

# GLOBAL JOURNAL

OF MANAGEMENT AND BUSINESS RESEARCH: B

## Economics and Commerce



The Determinants of Terrorism

A Study of the Impact of Inflation

Highlights

An Empirical Study on Dhaka City

Performances in Developing Economies

Discovering Thoughts, Inventing Future

VOLUME 23    ISSUE 5    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 23 ISSUE 5 (VER. 1.0)

© Global Journal of  
Management and Business  
Research. 2023.

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.  
Ultrapublishing 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](mailto:local@globaljournals.org)

### *eContacts*

Press Inquiries: [press@globaljournals.org](mailto:press@globaljournals.org)  
Investor Inquiries: [investors@globaljournals.org](mailto:investors@globaljournals.org)  
Technical Support: [technology@globaljournals.org](mailto:technology@globaljournals.org)  
Media & Releases: [media@globaljournals.org](mailto: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  
USA

## *Dr. R. Allen Shoaf*

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

## *Dr. Mehdi Taghian*

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

## *Dr. Agni Aliu*

Ph.D. in Public Administration,  
South East European University, Tetovo, RM  
Asociater profesor South East European University,  
Tetovo, Macedonia

## *Dr. Wing-Keung Won*

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

## *Prof. Moji Moatamedi*

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

## *Professor Maura Sheehan*

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

## *Dr. Carl Freedman*

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

## *Dr. Tsutomu Harada*

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

## *Dr. Xiaohong He*

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

*Dr. Carlos García Pont*

Associate Professor of Marketing  
IESE Business School, University of Navarra  
Doctor of Philosophy (Management),  
Massachusetts Institute of Technology (MIT)  
Master in Business Administration, IESE, University of  
Navarra  
Degree in Industrial Engineering,  
Universitat Politècnica de Catalunya  
Web: [iese.edu/aplicaciones/faculty/facultyDetail.asp](http://iese.edu/aplicaciones/faculty/facultyDetail.asp)

*Dr. Bassej Benjamin Esu*

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

*Dr. Ivona Vrdoljak Raguz*

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

*Dr. Charles A. Rarick*

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

*Dr. Albrecht Classen*

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

*Dr. Söhnke M. Bartram*

Department of Accounting and Finance  
Lancaster University Management School  
Ph.D. (WHU Koblenz)  
MBA/BBA (University of Saarbrücken)  
Web: [lancs.ac.uk/staff/bartras1/](http://lancs.ac.uk/staff/bartras1/)

*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. of Marketing  
School of Economics & Management  
Ningbo University of Technology  
Zhejiang Province, P. R. China

*Yue-Jun Zhang*

Business School,  
Center for Resource and  
Environmental Management  
Hunan University, China

*Dr. Brandon S. Shaw*

B.A., M.S., Ph.D., Biokinetics, University of Johannesburg,  
South Africa  
Professor Department of Sport and Movement Studies  
University of Johannesburg, South Africa

## CONTENTS OF THE ISSUE

---

- i. Copyright Notice
  - ii. Editorial Board Members
  - iii. Chief Author and Dean
  - iv. Contents of the Issue
- 
1. Attributes Influence Customers towards Ice cream Purchase with brand Preference and Income Effect on Purchasing Ice Cream: An Empirical Study on Dhaka City. **1-11**
  2. Does the Women who are in Entrepreneurship Face any Challenges or Enjoy any Facilities to Contribute in the Economy of Bangladesh. **13-16**
  3. Growth and Distribution Performances in Developing Economies. **17-27**
  4. A Study of the Impact of Inflation on People's Lives in the Current Scenario. **29-39**
  5. Reviving the Inert: Deciphering Order 58 Rule 3 (2) of the High Court Civil Procedure Rules, 2004 (C.I. 47) through the Lens of Springfield Energy Ghana Ltd. V. Bulk Oil Storage and Transportation Company Limited. **41-45**
  6. The Determinants of Terrorism: What Lessons for a Developing Country?. **46-61**
- 
- v. Fellows
  - vi. Auxiliary Memberships
  - vii. Preferred Author Guidelines
  - viii. Index



# Attributes Influence Customers towards Ice Cream Purchase with Brand Preference and Income Effect on Purchasing Ice Cream: An Empirical Study on Dhaka City

By Cao Yong, Md Shazzat Hossain & Abdul Waaje

*Wuhan Textile University*

**Abstract-** This paper identifies various attributes influencing consumers to purchase Icecream from a retail store. Our team has done this research during the year 2021. Notably, it confesses the behavioural patterns of consumers and perceptions regarding ice cream with the association between the income effect and purchase decisions. To conduct the research, we collected raw data from an online survey of 152 consumers of different ages. Participants from the separate age group provided their opinion in the pre-setted questionnaire. After gathering the raw data, we used three effective methods, Henry Garrett's ranking technique, Chi-Square Independence Test, and PCA, to rank the consumer-preferred ice cream flavour, income effect on purchasing ice cream and factors that attract consumers to buy ice cream. Raw data was gathered from the survey and coordinated with the Excel Programme. SPSS was used to implement Chi-Square and PCA tests, but Henry Garret's ranking was done on Excel Programme. This step-by-step analysis shows the consumer inside regarding existing brand preferences regarding ice cream in Bangladesh. Furthermore, this research depicts the scenario of the Dhaka city dwellers about their choosing factors for ice cream, favourite flavours and purchase power.

*GJMBR-B Classification: LCC: HF5415.13, HD9000.5*



*Strictly as per the compliance and regulations of:*





# Attributes Influence Customers towards Ice Cream Purchase with Brand Preference and Income Effect on Purchasing Ice Cream: An Empirical Study on Dhaka City

Cao Yong <sup>α</sup>, Md Shazzat Hossain <sup>ο</sup> & Abdul Waaje <sup>ρ</sup>

**Abstract-** This paper identifies various attributes influencing consumers to purchase ice cream from a retail store. Our team has done this research during the year 2021. Notably, it confesses the behavioural patterns of consumers and perceptions regarding ice cream with the association between the income effect and purchase decisions. To conduct the research, we collected raw data from an online survey of 152 consumers of different ages. Participants from the separate age group provided their opinion in the pre-setted questionnaire. After gathering the raw data, we used three effective methods, Henry Garrett's ranking technique, Chi-Square Independence Test, and PCA, to rank the consumer-preferred ice cream flavour, income effect on purchasing ice cream and factors that attract consumers to buy ice cream. Raw data was gathered from the survey and coordinated with the Excel Programme. SPSS was used to implement Chi-Square and PCA tests, but Henry Garrett's ranking was done on Excel Programme. This step-by-step analysis shows the consumer inside regarding existing brand preferences regarding ice cream in Bangladesh. Furthermore, this research depicts the scenario of the Dhaka city dwellers about their choosing factors for ice cream, favourite flavours and purchase power.

## I. INTRODUCTION

Ice cream is a perishable, delicious, wholesome, nutritious frozen dairy food. Globally, the Ice cream market grew at the Compound Annual Growth Rate (CAGR) of around 6% during 2009-2016, which reached approximately 19.7 million metric tons in 2016 (Helmold & Terry, 2021; Munawar & Disman, 2023). European countries dominated the global ice cream market with more than 40% of the total volume in the same year. On the other hand, China and Brazil jointly became the reason for two-fifths of global ice cream sales (Brandenburg et al., 2019; Hamad & Omar, 2013; Sawant, 2014). Furthermore, the ice cream industry contributes 0.053 percent of the world's GDP. Ice cream is unquestionably one of Bangladesh's most renowned

*Author α:* School of Management, Wuhan Textile University and also Hubei Textile Policy Research Centre, Wuhan, P. R. China, 430072. e-mail: caoyong@mail.hust.edu.cn

*Corresponding Author ο:* School of Management, Wuhan Textile University, Wuhan, P. R. China, 430200. e-mail: mdshazzathossain@yahoo.com

*Author ρ:* College of Business, Michigan Technological University, Houghton, Michigan 49931-1295, USA. e-mail: awaaje@mtu.edu

and favourite food products among children and adults (Islam & Liang, 2012; Shazzat Hossain et al., 2021). The ice cream sector of Bangladesh has been in place for decades. The ice cream industry of Bangladesh started to grow by establishing Igloo Ice Cream Unit by Abdul Monem Ltd in 1964 (Ramadani et al., 2022; Shazzat Hossain et al., 2022). Since then, the business scope in this field has been increasing. To gain and maximise the company's profit, several local giant companies have invested in ice cream production units (Martin, 2018).

As a result, Bangladesh has seven branded ice cream companies that mix with new wings of ice cream production of various companies along with previously established renowned brands (Puspitasari et al., 2020; Sawant, 2014).

According to Lanka Bangla Investment Guide 2018, this industry had a market of exactly 1200 cores BDT in 2018. Again, they reported that it would grow positively near about 15% in recent years (Wang et al., 2023). The study said that three companies hold a 79% share of the market volume. Igloo Ice Cream Ltd placed first with acquiring 38%, and Polar Ice Cream became second with 28% of the market share. Bellissimo and Za'n Zee are the brands of The Kazi Food Industry and had a sales contribution jointly of 11% in 2018 (Kalogiannidis et al., 2023). Other brands and non-branded ice cream companies achieved a sharp 10% that year. Studies on this industry depicted that it contributes 0.064% of the gross domestic product (GDP) (Bulc & Ojstršek, 2008; Shazzat Hossain et al., 2021).

The Ice Cream manufacturers have come a long way. This industry evolves with loads of ice cream makers bringing creativity in quality, pricing, flavours, and packaging. Expanding market opportunities along with the changing behavioural pattern of consumers regarding perishable products like ice cream is the essential purpose of this study (Martin, 2018). The study revealed consumer preferences regarding the flavour of ice cream. As consumers are the heart of any business, purchasing decisions based on income also carry significance. This study has been done based on influencing factors directly connected with consumers'

perceptions of ice cream (Barykin et al., 2022; Seuring & Müller, 2008). The preferable environment for customer ice cream consumption was a partial analysis area in this paper. Nevertheless, the main issue to determine was the consumer behavioural pattern for ice cream and the most renowned brand among the people of Dhaka city (Dian Nailiyah, 2013).

## II. METHODOLOGY

In regard to performing the research analysis

The ice cream industry and consumer perceptions were the root point. Ultimately, various participant's emotions about the attributes that influence customers towards icecream purchase with brand preference have been considered. This research reveals the key attributes influencing the consumer of an ice cream buyer and their income effect on having an ice cream.

### a) Research Approach/way

The convenience sampling technique was adopted for this study, and the study is based on two types of data sources. The entire research process was conducted based on primary data through a questionnaire comprising 152 consumers and secondary data. It is a quantitative study collecting data by interviewing the respondents, who are consumers of ice cream in Dhaka, Bangladesh. The quantitative analysis represents a given reality in data collection by taking interviews based on a questionnaire and acquiring respondents for an electronic survey. Therefore, the study process had to be split into two parts: primary research and secondary research. In this cross-sectional survey research design, the nature of data is described by detailed explanations and mood of analysis survey results.

### b) Data Collection

The primary data is collected by an open-ended interview questionnaire and collecting respondent's responses using an online research survey method with some descriptive questions. All the respondents belong to the capital of Bangladesh, called Dhaka. Initially, the

personal-contact approach was administered for the responses to the survey questionnaire. The Google survey form has been used to collect the responses from the respondents. Ice cream lovers were the respondents for the survey, and 152 respondents took part. Among all the respondents, only 30 respondents were willing to provide an interview. Therefore, 120 respondents completed the survey form digitally through email and social media. Three sections had developed to gather the responses accurately from the interview throughout the questionnaire. Different sources were considered for collecting secondary data, such as books, available literature, newspapers, magazines and websites.

### c) Data Analysis and Representation

Data is processed carefully to make comparisons, statistical analysis, and interpretation. In this paper, the techniques of data and information are presented in three different ways: textual, tabular, and graphical. Data analysis has determined the relationships among the factors or variables.

1. *Percentage Analysis:* This method has been used to depict the respondent's demographic information and various responses from the respondents to some important factor-related questions. The survey participants have chosen their favourite brand of the country, and this analysis method has been taken to declare the country's number one ice cream brand.
2. *Henry Garrett Ranking Technique:* This technique was used to evaluate the ranking of ice cream flavour. Respondents rank their favourite flavour from one to eight in the survey form. The order of merit the respondents gave was transferred into a rank using the formula. Garrett's ranking technique highlighted the favourite flavour the respondents love to take. For conducting the method, respondents have been asked to provide the rank for all the given eight flavours. Then, the outcomes of such ranking have been converted into score values with the help of the following formula.

$$\text{Percentage (\% ) Position} = \frac{100 (R_{ij} - 0.5)}{N_j}$$

Where,

$R_{ij}$  = Rank given for the  $i$ th variable by  $j$ th respondents  $N_j$  = Number of variables ranked by  $j$ th respondents

The percentage position has been estimated, and then it is converted into scores with the assistance of Garret's Table. After that, for each flavour, we had to calculate the mean score with the help of a percentage position-based ranking table (appendix) and frequency table. The flavour with the highest mean value is considered the higher rank, and then other ranks are done by the sequential order of the high mean value to the low mean value.

3. *Chi-Square Independence Test:* Chi-square test of independence determined whether there is a significant relationship between categorical variables of the respondent's monthly income and the ice cream purchase frequency. The Chi-Square independence test is also known as the chi-square test of association. The theoretical formula of the chi-square test is given below.

$$x_c^2 = \sum \frac{(O_i + E_i)^2}{E_i}$$

Where,

C=Degrees of freedom

O=Observed value (s)

E=Expected value(s)

The Chi-square test of association evaluated relationships between categorical variables between the monthly income of respondents and the purchase frequency of ice cream. The Chi-square test has two types of statistical hypotheses. Those are provided below.

- a. *Null Hypothesis:* If there are no relationships between the selected categorical variables for this research. If we can know the value of one variable, it will not assist us in predicting the value of another variable.
- b. *Alternative Hypothesis:* If there are relationships between the selected categorical variables for this research. Learning about the value of one variable will assist us in predicting the value of another variable.

Finally, a chi-square test on SPSS will give us a p-value. The p-value will explain whether our test results are significant or not. We needed two pieces of data to perform a chi-square test and acquire the p-value. Those are degrees of freedom, just the number of categories minus 1 and the alpha level ( $\alpha$ ). The researcher usually selects the alpha level. We used the alpha level of 0.05 or 5% for this research.

3. *Principal Component Analysis:* This research has used PCA to analyse the perception of consumers of Dhaka related to ice cream. The method is also widely known as principal component analysis, principal value decomposition, singular value decomposition, singular system analysis, singular spectrum analysis, bi-orthogonal decomposition, proper orthogonal decomposition, empirical orthogonal functions, and Karhunen-Loeve decomposition. In this way, PCA is a handy tool for the research as the respondents were more than 150, which is helpful for the large data set. PCA is performed in a sequence of steps, with subjective decisions made at many steps. The amount of components extracted equals the number of variables being analysed. We have considered four factors to figure out the variance of the components.

Initially, the first counted component can be expected to account for an immense amount of the overall variance. It is found that each succeeding component reasoned for progressively smaller amounts of variance. Although a large integer of components may extract in this specific way, only the first few components will be potential enough to be retained for interpretation. An eigenvalue represents the amount of

variance that is accounted for by a given component. It is shown that the Principal Component Analysis (PCA) reduces data dimensionality by performing a covariance analysis between factors.

#### d) *Data Assortment and Inspect*

According to the survey report for this study, we have collected responses from 152 respondents from various age groups with different educational qualifications. Most of the respondents were from the age group 20-30. It found that 76% of participants belonged to the age group of 20-30. Similarly, the second-highest participants came from the age group of 15-19, which counted exactly 15% of the total participants. People aged 31-45 showed less interest, and only 5% took part in the survey. Undoubtedly, the lowest respondents counted from the age group of 46-60. Only a person from that group paid attention to taking the interview face-to-face. The survey was conducted only in Dhaka, Bangladesh. Dwellers of Dhaka showed a variety of preferences in terms of ice cream.

#### e) *Final Data Scraping and Analysis*

Final Data scraping and analysis were not easy for this specific research. As we have focused on 3 different areas,

1. Attributes that influence consumers to purchase ice cream
2. Assuring that there has any income effect on consumers for purchasing ice cream or not
3. Ranking the consumer-preferred flavour for ice cream and ranking among the existing ice cream brands

Data analysis is regulated through the consumers given information regarding a set of questions and using a Likert scale to gather data from the survey participants. PCA has been done to get the consumer's preferences on ice cream purchases, and KMO Bartlett's test was done for the data accuracy of that factor analysis.

#### f) *Magnitude and Measurement*

For data collection, we tried to build a sample size of 152 ice cream consumers for respondents, and we took their opinion based on the pre-settled questions on the questionnaire. On the contrary, we collected data on which attributes attract them to purchase a specific ice cream. Eventually, the authors can collect Data and information from respondents from different age groups of Dhaka Dwellers.

#### g) *Data Manipulation and Integration*

Data integration is crucial to getting accurate results from the gathered data. Based on the definition when it is an element of quality research where the process observed various analyse with the same data points. It controlled ideal and correct decisions with

decreasing misleading data. This process can evaluate and recognise data where the specific statistics come from respondents. That's why this combination is implemented for quality results.

### III. PRIMARY ANALYSIS & DISCUSSIONS

#### a) Consumer's Source of Information about Ice Cream

In the survey form, we gave five different sources from which consumers can get news about ice cream-related products. According to the survey findings, most respondents can learn about ice cream from social media like Facebook, Instagram, TikTok etc. The provided news of friends can also transmit the

influencing power of consuming ice cream. 20% of respondents gather information about new ice cream products from their friends. Television advertisements play a moderate contribution in spreading out information about ice cream. Only 16% of survey takers believe they get news from TV ads about ice cream. Family members have little influence in sharing knowledge about newly released ice cream brands. We observed that 11% of the respondents learned about ice cream from their families. A few survey takers said they could get news while visiting trade fairs. Table 3 will clarify the viewpoint of the respondents, which are the sources of information about ice cream products.

Table 1: Source of Information about Icecream

Source Name	Number of Respondents Answered
Social Media	73
Friends	31
Television Ads	25
Family Members	17
Trade Fair	6

This bar chart illustrates software users' priority level considering some attributes- however, the following bar diagram was created with almost the same data and value.

#### b) Preferable Season and Place for Consuming Ice Cream with the Purpose of Consumption

All the seasons are preferable to consuming ice cream, according to 49% of the survey takers. At the same time, 45% of the participants think summer is the best season for enjoying ice cream. People are unlikely

to consume ice cream during cold weather like winter and the rainy season. From Figure 1, the customer's seasonal priority of eating ice cream can be simplified. It has been reported from the survey results that customers are unwilling to eat ice cream when it is winter season. Only 2% of people were interested in having ice cream during the winter- similarly, less interest from the customers found for biting ice cream when it is raining outside.

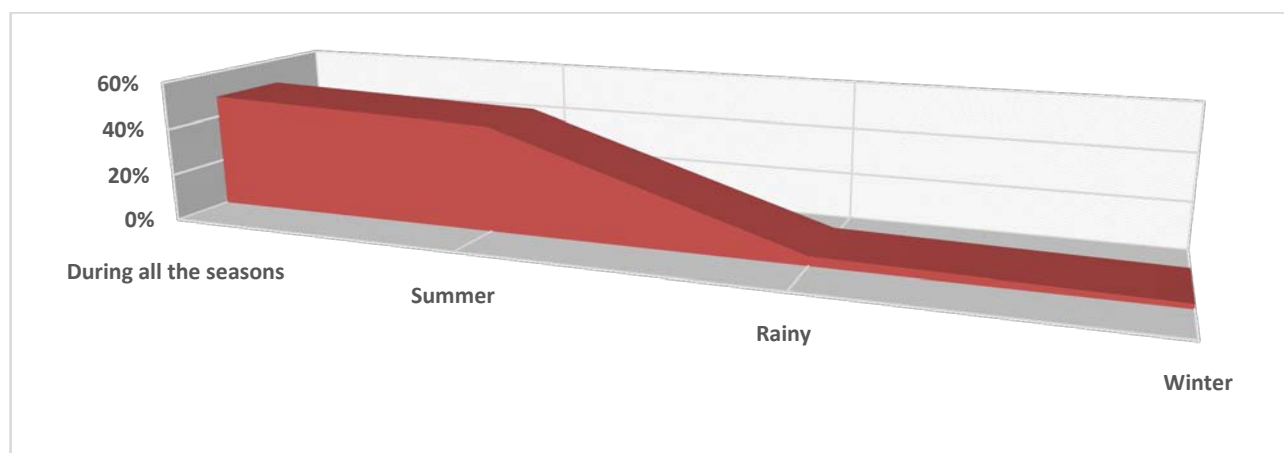


Figure 1: Preferable Season of Consumers to take Ice Cream (3d Graph)

It has been reported from the survey results that customers are unwilling to eat ice cream when it is winter season. Only 2% of people wanted ice cream during the winter. Similarly, customers have less interest in biting ice cream when it is raining outside.

The survey found that Home is the preferred place for people to consume ice cream. 50% of the participants will likely enjoy ice cream at their Home.

35% of respondents are likely to have ice cream during the hangout. People may like to eat ice cream in a condition where they can have a satisfactory comfort level. Various researchers have reported that consumers are too fond of eating their favourite food in any situation with comfortableness. Below, we provide a figure that will clear the readers about the consumer's preference for the place where they most want to eat ice cream.

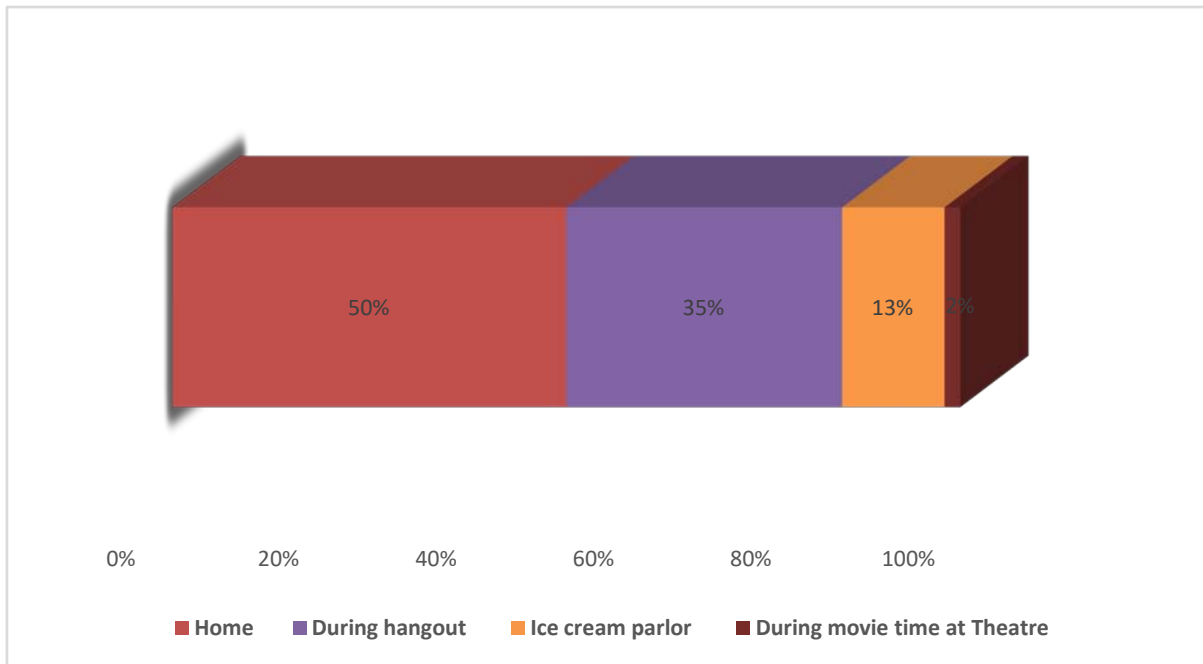


Figure 2: Preferred Place by Respondents to Enjoy Ice Cream

In this survey, around 40% of respondents consume ice cream for enjoyment. Among other goals of having ice cream, it becomes first according to the high response. Some people think that they eat ice cream for a sense of refreshment. Their amount is

counted as nearly 39%. Only 16% of respondents agreed that icecream consumption has no reason or is taken by them habitually. A few people take ice cream during any celebration.

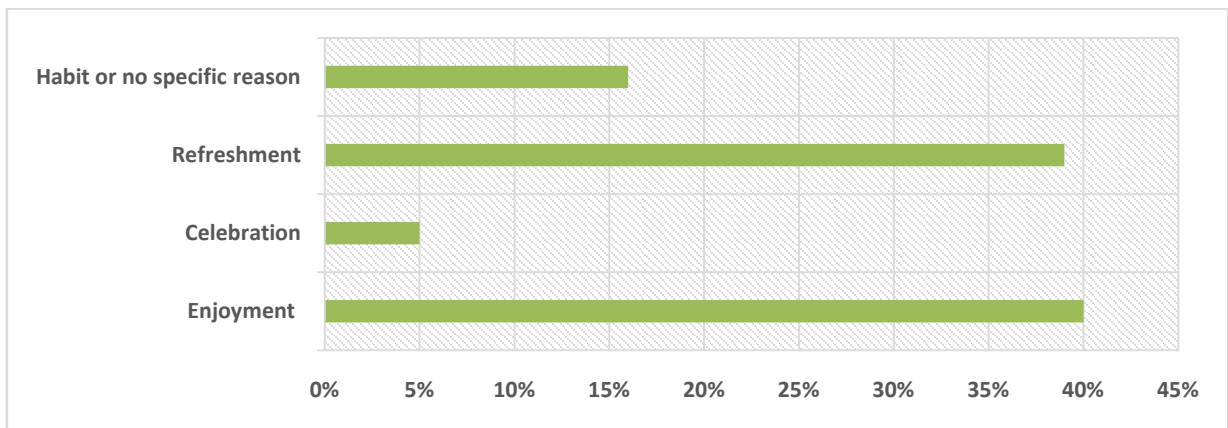


Figure 3: Purposes of Consumers for Consuming Ice Cream

c) Purchase Frequency of Ice Cream by the Respondents and Brand Awareness of Different Brands

Seventy-two people from 152 respondents said they rarely buy ice cream once a week. Over 40 people used to purchase ice cream occasionally, twice a week.

We saw that 38 total respondents love ice cream to eat. They usually eat ice cream frequently, more than thrice or above in a week.

Table 2: Frequency of Ice Cream Purchases by the Respondents in a Week

Frequency Name	Frequency of Purchase (Weekly)	Number of Respondents Responded
Rarely	Once	72
Occasionally	Twice	42
Frequently	Thrice or above	38

Consumers take those products that provide them with a certain level of satisfaction that can depend on various types of things. Satisfaction of consumers can come from the tastes of the product, after-sales service of the product, pricing of the products or any cash discount.

We set a question in the questionnaire by asking about most favourite brands based on priority order. Respondents could select three brands from

given brands to respond to that question. We have investigated that a maximum number of participants are willing to take ice cream from the Igloo Ice Cream Ltd brand as their priority choice. Similarly, people preferred Polar Ice Cream, the sister concern company of Dhaka Ice Cream Ltd., as the second priority of ice cream. Lovello ice cream brand of Toufiqa Food Ltd. has become the third priority of consumers where the availability of the first two brands is low.

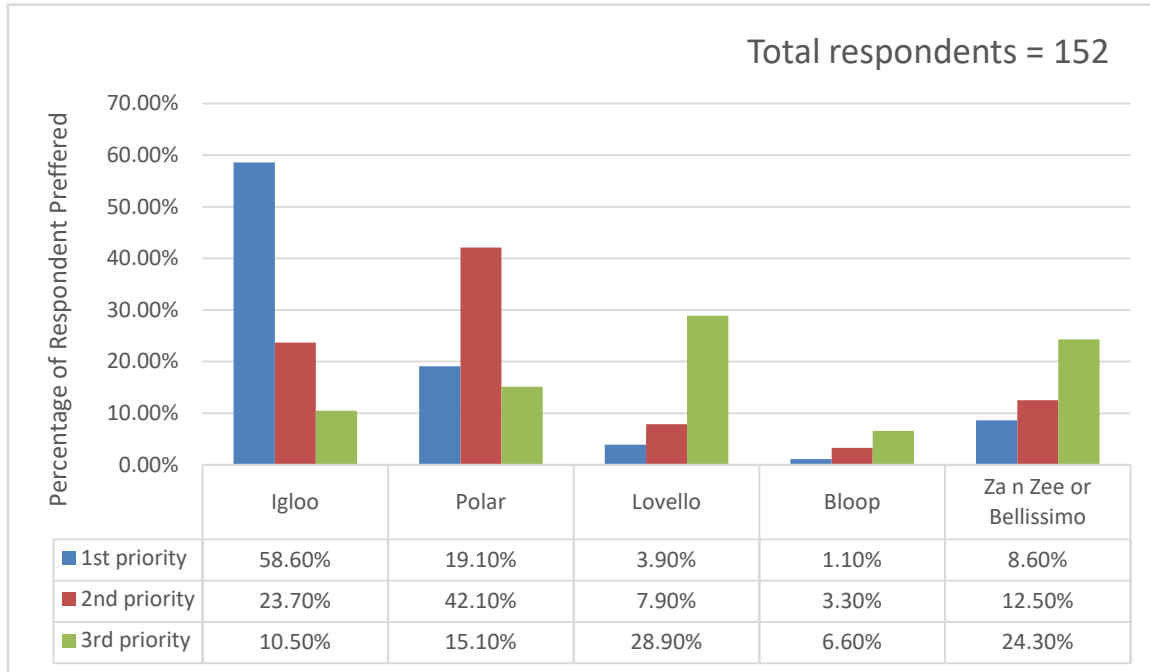


Figure 4: Consumer Priority Order of Ice Cream Brands of Bangladesh

One hundred fifty-two respondents responded individually to the priority-based question for the first, second, and third priorities. We consider which brand gets the highest percentage as the priority of the vote for becoming the number one brand by the consumer choice. Similarly, we will apply this logic for counting the second and third most favourite brand by consumer choice and reasoning for the consumer choice of brands. We saw that non-branded ice cream has no attraction among the customers. Among all the brands, three brands achieve a high level of consumer satisfaction. Figure 7 depicts the consumer's three most preferable brands in Dhaka city.

