its own space for filing business records. The SMM's owners chose to ignore record-keeping and had decided to pay special attention to their business products space in their business rather than allocating space for record-keeping.

vi. *Lack of finance*

The SMM's do not have enough money to employ a worker for the filing of business records for their businesses. A lack of money is a main challenge in SMM's because this lack does not allow firms to employ skillful personnel for record keeping (Muteti et al., 2018). It shows clearly that proper record -keeping needs money to hire skilled workers who can perform record-keeping duties. According to Howard (2009), poor record keeping might lead to the closure of most of these businesses. It shows that proper record-keeping plays an important role in the success of a firm, particularly small businesses. According to Muchura (2012), small business owners should be directly involved in record keeping processes to save money.

vii. *Do not know*

Some SMM's do not understand why they should keep records for their business. It emphasizes that some small business owners do not know or they do not understand the link between business performance and record keeping. The small firms that do not understand why they should keep records for their organizations are associated with those who have a lower level of education (Muteti et al., 2018).

viii. *Competence of clerical staff*

Most small businesses face a challenge with the lack of record keeping skills in their firms. The majority of the small business owners do not have record keeping skills, and their staff also have no proper record keeping skills to help them to improve their record keeping system. According to Muteti et al., (2018), small businesses face the challenge of a lack of competence of clerical staff to handle record keeping.

ix. *Retrieving information*

The SMM's owners and employees face a challenge in retrieving written documents for their organizations, due to poor record keeping. Ghasia et al., (2017) revealed that fifty-four percent (54%) of the majority of small businesses in the Vigaeni ward in the Mtwara-Mikindani Municipality in Tanzania confirmed that they struggle to retrieve information due to poor record keeping. This attributed to a lack of knowledge and skills in proper record keeping. Such poor record-keeping indicates the possibility of losing extremely imperative recorded business information.

x. *Standardization of the record keeping method*

Most of the SMM's owners complain about the lack of guidance from the government regarding record keeping for their business and other relevant authorities. The lack of a standardized method of record-keeping in SMM's has caused a big challenge for their organizations (Ghasia et al., 2017). This emphasizes the fact that the government failed to provide clear direction regarding record-keeping for SMM's. This lack of guidance occurs not only in Tanzania, but it also faces

the whole East and Southern region (Ghasia et al., 2017).

This emphasizes that the Eastern and the Southern African countries face a similar challenge of poor record keeping in their business ventures. Interestingly, both the Eastern and the Southern African regions struggle to capture and to preserve business records, due to a lack of a standardized method of record keeping.

xi. *Fear of discouragement in case of loss*

Business owners fail to keep proper records in their businesses for many different reasons. According to Muchira and Ambrose (2014), some business owners mention fear of discouragement in the case of a loss in their businesses as a main contributing factor. This emphasizes that some business owners are not interested in knowing details about their business's performance from a financial transaction point of view.

xii. *Retention schedule*

The SMM's face a challenge regarding how long they should keep their records for in their firms. Some small businesses owners were not sure about how long they should keep their recorded information for their organizations due to a lack of retention policies and guidelines (Ghasia et al., 2017). The majority of small businesses do not know about the use of a disposal program for their business records. This indicates clearly that retention schedules are needed for small businesses to use as a guideline.

VI. RESEARCH METHODOLOGY

a) *Methodology*

The study adopted mixed research method involving qualitative and quantitative research (Creswell, 2009). The mixed-method provides an opportunity to extract as much significance information as possible from the SMMBs regarding the challenges of record keeping. Mostly, questionnaires alone do not provide an opportunity for clarifying and for explaining some issues, whereas the interview schedule gives enough opportunity a better explanation, for interrogation, and interaction between the researchers and the participants.

b) *Research population*

The research population for this study comprised of SMMBs owners and Local economic development officers in the Engcobo Local Municipality. This study, SMMBs is a small business which has been existed in more than one year and employed workers up to 5 but not more than 200 employees. This study was limited to those who own SMMBs in the Engcobo Local Municipality from various industry sectors. The research population focuses on both registered and non-registered SMMBs from different industry sectors.

The researchers selected the research population with the view that the selected participants would reveal important information about the research problem. Due to the cost and the time constraints on finishing the study, the researchers decided not to study the entire population; instead, a sample taken from few target population.

c) *Sampling method*

This study, a non-probability technique was used to reach the target population in selected areas. Many attempts were made to get a database of Engcoco SMMBs; there is no official list or database of small business in Engcoco Local Municipality or entire Eastern Cape. As a result, Non-probability sampling used in conjunction with snowball sampling in this study. The researchers selected subjects from different industrial sectors in Engcoco Local Municipality, Eastern Cape in South Africa. The sample size was eighty-five (85) respondents.

d) *Analysis*

The data collected from the questionnaires was descriptive, statistically analyzed. Descriptive statistical

analysis was utilized to identify the frequencies and the percentages of the variables. The Statistical Package for the Social Science (SPSS) software used as a tool to analyze quantitative data. The Statistical Package for the Social Science is computer-based software which can be use as a tool for analyzing data, and it is useful because it creates charts, graphs and table presentations of patterns (Field, 2009). Qualitative data were used for analysis using content analysis.

VII. DISCUSSION OF THE FINDINGS

The researchers intend to present the data collected through quantitative data.

a) *Gender respondents*

Table 7.1 below illustrates the gender of the SMMBs owners. This result may help SMM's owners to understand the numbers of males and females respectively, who are directly involved in SMMBs in the Engcoco Local Municipality.

Table 7.1: Gender of SMMBs Owners

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	23	51.1	51.1	51.1
	Female	22	48.9	48.9	100.0
	Total	45	100.0	100.0	

The table above shows that the majority of respondents were male, which totaled twenty-three (23) out of the forty-five (45) respondents. Hence a percentage of 51.1 percent and twenty-two (22) were females, which represented 48.9 percent of the total number of respondents.

These results show that the number of male respondents were much higher than the female respondents. The male is responsible for providing food, clothing, finance, and shelter in some family cultures. The findings above are in line with those of previous studies by Nketsia (2018), revealed that among the small business operators in the Sekondi-Takoradi Metropolitan area in Ghana, that the majority of business owners were male. Interestingly, the reason for

this situation was that females dominate in certain industry sectors such as hairstyling, tailoring or dressmaking. GEM (2015/16) reveals that there is a wider gender gap between males and females in South African society. For example, there are only six (6) women to every ten (10) men engaged in early-stage small business activities. Furthermore, it reflects gaps or differences in their cultures, and their customs regarding female participation in the economy.

b) *Highest level of education*

Table 7.2 below illustrates the highest level of school education that the SMMBs owners obtained. The results provide a clear picture of the education in the SMMBs owners in the Engcoco Local Municipal area.

Table 7.2: Level of Education

Education		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Grade 1 - 11	20	44.4	44.4	44.4
	Matric	20	44.4	44.4	88.9
	Certificate/Diploma	5	11.1	11.1	100.0
	Total	45	100.0	100.0	

The table above shows that of the forty-five (45) respondents that participated in the study majority, twenty (20) (44.4%), were both Grade 1-11 and matric

holders. This was followed by five (5) (11.1%), who had certificate/diploma qualifications.

The above results indicate that the majority of the SMMBs owners studied up to matric level. The findings above are in line with those of previous studies by Nketsiah (2018) that revealed that only a few numbers of small businesses owners completed tertiary education qualification and that the majority of the small business owners completed primary and secondary school qualifications only. Danford et al. (2014) which found that SMEs at Madukani Ward-Dodoma region in Tanzania majority level of education was from primary to secondary school and few numbers of those who managed to obtained university education level. In the majority of business owners relatively low level of education links to the poor standard of record keeping in their businesses.

This highlights that the lower level of education leads to non-compliance for proper record keeping for their business, because of the lack of management skills caused by low levels of education. This posed a big challenge for their business record keeping.

c) *Causes for poor record keeping in SMMBs*

Table 7.3 below illustrates an indication of the causes for poor record keeping of the SMMBs owners. The results of this study can be utilised to check the causes for poor record keeping in SMMBs owners at Engcoco Local Municipal area.

Table 7.3: Causes for poor record keeping in SMMBs

Causes		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Keep business records information in my head	2	4.4	4.4	4.4
	Preparing business records is cost and time consuming	3	6.7	6.7	11.1
	Don't have to keep any business records in my business, I own the business	14	31.1	31.1	42.2
	Don't know how to keep business records	20	44.4	44.4	86.7
	Use my own experience to keep business records	6	13.3	13.3	100.0
	Total	45	100.0	100.0	

The results above shows that out of the forty-five (45) respondents twenty (20) respondents (44.4 percent) indicated that Engcoco SMMBs confirmed that they don't know how to keep their business records. Fourteen (14) respondents (31.1 percent) said that they don't have to maintain any business record in their businesses. Six (6) respondents (13.3 percent) confirmed that they own the business ventures. Three (3) respondents (6.7 percent) said that preparing business record is cost and time consuming, and two (2) respondents (4.4 percent) said that they keep business record information in their heads.

business record in their business ventures. These findings are line with Olukotun et al. (2012) revealed that the majority of small businesses in Ijumu local government of kogistate experienced the lacking of knowledge, skills, time and some avoid cost for record keeping in their business ventures.

These results indicate that the majority of SMMBs owners think that they don't know how to keep a

d) *Handle business records*

Table 7.4 below illustrates an indication of how the SMMBs owners handle their business records in their business ventures. The results of this study can be utilized to check how SMMBs owners handle or manage their business records in the Engcoco Local Municipal area.

Table 7.4: Handle business records

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Owners	31	68.9	70.5	70.5
	Employees	13	28.9	29.5	100.0
	Total	44	97.8	100.0	
Missing	System	1	2.2		
Total		45	100.0		

In this study, the majority of the respondent's thirty-one (31) (68.9 percent) indicated that Engcoco SMMBs owners are responsible for record keeping in their business ventures. Thirteen (13) (28.9 percent) delegate the duty of keeping records in their business ventures to their employees.

These results demonstrate that the majority of SMMBs owners are responsible for record keeping in their businesses. These results could be related to the previous suggestion made by Ghasia et al., (2017), that revealed that most of the business owners assign their record keeping tasks to their relatives who have a lower level of education. The advantage of using their close relative for these tasks was to pay them lower salaries or not paying them, which also contributed to the lower level of performance in the record keeping tasks.

Danford et al., (2014) who revealed that most of the small businesses (62 percent) though that keeping

records added unnecessary costs to their business and affected their profits. "You need to pay employees, buy computer equipment and necessary stationery and pay your staff." These results indicate that the SMM's owners keep records themselves because they want to avoid extra costs. Interestingly, this demonstrates the lower level of education for small business owners regarding record keeping. The SMM's owners need to understand the benefit of keeping records for their businesses.

e) *Record-keeping system*

Table 7.5 below illustrates an indication of the type of record keeping systems that SMMBs owners are utilizing in their organizations. The results of this study can be utilized to check which type of record keeping systems SMMBs owners prefer to use.

Table 7.5: Record keeping system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Only paper based	18	40.0	40.0	40.0
	Both paper and electronic	25	55.6	55.6	95.6
	None	2	4.4	4.4	100.0
	Total	45	100.0	100.0	

The table above shows that out of forty-five (45) respondents twenty-five (25) respondents (55.6 percent) indicated that SMMBs owners utilized both paper-based and electronic record keeping systems for their businesses. This was followed by eighteen (18) respondents (40.0 percent) who confirmed that they used only a paper-based record keeping system. Interestingly, very few, two (2) respondents (4.4 percent) did not use any record keeping system; instead, they used their memory only.

These results demonstrate that the majority of SMMBs owners are utilizing both papers-based and electronic systems in their business ventures. These

findings are in line with Ghasia et al., (2017), revealed that SMEs in Mtwara-Mikindani Municipality use both paper-based and electronic systems in their business ventures. These two systems are complemented to each other because paper-based keep backup for electronic system, and also use as backup when paper-based information missing in their business ventures.

f) *Challenges of record keeping*

Table 7.6 below indicates the challenges of record keeping amongst SMMBs owners. The results of this study can be utilized to identify barriers of record keeping by SMMBs owners in the Engcoco Local Municipal area.

Table 7.6: Challenges of record keeping

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lack of facilities	22	48.9	48.9	48.9
	Knowledge of record keeping	22	48.9	48.9	97.8
	Cost and time	1	2.2	2.2	100.0
	Total	45	100.0	100.0	

The table above shows that out of the forty-five (45) respondents that twenty-two (22) respondents (48.9 percent) indicated that SMMBs owners experience the challenge of lack of facilities in their business. Twenty-two (22) respondents (48.9 percent) experience

challenges of lacking of knowledge about record keeping in their business. Interestingly, only one (1) respondent (2.2 percent) experience challenge of cost and time for record keeping in their business.

These results demonstrate that the majority of SMMBs owners experience challenges of manual records and standard methods in their business ventures. These results could be related to the previous suggestion made by Muteti et al., (2018) revealed that small businesses in Makueni County in Kenya experience challenges of time, manual record, knowledge, lacking finance and lacking facilities in their business ventures.

g) *Keeping of records before disposal*

Table 7.7 below illustrates an indication of the how long the SMMBs owners keep records before destroying them. The results of this study can be utilize to check how long the SMMBs owners keep their business records before disposition them in their business ventures.

Table 7.7: Keeping of records before disposal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	One year	15	33.3	33.3	33.3
	Two years	8	17.8	17.8	51.1
	Not sure	22	48.9	48.9	100.0
	Total	45	100.0	100.0	

The table above shows that out of forty-five (45) respondents that twenty-two (22) respondents (48.9 percent) indicated that SMMBs owners are not sure how long they keep records for their businesses before destroying them. This was followed by fifteen (15) respondents (33.3 percent) who confirmed that they keep a record for one year only. Interestingly, very few, eight (8) respondents (17.8 percent) keep records for two years for their businesses.

could be related to the previous suggestion made by Ghasia et al., (2017) revealed that all small business owners and their employees do not know how long to keep their business records before disposal.

These results demonstrate that the majority of SMMBs owners are not sure how long to maintain their business records for before disposal. These results

h) *Reasons not having any records keeping awareness or training*

Table 7.8 below illustrates an indication of the record keeping awareness of the SMMBs owners. The results of this study can be utilize to check whether SMM's owners need recordkeeping awareness or not in their business ventures.

Table 7.8: Reasons not having any records keeping awareness or training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Don't know how to contact them	5	11.1	11.1	11.1
	Too cumbersome to get help	15	33.3	33.3	44.4
	Have not yet been approached	25	55.6	55.6	100.0
	Total	45	100.0	100.0	

The table above shows that out of the forty-five (45) respondents that twenty-five (25) respondents (55.6 percent) indicated that SMMBs owners have not yet been invited to attend record- keeping trainings in their business ventures. This was followed by fifteen (15) respondents (33.3 percent) indicated that it is too cumbersome to get help in their businesses. Interestingly, very few, five (5) respondents (11.1 percent) showed that don't know how to contact the people who can provide them record keeping training in their businesses.

keeping awareness or training. These results could be related to the previous suggestion made by Mbroh and Assah (2015) revealed that most small businesses did not receive any request to attend record- keeping workshops.

i) *Records as business assets*

Table 7.9 below illustrates an indication of the records as business assets of the SMMBs owners. The results of this study can be utilize to check whether SMM's owners consider keeping records as one of their business assets.

These results demonstrate that most SMMBs owners have not yet been approached about record

Table 7.9: Record as business assets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	6	13.3	13.3	13.3
	Don't know	20	44.4	44.4	57.8
	Agree	18	40.0	40.0	97.8
	Strongly Agree	1	2.2	2.2	100.0
	Total	45	100.0	100.0	

The table above shows that out of the forty-five (45) respondents that twenty (20) respondents (44.4 percent) indicated that SMMBs owners do not know whether records form part of their business assets. This was followed by eighteen (18) respondents (40.0 percent) who agreed that record keeping is one of their business assets. Interestingly, very few, six (6) respondents (13.3 percent) did not consider record keeping as one of their business assets.

These results indicate that most SMMBs owners did not sure whether they consider business records as business assets for their businesses. These results could be related to the previous suggestion made by Muchira and Ambrose (2014) revealed that most small businesses do not require record-keeping in their business because their firms can be successful even though they do not keep records of its operation. Muteti et al., (2018) contended that a lack of knowledge on record keeping is a contributing factor to poor record keeping in their business ventures.

VIII. PERSONAL INTERVIEWS WITH ENGCOCO SMMBS OWNERS

The researchers present the data collected through the interviewing technique.

a) *Question 1:* How do you allocate time for filing and reading records?

Most of the SMM's owners responded by saying that keeping records for their business takes too much time some of the responses are below.

"We do not have time for filing business record."

The findings above are in line with those of previous studies by Danford et al., (2014), which found that the small businesses experience the challenges of record keeping due to lacking knowledge, cost and time constraints in their business ventures.

b) *Question 2:* Do you have record- keeping challenges in your business?

The researchers asked the interviewees about the record keeping challenges that the SMMBs owners faced, considering that they worked long hours every day. Many of the interviewees said that this had become a greater challenge for them. Some of their responses are written below.

"I do not have time to organize business records properly because I am alone and responsible for everything in my business."

The findings above are in line with those of previous studies by Danford et al, (2014), revealed that the majority of the SMEs at Maduka ward Dodoma region in Tanzania said that recordkeeping takes more time in their businesses.

"Record keeping adds an unnecessary task to my business."

The findings above are in line with those of previous studies by Danford et al. (2014) which found that majority of SMEs were of the views that record keeping adds unnecessary cost to their business and take a portion of their profit in their firms.

"I do not know how to manage my business records."

The findings above are in line with those of previous studies by Ghasia et al., (2017), which found that majority of the small businesses owners and employees in Nigeria were lacking professional knowledge on recordkeeping due to a lower level of education. Olukolun et al. (2012), revealed that the majority of the small businesses in Ijumu local government area of Kogi state does not know how to keep records properly.

c) *Question 3:* Why did you decide to maintain or destroy business records?

The researchers asked the interviewees about the reasons why they decided to keep records or why they destroyed the records of the SMM's. Some of their responses are noted below.

"I keep business records because they are important for my business, although, I do not have enough time to look after the business records and I do not have the space to keep business records for my business."

The findings above are in line with those of previous studies by Ghasia et al., (2017), revealed that the several SMEs in Nigeria said that certain aspects of record keeping are very imperative to their business ventures.

"I keep business records for a few weeks, and then I destroy them after that."

The findings above are in line with those of previous studies by Ghasia et al.,(2017), which found that record keeping from the creation to disposal was very poor and those SMEs have facilities for record keeping were not used I proper way.

- d) *Question 4:* Do you have rules or procedures in your business for record- keeping practices, and if yes, how does it work?

The researchers wanted to check whether the SMMBs owners have any established business rules and procedures for record keeping. The majority of the SMM's owners did not have rules and procedures for record keeping for their businesses; while a few said:

"I keep only those important business record for my business."

The findings above are in line with those of previous studies by Ghasia et al. (2017) revealed that few small business owner were of the view that the lacking of policy for business records management in small businesses created a lot of challenges which have negative impact on the record keeping including a lack of clear methods of records creation and disposition.

- e) *Question 5:* How do you manage business records and your personal records?

This question included because the researchers wanted to know how the SMMBs owners managed their business records. A number of the SMM's owners indicated that they kept their business records for a year, on their business premises.

"A few of them said that they put their business records in big boxes, once the boxes were full; they destroy the old business records and keep the new business records".

The findings above are in line with those of previous studies by Ghasia et al., (2017), which found that the greater challenge faced by SMEs at Vigani ward in Mtwara-Mikindani Municipality in Tanzania was lacking retention schedules and procedures for disposal of records. Danford et al., (2014), revealed that some small businesses destroy their business records due to the fact that they avoid tax burden can be imposed to them by the government.

IX. RECOMMENDATIONS

The researchers recommend that there is a need to strengthen our education system in such a way that certain aspects and principles of simple business recording are taught at primary and secondary education levels in subjects such as accountancy and business studies, considering that the majority of the SMMBs owners have completed a matriculation level of education.

The researchers recommend that a national Small business Development Department, a Finance

Department, and an Arts and Culture Department should arrange training sessions for small businesses; in particular for small, micro, medium businesses enterprises, as well as encouraging increased awareness of record keeping through the media and social media for the benefit of small, micro, medium businesses.