The unavailability of a particular brand of ice cream forces the customers to alter the brand with the available one. We have found that 59% of customers buy igloo ice cream from other options for this specific case. At the same time, 42% of consumers love Polar ice cream, and 30% prefer to purchase Lovello ice cream. Interestingly, the ice cream brands of Kazi Firms Ltd. make a place in the consumer list of choice. 24.3% of consumer selects Za n Zee or Bellissimo ice cream as the second-third choice. Moven Pick ice cream is the only brand from abroad that carries nearly 8% of

consumer's initial priority. Local brands Bloop and Savoy have little consumer awareness among the respondents.

d) Association between Family Monthly Income and Frequency of Ice Cream Purchase by the Consumer

We have applied the Chi-Square test to investigate this association between family monthly income and ice cream purchase frequency.

$H_0$ : There has no significant association between the consumer's family monthly income and the frequency of their purchase of ice cream.

Table 3: Association between Family Monthly Income and the Frequency Purchase of Ice Cream

Chi-Square Tests			
	Value	Df	Asymptotic significance (2-sided)
Pearson Chi-Square	3.485 <sup>a</sup>	6	0.746
Likelihood Ratio	3.483	6	0.746
N of Valid Cases	152		

a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 8.50.

To determine whether the two variables, family monthly income and frequency purchase of ice cream, are not dependent, compare the p-value to the exceptional level- usually, an extraordinary level (marked as  $\alpha$  or alpha) of 0.05 functions well. An incredible level of 0.05 represents a 5% risk of winding up that an association between the variables exists when there is no actual association.

Therefore, we must consider the null and alternative hypotheses to decide on the Chi-Square test. We have investigated that the computed value 0.746 is greater than the significance level. Then, we move to the null hypothesis, which is accepted based on the respondent's given data for this particular test. In these results, the Pearson Chi-square Statistic is 3.485 and the p-value = 0.746. The likelihood chi-square statistic is 3.483, and the p-value = 0.746. Here, the P-value >  $\alpha$ ,

which can not conclude that the variables are associated. At a significance level of 0.05, we can conclude that the association between the variables is not statistically significant. Consumers are free from the income boundary to satisfy themselves by consuming ice cream. Finally, the income of the consumers has no crucial impact on the purchase of ice cream.

e) *Ranking the Flavours of Ice Creams*

The Respondents were asked to rate their favourite flavours of ice cream from one to eight during the survey session. We have provided eight different flavour names, which are available in the shops of Dhaka city. Then, survey report data was used to analyse the flavours ranking by the Garret ranking analysis method.

Table 4: Frequency Table of Flavours

Rank	Vanilla	Chocolate	Mango	Strawberry	Blue Berry	Red Velvet	Pistachios	Butter Scotch
1	35	71	5	7	2	2	6	24
2	34	39	21	14	9	9	10	16
3	22	12	42	19	8	20	8	21
4	15	9	23	46	13	14	10	22
5	27	7	20	14	23	13	19	29
6	10	4	15	14	39	22	30	18
7	3	5	15	15	27	47	37	3
8	6	5	11	23	31	25	32	19

Table 4 illustrates how many respondents provide an individual rank for the particular flavour. This frequency table has been established based on the variety of flavours in the questionnaire. The total amount of respondents for this specific question was 152 same as the total number of respondents. With the frequency of flavours ranked by the participants, we have to calculate the individual mean score for particular flavours for every rank from one to eight. Then the sum of the mean score's percentage of individual flavours

assists in figuring out the Garret Score to rank the flavours. From the table below, one can easily get an idea of the people's taste in Dhaka city. Ranking of Flavours by Garret Ranking Analysis makes sense that most consumers love to enjoy the taste of chocolate-flavoured ice cream. It placed first based on the analysis. The other eight flavours also being ranked in the following Table 5.

Table 5: Ranking the Varieties of Flavours of Ice Cream

Flavour	Mean Score	Rank
Vanilla	55.9	II
Chocolate	62.7	I
Mango	47.7	IV
Strawberry	43.3	V
Blue Berry	35.1	VII
Red Velvet	36.3	VI
Pistachios	34.9	VIII
Butter Scotch	48.1	III

After cross-matching both the Garret Score Table and the sum of the mean score from our calculation of individual flavours, we have moved to build a position value table to rank the flavours. This position value table is attached in the appendix. The results of the Garret ranking showed that Chocolate flavour is in the most vital position to become a prioritised flavour by the consumers surrounding Dhaka. We were followed by four other ice cream flavours; Vanilla, Butter Scotch, Mango and Strawberry. If we put a view on the ranking table, we can find that Chocolate flavoured ice cream could achieve a mean score of 63.7; as Chocolate has acquired the highest Garret Mean Score, it is placed first. In addition, vanilla has the second-highest achieved mean score, 55.9. We reported a premium ice cream product based on consumer preference in the third position. With 48.1 mean scores, Butter Scotch has become Dhaka's third

favourite ice cream. Similarly, an average score was gained by Strawberry flavoured ice cream and became secured fifth place with a mean score of 43.3.

Customers showed less affection for having three flavours, Blue Berry, Red Velvet, and Pistachios. According to the analysis of flavour ranking, we found that Red Velvet ranked sixth with a mean score of 36.3, Blue Berry ranked seven with a mean score of 35.1, and Pistachios became eighth with a mean score of 34.9.

f) *Factor Analysis to Determine the Consumer Perceptions*

From frequency analysis, we can interpret that consumers primarily eat Chocolate flavoured ice cream, which has huge demand. In contrast, customers rated Vanilla flavoured ice cream just after the Chocolate flavoured ice cream.

Table 6: Factor Analysis for Consumers

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.866	
Bartlett's Test of Sphericity	Approx. ChiSquare	812.544
	Df	105
	Sig.	0

KMO measure of sampling adequacy was found to be 0.866, and Bartlett's test represented a significance of 0.000. It showed that the above parameters are highly significant. Due to having perfect results from the statistical calculation, sampling adequacy should be more than 0.5 to perform factor analysis. The above table shows a sampling adequacy of 0.866, which means factor analysis can be achieved. Hence, factor analysis had applied to 15 variables measuring the perception of consumers regarding ice cream.

Table 7: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	5.544	36.958	36.958	5.544	36.958	36.958	3.006	20.037	20.037
2	1.388	9.25	46.208	1.388	9.25	46.208	2.867	19.114	39.151
3	1.168	7.789	53.997	1.168	7.789	53.997	2.145	14.303	53.453
4	1.016	6.771	60.768	1.016	6.771	60.768	1.097	7.315	60.768

Extraction Method: Principal Component Analysis



It has been found that 15 variables have been reduced into four predominant factors. These four factors are quality of ingredients, quantity, appearance, price, and taste. Individually the factors have a variance; respectively, quality of ingredients was observed at

20.037%, quantity has 19.114% of the variance, appearance noted 14.303% of the variance, and price and taste, counted 7.315% of the variance. The total variance was explained as 60.768%.

Table 8: Customer's Perception Regarding Ice Cream

Rotated Component Matrix					Defined Name of the Factor
Variables	Components				
	1	2	3	4	
Toppings of ice cream are lucrative	0.625				Quality of Ingredients used in ice cream
I prefer to buy ice cream if there is a combo offer	0.693				
Ingredients level of quality used in ice cream is satisfactory	0.743				
I love ice cream for the freshness and coldness	0.709				
I am pleased with the weight of the ice cream with its price		0.726			Quantity of Ice cream
I buy ice cream for its extraordinary packaging		0.370			
I feel the price charged is authentic		0.829			
Ice creams are available in a wide variety		0.642			
I buy ice cream due to the influence of catchy advertisements			0.727		Appearance
The visual image of ice cream convince me to purchase it			0.418		
The price of ice creams does not match with its given quality				0.294	Price & Taste
I will buy ice cream no matter that how much the price of it				0.232	
I love to consume ice cream throughout the first week of the month				0.251	
I'm not too fond of the perishability of ice cream				0.841	
I think the ice cream is yummy				0.110	

The first factor is "Quality of Ingredients used in ice cream", and it includes four sub-variables, Toppings of ice cream are lucrative, I prefer to buy ice cream if there is a combo offer, Ingredients level of quality uses in ice cream is satisfactory, I like ice cream for the freshness and coldness. The quality of ingredients used in Ice cream is satisfactory. I like ice creams due to the freshness and coldness, which explains 20.037% of the variances. "Quality of Ice cream" comes next to the previous factor. It has been comprised of 4 variables: I am pleased with the weight of ice cream with its price, I buy ice cream for its extraordinary packaging, I feel the price charged is authentic, Ice creams are available in a wide variety, and it reports 19.114% of the variance. The next factor is "Appearance", which comprises two different variables respectively; I buy ice cream due to the influence of catchy advertisements. The visual image of ice cream convinces me to purchase it, showing 14.3030% of the variance. "Price and Taste" is the last factor of this factor analysis part. Based on five separate variables, the related question was there for the consumers. Those are the price of ice creams that do not match their given quality I will purchase ice cream no matter that how much the price of it I will buy ice cream no matter how much the price is; I love to consume ice cream throughout the first week of the month, and I'm not too fond of the perishability of ice cream, and I think the ice cream is yummy. The last factor explains 7.315% of the variance.

#### IV. SIGNIFICANT FINDINGS OF THE STUDY

- There is no association between the family's monthly income and ice cream purchase frequency.
- Chocolate-flavoured ice cream becomes the first in position according to the consumer's purchasing frequency and rank.
- The majority (40%) of the respondents eat ice cream for enjoyment.
- Maximum (49%) of the consumer learn about ice cream from social media.
- Igloo ice cream became the number one brand according to consumer preferences.
- A large number of respondents (72 participants) consumed ice cream only once a week.
- 50% of the customers prefer ice cream in their home environment.
- Factor Analysis revealed four factors: quality of Ingredients used in ice cream, the quantity of ice cream, appearance, and price & taste.

#### V. CONCLUSION

This study aimed to assess the consumer behavior of city people regarding ice cream. Luckily, the paper found the attributes that influenced the city dwellers of Bangladesh to buy ice cream and checked the income effect on purchasing power for ice cream. Despite having various limitations, this research

provides valuable information about consumer behavioural patterns. As the consumer is the heart of any business, the consumer's choice of flavour for ice cream consumption is significant. Usually, a consumer gets a wide variety of options. Consumer choice for a particular commodity on a specific flavour is mainly built on the fair value the customer gains after paying for the product. The research has demonstrated which flavours carry consumer preference to consume.

Again, this industry is growing up rapidly due to the changing tastes of consumers. After the liberation war of the independents of Bangladesh, there was only one ice cream company except for traditional handmade ice creams. In 2021, we are aware of more than seven branded ice creams. The conventional form of eating ice cream is also changing. For this purpose, a few foreign brands have introduced their ice cream parlour in the town. Competition is enhancing without any doubts. We have seen that only three locally branded ice creams dominate the market, besides having many competitors.

Similarly, consumers also prefer to get new tastes around the year. Most of the consumers get refreshments while they are eating ice cream. It can be their mental satisfaction regarding ice cream products. Three specific flavours are the most renowned among the customers. People love to enjoy a variety of flavours during their celebrations at the house. We collected a satisfactory amount of data throughout the study's survey. The information from the survey simplifies the analysis regarding the purchasing factors. We have defined only four factors contributing to an individual rate of variance when consumers purchase ice creams. Overall, this study creates new grounds for further research in the area of the ice cream industry of Bangladesh. Other studies can be done to develop the marketing concept of ice cream and develop a new product based on a large scale of consumer opinion.

## VI. SUGGESTION FOR FUTURE WORK

This research has unbarred an enormous scope for future studies. The potential scopes are discussed below:

1. It is a way forward for the existing companies to do nationwide surveys and apply provided methods to get consumer insights. Popular brands will reduce their possibility of destruction as they are already mature.
2. Upcoming brands can also be benefited by getting consumer preference in different areas like pricing of ice creams and preferred sizes, discovering new SKUs and taking the opportunity of economies of scale.
3. This research will help determine the less popular flavours with only a 1-5% contribution to a company's total sales. Thus, companies can stop

making those flavours and reduce their cost of production.

Nevertheless, this research can also be implemented in other FMCG sectors like beverage, bakery products, and chain restaurants like pizza hut, Mac Donald etc.

### Funding:

Self

### Conflicts of Interests

We do not have any conflict of interest to disclose. All authors declare that there is no Conflict of interest.

### Author Agreement Statement

The content is original, unpublished, and signed and not reviewed for publication elsewhere. We acknowledge that all named authors have read, reviewed, and approved the manuscript and that no one else is authorised to write it but is not stated to have participated in this study. We reiterate in the article that we all agree with the regulation of the registrants. We know that the author is the only person the writing process will come in contact with. It is responsible for informing other authors about their work, making corrections and writing permission documents.

## ACKNOWLEDGEMENTS

This important text is the culmination of years of related work and is recommended by many. Fascinatingly, we now all thank contributors for their contributions.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Barykin, S. E., Sergeev, S. M., Provotorov, V. V., Lavskaya, K. K., Kharlamov, A. V., & Kharlamova, T. L. (2022). Energy Efficient Digital Omnichannel Marketing Based on a Multidimensional Approach to Network Interaction. *Frontiers in Energy Research*, 10 (August), 1–8. <https://doi.org/10.3389/fenrg.2022.946588>
2. Brandenburg, M., Gruchmann, T., & Oelze, N. (2019). Sustainable supply chain management-A conceptual framework and future research perspectives. *Sustainability (Switzerland)*, 11(24). <https://doi.org/10.3390/SU11247239>
3. Bulc, T. G., & Ojstršek, A. (2008). The use of constructed wetland for dye-rich textile wastewater treatment. *Journal of Hazardous Materials*, 155 (1–2), 76–82. <https://doi.org/10.1016/j.jhazmat.2007.11.068>
4. Dian Nailiyah, F. F. (2013). Penerapan Personal Selling Dalam Memasarkan Produk Pembiayaan Murabahah Pada Pt. Bank Pembiayaan Rakyat Syariah Mitra Harmoni Kota Malang. *Jurnal Ekonomi MODERNISASI*, 9 (3), 202. <https://doi.org/10.21067/jem.v9i3.792>

5. Hamad, K., & Omar, M. (2013). Evaluation of Texas Incident Detection Algorithm after Years of Implementation. *Journal of Traffic and Logistics Engineering*, 1(2), 249–253. <https://doi.org/10.12720/jtle.1.2.249-253>
6. Helmold, M., & Terry, B. (2021). *Global Supply Chain and Logistics*. [https://doi.org/10.1007/978-3-030-68696-3\\_8](https://doi.org/10.1007/978-3-030-68696-3_8)
7. Islam, M. S., & Liang, M. G. Q. (2012). Supply chain management on Apparel order process: A case study in Bangladesh garment industry. *Asian Journal of Business and Management Sciences*, 2 (8), 60–72.
8. Kalogiannidis, S., Syndoukas, D., Papaevaggelou, O., & Chatzitheodoridis, F. (2023). *Relationship Between Business Communication and Business Sustainability in Times of Uncertainty. A Case Study of Greece SUSTAINABILITY IN TIMES OF UNCERTAINTY. A CASE STUDY OF GREECE* Article history: May. <https://doi.org/10.26668/businessreview/2023.v8i5.1477>
9. Martin, J. A. (2018). *Consumer Preference of Vanilla Ice Cream*. <https://doi.org/10.13023/etd.2018.455>
10. Munawar, M. M., & Disman, D. (2023). *Improving business performance through entrepreneurial orientation, product innovation, and co-creation value*. 6 (3), 618–625. <https://doi.org/10.53894/ijirss.v6i3.1694>
11. Puspitasari, Qanti, S. R., & Hardiyanto. (2020). *Dynamics of Mango Seedlings and Mango Varieties: A Case Study of Nurseries in Mango Production Center in Majalengka, West Java, Indonesia*. 41. <https://doi.org/10.3390/proceedings2019036041>
12. Ramadani, I. Q., Syaichoni, A., & Handri, H. (2022). The Influence Of Product, Price, And Promotion On Customer Trust In The Thrifting Business In Tulungagung Outfit. *Al-Kharaj: Journal of Islamic Economic and Business*, 4 (2), 40–56. <https://doi.org/10.24256/kharaj.v4i2.3054>
13. Sawant, M. R. (2014). To analyse the demand pattern of consumptions of the premium ice creams in Metro cities in India w.r.t Amul's Crème Rich. *IOSR Journal of Business and Management*, 16 (11), 117–132. <https://doi.org/10.9790/487x-16112117132>
14. Seuring, S., & Müller, M. (2008). From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 16 (15), 1699–1710. <https://doi.org/10.1016/j.jclepro.2008.04.020>
15. Shazzat Hossain, M., Abdus Samad, M., Hasan Ali, M., Islam, J., Hazrat Ali, M., Al-Amin, M., Zahir Uddin Babar, M., Ullah, M., Rezaul Karim, M., & Antu Adhikari, S. (2022). An Observation Toward Computer Aided Processes in Garments Production. Comparison and Analysis of CAD/CAM Software in Bangladesh. *International Journal of Textile Science*, 11(3), 37–46. <https://doi.org/10.5923/j.textile.20221103.01>
16. Shazzat Hossain, M., Hasan Ali, M., & Abdus Samad, M. (2021). Attitude of Customers to Buy Face Masks Cloth in Bangladesh - An Observation toward Customers Psychology of Face Masks Fabric. *International Journal of Textile Science*, 9(2), 28–34. <https://doi.org/10.5923/j.textile.20200902.02>
17. Wang, Z., Lin, S., Chen, Y., Lyulyov, O., & Pimonenko, T. (2023). Digitalisation Effect on Business Performance: Role of Business Model Innovation. *Sustainability (Switzerland)*, 15 (11), 1–19. <https://doi.org/10.3390/su15119020>

This page is intentionally left blank



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

Volume 23 Issue 5 Version 1.0 Year 2023

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

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

## Does the Women who are in Entrepreneurship Face any Challenges or Enjoy any Facilities to Contribute in the Economy of Bangladesh?

By Md. Rafiul Islam

*Northern University of Business and Technology*

**Abstract-** Women entrepreneurship can play a vital role in the economic development of Bangladesh because more than half of the total population is women. In this male dominated country, the numbers of women entrepreneurs are rapidly increasing. Almost in every sector, women are in a noticeable percentage. The journey of women sometimes easy or sometimes difficult. The main objective of this research is to find out the problems regarding women entrepreneurship and find out the benefits that they enjoy to contribute in Bangladesh economy. This research is being conducted based on the Khulna region. A well-structured questionnaire was developed for the findings part to collect the valid data from the female entrepreneurs. Sample size of this survey was twenty five which are randomly selected. In this research we have found that there are so many scopes that our women entrepreneurs enjoy; they have the freedom to do the business, dealing with men in field does not drain them, Money lender does not put excessive pressure for returning money, intermediaries does not interrupt them to get the right price of the products etc.

**Keywords:** women, entrepreneurship, challenges, facilities, economy.

**GJMBR-B Classification:** JEL Code: J16



*Strictly as per the compliance and regulations of:*



RESEARCH | DIVERSITY | ETHICS

# Does the Women who are in Entrepreneurship Face any Challenges or Enjoy any Facilities to Contribute in the Economy of Bangladesh?

Md. Rafiul Islam

**Abstract-** Women entrepreneurship can play a vital role in the economic development of Bangladesh because more than half of the total population is women. In this male dominated country, the numbers of women entrepreneurs are rapidly increasing. Almost in every sector, women are in a noticeable percentage. The journey of women sometimes easy or sometimes difficult. The main objective of this research is to find out the problems regarding women entrepreneurship and find out the benefits that they enjoy to contribute in Bangladesh economy. This research is being conducted based on the Khulna region. A well-structured questionnaire was developed for the findings part to collect the valid data from the female entrepreneurs. Sample size of this survey was twenty five which are randomly selected. In this research we have found that there are so many scopes that our women entrepreneurs enjoy; they have the freedom to do the business, dealing with men in field does not drain them, Money lender does not put excessive pressure for returning money, intermediaries does not interrupt them to get the right price of the products etc. Beside this they are facing some challenges; funding for business is an unmanageable and long process, they don't have knowledge and awareness on using technology, they don't have knowledge about the legal aspects of business etc In spite of having so many problems women entrepreneurs are doing very well on their field. Government of our country is taking steps to help the entrepreneurs. If we want our country to have a strong economy we have to help and support our women entrepreneurs to grow.

**Keywords:** women, entrepreneurship, challenges, facilities, economy.

## I. INTRODUCTION

Bangladesh, a developing country, in South Asian region where around 165158616 people lives in and among them 83347206 are women which is 50.43 percent of the total population (According to the Bangladesh Population and Housing Census 2022) . A country basically male dominated (Wright, 2016), empowering women is difficult but it's not impossible. In Bangladesh Everyone involved in mainstream economy has gradually realized that a society cannot afford to waste more than half of its human resources on discrimination based on gender (Puhl et, al., 2008). At all

**Author:** Lecturer, Dept. of Business Administration, Northern University of Business and Technology, Khulna, Bangladesh.  
e-mail: elahibiswas01716@gmail.com

levels of society, Entrepreneurship has been a popular career choice among Bangladeshi women. Women's advancement and participation in social and business arenas is steadily expanding. Hundreds of non-governmental organizations (NGOs) and development groups are trying to assist women (Diva, 2023). Females are now conquering various societal challenges with the assistance of numerous development organizations. Women's empowerment has progressed dramatically throughout South Asia. Women are increasingly succeeding in a variety of significant jobs across several industries (Akter, 2018). There are numerous examples of its effectiveness in Bangladesh. There is now no sector or place in Bangladesh where women are not present. Women are everywhere, from entrepreneurship to leadership. But sometimes it's easy for women and sometimes it's very tough to deal with the situation. The research is being conducted in Khulna region and trying to find out the challenges and scopes for women entrepreneurship in Bangladesh.

## II. OBJECTIVES AND METHODOLOGY

The main objective of the study is to identify the challenges which are faced by the women entrepreneurs and to identify the factors that create scopes and challenges for entrepreneurial activities. Beside this the objective of this research is to suggest some way to overcome the challenges. A well-structured questionnaire was developed for the findings part to collect the valid data from the female entrepreneurs. Sample size of this survey was twenty five. All of them were randomly selected from all female entrepreneurs of Khulna city. A well structure has been used to collect the data that required the demographic questions and most likely five scales point's questions where Never=1, Rarely=2, Sometimes=3, Often=4, Always=5. This research executed the primary data collection task through meeting with the women entrepreneurs. And the secondary data has been collected from the various journals, articles regarding the topic, website etc. For analyzing the data there have been used standard weighted average and tabulation form. To reach the objectives of the research we develop twenty questions regarding entrepreneurial activities.

### III. ANALYSIS AND DISCUSSIONS

Most of the respondents of this study are between the age of 25 to 30 and most of them are married. Around 48 percent of the entrepreneurs sell the women clothing items. In case of freedom for marketing the product to the customers, the weighted average scored obtained by the entrepreneurs is 3.2 which are above the standard level 3 that indicates the family of the entrepreneur gives them freedom to market their products to the customers. In case of dealing with men in field psychologically drains the entrepreneurs, the weighted average scored obtained by the entrepreneurs is 2.44 which is below the standard level 3 that indicates dealing with men in field does not drain the entrepreneurs. In case of facing difficulty in handling money and bookkeeping, the weighted average scored obtained by the entrepreneurs is 1.88 which is below the standard level 3. So it can be said that the entrepreneurs do not face difficulty in handling money and bookkeeping. In case of funding is a long and unmanageable process, the weighted average scored obtained by the entrepreneurs is 3.56 which is above the standard level 3. So it can be said that funding for business is an unmanageable and long process. In case of getting raw materials is a problem due to poor transportation, the weighted average scored obtained by the entrepreneurs is 1.76 which is below the standard level 3. So it can be said that getting raw materials is not a problem due to poor transportation. In case of interference of intermediaries is a problem to market finished goods, the weighted average scored obtained by the entrepreneurs is 3.92 which is above the standard level 3. So it can be said that interference of intermediaries is a huge problem to market finished goods. In case of production gets affected due to delayed supply of raw materials, The weighted average scored obtained by the entrepreneurs is 2.2 which is below the standard level 3. So it can be said that production does not get affected due to delayed supply of raw materials. In case of concentrating on the business become difficult during agricultural season, the weighted average scored obtained by the entrepreneurs is 1.68 which is below the standard level 3. So it can be said that concentrating on the business is not difficult during agricultural season. In case of don't have knowledge and awareness on using technology, the weighted average scored obtained by the entrepreneurs is 4.12 which are above the standard level 3. So it can be said that the entrepreneurs don't have knowledge and awareness on using technology. In case of don't have knowledge about the legal aspects of business; the weighted average scored obtained by the entrepreneurs is 3.28 which are above the standard level 3. So it can be said that they don't have knowledge

about the legal aspects of business. In case of unable to expand business due to lack of marketing information, the weighted average scored obtained by the entrepreneurs is 2.16 which is below the standard level 3. So it can be said that the entrepreneurs are not unable to expand business due to lack of marketing information. In case of can't reach many customers due to lack of advertisement, the weighted average scored obtained by the entrepreneurs is 2 which is below the standard level 3. So it can be said that the entrepreneurs can reach many customers in spite of having lack of advertisement. In case of, lack of confidence to convince customers for long term business relation, the weighted average scored obtained by the entrepreneurs is 2.04 which is below the standard level 3. So it can be said that the entrepreneurs do not have lack of confidence to convince customers for long term business relation. In case of, money lenders put excessive pressure for returning money before due time, The weighted average scored obtained by the entrepreneurs is 1.72 which is below the standard level 3. So it can be said that Money lender does not put excessive pressure for returning money before due time. In case of, lack of training for development leadership and management skills, the weighted average scored obtained by the entrepreneurs is 3.16 which is above the standard level 3. So it can be said that they have lack of training for development leadership and management skills. In case of, family responsibilities stop me to expand business, the weighted average scored obtained by the entrepreneurs is 3.12 which is above the standard level 3. So it can be said that family responsibilities stop the women entrepreneurs to expand their business. In case of, unaware of government policies about women entrepreneurs, the weighted average scored obtained by the entrepreneurs is 1.68 which is below the standard level 3. So it can be said that the entrepreneurs are aware of government policies about women entrepreneurs. In case of, don't have proper training on financial management; the weighted average scored obtained by the entrepreneurs is 4.08 which is above the standard level 3. So it can be said that they don't have proper training on financial management. In case of, family restriction to go out creates difficulty to purchase raw materials; the weighted average scored obtained by the entrepreneurs is 3.64 which are above the standard level 3. So it can be said that family restriction to go to different place creates difficulty to purchase raw materials. In case of, involvement of intermediaries interrupt me to get the right price for products, the weighted average scored obtained by the entrepreneurs is 1.84 which is below the standard level 3. So it can be said that involvement of intermediaries does not interrupt them to get the right price of the products

#### IV. RESULTS, CHALLENGES AND SCOPES

Sl. No.	Result	Challenge/Scope
1	The family of the entrepreneur gives them freedom to market their products to the customers.	Scope
2	Dealing with men in field does not drain the entrepreneurs.	Scope
3	The entrepreneurs do not face difficulty in handling money and bookkeeping.	Scope
4	Funding for business is an unmanageable and long process.	Challenge
5	Getting raw materials is not a problem due to poor transportation.	Scope
6	Interference of intermediaries is a huge problem to market finished goods.	Challenge
7	Production does not get affected due to delayed supply of raw materials.	Scope
8	Concentrating on the business is not difficult during agricultural season.	Scope
9	The entrepreneurs don't have knowledge and awareness on using technology.	Challenge
10	They don't have knowledge about the legal aspects of business.	Challenge
11	The entrepreneurs are not unable to expand business due to lack of marketing information.	Scope
12	The entrepreneurs can reach many customers in spite of having lack of advertisement.	Scope
13	The entrepreneurs do not have lack of confidence to convince customers for long term business relation.	Scope
14	Money lender does not put excessive pressure for returning money before due time.	Scope
15	They have lack of training for development leadership and management skills.	Challenge
16	Family responsibilities stop the women entrepreneurs to expand their business.	Challenge
17	The entrepreneurs are aware of government policies about women entrepreneurs.	Scope
18	Family restriction to go to different place creates difficulty to purchase raw materials.	Challenge
19	They don't have proper training on financial management.	Challenge
20	Involvement of intermediaries does not interrupt them to get the right price of the products.	Scope

#### V. RECOMMENDATIONS AND CONCLUSION

Family of the entrepreneurs needs to give enough freedom to do their job rightly. Family is the first place from where many women get discourage and they end their thought to pursuing their dream to become an entrepreneur. If the family will be supportive then they can overcome the other challenges. The entrepreneurs must train themselves according their respected fields. Without training and skill they cannot sustain for long run. Finance is a big problem. Many bank and NGO gives loan to the women entrepreneurs. They should take money from them instead of the money lenders. Banks should give loan to the entrepreneurs with a very low interest rate. Using technology and doing business are two obvious things nowadays. Reach to the customers has become easy through technology. Many women entrepreneurs still don't know much about the technology. They should educate themselves about technology for their betterment. Interference of intermediaries is a big problem for the entrepreneurs. If the entrepreneurs sell their product directly to their customers without having any intermediaries they can avoid this problem. The entrepreneurs need to learn about the legal aspects of business. Since the entrepreneurs don't know about the legal aspects they are missing out the advantages of this part. In our male dominated society still there's a perception that women should take care of a family by only sitting at the home.

They should take all the responsibility of the family by doing their daily chores. Family of the entrepreneurs need to more supportive towards them and their expansion of business. Managing finance correctly of your business is a necessity. Many women entrepreneurs don't have enough knowledge or experience to manage their finances. They need to learn how to manage these things professionally. In this era Bangladeshi women still have the problem of family restriction even if it's bad for their professional life. Family and society needs to be more supportive towards women entrepreneurs.

Women's entrepreneurship is a means of achieving economic independence as well as a source of income and employment. In spite of having so many problems women entrepreneurs are doing very well on their field. Government of our country is taking steps to help the entrepreneurs. If we want our country to have a strong economy we have to help and support our women entrepreneurs to grow. Because more than half of the population of our country are women. One country can't make a strong economy without its half of the population. In the meantime, banks, financial institutions, Micro Finance Institutions, and Non-Governmental Organizations in Bangladesh have given attention to establishing women entrepreneurs. Bangladesh Bank guidelines offer credits mainly the women entrepreneurs in Micro, Small and Medium Sized Enterprise sector still there is lack of supportive



institutions. There's lack of training, skilled manpower, finances, loans, acceptance of the society, using technology, availability of materials, interference of intermediaries etc. Both the government and Non-Governmental Organizations help is needed to solve all the problem of the women entrepreneurs of Bangladesh. If they can assure their help it will be a great effort to make women entrepreneurship more successful in Bangladesh. These initiatives will have a tremendous impact not only on the national economy, but also on the socio-cultural and economic development and growth of women entrepreneurs.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Baughn, C.C., Chua, B.L. and Neupert, K. E. (2006) 'the normative context for women's participation in entrepreneurship: a multi-country study. 'Entrepreneurship Theory and Practice, 30 (5), 687–708.
2. Berner, E., Gomez, G. and Knorrington, P. (2012) 'Helping a large number of people become a little less poor: The logic of survival entrepreneurs.' European Journal of Development Research, 24 (3): 382–396.
3. Brush, C.G., De Bruin, A. and Welter, F. (2009) 'A gender-aware framework for women's entrepreneurship. 'International Journal of Gender and Entrepreneurship, 1 (1), 8–24.
4. Brush, C.G. and Cooper, S.Y. (2012) 'Female entrepreneurship and economic development: An international perspective. 'Entrepreneurship & Regional Development, 24 (1–2), 1–6.
5. Niethammer, C. (2013) Women entrepreneurship and the opportunity to promote development and business. Brookings Blum Roundtable
6. Abebe, A. and Kegne, M. (2023) "The role of microfinance institutions on women's entrepreneurship development", *Journal of Innovation and Entrepreneurship*, 12 (1). doi: 10.1186/s13731-023-00285-0.
7. Ferdousi, F. and Mahmud, P. (2019) "Role of social business in women entrepreneurship development in Bangladesh: perspectives from Nobin Udyokta projects of Grameen Telecom Trust", *Journal of Global Entrepreneurship Research*, 9 (1). doi: 10.1186/s40497-019-0184-0.
8. *Women's Entrepreneurship Development (ENTERPRISES)* (2023). Available at: <https://www.ilo.org/empent/areas/womens-entrepreneurship-development-wed/lang--en/index.htm>
9. *Female entrepreneurship in Bangladesh* (2019). Available at: <https://thefinancialexpress.com.bd/views/female-entrepreneurship-in-bangladesh-1553181544> (Accessed: 07 July 2023).
10. *Challenges for women entrepreneurs* (2017). Available at: <https://www.thedailystar.net/education-employment/challenges-women-entrepreneurs-1366573> (Accessed: 08 July 2023).
11. Yadav, V. and Unni, J. (2016) "Women entrepreneurship: research review and future directions", *Journal of Global Entrepreneurship Research*, 6 (1). doi: 10.1186/s40497-016-0055-x.
12. "The Status Of Women's Entrepreneurship: Pathways to Future Entrepreneurship Development And Education Proquest". 2023. Proquest.Com. <https://www.proquest.com/openview/2494accbe863ec71901d50ed3b05640f/1?pq-origsite=gscholar&cbl=27512>.
13. Wright, T. (2016) "Gender and Sexuality in Male-Dominated Occupations". doi: 10.1057/978-1-137-50136-3.
14. Puhl, R., Andreyeva, T. and Brownell, K. (2008) "Perceptions of weight discrimination: prevalence and comparison to race and gender discrimination in America", *International Journal of Obesity*, 32(6), pp. 992-1000. doi: 10.1038/ijo.2008.22.
15. (2023) *Diva-portal.org*. Available at: <https://www.diva-portal.org/smash/get/diva2:455762/FULLTEXT01.pdf>.
16. Akter, M. (2018) "Socio-Economic Barriers against Women Equal Right in the Society (a Case of Bangladesh)", *Open Journal of Social Sciences*, 06 (07), pp. 156-166. doi: 10.4236/jss.2018.67012.



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

Volume 23 Issue 5 Version 1.0 Year 2023

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

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

## Growth and Distribution Performances in Developing Economies

By S. I. Cohen

*Abstract-* Measurement of development performance in terms of the joint development goals of economic growth with income redistribution in developing economies encounter theoretical and empirical complexities involving causal relationships and trade-offs between the two goals with long gestation periods, next to valuation problems, random variations and comparability obstacles. The paper accommodates for these complexities by pursuing country comparisons in the context of six world development regions, focussing on leading countries within each region, considering more and longer periods, and using ordinal rankings of both goals. Results show four Asian countries (India, China, Indonesia and Vietnam) with highest ranking scores, and Brazil and South Africa with lowest scores.

*GJMBR-B Classification: LCC: HC59*



*Strictly as per the compliance and regulations of:*



# Growth and Distribution Performances in Developing Economies

S. I. Cohen

**Abstract-** Measurement of development performance in terms of the joint development goals of economic growth with income redistribution in developing economies encounter theoretical and empirical complexities involving causal relationships and trade-offs between the two goals with long gestation periods, next to valuation problems, random variations and comparability obstacles. The paper accommodates for these complexities by pursuing country comparisons in the context of six world development regions, focussing on leading countries within each region, considering more and longer periods, and using ordinal rankings of both goals. Results show four Asian countries (India, China, Indonesia and Vietnam) with highest ranking scores, and Brazil and South Africa with lowest scores.

## I. INTRODUCTION

The joint development goals of growth with redistribution (GWR) can be fully derived from welfare theory. There is wide agreement that higher economic growth with a fairer redistribution of endowments and incomes are the cornerstones of development policy, actions and performance. cf. Cohen (2015) However, the empirical evaluation of country performance along the lines of GWR encounters several complexities and is problematic. This paper contributes to resolving the problem.

While growth and redistribution considerations can be commonly integrated in many development policies and actions, a simple joint measurement of GWR performance for a county for a specific year faces many complexities due to intricate relationships between growth and distribution over time and space, and may not be feasible. There are four complexities which we shall list. The complexities lead us to approach the measurement of GWR performance in a grossly fashion, making use of the regional context of individual countries and doing that over longer periods.

*The first complexity* lies in the schism between the postulates of welfare theory and their implementation in the real world. The First Theorem of Welfare Economics states that, the market prices are equilibrium prices whereby it is impossible to make a change without making someone worse off, making the resulting competitive market equilibrium as most efficient and Pareto-optimal. Under these conditions and other things remaining the same, higher economic growth is guaranteed to be efficiently done.

The Second Theorem of Welfare Economics emphasizes that any such competitive equilibrium is defined in terms of given initial endowments; and thus states that any Pareto-optimal state is an equilibrium for some initial distribution of endowments. The significance of the theorem is that if the postulated assumptions are fulfilled in a real market economy, then economic efficiency will be guaranteed by market forces. In some sense, the competitive market equilibrium is by no means optimal in the absolute sense because the outcome depends entirely on the original distribution of endowments. The second theorem suggests that the initial distribution of endowments can be reset beforehand at the socially desired pattern, after which market forces will take care of efficient allocation. The role of the state would then be restricted to applying a priori lump-sum transfer payments which are consistent with the desired initial distribution of endowments.<sup>i</sup>

The reset beforehand does not work in this way in the real world. The process is reversed in the real world. What happens is that governments go for economic growth and tend to review the income distribution situation at the end of the year and reset this ex-post, giving due consideration to the perception of a desirable initial distribution and unintended differential outcomes during the year. Transfers are then affected in consistency with the resetting. If the resetting is well-done and duly implemented, then the model of the perfect market economy can be described to stand firm with regard to the equity dimension, even though this happens with a lag in time. And should the government be non-responsive, it can be argued that it will be replaced in time by a responsive government which could correct the distribution ex-post. And this involves again more time lags. The political complications and the time lags make the measurement of the simultaneous performance of growth with redistribution for a particular year less meaningful. The evaluation of GWR over a period of time of a decade or so seems to be more meaningful and useful.

*The second complexity* relates to the resetting of the desirable distribution. It is not easy to reach consensus on the desired distribution norms in relation to growth (which is specific for the country/region and year/periods concerned; and there can be wide differences on the distribution norms within one and the same country and over time. Recognition of these limitations requires giving more consideration to the

*Author:* Erasmus School of Economics. e-mail: [cohen@ese.eur.nl](mailto:cohen@ese.eur.nl)

regional context in which the specific countries find themselves; and our classification of the world development regions in eight regions can be helpful in this respect.

As for complexities surrounding divergent norms, these are partly mitigated by considering extended years of observation in approaching the GWR performance measurements for the specific countries and regions.

The *third complexity* relates to the empirical relationship between economic growth and income distribution in the course of economic development, whereby in the early stages of economic development growth tends to associate with regressive distribution while as the country becomes richer growth slows and associates with progressive distribution. The relationship is known as the Kuznets curve, and is due to Kuznets (1955).<sup>ii</sup> Performance evaluation of GWR for a specific country needs to give due consideration to the development stage and the regional context of the country concerned; which renders a simple comparison across countries for a certain year less compelling.

The *fourth complexity* is in some sense the opposite of the Kuznets curve. Some economists perceive long term economic development in terms of strategies that redistribute endowments so as to elevate higher economic growth and progressive income distributions. This can be rightly named the Tinbergen-strategy, given the pronounced role that this cause effect relationship play in Tinbergen's writings, see Dekker (2021).<sup>iii</sup> Economic growth accounting (next section) does show that growth in factor productivity may contribute more than growth in factor inputs to the growth the GDP. When it is recognized that growth in factor productivity is basically the extension of human skills endowments and technology, it follows that Tinbergen-strategies can have significant positive effects on economic growth. Since these GWR strategies have long gestation lags, it follows that GWR performance evaluation for countries which apply such

strategies become meaningful when the evaluation period is long enough; and this need not hold for other countries. The complication makes simple comparisons between divergent countries less conclusive.

The four complexities impose limitations on GWR performance measurement and the reaching conclusive results. The task is made easier when the GWR performances are evaluated in the context of regional comparisons and over a longer period of time. The paper does that and will be able to reach some considerate conclusions on GWR performances. Section 2 is an overview of development performances at the regional level. The performance analysis of economic growth is extended to examine the decomposition of growth into factor inputs and factor productivities, while performance analysis of income distribution is extended to poverty reduction. Section 3 will elaborate on development performance at the country level along the GWR perspective. Section 4 will make an attempt at ranking country performances along the GWR perspective. Section 5 concludes.

## II. OVERVIEW OF DEVELOPMENT PERFORMANCES BY REGION

GWR performances are best evaluated in the context of regional comparisons and over a longer period of time. We follow largely the regional classification commonly used by the World Bank and the United Nations which divides the development world into six regions. (1) East Asia and Pacific (EAP), (2) South Asia (SA), (3) Central Asia and Caspian (CAC), (4) North Africa and Middle East (MENA), (5) Sub Saharan Arica (SSA), and (6) Latin America and Caribbean (LAC). We select and focus on the six leading countries in the six region, giving a total of 36 countries. Selection is based on the country's rank in its. respective region in terms of GDP and population, weighted equally. Results are in Table 1.

*Table 1:* Leading Countries by Development Region

EAP	SA	CAC	MENA	SSA	LAC
China	India	Turiye	Egypt	Nigeria	Brazil
Indonesia	Pakistan	Iran	Saudi Arabia	S. Africa	Mexico
Philippines	Bangladesh	Kazakhstan	Algeria	Ethiopia	Argentina
Thailand	Sri Lanka	Uzbekistan	Iraq	Congo DR	Colombia
Malaysia	Nepal	Azerbaijan	UAE	Angola	Venezuela
Vietnam	Bhutan	Tajikistan	Morocco	Sudan	Peru

This section gives an overview of regional performance in terms of economic growth and income distribution. Starting with economic growth, table 2 gives GDP growth and GDP per capita growth over various periods. The data show the two Asian regions of EAP and SA to perform better than other regions in terms of

the growth of GDP and GDP per capita. At the other end are the GCC, MENA, SSA, and LAC regions with lower economic growth performances, the lower performance being due to different forces specific for the regions. The structural transformation of the MENA economy from agriculture to industry was noted to be stagnant.

The region was also handicapped by political instability. The SSA region showed depressing performances: economic growth in SSA is lowest and has declined over time, partly due to increases in oil prices but also political unrest, civil wars and state interventions aggravated the situation. There is a reversal in SSA as indicated by a moderate recovery in the years 2000-5.

The better performances in economic growth in EAP and SA are partially accounted for by more significant structural transformations from agriculture to industry in EAP and SA, as well as early and stronger shifts from import protection to export promotion in EAP and SA; see previous sections.

*Table 2: Annual Growth Rates of GDP and GDP Per Capita over 5 Decades 1960-2012.*

Region, years	GDP	GDP per capita	Region, years	GDP	GDP per capita
EAP			MENA		
1961-1970	4.7	2.5	1961-1970	8.5	5.7
1971-1980	6.6	4.5	1971-1980	5.1	2.3
1981-1990	7.6	5.8	1981-1990	3.0	0.0
1991-2000	8.4	7.1	1991-2000	4.0	1.8
2001-2012	6.0	4.7	2001-2012	4.8	1.6
SA			SSA		
1961-1970	4.4	2.0	1961-1970	4.9	2.3
1971-1980	3.0	0.7	1971-1980	3.7	0.8
1981-1990	5.6	3.4	1981-1990	1.9	-1.0
1991-2000	5.2	3.2	1991-2000	2.3	-0.3
2001-2012	5.9	4.3	2001-2012	6.6	4.2
CAC			LAC		
1961-1970	..	..	1961-1970	4.9	2.6
1971-1980	..	..	1971-1980	3.7	3.2
1981-1990	..	..	1981-1990	1.9	-0.9
1991-2000	-1.2	-2.4	1991-2000	2.3	1.7
2001-2012	7.5	6.0	2001-2012	4.0	2.7

Source: World Bank at <http://devdata.worldbank.org/query>. Col. 1 and col. 2 give average annual growth rates of GDP and GDP per capita in constant prices of US \$ of 2000 for four ten-year periods. The fifth period of 2000-2012 is the mean of the largest six countries in the region.

Economic determinants of the better performance of the two Asian regions, EAP and SA, as compared to other regions are highlighted also by an analysis of growth accounting factors covering the period 1960-94, in table 3. For EAP, annual GDP growth of 7.0 percent over the years 1960-94 is accounted for by annual growth in the labor and capital factors of

production of 2.3 percent, and 3.4 percent, and annual growth in total factor productivity for the remaining 1.3 percent. The SA region enjoyed annual growth in total factor productivity of 0.8 percent. In the other three regions of SSA, MENA and LAC, productivity growth was negative or slightly positive: -0.6, -0.3, and 0.2, respectively.<sup>iv</sup>

*Table 3: GDP Growth Accounting, All Values are in Growth Rates*

Region	GDP	Labor	Capital	Factor Productivity
East Asia & Pacific (EAP)	7.0	2.3	3.4	1.3
South Asia (SA)	4.2	1.6	1.8	0.8
Central Asia & Caspian (CAC)	..	..	..	..
Middle East, N. Africa (MENA)	4.5	2.3	2.5	-0.3
Sub Saharan Africa (SSA)	2.9	1.8	1.7	-0.6
Latin America & Caribbean (LAC)	4.2	2.2	1.8	0.2

Source: Adapted from Cohen (2015) pp. 202. The GDP growth accounting equation is growth rate of GDP = growth rate of labor + growth rate of capital + growth rate of total factor productivity. The equation is applied to the six development regions

It is interesting to note that in economic growth accounting the contribution of the rise in factor productivity is substantive. Rise in factor productivity is primarily the extensive and intensive upgrading of skills and technology which in essence is the enrichment of labor, and the population at large, with greater human capital endowments. This equivalent to a progressive

redistribution of skill endowments among the population; and a demonstration of how progressive redistribution of skill endowments enhances economic growth. The regional results in the table suggest that there was more attention and effort given to the progressive redistribution of skill endowments in enhancing economic growth in EAP and SA regions

than is the case for the other development regions; allowing the two Asian regions to achieve higher economic growth.

Turning to income distribution, the question is how did the development regions combine higher wellbeing (that is growth in GDP and GDP per capita) with performance on the dimensions of income distribution and poverty reduction? Table 4 gives the answers, but there is a statistical problem that has to be clarified before studying the table. Table 4 presents the mean of these indicators for the leading six countries in each region in the past four decades. Note that there is a difference between the consolidated regional total and the regional mean for the indicators on income distribution and poverty reduction it is not feasible to estimate consolidated regional totals; the calculations are regional means of the six leading countries per region.

To start with, compare the mean annual growth of GDP per capita with the mean Gini index, columns 3 and 4. In the Asian regions, while EAP did better than SA in GDP per capita growth, the SA did better than EAP in restraining tendencies towards more income inequalities. MENA had a moderate to low GDP pc growth combined with a reduction in income inequalities. SSA also had a moderate to low GDP pc growth but the increases in income inequality in SSA were among the highest in the developing world. LAC entered the 1950s with a higher GDP pc and a more unequal income distribution than other regions. Between 2000 and 2012, LAC had a GDP pc growth of 2.1% that went together with an unchanged Gini index at 53.2%, which is still the highest among the development regions.

Another relevant indicator of income inequality is the ratio of income shares of the richer top 20 percent of the population (T20%) to the poorer bottom 20 percent of the population (B20%), column 5. This indicator, denoted as T/B (20%), has increased most in SSA and LAC. This indicator modified to apply to 10 percent of the population, (that is T/B 10% in column 6), shows even greater tendencies towards income inequality, again led by SSA and LAC. Situations where low income growth combines with significant and increasing concentrations of income go together with persistent dualism in the economy and weak integration in the system.

Next, is column 7 which displays the inequality to growth ratio (ITG). The ratio divides the change in the average Gini index between periods  $t$  and  $t-1$ , by the average growth in the GDP per capita in period  $t$ , and comes close to representing a quasi form of an inequality growth elasticity. Results show ITG is positive but less than one, meaning that distribution worsens with higher wellbeing but at a diminished rate. ITG fell from 0.78 to 0.09 in EAP, and increased from 0.47 to

0.80 in SA, in the last two decades. Other regions show contrasting results but the data is incomplete to draw hard conclusions. CAC shows no change. MENA shows negative elasticities in the early period turned into no change in the later period. SSA has insufficient data, and LAC shows a positive elasticity in the early period turned into no change in the later period.

Another dimension of the distribution problem is the poverty ratio in column 8. This is the share of poverty headcounts at 1.25 dollar a day in purchasing power parity in the population. In EAP in 2000-2012, the poverty ratio is reduced by -1.37% per annum (that is, (31.2%-14.8%)/12 years).

It is reasonable to expect that the poverty ratio fall more when the GDP per capita grows more. To evaluate the pace of the fall we add a last column 9 defining the poverty change to growth ratio PTG, which is a poverty reduction elasticity, defined as  $PTG = (\text{annual reduction in poverty ratio in period } t) / (\text{annual growth rate of GDP pc in period } t)$ . For the EAP in period 2000-2012, the results show a PTG elasticity of -0.29 (that is, -1.37% / 4.7%). The poverty reduction elasticity for SA in 2000-12 was higher at -0.48, which can be expected given the greater poverty base. EAP and SA appear to be more effective than other regions in reducing the poverty ratio as their income levels grow higher. At the other end, SSA and LAC are least effective in combining reduced poverty with higher wellbeing. This is in one sense more severe in the case of SSA where the poverty ratio is remarkably high; but also as severe in the other sense that the elasticity is remarkably low in LAC given its much high level of GDP pc. The two regions of CAC and MENA have the lowest poverty ratios; at their lowest unavoidable level. This makes the poverty reduction elasticity irrelevant in this contest.

Table 4: Relative Indicators of Growth and Distribution, 1980-2012. In Percent

Periods	GDP per Capita Annual Growth		Gini Index	(T/B) 20%	(T/B) 10%	Inequality Change to Growth, ITG (a)	Poverty Ratio	Poverty Change to Growth, PTG (b)
	Region Totals	Mean						
EAP: 1981-1990	5.8	3.8	36.3	6.3	9.7		44.6	
1991-2000	7.0	4.5	39.8	7.6	12.2	0.78	31.2	-0.25
2000-2012	8.0	4.7	40.2	7.8	12.5	0.09	14.8	-0.29
SA: 1981-1990	3.1		31.1	4.6	6.8		50.5	
1991-2000	3.3	3.1	32.6	4.8	7.3	0.47	48.7	-0.05
2000-2012	5.2	4.3	36.0	5.8	8.9	0.80	24.0	-0.48
CAC: 1981-1990	..	..	..	..	..		..	
1991-2000	3.9	-2.4	38.1	7.8	14.3	..	3.6	
2000-2012	6.0	6.0	35.9	6.2	10.0	0.05	3.4	-0.00
MENA: 1981-1990		-1.1	40.5	9.4	16.5		2.7	
1991-2000	1.8	1.0	38.0	7.0	11.5	-5.3	4.0	0.11
2000-2012	2.8	1.6	35.4	6.2	9.9	-0.6	2.2	-0.09
SSA: 1981-1990	-1.3	-1.1	42.0	6.2	9.4		..	
1991-2000	-0.6	-1.4	46.2	12.1	21.0	n.a.	49.1	..
2000-2012	2.1	4.2	44.2	11.2	19.1	-0.5	40.8	-0.16
LAC: 1981-1990	-0.5	-1.1	50.7	15.0	31.4		10.7	
1991-2000	1.5	1.4	53.5	17.1	41.5	2.0	9.6	-0.07
2000-2012	2.0	2.7	52.0	17.8	45.7	-0.5	8.7	-0.03

Source: World Bank at <http://databank.worldbank.org/>. With the exception of column 1 that gives GDP pc growth figures based on consolidated regional totals, all other columns are regional averages of each region's six leading countries, which are practically fully representative for all regions, though less so for MENA and SSA. Periodical figures are averages of available yearly observations for the specified period in the leading countries. While the World Bank provides total poverty ratios for EAP and SA based on regional totals, there are only simple averages available for other regions. To maintain the same basis for regional comparisons for this indicator, and for the other income distribution indicators, we kept to simple averages.<sup>v</sup>

(a) The ITG ratio is the change in the average GINI index between periods  $t$  and  $t-1$  / average growth of GDP pc per annum in period  $t$ . For example, for EAP 2012, this is  $(40.2-39.8) / (4.7) = -0.09$ . (b) The poverty change to growth ratio, PTG, is the reduction in poverty ratio over period  $t$  normalized per one year, divided by the average growth of GDP pc per annum in period  $t$ . For example, for EAP 2012, this is  $[(15.4-32.0)/12 \text{ years}] / [4.7] = -0.29$ .

### III. GROWTH WITH REDISTRIBUTION PERFORMANCES BY REGION AND COUNTRY

Excessive conflicts between the twin goals of growth and redistribution are generally perceived to be undesirable. Countries that combine maximum reductions in income inequality with maximum rates of economic growth are envied by others. This section will assess the performance of the six leading countries in each region. This is done in table 5 which is compacted to include GDP growth pc, Gini Index, Poverty ratio, and the two analytical indicators of inequality change to growth ratio ITG and poverty to growth ratio, PTG. These two analytical indicators are close to representing notions of elasticities.

Table 5 considers GWR performances in East Asia Pacific (EAP). China's GDP and GDP per capita growth rates per annum were remarkably higher than the other countries, and the difference between the two rates was the lowest, which is due to success in restraining population growth. The higher economic growth in China has been associated with a higher rise in income concentration in China, when compared to other EAP

countries. The Gini index in the period 2000-2012 shows a higher concentration of income distribution in China, at 42.4, compared to an average for EAP of 40.2. The association of unequal income redistribution with higher growth is a common phenomenon in the early phases of economic development. The results show ITG ratios of 0.6 and 1.1 for China and Indonesia, implying about a half to one percent increase in the Gini index (increase in income inequality) for an additional growth of one percent in GDP pc. The other EAP countries show falls in Gini (progressive distribution effects) accompanying economic growth and higher levels of wellbeing.

The poverty ratio is highest in Vietnam, Indonesia, and Philippines, lowest in Thailand and Malaysia and is about average in China, which can be seen as reflecting differences in general levels of wellbeing. The poverty change to growth elasticity (PTG ratio), column 9, highlights the significance of trickle down effects in the individual countries. PTG has higher trickle down effects in rates in Malaysia and Thailand, and lower rates in China and Philippines.

Table 5: EAP: Performance Indicators of Growth and Distribution, Averages of Period. %

Country Periods	1991-2000			2001-2012			ITG Ratio	PTG Ratio
	GDP pc,	Gini Index	Poverty Ratio %	GDP pc, Growth	Gini Index	Poverty Ratio %		
China	8.7	36.8	49.9	9.4	42.4	17.4	0.60	-0.6
Indonesia	3.3	29.9	48.5	3.9	34.3	22.6	1.13	-1.1
Philippine	0.6	44.7	25.7	2.9	43.8	21.0	-0.31	-0.5
Thailand	4.0	43.6	3.9	3.6	40.8	0.8	-0.78	-1.6
Malaysia	4.6	48.4	1.4	2.8	43.4	0.2	-1.79	-2.8
Vietnam	5.9	35.6	56.7	5.3	36.4	26.6	-0.64	-0.8
Mean	4.5	39.8	31.0	4.7	40.2	14.8	-0.30	
Stdv s	2.5	6.3	22.3	2.3	3.6	10.5		
Vrcf v	0.55	0.16	0.72	0.49	0.09	0.71		

Source: <http://databank.worldbank.org/>. Annual growth rates of GDP and GDP pc are in constant prices of 2000.

Table 6 is on South Asia (SA). In 2000-2012 the GDP growth per capita of 4.3 percent was accompanied by an increase in the Gini index of 2.4 percentage points. The ITG is calculated at 0.58, meaning that for a one percent income growth there is a rise in inequality of half a percent. India is close to this figure at 0.52. Sri Lanka and Nepal show regressive affects at 1.0 and 1.2, Bangladesh and Pakistan show progressive effects at 0.3 and -0.2. The

differences can be rationalised in terms of systemic features. The average poverty reduction elasticity, PTG, in the SA region is around 1, with an average poverty ratio of 24%. It can be calculated that if GDP pc growth can be sustained at 4% pa, the poverty ratio of 24% (on the defined basis of 1.25\$ per person) can be reduced to zero in some 5 to 6 years.