The local economic development department at Engcoco Local Municipality should prepare a training program on proper record keeping. The municipality should develop and implement a business records management policy to improve record-keeping practices in the municipalities. This policy should clearly define the guidelines, the procedures, and the responsibilities of a small business owners and employees, about record-keeping.

X. CONCLUSION

Many previous studies have underestimated the economic contribution made by small, micro, medium businesses worldwide. Some SMMBs are well established and have made huge profits in their businesses. This study has shown clearly that the majority of SMMBs owners lack knowledge about the importance of record keeping. Most of them do not understand how to choose which records they need to keep and which to destroy. However, this study emphasized that record keeping is an extremely significant aspect in all business ventures worldwide. The record- keeping is not only South Africa challenge is global challenges.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Abdul-Rahamon, O.A. and Adejare, A.T. 2014. The analysis of the impact of accounting records keeping on the performance of the small-scale enterprises. *International Journal of Academic Research in Business and Social Sciences*, HR MARS exploring intellectual capital, Vol. 4 No.1, pp.1-17.
2. Creswell, J.W. 2009. *Research Design: qualitative, quantitative, and mixed methods approaches*. Washington DC: Sage Publications.
3. Danford, S., John, K., Lazaro, K. 2014. A challenge of business record keeping for Tanzania Small and Medium enterprises (SMEs): A case of Madukani ward Dodoma region. *European Journal of Business and Management*, Vol. 6 No. 38, Ilste.org pp 82 – 86.
4. Field, A. 2009. *Discovering Statistic Using SPSS*. (3rd ed.) Thousand Oaks: Sage.
5. Global Entrepreneurship Monitor. 2015/16. South African report. Is South Africa heading for an economic meltdown? University of Cape Town, Development Unit for New Enterprises.

6. Ghasia, B.A., Wamukoya, J. & Otike, J. 2017. Managing Business records in small and medium enterprises at Vigaeni ward in Mtwara-Mikindani Municipality, Tanzania, *International Journal of management Research & Review*, Vol. 7 Issue 10, published by IJMRR, pp. 974 – 986.
7. Hendriksen, E.S. 1965. Accounting theory, Richard, D, Irwin Inc., Homewood, Illinois, USA.
8. Howard, P. 2009. Good recording important for successful business: Angelo State University.
9. Masuke, E. 2010. Recent Africa experience in SME financing – A case of CRDB Bank Ltd (Tanzania). A presentation paper.
10. Mbona, L., Mwaipopo, R. & Philemon, R.M. 2010. Challenges facing small food vending owned enterprises in Dar es salaam.
11. Mbroh, J.K. & Assah, B. 2015. Financial records keeping and business decision making practices by small and micro enterprise owners in Ghana – evidence from the central region. *International Journal of Economics, Commerce and Management*, United Kingdom, Vol. 111, Issue 8 pp. 467 – 491.
12. Mutalemwa, D. 2010. Informal sector taxation in Tanzania. The Economic and Social research foundation, TAKNET policy Brief series No.12. Dar es salaam, Tanzania, pp. 4.
13. Muteti, N., Namusonge, M. & Nzomo, D. 2018. Accounting systems for records keeping practice for small enterprise development in Makueni county, Kenya, *Open Journal of Accounting, Scientific Research Publishing*, Vol. 7 pp. 181 – 190.
14. Musah, A. & Ibrahim, M. 2014. Record keeping and the bottom line: Exploring the relationship between record keeping and business performance among small and medium enterprises (SMEs) in the Tamale Metropolis of Ghana, *Research Journal of Finance and Accounting*, Ilste, Vol. 5 No. 2 pp. 107-117.
15. Mukwarami, J. 2017. *Factors affecting the growth of locally owned spaza shops in selected townships in South Africa* (Doctoral dissertation, Cape Peninsula University of Technology).
16. Muchira, B.W. 2012. Record keeping and growth of micro and small enterprises: A case study of Thika Municipality in Kenya, unpublished Master thesis, Kenyatta University, Kenya.
17. Muchira, B.W. & Ambrose, J. 2014. Record keeping and growth of micro and small enterprises: An Empirical Study of MSEs in selected urban centres in Kenya. *Global Journal of Commerce & Management Perspective, Global Institute for Research & Education*, Vol. 3 (3) pp. 79 – 87.
18. Mutua, J.M. 2015. Effect of bookkeeping on the growth of small and medium enterprises in Chuka Town. *European Journal of Business and Social Science*, Vol. 4, No. 07, pp.102 – 112.
19. Nketsiah, I. 2018. Financial record keeping practices of small business operators in the Sekondi-Takoradi metropolitan area of Ghana, *Asia Journal of Economics, Business and Accounting*, Vol. 6 (3) pp. 1 – 9.
20. Olawale, F. & Garwe, D. 2010. Obstacles to the growth of new SMEs in South Africa: A principal component analysis approach. *African Journal of Business Management, Academic Journal*, Vol. 4 No. 5 pp. 729 - 738.
21. Olukotun, A.G., James, S.O. & Olore, I. 2012. The role of record keeping in the survival and growth of small-scale enterprises in Ijumu local area of Kogi state, *Global Journal of Management and Business Research*, Vol. 12, Issue 13 Version 1.0, Global Journal Inc. (USA) pp. 54 – 66.
22. Roper, M. & Millar, L. (Eds), 1999. Management of public sector records: principles and context, International records management trust.
23. Walsham, A. 2016. The Social History of the Archive: Record-Keeping in Early Modern Europe.
24. Webster, B.M., Hare, E.C. & Mcleod, J. 1999. Records management practices in small and medium sized enterprises: A study in North-East England. *Journal of Information Science*, 25 (4), pp. 283 – 294.

This page is intentionally left blank



China- U. S. A Trade Friction on Bilateral Trade

By Most. Ayasha Siddiqua

Begum Rokeya University

Abstract- This study is typically descriptive that has been analysed through different componential data of the Chinese and U.S.A. economy about the bilateral trade issues. The objective of the paper is to analyze and find the friction areas of Chinese and USA trade and implications. U.S.A-China change friction is dampening the Chinese financial system, through a decline in the call for. Over the medium to a long time, the alternate row should depress China's capability economic growth price via supply-aspect elements. The United States are strengthening regulations on acquisitions of U.S. excessive-tech companies by means of Chinese businesses. This, mixed with strengthened capital manage in China, has brought about a steep decline in Chinese direct investments inside America, from 46 billion bucks in 2016 to 29 billion dollars in 2017 to 4.8 billion dollars in appearing time will make it more and more tough for China to acquire technology and others from the U.S.A. China and America have discovered bilateral treaties and multilateral regulations which includes the WTO guidelines, economic and trade family members have grown deeper and wider.

Keywords: *trade, implications, friction. Bilateral.*

GJMBR-B Classification: *JEL Code: F63*



Strictly as per the compliance and regulations of:



China- U. S. A Trade Friction on Bilateral Trade

Most. Ayasha Siddiqua

Abstract- This study is typically descriptive that has been analyses through different componential data of the Chinese and U.S.A. economy about the bilateral trade issues. The objective of the paper is to analyze and find the friction areas of Chinese and USA trade and implications. U.S.A-China change friction is dampening the Chinese financial system, through a decline in the call for. Over the medium to a long time, the alternate row should depress China's capability economic growth price via supply-aspect elements. The United States are strengthening regulations on acquisitions of U.S. excessive-tech companies by means of Chinese businesses. This, mixed with strengthened capital manage in China, has brought about a steep decline in Chinese direct investments inside America, from 46 billion bucks in 2016 to 29 billion dollars in 2017 to 4.8 billion dollars in appearing time will make it more and more tough for China to acquire technology and others from the U.S.A. China and America have discovered bilateral treaties and multilateral regulations which includes the WTO guidelines, economic and trade family members have grown deeper and wider. Comparative strengths and the picks of the market, the two international locations have constructed up a jointly useful courting proposing structural synergy and convergence of interests. A few stages of change friction are handiest herbal. The key, however, lies in a way to beautify mutual trust, promote cooperation, and manage variations. Attitude of resolving disputes thru talk and session, and answering U.S. issues with the best stage of staying power and true religion. It has triumphed over many problems and made giant efforts to stabilize China-US economic and change family members via preserving rounds of discussions with the facet of the united states and providing sensible solutions. However, the USA aspect has been contradicting itself and constantly hard in China. As a result, change and economic friction among the two aspects has escalated quick over a short period of time, causing critical damage to the economic and alternate family members that have developed over time thru the collective work of the two governments and the two peoples, and posing a grave risk to the multilateral buying and selling system and the principle of unfastened trade and economics.

Keywords: trade, implications, friction. Bilateral.

I. INTRODUCTION

China is the largest developing country in addition to therefore U. S. It is that the biggest developed country in the context of the world economy, Friedber A. L. (2005). Trade and economic relations stuck between China and therefore the US are of nice significance for the countries yet as for the steadiness in addition to the development of the world economy. Woo, W. T. (2008) studied that subsequently, the institution of diplomatic relations, bilateral trade in

Author: Assistant Professor, Department of Management Studies, Begum Rokeya University, Rangpur, Bangladesh.
e-mail: ayasha_siddiqua@yahoo.com

addition to economic connections between China and therefore the US have developed steadily. A detailed partnership has ten solids beneath that interest of the two countries became nearer also wider. Each country has benefited from this partnership, as the remainders of the planet. Meanwhile, the start of the new century especially, aboard fast progress in economic development, China and therefore the US have determined bilaterally to ties in addition to tetramorous rules like the international organization rules, as well as economic and trade relations have adult deeper and wider. Giving, supports their comparative strengths and therefore the selections of the market, the two countries have designed up a mutualist relationship that includes structural activity and convergence of interests. Johnson, R. C. (2014) reveal that barred cooperation and economic complementarity between China and therefore America have boosted the economic process, industrial upgrading as well as structural optimization n in each country, and at constant time increased the potency and effectiveness of world worth chains, reduced production prices, offered bigger product selection, and generated huge profit for businesses and customers in each country.

II. THE RATIONALE OF THE STUDY

David, H., et al (2013) studied that China and therefore America are at totally different stages of development. They need totally different economic systems. So, some level of trade friction is merely natural. The key but in the way to improve mutual trust, stimulate cooperation, as well as succeed variations. Within the spirit of equality, rationality, in addition moving to fulfill one another halfway, one-two countries have got wind of variety of communication as well as harmonization mechanisms like the Joint Commission on Commerce also Trade, the Strategic plus Economic Dialogue, and therefore the Comprehensive Economic Dialogue. Everything has created tremendous efforts to beat every kind of difficulties and changing economic and trade relations onward, that has served because of the ballast and mechanical device of the general bilateral relationship. In the meantime, taking the geographic point in 2017, the newly formed administration of the US Government has declared "America First". So, it's unrestricted the fundamental norms of mutual respect as well as equal consultation that escort negotiation. Moderately, it's overtly expounded philosophy, economic policy plus the economic form of government, creating false allegations

against several countries in addition to regions - notably China - daunting different countries over and done with economic actions like imposing tariffs, in addition to making an attempt to foist its own interests on China through extreme burden China has retorted from the angle of the common interests of each party moreover because of the world trade order. It's observant the principle of resolving disputes concluded with dialogue and consultation, and responsive the U.S. issues with the best level of patience and straightness. The Chinese aspect has been handling these variations with the associate perspective of looking basis whereas dropping divergence. It overcomes several difficulties plus created huge purposes to stabilize China-U.S. economic plus trade relations through plotting rounds of discussions with the U.S. aspect in addition to proposing sensible solutions. But the U.S. aspect has been denying itself and perpetually difficult China. For that instance, trade plus economic friction flanked by the two sides has accelerated rapidly over a brief amount of your time, inflicting serious injury to the economic plus trade relations that have established over the years through the cooperative work of two the governments as well Therefore the two peoples, then movement has a vital warning to the many-sided mercantilism system and therefore the principle of trade. In the way to elucidate the facts regarding China-US economic plus trade relations, make clear China's stance on trade friction with the U.S., and track affordable solutions, the government Of China is publication this report. Economic cooperation stuck between the two countries is thus large, essential's well as broad-based, with such a large number of players, that it's expected for a few variations plus friction to emerge. The two countries ought to proceed a broad perspective, confine mind their strategic interests and therefore the international order, properly handle their variations by seeking basis areas shelving variations, as well as take sensible steps to decide their tensions. An impartial valuation of the China-U.S. trade gap needs a complete and in-depth study, instead of a look at the deficit in merchandise. It's not China's goal to own a trade surplus. Somewhat, the quantitative relation of China's accounting surplus to its value declined from 11.3 % in 2007 to 1.3 % in 2017. Morrison. W. M. (2011) found out the imbalance of interchange merchandise between China and therefore the US is a lot of a natural outcome of voluntary decisions the US has created in its economic structure and market in the lightweight of its comparative strong point. To resolve this issue, either side ought to create joint efforts in restructuring. The US turns a blind eye to varied factors in its trade as well as economic cooperation with China, singles out the disparity of interchange merchandise and blames China for the imbalance that is partial and irrational. In today's world of the larger economic process and extensive global production, bilateral trade plus economic art operation

already encompasses on the far side interchange merchandise. Interchange services as well as sales of native subsidiaries within the host country ought to even be enclosed. If we have. A tendency to provide full thought to those three factors-trade-in merchandise, interchange services than sales of native subsidiaries within the host country- trade and economic cooperation deliver balanced advantages normally for China and therefore the US, with the latter reaping a lot of web advantages.

III. OBJECTIVES OF THE STUDY

The gap in China-U.S. interchange merchandise could be a natural outcome of the U.S economic structure and results of the two countries' comparative strengths and therefore the international division of labor. The persistent and growing gap in interchange merchandise between the two countries could be a result of a variety of things, instead of China's intent. The objectives of the study are as follows

- The prospect of China-US trade friction on China-US bilateral trade.
- The Impact of China-US trade friction on China-US bilateral trade.

IV. LITERATURE REVIEW

China- U. S economic relations have expanded well over the past three decades, their mutual total merchandise trade rose from \$2 billion in 1979 to \$579 billion in 2016. China now could be the U.S.' second-largest merchandise commercialism partner, third-largest export market, and largest supplier of imports. China-U.S. mutual trade and investment relations profit in each country, the USA provides China a giant exportation market, and therefore the USA imports of the lower-cost product from China greatly profit U.S. consumers. China is additionally the second-largest foreign holders of U.S. Treasury securities, that helps the U.S. to stay interested rates low (Morrison, 2017).

Despite growing economic relations and mutual dependence, China and therefore the U.S. bilateral disputes became progressively intensive. China criticizes the U.S. of their export restrictions on engineering product, their unfair treatments of China's free enterprise standing, and unreasonable trade sanctions on China. Major areas of concern expressed by the U.S. embody massive numbers of trade surpluses, the comparatively ineffective record of imposing material possession rights (IPR), discriminatory innovation policies, and mixed record on implementing international organization obligations. Though two-faced with step by step increasing industrial disputes, the China-US economic relations square measure positive and develop quickly generally.

However, the harmonious scenario looks to vary when Donald Trump's elective to be the president of the U.S.

Trump administration officers contend that the U.S. ought to take a lot of aggressive stances against China's trade ties. Within the presidential election amount, Trump claimed to levy forty-fifth correctional tariffs on imports from China, and levy thirty-fifth correctional tariffs on imports from North American nation. When Trump formally became the president, though severe trade wars have not happened, however, trade dialogue within the fields of adjusting trade imbalance and exchange rate had already in the method. The China-U.S.A trade war isn't simply a threat by Trump, it's going to occur in some conditions within the future. Albeit the furious trade war between China and therefore the U.S. won't happy, researches on the consequences of attainable trade wars square measure still valuable and attention-grabbing within the perspective. Supported these backgrounds, this paper numerically explores UN agency will win the attainable China-U.S trade war with the methodology of process general equilibrium (CGE) modeling and simulation. The literature on China-U.S. trade wars square measure restricted and are principally analytical. Dickenson (2017) analyses the chances of China-U.S. trade war at the moment stage. Lazard (2017) explores the China-U.S. relations within the Trump era from the rising market perspective. This paper points out that Trump has started a temperament to slap a forty-five tariff on foreign Chinese product and label China a currency manipulator for suppressing the worth of the renminbi to spice up its exports, and therefore the paper assumes the power of the U.S. to impose such a tariff and therefore the edges of doing, therefore, square measure questionable. Morrison (2017) studies China-U.S. trade and investment relations comprehensively and analyses attainable bilateral trade wars. Hughes and Meckling (2017) discuss the US-China star dispute. Orville and Chairs (2017) analyse the USA policy toward China and provide recommendations for a brand-new administration. There are enumerable analysis papers exploring the consequences of China-US trade wars by trial and error.

Dong and Whalley (2012) use too closely connected numerical general equilibrium models of world trade to research the potential consequences of U.S-China bilateral revenge on trade flows and welfare. Results counsel that revenge between the two countries may be welfare rising for the USA because it substitutes expenditures into own product and improves its terms of trade, whereas China could also be adversely affected. Gompert et al. (2016) explore the potential China-U.S wars of their military losses, economic prices, political effects, and international effects. Li (2017) uses a numerical general equilibrium methodology to explore the consequences of bilateral trade revenge on China, our simulation results counsel that China is going to be

a hint by trade revenge. However, the background of those existing researches isn't this scenario of China-U.S trade war at Trump era.

V. RESEARCH METHODOLOGY

The study objective is finding out the impact of China-US trade friction on China-US bilateral trade. It has been used different data from UNCTAD and WDI, different published articles, etc. The analyses the data for international trade within these two countries. It has been used basically export-import and trade-economic data within these two countries

VI. RESULT AND FINDINGS

Mutually beneficial and win-win cooperation between China and the US in trade and economy Economic and trade relations have developed steadily since the institution of diplomatic ties between China and also the United States, with fruitful results achieved in trade and investment. China edges remarkably from the sturdy action, whereas the United States conjointly reaps in-depth economic edges from the opportunities and results generated by China's growth. It's axiomatic that a sound China-US economic and trade relationship are extremely vital for each country. Cooperation serves the interests of the two sides and conflict will solely hurt each.

- China and also the United States are vital partners for every alternative in trade merchandise.

Two-way trade merchandise has matured speedily. Chinese statistics show that trade merchandise between China and also the United States in 2017 amounted to US\$583.7 billion, a 233-fold increase from 1979 once the two countries cast diplomatic ties, likewise as a seven-fold increase from 2001 once China joined the globe Trade Organization. Currently, the United States is China's biggest export market and the sixth biggest supply of imports. In 2017, the United States took nineteen of China's exports and provided V-day of China's imports. China is the quickest growing export marketplace for United States Mirandize and also the biggest supply of imports of the US. In 2017, V-day people exports visited China.

US exports to China are growing abundant quicker than their world average. Since its accession to the World Trade Organization, China has become a crucial marketplace for United States exports, that have matured speedily. International organization statistics indicate that in 2017 United States exports of products to China amounted to US\$129.89 billion, 577% increase from US\$19.18 billion in 2001, and much on top of the one 2% average rate of growth of overall United States exports show in Figure 1.

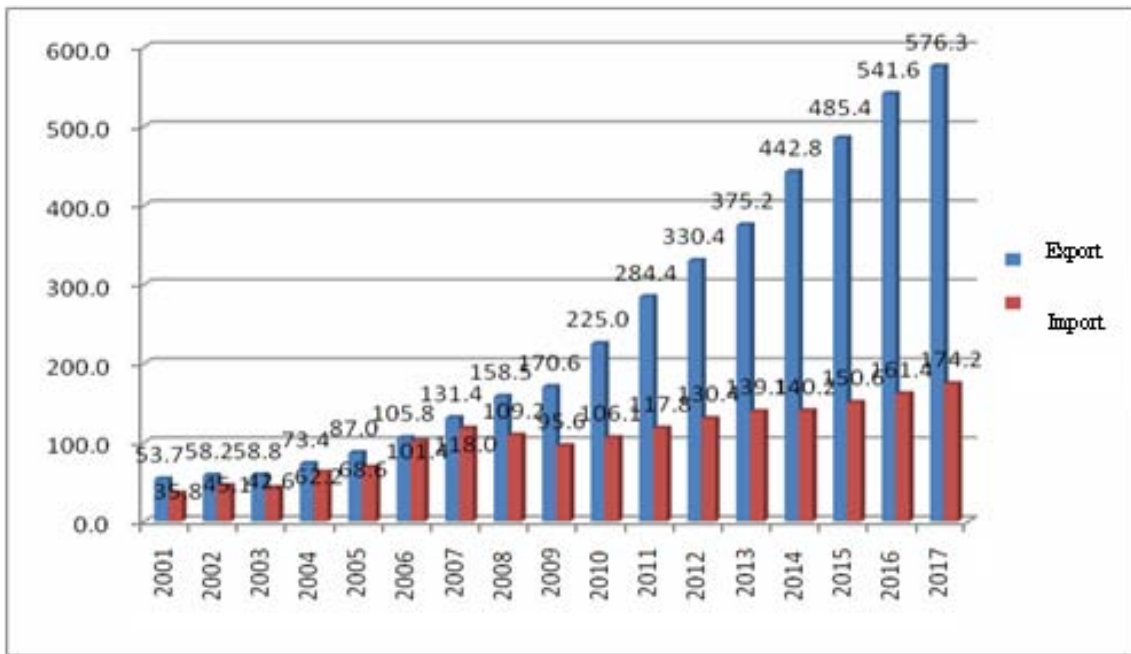


Source: UNCTAD

Figure 1: US Exports to China Grow Faster than its Global Export Trade (%)

- Bilateral trade in services is developing quickly.