Table 6: SA: Performance Indicators of Growth and Distribution, Averages of Period. %

Country Periods	1991-2000			2001-2012			ITG Ratio	PTG Ratio
	GDP pc,	Gini Index	Poverty Ratio %	GDP pc, Growth	Gini Index	Poverty Ratio %		
India	3.8	30.8	49.4	5.4	33.6	37.2	0.52	-0.4
Pakistan	1.4	31.6	47.3	2.2	31.1	25.5	-0.23	-1.7
Banglade	2.5	31.3	63.1	4.5	32.7	23.4	0.31	-1.2
Sri Lanka	4.0	33.9	15.7	5.1	39.2	6.3	1.04	-1
Nepal	2.4	35.2	68.0	2.5	38.3	39.0	1.24	-1.4
Bhutan	4.4	38.0	..	6.3	41.2	12.7		
Mean	3.1	32.6	48.7	4.3	36.0	24.0	0.58	-1.1
stdv s	1.1	1.7	18.3	1.5	3.7	11.9		
vrcf v	0.34	0.05	0.38	0.35	0.10	0.49		

Source: <http://databank.worldbank.org/>. Annual growth rates of GDP and GDP pc are in constant prices of 2000.

Table 7 is on the CAC region. For most of the Central Asia and Caspian region (CAC) the period 1990-2000 was a period of transition from a Communist /Russian regime to a development/national regime in the XSIR countries. GDP and GDP pc declined in these countries by annual rates that reached -10.0%. Recovery came in 2000-2012 allowing some of these countries to reach growth rates of 12%, i.e. Azerbaijan. GDP growth pa and GDP pc growth pa for the whole region in 2000-2012 amounted to 7.5% and 6.0%. In spite of this high income growth the Gini index has fallen on average from 38.1 to 35.9 as most of the ex-Soviet countries in the region moved on and left the transition period behind. The ITG ratio is negative at -0.53. The underlying tendency of more equality with higher growth after a

distribution regressive transition period is a systemic property. The poverty ratio is not relevant in the CAC region, i.e. the poverty ratio in the richer countries of Kazakhstan and Azerbaijan stood at 0.1 and 0.4 in 2011.



Table 7: CAC: Performance Indicators of Growth and Distribution, Averages of Period. %

Country Periods	1991-2000			2001-2012			ITG Ratio	PTG Ratio
	GDP pc,	Gini Index	Poverty Ratio %	GDP pc, Growth	Gini Index	Poverty Ratio %		
Turkiye	2.3	41.5	5	3.1	41	4.4	-0.16	-0.3
Iran	2.9	43.6	1.3	3.2	38.3	0.7	-1.66	-1.2
Kazakhsta	-2.4	34.0	4.6	6.9	32.8	2.0	-0.17	
Uzbekistan	-1.9	45.3		5.5	35.6	..	-1.76	
Azerbaijan	-5.3	35.0		11.6	35.1	3.4	0.01	
Tajikistan	-9.8	29.0		5.8	32.4	6.56	0.59	
Mean	-2.37	38.1	3.63	6.01	:35.9	3.42	-0.53	
Stdv s	4.35	5.81	1.66	2.85	3.01	2.01		
Vrcf v	-1.84	0.15	0.46	0.47	0.08	0.59		

Source: <http://databank.worldbank.org/>. Annual growth rates of GDP and GDP pc are in constant prices of 2000.

Table 8 is on the Middle East and North Africa (MENA). Performance in terms of growth of the GDP is fairly similar among MENA countries and the variation tends to fall. While the topic of income distribution would apply to most countries of MENA, it is not applicable in the context of the six countries of the Gulf Cooperation Council (GCC). In the oil rich labor shortage GCC there are ample income resources for the nationals to the extent that the income distribution issues are acknowledged to

be statistically irrelevant, and such notions as Gini index are nonapplicable for the nationals. The migrant population forms the majority of the population in most GCC. As far as the non-GCC are concerned, Gini indexes available for Egypt and Morocco show stable income distributions. The limited availability of data restricts further analysis of inequality trade-offs and poverty reduction in MENA.

Table 8: MENA: Performance Indicators of Growth and Distribution, Averages of Period. %

Country Periods	1991-2000			2001-2012			ITG ratio	PTG ratio
	GDP pc,	Gini Index	Poverty Ratio %	GDP pc, Growth	Gini Index	Poverty Ratio %		
Egypt	2.6	31.6	2.9	2.7	31.5	0.9	-0.037	-2.1
Sd Arabia	0.8	..	..	2.7	..	..		
Algeria	-0.2	35.3	6.8	2.2	36.6	..		
Iraq	..	..	..	3.2	30.9	2.8		
UAE	0.6	..	..	-5.0	..	..		
Morocco	1.0	39.3	4.6	3.8	40.8	4.4	0.395	
Mean	1.0	35.4	4.8	1.6	34.4	2.7		
Stdv s	0.9	3.2	1.6	3.1	4.6	1.5		
Vrcf v	0.97	0.09	0.34	1.94	0.13	0.54		

Source: <http://databank.worldbank.org/>. Annual growth rates of GDP and GDP pc are in constant prices of 2000.

Table 9 is on Sub Saharan Africa (SSA). Economic growth of the Sub Saharan African region up to the year 2000 was least among the developing world. The association between frequent political instabilities and slow economic growth in SSA has been noted, tested empirically and found significant in various studies.<sup>vi</sup> There is tension between insiders (those identified with the political establishment), and various groups of outsiders. The distinction between insiders and outsiders is often based on kin groups, ethnic origin, regional and religious affiliation. As violence erupts, economic infrastructure is hit most. Besides, in an unstable political environment, the allocation of economic resources is distorted. Some

governments, and their running heads, are known to have diverted national resources to non-developmental ends and/or personal gains. Under these circumstances, the investment climate is weak, and openness to foreign direct finance and trade is discouraged. Add to this a high population growth. The result was an average annual growth of the GDP per capita that was negative in the years before 2000, table 8. The period 2000-20012 brought a turnaround in economic growth making it possible to achieve GDP growth rates pa of 8.3% in Nigeria, and 3.5% in South Africa.

Income inequality as represented by the Gini Index increased in Nigeria between 1980 and 2000 by

some 7%, but appears to have stabilized at the level of 46 % in 2012; which is generally in line with the average for the whole SSA region. However, performances in the SSA region are full with diversity. For example, the Gini Index continued rising in South Africa to make its income distribution become one of the most unequal in the world, at 65% in 2012. The South African path does not conform to the normal path consistent with economic theory, and can be best explained in terms of socio-economic

systemic features typical for South Africa. At the opposite end, Ethiopia shows diminished income concentration around a Gini Index which has a value of only 32% in 2012; this is one with the least income concentration in the world, and coinciding with a growth in the GDP per capita of 5.8% in the period 2000-12, giving an ITG ratio of -0.57; which can be accounted solely in terms of systemic properties.

Table 9: SSA: Performance Indicators of Growth and Distribution, Averages of Period. %

SSA	1991-2000			2001-2012			ITG Ratio	PTG Ratio
	GDP pc,	Gini Index	Poverty Ratio %	GDP pc, Growth	Gini Index	Poverty Ratio %		
Nigeria	0.4	45.7	65.2	5.5	45.9	43.7	0.036	-0.5
S. Africa	-0.8	57.9	24.0	2.0	65.3	15.6	3.700	-1.5
Ethiopia	-0.6	35.0	58.1	5.8	31.7	34.8	-0.569	-0.6
Congo DR	-8.3	..		1.5	44.4	87.7		
Angola	-1.6			6.9	42.7	43.4		
Sudan	2.6	..		3.4	35.3	19.8		
Mean	-1.4	46.2	49.1	4.2	44.2	40.8	1.056	-0.8
Stdv s	3.5	9.7	18.7	2.1	11.1	24.5		
Vrcf v	-2.53	0.21	0.38	0.50	0.25	0.60		

Source: <http://databank.worldbank.org/>. Annual growth rates of GDP and GDP pc are in constant prices of 2000.

Table 10 is on Latin America and Caribbean (LAC). The table shows for all six leading countries similar growth rates of GDP per capita. Distribution tendencies differ. Three countries (Brazil, Mexico, Peru) reverse their positive ITG of 1990-2000 (i.e. regressive distribution tendencies) into negative ITG in 2001-2012 (i.e., progressive distribution tendencies). The other three

countries (Argentina, Colombia, Venezuela) show an opposite switch. In all three countries the ITG ratio is positive implying a shift towards more inequality, and is consistently associated with a positive PTG ratio rise, meaning that the poverty ratio has increased with economic growth.

Table 10: LAC: Performance Indicators of Growth and Distribution, Averages of Period. %

LAC	1991-2000			2001-2012			ITG Ratio	PTG Ratio
	GDP Pc,	Gini Index	Poverty Ratio %	GDP pc, Growth	Gini Index	Poverty Ratio %		
Brazil	0.3	59.5	13.3	2.3	57.3	8.8	-0.957	-1.2
Mexico	1.7	50.5	6.1	1.1	48.4	2.2	-1.909	-4.8
Argentina	3.2	48.2	3.2	3.5	49.3	5.3	0.314	1.6
Colombia	1.0	55.4	12.3	2.8	57.8	14.0	0.857	0.4
Venezuela	0.0	46.3	8.8	1.9	47.7	13.4	0.737	2.3
Peru	2.2	60.8	14.1	4.6	51.5	8.4	-2.022	-0.7
Mean	1.4	53.5	9.6	2.7	52.0	8.7	-0.497	+0.4
Stdv s	1.1	5.6	4.0	1.1	4.2	4.2		
Vrcf v	0.80	0.10	0.42	0.42	0.08	0.49		

Source: <http://databank.worldbank.org/>. Annual growth rates of GDP and GDP pc are in constant prices of 2000.

Tables 5 to 10 evaluated changes in GWD for the six development regions, based on mean values, and produced results on country variations within each region. Table 11 goes further and summarizes results for the variation coefficient,  $v$ , which is an important source

of information for assessing regional homogeneity and convergence tendencies. Low values of  $v$  represent homogeneity, and decreasing values of  $v$  over time indicate integration and convergence. With slight exceptions, each of the six regions shows that its

member countries are converging to the regional modes over the two decades. However, the degree and speed of integration vary between the regions. The three regions that show the highest uniformity among their member countries and integrative tendencies are LAC, and CAC, followed by and EAP. In all three regions, the values of  $v$  for the two indicators of growth and distribution fall down over the last 2 to 3 decades. It is not surprising that to observe high uniformity and integrative tendencies in the LAC countries given their long and shared history together. But it is surprising to note the high uniformity and integration in the Central Asia and Caspian region (CAC) which was never treated as a regional group. It is also interesting to find that among the widely spread and highly populous group of countries in Asia that the South Asia region shows less

variance in performance than the EAP. The MENA region shows high diversity in the growth of GDP per capita which is due to the presence oil rich small population high growth, though the region is more uniform regarding distribution, again excluding the GCC countries where the distribution goal is not relevant and is not data accessible. Finally, the Sub Saharan region appears to be the most diversified scoring highest variation coefficients and these show that they increase over time. One and the other supports the idea of viewing the Sub Saharan Africa region as consisting of an upper belt (led by Nigeria) and a lower belt (led by South Africa). This would bring more sense in the analysis. Notwithstanding there are significant differences between individual countries within the two belts.

*Table 11: Variation Coefficients for Growth and Distribution in the Development Regions, Two Periods*

Region	1991-2000		2001-2012		
	Annual Growth of GDP Per Capita	Gini Index	Annual Growth of GDP Per Capita	Gini Index	
EAP	1.15	0.47	0.49	0.40	
SA	0.34	0.15	0.35	0.26	
CAC	-1.84	0.38	0.47	0.28	
MENA	0.97	0.21	1.94	0.31	
SSA	-2.53	0.40	0.50	0.57	
LAC	0.80	0.37	0.42	0.80	0.33

Sources: Tables 5 to 10.

#### IV. PERFORMANCE RANKING OF DEVELOPING COUNTRIES IN TERMS OF GROWTH WITH REDISTRIBUTION

In the preceding sections, comparative performance of a specific country was reviewed in its regional context. Ideally, one would like to view an assessment for all developing countries ending up with a ranking of countries over several periods with respect to their achievement of GWR. Such a ranking faces measurement problems, most of which can be partially resolved as proposed below.

1. One problem is the arbitrariness of any one year ranking. This is largely solvable by considering evaluation periods that cover several years, and apply ranking over more periods.
2. A second problem is the presence of observations with abrupt or outlier values that may distort representation. The problem is solvable by ignoring outliers but this distorts the coverage. A better solution is by abiding to ordinal ranking instead of cardinal numerals
3. A third problem lies in the scale normalization of the two goals of growth and redistribution. This is complex given the trade offs in early and later phases of economic development which differ by country. The problem is solvable by tracing ranking

over more periods to catch the trade off transformation, and by applying ordinal instead of cardinal ranking.

4. A fourth problem is that of fixing preferential weights for the growth and redistribution objectives so as to obtain a unified general performance index. The problem is solvable by working initially with equal weights and supplemented by simulated weights.

The performance ranking of individual countries in table 12 took into consideration the remedies mentioned above. The ranking is done for two periods, each period consisting of about ten years: thus 1991-2000, and 2001-2012. There is a limited number of countries that have data for all these years on the two objectives of economic growth and progressive redistribution (i.e. lower Gini index). The number of countries with the required data counts 30 out of the list of 36 leading countries. The performance ranking of countries is done along ordinal numbers separately for the economic growth objective and for the progressive redistribution objective. The country with the highest economic growth scores 30 on the growth objective. Similarly, the country with the lowest Gini Index scores 30 on the redistribution objective. Finally, equal weights are applied for the ordinal rankings of the growth and redistribution objectives by simply calculating the

average of the two scores to obtain a unified performance index of growth with redistribution.

With regard to the period of 1990-2000, out of a maximum score for the GWR index of 30, the highest scores are found for India, Indonesia, China and Vietnam, ranging between 26.5 and 23.5. The lowest score is for South Africa and Brazil at 4.0 and 5.5.

In the next period of 2001-2012 the four countries of India, Indonesia, China and Vietnam continue to score high between 23.0 and 20.0 but are now joined with higher scorer countries of the CAC region, namely Kazakhstan, Uzbekistan, Azerbaijan, and Tajikistan, next to Ethiopia, with scores of around 26.0.

The lowest scores are continued to be found among South Africa and Brazil with even lower levels at 2.0 and 4.5. They are joined at the lower end by Mexico and Venezuela with scores of 3.5 and 3.5.

The results over the two periods show an increasing gap between high and low performing countries in the combined area of growth with redistribution. Especially in the cases of South Africa, Brazil, Venezuela and Mexico the rank performances in terms of growth and redistribution have been falling relative to other countries. Most of the other 26 countries show rank improvements in growth and/or redistribution.

*Table 12:* Performance Rankings of Growth with Redistribution Index for Thirty Countries, Two Periods

	Country score 1991-2000			Country score 2001-2012		
	GDP Per Capita Annual	Gini index Inversed	GWR Index	GDP Per Capita Annual	Gini Index	GWR Index
China	30	17	<b>23.5</b>	29	11	<b>20.0</b>
Indonesia	23	29	<b>26.0</b>	17	23	<b>20.0</b>
Philippines	11	11	11.0	11	9	10.0
Thailand	26	12	19.0	15	15	15.0
Malaysia	28	6	17.0	10	10	10.0
Vietnam	29	18	<b>23.5</b>	21	20	<b>20.5</b>
India	25	28	<b>26.5</b>	22	24	<b>23.0</b>
Pakistan	14	26	20.0	5	30	17.5
Bangladesh	19	27	23.0	18	26	22.0
Sri Lanka	24	24	24.0	20	16	18.0
Nepal	18	20	19.0	7	18	12.5
Bhutan	27	16	21.5	27	12	19.5
Turkiye	17	14	15.5	12	14	13.0
Iran	21	13	17.0	13	17	15.0
Kazakhstan	3	23	13.0	28	25	<b>26.5</b>
Uzbekistan	4	10	7.0	24	21	<b>23.0</b>
Azerbaijan	2	22	12.0	30	22	<b>26.0</b>
Tajikistan	1	30	15.5	26	27	<b>26.5</b>
Egypt	20	25	22.5	8	29	18.5
Algeria	7	19	13.0	4	19	11.5
Morocco	13	15	13.0	16	13	14.5
Nigeria	10	9	9.5	23	8	15.5
S. Africa	5	3	<b>4.0</b>	3	1	<b>2.0</b>
Ethiopia	6	21	13.5	25	28	<b>26.5</b>
Brazil	9	2	<b>5.5</b>	6	3	<b>4.5</b>
Mexico	15	5	10.0	1	6	<b>3.5</b>
Argentina	22	7	14.5	14	5	9.5
Colombia	12	4	8.0	9	2	5.5
Venezuela	8	8	8.0	2	7	<b>3.5</b>
Peru	16	1	8.5	19	4	11.5

## V. CONCLUDING REMARKS

Welfare economics teaches that the appraisal of economic growth is not independent from the appraisal of the income distribution underlying it. The joint

development goals of growth with redistribution (GWR) can be fully derived from welfare theory. As such, growth with redistribution form the cornerstone of development policy, actions and performance.

While growth and redistribution considerations can be commonly integrated in many development policies and actions, a joint measurement of GWR performance at the country level faces many complexities due to intricate relationships between growth and distribution, and may not be feasible. There are four complexities. First, nations (via their current and future governments) tend to go first for growth, and subsequently evaluate the impact of growth on distribution, and when needed governments may take posterior actions in time to rebalance the distribution. This renders a joint measurement of growth with redistribution performances at one and the same year an incomplete exercise.

Second, consensus on the distribution norm in relation to growth (which would function as the evaluation base) is specific for the country/region and year/periods concerned.

Third, economic growth and income distribution tend to move along the Kuznets curve during the process of economic development, which makes performance evaluation dependent on the stage of economic development, and that complicates simple comparisons.

Fourth, as redistribution of endowments enhances economic growth along the lines of Tinbergen strategy, which require long gestation periods; yearly comparisons of GWR performance among divergent countries are less meaningful.

This chapter accommodated for the above complexities and limitations by applying what can be called considerate comparisons of GWR in the context of regional development and over longer periods than commonly done. The results show that the LAC countries Brazil, Mexico, Venezuela and South Africa are caught in the trap of a moderate to low economic growth with most regressive income distribution among the studied thirty leading developing countries. Having in mind that the four countries belong to the upper income per capita compared to other developing countries, the results suggest that the four countries have difficulties and fare failing in switching sides along the Kuznets curve. At the other end, China, Indonesia, Vietnam and India (the EAP and SA regions), and some ex-Soviet countries in Asia appear to be the best performers regarding GWR over three decades of economic development. Their positive performances on GWR suggest that they have made good use of the Tinbergen strategy (redistribute endowments to facilitate growth) in their development plans.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Bosworth, B. and Collins, S. M. (1996). Economic Growth in East Asia: Accumulation versus Assimilation, in *Brookings Papers and Proceedings* 2: 135-91
  2. Chenery H. et al. ed. (1974): *Redistribution with Growth*. Oxford University Press, London.
  3. Cohen, S. I. (2001): *Microeconomic Policy*, Routledge. London.
  4. Cohen, S. I. (2015): *World Development and Economic Systems: Theory and Applications*. World Scientific Publishers, Singapore, London.
  5. Crafts, N. (2001): Historical Perspectives on Development, in Meier, G. M., and Stiglitz, J. E. eds. (2001): *Frontiers of Development Economics*, Oxford University Press.
  6. Dekker, E. (2021): *Jan Tinbergen and the Rise of Economic Expertise*, E-book. 9781108853200. Adobe ePub
  7. Garth, F. (2006). Inequality and Development Across and Within Countries, *World Development* Vol. 34, No. 9, pp. 1459–1481
  8. Kanbur, P. (2000). Income distribution and Development in Atkinson, A. B., and Bourguignon, F. (eds.2000). *Handbook of Income Distribution*, North-Holland. Ch. 13, pp.791.
  9. Kuznets, S. (1955). Economic Growth and Income inequality, *American Economic Review*, 4 March, 1-28.
  10. Stiglitz, J. E. (2016): *Inequality and Economic Growth*, <https://doi.org/10.1111/1467-923X.12237>
- Garth, F. (2006).

## Endnotes

<sup>i</sup> For related discussion of welfare theory theorems, see Cohen (2001).

<sup>ii</sup> The Kuznets hypothesis has been subjected to many empirical investigations, some more supportive than others. The interested reader can refer to Kanbur (2000) and Garth (2006).

<sup>iii</sup> The Tinbergen strategy is advocated by many development economists who were closely associated with the World Bank starting with Chenery (1974) and Stiglitz (2006), among others

<sup>iv</sup> See calculations in Bosworth and Collins (1996), and reviews in Crafts (2001).

<sup>v</sup> The total poverty rates are higher than the averages in EAP and SA reflecting the weights of China and India in the two regions. For example, for EAP in 2012 the total poverty rate is 17.9 while the average is 15.4; the difference for SA in 2012 is greater: 37 and 23, respectively. The difference between the total and the average tend to disappear in the other regions where divergence in country sizes is much less.

This page is intentionally left blank



## A Study of the Impact of Inflation on People's Lives in the Current Scenario

By Vasani Sureshbhai Vithalbhai

*Atmiya University*

**Abstract-** Since they typically live hand-to-mouth, poor households are disproportionately affected by inflation. Even modest price increases have a significant impact on poorer families' consumption compared to wealthier families. In addition, unchecked inflation creates poverty traps. It forces low-income families to eat lower-quality food to prevent famine, which can have an impact on the cognitive development of their kids. Nowadays, that is a serious issue in our country, so the researcher has chosen that topic. The study is based on primary as well as secondary data, which was collected by a convenient sampling method from 203 respondents through a structured questionnaire in Saurashtra; The researcher used different tests and tools, including pilot surveys, a reliability test (the results of which are given below), and the above tools based on different objectives. The researcher used the Mann Whitney U test (U) for Gender and Place and the Kruskal Wallis test (H) in other cases. It is also seen that 63% of respondents say that inflation is increasing due Inflation has increased due to the current Russia-Ukraine war, and at present, there is a problem of inflation in most of the countries of the world because 85% of respondents agree with this sentence.

**Keywords:** *inflation, standard of living, weighted average mean, mann-whitney u test, and kruskal-wallis test, cross tabulation, computing mean.*

**GJMBR-B Classification:** *JEL: E31*



*Strictly as per the compliance and regulations of:*



# A Study of the Impact of Inflation on People's Lives in the Current Scenario

Vasani Sureshbhai Vithalbhai

**Abstract-** Since they typically live hand-to-mouth, poor households are disproportionately affected by inflation. Even modest price increases have a significant impact on poorer families' consumption compared to wealthier families. In addition, unchecked inflation creates poverty traps. It forces low-income families to eat lower-quality food to prevent famine, which can have an impact on the cognitive development of their kids. Nowadays, that is a serious issue in our country, so the researcher has chosen that topic. The study is based on primary as well as secondary data, which was collected by a convenient sampling method from 203 respondents through a structured questionnaire in Saurashtra; The researcher used different tests and tools, including pilot surveys, a reliability test (the results of which are given below), and the above tools based on different objectives. The researcher used the Mann Whitney U test (U) for Gender and Place and the Kruskal Wallis test (H) in other cases. It is also seen that 63% of respondents say that inflation is increasing due to the current Russia-Ukraine war, and at present, there is a problem of inflation in most of the countries of the world because 85% of respondents agree with this sentence. When there is inflation, saving/investment decreases because 80% of respondents agree with the following sentence; additionally, there is more than one reason for inflation in the current scenario because 93% of respondents agree with the following sentences; and finally, it can be seen that if the price of crude oil/petrol diesel rises, inflation will rise immediately because 80% of respondents agree. From all the above sentences, it is seen that the effect of inflation on the standard of living has increased because the entire item's price has increased.

**Keywords:** *inflation, standard of living, weighted average mean, mann-whitney u test, and kruskal-wallis test, cross tabulation, computing mean.*

## I. INTRODUCTION

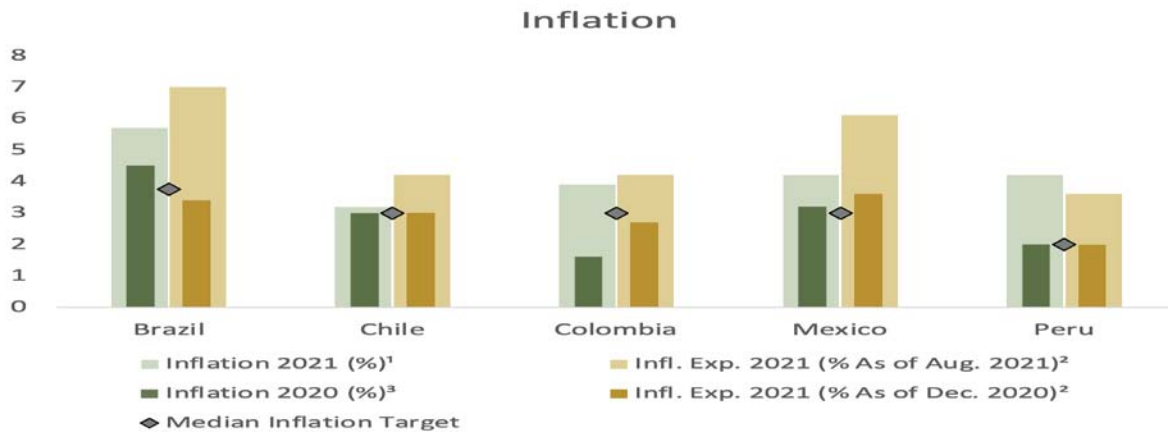
Poor households are particularly impacted by inflation because they often live pay check to pay check. When compared to wealthy families, even minor price increases have a significant impact on how much a family spends. Unchecked inflation also creates poverty traps. In order to avoid starvation, it forces low-income families to consume food of lower quality, which may have an effect on the cognitive development of their children. The researcher chose that topic since it is a pressing issue in our nation right now. In fact, this is the

*Author: PhD (Pursuing), M.Phil, GSET, M.Com (Gold Medalist), CA-Inter (I), Assistant Professor at Atrniya University Rajkot, Research Scholar, Department of Commerce saurashtra university, Rajkot-360005, India. e-mail: vasanisuresh456@gmail.com*

30th time in a row that CPI inflation has remained above the RBI's medium-term target of 4%.

The last time inflation was below 4% was in September 2019. (<https://timesofindia.indiatimes.com>, 2019). Because to the convergence of China's new COVID-19 lockdowns and Russia's invasion of Ukraine, businesses and consumers are worried that America's already 40-year-high inflation rate will continue to be high long beyond 2022. The situation in Ukraine increases the likelihood of price shocks related to food and energy, while restrictions in China are expected to make it more difficult to address supply chain problems. Up until now, price increases have mainly been caused by certain supply chain problems that will probably be fixed within the next six to twelve months. There is cause to believe that firms can beat inflation in the interim. For central banks in South America and the Caribbean, inflation is a rising source of concern. In the first months of 2021, the economic rebound was greater than anticipated. Reflecting more mobility and fewer containment restrictions, as well as the stimulus that governments used to lessen the consequences of the pandemic. Yet, the region is also experiencing rising prices and inflation expectations. All of this is taking place as nations face threats from COVID-19 variations like Delta and new infection waves that could impede economic growth and recovery. The dangers might be very serious. The twin concerns of an economic downturn and rising inflation are already present in several nations in the region, with potentially enormous negative effects on the poor. (iadb.org, 2022).





Source: Own Estimations using Data from Haver and the IDB

Figure 1.1: Inflationary Situations in other Countries.

1. The Customer Price Index from December 2020 to August 2021 will change.
2. Predicted change in the customer price index between December 2020 and December 2021.
3. From December 2019 to December 2020, the Consumer Price Index changed.

## II. REVIEW OF LITERATURE

David, Perera, & Thomas, (2014), this article looks at how Australian households' cost of living has changed over the past 10 years. The consumer price index (CPI), which measures inflation, overstates 'real' increases in the cost of living due to a number of inherent conceptual faults and measurement issues. There are a number of reasons why some households may have concluded that inflation was higher than it actually was, despite the fact that the majority of households have experienced mild price increases. (David, Perera, & Thomas, 2014). Mukhtar, Mohamoud, Rahman, & zakaria (2016), this article's goal is to examine how inflation affects living standards. The researcher confirmed that inflation lowers the standard of life and real purchasing power of society in his summary of the study's findings. The survey also found that inflation in Hargaisa is getting worse over time, particularly in one neighbourhood (Ga'an Libah). (Mukhtar, Mohamoud, Rahman, & zakaria, 2016). Yolanda (2017), This study's goal is to examine the relationship between Indonesia's Indonesian Bank (BI) rate, foreign exchange rates, money supply, oil prices, and gold prices, as well as how these variables affect inflation and how they affect the HDI and poverty in Indonesia from 1997 to 2016. The findings of this study suggest that a number of important factors, including the BI rate, foreign exchange rates, money supply, oil price, and gold price, are simultaneously influencing Indonesia's inflation rate. The results determinant coefficient of 0.94, which shows that independent variables can account for 94.97% of the dependent

variable while the remaining 5% is influenced by other variables and is not included in this study, further reveals that independent variables can account for 94.97% of the dependent variable. Moreover, HDI inflation. (Yolanda, 2017)

Richard Works (2021), This study's goal is to examine the relationship between Indonesia's Indonesian Bank (BI) rate, foreign exchange rates, money supply, oil prices, and gold prices, as well as how these variables affect inflation and how they affect the HDI and poverty in Indonesia from 1997 to 2016. The findings of this study suggest that a number of important factors, including the BI rate, foreign exchange rates, money supply, oil price, and gold price, are simultaneously influencing Indonesia's inflation rate. The results determinant coefficient of 0.94, which shows that independent variables can account for 94.97% of the dependent variable while the remaining 5% is influenced by other variables and is not included in this study, further reveals that independent variables can account for 94.97% of the dependent variable. Moreover, HDI inflation. (0.57%). (Richard, 2021). Ismail, A., et al. (2010), It was discovered that while exports and investment have a beneficial impact on the Pakistani economy, inflation has a negative impact. It was recommended that we support more extensive export promotion operations to boost economic growth. It will increase the number of jobs available, raising the level of living and per capita income. Zou, et al. (2011), It was claimed that one of the main causes of social and economic instability and disorder is inflation. It is one of the economic factors that has been studied and tested the most, both theoretically and experimentally. Its origins, effects on other economic factors, and financial costs to the economy as a whole are all well recognised and understood. Rizvi and Naqvi, 2010, Pakistan, a developing nation, was unable to combat inflation's causes and effects, which have been steadily rising. The inflation rate in Pakistan began to increase in late 2003 after long periods of stability at a relatively low level.

Mohsin and Schimmelpfennig (2006) claim that Pakistan's food price inflation is significantly influenced by the money supply. (Ashfaq and Qasim, 1996). This affected both consumer purchasing power and family budgets. Although they tried, people's living standards gradually declined. Inflation in Pakistan stayed below 5% for the first four years of the new millennium until rising to 9.3% in 2004–2005. While the PIDE Inflation Expectations Survey for March 2011 predicts 15.5% inflation for April 2011 and 16.4% for May 2011, the Economic Survey of Pakistan 2009–2011 found that the inflation rate stood at 14.1% during July to April of the current fiscal year 2010–2011, compared to 11.5% in the

comparable period of last year. According to the findings, inflation is predicted to stay around 17% for the following six months and 16.6% for the entire year.

### III. OBSERVATION

Many studies have been conducted on this issue, but the researcher selected this unique topic because it draws a relationship between inflation and the standard of living. Rising inflation is lowering people's living standards. The most prominent issues in India today are the low HDI and the inflationary situation.

## IV. OBJECTIVES, HYPOTHESIS AND TOOLS AND TECHNIQUE

Table 1.1: Objectives, Hypothesis and Tools and Technique

Sr. No.	Objectives and Hypothesis	Tools and Techniques
Objective-1	To examine the effect of inflation on standard of living of the of the target population.	Percentage analysis, WAM,
Hypothesis-1	$H_0$ =There is no impact of inflation on standard of living.	
Objective-2	To examine the main sources cause the increasing and uncontrollable inflation.	Percentage analysis, WAM
Objective-3	To know differences in the opinion and perceptions with respect to demographic factors.	U-Test, and H-Test
Hypothesis-2	$H_0$ =There is no significant difference in the opinion of inflation with respect to Demographic factors.	
Objective-4	To recommend policy possibility of interventions to tackle the problem of inflation on living standard.	Based on All above test

Sources: Self-Constructed

## V. METHODOLOGY

This study is based on exploratory research based on analytical information, which means the researcher has to use facts or information already collected from the population. Based on convenient sampling, researchers have collected data from 203 respondents through a structured questionnaire in

Saurashtra, which means the data collected by the researcher is both primary and secondary. The researcher has used different tests and tools that are pilot surveys, a reliability test (results given below), and the above tools based on different objectives. The researcher has used the Gender and Place-Mann Whitney U test (U) and, in other cases, the Kruskal Wallis test (H).

Table 1.2: Reliability Statistics

Sr. No.	Sentences	Cronbach's Alpha
1	How has inflation (price rise) affected you on the following compared to last few years;	.811
2	Give your opinion/perspective in following sentences.	.631

## VI. DATA ANALYSIS

Table 1.3: Demographic Factors

Demographic Factors		Frequency	%
Gender	Female	114	56.2
	Male	89	43.8
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Age in a years	18 to 25	127	62.6
	26 to 35	63	31.0
	36 to 45	9	4.4
	More than 46	4	2.0
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Place	Rural	58	28.6
	Urban	145	71.4
	<b>Total</b>	<b>203</b>	<b>100.0</b>
In which category your family belongs?	AAY (Antyodaya Anna Yojana)	2	1.0
	APL (Above Poverty Line)	158	77.8
	BPL (Below Poverty Line)	19	9.4
	Other	24	11.8
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Education Qualification	Graduate	44	21.7
	Other	13	6.4
	Post Graduate	115	56.7
	Professional	22	10.8
	Up to HSC	9	4.4
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Types of Employment	Business	7	3.4
	Government employee	13	6.4

	Housewife	2	1.0
	Non-Government Servant	52	25.6
	Other	7	3.4
	Profession	19	9.4
	Student	103	50.7
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Dependent Family Member/s	0 or 1	66	32.5
	1	1	.5
	2	33	16.3
	3	34	16.7
	4 or more	69	34.0
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Monthly Income	10,001 to 25,000	71	35.0
	25,001 to 50,000	67	33.0
	More than 50,000	27	13.3
	Up to 10,000	38	18.7
	<b>Total</b>	<b>203</b>	<b>100.0</b>

(Sources: Self-Constructed)

In the above table 1.3, it is indicated that 56% of females and 44% of males are respondents. If we look at age in a year, 63% are between the ages of 18 and 25. Most of the respondents belong to an urban area (74%). 78% of respondents have APL cards, and 57% of respondents are graduates, so we can say they have

more information about inflation. 51% of respondents are students, and 26% are non-government employees. If we consider dependent family members, they are covered under 0 to 1. If we talk about monthly income, 68% of respondents have an income between Rs 10,000 to Rs 50,000.

Table 1.4: How has Inflation (Price Rise) Affected you on the Following Compared to Last Few Years

		Frequency	%
In a Daily necessity items (Food Grains)	Has increased	154	75.9
	Has Reduced	11	5.4
	No Change	38	18.7
	<b>Total</b>	<b>203</b>	<b>100.0</b>

Savings/Investments	Has increased	58	28.6
	Has Reduced	102	50.2
	No Change	43	21.2
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Clothes, shoes, and other items	Has increased	126	62.1
	Has Reduced	35	17.2
	No Change	42	20.7
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Hotel and outdoor dining	Has increased	97	47.8
	Has Reduced	49	24.1
	No Change	57	28.1
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Watching a movie in a theatre	Has increased	88	43.3
	Has Reduced	67	33.0
	No Change	48	23.6
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Use of vehicle	Has increased	118	58.1
	Has Reduced	26	12.8
	No Change	59	29.1
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Standard of Living of people	Has increased	108	53.2
	Has Reduced	52	25.6
	No Change	43	21.2
	<b>Total</b>	<b>203</b>	<b>100.0</b>

Sources: Self-Constructed

From above Table 1.4, 76% of respondents say that the price of a daily necessity item (food grains) has increased, and only 5% of respondents say that prices are decreasing. If we see savings or investments, they have decreased because 50% of respondents agree with those sentences.

Further, the price of clothes, shoes, and other items is also increasing because 62% of respondents agreed with this sentence. Hotel and outdoor dining

have also increased in the last few years. Vehicle use and people's standard of living have both increased in recent years. From all the above sentences, it is clear that the effect of inflation on the standard of living is because the entire item's price has increased. Based on the conclusion of all of the preceding sentences, we can conclude that inflation is present in the current scenario.

Table 1.5: Give Your Opinion/Perspective In Following Sentences.

		Frequency	%
There is an Impact of inflation on the standard of living	Strongly Agree	116	57.1
	Agree	71	35.0
	Neutral	12	5.9
	Disagree	3	1.5
	Strongly Disagree	1	.5
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Inflation has increased due to the current Russia-Ukraine war	Strongly Agree	36	17.7
	Agree	91	44.8
	Neutral	55	27.1
	Disagree	16	7.9
	Strongly Disagree	5	2.5
	<b>Total</b>	<b>203</b>	<b>100.0</b>
At present, there is a problem of inflation in most of the countries of the world	Strongly Agree	78	38.4
	Agree	95	46.8
	Neutral	22	10.8
	Disagree	6	3.0
	Strongly Disagree	2	1.0
	<b>Total</b>	<b>203</b>	<b>100.0</b>
The price of anything does not go down once it has gone up	Strongly Agree	56	27.6
	Agree	62	30.5
	Neutral	42	20.7
	Disagree	37	18.2
	Strongly Disagree	6	3.0
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Traders get an opportunity to increase profits when there is inflation	Strongly Agree	60	29.6
	Agree	85	41.9
	Neutral	40	19.7

	Disagree	13	6.4
	Strongly Disagree	5	2.5
	<b>Total</b>	<b>203</b>	<b>100.0</b>
Inflation increases people's income in the long run	Strongly Agree	30	14.8
	Agree	52	25.6
	Neutral	70	34.5
	Disagree	41	20.2
	Strongly Disagree	10	4.9
	<b>Total</b>	<b>203</b>	<b>100.0</b>
When there is inflation, saving/investment decreases	Strongly Agree	79	38.9
	Agree	84	41.4
	Neutral	26	12.8
	Disagree	10	4.9
	Strongly Disagree	4	2.0
	<b>Total</b>	<b>203</b>	<b>100.0</b>
There are more than one reason for inflation	Strongly Agree	110	54.2
	Agree	79	38.9
	Neutral	10	4.9
	Disagree	2	1.0
	Strongly Disagree	2	1.0
	<b>Total</b>	<b>203</b>	<b>100.0</b>
If the price of crude oil/petrol diesel increases, inflation will increase immediately	Strongly Agree	84	41.4
	Agree	77	37.9
	Neutral	24	11.8
	Disagree	15	7.4
	Strongly Disagree	3	1.5
	<b>Total</b>	<b>203</b>	<b>100.0</b>

Sources: Self-Constructed

In the above Table 1.5, it is indicated what the respondent's opinion is about inflation. There is an impact of inflation on the standard of living because 92% of respondents agree with this sentence. It is also

seen that 63% of respondents say that inflation is increasing due to the current Russia-Ukraine war, and at present, there is a problem of inflation in most of the countries of the world because

85% of respondents agree with this sentence. Once the price goes up, it doesn't go down, and it is also said that inflation increases people's income in the long run. When there is inflation, saving and investment decrease because 80% of respondents agree with the following

sentence: There is more than one reason for inflation in the current scenario because 93% of respondents agree in the following sentences. Further, it can be seen that if the price of crude oil or diesel increases, inflation will increase immediately by 80%.

Table 1.6: Give your Opinion/Perspective in Following Sentences.

Sr. No.	Sentences	SA (5)	A (4)	N (3)	D (2)	SD (1)	WAM
1	There is an Impact of inflation on the standard of living	116	71	12	3	1	60.47
2	Inflation has increased due to the current Russia-Ukraine war	36	91	55	16	5	49.73
3	At present, there is a problem of inflation in most of the countries of the world	78	95	22	6	2	56.67
4	The price of anything does not go down once it has gone up	56	62	42	37	6	48.93
5	Traders get an opportunity to increase profits when there is inflation	60	85	40	13	5	52.73
6	Inflation increases people's income in the long run	30	52	70	41	10	44
7	When there is inflation, saving/investment decreases	79	84	26	10	4	55.53
8	There are more than one reason for inflation	110	79	10	2	2	60.13
9	If the price of crude oil/petrol diesel increases, inflation will increase immediately	84	77	24	15	3	55.53

Sources: Self-Constructed

From the above table 1.6, there is an impact of inflation on the standard of living because the weighted average (WAM) is highest in that sentence. Further, it is also seen that "there is more than one reason for inflation." If we see the lowest WAM, that is, "Inflation increases people's income in the long run,"

living. In the case of gender and place, the researcher has used the Mann-Whitney U test, and in other factors, the researcher has used the Kruskal-Wallis test. Here two hypotheses are given, one for effect and the other for difference.

H0=There is no impact of inflation on the standard of living.

H0=There is no significant difference in the opinion of inflation with respect to Demographic factors.

### VII. DIFFERENCES AND EFFECT OF INFLATION

The following tables (1.7 and 1.8) show the differences and effects of inflation on the standard of

Table 1.7: How has Inflation (Price Rise) Affected you on the Following Compared to Last Few Years

Demographic Factors Inflation Effect	Gender	Age in a years	Place	category your family belongs	EQ	Types of Employment	Dependant Family Member/s	Monthly Income
In a Daily necessity items (Food Grains)	0.002	0.832	0.941	0.686	0.84	0.209	0.479	0.925
Savings / Investments	0.098	0.105	0.018	0.986	0.14	0.528	0.083	0.353
Clothes, shoes, and other items	0.02	0.767	0.167	0.718	0.9	0.234	0.891	0.361
Hotel and outdoor dining	0.13	0.943	0.714	0.402	0.97	0.041	0.952	0.972
Watching a movie in a theatre	0.054	0.566	0.897	0.101	0.49	0.048	0.464	0.566
Use of vehicle	0.042	0.159	0.187	0.848	0.55	0.088	0.469	0.345
Standard of Living of people	0.039	0.03	0.014	0.591	0.22	0.013	0.372	0.53

Sources: Self-Constructed



From the above table 1.7, we can see the results of the Mann-Whitney U test and the Kruskal-Wallis test. The yellow null hypotheses are rejected because the p-value is less than 0.05, which means there are significant differences in inflation with respect to demographic factors. The following data clearly show that gender is a highly influential factor because the majority of hypotheses are rejected in that demographic factor. If we look at the standard of living of people and their age in years, there are also differences, and saving

and investing with respect to place creates a difference in inflation, meaning the urban area has more inflation than the rural area. Finally, differences in inflation are caused by different types of employment.

VIII. PERCEPTION OF RESPONDENTS

H<sub>0</sub>=There is no impact of inflation on standard of living.  
 H<sub>0</sub>=There is no significant difference in the opinion of inflation with respect to Demographic factors.

Table 1.8: Give your Opinion/Perspective in Following Sentences.

Demographic Factors	Gender	Age in a years	Place	category your family belongs	EQ	Types of Employment	Dependant Family Members /s	Monthly Income
There is an Impact of inflation on the standard of living	0.3	0.421	0.46	0.695	0.206	0.142	0.204	0.487
Inflation has increased due to the current Russia-Ukraine war	0.483	0.107	0.98	0.771	0.12	0.128	0.954	0.373
At present, there is a problem of inflation in most of the countries of the world	0.262	0.046	0.98	0.607	0.141	0.226	0.369	0.252
The price of anything does not go down once it has gone up	0.008	0.398	0.2	0.734	0.32	0.134	0.221	0.791
Traders get an opportunity to increase profits when there is inflation	0.974	0.252	0.51	0.231	0.367	0.595	0.411	0.3
Inflation increases people's income in the long run	0.747	0.021	0.94	0.091	0.001	0.071	0.127	0.038
When there is inflation, saving/investment decreases	0.073	0.243	0.48	0.849	0.622	0.904	0.408	0.993
There are more than one reason for inflation	0.481	0.394	0.16	0.773	0.607	0.916	0.64	0.348
If the price of crude oil/petrol diesel increases, inflation will increase immediately	0.843	0.729	0.1	0.148	0.611	0.464	0.518	0.172

Sources: Self-Constructed

From the above table 1.7, we can see the results of the Mann-Whitney U test and the Kruskal-Wallis test. The yellow null hypotheses are rejected because the p-value is less than 0.05, which means there are significant differences in inflation with respect to demographic factors. Those demographic factors are age (in years), gender, education qualification, and monthly income.

## IX. CONCLUSION

- It was discovered that 76% of respondents believe the price of daily necessities (food grains) has increased, while only 5% believe prices are decreasing. Further, clothes, shoes, and other items' prices are also increasing because 62% of respondents agreed with this sentence. Hotel and outdoor dining have also increased in the last few years. Vehicle use and people's standard of living have both increased in recent years.
- They were also revealed based on tests; it is indicated that the respondent's opinion about inflation. There is an impact of inflation on the standard of living because 92% of respondents agree with this sentence. It is also seen that 63% of respondents say that inflation is increasing due to the current Russia-Ukraine war, and at present, there is a problem of inflation in most of the countries of the world because 85% of respondents agree with this sentence.
- When there is inflation, saving/investment decreases because 80% of respondents agree with the following sentence; additionally, there is more than one reason for inflation in the current scenario because 93% of respondents agree with the following sentences; and finally, it can be seen that if the price of crude oil/petrol diesel rises, inflation will rise immediately because 80% of respondents agree.
- From all the above sentences, it is seen that the effect of inflation on the standard of living has increased because the entire item's price has increased. Based on the conclusion of all of the preceding sentences, we can conclude that inflation is present in the current scenario.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Ashfaq H, Khan and Ali, M. Qasim. Inflation in Pakistan Revisited. The Pakistan Development Review 35: 4 Part (winter 1996) pp. 747-759.
2. David, J., Perera, D., & Thomas, W. (2014). *Inflation and the Cost of Living*. Reserve Bank of Australia, The authors are from Economic Analysis Department. Australia: Reserve Bank of Australia.
3. Ezirim, C. B., Muoghalu, M. I., and Elike, U. (2008). Inflation versus public expenditure growth in the US: An empirical investigation. North American Journal of Finance and Banking Research Vol. 2. No. 2. Zou, H., Gong, L. and Zeng, X. Inflation Aversion. Annals of Economics and Finance 12-1, 1{11 (2011)}
4. Farooq, H. M., Ghauri, P. S., Akmal, M. and Abbasi U. M., 2008. Inflation Monitor, State Bank of Pakistan, Economic Analysis Department.
5. <https://timesofindia.indiatimes.com/>. (2019). <https://timesofindia.indiatimes.com/>. Retrieved September 2022, from <https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/5226/Financial%20Performance%20Evaluation.pdf?sequence=1>: <https://timesofindia.indiatimes.com>
6. iadb.org. (2022, Sep). <https://blogs.iadb.org/>. Retrieved September 2022, from <https://blogs.iadb.org/ideas-matter/en/inflation-and-its-impact-on-the-poor-in-the-era-of-covid-19/>: <https://blogs.iadb.org>
7. Mukhtar, M. A., Mohamoud, A. M., Rahman, A. N., & zakaria, M. (2016). THE IMPACT OF INFLATION ON STANDARD OF LIVING. THE CASE OF GA'AN LIBAH DISTRICT OF HARGEISA, SOMALILAND. *Admas University*, 1-49.
8. Mohsin S. Khan \* and Schimmelpfennig, A. Inflation in Pakistan: Money or Wheat?, SBP-Research Bulletin Volume 2, Number 1, 2006.
9. Richard, W. (2021, 04 13). <https://www.bls.gov>. Retrieved 2022, from <https://www.bls.gov/opub/mlr/2021/beyond-bls/consumer-inflation-during-the-covid-19-pandemic.htm>: <https://www.bls.gov>
10. RBA (Reserve Bank of Australia) (2011), 'Box B: Online Spending by Households', Statement on Monetary Policy, February, pp 40-41.
11. Sabourin P (2012), 'Measurement Bias in the Canadian Consumer Price Index: An Update', Bank of Canada Review, Summer, pp 1-11.
12. Syed Kumail Abbas Rizvi and Bushra Naqvi Asymmetric Behavior of Inflation Uncertainty and Friedman-Ball Hypothesis: Evidence from Pakistan. The Lahore Journal of Economics 15:2 (Winter 2010): pp. 1-33
13. Syed Yasir Mahmood Gillani, Hafeez ur Rehman and Abid Rasheed Gill, Unemployment, Poverty, Inflation and Crime Nexus: Cointegration and causality analysis of Pakistan. Pakistan Economic and Social Review, Volume 47, No. 1 (Summer 2009), pp. 79-98
14. Yolanda, Y. (2017). Analysis of Factors Affecting Inflation and its Impact on Human Development Index and Poverty in Indonesia. *European Research Studies Journal*, XX(4B), 38-56.

This page is intentionally left blank





# Reviving the Inert: Deciphering Order 58 Rule 3 (2) of the High Court Civil Procedure Rules, 2004 (C.I. 47) through the Lens of Springfield Energy Ghana Ltd. V. Bulk Oil Storage and Transportation Company Limited

By Kwame Yaro Appiah

**Abstract-** In today's dynamic global economy, jurisdictions like the Ghanaian legal system have recognized the significance of promoting efficient economic trade and commerce; thus the revolution of economic laws. Despite the efforts, the ever-changing complex nature of commercial disputes has been unmatched. To augment procedural law strategies, the Rules of Court Committee hath formulated novel regulations for the administration of commercial cases. These rules are a deviation of the traditional rules of procedure. In essence, this paper delves into the recent nuances that govern summary judgments in commercial cases within the Ghanaian jurisdiction. The mechanic is pivoted on the stages at which aggrieved parties can leverage on summary judgment provisions in furtherance of their case. In conclusion, it will unravel the current sphere of dispute resolution in the realm of commerce within the Ghanaian jurisdiction.

**Keywords:** *Summary Judgment, Amendment and Revocation, Constitutional Instrument, Pre-Trial Settlement Conference, Commercial Disputes, Ghanaian Judicial System, Legal Regulations, Court Procedures, Economic Trade, Dispute Resolution.*

**GJMBR-B Classification:** JEL: K41



Strictly as per the compliance and regulations of:



# Reviving the Inert: Deciphering Order 58 Rule 3 (2) of the High Court Civil Procedure Rules, 2004 (C.I. 47) through the Lens of Springfield Energy Ghana Ltd. V. Bulk Oil Storage and Transportation Company Limited

Kwame Yaro Appiah

**Abstract-** In today's dynamic global economy, jurisdictions like the Ghanaian legal system have recognized the significance of promoting efficient economic trade and commerce; thus the revolution of economic laws. Despite the efforts, the ever-changing complex nature of commercial disputes has been unmatched. To augment procedural law strategies, the Rules of Court Committee hath formulated novel regulations for the administration of commercial cases. These rules are a deviation of the traditional rules of procedure. In essence, this paper delves into the recent nuances that govern summary judgments in commercial cases within the Ghanaian jurisdiction. The mechanic is pivoted on the stages at which aggrieved parties can leverage on summary judgment provisions in furtherance of their case. In conclusion, it will unravel the current sphere of dispute resolution in the realm of commerce within the Ghanaian jurisdiction.

**Keywords:** Summary Judgment, Amendment and Revocation, Constitutional Instrument, Pre-Trial Settlement Conference, Commercial Disputes, Ghanaian Judicial System, Legal Regulations, Court Procedures, Economic Trade, Dispute Resolution.

## I. INTRODUCTION

In the exoteric and jurisprudential realms of Ghana's judicial system, the Court's responsibility to administer justice has always hinged on substantive and procedural laws. Procedural laws, like the High Court Civil Procedure Rules, 2004 (C.I. 47) play a pivotal role in ensuring effective justice delivery through prevention of undue delays in abating miscarriages of justice. In Ghana, Order 58 of the High Court Civil Procedure Rules; C.I. 47, has been the shrine for resolving commercial disputes since the 2004 legal year. Over time, this rule evolved via amendments<sup>1</sup>; including that which occasioned in the 2020 legal year; the notorious C.I. 133. Much of this legal revolution has not been sheer semantic quibbles as C.I. 133 tacitly introduced the mechanics of Alternative Dispute Resolution to commercial disputes<sup>2</sup>. It has also introduced Pre-Trial

*Author:* A Private Legal Practitioner.

*Orcid:* <https://orcid.org/my-orcid?orcid=0000-0002-1959-9055>

<sup>1</sup> High Court (Civil Procedure) (Amendment) Rules, 2014 (C.I. 87) amended Rule 7A of Order 32, Rule 2 of Order 34, Rule 1 of Order 38, Rule 3A to 3G of Order 38, Rule 2A of Order 41, Rule 2 of Order 58 and the Schedule to the principal enactment.

<sup>2</sup> Order 58R5 (3) C.I.133

Settlement Conference in commercial disputes at the Circuit Court<sup>3</sup>. This is a step forward. Not to make *ex cathedra* pronouncements, it has however smoked some confusion into the practice of the law; the uncertainty of the scope of the application of summary judgments at Pre-Trial Settlement stage. To wit, Order 58 Rule 3Sub-Rule 2 of C.I. 47 allows for the application for summary judgment *ONLY* after pre-trial settlement conferences. It is observed amongst many practitioners, academics, and legal enthusiasts that, C.I. 133 is intended to undo Order 58 Rule 3 Sub-Rule 2 of C.I. 47 thereby altering the traditional position of the law. This article argues that Order 58 Rule 3 (2) of C.I. 47 remains valid in spite of the operationalization of C.I. 133. The author's hermetically sealed position is rested on the decision of the Apex Court of Ghana, December 7, 2022, in the Springfield Energy Limited v. Bulk Oil Storage and Transportation Company Limited<sup>4</sup>.

## II. APPLICATION FOR SUMMARY JUDGMENT

A summary judgment is a judgment on the merits even though it is obtained by a formal motion without a plenary trial. It is meant to be used for disposing with speed, cases which are virtually uncontested or cases in which no reasonable defence exists in the opposite party. It assists to reduce costs, avoid delays and unnecessary expense.

The procedure for Summary Judgment is well-grounded in statute and common law. The *verba generalia* of this relief invokes the premise where it is materially established that no useful purpose would inure from full and possibly long-winded trials. For want of diction, it perfects when no triable legal issues are factually established. An authoritative Ghanaian case for this position is the SAM JONAH V. DUODU-KUMI [2003-2004] 1 SCGLR, 50 @ 54 case. In this case, the Supreme Court of Ghana speaking through Akuffo, JSC had cause to state thus:

*"The objective of Order 14 of C.I. 47 is to facilitate the early conclusion of actions where it is clear from the pleadings that the defendant therein has no cogent defence. It is intended to prevent a plaintiff being*

<sup>3</sup> Order 58R1(b) C.I. 133

<sup>4</sup> Civil Appeal No: J4/33/2022 (unreported) dated 7<sup>th</sup> December, 2022.

*delayed when there is no fairly arguable defence to be brought forward... What we are, therefore required to do in this appeal is to ascertain whether, on the totality of the pleadings and all matters before the High Court at the moment it delivered the Summary Judgment, the respondent had demonstrably, any defence in law on the available facts, such as would justify his being granted leave to defend the Appellant's claim."*

Summary judgment romance the sense of litigants as it erodes the level of evidential burden; it may be awarded on plaintiff's full claims or part or on a defendant's counterclaim devoid of witness evidence. Under C.I. 47, Order 14 Rule 1 as well as Rule 10 Sub-Rule 1. To add, there is no requirement for the satisfaction of the rules regarding trial. Thus, awards are founded entirely on the writ of summons and Statement of claim. The courts in a host of Ghanaian common law authorities have assembled the requirements that animates the award of summary judgement. These include:

1. The writ of summons and the statement of Claim have been served on the Defendant<sup>5</sup>;
2. That an appearance has been entered by the Defendant to the writ of summons<sup>6</sup>;
3. That the Defendant has no defence to the Plaintiff's claim<sup>7</sup>.

One of the sacred conventions on the award of sums prayed is that the judge in court is bereft of jurisdiction to vary the award beyond sums endorsed therein the writ of summons. This traditional rule does not exclude sums determinable on any part of the statement of claim.

### III. FACTUAL BACKGROUND

#### a) *Springfield Energy Limited v. Bulk Oil storage and Transportation Company Limited*

For the sake of clarity, convenience and apposite appreciation, the facts as recounted are as follows:

The Plaintiff-Appellant and the Defendant – Respondent are limited liability companies incorporated under the laws of Ghana. The Plaintiff-Appellant alleged that it delivered certain volume of petroleum products to the Defendant - Respondent for storage and onward distribution. In 2013, the Plaintiff-Appellant alleged that Defendant - Respondent failed to account for a large volume of the products. Parties fixed 30<sup>th</sup> September, 2013 for the establishment of facts. The Plaintiff-Appellant established loss in the value of USD 16,333,794.60. Further notices of indebtedness were served on the Defendant – Respondent without honours.