The United States features a highly-advanced and fully-fledged industry that is extremely competitive on the international market. Related to the expansion of the Chinese economy and also the improvement of Chinese people's living standards is a noticeable rise in demand for services and zoom in bilateral services trade. In line with United States statistics, two-way trade services rose from US\$24.94 billion in 2007 to US\$75.05 billion in 2017. In line with MOFCOM, the United States was China's second-biggest services trade partner; in line with USDOC, China is that the third biggest marketplace for United States service exports. The United States is the biggest supply of China's deficit in services trade and this deficit has been increasing quickly. United States statistics show that United States service exports to China grew 340% from US\$13.14 billion in 2007 to US\$57.63 billion in 2017 whereas its service exports to alternative countries and regions within the same amount grew by one hundred and eightieth. The United States surplus with China in services increased by an element of thirty to the United States forty.2 billion. (Chart 2) at present, the United States represents roughly two-hundredth of China's total deficit in services trade, the most important supply of this deficit. China's deficit with the United States is focused on 3 areas, travel, and transport and material possession royalties.

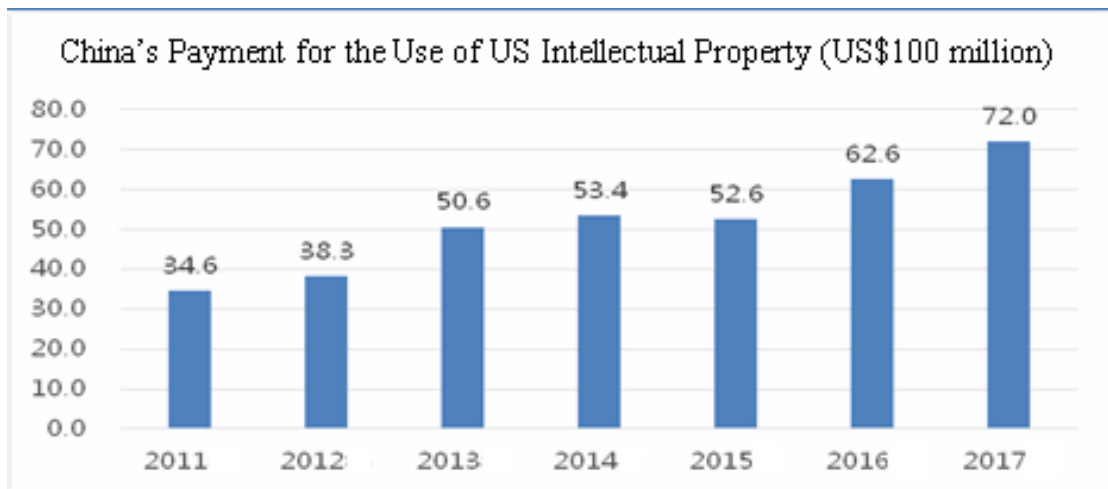


Source: Bureau of Economic Analysis, U.S DOC

Figure 2: US Services Imports from and Exports to China (unit: US\$100 MN)

China's change deficit with the united states in tourism maintains to widen. in step with the doc, by 2016 the variety of Chinese language mainland visitors to the united states had been increasing for 13 consecutive years, with double-digit growth in 12 of the thirteen years. MOFCOM facts advocate that in 2017 Chinese language site visitors going to the united states for tourism, education, and medical treatment spent a complete of US\$51 billion in the U.S. amongst them, three million have been tourists, who spent as a whole lot as US\$33 billion while journeying within the US. In education, the united states are the most important overseas destination for Chinese college students. In 2017, there had been round 420,000 Chinese language students inside the US, contributing some US\$18 billion

to nearby revenues. in step with U.S figures, China's change deficit with the united states in tourism grew from US\$430 million in 2006 to US\$26.2 billion in 2016, registering an average annual increase of 50.8%. China's bills for the usage of US intellectual assets keeps to upward thrust. Chinese language information implies that U.S.A is the biggest source of highbrow property imports to China. From 2012 to 2016, China imported almost 28,000 objects of intellectual property from America. China's payments for US intellectual assets doubled in six years from US\$three.46 billion in 2011 to US\$7.2 billion in2017. (Chart three) In breakdown, China's intellectual assets payments to the U.S.A accounted for 1/4 of its overall intellectual belongings bills to overseas nations.



Source: MOFCOM, China

Figure 3: China's Payment for the Use of US Intellectual Property

- China and the US are important investment partners.

China's deficit with the United States in the commercial enterprise continues to widen. In line with the DOC, by 2016 the amount of Chinese tourists to the United States had been increasing for thirteen consecutive years, with double-digit growth in twelve of the thirteen years. MOFCOM statistics recommend that in 2017 Chinese tourists planning to the United States for commercial enterprise, education, and medical treatment spent a total of United States\$51 billion within the US. Among them, three million were tourists, World Health Organization spent the maximum amount as United States\$33 billion whereas traveling within the US. In education, the United States is the largest overseas destination for Chinese students. In 2017, there have been around 420,000 Chinese students within the United States, contributing some US\$18 billion to native revenues. In line with United States figures, China's deficit with the United States in commercial enterprise grew from US\$430 million in 2006 to US\$26.2 billion in a pair of 016, registering a median annual growth of 50.8%. China's payments for the employment people material possession continues to rise. Chinese statistics indicate that the United States is the largest supply of material possession imports to China. From 2012 to 2016, China foreign nearly 28,000 things of material possession from the United States. China's payments for United States material possession doubled in six years from US\$3.46 billion in 2011 to US\$7.2 billion in a pair of 017. (Figure-3) In breakdown, China's material possession payments to the United States accounted for 1/4 of its total material possession payments to foreign countries.

- China and the U.S have each benefited markedly from trade and economic cooperation.

China and also the United States have each reaped huge edge and created win-win results from trade and economic cooperation. China-U.S. trade and economic cooperation have promoted economic development in China and improved economic successfulness. Against the backdrop of economic globalization, strengthening trade and investment cooperation with alternative countries, together with the United States, and gap up markets to every alternative has helped Chinese enterprises integrate into the worldwide industrial chain and price chain, and displayed a large external marketplace for Chinese economic process. Due to economic development over the past forty years of reform and gap up, in 2017 China became the world's largest dealer in merchandise, with US\$4.1 trillion of total merchandise imports and exports. It became the second-largest dealer in services with US\$695.68 billion value of total services imports and exports. And it became the second-largest recipient of FDI, with US\$136 billion of inward foreign investment.

Yankee corporations have contended associate exemplary role in China for his or her Chinese peers in terms of technological innovation, selling management, and institutional innovation. They need to promote market competition, improved business potency, and impelled Chinese corporations to enhance their technology and management. In commerce, an oversized variety of mechanical and electrical merchandise and agricultural merchandise from the United States, China has managed to form up for its own provide deficiencies and satisfy the demand- especially high-end demand- in varied sectors by providing shoppers a diversity of the alternative. At constant time, the United States has gained access to a good vary in business opportunities like cross-border investment and entry into the China market, that have contended a giant half in driving the economic process, up to client welfare, and upgrading the economic structure within the United States. Trade and economic cooperation have supported the United States economic process and lowered United States inflation. A joint estimate by the United States-China Business Council and Oxford social science indicate that in 2015 imports from China drove up to the US gross domestic product by 0.8 proportion points. Exports to China and two-way investment contributed US\$216 Billion to America's value, pushing the United States economic process rate up by 1.2 proportion points. Value-for-money merchandise from China drove down costs for Yankee shoppers, and in 2015 for instance, reduced the patron indicant by one to 1.5 proportion points. An occasional inflation setting has created an abundant area for expansionary political economy policies within the United States. Trade and economic cooperation have created an oversized variety of jobs within the United States. In line with a U.S-China Business Council estimate, 2015, United States exports to China and U.S-China two-way investment supported a pair of of 6 million jobs in America. Specifically, Chinese investment lined forty-six states of the United States, generating for the United States quite 140,000 jobs, most of that is in producing. Trade and economic cooperation have brought real edges to Yankee shoppers. Bilateral trade provides shoppers with a broad vary in decisions, lowers their living prices, and raises the important buying power of the Yankee individuals, particularly the low and middle-income cohort. In line with the U.S-China Business Council, in 2015, trade with China saved each Yankee family US\$850 of expenditure annually, that is corresponding to one.5% of the common family financial gain within the United States. Trade and economic cooperation have created an oversized variety of business opportunities and important profits for Yankee businesses. With China being a large and speedily growing market, trade and economic cooperation between China and also the US has created Brobdingnagian business opportunities for

American businesses. From the trade perspective, the US-China Business Council 2017 State Export Report found that in 2017, China was one among the highest Five export markets of products for forty-six states. In 2016 China was one among the highest five export markets of services for all fifty states. On average, each United States farmer exported over US\$10,000 of agricultural merchandise to China in 2017. From the investment perspective, in line with MOFCOM, in 2015 United States corporations in China accomplished close to US\$517 billion of sales revenue and over US\$36 billion of profits; in 2016, their sales reached regarding US\$606.8 billion and profits exceeded US\$39 billion. For the highest 3 United States automakers, their joint ventures in China created a complete profit of US\$7.44 billion in 2017. Within the same year, a corrected of three.04 million Yankee traveler vehicles were sold-out in China, accounting for twelve.3% of all traveler vehicles sold-out in China. General Motors alone has 10 joint ventures in China. Its output in China accounted for four-hundredth of its world output. Qualcomm's financial gain from chip sales and patent royalties in China accounted for fifty-seven of its total retinue. Intel's revenues in China (including the urban center region) accounted for twenty-three.6% of its total revenue. Within the FY 2017, revenues from larger China accounted for ningen.5% of the Apple opposition. Total. By Gregorian calendar month 2017, thirteen Yankee banks had subsidiaries or branches and 10 Yankee insurance corporations had insurance corporations in China. Emma Goldman Sills, Yankee specific, Bank of America, Metlife and alternative Yankee money establishments have reaped handsomirturns from their strategic investment in Chinese money establishments. In line with China Securities regulative Commission, Yankee investment banks were lead underwriters or co-lead underwriters for seventieth of the funds raised by Chinese corporations in their overseas lles and refinancing. United States law corporations have started regarding one hundred twenty offices in China.

Trade and economic cooperation have promoted industrial upgrading. In flair trade and economic cooperation with China, United States international corporations have sharpened their international fight by combining competitive factors of production within the two countries. For instance, iPhones are designed within the United Sta n factory-made and assembled in China and sold-out within the world. In line with an Emma Goldman Sachs report in 2018, ought to Apple opposition. Relocate all its production and assembly to the United States. Its product price 'would increase by thirty-seventh. In technological cooperation, United States corporations that have sales and investment in China fancy the advantages of cloud computing and computing applied in China, so Yankee merchandisgNiill higher adapt to the dynamic world market. By producing for United States

corporations, China has enabled the United States to speculate extra money and resources in innovation and management, specializing in high-end producing and fashionable services, and upgrade its business with additional added-value and engineering. This has conjointly helped the United States in protective energy and resources and mitigating pressure in environmental protection reception, creating the United States additional competitive within the world.

In general, China-U. S trade and economic cooperation may be a win-win relationship and by no means that a game, conveyance concrete edges to United States corporations and folks. Some Americans claim that the US is "losing" during this relationship, a claim that doesn't get on my feet to scrutiny.

VII. ANALYSIS AND RECOMMENDATION

The World Trade Organization principle of reciprocity takes into thought totally different development stages by granting the special, differential and a lot of favorable treatment to developing members. This arrangement aims to draw in new developing members, increase the WTO's illustration and enhance the inclusiveness of the four-sided system, whereas respecting the correct to develop of developing countries and regions. It enshrines the principle of mutual profit in exchanging gift favors for future openings. Developing members that are within the initial stages of development would like capturable protection for his or her industries to push their sound growth, which can offer a lot of opportunities for developed countries in time. This differential and a lot of favorable treatment are within the long-run interests of all countries and regions, as well as developed members, and this can be real international fairness.

China, having consummated its World Trade Organization commitments, has voluntarily engaged in unilateral tariff reductions to expand the market gap. By 2010, all commitments in merchandise had been consummated, with the tariff level slashed from 15.3 % in 2001 to 9.8 percent. Nonetheless, China failed to limit itself to World Trade Organization commitments; its promoted trade and investment liberalization through trade agreements, given special treatment in tariffs to the smallest amount developed countries and considerably reduced import tariffs victimization conditional tariffs on many occasions. The idea of "fair trade" and "reciprocal gap up" advocated by U.S.A. ignores the existence of objective variations among countries in terms of stages of development, resources and competitive industries, and ignores developing countries' right to develop. It'll produce an effect on the economy and industries of developing countries, lead to broader difference and eventually forestall U.S. businesses from increasing their international market

share and sharing development opportunities in developing countries.

Since the adoption of reform and gap, up, foreign enterprises have established partnerships with Chinese corporations by voluntarily going in contracts. They transferred production capability and orders to China of their own volition thus on the faucet into the rising market, save production prices, accomplish an economy of scale and extend the term of benefiting from technologies. These are voluntary behaviors supported business interests. It accords with neither historical fact nor the spirit of the contract to unjustly label bilateral transactions on a voluntary basis as forced technology transfer merely on the grounds of Chinese firms' technological advances. Technology transfer within the course of cooperation between China and developed countries like the U. S. The merchandise life-cycle theory indicates that any quite product goes through ! If cycle from the peak to say no because of the appliance of recent technologies. Whereas endeavoring to develop new technologies, multinationals unceasingly transfer technologies that are either obsolete or standardized to developing countries with a read to extending the term of benefiting from recent technologies, creating space and scotch production factors for analysis and development (R&D) and also the application of recent ones, and indirectly sharing R&D prices. Therefore, technology transfer and licensing are a widely used business cooperation model.

Since the 1990s, Microsoft, Intel, Qualcomm, Procter & Gamble, GE, luminous and alternative U.S. corporations have found out R&D facilities in China in an exceeding bid to higher adapt to and explore the Chinese market. Over the years, U.S. companies in China have earned handsome profits through technology transfer and licensing. They're the biggest beneficiary of technological cooperation.

In the method of cooperation, the Chinese Government has ne'er introduced policies or practices that force foreign-invested enterprises to transfer technology. Technological cooperation and alternative styles of business cooperation between Chinese and foreign businesses are entirely voluntary and sure by contracts. It generates real edges for corporations on each side. China's angle toward IPR protection is evident and firm. It continues to strengthen protection through legislation, enforcement and also the judiciary, and has achieved some notable successes. China has developed and improved its laws and rules on IPR protection and increased protection of IPR. China designed a fully-fledged and high-standard IPR legal framework in an exceedingly comparatively short amount, compared to the decades or a lot of that developed countries spent putting in place similar legal systems. China has placed in situ a whole regime of IPR protection, utilization and administration, spanning laws, planning, policies and social control agencies. China

has intense judicial protection for IPR and given full play to judicial protection. In 2014, China found out 31PR tribunals in the national capital, Shanghai and urban center to handle cross-regional IPR cases, as well as those associated with patents. Since 2009, China has established sixteen special judicial organs in Tientsin, Nanjing, Suzhou, and Wuhan, Xi'an and alternative cities, enhancing the skilled handling of IPR cases.

IPR body authorities have taken protecting measures and intense social control in an exceedingly proactive manner. China adopts a dual-track protection system wherever IPR holders will look for not solely judicial however additionally body protection.

U.S. trades have promoted momentarily from effective IPR shield in China. In keeping with the U.S. Bureau of Economic Analysis of the Department of Commerce (DOC), China paid \$7.96 billion in licensing fees to the U. S. in 2016. Statistics from China's National Copyright Administration, Ministry of Commerce and State Administration for Market Regulation counsel that from 2012 to 2016, China foreign 28,000 copyrights from the US. In terms of emblems, from gp0 2 to 2016, the U. S. applied for over 58,000 trademark transfers in China, creating up to four.54 % of total transfers. In terms of culture, in keeping with the note Administration of Press, Publication, Radio, Film, and TV, in 2017, China foreign thirty-one U.S. films at a price of \$650 million. It is per World Trade Organization rules for the Chinese Government to encourage businesses to travel internationally and interact in international economic,' exchanges and cooperation. As Chinese corporations get stronger and also, they would like for resource allocation and market enlargement will increase, a growing range of companies have begun to expand overseas on their initiative, a trend in line with economic globalization system. Like alternative countries and regions within the world, the Chinese Government supports ready and competent corporations in outward-bound investment and in sound into international markets whereas obeying the laws and rules of the host countries also as international rules. The govt. solel provide services that facilitate this outward-bound investment and cooperation. The impulsive U.S. conclusion that such support may be a government act to amass advanced technologies through business M&A is unsupported.

In fact, among Chinese investments within the Last decade. People who look for to amass technology represent a little share. In keeping with the yank Enterprise altitude, from 2005 to 2017, of 232 direct investments from China, solely seventeen concerned hi-tech; the others were principally in real estate, finance, and services.

China's grant policy complies with World Trade Organization rules and may not be attacked. Mutually of the tools to deal with market failure and unbalanced economic development, subsidies are wide employed

by several countries and regions, as well as the U.S. Since China joined the World Trade Organization, it's actively ironed ahead with reform to make sure the compliance of domestic policies and carefully honored the obligations beneath the World Trade Organization Agreement on Subsidies and Countervailing Measures.

China complies with the World Trade Organization rules on grant transparency. As needed, China has frequently notified the World Trade Organization of the revision, adjustment, and implementation of its domestic laws, rules, and measures. At the beginning time of 2018, China had submitted many notifications, covering varied areas of central and sub-national grant policies, agriculture, technical rules, standards, and IPR laws and rules. In Gregorian calendar month 2016, in accordance with the relevant rules, the Chinese Government notified the World Trade Organization of sub-national grant policies between 2001 and 2014, covering one hundred grant policies from nineteen provinces and three municipalities with freelance coming up Oh authority. In Gregorian calendar month 2018, China notified the World Trade Organization of the central and sub-national grants policies between 2015 and 2016, covering all the provincial-level body areas for the primary time.