<sup>5</sup> Balast Nedam Ghana BV. v Horizon Marine Construction Limited. [2010] SCGLR 435

<sup>6</sup> Mechanical Lloyd Company Limited v. Brefo [2018-19] 1 GLR 642

<sup>7</sup> Sam Jonah v Duodu Kumi [2003-04] SCGLR 50

On the 10<sup>th</sup> of June, 2014 another notice with invoice of varied face value of USD 17,201,774.03 was attached. It was calculated at 19% at the rate of the Plaintiff-Appellant. On 13<sup>th</sup> April, 2015, the Defendant-Respondent via a letter acknowledged indebtedness to the tune of USD 17,201,774.03. After 21<sup>st</sup> April, 2015, Parties reached an agreement for upfront payment of USD 5,000,000.00 and twelve (12) month equal payment of the outstanding debt. The Defendant-Respondent however breached same. By the rate of the Plaintiff-Appellant, Plaintiff-Appellant alleged that debts as at 12<sup>th</sup> November, 2015 stood at USD 20,226,717.75. It alleged also, that it had lost USD 3,420,000.00 being foreseeable profits as at 12<sup>th</sup> November, 2015. The Plaintiff-Appellant commenced legal action on the amounts at the High Court. The Defendant-Respondent rejected liability for Plaintiff-Appellant's interests and counterclaimed.

After Pleadings had closed the case was placed before a Pre-Trial Judge for Pre-Trial Settlement Conference. However, attempts for Parties to settle proved unsuccessful. On the rules of Pre-Trial Settlement Conference, issues were set down and the case was referred to the Substantive Judge for trial. The Plaintiff-Appellant applied for summary judgment pursuant Order 14 Rules 1 and 2 (1) of C.I. 47 and obtained same on 16<sup>th</sup> August 2016.

The Defendant-Respondent applied on motion to set aside the summary judgment pursuant Order 14 Rule 9 of C.I. 47. The Trial Court on 31<sup>st</sup> August, 2016 declined the Respondent's invitation to set aside the summary judgment but rather varied the judgment founding on Order 14 Rule 9 of C.I. 47, thus, USD 11,104,143.29 with interests at the Plaintiff-Appellant's rate.

Aggrieved by the decision of the Trial Court, the Defendant-Respondent appealed to the Court of Appeal. The Court of Appeal, after studying the relevant processes filed and copious submissions of Parties set aside the decision of the Trial Court.

Dissatisfied with the decision of the Court of Appeal, the Plaintiff-Appellant on 1st August, 2019 lodged an appeal at the Supreme Court. At the Apex Court, the Plaintiff-Appellant argued on grounds, *inter alia*, that the Court of Appeal erred in law when it held that the Pre-Trial Judge having indicated the matter be tried meant that there were triable issues which could not be determine by a summary judgment application and that the said application was brought in accordance with Order 58 Rule 3 (2) of the High Court Civil Procedure Rules 2004 (C.I.47) which permits applications for summary judgment only after the pre-trial settlement conference.

Upholding the Appellant's ground of appeal, the Supreme Court speaking through Amadu, JSC posited.

*“It is a requirement for the pre-trial settlement conference judge, if settlement breaks down, to refer the docket back to the Administrator of the court for it to be placed before the substantive judge. Before this is done, the parties are required to submit their issues for trial. The pre-trial judge forwards the issues presented by the parties, as well as a report indicating the failure of the parties to settle at the pre-trial conference stage to the Administrator for the case to be placed before a substantive judge. This is a requirement by the law. Does this imply that there are triable issues raised upon the failure of the parties to settle which requires that the matter must necessarily proceed to trial? We do not think so. For if it were so, then we daresay that there would never be an opportunity for a party to apply for summary judgment in commercial cases. We say this because, Order 58 Rule 3(2) provides that: “Applications for Summary judgment or judgment on admissions shall not be filed until after the pre-trial settlement conference”.*

The Learned Judge further opined thus:

*“The rules provide that an application for summary judgment can only be brought after the pre-trial settlement conference has concluded. If this court is to hold that upon the failure of the parties to settle at the pre-trial settlement conference stage, the fact that issues have been presented by the parties means that there are triable genuine issues will defeat the unambiguous provision of Order 58 Rule 3 (2). Further, the very wording of Order 58 Rule 3(2) indicates that the rules envisaged the possibility of an application for summary judgment or judgment on admission and thus, made provisions for same upon the failure of the parties to settle at the pre-trial settlement conference stage. The Judge before whom a pre-trial settlement plays a substantially supervisory and not an adjudicatory role. By Order 58 Rule 8 of C.I.47, the requirement for issues to be set down for trial is only a matter of procedure. Indeed, Order 58 Rule 3 (2) of the C.I.47 precludes a Party from applying for Summary Judgment until after Pre-trial Conference, even in cases where there is no reasonable defence by the Defendant or summary judgment or judgment on admission would lie...”*

The significance of the pertinent details within the Springfield Energy case, and specifically the dictum of Amadu JSC, lie at the core of this paper, offering a clear and enlightening perspective that is crucial for a comprehensive understanding of the diverse arguments explored under the subsequent head.

#### IV. HAS C. I. 133 AMENDED OR REVOKED ORDER 58 RULE 3 (2) OF THE HIGH COURT CIVIL PROCEDURE RULES (C.I. 47)

In addressing the above question, there would be the need to give credence to two (2) major arguments;

- a. One perspective asserts that the omission of explicit provision for Order 58 R3(2) of C.I. 47 within C.I. 133 implies its tacit revocation or modification by the prevailing legal framework.
- b. Conversely, another viewpoint contends that the absence of the aforementioned order in C.I. 133 results from a drafting error, attributing it solely to the draftsman's oversight.

To unring the bell, heavy reliance must be made on policy considerations and the interpretative mechanisms applicable to the Rules of Court.

By the common law authority of Attorney-General v. Marquet<sup>8</sup>, amendments traditionally refer to the modification to, or alteration in the legal meaning of an existing law using a new enactment. It is expected therefore that the birth of C.I. 133 would refresh Order 58 Rule 3 Sub-Rule 2 of C.I. 47. For argument (A)*supra*, it is established, factually, that, C.I. 133 does not expressly contain any provision that seeks to reinforce Order 58 Rule 3 Sub-Rule 2 of C.I. 47. *Inparimateria*, the answer to this subject matter should therefore, on this basis be in the affirmative. In opposition to argument (B) *supra*, it is further submitted that no provision in C.I. 133 impliedly seeks to import Order 58 Rule 3 Sub-Rule 2 of C.I. 47 into continuous existence.

The debate however in favour of the argument that C.I. 133, though it appears not on the face that Order 58 Rule 3 Sub-Rule 2 of C.I. 47 has been preserved, its conspicuous absence has been attributed to mere omissions by the draftsman. This being the gravamen, it is the position this paper fervently seeks to uphold.

It is provided in *Order 58 Rule 3 of C.I. 47*<sup>9</sup> thus:

*“ (1).Except as otherwise provided in this order, actions the commercial court shall be commenced and regulated in the same way as actions in the High Court ; Consequently the rules in filing of writs of writ of summons, entry of appearance, defence and reply shall apply to actions in commercial courts .*

*(2). Applications for summary judgement or judgement on admission hall not be filed until after the Pre Trial settlement conference.”*

It is also provided in the High Court (Civil Procedure) (Amendment ) Rules, 2020 C.I. 133, Order 58 R3 that:

<sup>8</sup> [2003] 217 CLR.

<sup>9</sup> The principal enactment.

*“Except as otherwise provided in this order, a commercial claim shall be commenced and regulated in the same manner as an action in the High Court, consequently, the rules on filing of writ of summons, entry of appearance, counterclaim and reply apply to commercial claim.”*

Notably, C.I. 133 upheld the provisions of Order 58 R3 (1) of C.I.47, while omitting reference to Order 58 (R)(3)(2) of C.I.47. The contention put forth is that, based on the comprehensive title of C.I. 133, it has effectively nullified order 58 (R)(3)(2) of C.I.47. Consequently, this implies that within commercial disputes, parties are not restricted from seeking remedies such as summary judgment or judgment on admission, even during the Pre-Trial Settlement conference phase.

The alternative basis underlying stance on revocation of Order 58 Rule 3(2) of C.I. 47 is the perspective on the policy considerations driving the amendment of Order 58 Rule 3 of C.I. 47. Another rationale stems from the exploitation of Pre-Trial Conference settlements under Order 58 by unscrupulous litigants, who employ it to stall or disrupt potential settlements and take actions detrimental to their opponents' interests in the context of commercial law disputes.

The primary purpose of the Pre-trial Conference Settlement is to explore avenues for resolving disputes without undergoing a full trial. *Per* the rules, parties are expected to engage in this stage within thirty (30) days to pursue settlement. Failing this, the Pre-Trial Judge mandates the filing of issues, leading to referral to the Administrator and onward transfer to the Substantive Judge. However, practical instances reveal that certain litigants, in the early conference stages, intentionally avoid the Pre-Trial Judge. Subsequently, the Judge orders for hearing notices to be issued to encourage participation. Upon eventual participation, the focus on settling extends beyond the stipulated one-month period prescribed by the Rules of Court. In light of the purpose behind the Pre-Trial Settlement Conference, adjournments are common to allow parties time for settlement attempts. A critical issue arises when parties fail to settle before the end of the legal year, leading to a two-month wait until the subsequent legal year due to the inactivity of Pre-Trial matters during legal vacations. In response, the Rules of Court Committee<sup>10</sup> resolved to amend Order 58 Rule 3(2) of C.I. 47 in 2020, aiming to address unwarranted delays in commercial disputes. This amendment aims to enable parties to seek summary judgment and promptly recover what is rightfully theirs.

<sup>10</sup> A Constitutional body responsible for making rules and regulations for regulating the practice and procedure of all Courts in Ghana. See Articles 33(4) and 157 of the Constitution 1992

*Contra* to the above argument it is submitted by proponents of argument “B” that Constitutional Instrument 133 has not altered or invalidated Order 58 Rule 3(2) of C.I. 47. They advance the position that any interpretation diverging from this perspective would run counter to the underlying purpose of Order 58 within the framework of C.I. 47. These proponents advocate that the Rule Maker, in question, had no intention of excluding Subrule 2 from Rule 3 of Order 58. Instead, the omission should be solely attributed to an inadvertent error on the part of the draftsman.

In the context of commercial proceedings, once the phase of pleadings has concluded, the rules of court stipulate that the case is to be directed to a Pre-Trial Judge. This judge assumes the role of a neutral facilitator in a settlement conference, which is termed a Pre-Trial Settlement Conference according to the court's Rules on procedure. The primary aim of such a conference is to thoroughly examine all potential routes to resolving the dispute amicably between the involved parties. This approach serves to foster an efficient and expedient method of dispute resolution specifically within the realms of commerce and trade.

As aptly phrased by Lord Devlin in the case of *Kumv Wat Tat Bank*<sup>11</sup>, the law functions as a lubricant that facilitates the smooth operation of commercial activities. Due to these considerations, the rules governing disputes of a commercial nature are distinct from other procedural rules. A secondary rationale is to uphold the business relationship existing between the parties, if feasible. In light of these factors, the Rules of Court Committee, demonstrating their judicious insight, have prohibited parties from seeking Summary judgment or judgment on admission during the stage of the Pre-Trial Settlement Conference.

It would indeed be absurd for parties engaging in a Pre-Trial settlement conference, with the intention of reaching a harmonious resolution to their dispute, to concurrently apply for summary judgment. This would be counterproductive given the available avenues for exploring settlement, which not only proves cost-effective but also prevents undue delays. To permit parties, who genuinely may be seeking an amicable resolution, to seek summary judgment would defeat the object of the settlement conference, given the available channels for pursuing cost-effective settlement options that eschew unnecessary delays<sup>12</sup>.

It is worthy to note that the fundamental principle in procedural law is that no one possesses an inherent entitlement to a specific procedure. When changes occur in procedural laws, their impact is both

<sup>11</sup> [1971] 1 Lloyd's Rep 439

<sup>12</sup> Order 1R2 provides that: the rules shall be interpreted and applied so as to achieve speedy and effective justice, avoid delays and unnecessary expense and ensure that as far as possible, all matters in dispute between parties are completely, effectively and finally determined.



prospective and retrospective.<sup>13</sup> The rules of court, as they pertain to adjectival law, play a supportive role and are not meant to dictate. Adherence to these rules should be cautious, especially when strict compliance could impede the wheels of justice.

In the case of *Springfield Energy v Bulk Oil*, *supra*, it is significant to note that no mention was made of Order 58 Rule 3 of C.I.133 when the Supreme Court was tasked with determining the vexed issue of whether the Plaintiff was entitled to summary judgment, particularly when the issues set down were scheduled for trial. Justice Amadu, reading the opinion of the Court, affirmed this possibility, drawing on Order 58 Rule 3(2) of C.I. 47, which prohibits parties from seeking summary judgment or judgment on admission during the Pre-Trial settlement conference phase.

The author strongly supports the position that interpreting Order 58 R 3(2) of C I. 47 as revoked by C.I. 133 would hinder the settlement process by allowing frivolous applications to disrupt it. This would render the Pre-Trial Settlement likely to fail from the onset.

Additionally, the requirement for the Pre-Trial Judge to report on the failure of parties to settle to the Administrator for the case to be placed before the Substantive Judge, if not expressly provided, precludes parties from applying for Summary judgment during the Pre-Trial Settlement Conference. The reason being that prior to the Pre-Trial Settlement Conference, the docket that rest with the Substantive Judge is transferred to the Pre-trial Judge. This transition serves the purpose of familiarizing the Pre-Trial Judge with the case and to aid his role in assisting parties explore potential avenues for settlement. The Pre-Trial Settlement Conference, for want of diction, stays the hand of the Substantive Judge to adjudicate over the matter<sup>14</sup>. This suggests that any subsequent Applications can only be heard after Pre Trial settlement Conference had concluded and the case has been transferred to the Substantive Judge. Any other interpretation risks derailing the Pre Trial Settlement process.

Lastly, C.I. 133 introduces Alternative Dispute Resolution (ADR) mechanisms into Commercial Dispute Resolution, promoting options like mediation, negotiation, arbitration, and other hybrid ADR Mechanism<sup>15</sup>. These ADR avenues are typically explored during the Pre Trial Settlement Conference, allowing parties to choose a resolution method. Given litigation's cost and time burdens, arguing for summary judgment

at this stage could undermine the innovative approach C.I. 133 brings to commercial dispute resolution.

## V. CONCLUSION AND RECOMMENDATION

In conclusion, taking into account the insightful perspective presented by Amadu JSC in the *Springfield Energy* case, as well as the growing apprehension within the legal community concerning the rigid interpretation of C.I. 133 in relation to the application for summary judgment, it is now evident that parties in commercial disputes may only apply for summary judgment after Pre-Trial Settlement Conference. Given this analysis, it is strongly recommended that the Rules of Court Committee, in accordance with its constitutional mandate, undertake an amendment of Order 58 within the High Court Civil Procedure Rules, 2004 (C.I.47). This amendment is essential to reinstate the Inert and reintroduce legal certainty, thereby promoting a sense of order in Commercial disputes.

<sup>13</sup>Yew Bon Tew v Kenderaan Bas Mara [1982] 3 ALLER 833 and *Adwoa Yeboah v Augustus Asante* Suit No: H1/53/21 (unreported) dated 22<sup>nd</sup> April,2021.

<sup>14</sup> Order 58 R5(5) C.I. 133 reads: "Where the Parties agree to pre-trial settlement, the judge shall make the relevant orders pursuant to the subsequent provisions of this Order and *stay proceedings* in the case for not more than thirty days".

<sup>15</sup> See Order 58 Rule 5 Subrule 3 of C.I. 133.

This page is intentionally left blank



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

Volume 23 Issue 5 Version 1.0 Year 2023

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

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

## The Determinants of Terrorism: What Lessons for a Developing Country?

By Nesrine Dardouri

**Abstract-** The aim of this study is to analyze the determinants of terrorism for a developing country, Tunisia, strongly affected by such dynamics. Our empirical study is based on an estimate using the ARDL model on annual data for the period 1987 to 2019. The results have revealed that there is a short and long term relationship between various social and economic variables and terrorism. These findings have important policy implications for economic agents, politicians as well as for policy makers. Indeed, our work helps to identify the socio-economic determinants of terrorism. In addition, our analysis can serve as a dashboard for policymakers to analyze the short and long term effects of various social and economic variables on terrorism.

**Keywords:** terrorism, socio-economic variables, ARDL model, tunisia, policy implications, developing country.

**GJMBR-B Classification:** JEL Code: C01, H5, I31, Z18



Strictly as per the compliance and regulations of:



# The Determinants of Terrorism: What Lessons for a Developing Country?

Nesrine Dardouri

**Abstract-** The aim of this study is to analyze the determinants of terrorism for a developing country, Tunisia, strongly affected by such dynamics. Our empirical study is based on an estimate using the ARDL model on annual data for the period 1987 to 2019. The results have revealed that there is a short and long term relationship between various social and economic variables and terrorism. These findings have important policy implications for economic agents, politicians as well as for policy makers. Indeed, our work helps to identify the socio-economic determinants of terrorism. In addition, our analysis can serve as a dashboard for policymakers to analyze the short and long term effects of various social and economic variables on terrorism.

**Keywords:** terrorism, socio-economic variables, ARDL model, tunisia, policy implications, developing country.

## I. INTRODUCTION

The emergence of terrorism is linked to economic and demographic conditions (Clements et al, 2021; Khusrav and Sandler, 2019; Krieger and Meierrieks, 2019; Polyxeni and Theodore, 2019; Aisha and Shehla, 2014) and that there are serious disruptions in social values and morals of society (Aisha & Shehla, 2014; Ismail and Amjad, 2014).

The most threatening factors are poverty and inequality (Raja and Raghu, 2020; Krieger and Meierrieks, 2019; Ezcura and Palacios, 2019; Bandvopadhyay and Younes, 2011; Salvatore, 2007), especially in the least developed countries. Economic factors are more important for terrorism than political factors (Mohamed et al 2019; Aisha and Shehla, 2014; Wade and Reiter, 2007). GDP per capita (Mohamed et al 2019; Estrada et al, 2018; Shahbaz, et al, 2013; Freytag et al., 2010;) unemployment (Aniruddha and Jomon, 2018; Malik and Zaman, 2013; Abadie, 2006) illiteracy rate (Sarwar et al, 2020; Estrada et al, 2015).

Terrorists target everyone (Ali and Haider, 2020; Aisha and Shehla, 2014; Abadie, 2006) which causes enormous victims and economic costs (Ali and Haider, 2020; Aisha and Shehla, 2014; Ali, 2010). In particular, since the turn of the century, many democracies in developed countries have shown high levels of terrorist episodes 9/11 in New York (2001)<sup>1</sup>, attacks in Madrid

*Author: e-mail: Nesrine.dardouri91@gmail.com*

<sup>1</sup> After September 11, terrorism unexpectedly altered the social, economic and geopolitical conditions in the world (Michael, 2007). Terrorist groups with global connections use national lands for

(2004), London (2005), Brussels, Paris and Berlin. (2016), Sweden, Paris, London (2017). France, Australia (2018), France, United States (2019), France, United Kingdom (2020).

Recently, after the Arab Spring, an unprecedented wave of political violence and terrorist events occurred in several countries in the MENA region such as Tunisia. Tunisia is strongly affected by such dynamics, hence terrorist actions intimidate law and public order and human rights by destroying essential infrastructure and economic prospects. (Lanouar and Goaid, 2019).

This paper attempts to analyze the determinants of terrorism in Tunisia. The aim of our study is to analyze the short and long term effects of various social and economic variables on terrorism. More specifically, we seek to fill the gap in the literature concerning the relationship between the Terrorism Index which measures the number of annual attacks and social and economic variables in Tunisia. The Growth Rate, The Political Stability Index, The Unemployment Rate, Vulnerable Jobs, Poverty, Foreign Direct Investments, The Trade Balance, Inflation, The Consumption Level, Military Spending, And the Rate presidential rotation of Tunisia. To our knowledge, our study is the first to integrate all these economic and social variables to identify the determinants of terrorism in developing countries.

The rest of this article is organized as follows. In section 2 we analyze the evolution of terrorist attacks and its main determinants in Tunisia pre, post and during the Arab Spring. In Section 3 we introduce the data to empirically study the determinants of terrorism which is based on annual data for the period from 1987 to 2019. Our main empirical results are presented in Section 4. In Section 5 we describe some policy implications of our results.

## II. DETERMINANT OF TERRORISM

Several research studies have linked terrorism to many socio-economic and political variables, namely low GDP, emergence of poverty, high unemployment rate, inflation, political stability, investment, consumption, vulnerable job, trade, military spending and the

recruitment and training, trade in criminal arms, and have mutual planning to create terror in economies (Shukla, 2009).

turnover rate of governors and presidents. The results found indicate that GDP is a powerful predictor of terrorism (Blomberg et al., 2004; Fearon and Laitin, 2003; Burgoon, 2006; Freytag et al., 2010; Lai, 2007; Li and Schaub, 2004). Regarding poverty, we find that the most popular theory is that poverty causes terrorism. When people are deprived of certain resources and opportunities, poverty can cause some to turn to terrorism to express outrage (Burgoon, 2006; Friedman, 2002a; Fearon and Laitin, 2003). When it comes to unemployment, it can lead to more terrorism following grief (Abadie, 2006; Goldstein, 2006; Berman et al., 2008; Harrison, 2006; Johnston, 2001; Kalyvas, 2006; Hudson et al., 2002; Oppenheim, 2007). In addition, an increase in inflation leads to an increase in the number of terrorist attacks (Auvinen, 1997; Feldmann and Perala, 2004; Caruso and Schneider, 2011; Nicole, 2003; Samaranyake, 1999; Piazza, 2006). Several socio-economic factors stimulate violence and terrorism. For example, it has been studied that policies trigger terrorist incidents in developing countries. In addition, regional violence makes regions more vulnerable. And that's why we used political stability, military spending, the presidential turnover rate and vulnerable jobs as explanatory variables in the model (Ajide KB, et al., 2020; Kirisci M, 2020; Morris NA, et al., 2020).

Several opinions regarding the effect of a change in GDP growth on terrorism. We find that, Li and Schaub (2004) and Collier and Hoeffler (2004) studied the relationship between GDP per capita and terrorism and found that the link is negative because increasing GDP improves the economic situation of individuals and therefore reduces the cost of opportunity of terrorism.

Several other studies examining the link between growth and terrorism have found similar results (Blomberg and Hess, 2008; Bravo and Dias, 2006; Campos and Gassebner, 2008; Dreher and Fischer, 2010; Lai, 2007; Muller and Weede, 1990).

The model in which poverty is linked to political violence is Gurr (1970). According to (Stern, 2003; Miguel et al., 2004; Aziz, 2009; Krieger and Meierrieks, 2011; Schneider et al., 2010; Bandyopadhyay et al., 2013; Berman et al., 2009), the relationship between poverty and the emergence of terrorism is positive and direct. Krueger and Maleckova (2003) analyzed the link between terrorism and poverty and found that they were not linked in developed countries. In addition Abadie (2006), Kurrild-Klitgaard et al. (2006), Gassebner and Luechinger (2011) and Piazza (2011) found no significant link between poverty and terrorism.

Regarding unemployment, Sayre (2009) has shown that there is a direct relationship between unemployment and terrorism. In addition, Catalano et al. (1997) found that unemployment causes terrorism (Abadie, 2006; Berman et al., 2008; Berman et al., 2009; Harrison, 2006; Honaker, 2010; Kalyvas, 2006; Oppenheim, 2007). The results also revealed that

terrorism is unrelated to a city's unemployment rate. According to Thompson (1989), unemployment does not fuel terrorism (Green et al., 1998). Oyefusi (2010) found that a high unemployment rate increases the willingness of unemployed people to join terrorist groups. Thus, the link between unemployment and terrorism is insignificant as long as education is not taken into account (Krueger and Maleckova, 2003).

The relationship between inflation and terrorism has been discovered as significant by several researchers (Auvinen, 1997; Caruso and Schneider, 2011; Feldmann and Perala, 2004; Nicole, 2003; and Samaranyake, 1999). High inflation has destabilizing impacts on the economy and is responsible for terrorism. Terrorism is a political phenomenon (Choi, 2010; Dreher et Gassebner, 2008; Hacker, 1976; Kis-Katos et al., 2011; Krueger and Maleckova, 2003; Savun and Phillips, 2009). Lai (2007) and Basuchoudhary and Shughart (2010) found that higher levels of economic freedom reduce the emergence of terrorism.

So we can see that socio-economic factors have an impact on terrorism. Inflation refers to the country's general prices within the country, which acts as a proxy for the purchasing power of consumers to meet their demands and maximize their utilities. Several researchers have analyzed the price fluctuation of general goods, as well as household consumption to see their impacts on terrorism (Piazza, JA. 2011 and Ross, JI. 1993). Because of inflation and consumer dissatisfaction, people find it difficult to live in these conditions. Based on the existing literature above, the proposed hypotheses are:

H1: Inflation increases number of terrorist attacks in Tunisia

H2: GDP defeating terrorism in Tunisia

This is further proof that poverty has a significant impact on terrorism (Piazza JA. 2013). Political instability, unemployment, poverty and vulnerable jobs also create groups of frustrated people, which gives the opportunity for these terrorist activities (Helfstein S. 2019). So, Based on the study of the above literature proposed the following hypothesis:

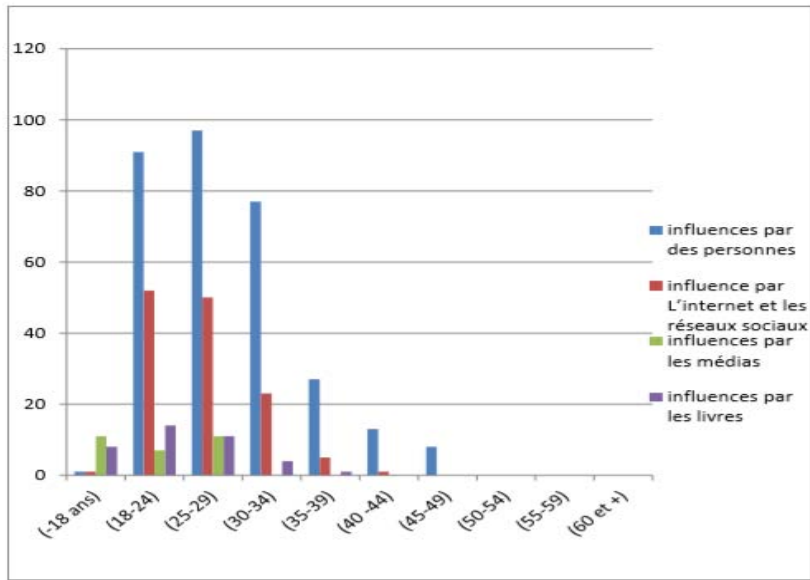
H3: The deterioration of the economic and political situation in Tunisia favors terrorism

### III. TERRORISM IN TUNISIA

Tunisia faces threats from terrorism that are breaking down and destroying the economy through various channels (Lanouar and Goaid, 2019). According to a recent study by the Tunisian Center for Research and Studies on Terrorism: CTRET (2019) "the influencing factors and four main elements, namely: People, Mosques, Internet and social networks, books and written literature" Terrorist movements have given people (generally imams and former terrorist leaders) a central role in the dissemination of their terrorist thought

and in the recruitment of young people (18 to 34) especially with the weakening of the state in post

revolution: high inflation rates, unemployment, low GDP per capita, poverty, inequalities, etc.



Source: Tunisian Center for Research and Studies on Terrorism (2019)

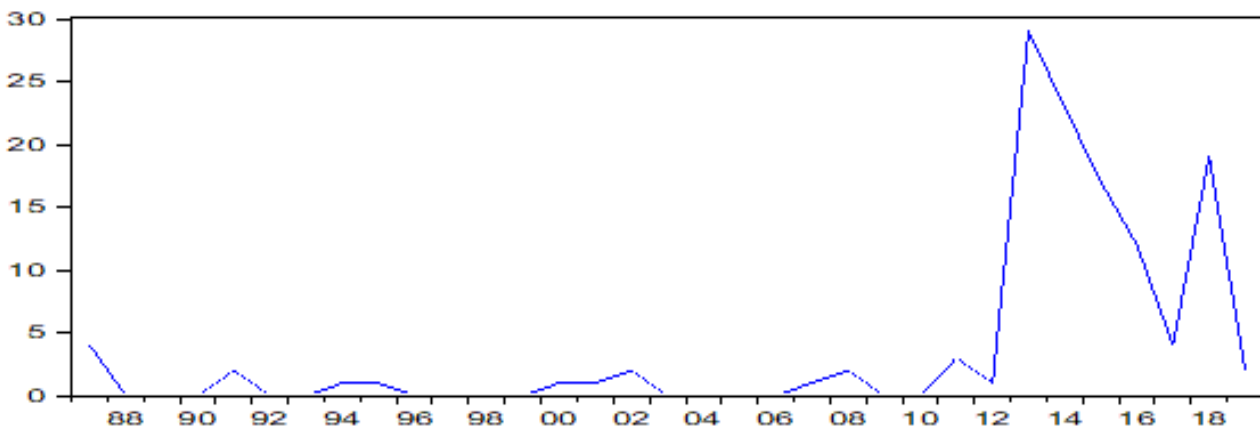
Graph 1: Influencing Factors by Age Group

Terrorism has increased moderately over time (Table 1) causing an economic recession and imposing heavy economic penalties on the economy. However, effective action to fight terrorism by determining socio-economic factors can generate significant benefits for the Tunisian economy, preventing losses resulting from reduced trade and tourism flows of FDI that generate long-term economic growth.