VIII. CONCLUSION AND CRITIQUE

The U.S. Government has taken extreme trade exponent measures, that have undermined the international economic order, caused harm to China-U.S. trade and trade relations around the world, noncontiguous the worldwide price chain and therefore the international division of labor, upset market expectations, and semiconductor diode to violent swings within the international monetary and goods markets. It's become the best supply of uncertainty and risk for the recovery of the worldwide economy. In advancing toward civilization, humanity has wide accepted a world governance system supported rules and quality. Countries, massive or little, sturdy or weak, ought to respect one another, have interaction in equal-footed dialogue and conjointly safeguard international rules within the spirit of the contract. This can be basic to promoting international trade and investment and boosting international growth. However, the recent steps were taken by the U.S. Administration that are contrary and even damaging to the present three-sided trade rules seriously undermine the present international economic order. The U.S. Administration has issued open criticism of the foundations and operation mechanism of the WTO on varied occasions. it's refused to endorse the three-sided commerce system and at a similar time has adopted a negative angle toward international economic governance, that caused the failure of the APEC trade ministers' conferences, in each

2017 and 2018, to achieve accord on supporting the three-sided commerce system. Specifically, the U.S. Administration's objection to writing "opposition to trade protectionism" into the ministers' statement was met with opposition from each alternative APEC member. The U.S. lashed out at the WTO proceeding body and repeatedly blocked the appointment procedures of the body, leading to an inadequate proceeding body and pushing the World Trade Organization dispute settlement mechanism to the brink of dis-function. As globalization moves forward, the economies of the planet are progressively connected through trade that has become a significant engine of worldwide growth. In line with the planet Bank, the international economy's dependence on trade rose from 17.5 % in 1960 to 51.9 % in 2017. The international economy has simply emerged from the shadow of the 2008 global monetary crisis and therefore the recovery is nonetheless to be solid. During this context, the U.S. Administration's actions to instigate life-scale trade frictions and impede the flow of world trade can doubtless have an effect on the recovery of the worldwide economy. So as to mitigate the exponent moves of the U. S., countries are left with no alternative however to require countermeasures. This may disrupt the planet economic and trade order and wait for international recovery, damaging the interests of firms and other people of all countries and pushing the worldwide economy back to recession. According to international Economic Prospects printed by the planet Bank on June five, 2018, a broad-based increase in tariffs worldwide can have major adverse consequences that might translate into a decline in international trade amounting to 9 % by 2020. The impact would be additional severe on rising markets and developing economies, significantly on those with giant trade or monetary market linkages with the U.S. in a deeply integrated international economy, countries type an extremely economical international price chain and share within the dividends of economic globalization through division of labor by harnessing their various strengths in technology, labor and capital. Companies, particularly transnational ones, minimize their product prices and lift the standard of their merchandise and services through the international allocation of resources, so achieving a win-win result for themselves and for customers.

By raising tariffs and building trade barriers, the U.S. Administration has angry trade frictions worldwide. U.S. transnational companies are being vulnerable with the "traitor" label and retributive taxes if they are doing not move their operations back to the U.S. Such moves can seriously undermine or maybe break the worldwide price chain, and jeopardize the conventional flow of trade and resource allocation across the planet. Since of the interconnections between countries through trade and economic links, they're going to additionally turn out in-depth spillovers and scale back the potency of the

worldwide economy. As an example, the auto, physical science, and craft sectors, among others, are all supported by advanced, huge industrial chains. Economies on the provision chain, as well as Japan, the EU and therefore the Republic of the peninsula, can all be adversely stricken by catching trade. Even U.S. suppliers won't be immune from the next ripple result.

To economic globalization, economies, significantly the larger ones, are extremely mutually beneficial. Ultimately, the trade wars unilaterally initiated by the U.S. Administration won't solely hurt alternative economies however additionally undermine U.S. interests. MIT will push up producing prices and have an effect on U.S., jobs. A Peterson Institute for International social science report contends that since 95% of the Chinese merchandise hit by higher tariffs are components and electronic parts employed in finish merchandise created within the U.S., raising tariffs on these Chinese merchandises can solely harm U.S. businesses. It will draw near costs within the U.S. and hurt customers. Goods account for a substantial share of U.S. imports from China. The figure (excluding food and automobiles) stood at 46.6 % in 2017, in line with the U.S. Department of Commerce's Bureau of Economic Analysis. For several years, the import of cheap nonetheless quality merchandise from China has been key to the low inflation within the U.S.

It triggers countermeasures from commerce partners and can successively hurt the U.S. economy. The trade war waged by the U.S. administrator against China and plenty of alternative vital commerce partners has semiconductor diode to countermeasures and can cause immense losses to some regions, industries, and companies within the U.S. As of the top of July 2018, major U.S. commerce partners, as well as China, Canada, Mexico, Russia, the EU, and Turkey, had all declared countermeasures against U.S. trade economic policy and had filed lawsuits with the WTO. The U.S. Chamber of Commerce has noted that a trade war can hit some U.S. states. As an example, American state might see \$3.9 billion prices of exports targeted by retributory tariffs, south geographic region, \$3 billion, and Tennessee, \$1.4 billion. It erodes investors' confidence within the U.S. economic setting and ends up in less internet foreign direct investment into the U.S. As trade frictions increase, firms feel less assured and additional hesitant regarding investment.

REFERENCES RÉFÉRENCES REFERENCIAS

- Bown, C. P. (2009). US-China Trade Conflicts and the Future of the WTO. *Fletcher F. World Aff.*, 33, 27.
- Bown, C. P., & McCulloch, R. (2009). US-Japan and US-China trade conflict: Export growth, reciprocity, and the international trading system. *The World Bank*.
- David, H., Dorn, D., & Hanson, G. H. (2013). The China syndrome: Local labor market effects of import competition in the United States. *American Economic Review*, 103(6), 2121-68.
- Friedberg, A. L. (2005). The future of US-China relations: Is conflict inevitable? *International security*, 30(2), 7-45.
- Ferrantino, M. J., Liu, X., & Wang, Z. (2012). Evasion behaviors of exporters and importers: Evidence from the US-China trade data discrepancy. *Journal of international Economics*, 86(1), 141-157.
- Guobing, S. (2005). Trade Statistical Discrepancies and US-China Trade Balance Issues [J]. *Economic Research Journal*, 6.
- Feenstra, R., Hai, W., Woo, W., & Yao, S. (1998). The US-China Bilateral Trade Balance: Its Size and Determinants. *National Bureau Of Economic Research Working Paper Series*. Retrieved from <https://www.nber.org/papers/w6598>
- Glaser, B., & Billingsley, B. (2011). US-China Relations: Friction and Cooperation Co-exist Uneasily. *Comparative Connections*, 13(2), 27.
- Glaser, B., & Billingsley, B. (2011). US-China relations: US pivot to Asia leaves China off balance. *Comparative Connections*, 13(3), 29.
- Johnson, R. C. (2014). Five facts about value-added exports and implications for macroeconomics and trade research. *Journal of Economic Perspectives*, 28(2), 119-42.
- Kim, S. H., Martin-Hermosillo, M., & Jia, J. (2014). The US-China Trade Friction: Causes and Proposed Solutions. *Journal of Applied Business & Economics*, 16(5).
- Li, C., Wang, J., & Whalley, J. (2017). China's regional and bilateral trade agreements. In *THE ECONOMIES OF CHINA AND INDIA Cooperation and Conflict: Volume 1: China and India- The International Context and Economic Growth, Manufacturing Performance and Rural Development* (pp. 175-194).
- Morrison, W. M. (2011). China-US trade issues.
- Manyin, M. E. (2006, February). South Korea-US Economic Relations: Cooperation, Friction, and Prospects for a Free Trade Agreement (FTA). *Congressional Research Service, Library of Congress*.
- Snyder, S., & Byun, S. W. (2010). China-ROK Trade Disputes and Implications for Managing Security Relations. *Korean Economic Institute Academic Paper Series*, 5(8).
- Woo, W. T. (2008). Understanding the sources of friction in US-China trade relations: The exchange rate debate diverts attention from optimum adjustment. *Asian Economic Papers*, 7(3), 61-95.
- Zhao, H. (1987). Foreign trade in the People's Republic of China: past performance and future challenges.

18. Zhu-ying, F. Q. Z. (2008). Empirical Study on the Impact of US FDI on China-US Bilateral Trade Imbalances [J]. *Journal of International Trade*, 7.
19. UNCTADstat - General Profile: United Kingdom. (2019). UNCTADstat. Retrieved 9 July 2019, from <https://unctadstat.unctad.org/countryprofile/generalprofile/en-gb/926/index.html>
20. UNCTADstat - General Profile: China. (2019). UNCTADstat. Retrieved 9 July 2019, from <https://unctadstat.unctad.org/countryprofile/generalprofile/en-gb/156/index.html>
21. UNCTADstat - Table view. (2019). Unctadstat.unctad.org. Retrieved 9 July 2019, from <https://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=100>
22. (2019). Unctad.org. Retrieved 9 July 2019, from https://unctad.org/en/PublicationsLibrary/tdr2018_en.pdf
23. China | Data. (2019). Data.worldbank.org. Retrieved 9 July 2019, from <https://data.worldbank.org/indicator/ne.imp.gnfs.zs>
24. The People's Republic of China. (2019). Ustr.gov. Retrieved 9 July 2019, from <https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china>
25. China | Exports and Imports | by Country 2017 | WITS | Data . (2019). Wits.worldbank.org. Retrieved 9 July 2019, from <https://wits.worldbank.org/CountryProfile/en/Country/CHN/Year/2017/TradeFlow/EXPIMP/Partner/by-country>
26. Anon (2019). Fas.org. Retrieved 9 July 2019, from <https://fas.org/sgp/crs/row/IF10030.pdf>
27. World Development Indicators (WDI) | Data Catalog. (2019). Datacatalog.worldbank.org. Retrieved 9 July 2019, from <https://datacatalog.worldbank.org/dataset/world-development-indicators>
28. U.S. Bureau of Economic Analysis (BEA). (2019). Bea.gov. Retrieved 9 July 2019, from <https://www.bea.gov/>
29. MINISTRY OF COMMERCE, PEOPLE'S REPUBLIC OF CHINA. (2019). English.mofcom.gov.cn. Retrieved 9 July 2019, from <http://english.mofcom.gov.cn/>

This page is intentionally left blank



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

Volume 19 Issue 3 Version 1.0 Year 2019

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

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

Volatility & Relationship of Gold & Gold ETF in India

By Mr. Ram Raj G

Loyola College

Abstract- This research article was intended to estimate the volatility and connection between real Gold and Gold Exchange Traded Fund (ETF) in India by using various statistical models. The data for the study period for three years period 2015-2018 acquired from the National Stock Exchange of India's historical statistics and others. The outcome of this study was found that there are a strong positive short-run relationship and long-run equilibrium relation between gold and Gold ETFs. It is unidirectional, and few bidirectional causes and relationship existed in this study. This Study is fit to be analyzed GARCH model to estimate volatility in the Gold price returns; it shows there persist the volatility effect. This study will be helpful to investors in the selection of better investment options.

Keywords: gold ETF, volatility, co-integration, granger causality, correlation, ADF.

GJMBR-B Classification: JEL Code: O10



Strictly as per the compliance and regulations of:



Volatility & Relationship of Gold & Gold ETF in India

Mr. Ram Raj G

Abstract- This research article was intended to estimate the volatility and connection between real Gold and Gold Exchange Traded Fund (ETF) in India by using various statistical models. The data for the study period for three years period 2015-2018 acquired from the National Stock Exchange of India's historical statistics and others. The outcome of this study was found that there are a strong positive short-run relationship and long-run equilibrium relation between gold and Gold ETFs. It is unidirectional, and few bidirectional causes and relationship existed in this study. This Study is fit to be analyzed GARCH model to estimate volatility in the Gold price returns; it shows there persist the volatility effect. This study will be helpful to investors in the selection of better investment options.

Keywords: gold ETF, volatility, co-integration, granger causality, correlation, ADF.

I. INTRODUCTION

Gold is one of the treasurable and oldest metals among the inventions of the humankind. From ancient times, gold is accepted as the medium of exchange and as highly valuable wealth used in India. Times may change still gold stands as a traditional investment for everyone beyond the economic status. There are more than 16,000 tons of gold are available in India, and almost every family possess gold for its sentimental attachment. Gold has three purposes in general, namely - like ornaments, as household investments, and for industrial consumption.

In the 21st century, investors are more sensible enough to avoid high risk. In recent days, as the share prices are volatile, the investors are not anxious to invest their funds in the stock; they prefer investing in gold for its safety and liquidity. Volatility is the deviation of the return around its mean values either in the positive or negative direction. The Estimating of volatility becomes an essential task in the management of the portfolio. In the case of gold, its price always depicts an increasing trend to benefit the investors even during the recession period. However, the investment in gold needs a huge fund due to its excessive demand and less supply. Due to this, small investors find it hard to invest in bullion markets.

To enable the small-time investors to park their fund in the gold market, the Gold Exchange Traded Fund (Gold ETF) scheme introduced in the USA in the year 1993. In India, the ETF method is in vogue since

2007 onwards. The scheme Gold ETFs is just like other stock which is traded generally in the stock markets. It is a kind of mutual fund that is listed and operated in the stock market. They can be bought and traded through the online Demat account. As the system is more accessible and requires a less small amount of fund to invest, the schemes under GTFs are more lucrative for small investors, unlike conventional gold. This study aims to observe the casual relationship and volatility among the natural Gold and Gold ETF.

II. REVIEW OF LITERATURE

A very few studies have conducted in the field of gold Exchange traded fund, which is referred to in this segment of review of the literature. (Pandey, 2010) felt that buying Gold ETF is safer, convenient, and adds some tax-oriented benefits when compared with physical gold. (Mishra, Das & Mishra, 2010) attempted the casual relationship between Indian natural gold price and stock market indices return found that there is a long-run equilibrium relationship exists, and the one-way causal relationship was noticed between Gold price and Stock market return. (Athma, Prashanta, & k, 2011) Stated that gold investment is less volatile while comparing with equity share investment. Gold ETF is one of the best methods for portfolio diversification.

(Kumar, Kumar, & Roy, 2012) analyzed the Gold ETFs performance by conducting risk and returns, and proved that Gold ETF had given good return compared with equity fund. (Nemavathi & Nedunchezian, 2013) Attempted to estimate the volatility of gold and Gold ETF by using EGARCH model. They concluded the volatility of the fund is based on their yield performance. (Narend, 2014) Analyzed performance of Gold ETFs by Jensen Alpha Return. They estimated that ETFs are giving more returns and performing better than physical gold. (Tripath, Parashar & Singh, 2014) studied the causal relationship between the gold price and other macroeconomic factors, the result shows that there are Granger Causes that exists in the exchange rate and oil price in India.

(Mishra P. K., 2014) stated that gold is the best investment option for an investor in the alternative of other investments and there was a bidirectional connection between the gold price and stock market return in India. (Gencer & Musoglu, 2014) empirically analyzed gold price in Turkey by using the GARCH model and result expressed that market return has an

Author: Research Scholar, Loyola College, Chennai - India.
e-mail: rams2595@gmail.com

impact on gold price volatility. (Anand, 2017) Found that Gold ETFs are influenced by gold price in India. In a long-run relationship, gold ETFs are giving more return, so it attracts the investors to invest in Gold ETF. (Jain & Mary, 2018) Found that gold ETF is a new concept in the investment portfolio for small investors. Gold ETFs is an easy and convenient way of trading. Investors need not worry about the security on holding storage and other physical damage like theft and due to natural scarcity of demand in gold.

However, the literature review reveals a certain aspect of the real truth of the research on the existence of Gold and Gold ETF. This study aims to estimate the short run and long run relationship between gold and Gold ETFs and its volatility.

III. OBJECTIVE OF THE STUDY

- To investigate the volatility effect in Real Gold and Gold ETFs;

- To analyze the short run and long run association between Gold and Gold ETFs in India;
- To observe the impact of Real Gold price return in Gold ETFs return in India.

IV. RESEARCH METHODOLOGY

This study was aimed at estimating the volatility and relationship between Gold and Gold ETF in India. For this purpose, the top five gold ETFs which are listed in the National Stock Exchange was chosen based on the returns in the field of Gold ETFs in India. The Gold ETF selected for study are presented in Table 1.

Table 1: List of Gold Exchange Traded Fund in India

The issuer of the ETF	Name of the ETF	Symbol of the ETF	Return
Axis Mutual Fund	Axis Gold ETF	AXIS GOLD	9.45
HDFC Mutual Fund	HDFC Gold Exchange Traded Fund	HDFCFMGETF	7.64
IDBI AMC	IDBI Gold Exchange Traded Fund	IDBI GOLD	9.03
Kotak Mutual Fund	Kotak Gold Exchange Traded Fund	KOTAK GOLD	7.73
Quantum Mutual Fund	Quantum Gold Fund (an ETF)	QGOLD HALF	6.63

Source: Bombay Stock Exchange

This study is empirical in nature, based on secondary data. The daily historical data from 1 November 2015 to 31 October 2018 (739 Daily Observations) were collected from National Stock Exchange (for GOLD ETF) and World Gold Council (for Physical Gold) for estimating volatility and relationship of gold and gold old ETF. The return on the gold price was calculated as the logged difference between time period t and t_1 .

$$R_t = \log(P_t) - \log(P_{t-1})$$

Where R_t is the daily return of gold price at time t . P_t denotes the price of gold per gram at time

period t , and P_{t-1} indicates the price of gold per gram in the selected ETFs at time period $t-1$. For analyzing the data, various econometrics tools used such as the Augmented Dickey-Fuller test, Granger Causality, Johansen Cointegration test, and GARCH model and LM-ARCH test were applied by using "Eviews 10" statistical software package.

V. EMPIRICAL RESULTS

Descriptive Statistics: The descriptive statistics of Gold and Gold Exchange Traded Funds are presented in Table 2.

Table 2: Summary Statistics of the Gold and Gold ETFs

	AXIS GOLD	HDFC MFGETF	IDBI GOLD	KOTAK GOLD	QGOLD HALF	REAL GOLD
Mean	2629.91	2720.27	2739.27	261.30	1322.21	83187.08
Median	2629.00	2723.75	2750.00	262.00	1325.00	83555.39
Max	2908.95	2939.70	3000.00	284.75	1426.00	91428.01
Min	2243.60	2341.90	2335.00	225.25	1148.60	69740.48
Std. Dev.	142.24	129.91	146.00	12.573	59.339	4538.491
Skewness	-0.6786	-0.9261	-0.7008	-0.8703	-0.9519	-0.9046
Kurtosis	3.6776	3.9573	3.1803	3.7967	3.9789	3.8795
Jarque-Bera (Prob)	71.066 (0.000)	134.229 (0.000)	61.663 (0.0000)	113.151 (0.0000)	141.502 (0.0000)	124.96 (0.0000)

Source: Author's calculation.

Table 2 displays the summary of statistics of the gold and gold ETF data. As per the table, the mean values of gold ETFs are varied from each gold funds. Among these funds, IDBIGOLD had a more standard deviation that means that gold fund more volatile in the market and it has high risk; KOTAKGOLD was less volatile compared with other gold funds. Gold is very high because of various macroeconomic factors. The skewness for the gold funds and gold was almost negative (asymmetrical value), and Kurtosis concerned

for Gold funds it was found to be nearly 3 (approximately). The Jarque Bara test for regularity was significance at the level of 5%, indicating the data used for this study were not normally distributed.

Analysis of Correlation Test: The correlation coefficient is used to measure the extent of the strength and direction of the connotation between the indices and stock returns in different countries. The analysis of Karl Pearson's Correlation is presented in Table 3.

Table 3: Karl Pearson's Correlation Test

	REAL GOLD	AXIS GOLD	HDFC MFGETF	IDBI GOLD	KOTAK GOLD	QGOLD HALF
REAL GOLD	1.0000	0.9273	0.9752	0.9584	0.9499	0.9621

Source: Author's calculation.

From table 3, Karl Pearson's Correlation among the Gold ETFs and Real Gold show that the entire gold fund's price is positively correlated with Real Gold price. That means all the Gold ETFs have a short run relationship. As per the table, all the values are above 95% (approximately), so each fund has a strong positive relationship with Indian gold price. Thus, to with stand

the shocks, Multiple Regression Test has been conducted considering Gold as the dependent variable and other Gold ETFs as an independent variable.

Analysis of Regression Test: The Multiple Regression of Gold and Gold Exchange Traded Funds are presented in Table 4.

Table 4: Analysis of Regression Test

Dependent Variable	Real Gold	
Independent Variable	Coefficient	Prob
AXISGOLD	2.0577	0.0228
HDFCMFGETF	33.179	0.0000
IDBIGOLD	9.4062	0.0000
KOTAKGOLD	-81.755	0.0000
QGOLDHALF	-8.0132	0.0870
R-Squared		0.9600
Adj. R-Squared		0.9597
Durbin-Warson		0.6075

Source: Author's calculation.

Table 4 shows the result of Multiple Regression Analysis, which is conducted on non-stationary data. As per the table, the R-squared value is nearly 96% that means, the independent variable is having a high impact on the dependent variable. Almost all the independent variables are significant at 5% level other than QGOLDHALF, among those variables HDFC gold ETF has an extremely high coefficient value.