Table 1: Evolution of Terrorist Attacks and its Main Determinants in Tunisia before, after and during the Revolution

Date	Terrorist Attacks	Military Spending	Political Stability	Presidential Rotation Rate	Vulnerable Jobs	Consumption	Trade Balance
1987	4	6.9	-0.1	0.04	28.7	60.56	-738.3
1991	2	6.33	0.06	0.04	27.8	62.4	-1371.8
2011	3	5.33	-0.85	0.6	21.62	65.61	-8603.5
2012	1	5.08	0.96	0.6	20.74	66.42	-11630.3
2017	4	7.07	-0.82	0.6	20.08	70.37	-15595
2018	19	6.68	-0.8	0.6	19.96	70.3	-19022.9
2019	3	7.89	-0.8	0.6	19.83		-19436.2

attacks



Graph 2: Number of Terrorist Attacks in Tunisia

#### IV. DESCRIPTION OF VARIABLES AND ESTIMATION METHOD

##### a) Definition of Variables and Data Source

The empirical work is based on annual data for the period from 1987 to 2019. The terrorism index (ATTACKS) is accessible from the Global Terrorism (GTD) database, this index measures the number of annual attacks. The growth rate (GDP) is accessible from the World Development Index (WDI) database, it is used as a proxy for economic growth. The Political Stability Index (SP) is accessible from the Trading Economics database. The unemployment rate (UMPL) is taken from the database of the World Bank and the

Tunisian National Statistics Institute (INS). Poverty (POV) is accessible from the World Development Index (WDI) database, missing values are calculated by the authors through linear interpolation. Foreign direct investments (FDI), the trade balance (BC), inflation (INFL) and the level of consumption (CONS) are extracted from the database of the Central Bank of Tunisia (BCT). Tunisia's Presidential Rotation Rate (TRP) is calculated by the author. Finally military expenditure (DM) and vulnerable jobs (EV) is extracted from the database of the World Bank (WDI). Table 2 provides a summary of the different variables used.

Table 2: Summary of the Variables used and Data Sources

Category	Variables	Variables Description	Sources
Dependent	ATTACKS	All acts of violence committed by an organization or an individual to create a climate of insecurity or to blackmail a government.	Global Terrorism (GTD)
Independent	GDP	The growth of a country's economy from year to year.	World Development Indicators, World Bank (WDI).
Independent	SP	Political stability: depends on its ability to avoid crises and to maintain standards without major changes	Trading Economics
Independent	UMPL	This is the percentage of people in the labor force who are unemployed.	The Tunisian National Institute of Statistics
Independent	POV	Refers to the situation of a person who is unable to access food.	World Development Indicators (WDI)
Independent	IDE	International movements of capital carried out to create, develop or maintain a subsidiary abroad or to exercise control or significant influence over the management of a foreign company.	Central Bank of Tunisia (BCT).
Independent	BC	This is the difference, in terms of monetary value, between exports and imports of goods or goods and services in an economy over a period of time.	Central Bank of Tunisia (BCT).
Independent	INFL	It is the loss of the purchasing power of money which results in a general and lasting increase in prices.	Central Bank of Tunisia (BCT).
Independent	CONS	It characterizes the act of an economic agent who uses or transforms goods and services.	Central Bank of Tunisia (BCT).
Independent	TRP	The turnover rate is equal to the sum of presidents during a period divided by the number of years in that period.	Calculated by the author.
Independent	EV	workers more likely to be injured on the job.	World Development Indicators (WDI).
Independent	DM	This is the defense budget in Tunisia	World Development Indicators, (WDI).

##### b) Econometric Method

The methodology used in this study is based on an estimate using the ARDL model (Auto Regressive Distributed Lags), which allows to analyze both the short-term and long-term relationship between terrorism and its determinants with variables both order (0) and order (1) integrated. The existence of a cointegrating relationship between the variables of an econometric model is tested via several tests. However, the staged delay cointegration test proposed by Pesaran et al (1999, 2001) is increasingly used in recent studies. This choice is due to the fact that this technique has the advantage of being more efficient for studies with a

small sample size and applies to series that are integrated at order 1, at level 0 or mutually integrated, unlike the series. Traditional cointegration tests such as those of Engle Granger (1987), the Johansen test (1988), the Johansen and Juselius test (1990).

In fact, this model only applies when the order of integration of the series does not exceed 1. This method has another advantage that the estimation of long and short term dynamics (Akpan et al, 2012). The ARDL model which shows the relationship between terrorism and socio-economic variables will be represented by equation (1):

$$\begin{aligned} \Delta(ATTACKS)_t = & \alpha_0 + \sum_{i=0}^p \alpha_{1i} \Delta ATTACKS_{t-i} + \sum_{i=0}^q \alpha_{2i} \Delta UMPL_{t-i} + \sum_{i=0}^q \alpha_{3i} \Delta SP_{t-i} + \sum_{i=0}^q \alpha_{4i} \Delta BC_{t-i} + \sum_{i=0}^q \alpha_{5i} \Delta IDE_{t-i} \\ & + \sum_{i=0}^q \alpha_{6i} \Delta POV_{t-i} + \sum_{i=0}^q \alpha_{7i} \Delta GDP_{t-i} + \sum_{i=0}^q \alpha_{8i} \Delta TRP_{t-i} + \sum_{i=0}^q \alpha_{9i} \Delta INFL_{t-i} + \sum_{i=0}^q \alpha_{10i} \Delta CONS_{t-i} + \sum_{i=0}^q \alpha_{11i} \Delta DM_{t-i} + \\ & \sum_{i=0}^q \alpha_{12i} \Delta EV_{t-i} + \beta_1 ATTACKS_{t-1} + \beta_2 UMPL_{t-1} + \beta_3 SP_{t-1} + \beta_4 BC_{t-1} + \beta_5 IDE_{t-1} + \beta_6 POV_{t-1} + \beta_7 GDP_{t-1} + \beta_8 TRP_{t-1} \\ & + \beta_9 INFL_{t-1} + \beta_{10} CONS_{t-1} + \beta_{11} DM_{t-1} + \beta_{12} EV_{t-1} + \varepsilon_t \end{aligned}$$

The use of the variable to be explained in the preceding equation at its long-term equilibrium level may not be immediately after a change in one of its determining fundamentals. Hence, the speed of adjustment between the short and the long term of the dependent variables can be taken by estimating the following error correction model:

$$\begin{aligned} \Delta(ATTACKS)_t = & \alpha_0 + \sum_{i=0}^p \alpha_{1i} \Delta ATTACKS_{t-i} + \sum_{i=0}^q \alpha_{2i} \Delta UMPL_{t-i} + \sum_{i=0}^q \alpha_{3i} \Delta SP_{t-i} + \sum_{i=0}^q \alpha_{4i} \Delta BC_{t-i} + \sum_{i=0}^q \alpha_{5i} \Delta IDE_{t-i} \\ & + \sum_{i=0}^q \alpha_{6i} \Delta POV_{t-i} + \sum_{i=0}^q \alpha_{7i} \Delta GDP_{t-i} + \sum_{i=0}^q \alpha_{8i} \Delta TRP_{t-i} + \sum_{i=0}^q \alpha_{9i} \Delta INFL_{t-i} + \sum_{i=0}^q \alpha_{10i} \Delta CONS_{t-i} + \sum_{i=0}^q \alpha_{11i} \Delta DM_{t-i} + \\ & \sum_{i=0}^q \alpha_{12i} \Delta EV_{t-i} + \theta \mu_{t-1} + \varepsilon_t \end{aligned}$$

Where  $\Delta$  represents the first difference operator,  $\mu_{t-1}$  represents the error correction term (ECT) of our model. The (ECT) in the equation measures the speed of the adjustment of the imbalance between the short and the long term of the dependent variable. We expect that the (ECT) will have a negative and significant sign (Gujarati DN. 2003).

In order to verify that there is a cointegration relationship, we must first establish the order of integration of each variable. Thus, we will use the Dickey Fuller test (ADF), the Phillips-Perron test (PP) and the structural break test (Break point test) which are popular unit root tests generally used to test and verify the order of integration of the series. These tests are carried out with different specifications to verify if the series is stationary at the level or in difference. The latter have a null hypothesis of non-stationarity against an alternative of stationarity. Next, we need to verify the existence of a cointegration relation, however we will use the terminal cointegration test. This test is based primarily on the Wald statistic F whose null hypothesis means the absence of a cointegrating relationship. The Bounds test consists in a first step in estimating the model (1) by the least ordinary squares (OLS). Then to test the joint nullity of the long-term multipliers and using the F-test. So we present the following two considered hypotheses:

$$H0: \alpha_1 = \alpha_2 = \alpha_3 = \alpha_4 = \alpha_5 = \alpha_6 = \alpha_7 = \alpha_8 = \alpha_9 = \alpha_{10} = \alpha_{11} = \alpha_{12} = 0$$

Against the alternative hypothesis

$$H1: \alpha_1 \neq \alpha_2 \neq \alpha_3 \neq \alpha_4 \neq \alpha_5 \neq \alpha_6 \neq \alpha_7 \neq \alpha_8 \neq \alpha_9 \neq \alpha_{10} \neq \alpha_{11} \neq \alpha_{12} \neq 0.$$

Finally, the last step is to compare the calculated F statistic with the critical value. In fact, Pesaran et al. (2001) chose 2 critical values for a given significance level. The first value is calculated when all

variables are integrated of order zero, while the second value is calculated when all variables are integrated of order. If the calculated statistical F is greater than the upper critical limits, cointegration is confirmed, indicating the existence of a cointegration relationship. If the calculated F is less than the lower critical values, we can confirm cointegration. And if the calculated F statistic falls between the limits, we need to know the order of integration of the underlying regressors. Cointegration equations are used, once estimated, to calculate long-run elasticity. If the cointegration relationship is not detected, then the short-term causal relationship is measured. After having specified our modeling, the general approach will be followed by a number of specification tests, in particular: (i) the normality of the residue (test of normality of Jarque-Bera); (ii) Series correlation (Breusch-Godfrey LM test); (iii) Heteroscedasticity (ARCH test); and (iv) the specification of the model (specification of the Ramsey test regression error - RESET). These steps are continued by the square CUSUM and CUSUM test to analyze the stability of the model. The results are discussed and presented in the next section.

## V. RESULTS

We will present a descriptive study before analyzing these variables using the ARDL approach, of annual data that covers the period from 1987 to 2019.



Table 3: Descriptive Statistics of the Study Data

	S	BC	CONS	DM	EV	GDP	POV	IDE	INFL	SP	TPR	UNEM
Mean	3.84	-4972.4	63.55	6.21	24.90	3.778	37.67	2.51	4.64	-0.14	0.21	14.98
Median	1.00	-3714.75	62.08	6.23	25.97	3.66	40.25	2.18	4.43	0.055	0.04	15.26
Maximum	29.0	12620.5	70.53	8.18	28.72	7.95	43.4	9.42	8.23	0.96	0.70	18.33
Minimum	0.000	-19022.9	60.56	5.029	19.96	-1.92	4.0350	0.6	1.98	-1.14	0.04	12.37
Std. Dev.	7.51	5665.6	3.25	0.75	2.85	2.30	6.93	1.72	1.77	0.52	0.29	1.34
Skewness	2.18	0.03	1.27	0.37	-0.63	-0.14	-3.70	2.17	0.57	-0.45	1.15	-0.14
Kurtosis	6.54	5.22	3.07	3.33	2.01	2.79	18.64	9.38	2.36	2.35	2.33	3.48
Jarque-Bera	42.09	6.56	8.56	0.86	3.39	0.16	398.65	79.45	2.26	1.68	7.70	0.41
Probability	0.000	0.03	0.01	0.64	0.18	0.92	0.000	0.000	0.32	0.43	0.02	0.81
Sum	123	-159115	2033.6	198.55	796.61	121.05	1205.5	80.446	148.46	-4.57	6.56	479.42
Sum Sq. Dev.	1750.2	9.95	326.89	17.49	252.80	163.78	1487	91.61	97.13	8.23	2.61	56.44
Observations	32	32	32	32	32	32	32	32	32	32	32	32

According to this table we can note that the average level of terrorist attacks was 3.84. This shows that the average values of terrorist incidences and losses are very high. An increasing number of incidents and victims is responsible for the loss not only of human life, but also hinders the process of growth. Likewise, the average values of inflation, poverty, military spending and unemployment are above the minimum desirable level. Likewise, the average value of political stability, GDP, vulnerable jobs and net inflows of foreign direct

investment are very low. So overall, Tunisia's conditions are not up to par. Before analyzing these variables using the ARDL approach proposed by Pesaran et al 2001, we used unit root tests to assess the order of integration of the variables. The results presented in Table 4 show that all the variables are integrated of order 1 I (1) with the exception of three variables IDE, GDP and EV which are stationary at level I (0). These results confirm that all the variables have an order of integration less than 2.

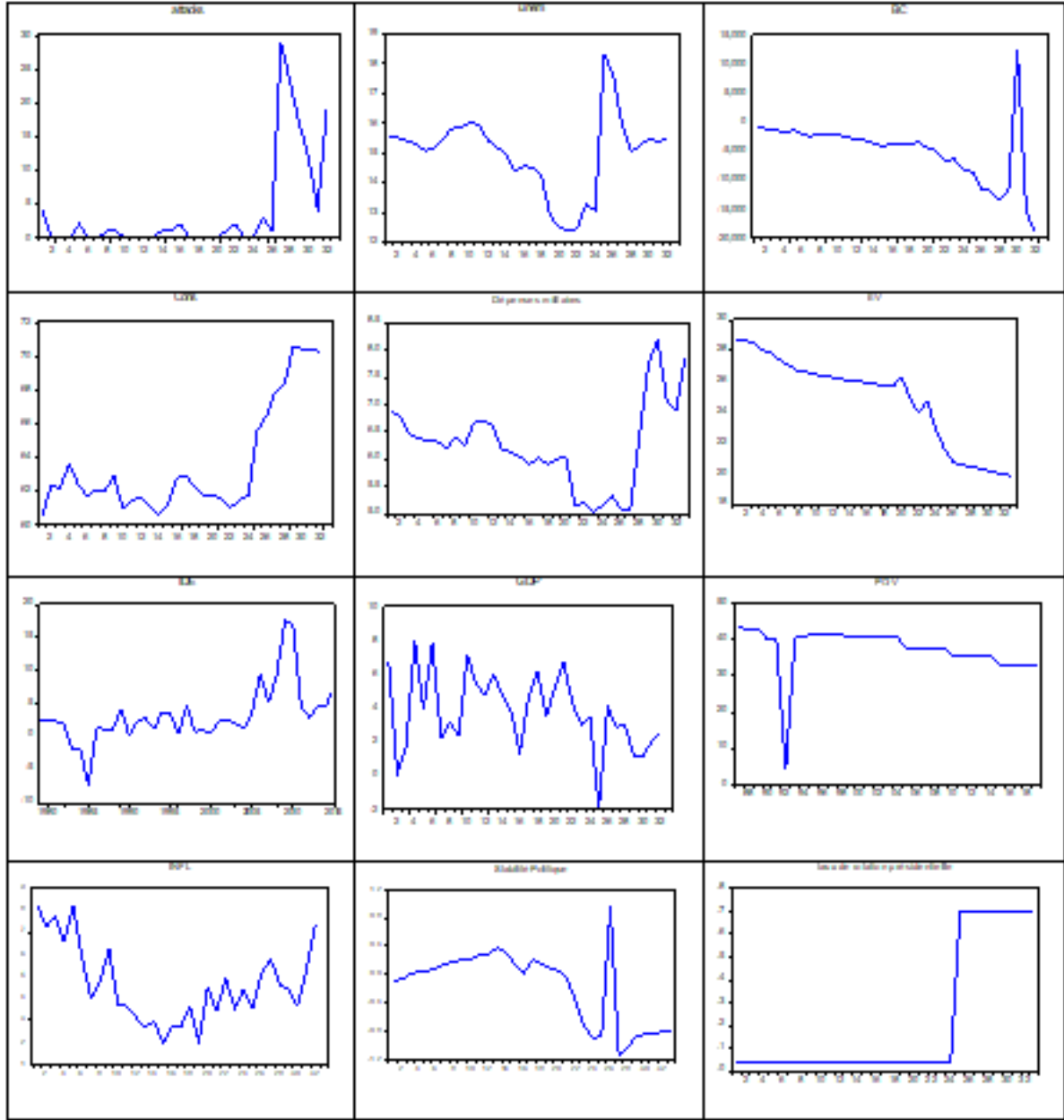
Table 4: Stationarity Test

Variables	ADF Test		PP Test		Breakpoint Test	
	In level	First difference	In level	First difference	In level	First difference
ATTACK	-2.080226 [0.2535]	-5.323000** [0.0002]	-2.080226 [0.2535]	-9.364006** [0.000]	-20.41911 (2012)	-11.68005** (2012)
UMPL	-2.353594 [0.1626]	-5.471741** [0.0001]	-2.439659 [0.1397]	-5.872020** [0.000]	-3.344265 (2013)	-10.02893** (2011)
SP	-2.920575 [0.0540]	-6.404084** [0.000]	-2.878396 [0.0591]	-16.67718** [0.0001]	-6.127244 (2008)	-8.654684** (1997)
BC	-1.510119 [0.5144]	-3.467854** [0.0171]	-3.791022** [0.0073]	-16.50879** [0.0001]	-5.564238** (2008)	-14.00927 (2005)
IDE	-4.07182** [0.0036]	-9.449640** [0.000]	-4.096156** [0.0034]	-16.55148** [0.0001]	-4.580455** (1991)	-9.477037** (1933)
POV	-1.394570 [0.9985]	-4.392025** [0.0016]	1.211274 [0.9974]	-4.392025** [0.0016]	-0.956485 (2008)	-5.464094** (2015)
GDP	-5.09782** [0.0002]	-9.591610** [0.000]	-5.111702** [0.0002]	-21.68017** [0.0001]	-6.602825** (2011)	-9.680050** (1996)
TRP	0.111962 [0.7111]	-5.477226** [0.000]	-0.111962 [0.7111]	-5.477226** [0.000]	-2.80 (2010)	-5.891883** (2010)
INFL	-0.728960 [0.3923]	-7.940987** [0.000]	-0.897691 [0.3194]	-8.011709** [0.000]	-3.511857 (1991)	-8838506** (1993)
CONS	1.572052 [0.9687]	-5.177903** [0.000]	1.572052 [0.9687]	-5.192801** [0.000]	-5.255675 (2010)	-6.408153** (2009)
DM	0.513812 [0.8209]	-4.942649** [0.000]	0.241283 [0.7498]	-3.350389** [0.0015]	-3.965735 (2006)	-6.865465** (2014)
EV	-3.07414** [0.0032]	-4.223482** [0.0001]	-2.892546** [0.0052]	-4.425925** [0.0001]	-3.548696** (2006)	-6.155067** (2006)

SC is used to choose the number of optimal delays for the ADF tests, whereas « Bandwidth » is used for PP tests. The critical values related to ADF and PP tests were provided by MacKinnon (1996). The bracketed figures represent the delay levels based on the information criterion of Schwarz. Figures between square brackets represent Newey-West bandwidth's automatic selection using the Bartlett kernel. Note that

only the constant is included in tests. (\*\*\*) , (\*\*) and (\*) denote statistical significance at the 1%, 5% and 10% levels respectively

Indeed, the evolution of the variables over time presented in Chart 2 shows the existence of peaks, this led us to wonder about the existence of a regime change.



Graph 3

Table 5: Results of Correlation

Correlation	ATTACKS	STABILITE_POLITIQUE	UNEM PAUVRETE	IDE	BC	INFL	CONS	TAUX_DE_ROTATION_PRESIDENTIELLE	DEPENSES_MILITAIRES		
ATTACKS	1.000000										
	----										
STABILITE_POLITIQUE	-0.697500	1.000000									
	0.0000	----									
UNEM	0.186286	0.073159	1.000000								
	0.3073	0.6907	----								
PAUVRETE	-0.703423	0.752226	-0.031704	1.000000							
	0.0000	0.0000	0.8632	----							
IDE	-0.096096	0.066041	-0.550754	-0.089654	1.000000						
	0.6008	0.7195	0.0011	0.6256	----						
BC	-0.456593	0.383476	-0.059995	0.533706	-0.152216	1.000000					
	0.0086	0.0303	0.7443	0.0017	0.4056	----					
INFL	0.201029	-0.137066	0.248324	0.018322	-0.245372	-0.098365	1.000000				
	0.2699	0.4544	0.1706	0.9207	0.1759	0.5922	----				
CONS	0.753438	-0.626619	0.356808	-0.885148	-0.166250	-0.445655	0.173583	1.000000			
	0.0000	0.0001	0.0450	0.0000	0.3631	0.0106	0.3421	----			
TAUX_DE_ROTATION_PRESIDENTIELLE	0.753836	-0.600022	0.472496	-0.872533	-0.130579	-0.516901	0.111221	0.935646	1.000000		
	0.0000	0.0003	0.0063	0.0000	0.4763	0.0025	0.5445	0.0000	----		
EV	-0.690455	0.654099	-0.168730	0.951236	-0.078067	0.583552	0.140326	-0.845897	-0.901552	1.000000	
	0.0000	0.0000	0.3559	0.0000	0.6711	0.0005	0.4437	0.0000	0.0000	----	
DEPENSES_MILITAIRES	0.194291	-0.092403	0.254703	-0.171233	-0.344305	0.288553	0.200107	0.401606	0.210546	-0.020843	1.000000
	0.2866	0.6150	0.1595	0.3487	0.0536	0.1092	0.2722	0.0227	0.2474	0.9098	----

The results of the stationarity tests and the correlation test leads us to study the relationship between terrorism and socio-economic variables by applying the cointegration tests linked to the ARDL approach. The Bounds test requires the selection of the appropriate degree of delay (Feridun and Shahbaz 2010), in our case the AIC choice criterion is used.

Before going to the bounds cointegration test, we think about studying the correlation between the different variables. Table 5 shows the correlation between dependent and independent variables in Tunisia. The results show that explanatory variables

such as unemployment rate, inflation, military spending, presidential turnover rate and household consumption were positively correlated with moderate strength with terrorism incidents. In contrast, political stability, foreign direct investment and the trade balance have a moderate negative correlation with terrorist incidents in Tunisia.

Table 5 shows the results of the Bounds cointegration test.

Table 6: Bounds Cointegration Test

Dependant variable	lag selection	F-statistic	Decision
ATTACKS	(2, 1, 1, 1, 1, 1, 1, 1, 0, 0, 1, 0, 1, 1)	236.2510	Co Integration
Significance	I0 Bound	I1 Bound	
10%	1.76	2.77	
5%	1.98	3.04	
2.5%	2.18	3.28	
1%	2.41	3.61	

The results show that the calculated statistical F is of the order of 236.2510 which is greater than the critical value advanced by Pesaran et al (2001) at the 1% threshold, this confirms the existence of at least one long-term relationship between variables in Tunisia for

the period from 1987 to 2019. The existence of a long-term relationship brings us back to estimating equation (1), using the ARDL technique. The results of the estimation are shown in Table 7:

Table 7: Long-Term Relationship

Variable	Dependent variable ATTACKS		
	Coefficient	T-Ratio	Prob.
BC	-0.000867	-14.58116	0.000
CONS	0.573347	2.638763	0.0298
DM	1.440729	4.186424	0.0031
EV	1.162124	4.147798	0.0032
GDP	-0.121715	-1.336095	0.2183
IDE	-0.059242	-0.6277407	0.5479
INFL	-0.131224	-0.777508	0.4592
SP	2.618345	2.847902	0.0215
TRP	20.61104	6.237077	0.0002
UMPL	-0.106024	-0.448375	0.6658
POV	0.003322	0.221455	0.8303
C	-75.81844	-4.704814	0.0015

The results of our model describing the long-term relationship between terrorism and its determinants are presented in Table 7. The existence of a long-term relationship between terrorism and its fundamentals is confirmed for Tunisia. The results show that vulnerable jobs have a positive and significant impact on terrorism in Tunisia at the 1% level. Hence a 1% increase in vulnerable jobs causes a 1.62% increase in terrorism. This means that the fragility of employment and the high level of unemployment facilitate the attraction of young people by terrorist groups. In addition, the effect of the evolution of military spending on terrorism is positive and significant. This result is unexpected compared to those of several previous works which have found a negative and significant sign (Dreher and Fischer (2011) and Aisha Ismail & Shehla Amjad (2014). This result can be justified by the low share of military spending in the

GDP which represents 2.3% in 2018. Thus, an increase in military spending of 1% undergoes an increase in terrorist attacks of 1.44%. In terms of political stability and the absence of terrorism and violence, its impact is positive and significant at 1%. Indeed, a one percentage point increase in political stability leads to an increase in terrorist attacks of 2.61 percentage points. The result obtained is expected and confirms that of (Kaufmann et al. 2010). The presence of a risk factor inherent in a country is a step forward in experimental methods. Eilat and Enaf (2004) show, in this spirit, that tourism depends on GDP per capita, trade and rate exchange rates of developed countries. They introduced a risk index assessing political stability and the absence of violence and terrorism in the country. They found that a one-point increase in the country's risk generates a 0.2% drop in tourism. As for the presidential turnover rate, it

turns out that it is a main determinant of terrorism in Tunisia, its sign is positive and significant at 1%. Indeed, the frequent change of presidents destabilizes the state by leading to terrorist attacks. However, a 1% increase in the presidential turnover rate suffers a 20.61% increase in the level of terrorist attacks in Tunisia. Thus politically unstable countries offer favorable conditions for the propagation of the phenomenon of terrorism. Finally, the results show the existence of a negative and significant relationship between the trade balance and the phenomenon of terrorism. Increasing the ML level by 1% results in a 0.000867% depreciation in the number of terrorist attacks. Thus an increase in the level of ML is likely to improve the level of economic growth by undergoing a power to combat this phenomenon and

create new sources of employment. Finally, and from the results of the estimates, we can notice that the impact of household consumption on terrorism is positive and significant, hence a 1% increase in the level of household consumption leads to an appreciation of 0.57% at the level of terrorism. After having identified the long-term relationship between the variables, Table 4 presents the short-term model and shows that the coefficient (-71.68281) which indicates the speed of convergence towards the long-term equilibrium "the correction coefficient of ECT error (-1)" is negative and significant at 1%. Thus, in the short term, the ECM estimates are presented in Table 8:

Table 8: Short-Term Relationship

Dependent variable : ATTACKS			
Lag structure: (2, 1, 1, 1, 1, 1, 1, 1, 0, 0, 1, 1, 1)			
Variable	Coefficient	t-Statistic	Prob.
ATTACKS(-1)	-0.947828	-18.37942	0.0000
BC(-1)	-0.000822	-26.72914	0.0000
CONS(-1)	0.543434	2.827931	0.0222
DM(-1)	1.365562	3.643418	0.0066
EV(-1)	1.101493	4.094729	0.0035
GDP(-1)	-0.115365	-1.331053	0.2199
IDE	-0.056151	-0.619013	0.5531
INFL(-1)	-0.124378	-0.772964	0.4618
SP(-1)	2.481740	2.950798	0.0184
TRP(-1)	19.53571	5.424197	0.0006
UMPL(-1)	-0.100493	-0.442345	0.6700
POV	0.003148	0.221875	0.8300
D(Attacks(-1))	0.286641	8.084994	0.0000
D(BC)	-0.000257	-130.08829	0.0000
D(CONS)	0.084564	0.554095	0.5947
D(EV)	-0.572272	-2.439842	0.0406
D(GDP)	-1.66423	-2.6859937	0.0277
D(SP)	-6.234934	-12.74600	0.0000
D(TRP)	1.802948	0.873582	0.4078
D(UMPL)	1.802948	0.873582	0.0497
D(INFL)	0.201054	1.991665	0.0816
ECT(-1)	-71.68281	-5.281541	0.0007
Adj. R2=	0.997589		
AIC=	1.046393		
F-stat.=	572.4643, F-prob.=	0.000	

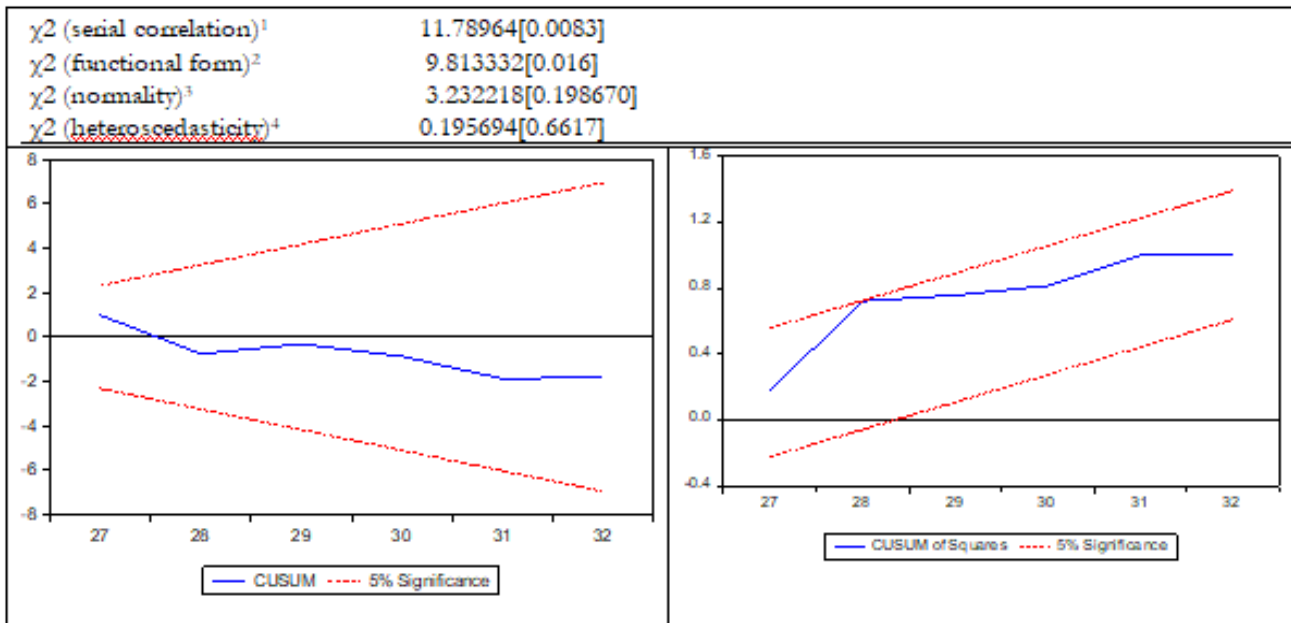
In fact, the existence of an equilibrium relationship between terrorism and the various explanatory variables of the model makes it possible to highlight a long-term relationship between them at least in one sense. For the short-term coefficients, we notice that the delays of the terrorism variable have a strongly significant and positive effect. Once this phenomenon of terrorism has appeared in a specific location, the speed of its spread is more and more rapid over time. The

results also show that the coefficient associated with the unemployment rate delayed by one period is greater than that associated with the same variable delayed by two periods. The amplification of the phenomenon of unemployment is increasingly one of the main catalysts of the phenomenon of terrorism. For the delays in political stability and the presidential turnover rate, we note that they positively and significantly affect terrorism. In addition, military spending and vulnerable jobs have a

significant impact at the threshold of 1%. Hence a 1% increase in military spending undergoes a terrorism appreciation of 1.36%, and an increase in the level of vulnerable jobs by 1%, leads to an increase in terrorist attacks of 1.10%. Finally, our results indicate that poverty has a positive and significant effect in the short term. For the trade balance, its delays have a negative and significant effect at the 1% threshold on terrorism. As well as the delays in the consumption variable have a positive and significant impact on terrorism. As for the

growth rate used as a proxy for the development of the economy, it turns out that it is a determinant of terrorism in Tunisia. Its sign is negative and significant. Hence an increase in economic growth - a percentage point undergoes a decrease of 1.66% of terrorism in Tunisia. Finally, the rate of inflation influences terrorism positively and significantly in the short term at the 10% level.