Augmented Dickey-Fuller Unit Root Test: Before examining the relationship between Gold and Gold ETF, it is crucial to check the univariate properties of the data sequence are non-stationary, or they comprise a unit root. For that, the ADF unit root test is employed, which was developed by Dickey-Fuller. A time series is said to be stationary; that means, the alteration of the series does not symmetrically fluctuate over time. Non-stationary data will lead to incorrect values. (Dickey &

Fuller, 1979). Unit root was calculated as per the following equation:

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^m \alpha_i \Delta Y_{t-i} + \varepsilon_t$$

Where δY_{t-1} is the first difference operation, $\beta_1, \beta_2 t$ are coefficient to be estimated. $\delta = 0, \varepsilon_t$ is white noise error term, if the estimated slope of coefficient not in this regression δ (hypothesis) is zero or not. if it is zero, then Y_t is nonstationary. The best lag length was taken with the Akaike Information Criterion (AIC) and maximum, lag was put to 36. (Gujarati, 2009) The ADF null hypothesis is established as unit root in the time series, whereas, the alternative is - there is no unit root and it is stationary, which is observed and presented in table 5.

Table 5: Augmented Dickey-Fuller Unit Root Test

	At level		1 st Difference	
	t-Statistic	Prob	t-Statistic	Prob
REAL GOLD	-2.1419	0.2284	-28.9504	0.0000
AXISGOLD	-2.0972	0.2460	-32.7590	0.0000
HDFCMFGETF	-2.0305	0.2737	-28.5065	0.0000
IDBIGOLD	-2.0482	0.2662	-19.9737	0.0000
KOTAKGOLD	-2.1085	0.2415	-29.1821	0.0000
QGOLDHALF	-1.8825	0.3407	-27.3636	0.0000

Source: Author's calculation.

Table 5 presented the t statistics and prob values of all the Gold ETFs at both level and first level. From the table, all the probability value of 'At level' is not significant that means the data series is not stationary; it has a unit root. In the first difference, all the index probability value is less than 5%, that means it rejects the null hypothesis to accept the alternative, so the data is stationary.

Analysis of Granger Causality test: The Granger causality test is directed to inspect the direction of causality amongst Real gold and Gold ETFs. This test is applied only to stationary time series data. Granger causality was calculated as per following formula (Gujarati, 2009)

$$\Delta Y_t = \sum_{i=1}^m \alpha_i Y_{t-i} + \sum_{j=1}^m \beta_j X_{t-j} + \lambda_1 t + \varepsilon_1 t$$

$$\Delta X_t = \sum_{i=1}^m \gamma_i X_{t-i} + \sum_{j=1}^m \delta_j Y_{t-j} + \lambda_2 t + \varepsilon_2 t$$

Where Δ is the difference operator, Y_{t-i} and X_{t-j} are represent as the lagged value of Y_t and X_t . ε_1 and ε_2 are error terms assumed white noise. The lag length was picked by using Akaike Information Criteria (AIC) as the most favourable number. The Granger Causality Test results are presented in Table 6 -

Table 6: Granger Causality test

Null Hypothesis	F-Statistic	Prob
AXISGOLD does not Granger Cause REAL GOLD	3.3851	0.0344
REAL GOLD does not Granger Cause AXISGOLD	33.805	9.E-15
HDFCMFGETF does not Granger Cause REAL GOLD	4.5756	0.0106
REAL GOLD does not Granger Cause HDFCMFGETF	59.300	1.E-24
IDBIGOLD does not Granger Cause REAL GOLD	2.4024	0.0912*
REAL GOLD does not Granger Cause IDBIGOLD	32.613	3.E-14
KOTAKGOLD does not Granger Cause REAL GOLD	1.1033	0.3323*
REAL GOLD does not Granger Cause KOTAKGOLD	44.931	4.E-19
QGOLDHALF does not Granger Cause REAL GOLD	2.7437	0.0650*
REAL GOLD does not Granger Cause QGOLDHALF	49.359	8.E-21

Source: Author's calculation.

The table 6, expresses that Granger Causality Test results in which the value of probability is less than 5% that means it rejects the null hypothesis, showing that the Axis Gold ETF and HDFC Gold ETF are bidirectionally caused with gold, other variables are causing unidirectionally. So, all the data are having cause and relationship with Real gold. Particularly the price of real gold has more effect on the rate of Gold ETFs.

Results of Co-integration Test: (Johansen, 1990) Co-integration test is the most commonly used method in investigative the long-run equilibrium association of the different time series or integration in the financial market. The data becomes stationary after the first difference in the ADF test. Following table 7, shows the cointegration relation between Real Gold and Gold ETFs.

Table 7: Johansen Cointegration Test

	Hypothesized No. of CE(s)	Trace Statistic	prob	Max-Eigen Statistic	prob
AXISGOLD	None	21.241	0.0061	14.8393	0.0405
	At most 1	6.4020	0.0114	6.4020	0.0114
HDFCMFGETF	None	39.338	0.0000	30.736	0.0001
	At most 1	8.6020	0.0034	8.6020	0.0034
IDBIGOLD	None	53.773	0.0000	46.998	0.0000

	At most 1	6.7741	0.0092	6.7741	0.0092
KOTAKGOLD	None	32.568	0.0001	24.643	0.0008
	At most 1	7.9250	0.0049	7.9250	0.0049
QGOLDHALF	None	31.048	0.0001	0.0261	0.0007
	At most 1	11.571	0.0007	11.571	0.0007

Source: Author's calculation.

The result of the cointegration test, Trace and Max-Eigen values are checked at 5% significant level. Here the null hypothesis is that 'these series are not integrated with the Real Gold Price'. As per the table 7, all the Gold ETFs are less than 5% level of significance. That means to reject the null hypothesis and accept the alternative one. All the Gold ETFs are having a long-run equilibrium relationship with Real Gold Price.

Estimation of Volatilit: GARCH model is useful in analyzing the financial time series such as market indices. A unique feature of these models is that the error variance may be correlated over time because of the phenomenon of volatility clustering. The AutoRegressive Conditional Heteroskedacity model was developed by (Engle, 1982) or Generalised

AutoRegressive Conditional Heteroskedacity Effect (Bollerslev, 1986). GARCH model was initially proposed by Bollerslev the simplest model GARCH (1,1) can be inscribed as (Gujarati, 2009)

$$\sigma^2_t = \alpha_0 + \sum_{i=1}^p \alpha_i \varepsilon_{t-i}^2 + \sum_{j=1}^q \beta_j \sigma_{t-j}^2 + \lambda$$

Where σ^2_t is the variance for the time t. α_i and β_j are coefficients. ε_{t-i} is the lagged residual from the mean equation and, σ^2_{t-j} is the lagged variance from the period t-j. λ is the coefficient measuring the impact of real gold price on Gold ETFs. Estimated GARCH coefficient and prob value for returns are presented in Table 8.

Table 8: Volatility Estimation

	ARCH	GARCH	REAL GOLD
AXISGOLD	0.0938 (0.0000)	0.8363 (0.0000)	0.0002 (0.0295)
HDFCMFGETF	0.1368 (0.0072)	0.1911 (0.2987)	0.0004 (0.0032)
IDBIGOLD	0.0406 (0.0000)	0.9401 (0.0000)	0.0008 (0.0000)
KOTAKGOLD	0.1200 (0.0024)	0.2277 (0.3040)	0.0002 (0.1267)
QGOLDHALF	0.0961 (0.0455)	0.4087 (0.0241)	0.0004 (0.0000)

Source: Author's calculation.

From table 8, ARCH and GARCH coefficient were all significant at 5% level, other than KOTAKGOLD Which means there is an autoregressive effect in all the Gold ETFs. So, the future is influenced by the past movement of gold fund returns and GARCH implies there is strong volatility clustering effect was found in the data. The impact of Real gold in Gold ETFs was significance ag 5% level. However, the coefficient values are very less that means even though it has an impact, but it is not a strong impact over the ETFs.

ARCH-LM test: ARCH LM tests were conducted to find out whether any autocorrelation was found in the

residuals of the GARCH equation, which is necessary to verify any arch effect that has remained in the data or not. The null hypothesis of this test is that the residuals from the Generalised AutoRegressive Conditional Heteroskedacity equation do not have the ARCH type of heteroskedasticity. Residuals are free from autoregressive heteroskedasticity, the estimated coeffect (Obs*R-Squared) of the ARCH-LM test and its P values are obtainable in Table 9.

Table 9: ARCH-LM Test

	Obs*R-squared	Prob
AXISGOLD	0.6909	0.4058
HDFCMFGETF	0.3394	0.5602
IDBIGOLD	1.1808	0.2778
KOTAKGOLD	0.2631	0.6080
QGOLDHALF	0.0065	0.9355

Source: Author's calculation.

From table 9, the coefficient value is not signified in the all Gold ETFs at a 5% level of significance. So, the null hypothesis is rejected that means the data does not have any heteroskedasticity in the residual value after GARCH estimations. So, this model is fit for the evaluation of GARCH estimation in the Gold and Gold ETF returns.

VI. FINDINGS

- ✓ There is a short-term association between real Gold price and Gold ETF price return by using a correlation test. It shows a Strong positive relationship.
- ✓ There are a cause and relationship between Gold price and Gold ETFs by measuring the Granger causality test; it reveals that it is unidirectional, and few bidirectional relationships also found in the data.
- ✓ There is a long-run equilibrium connection between Gold and Gold ETFs by analyzing Johenson cointegration test.
- ✓ By estimating Volatility and Volatility clustering effect, it was significant in all the Gold ETFs. So, it implies that all the data are performing like past performance.
- ✓ It is proved that there is a positive impact of real gold in Gold ETFs.
- ✓ This study is perfectly fit for analyzing GARCH model; this was proved by ARCH-LM test.

VII. CONCLUSION

This research article was planned to examine the relationship and volatility between real gold and gold ETFs in India. For the period of three years from 1 November 2015 to 31 October 2018, with selected Gold Exchanged traded funds by using various econometric analysis. The study was found that there is a strong positive relationship amongst the real gold and gold ETFs. By measuring the correlation test implies there exist short-run relationship and by using Johenson cointegration test, it shows that there is a long-run equilibrium relationship also. The data for the study was non-stationary while calculating ADF at first level it was significant at 5% level that means the data termed to be stationary. By using the Granger causality analysis, it shows that there are a cause and relationship between gold and Gold ETFs either in one way or both the ways. The volatility effect and clustering effect was found in the Gold ETFs; all the gold funds are performing almost the same as the past period performance. These results help to investors, market research's, companies and other financial institutions to make the best decision towards the Gold ETFs. It will also help to increase the Gold ETFs trade in the future.

REFERENCES RÉFÉRENCES REFERENCIAS

1. Anand, R. G. (2017). A Comparative Study on Gold vs Gold ETF's and an Analysis of Gold ETF's as an Effective Investment Tool for Indian Retail Investors. *IJMBS*, 7(3).
2. Athma, Prashanta, & k, S. (2011). Gold ETF: An Emerging investment option, *Asia Pacific Management Journal of Research In Business Management*, 2(1), 66-78.
3. Dickey, D. A., & Fuller, W. A. (1979). Distribution of the Estimators for Autoregressive Time Series With a Unit Root. *Journal of the American Statistical Association*, 427-431
4. Ding, Z., Granger, C. W., & Engle, R. F. (1993). A long memory property of stock market returns and a new model. *Journal of Empirical Finance*, 83-106
5. Engle, R. F. (1982). Autoregressive Conditional Heteroscedasticity with Estimates of the Variance of United Kingdom Inflation. *The Econometric Society*, 987-1007
6. Gencer, H. G., & Musoglu, Z. (2014). Volatility Transmission and Spillovers among Gold, Bonds, and Stocks: An Empirical Evidence from Turkey. *International Journal of Economics and Financial Issues*, 705-713
7. Gujarati, D. N. (2009). *Basic Econometrics*. Delhi: Tata McGraw-Hill Education
8. Jain, S. P., & Mary, S. (2018). A Study on Performance of GOld ETFs trading in National Stock Exchange in India. *International Journal of Advanced Research and Development*, 829-833.
9. Kumar, M., Kumar, M. V., & Roy, S. (2012). Gold ETF Performance: A Comparative Analysis of Monthly Returns. *IUP Journal of Financial Risk management*, 9(2).
10. Mishra, P. K., Das, J. R., & Mishra, S. K. (2010). Gold Price Volatility and Stock Market Returns in India. *American Journal of Scientific Research*, 47-55.
11. Mishra, P. K. (2014). Gold Price and Capital Market Movement in India: The Toda–Yamamoto Approach. *Global Business Review*, 37-45
12. Narend, S. (2014). Performance of ETFs and Index Funds: A Comparative Analysis. *Department Studies Indian Institute of Technology, Madras*.
13. Nemavathi, K. S., & Nedunchezian, V. R. (2013). A Study On Impact of Price behavior of commodity GOld and Gold ETF. *International Journal of Scientific Research*.
14. Pandey, N. (2010). Invest in Gol, But via ETFs. *Business Standard*.
15. Tripathi, L., Parashar, A., & Singh, R. (2014). Global Factor & Gold Price In India - A Causal Study. *International Journal of Advanced Research in Management and Social Sciences*, 161-180.



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

Volume 19 Issue 3 Version 1.0 Year 2019

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

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

Influencing of Socioeconomic Impacts Through Mustard Inclusion in Fallow Period Preceding Boro Rice Farming of Bangladesh: A Field Study

By A.H.M. Motiur Rahman Talukder, Mrityunjoy Biswas,
Mohammad Noor Hossain Miah, Md. Abul Kashem & Lutfun Nahar

Sylhet Agricultural University

Abstract- An endeavor was made in this study to evaluate the Socioeconomic impacts of farmers' influencing through mustard inclusion in the fallow period preceding Boro rice farming in study area namely Mymensingh, Jamalpur and Tangail districts of Bangladesh. Field level data were collected by face to face interview using pre-tested questionnaire from 90 respondent farmers' who were belonged to small, medium and large farm households, a school teacher and businessman while secondary data collected from printed documents such as DAEDAE- Department Agricultural Extension (www.dae.gov.bd) progress reports and other development statistics. Considering the over locations dominant cropping pattern was found Fallow-BRRI dhan28 (Boro rice)-BRRI dhan49 (T. Aman rice) followed by BARI Sarisha-14-BRRI dhan29 (Boro rice)-BRRI dhan49 (T. Aman rice).

Keywords: *socioeconomic, impacts, mustard, inclusion, field study, boro rice, farming.*

GJMBR-B Classification: *JEL Code: A10*



Strictly as per the compliance and regulations of:



© 2019. A.H.M. Motiur Rahman Talukder, Mrityunjoy Biswas, Mohammad Noor Hossain Miah, Md. Abul Kashem & Lutfun Nahar. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License (<http://creativecommons.org/licenses/by-nc/3.0/>), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Influencing of Socioeconomic Impacts Through Mustard Inclusion in Fallow Period Preceding Boro Rice Farming of Bangladesh: A Field Study

Running title: Socioeconomic Impacts on Mustard Inclusion

A.H.M. Motiur Rahman Talukder ^α, Mrityunjoy Biswas ^σ, Mohammad Noor Hossain Miah ^ρ,
Md. Abul Kashem ^ω & Lutfun Nahar [✕]

Abstract- An endeavor was made in this study to evaluate the Socioeconomic impacts of farmers' influencing through mustard inclusion in the fallow period preceding Boro rice farming in study area namely Mymensingh, Jamalpur and Tangail districts of Bangladesh. Field level data were collected by face to face interview using pre-tested questionnaire from 90 respondent farmers' who were belonged to small, medium and large farm households, a school teacher and businessman while secondary data collected from printed documents such as DAEDAE-Department Agricultural Extension (www.dae.gov.bd) progress reports and other development statistics. Considering the over locations dominant cropping pattern was found Fallow-BRRI dhan28 (Boro rice)-BRRI dhan49 (T. Aman rice) followed by BARI Sarisha-14-BRRI dhan29 (Boro rice)-BRRI dhan49 (T. Aman rice). The farmers' who were cultivated the mustard crop preceding Boro rice farming achieved the maximum profitability \$ 1218.1 ha⁻¹ in Tangail region followed by in Mymensingh region profitability was \$ 1114.5 ha⁻¹ which were from 39.0% to 48.0% higher profitability than non-mustard farmers'. The traditional cropping system shifted to profitable cropping system through the inclusion of mustard crop. Hence, there is enough scope of cultivation high yielding mustard crop in the Fallow period preceding Boro rice farming by which 24.4% respondent of the surveyed areas may fetch a higher income of the farm families.

Keywords: socioeconomic, impacts, mustard, inclusion, field study, boro rice, farming.

I. INTRODUCTION

For establishment of new roads and highways, buildings, industries, markets, crop land of Bangladesh (Extends from 20°34" North Latitude to 26°38" North Latitude and from 88°01" East Longitude to 92°41" East Longitude) has declined by 68,760 ha year⁻¹ (0.73%) since 1976 (Hasan et al.

Author α: Ph.D Fellow, Department of Agronomy and Haor Agriculture, Sylhet Agricultural University, Bangladesh.

Author σ: Scientific Officer, Plant Physiology Division, Bangladesh Agricultural Research Institute, Joydebpur, Gazipur-1701. e-mail: motiurbari@yahoo.com.

Author ρ: Professor, Sylhet Agricultural University, Bangladesh.

Author ω: Professor, Department of Agro-product processing and Technology, Jashore Science and Technology University, Jashore-7400, Bangladesh.

Author ✕: Assistan Professor, Department of Agricultural Botany, Sher-e-Bangla Agricultural University, Dhaka-1207, Bangladesh.

2013). These will cause serious shortage of cultivable land for crop production and a severe food shortage to feed the increased population in the near future.

So, to feed the increased population production potentiality of different crops must be increased through the development of new varieties, improved cropping pattern, intercropping practices, etc. Increasing the cropping intensity through the development of improved cropping system by the selection of suitable crop varieties would be one of the methods. Farmers usually prefer the patterns which involve fewer risks and offer the best economic returns for investment. Most of the cropping patterns in Bangladesh are based on rice or have rice in common with other crops (Alam et al. 2011). Most observable cropping patterns are Aus rice/Jute-Fallow-Rabi crops, Aus rice/Jute-Aman rice-Fallow, Aus rice/Jute-Aman rice-Rabi crops, Fallow-Aman rice-Fallow, Mixed Rice-Rabi crops, Rice (B. Aman)-Fallow-Rice (Boro), Fallow-Rice (Boro)-Rice (T. Aman), Mixed Aus rice and other *Kharif* (wet season) crops (Jhum cultivation) are generally practice in Bangladesh. From the above cropping pattern, it is identified that the aristocratic crop mustard as conjunction crop between T. Aman and Boro is very negligible. Bangladesh Rice Research Institute (BRRI; www.brri.gov.bd) has developed several improved Aman and Boro rice varieties along with their optimum sowing and harvesting time for farm-level cultivation. A large number of local rice varieties are available in the markets which are also practicing by the farmers.

Farming System Research and Development Programme (FSRDP, 1987) found that the farmers' were continuously changing cropping pattern keeping Aman rice in constant. For this reason, farmers' were changing the Aman rice varieties which face relatively less natural hazard and uncertainty. On the other hand, assuming that the area of improved mustard varieties is gradually increasing and local varieties area is decreasing year after year might be due to the development of wide yielding mustard varieties by the different research organization.

The earlier study was conducted by Akter et al. (2010) and Miah and Alam (2008) respectively on the adoption status of BARIBARI-Bangladesh Agricultural Research Institute, (www.bari.gov.bd) released mustard varieties and relative profitability and farmer's attitude toward BARI's mustard cultivation in some areas of Bangladesh and they found the positive attitude and profitability from the respondent farmers' through the farming of mustard preceding Boro rice farming.

Mustard which is a leading oilseed crop, contributing to more than 60% of the total oilseed production in Bangladesh providing calories and aiding in digestion of several fat-soluble vitamins, for example, Vitamin A (National Research Council, 1989). For maintaining good health, at least, 15% of the total calories must come from visible and invisible oils or fats. Some oilseeds are also a source of good quality protein, vitamins, and fuel.

Many areas of the country new numbers of cropping pattern are being practiced by the farmers' because the rate of expansion depends on yield and profit potentiality of the cropping systems. Khan et al. (2017) revealed that the highest gross return and gross margins were respectively \$ 4248.7 and \$ 2010.7 ha⁻¹ which were 80% and 207% higher due to the inclusion of mustard between two rice crops. Similarly, Paul et al. (2016) opined that based on benefit-cost ratio (BCR) most profitable cropping patterns was Mustard-Jute-T. Aman rice. Further, relevant information on the adoption rate of local and high yielding Aman and Boro rice, mustard varieties, their sowing and harvesting situation, constraint in mustard production of the study areas is very scanty and sporadic. Therefore, it was needed to identify the farming system of the study areas from which farmers' will be benefited by gathering information on high yielding and local varieties for adopting at farm level that will influence the social impacts. Therefore, the present study was conducted to fulfill the following objectives;

- i. To observe the shifting rate of socioeconomic impressions of farmers' influencing by mustard inclusion preceding Boro rice farming
- ii. To identify the farm-level adoption of Aman and Boro rice, mustard varieties along with their planting and harvesting time
- iii. To categorize the possible limitations for the adoption of mustard crop preceding Boro rice farming
- iv. To find the present dominant rice-based cropping pattern(s) in the study areas and economic profitability.

II. MATERIALS AND METHODS

It is an empirical study based on collected primary data from the selected district farmers' who

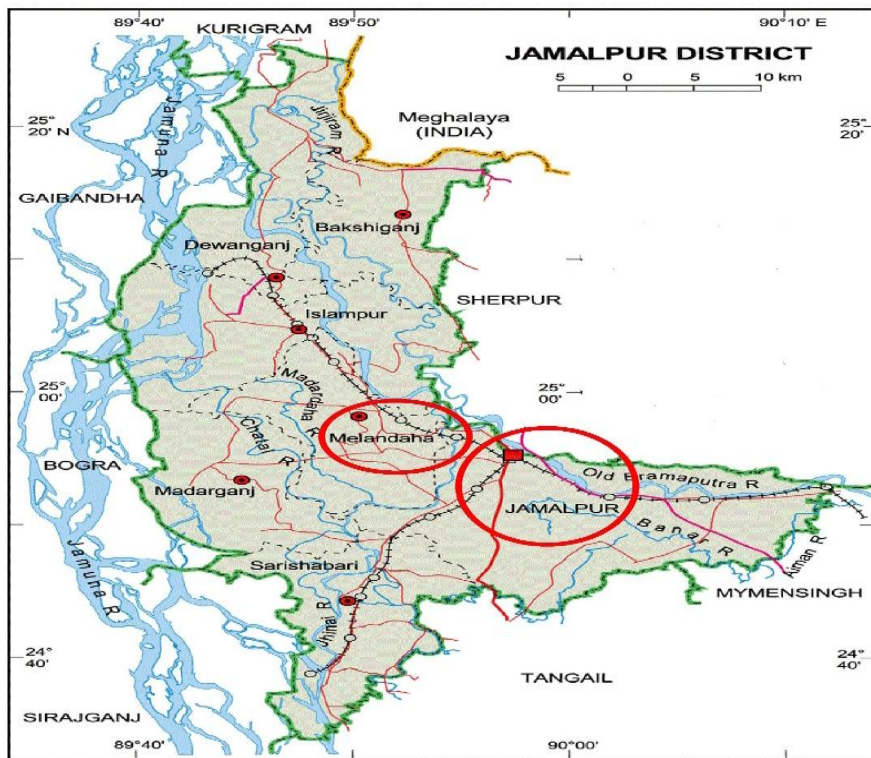
cultivated the T. Aman (wet season rice) and Boro rice (dry season rice) dominantly. Previously, secondary data of selected districts were collected from printed report of DAE and other Non-Government Organization (NGO).

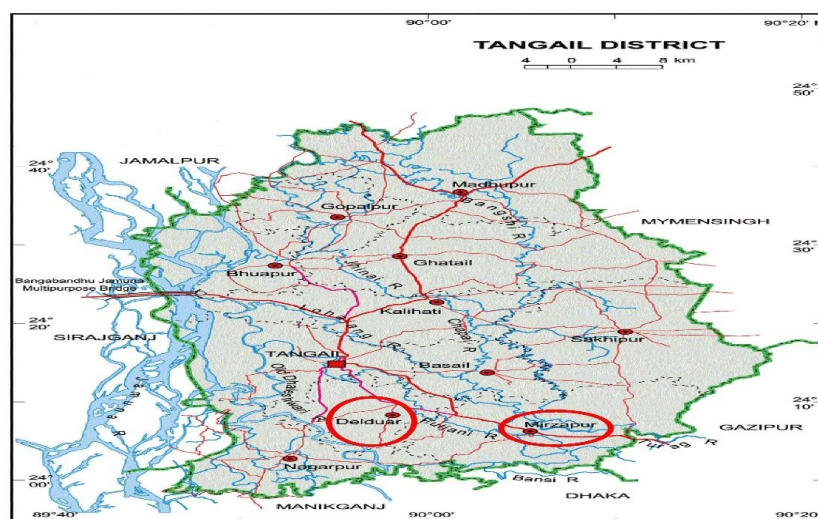
a) Selection of Study Area and Study Period

Based on easy access for the researcher (communication facilities) and less prone to natural calamities Mymensingh Sadar and Muktagachha from Mymensingh district, Jamalpur Sadar and Melandaha from Jamalpur district, Mirzapur and Delduar Upazila from Tangail district selected for this study. Geographically Mymensingh district lies between 24°15' and 25°15' North and 90°49' East longitudes, Jamalpur district lies between 24°34' and 25°26' North latitudes and between 40°89' and 12°90' East longitudes and Tangail district lies between 24°01' and 24°47' north latitudes and between 89°44' and 90°18' east longitudes. The study was based on the farm level as well as the market level and conducted during the period from June 2014 to October 2014.

b) Sample Size and Sampling Technique

A purposive sampling technique was adopted in this study to select the respondent farmers' of Fallow /Mustard-Boro rice-T. Aman rice cropping pattern to know the existing crop varieties practiced under this pattern, their planting and harvesting time at farmers' level, dominant cropping system and as well as economic profitability. In the first stage of sampling, three mustard growing districts between T. Aman and Boro rice, namely Mymensingh, Jamalpur and Tangail selected based on high, medium, and low-intensity area. In the second stage, two Upazilas carefully chose from each district. In the third stage, a total of 90 farmers, taking 15 farmers from each Upazila were chose by random sampling technique.





(Source: <https://www.thebangladesh.net/mymensingh-district.html#maps>, <https://www.thebangladesh.net/jamalpur-district.html#maps>, <https://www.thebangladesh.net/tangail-district.html#maps>)

Figure 1: Map of the surveyed district of Bangladesh indicating surveyed Upazila within the circle

c) Preparation of Interview Schedule

A preliminary interview schedule planned to collect data from the respondents. The introductory interview schedule contained the socioeconomic profile of the respondents, the existing crop varieties and their sowing and harvesting time, dominant cropping pattern, cost and return of Mustard inclusion in the preceding period of Boro rice farming.

d) Methods of Data Collection

The researcher himself collected field-level data by face to face interview using a preliminary interview schedule. The unit of data collection was multiple plots of each selected farmers, where detailed information regarding Mustard/Fallow-Boro rice-T. Aman rice cropping pattern was taken, and these data analyzed on a hectare basis. Data about existing cultivated variety, cost of input, market price, yield, etc considered.

e) Analytical Techniques

The collected data were scrutinized, edited, summarized, tabulated, and analyzed to fulfill the objectives of the study. Profitability studies of Fallow/Mustard-Boro rice-T. Aman rice cropping patterns were estimated using the cost of cultivation (based on farmers' information), gross return (based on local market price), and profit analysis.

Gross return (GR) was calculated multiplying the total output of an enterprise by the average market price during the harvesting period. The following equation was used to estimate Gross return.

$$GR_i = \sum_{i=1}^n Q_i P_i$$

Where, GR_i = Gross return from the i th product (\$ ha⁻¹), Q_i = Quantity of the i th product (kg), P_i = Average price of the i th product (\$), $i=1, 2, 3$
Gross margin is an estimate of the difference between total return and variable costs.

i.e, $GM = TR - VC$

Where, GM = Gross margin

TR = Total return

VC = Variable cost

III. RESULT AND DISCUSSION

a) Socioeconomic Profile of sampled farmers'

Age is the important factors that were about individuals in qualities make up, his need, and way of thinks and behaves that are all closely related to the whole life (Smith and Zope, 1970). In the study areas, the highest percentage of farmers' (43.3%) was in the age group of 41-50 years in Mymensingh region. The lowest percent of the farmers' (10%) were under the age group of up to 30 and 31-40 years in Mymensingh region. On an average of the three locations, the highest respondent farmers' (31.1%) were under the middle age group of 41-50 years (Table 1). If these young aged respondents would be trained, motivated, and guided, they would be able to struggle against poverty by engaging themselves in employed occupation.

Education is a vital factor that makes the farmers' to access the relevant technical expertise and scientific information. The study revealed that the highest percentage of illiterate farmers found in Mymensingh region (30%) followed by Jamalpur region (13%). Mean of all locations indicated that 18 percent of respondents had at the secondary, 23 percent at SSC, 4 and 8 percent had at HSC, and graduate and above level education (Table 1). Ray (1998) defined the main occupation as the work for a man who has engaged him throughout the year. The survey results reflected that on an average of three locations, 69 percent of farmers solely engaged in Agriculture (Table 1). But small/medium farmers' with their small land cannot survive on agriculture alone. For this reason, they have to go for subsidiary/off-farm activities for supplementing the family income. For this reason, some of the respondents were found to depend on business. On an average of three surveyed areas, the farm family size practicing Mustard/Fallow-Boro rice-T. Aman rice cropping pattern was 5.44 members (Table 1) while it was 5.89 in Tangail region, 5.40 in Mymensingh region, and the lowest 5.05 in Jamalpur region.

b) Aman varieties cultivated by the sampled farmers of the surveyed areas

To choice, a crop or variety, different factors like prevailing farm condition, varietal adaptability, resistance to pests and diseases and marketability and profitability should be taken into consideration. From the survey program, it reflected that the high yielding T. Aman rice variety BRRI dhan49 was cultivated in the 47 percent of respondent in Mymensingh region followed by Madhobi and Hari dhan (e.g.; dhan is Bengali word and Rice is English word) was cultivated by 33.3 and 30 percent of respondents respectively. Similarly, in Mymensingh region, the variety BRRI dhan49 occupied the highest 28.1% land (DAE, 2014). In Jamalpur region, the local variety Hari dhan (e.g.; dhan is Bengali word and Rice is English word) was cultured by 47 percent respondent farmers followed by HYVHYV-High Yielding Variety BRRI dhan49 was practiced in 43 percent respondent whereas in Tangail region, 90 percent respondent farmers adopted BRRI dhan49. Thus BRRI dhan49 was found as the most prominent Aman rice variety. Within the sampled farmers from 3 to 13 percent respondent cultivated BRRI dhan30, Gutishurna, Kalijira, Binadhan-7, Kartikzone, Lalchamara, etc. (Table 2).

c) Sowing and harvesting time of cultivated Aman rice varieties by the respondent farmers' of Mustard-Boro rice-T. Aman rice or Fallow-Boro rice-T. Aman rice cropping pattern in surveyed areas

The sowing and harvesting time of any crop depends on rainfall, irrigation facilities, soil condition, and other climatic factors. Sowing time is an important

factor for getting better yield, to fit the new crop in a cropping pattern to increase the cropping intensity. The survey results revealed that in Mymensingh region 100 percent respondent farmers' sowed the high yielding and long duration local Aman rice varieties (e.g., BRRI dhan49, Hari Dhan, Madhobi, Gutishurna, and Kalijira) before BRRI recommended time and harvest the local varieties in recommended time and High yielding varieties in before recommended time. In Jamalpur region, 57 percent of respondents reaped the local Aman rice variety "Hari Dhan" (e.g., Dhan is Bengali word and Rice is English word) after the recommended time. In Mymensingh and Jamalpur regions, 100 percent of respondents sowed the variety Pajam (e.g, name of rice variety) and BRRI dhan49 before the recommended time and also harvested them earlier than the recommended time. While in Tangail region 62.9 percent of respondent sowed the seeds of BRRI dhan49 before the recommended time and 37 of percent respondent in the recommended time. But the 100 percent of respondents harvested this variety before the recommended time. It might be due to non-photosensitivity character. On the other hand, BR10, BR11, and BRRI dhan30 are less-photosensitive varieties, and in the surveyed areas, 100 percent of respondent sowed and harvested these crops in recommended time (Table 3).

d) Mustard and non-mustard growing farmers in the surveyed areas

The survey revealed that in Tangail region, 18 respondents (60%) engaged themselves in mustard production in between T. Aman and Boro rice, and it was followed in Mymensingh region. Data showed that in Jamalpur region, there were the lowest six respondents (20%) engaged themselves in mustard production among the surveyed farmers (Figure 2).

e) Problems of mustard production between T. Aman and Boro rice

The survey result revealed that on an average of three locations, 43.0 percent of respondent opined that poor yield, low price of seeds are the problem for mustard cultivation. On an average of 28% respondent opined that transplantation of Boro becomes late due to mustard cultivation. In Mymensingh and Jamalpur regions, 11% and 13% respondents opposed the mustard cultivation for lack of short duration improved variety. In Jamalpur and Tangail regions, 8% and 17% respondent farmers opined that the lands are not suitable for mustard cultivation (Table 4).

f) Name of Boro varieties, their seeding and harvesting time by the respondent farmers' in the surveyed areas

The survey result revealed that during the Boro season BRRI dhan28, BRRI dhan29, Pajam, Hybrid

variety Hira was cultivated by the respondent farmers' after harvest of mustard or T. Aman rice. Among the above mentioned Boro varieties in Tangail region, 100 percent of respondents cultured the BRRI dhan29 followed by Mymensingh region. On average, 64% of respondents refined BRRI dhan28 in Mymensingh and Jamalpur regions. Considering the Over locations, 1-2 percent of respondents adopted different hybrid varieties during Boro season (Table 5). On an average of Mymensingh and Jamalpur region, 77% of respondents cultivated the variety BRRI dhan28 at the recommended time. But 94% of respondents harvested them after the recommended time. Similarly, the highest 82% (mean of three locations) of respondents cultivated the variety BRRI dhan29 at the recommended time. But 70% of respondent harvested in the recommended time. Also, the 20% and 28% of respondents harvested the BRRI dhan29 at before the recommended and after the recommended time respectively (Table 6).

where the survey was conducted. Alone in Mymensingh district, the dominant cropping pattern was Fallow-BRRI dhan28-BRRI Dhan49 (30%) followed by Fallow-BRRI dhan29-Madhobi (27%). Cropping patterns Fallow-BRRI dhan28-Hari Dhan and Fallow-BRRI dhan29-Hari Dhan moderately adopted by the respondent farmers in the Mymensingh region. As like as Mymensingh region Fallow-BRRI dhan28-BRRI Dhan49 cropping pattern was dominantly adopted by the farmers of Jamalpur region followed by Fallow-BRRI dhan29-Hari Dhan cropping pattern. In Tangail region BARI Sarisha-14-BRRI dhan29-BRRI dhan49 cropping pattern dominantly adopted by the respondent farmers. On an average of three locations, the dominant cropping pattern found Fallow-BRRI dhan28-BRRI Dhan49 followed by BARI Sarisha-14-BRRI dhan29-BRRI dhan49. In Mymensingh and Jamalpur regions Fallow-BRRI dhan29-Hari Dhan was a promising cropping pattern (Table 7).

g) *Dominant rice-mustard based cropping patterns followed in the study areas*

The survey result revealed that there were twenty-six, rice-mustard based cropping patterns in the

Table 1: Socioeconomic profile of the sampled farmers collected through field survey 2014

Profile	Mymensingh (n = 30)		Jamalpur (n = 30)		Tangail (n = 30)		All areas (n = 90)	
Age group (years)	Number of farmers	Percentage	Number of farmers	Percentage	Number of farmers	Percentage	Number of farmers	Percentage
Up to 30	3	10.0	4	13.3	6	20.0	13	14.4
31-40	3	10.0	4	13.3	4	13.3	11	12.2
41-50	13	43.3	8	27.0	7	23.3	28	31.1
51-60	4	13.3	7	23.3	9	30.0	20	22.2
61-above	7	23.3	7	23.3	4	13.3	18	20.0
Total	30	100	30	100	30	100	90	100
Educational level								
Illiterate	9	30.0	4	13.0	2	7.0	15	17.0
Primary	11	36.6	4	13.0	12	40.0	27	30.0
Secondary	3	10.0	9	30.0	4	13.0	16	18.0
SSC	5	16.6	5	17.0	11	37.0	21	23.0
HSC	0	0.0	3	10.0	1	3.0	4	4.0
Graduate and above	2	6.66	5	17.0	0	0.0	7	8.0
Total	30	100	30	100	30	100	90	100
Occupational status								
Agriculture	21	70.0	26	87.0	15	50.0	62	69.0
Agriculture + Business	9	30.0	4	13.0	14	47.0	27	30.0
Agriculture+ Van/Auto puller	-	-	-	-	1	3.0	1	1.1
Total	30	100	30	100	30	100	90	100
Family size								
Total	5.40	100	5.05	100	5.89	100	5.44	100
Male	2.90	54.0	2.65	52.5	2.86	48.5	2.80	51.5
Female	2.50	46.0	2.40	47.5	3.03	51.4	2.64	48.5

Source: Field survey, 2014

Table 2: T. Aman rice varieties cultivated by the respondent farmers' of the surveyed areas (field survey 2014)

Varieties	Mymensingh (n = 30)		Jamalpur (n = 30)		Tangail (n = 30)		All areas (n = 90)	
	Number of farmers	Percentage	Number of farmers	Percentage	Number of farmers	Percentage	Number of farmers	percentage
Hari dhan	9	30.0	14	47.0	-	-	23	25.5
Madhobi	10	33.3	-	-	-	-	10	11.1
BRRI dhan49	14	47.0	13	43.0	27	90	54	60.0
Pajam	4	13.0	4	13.0	-	-	8	9.0
BRRI dhan30	1	3.0	-	-	-	-	1	1.1
BRRI dhan34	6	20.0	-	-	-	-	6	7.0
Gutishurna	4	13.0	-	-	-	-	4	4.4
Kalijira	1	3.0	1	3.0	-	-	2	2.2
BR10	-	-	1	3.0	-	-	1	1.1
Binadhan-7	-	-	-	-	1	3.0	1	1.1
Kartikzone	-	-	-	-	2	7.0	2	2.2
Lal chamra	-	-	-	-	2	7.0	2	2.2
BR11	-	-	-	-	4	13.0	4	4.4

Note. Total number of respondents is higher than n=30 as because in some cases the same farmers cultivated more varieties.

Table 3: Seeding and harvesting time of T. Aman rice varieties cultivated by the farmers of the surveyed areas

Varieties	Seeding/harvesting time categories	Mymensingh (N = 9)		Jamalpur (N = 14)		Tangail (N = 0)	
		Seeding time	Harvesting time	Seeding time	Harvesting time	Seeding time	Harvesting time
Hari dhan	Before recommended	9 (100)	-	5 (35.7)	1 (7.14)	-	-
	Recommended	-	9 (100)	9 (64.2)	5 (35.7)	-	-
	After recommended	-	-	-	8 (57.1)	-	-
Madhobi	Before recommended	Mymensingh (N = 10)		Jamalpur (N = 0)		Tangail (N = 0)	
		10 (100)	-	-	-	-	-
	Recommended	-	10 (100)	-	-	-	-
	After recommended	-	-	-	-	-	-
Gutishurna	Before recommended	Mymensingh (N = 4)		Jamalpur (N = 0)		Tangail (N = 0)	
		4 (100)	-	-	-	-	-
	Recommended	-	4 (100)	-	-	-	-
	After recommended	-	-	-	-	-	-
Kalijira	Before recommended	Mymensingh (N = 1)		-		Tangail (N = 0)	
		1 (100)	-	1 (100)	-	-	-
	Recommended	-	-	-	-	-	-
	After recommended	-	1 (100)	-	1 (100)	-	-
Pajam	Before recommended	Mymensingh (N = 4)		Jamalpur (N = 4)		Tangail (N = 0)	
		4 (100)	4 (100)	4 (100)	4 (100)	-	-
	Recommended	-	-	-	-	-	-
	After recommended	-	-	-	-	-	-
BRRI dhan49	Before recommended	Mymensingh (N = 14)		Jamalpur (N = 13)		Tangail (N = 27)	
		14 (100)	14 (100)	13 (100)	13 (100)	17 (62.9)	27 (100)
	Recommended	-	-	-	-	10 (37.0)	-
	After recommended	-	-	-	-	-	-

Table 3: (Contd.) Seeding and harvesting time of T. Aman rice varieties

Varieties	Seeding/harvesting time categories	Mymensingh (N = 1)		Jamalpur (N = 0)		Tangail (N = 0)	
		Seeding time	Harvesting time	Seeding time	Harvesting time	Seeding time	Harvesting time
BRRI dhan30	Before recommended	--	--	--	--	--	--
	Recommended	1 (100)	1 (100)	--	--	--	--
	After recommended	--	--	--	--	--	--
BRRI dhan34	Before recommended	Mymensingh (N = 6) 6 (100)		Jamalpur (N = 0)		Tangail (N = 0)	
	Recommended	--	--	--	--	--	--
	After recommended	--	--	--	--	--	--
BR10	Before recommended	Mymensingh (N = 0)		Jamalpur (N = 1)		Tangail (N = 0)	
	Recommended	--	--	1 (100)	1 (100)	--	--
	After recommended	--	--	--	--	--	--
BR11	Before recommended	Mymensingh (N = 0)		Jamalpur (N = 0)		Tangail (N = 4)	
	Recommended	--	--	--	--	4 (100)	4 (100)
	After recommended	--	--	--	--	--	--
Binadhan-7	Before recommended	Mymensingh (N = 0)		Jamalpur (N = 0)		Tangail (N = 1)	
	Recommended	--	--	--	--	1 (100)	1(100)
	After recommended	--	--	--	--	--	--
Lal chamara	Before recommended	Mymensingh (N = 0)		Jamalpur (N = 0)		Tangail (N = 2)	
	Recommended	--	--	--	--	2 (100)	--
	After recommended	--	--	--	--	--	2 (100)
Kartikzone	Before recommended	Mymensingh (N = 0)		Jamalpur (N = 0)		Tangail (N = 2)	
	Recommended	--	--	--	--	2 (100)	--
	After recommended	--	--	--	--	--	2 (100)

Note: N = Number of respondent farmers; Hari, Madhobi, Gutishurna, Kalijira, Lal chamra (Chamara is a Bengali word and local name), Kartik zone (Local Aman variety): Recommended sowing time 30 June-30 July (source: Adhunik dhaner chash, 18th edition, May, 2015) and Harvesting time 01 November-20 November (Source: Field survey). , BRRI dhan49: Recommended sowing time 15 June-14 July, Harvesting time 24-29 November, Pajam: Recommended sowing time 29 June-14 July, Harvesting time 15-29 November , BRRI dhan30: Recommended sowing time 8-29 June, Harvesting time 30 October 29 November , BRRI dhan34: Recommended sowing time 20-25 July, Harvesting time 19-24 November , BR10: Recommended sowing time 8-29 June, Harvesting time 30 Oct-29 Nov. , BR11: Recommended sowing time 8-29 June, Harvesting time 20 October 24 November (BRRI, 2016)

Table 4: Problems and constraints of mustard production in the fallow period before Boro rice transplantation

Sl. No.	Problems and constraints	Mymensingh (N = 19)		Jamalpur (N = 24)		Tangail (N = 12)		Average
		Number of farmers	Percentage	Number of farmers	Percentage	Number of farmers	Percentage	
1.	Lack of short duration improved variety	2	10.5	3	13.0	--	--	8.0%
2.	Transplantation of Boro become late	4	21.0	7	29.0	4	33.0	28.0%
3.	Low soil moisture/land is not proper	1	5.3	2	8.00	2	17.0	10.1%
4.	Excessive soil moisture/ land is not proper	2	10.5	2	8.00	2	17.0	12.0%
5.	Poor yield, low price of seed	10	53.0	10	42.0	4	33.0	43.0%
Total		19	100	24	100	12	100	

Note: N = Number of respondent farmers

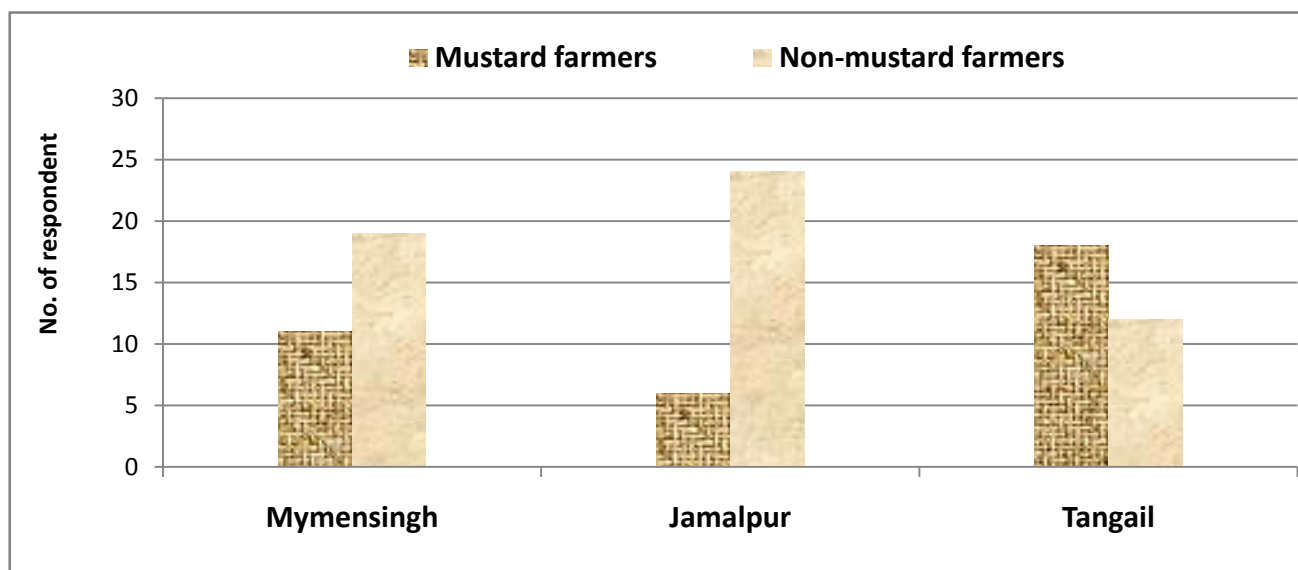


Figure 2: Number of mustard and non-mustard farmers in surveyed areas

Table 5: Boro rice varieties cultivated by the sampled farmers of the surveyed areas

Varieties	Mymensingh (n = 30)		Jamalpur (n = 30)		Tangail (n = 30)		All areas (n = 90)	
	Number of farmers	Percentage	Number of farmers	Percentage	Number of farmers	Percentage	Number of farmers	Percentage
BRRi dhan28	21	70.0	17	57.0	-	-	38	42.0
BRRi dhan29	27	90.0	14	47.0	36	120	77	86.0
Pajam	1	3.3	-	-	-	-	1	1.1
Hira	-	-	2	7.0	-	-	2	2.2

Note: Total number of respondents is higher than n=30 as because in some cases the same farmers cultivated more varieties.

Table 6: Seeding and harvesting time of Boro rice varieties cultivated by the sampled farmers of the surveyed areas

Varieties	Seeding/harvesting time categories	Mymensingh (N = 21)		Jamalpur (N = 17)		Tangail (N = 0)	
		Sowing time	Harvesting time	Sowing time	Harvesting time	Sowing time	Harvesting time
BRRi dhan28	Before recommended	-	-	-	-	-	-
	Recommended	15 (71.4)	-	14 (82.3)	2 (11.7)	-	-
	After recommended	6 (28.5)	21 (100%)	3 (18)	15 (88.2)	-	-
Pajam	Before recommended	Mymensingh (N = 1)		Jamalpur (N = 0)		Tangail (N = 0)	
	Recommended	1 (100)	1 (100)	-	-	-	-
	After recommended	-	-	-	-	-	-
BRRi dhan29	Before recommended	Mymensingh (N = 27)		Jamalpur (N = 14)		Tangail (N = 36)	
	Recommended	-	7 (25.9)	-	2 (14.3)	-	-
	After recommended	22 (81.4)	14 (51.8)	13 (92.8)	12 (85.7)	26 (72.2)	26 (72.2)
Hybrid	Before recommended	Mymensingh (N = 0)		Jamalpur (N = 3)		Tangail (N = 0)	
	Recommended	-	-	3 (100)	-	-	-
	After recommended	-	-	-	3 (100)	-	-

Note: N= Number of respondent farmers practiced different Boro varieties; BRRi dhan28: Recommended sowing time 15-29 November and harvesting time 03-18 April, BRRi dhan29: Recommended sowing time 1-30 November, Harvesting time 8-20 May, Hybrid: Recommended sowing time 15 November-14 December, Harvesting time 8-18 April (BRRi, 2015)

Table 7: Existing mustard-based rice-rice cropping patterns followed in the surveyed areas

Sl. No.	Cropping pattern	Mymensingh (n = 30)		Jamalpur (n = 30)		Tangail (n = 30)		All the areas (n = 90)	
		Number of farmers (N)	Percentage	Number of farmers (N)	Percentage	Number of farmers (N)	Percentage	Number of farmers (N)	Percentage
01.	Fallow-BRRI dhan28-Hari dhan	4	13	1.0	3.0	--	--	5	6.0
02.	Fallow -BRRI dhan29-Hari dhan	4	13	9.0	30.0	--	--	13	14.4
03.	Fallow -Pajam -Hari dhan	01	3.3	--	--	--	--	01	1.1
04.	BARI Sarisha-14-BRRI dhan29-Hari dhan	--	--	02	7.0	--	--	02	2.2
05.	BARI Sarisha-14-BRRI dhan28-Hari dhan	--	--	02	7.0	--	--	02	2.2
06.	Tori-7-BRRI dhan28-Madhobi	02	7	--	--	--	--	02	2.2
07.	Fallow- BRRI dhan29-Madhobi	08	27	--	--	--	--	08	9.0
08.	Tori-7- BRRI dhan29-BRRI dhan49	--	--	--	--	03	10	03	3.3
10.	BARI Sarisha-14-BRRI dhan29-BRRI dhan49	05	17	--	--	14	47	19	21.0
11.	Fallow-BRRI dhan28-BRRI dhan49	09	30.0	13	43.3	--	--	22	24.4
12.	Fallow-BRRI dhan29-BRRI dhan49	--	--	--	--	10	33	10	11.0
13.	BARI Sarisha-14-BRRI dhan28-Pajam	02	7.0	01	3.3	--	--	03	3.3
14.	Fallow -BRRI dhan29-Pajam	02	7.0	03	10.0	--	--	05	5.5
15.	BARI Sarisha 15-BRRI dhan29- BRRI dhan34	02	7.0	--	--	--	--	02	2.2
16.	Fallow -BRRI dhan28-BRRI dhan34	02	7.0	--	--	--	--	02	2.2
17.	Fallow -BRRI dhan29-BRRI dhan34	02	7.0	--	--	--	--	2.0	2.2
18.	Fallow- BRRI dhan29-Gutishurna	04	13.0	--	--	--	--	04	4.4
19.	Fallow- BRRI dhan28-BRRI dhan30	01	3.0	--	--	--	--	01	1.1
20.	Fallow- BRRI dhan28-Kalijira	01	3.0	--	--	--	--	01	1.1
21.	Fallow- Hira-Kalijira	--	--	01	3.3	--	--	01	1.1
22.	Fallow -Hira-BR 10	--	--	01	3.3	--	--	01	1.1
23.	Fallow- BRRI dhan29-BR11	--	--	--	--	04	13	04	4.4
24.	BARISarisha14-BRRI dhan29-Binadhan-7	--	--	--	--	01	3.3	01	1.1
25.	Fallow-BRRI dhan29-Lal chamra	--	--	--	--	02	7.0	02	2.2
26.	Fallow -BRRI dhan29-Kartikzone	--	--	--	--	02	7.0	02	2.2



h) *Cost and return of T. Aman rice, Boro rice and Mustard crops under Mustard-Boro rice-T. Aman rice or Fallow-Boro rice-T. Aman rice cropping patterns*

For determining of the relative profitability of different produces and cropping pattern, all cost items for each of the individual crops considered. Costs are the expenses involved in organizing and carrying the production process up to getting yield or output. For calculating the cost of cultivation of T. Aman, mustard, Boro rice crops under Fallow/Mustard-Boro rice-T. Aman rice cropping pattern, all variable costs like human labor, land preparation, seed, chemical fertilizer, insecticide, irrigation calculated per hectare basis. Under this calculation, fixed cost and family labor cost were not included. Labor wages considered on a local value basis. Gross return (\$⁴ ha⁻¹) was calculated based on the local market price of the economic yield and by-product of those crops. The cost variation in T. Aman rice cultivation among the surveyed areas was mainly influenced by the variation of available labour number and their wages. The highest cost of cultivation for T. Aman rice was found \$ 591.96, One dollar = Tk. 84.63 (Bangladeshi currency) as per on day value ha⁻¹ in Tangail region followed by Jamalpur region \$ 570.88 ha⁻¹ due to the highest number of labor and wages. The lowest cost of cultivation was found in Mymensingh region \$ 545.75 ha⁻¹ due to lowest of labor. The highest gross margin in T. Aman rice was found \$ 651.30 ha⁻¹ from BRRI dhan49 in Jamalpur region followed by \$ 577.6 ha⁻¹ in Tangail region. The local variety Hari dhan contributed the gross margin \$ 511.87 ha⁻¹ in Jamalpur region. The local Lal Chamara and Kartikzone funded the lowest gross margin in Tangail region (Table 8). For mustard cultivation, the highest cost of cultivation was found in Mymensingh and Jamalpur regions \$ 332.15 ha⁻¹ and \$ 377.10 ha⁻¹ respectively while in Tangail region was found the lowest \$ 317.97 ha⁻¹. The highest gross margin \$ 294.72 ha⁻¹ was obtained by cultivating BARI Sarisha-15 in Mymensingh region followed by BARI Sarisha-14 in Mymensingh and Tangail regions. The local variety Tori-7 produced the lowest gross margin of \$ 77.60 ha⁻¹ (Table 9). In the case of Boro rice, the highest cost of cultivation \$ 833.51 ha⁻¹ was found in Tangail region followed by Mymensingh region \$ 801.02 ha⁻¹. Cost of cultivation for Boro rice was varied among the studied areas due to variation of irrigation cost. The lowest cost was found in Jamalpur region at \$ 777.24 ha⁻¹. Considering all locations, in case of Boro, BRRI dhan29 incurred the highest gross margin followed by BRRI dhan28 (Table 10).

i) *Gross return analysis of the dominant cropping pattern*

The gross return of farmers' under Fallow/Mustard-Boro rice-T. Aman rice was mainly influenced in the conjunctions of mustard between T. Aman and Boro rice. The highest profitability was found

\$ 1218.10 ha⁻¹ from BARI Sarisha-14-BRRI dhan29-BRRI dhan49 cropping pattern in Tangail region followed by Mymensingh region \$ 1114.53 ha⁻¹. BARI Sarisha-14-BRRI dhan29-Hari Dhan cropping pattern also earned \$ 1068.01 ha⁻¹ profit in Jamalpur region (Table 11).

IV. CONCLUSION

The survey study revealed that over locations the dominant cropping pattern was found Fallow-BRRI dhan28 (Boro rice)-BRRI dhan49 (T. Aman rice) followed by BARI Sarisha-14-BRRI dhan29 (Boro rice)-BRRI dhan49 (T. Aman rice). Hence, there is enough scope of cultivation high yielding mustard crop in the Fallow-BRRI dhan28 (Boro rice)-BRRI dhan49 (T. Aman rice) cropping pattern by applying agronomic management practices by which 24.4% respondent of the survey areas may fetch a higher income of the farm families in the study area.

ACKNOWLEDGMENTS

We acknowledge the "Research and Research Infrastructure Development and Extension Project" funded by Government of the People's Republic of Bangladesh, Implemented by Bangladesh Agricultural Research Institute (BARI), Gazipur-1701, for providing the fund to conduct the field study at the selected district of Bangladesh.

Table 8: Yield, cost of cultivation, gross return and gross margin of cultivated T. Aman rice varieties under surveyed areas

Varieties	Mymensingh			Jamalpur			Tangail					
	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return ¹ (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)
Hari dhan	4.19	545.75	965.73	419.98	4.80	570.88	1082.76	511.87	-	-	-	-
Madhobi	3.60	545.75	1003.25	457.50	-	-	-	-	-	-	-	-
BRR1 dhan49	4.19	545.75	1089.51	543.76	4.79	570.88	1222.20	651.31	4.50	591.95	1169.6	577.6
Pajam	3.10	545.75	992.17	446.41	3.30	570.88	1040.65	469.78	4.73	591.95	1014.33	422.4
BRR1 dhan30	3.42	545.75	806.51	260.76	-	-	-	-	-	-	-	-
BRR1 dhan34	-	-	-	-	2.20	570.88	651.72	105.96	-	-	-	-
Gutishurna	3.89	545.75	1018.61	472.86	-	-	-	-	-	-	-	-
Kalijira	1.64	545.75	922.90	377.15	-	-	-	-	-	-	-	-
Binadhan-7	3.12	545.75	751.28	159.33	-	-	-	-	-	-	-	-
Lal chamara	-	-	-	-	-	-	-	-	2.38	591.95	598.3	6.31
Kartikzone	-	-	-	-	-	-	-	-	3.00	591.95	726.5	134.51

Note: Selling price (Grain)-Aman rice: Hari dhan \$ 0.21 kg⁻¹; Madhobi \$ 0.25 kg⁻¹; BRR1 dhan49 \$ 0.24 kg⁻¹; Pajam \$ 0.29 kg⁻¹, BRR1 dhan30 \$ 0.21 kg⁻¹; BRR1 dhan34 \$ 0.25 kg⁻¹ & BR10 \$ 0.21 kg⁻¹, Gutishurna \$ 0.24 kg⁻¹ and Kalijira \$ 0.50 kg⁻¹, BR11 \$ 0.19 kg⁻¹, Binadhan-7 \$ 0.21 kg⁻¹, Lal chamara \$ 0.21 kg⁻¹ and Kartikzone \$ 0.21 kg⁻¹

¹ Gross return (GR) was calculated by multiplying the total output (grain + straw) of an enterprise by the average market price in the harvesting period.

Table 9: Yield, cost of cultivation, gross return and gross margin of cultivated mustard varieties under surveyed areas

Varieties	Mymensingh				Jamalpur				Tangail			
	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)
Tori-7	0.75	332.15	409.76	77.6	-	-	-	-	-	-	-	-
BARI Sarisha-14	1.09	332.15	577.1	244.9	0.940	337.1	507.1	170.0	1.05	317.9	574.1	256.12
BARI Sarisha-15	1.20	332.15	626.8	294.7	-	-	-	-	-	-	-	-

Note: Selling price (Seed): Mustard-\$ 0.47 kg⁻¹

Table 10: Yield, cost of cultivation, gross return and gross margin of cultivated Boro rice varieties under surveyed areas

Varieties	Mymensingh				Jamalpur				Tangail			
	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)	Yield (t ha ⁻¹)	Cost of cultivation (\$ ha ⁻¹)	Gross return (\$ ha ⁻¹)	Gross margin (\$ ha ⁻¹)
BRR1 dhan28	4.37	801.0	1034.8	233.8	4.54	777.24	1074.4	297.1	-	-	-	-
BRR1 dhan29	4.94	801.0	1126.8	325.8	5.10	777.24	1163.4	386.1	5.38	833.5	1225.7	392.2
Hira	-	-	-	-	4.48	777.24	1035.2	257.9	-	-	-	-

Note: Selling price (Grain)-Boro rice: BRR1 dhan28= \$ 0.21 kg⁻¹; BRR1 dhan29= \$ 0.20 kg⁻¹

Table 11: Gross return study of the farmers under Mustard/Fallow-Boro rice-T. Aman rice cropping pattern in the surveyed areas

Sl. no.	Existing cropping pattern	Mymensingh (\$ ha ⁻¹)	Jamalpur (\$ ha ⁻¹)	Tangail (\$ ha ⁻¹)
01.	Fallow- BRRI dhan28-Hari dhan	653.5	805.6	-
02.	Fallow- BRRI dhan29-Hari dhan	745.8	894.6	-
03.	BARI Sarisha-14- BRRI dhan29 -Hari dhan	-	1068.0	-
04.	BARI Sarisha-14- BRRI dhan28- Hari dhan	-	979.0	-
05.	Tori-7- BRRI dhan28- Madhobi	768.9	-	-
06.	Fallow- BRRI dhan29-Madhobi	783.3	-	-
07.	BARI Sarisha-14- BRRI dhan29-BRRI dhan49	1114.5	-	1218.10
08.	Fallow-BRRI dhan28-BRRI dhan49	777.5	948.5	-
09.	Fallow-BRRI dhan29-BRRI dhan49	-	-!	-
10.	BARI Sarisha-14- BRRI dhan28- Pajam	925.1	936.9	-
11.	Fallow- BRRI dhan29-Pajam	772.3	855.9	-
12.	BARI Sarisha-15- BRRI dhan29-BRRI dhan34	726.5	-	-
13.	Fallow- BRRI dhan28 BRRI dhan34	339.8	-	-
14.	Fallow- BRRI dhan29-BRRI dhan34	431.8	-	-
15.	Fallow- BRRI dhan29-Gutishurna	798.7	-	-
16.	Fallow -BRRI dhan28-BRRI dhan30	494.6	-	-
17.	Fallow -BRRI dhan28-Kalijira	610.9	-	-
18.	Fallow-Hira -BR 10	-	456.2	-
19.	Fallow-BRRI dhan29-BR11	-	-	814.8
20.	BARI Sarisha14-BRRI dhan29-Binadhan-7	-	-	807.6
21.	Fallow- BRRI dhan29-Chamra	-	-	398.5
22.	Fallow- BRRI dhan29-Kartikzone	-	-	526.7

REFERENCES RÉFÉRENCES REFERENCIAS

- Akter, M., Miah, M.A.M., Khurram, M.M.H., Rahman, M.S., Alam, Q.M. 2010. Economic feasibility of soybean production in some selected areas of Bangladesh. *Bangladesh Journal of Agricultural Research*, 35(4): 561-571.
- Anwarul, M., Alam, Q.M., Baset, M.A. 2007. Technical efficiency of mustard production in Jamalpur district. Annual Research Report 2007-08, Oilseed Research Centre, BARI, Joydebpur, Gazipur.
- BBS (Bangladesh Bureau of Statistics) 2011. Statistical Yearbook of Bangladesh. Bangladesh Bureau of Statistics, Ministry of Planning. Dhaka. Bangladesh. www.bbs.gov.bd
- BRRI (2016). Bangladesh Rice Research Institute, Government of Bangladesh, ADHUNIK DHANER CHAS (In Bengali) (Modern rice cultivation), 19th edition, BRRI, Gazipur-1701, Bangladesh. pp. 7-10. www.bari.gov.bd
- DAE. 2014. Department of Agriculture Extension, Ministry of Agriculture, Dhaka, Bangladesh, Bangladesh. www.dae.gov.bd
- FSRDP.1987. A Research works on Monitored the Cropping Pattern in the FSRDP area at Kazirshimla of Mymensingh district, Annual Research Report, BARI, Gazipur.
- Hasan, M.N.M., Hossain, S.M., Islam, R.M., Bari, M.A. 2013. Trends in the availability of agricultural land in Bangladesh Soil Resource Development Institute (SRDI), Ministry of Agriculture, Bangladesh, Dhaka.
- Khan, M.A.H., Zaman, M.S., Hasan, M.K., Khan, A.S.M.M.R. 2017. Increasing cropping intensity and productivity through Mustard-Boro rice-T. Aman rice-T. Aus rice cropping pattern in Bangladesh. *SAARC Journal of Agriculture* 15(2) 103-112.
- Miah, M.A.K, 2001. An Economic Analysis of Aromatic and Non-aromatic Rice Cultivation in Some Selected Areas of Dinajpur District. MS Thesis. Department of Agricultural Economics. BSMRAU, Salna, Gazipur.
- Miah, M.A.M. and Alam, Q.M. 2008. Adoption and relative profitability of mustard production in Bangladesh. Annual Research Report 2007-08, Oilseed Research Centre, BARI, Joydebpur, Gazipur.
- Miah, M.T.H. 1990. Economics of Commercial Poultry Farming in Bangladesh. Report No.21, Bureau of Socio-economic Research and Training. BAU, Mymensingh.
- National Research Council, 1989. Diet and Health: Implications for Reducing Chronic Disease Risk. Washington, DC: The National Academies Press, 1989. doi:10.17226/1222
- Paul, P.L.C., Rashid, M.A., Alam, M.M., Ghani, M.A., Hossain, M.B. 2016. Selection of profitable rice based cropping system under prevailing water

environment in Satkhira district of Bangladesh.
Academia Journal of Agricultural Research 4(9)
581-588.

14. Ray, S.K. 1998. A study on vegetable seed marketing in some selected area of Bangladesh, An Unpublished M.S. thesis Department of Cooperation and Marketing, Bangladesh Agricultural University, Mymensingh
15. Smith and Zope, 1970. Farm Machinery and Equipment, McGraw Hill Publication in the Agricultural science.
16. Yang, W.Y. 1962. Methods of farm management investigation for improving farm productivity. Food and Agricultural Organization of the United Nations, Rome, Italy.

GLOBAL JOURNALS GUIDELINES HANDBOOK 2019

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 “FARSBA” title to individuals. The 'FARSBA' 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., FARSBA or William Walldroff, M.S., FARSBA.

FARSBA accrediting is an honor. It authenticates your research activities. After recognition as FARSBA, you can add 'FARSBA' 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:



FARSBA 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 FARSBA 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.

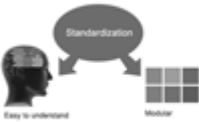




Journals Research
inducing researches

The FARSBA 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 FARSBA, 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 FARSBA 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 FARSBA 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 FARSBA, 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 FARSBA 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 FARSBA 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 FARSBA is eligible to earn from sales proceeds of his/her researches/reference/review Books or literature, while publishing with Global Journals. The FARSBA 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 FARSBA 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 (MARSBA)

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

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



MARSB accrediting is an honor. It authenticates your research activities. After becoming MARSBA, you can add 'MARSBA' 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.



MARSBA 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 MARSBA, 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 MARSBA 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 MARSBA, 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.

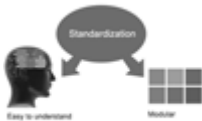


Journals Research
inducing researches

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.

//



PREFERRED AUTHOR GUIDELINES

We accept the manuscript submissions in any standard (generic) format.

We typeset manuscripts using advanced typesetting tools like Adobe In Design, CorelDraw, TeXnicCenter, and TeXStudio. We usually recommend authors submit their research using any standard format they are comfortable with, and let Global Journals do the rest.

Alternatively, you can download our basic template from <https://globaljournals.org/Template.zip>

Authors should submit their complete paper/article, including text illustrations, graphics, conclusions, artwork, and tables. Authors who are not able to submit manuscript using the form above can email the manuscript department at submit@globaljournals.org or get in touch with chiefeditor@globaljournals.org if they wish to send the abstract before submission.

BEFORE AND DURING SUBMISSION

Authors must ensure the information provided during the submission of a paper is authentic. Please go through the following checklist before submitting:

1. Authors must go through the complete author guideline and understand and *agree to Global Journals' ethics and code of conduct*, along with author responsibilities.
2. Authors must accept the privacy policy, terms, and conditions of Global Journals.
3. Ensure corresponding author's email address and postal address are accurate and reachable.
4. Manuscript to be submitted must include keywords, an abstract, a paper title, co-author(s) names and details (email address, name, phone number, and institution), figures and illustrations in vector format including appropriate captions, tables, including titles and footnotes, a conclusion, results, acknowledgments and references.
5. Authors should submit paper in a ZIP archive if any supplementary files are required along with the paper.
6. Proper permissions must be acquired for the use of any copyrighted material.
7. Manuscript submitted *must not have been submitted or published elsewhere* and all authors must be aware of the submission.

Declaration of Conflicts of Interest

It is required for authors to declare all financial, institutional, and personal relationships with other individuals and organizations that could influence (bias) their research.

POLICY ON PLAGIARISM

Plagiarism is not acceptable in Global Journals submissions at all.

Plagiarized content will not be considered for publication. We reserve the right to inform authors' institutions about plagiarism detected either before or after publication. If plagiarism is identified, we will follow COPE guidelines:

Authors are solely responsible for all the plagiarism that is found. The author must not fabricate, falsify or plagiarize existing research data. The following, if copied, will be considered plagiarism:

- Words (language)
- Ideas
- Findings
- Writings
- Diagrams
- Graphs
- Illustrations
- Lectures



- Printed material
- Graphic representations
- Computer programs
- Electronic material
- Any other original work

AUTHORSHIP POLICIES

Global Journals follows the definition of authorship set up by the Open Association of Research Society, USA. According to its guidelines, authorship criteria must be based on:

1. Substantial contributions to the conception and acquisition of data, analysis, and interpretation of 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.

Changes in Authorship

The corresponding author should mention the name and complete details of all co-authors during submission and in manuscript. We support addition, rearrangement, manipulation, and deletions in authors list till the early view publication of the journal. We expect that corresponding author will notify all co-authors of submission. We follow COPE guidelines for changes in authorship.

Copyright

During submission of the manuscript, the author is confirming an exclusive license agreement with Global Journals which gives Global Journals the authority to reproduce, reuse, and republish authors' research. We also believe in flexible copyright terms where copyright may remain with authors/employers/institutions as well. Contact your editor after acceptance to choose your copyright policy. You may follow this form for copyright transfers.

Appealing Decisions

Unless specified in the notification, the Editorial Board's decision on publication of the paper is final and cannot be appealed before making the major change in the manuscript.

Acknowledgments

Contributors to the research other than authors credited should be mentioned in Acknowledgments. The source of funding for the research can be included. Suppliers of resources may be mentioned along with their addresses.

Declaration of funding sources

Global Journals is in partnership with various universities, laboratories, and other institutions worldwide in the research domain. Authors are requested to disclose their source of funding during every stage of their research, such as making analysis, performing laboratory operations, computing data, and using institutional resources, from writing an article to its submission. This will also help authors to get reimbursements by requesting an open access publication letter from Global Journals and submitting to the respective funding source.

PREPARING YOUR MANUSCRIPT

Authors can submit papers and articles in an acceptable file format: MS Word (doc, docx), LaTeX (.tex, .zip or .rar including all of your files), Adobe PDF (.pdf), rich text format (.rtf), simple text document (.txt), Open Document Text (.odt), and Apple Pages (.pages). Our professional layout editors will format the entire paper according to our official guidelines. This is one of the highlights of publishing with Global Journals—authors should not be concerned about the formatting of their paper. Global Journals accepts articles and manuscripts in every major language, be it Spanish, Chinese, Japanese, Portuguese, Russian, French, German, Dutch, Italian, Greek, or any other national language, but the title, subtitle, and abstract should be in English. This will facilitate indexing and the pre-peer review process.

The following is the official style and template developed for publication of a research paper. Authors are not required to follow this style during the submission of the paper. It is just for reference purposes.



Manuscript Style Instruction (Optional)

- Microsoft Word Document Setting Instructions.
- Font type of all text should be Swis721 Lt BT.
- Page size: 8.27" x 11", left margin: 0.65, right margin: 0.65, bottom margin: 0.75.
- Paper title should be in one column of font size 24.
- Author name in font size of 11 in one column.
- Abstract: font size 9 with the word "Abstract" in bold italics.
- Main text: font size 10 with two justified columns.
- Two columns with equal column width of 3.38 and spacing of 0.2.
- First character must be three lines drop-capped.
- The paragraph before spacing of 1 pt and after of 0 pt.
- Line spacing of 1 pt.
- Large images must be in one column.
- The names of first main headings (Heading 1) must be in Roman font, capital letters, and font size of 10.
- The names of second main headings (Heading 2) must not include numbers and must be in italics with a font size of 10.

Structure and Format of Manuscript

The recommended size of an original research paper is under 15,000 words and review papers under 7,000 words. Research articles should be less than 10,000 words. Research papers are usually longer than review papers. Review papers are reports of significant research (typically less than 7,000 words, including tables, figures, and references)

A research paper must include:

- a) A title which should be relevant to the theme of the paper.
- b) A summary, known as an abstract (less than 150 words), containing the major results and conclusions.
- c) Up to 10 keywords that precisely identify the paper's subject, purpose, and focus.
- d) An introduction, giving fundamental background objectives.
- 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.
- f) Results which should be presented concisely by well-designed tables and figures.
- g) Suitable statistical data should also be given.
- h) All data must have been gathered with attention to numerical detail in the planning stage.

Design has been recognized to be essential to experiments for a considerable time, and the editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned unrefereed.

- i) Discussion should cover implications and consequences and not just recapitulate the results; conclusions should also be summarized.
- j) There should be brief acknowledgments.
- k) There ought to be references in the conventional format. Global Journals recommends APA format.

Authors should carefully consider the preparation of papers to ensure that they communicate effectively. Papers are much more likely to be accepted if they are carefully designed and laid out, contain few or no errors, are summarizing, and follow instructions. They will also be published with much fewer delays than those that require much technical and editorial correction.

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



FORMAT STRUCTURE

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

All manuscripts submitted to Global Journals should include:

Title

The title page must carry an informative 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) where the work was carried out.

Author details

The full postal address of any related author(s) must be specified.

Abstract

The abstract is the foundation of the research paper. It should be clear and concise and must contain the objective of the paper and inferences drawn. It is advised to not include big mathematical equations or complicated jargon.

Many researchers searching for information online will use search engines such as Google, Yahoo or others. By optimizing your paper for search engines, you will amplify the chance of someone finding it. In turn, this will make it more likely to be viewed and cited in further works. Global Journals has compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

Keywords

A major lynchpin of research work for the writing of research papers is the keyword search, which one will employ to find both library and internet resources. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining, and indexing.

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

Choice of the main keywords is the first tool of writing a research paper. Research paper writing is an art. Keyword search should be as strategic as possible.

One should start brainstorming lists of potential keywords before even beginning 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 a research paper?" Then consider synonyms for the important words.

It may take the discovery of only one important paper to steer in the right keyword direction because, in most databases, the keywords under which a research paper is abstracted are listed with the paper.

Numerical Methods

Numerical methods used should be transparent and, where appropriate, supported by references.

Abbreviations

Authors must list all the abbreviations used in the paper at the end of the paper or in a separate table before using them.

Formulas and equations

Authors are advised to submit any mathematical equation using either MathJax, KaTeX, or LaTeX, or in a very high-quality image.

Tables, Figures, and Figure Legends

Tables: Tables should be 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. Authors must submit tables in an editable format and not as images. References to these tables (if any) must be mentioned accurately.



Figures

Figures are supposed to be submitted as separate files. Always include a citation in the text for each figure using Arabic numbers, e.g., Fig. 4. Artwork must be submitted online in vector electronic form or by emailing it.

PREPARATION OF ELETRONIC FIGURES FOR PUBLICATION

Although low-quality images are sufficient for review purposes, print publication requires high-quality images to prevent the final product being blurred or fuzzy. Submit (possibly by e-mail) EPS (line art) or TIFF (halftone/ photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Avoid using pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings). 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: Authors are advised 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. Also, you can email your editor to remove the color fee after acceptance of the paper.

TIPS FOR WRITING A GOOD QUALITY MANAGEMENT RESEARCH PAPER

Techniques for writing a good quality management and business research paper:

1. Choosing the topic: In most cases, the topic is selected by the interests of the author, but it can also be suggested by the guides. You can have several topics, and then judge which you are most comfortable with. This may be done by asking several questions of yourself, like "Will I be able to carry out a search in this area? Will I find all necessary resources to accomplish the search? Will I be able to find all information in this field area?" If the answer to this type of question is "yes," then you ought to choose that topic. In most cases, you may have to conduct surveys and visit several places. Also, you might have to do a lot of work to find all the rises and falls of the various data on that subject. Sometimes, detailed information plays a vital role, instead of short information. Evaluators are human: The first thing to remember is that evaluators are also human beings. They are not only meant for rejecting a paper. They are here to evaluate your paper. So present your best aspect.

2. Think like evaluators: If you are in confusion or getting demotivated because your paper may not be accepted by the evaluators, then think, and try to evaluate your paper like an evaluator. Try to understand what an evaluator wants in your research paper, and you will automatically have your answer. 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.

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

4. Use of computer is recommended: As you are doing research in the field of management and business then this point is quite obvious. Use right software: Always use good quality software packages. If you are not capable of judging good software, then you can lose the quality of your paper unknowingly. There are various programs available to help you which you can get through the internet.

5. Use the internet for help: An excellent start for your paper is using Google. It is a wondrous search engine, where you can have your doubts resolved. You may also read some answers for the frequent question of how to write your research paper or find a model research paper. You can download books from the internet. If you have all the required books, place importance on reading, selecting, and analyzing the specified information. Then sketch out your research paper. Use big pictures: You may use encyclopedias like Wikipedia to get pictures with the best resolution. At Global Journals, you should strictly follow here.



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

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

8. Make every effort: Make every effort to mention what you are going to write in your paper. That means always have a good start. Try to mention everything in the introduction—what is the need for a particular research paper. Polish your work with good writing skills and always give an evaluator what he wants. Make backups: When you are going to do any important thing like making a research paper, you should always have backup copies of it either on your computer or on paper. This protects you from losing any portion of your important data.

9. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several unnecessary diagrams will degrade the quality of your paper by creating a hodgepodge. So always try to include diagrams which were made by you to improve the readability of your paper. Use of direct quotes: When you do research relevant to literature, history, or current affairs, then use of quotes becomes essential, but if the study is relevant to science, use of quotes is not preferable.

10. Use proper verb tense: Use proper verb tenses in your paper. Use past tense to present those events that have happened. Use present tense to indicate events that are going on. Use future tense to indicate events that will happen in the future. Use of wrong tenses will confuse the evaluator. Avoid sentences that are incomplete.

11. Pick a good study spot: Always try to pick a spot for your research which is quiet. Not every spot is good for studying.

12. Know what you know: Always try to know what you know by making objectives, otherwise you will be confused and unable to achieve your target.

13. Use good grammar: Always use good grammar and words that will have a positive impact on the evaluator; use of good vocabulary does not mean using tough words which the evaluator has to find in a dictionary. Do not fragment sentences. Eliminate one-word sentences. Do not ever use a big word when a smaller one would suffice. Verbs have to be in agreement with their subjects. In a research paper, do not start sentences with conjunctions or finish them with prepositions. When writing formally, it is advisable to never split an infinitive because someone will (wrongly) complain. Avoid clichés like a disease. Always shun irritating alliteration. Use language which is simple and straightforward. Put together a neat summary.

14. 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 for your topic. You may also maintain your arguments with records.

15. Never start at the last minute: Always allow enough time for research work. Leaving everything to the last minute will degrade your paper and spoil your work.

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

17. Never copy others' work: Never copy others' work and give it your name because if the evaluator has seen it anywhere, you will be in trouble. Take proper rest and food: No matter how many hours you spend on your research activity, if you are not taking care of your health, then all your efforts will have been in vain. For quality research, take proper rest and food.

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

19. Refresh your mind after intervals: Try to give your mind a rest by listening to soft music or sleeping in intervals. This will also improve your memory. Acquire colleagues: Always try to acquire colleagues. No matter how sharp you are, if you acquire colleagues, they can give you ideas which will be helpful to your research.

20. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.



21. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

22. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

23. Upon 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 for 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 of 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 criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to 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 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 avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.



- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

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

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite 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 approaches 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. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a 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 limit the initial two items to no more than one line each.

Reason for writing the article—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 for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity 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 of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets 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 for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory 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 soundly written procedures segment allows a capable scientist to replicate 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 to give the least amount of information that would permit another capable scientist to replicate 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 section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show 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:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the 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—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and 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 as 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. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.



Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give 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 manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit 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 section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an 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 implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully 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 the prospect, and let it drop at that. Make a decision as to whether each premise is supported or 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 an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of 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 other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

THE ADMINISTRATION RULES

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.



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

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.

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

C

Consequences · 48, 57
Calamities · 72

I

Inadequate · 6, 57
Interestingly · 3, 7, 8, 11,

M

Mercantilism · 46

P

Pedagogy · 7
Persuade · 3
Pragmatic · 5

R

Relocate · 54

S

Sovereign · 20, 21, 22, 24,

T

Triumphed · 44

W

Widespread · 8



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