Table 9: Diagnostic Test



- 1 The Breusch–Godfrey LM test statistic for no serial correlation.
- 2 The White's test statistic for homoscedasticity.
- 3 The Jarque–Bera statistic for normality.
- 4 The Ramsey's Reset test statistic for regression specification error.

In order to validate the model, a series of econometric tests must be carried out on the residue. Table (8) shows the results of diagnostic tests for the selected ARDL model (2, 1, 1, 1, 1, 1, 0, 0, 1, 1, 1). The Jarque-Béra test of normality confirms that the distribution is normal. Further, from the results of the "Breusch-Godfrey Lgrage multiply" test of the correlation of the series and the Breusch-Pagan-Godfrey test of heteroskedasticity, an absence of correlation of the residuals is shown, which means the absence of heteroskedasticity.

In addition, the Ramsey Reset test confirmed the linear specification of our model.

Finally, and in order to judge the structural stability of the model coefficients, one of the econometric requirements for an ARDL model is to verify the presence of the stability of the parameters. In order to test the stability of the short-term and long-term coefficients estimated by the ARDL model, we apply the cumulative sum (CUSUM) and the cumulative sum of

squares (CUSUM Square) tests, carried out to recursive residuals from the ARDL model estimated in this paper (Brown et al. 1975). The results of the tests are presented in Table 5. We note that the curves do not intersect the 5% confidence interval, taking into account that the CUSUM and CUSUM squared plots are located within the critical limits of 5%. Thus, we have empirical evidence showing that the estimated coefficients of the ARDL cointegration model (2, 1, 1, 1, 1, 1, 1, 1, 0, 0, 1, 1, 1) are structurally stable.

## VI. CONCLUSIONS AND POLICY IMPLICATIONS

This work is an essay that analyzes terrorism and its main determinants in Tunisia. The ARDL approach was implemented for the period from 1987 to 2019 on the different time series of the following variables: terrorist attacks, unemployment rate, inflation rate, growth rate, military spending, vulnerable jobs, trade balance, household consumption, foreign direct investment, poverty, political stability and the

presidential rotation rate. The estimation results show the existence of a short-term and a long-term relationship between the different variables.

In order to test the short-term as well as the long-term relationship between terrorism and the explanatory variables of the model, the empirical analysis was first devoted to examining the relationship between terrorist attacks and socioeconomic variables of the model. Tunisia. The regression results suggest that military spending, vulnerable jobs, political stability, trade balance, household consumption and presidential rotation rate significantly affect terrorism. These results, while consistent with those found by several previous empirical studies, provide a definitive conclusion about the determinants of terrorism.

Indeed, the political instability affecting Tunisia, as well as the low growth rate and the high level of unemployment allowed us to come up with two main ideas. First, in Tunisia, which is politically unstable, the level of unemployment has no significant effect on terrorism, while the presidential turnover rate has a significant and positive effect. Second, the quality of employment positively and significantly affects terrorist attacks. This, it seems to us, corroborates our main idea according to which the opening of the employment horizon brings growth and dissolves terrorism if it is carried out in a stable political framework (Ben Doudou, 2018).

In the context of an economic policy perspective and the fight against terrorism in Tunisia, a set of proposals should be formulated. First, Tunisia should continue to fight terrorism by improving the human and material resources made available to the military system and consolidate efforts to digitize it. In addition, it would seem one of the priorities of the government to ensure the application of the rules of good governance in order to stabilize the political situation and ensure presidential stability. In addition, and in order to reduce the number of young terrorists, it is necessary to create jobs and open up horizons for young people to invest.

## REFERENCES RÉFÉRENCES REFERENCIAS

1. Abbas, S. A.; Syed, S.H., (2020). Sectarian terrorism in Pakistan: Causes, impact and remedies. *Journal of Policy Modeling*.
2. Auvinen, 1997. Political conflict in less developed countries. *J. Peace Res.* 34, 177–195.
3. Ajide, K. B., Adenuga, J. I., Raheem, I. D., (2020). Natural resource rents, political regimes, and terrorism in Africa. In: *International economics*.
4. Aziz, M. H., (2009). Pakistan, Fight Terror by Creating Jobs. *Business Week, Asia* (November 25, 2009, [http://www.businessweek.com/globalbiz/content/nov2009/gb20091125\\_996881.html](http://www.businessweek.com/globalbiz/content/nov2009/gb20091125_996881.html)).
5. Abadie, A., (2006). Poverty, political freedom, and the roots of terrorism. *American Economic Review* 96 (2), 50–56.
6. Aisha, I., and Shehla, A., (2014). Determinants of terrorism in Pakistan: An empirical investigation. *Economic Modelling*, Volume 37, vol. 37 (C), pages 320-331.
7. Akpan, S. B., Obot, D. A., Ubon, A. E., (2012). Government Agricultural Credit Policy and Macroeconomic Fundamentals: a case study of Agricultural Credit Scheme Fund (ACGSF) in Nigeria. *Public Policy and Administration Research*; 2 (2): 61-75.
8. Aniruddha, B., Jomon, A. P, (2018). Youth unemployment and terrorism in the MENAP (Middle East, North Africa, Afghanistan, and Pakistan) region, *Socio-Economic Planning Sciences*, Volume 64, Pages 9-20.
9. Auvinen, (1997). Political conflict in less developed countries. *J. Peace Res.* 34, 177–195.
10. Bandyopadhyay, S., and Younes, J., (2020). Poverty, political freedom, and the roots of terrorism in developing countries: An empirical assessment. *Economics Letters*, Volume 112, Issue 2 pages 171-175.
11. Blomberg, S. B., Hess, G. D., Weerapana, A., (2004). Economic conditions and terrorism. *Eur. J. Polit. Econ.* 20, 463–478.
12. Burgoon, B., (2006). On welfare and terror: social welfare policies and political-economic roots of terrorism. *J. Confl. Resolut.* 50 (2), 176–203.
13. Burgoon, B., (2006). On welfare and terror: social welfare policies and political-economic roots of terrorism. *J. Confl. Resolut.* 50 (2), 176–203.
14. Berman, E., Shapiro, J.N., Felter, J. H., (2008). Can hearts and minds be bought? The economics of counterinsurgency in Iraq. *NBER Working Paper*, 14606.
15. Blomberg, S. B., Hess, G. D., (2008). The Lexus and the olive branch: globalization, democratization and terrorism. In: Keefer, P., Loayza, N. (Eds.), *Terrorism, Economic Development, and Political Openness*. Cambridge University Press, New York, pp. 116–147.
16. Blomberg, S. B., Hess, G. D., Weerapana, A., (2004). Economic conditions and terrorism. *Eur. J. Polit. Econ.* 20, 463–478.
17. Bravo, A. B. S., Dias, C. M., (2000). An empirical analysis of terrorism: deprivation, Islamism and geopolitical factors. *Def. Peace Econ.* 17 (4), 329–341.
18. Bandyopadhyay, S., Sandler, T., Younas, J., (2013). Foreign Aid as Counter Terrorism Policy. *Oxford Economic Papers* 63, 423–447.
19. Berman, E., Michael, C., Joseph, H. F., Shapiro, J. N., (2009). Do working men rebel? Insurgency and

- unemployment in Iraq and the Philippines. NBER Working Paper, 15547, pp. 1–21.
20. Basuchoudhary, A., Shughart, W. F., (2010). On ethnic conflict and the origins of transnational terrorism. *Def. Peace Econ.* 21, 65–87.
  21. Ben doudou, M., (2018). Démocratie, stabilité politique et croissance économique: estimation à partir d'un modèle en panel dynamique. *L'actualité économique, revue d'analyse économique*, vol. 94, no 1, mars.
  22. Bevir, M., E. Brown, K., (2019). Decentring counterterrorism. *International Journal of Law, Crime and Justice*.
  23. Berman, E., Shapiro, J. N., Felter, J. H., (2008). Can hearts and minds be bought? The economics of counterinsurgency in Iraq. NBER Working Paper, 14606.
  24. Bianquis, G., Castell, L., (2020). Les attentats nous terrorisent-ils? L'impact des attentats du 13 novembre 2015 sur les préférences des Français. *Revue économique*, 2020/5
  25. Burgoon, B., (2006). On welfare and terror: social welfare policies and political-economic roots of terrorism. *Journal of Conflict Resolution*. 50 (2), 176–203.
  26. Clements, B. J., Gupta, S.; Khamidova, S., (2021). Is military spending converging to a low level across countries?. *Economic Modelling*, Volume 94.
  27. CTRET: Centre Tunisien de Recherches et d'Etudes sur le Terrorisme; Forum Tunisien pour les Droits Economiques et Sociaux.
  28. Caruso, R., Schneider, F., (2011). The socio-economic determinants of terrorism and political violence in Western Europe (1994–2007). *Eur. J. Polit. Econ.* 27, 37–49.
  29. Collier, P., Hoeffler, A., (2004). Greed and grievance in civil war. *Oxf. Econ. Pap.* 56 (4), 563–595.
  30. Campos, N. F., Gassebner, M., (2008). International Terrorism, Political Instability and the Escalation Hypothesis. Mimeo, Brunel University and ETH Zurich.
  31. Catalano, R., McConnell, W., Novaco, R., (1997). A model of the net effect of job loss on violence. *J. Pers. Soc. Psychol.* 72, 1440–1447.
  32. Choi, S. W., (2010). Fighting terrorism through the rule of law? *J. Confl. Resolut.* 54, 940–966.
  33. Dreher, A., Fischer, J., (2010). Government decentralization as a disincentive for transnational terror? an empirical analysis. *International economic review* vol. 51, no. 4, November.
  34. Dreher, A., Gassebner, M., (2008). Does political proximity to the US cause terror? *Econ. Lett.* 99, 27–29.
  35. Engle, R.F., and Granger, C.W., (1987). Co-Integration and Error Correction: Representation, Estimation, and Testing. *Econometrica*. Vol 55, N°2, pp. 251-276 (26 pages).
  36. Estrada, M.A., Park, D., Khan, A., (2018). The impact of terrorism on economic performance: The case of Turkey. *Economic Analysis and Policy*, volume 60, december 2018, pages 78-88
  37. Estrada, M.A., Park, D., Kim, J.S., Khan, A., (2015). "The economic impact of terrorism: A new model and its application to Pakistan. *Journal of Policy Modeling*, Volume 37, Issue 6, 2015, Pages 1065-1080.
  38. Ezcura, R., Palacios, D., (2019). Terrorism and spatial disparities: Does interregional inequality matter?. *European Journal of Political Economy*, volume 42, March 2016, Pages 60-74
  39. Ezcurra, R., Palaios, D., (2016). Terrorism and spatial disparities: Does interregional inequality matter?. *European Journal of Political Economy*. Volume 42, March, pages 60-74.
  40. Feridun, M., Shahbaz. (2010). fighting terrorism: are military measures effective? empirical evidence from turkey. *Defence and Peace Economics*, vol. 21, issue 2, 193-205.
  41. Fearon, J. D., Laitin, D. D., (2003). Ethnicity, insurgency and civil war. *Am. Polit. Sci. Rev.* 97 (1), 75–90.
  42. Feldmann, A. E., Perala, M., (2004). Reassessing the causes of nongovernmental terrorism in Latin America. *Lat. Am. Polit. Soc.* 46 (2), 101–132.
  43. Friedman, T. L., (2002). The Core of Muslim Rage. *New York Times A 25* (March 6).
  44. Freytag, A., Krüger, J.J., Meierrieks, D., Schneider, F., (2010). The Origins of Terrorism: Cross-Country Estimates on Socio-Economic Determinants of Terrorism. Center for International Economics Working Paper Series. University of Paderborn, Paderborn, Germany.
  45. Goldstein, K. B., (2006). Unemployment, inequality and terrorism: another look at the relationship between economics and terrorism. *Carroll Round Proc.* 1 (1), 18–28.
  46. Gurr, T., (1970). *Why Men Rebel*. Princeton, Princeton University Press.
  47. Gassebner, M., Luechinger, S., (2011). Lock, stock, and barrel: a comprehensive assessment of the determinants of terror. *Public Choice* 149, 235–261.
  48. Green, D. P., Glaser, J., Rich, A., (1998). From lynching to gay-bashing: the elusive connection between economic conditions and hate crime. *J. Pers. Soc. Psychol.* 75 (1), 82–92.
  49. Hacker, F. J., (1976). *Crusaders, Criminals, Crazies: Terror and Terrorism in Our Time*. W. W. Norton, New York.
  50. Harrison, M., (2006). An economist looks at suicide terrorism. *World Econ.* 7 (3), 1–15.
  51. Hudson, R. A., Library of Congress, Federal Research Division, (2002). *Who becomes a terrorist and why: the 1999 government report on profiling terrorists*. Lyons Press, Guilford, Conn.



52. Harrison, M., (2006). An economist looks at suicide terrorism. *World Econ.* 7 (3), 1–15.
53. Honaker, J., (2010). Unemployment and violence in Northern Ireland: a missing data model for ecological inference. Paper presented to Quassi, Penn State (February 2010).
54. Helfstein S. Social capital, and terrorism. *Defence Peace Econ* (2014); 25 (4): 363–80.
55. Immordino, G., Karakoç, G., and Piccolo, S., (2018). Terrorism, counterterrorism and optimal striking rules. *Revue économique*, 2018/6 Vol. 69, pages 961 à 984.
56. Ismail, A., Amjad, S., (2014). Determinants of terrorism in Pakistan: an empirical investigation. *Economic modelling*, 37, 320-331.
57. Johansen, S., (1988). Statistical analysis of cointegration vectors. *Journal of economic dynamics and control*, 12 (2), pp. 231-254.
58. Johansen, S., Juselius, K., (1990). Maximum likelihood estimation and inference on cointegration with applications to the demand for money. *Oxford Bulletin of Economics and Statistics* n°52, pp. 169-210.
59. Khusrav, G., and Sandler, T., (2019). What We Have Learned about Terrorism since 9/11. *Journal of Economic Literature*. 57 (June): 275-328.
60. Krieger, T., and Meierrieks, D., (2019). Income inequality, redistribution and domestic terrorism. *World Development*, vol. 116, pages 125-136.
61. Kalyvas, S. N., (2006). *The Logic of Violence in Civil War*. Cambridge Univ. Press, New York.
62. Kirisci M., (2020). Who fights terror: gendarmerie forces and terrorist group termination. *Terrorism Polit Violence*: 1–26.
63. Krieger, T., Meierrieks, D., (2011). What causes terrorism? *Public Choice* 147, 3–27.
64. Krueger, A. B., Maleckova, J., (2003). Education, poverty and terrorism: is there a causal connection? *J. Econ. Perspect.* 17 (4), 119–144.
65. Kurrild-Klitgaard, P., Justesen, M. K., Klemmensen, P., (2006). The political economy of freedom, democracy and transnational terrorism. *Public Choice* 128, 289–315.
66. Kalyvas, S. N., (2006). *The Logic of Violence in Civil War*. Cambridge Univ. Press, New York.
67. Kis-Katos, K., Liebert, H., Schulze, G. G., (2011). On the origin of domestic and international terrorism. *Eur. J. Polit. Econ.* <http://dx.doi.org/10.1016/j.ejpoleco.2011.02.002>.
68. Lanouar, C, Goaid, M (2019). Tourism, terrorism and political violence in Tunisia: Evidence from Markovswitching models. *Tourism Management* 70; 404-418.
69. Lai, B., (2007). Draining the swamp: an empirical examination of the production of international terrorism, 1968–1998. *Confl. Manag. Peace Sci.* 24 (4), 297–310.
70. Li, Q., Schaub, D., (2004). Economic globalization and transnational terrorism: a pooled time-series analysis. *J. Confl. Resolut.* 48 (2), 230–258.
71. Lai, B., (2007). Draining the swamp: an empirical examination of the production of international terrorism, 1968–1998. *Confl. Manag. Peace Sci.* 24 (4), 297–310.
72. Morris, N. A., LaFree, G., (2016). Country-level predictors of terrorism. *The handbook of the criminology of terrorism*. p. 93–117.
73. Muller, E. N., Seligson, M. A., (1990). Inequality and insurgency. *J. Confl. Resolut.* 34 (4), 425–452.
74. Miguel, E., Shanker, S., Ernest, S., (2004). Economic shocks and civil conflict: an instrumental variables approach. *J. Polit. Econ.* 112, 725–753.
75. Malik, Z and Zaman, K., (201) Macroeconomic consequences of terrorism in Pakistan, *Journal of Policy Modeling*, Volume 35, Issue 6.
76. Mohamed, H; Ben Jebli, M, Ben Youssef, S., (2019). Renewable and fossil energy, terrorism, economic growth, and trade. Evidence from France, *Renewable Energy*, Volume 139.
77. Mahmoud, M., (2013). l'analyse des dépôts du secteur privé dans les banques commerciales au Liban: application du modèle ARDL. *Lebanese science journal*, vol. 13, no. 2.
78. Nicole., (2003). America's underclass and crime: the influence of macroeconomic factors. *Issues Polit. Econ.* 12.
79. Oppenheim, L. H., (2007). *Politics in Chile: socialism, authoritarianism, and market democracy*, 3rd ed. Westview Press, Boulder, CO.
80. Oppenheim, L. H., (2007). *Politics in Chile: socialism, authoritarianism, and market democracy*, 3rd ed. Westview Press, Boulder, CO.
81. Oyefusi, A., (2010). Oil, youths, and civil unrest in Nigeria's delta. *Confl. Manag. Peace Sci.* 27 (4), 326–346.
82. Pesaran, M. H., Shin, Y., and Smith, R. P., (2001). bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics* j. appl. econ. 16: 289–326
83. Pesaran, M. H., Shin, Y., Smith, R. P., (1999). Pooled Mean Group Estimation of Dynamic Heterogeneous Panels" *Journal of the American Statistical Association*. Vol. 94, N°446, pp. 621-634 (14 pages)
84. Polyxeni, K., and Theodore, M., (2019). An empirical investigation of FDI inflows in developing economies: Terrorism as a determinant factor. *The Journal of Economic Asymmetries*, vol 20.
85. Raja, P., Raghu, A., (2020). A critical review of terrorism effects and their impacts on tourist destination countries. *Materials Today: Proceedings*.

86. Piazza, J. A., (2006). Rooted in poverty? Terrorism, poor economic development, and social cleavages. *Terror. Polit. Violence* 18 (1), 159–177.
87. Piazza, J. A., (2011). Poverty, minority economic discrimination and domestic terrorism. *J. Peace Res.* 48, 339–353.
88. Ross, J. I., (1993). Structural causes of oppositional political terrorism: towards a causal model. *J. Peace Res.* 30 (3), 317–329.
89. Salvatore, D., (2007). Growth, international inequalities, and poverty in a globalized world. *Journal Policy Model* 29, 635–641.
90. Sarwar, F., Panatik, S. A., Jameel, H. T., (2020). Does fear of terrorism influence psychological adjustment of academic sojourners in Pakistan? Role of state negative affect and emotional support, *International Journal of Intercultural Relations*, volume 75.
91. Shahbaz, M., (2013). Linkages between inflation, economic growth and terrorism in Pakistan. *Economic Modelling*, Volume 32, 2013, Pages 496-506,
92. Shahbaz, M., Shabbir, M. S., Malik, M. N., Wolters, M. E., (2013). An analysis of a causal relationship between economic growth and terrorism in Pakistan. *Economic Modelling*, vol. 35, pages 21-29.
93. Samaranyake, G., (1999). Patterns of political violence and response of the government in Sri Lanka, 1971–1996. *Terrorism and Political Violence* 11 (1), 110–122.
94. Stern, J., (2003). *Terror in the Name of God: Why Religious Militants Kill*. Eco-HarperCollins, New York.
95. Schneider, F., Brück, T., Meierrieks, D., (2010). The economics of terrorism and counterterrorism: a survey. Discussion Paper No. 1049–1050. DIW Berlin.
96. Sayre, E., (2009). Labor market conditions, political events, and Palestinian suicide bombings. *Peace Econ. Peace Sci. Public Policy* 15 (1) (<http://www.bepress.com/peps/vol15/iss1/1>).
97. Savun, B., Phillips, B., (2009). Democracy, foreign policy, and terrorism. *J. Confl. Resolut.* 53, 878–904.
98. Thompson, J. L. P., (1989). Deprivation and political violence in Northern Ireland, 1922–1985: a time-series analysis. *J. Confl. Resolut.* 33 (4), 676–699.
99. Wade, S.J. and Reiter, D., (2007). Does democracy matter? Regime type and suicide terrorism. *Journal of Conflict Resolution*. 50 (2), 176–203.
100. Working Paper Series. University of Paderborn, Paderborn, Germany.

# GLOBAL JOURNALS GUIDELINES HANDBOOK 2023

---

[WWW.GLOBALJOURNALS.ORG](http://WWW.GLOBALJOURNALS.ORG)

# MEMBERSHIPS

## FELLOWS/ASSOCIATES OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL FMBRC/AMBRC MEMBERSHIPS

### INTRODUCTION



FMBRC/AMBRC is the most prestigious membership of Global Journals accredited by Open Association of Research Society, U.S.A (OARS). The credentials of Fellow and Associate designations signify that the researcher has gained the knowledge of the fundamental and high-level concepts, and is a subject matter expert, proficient in an expertise course covering the professional code of conduct, and follows recognized standards of practice. The credentials are designated only to the researchers, scientists, and professionals that have been selected by a rigorous process by our Editorial Board and Management Board.

Associates of FMBRC/AMBRC are scientists and researchers from around the world are working on projects/researches that have huge potentials. Members support Global Journals' mission to advance technology for humanity and the profession.

## FMBRC

### FELLOW OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL

FELLOW OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL is the most prestigious membership of Global Journals. It is an award and membership granted to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Fellows are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Fellow Members.



## BENEFIT

### TO THE INSTITUTION

#### GET LETTER OF APPRECIATION

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



### EXCLUSIVE NETWORK

#### GET ACCESS TO A CLOSED NETWORK

A FMBRC member gets access to a closed network of Tier 1 researchers and scientists with direct communication channel through our website. Fellows can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career

Credibility

Exclusive

Reputation



### CERTIFICATE

#### CERTIFICATE, LOR AND LASER-MOMENTO

Fellows receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career

Credibility

Exclusive

Reputation



### DESIGNATION

#### GET HONORED TITLE OF MEMBERSHIP

Fellows can use the honored title of membership. The "FMBRC" is an honored title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., FMBRC or William Walldroff, M.S., FMBRC.

Career

Credibility

Exclusive

Reputation

### RECOGNITION ON THE PLATFORM

#### BETTER VISIBILITY AND CITATION

All the Fellow members of FMBRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation. All fellows get a dedicated page on the website with their biography.

Career

Credibility

Reputation

## FUTURE WORK

### GET DISCOUNTS ON THE FUTURE PUBLICATIONS

Fellows receive discounts on future publications with Global Journals up to 60%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career

Financial



## GJ ACCOUNT

### UNLIMITED FORWARD OF EMAILS

Fellows get secure and fast GJ work emails with unlimited forward of emails that they may use them as their primary email. For example, john [AT] globaljournals [DOT] org.

Career

Credibility

Reputation



## PREMIUM TOOLS

### ACCESS TO ALL THE PREMIUM TOOLS

To take future researches to the zenith, fellows receive access to all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

## CONFERENCES & EVENTS

### ORGANIZE SEMINAR/CONFERENCE

Fellows are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same 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. Additionally, they get free research conferences (and others) alerts.

Career

Credibility

Financial

## EARLY INVITATIONS

### EARLY INVITATIONS TO ALL THE SYMPOSIUMS, SEMINARS, CONFERENCES

All fellows receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive





## PUBLISHING ARTICLES & BOOKS

### EARN 60% OF SALES PROCEEDS

Fellows can publish articles (limited) without any fees. Also, they can earn up to 70% of sales proceeds from the sale of reference/review books/literature/publishing of research paper. The FMBRC member can decide its price and we can help in making the right decision.

Exclusive

Financial

## REVIEWERS

### GET A REMUNERATION OF 15% OF AUTHOR FEES

Fellow members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

## ACCESS TO EDITORIAL BOARD

### BECOME A MEMBER OF THE EDITORIAL BOARD

Fellows may join as a member of the Editorial Board of Global Journals Incorporation (USA) after successful completion of three years as Fellow and as Peer Reviewer. Additionally, Fellows get a chance to nominate other members for Editorial Board.

Career

Credibility

Exclusive

Reputation

## AND MUCH MORE

### GET ACCESS TO SCIENTIFIC MUSEUMS AND OBSERVATORIES ACROSS THE GLOBE

All members get access to 5 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 10 GB free secure cloud access for storing research files.

### ASSOCIATE OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL

ASSOCIATE OF MANAGEMENT AND BUSINESS RESEARCH COUNCIL is the membership of Global Journals awarded to individuals that the Open Association of Research Society judges to have made a 'substantial contribution to the improvement of computer science, technology, and electronics engineering.

The primary objective is to recognize the leaders in research and scientific fields of the current era with a global perspective and to create a channel between them and other researchers for better exposure and knowledge sharing. Members are most eminent scientists, engineers, and technologists from all across the world. Associate membership can later be promoted to Fellow Membership. Associates are elected for life through a peer review process on the basis of excellence in the respective domain. There is no limit on the number of new nominations made in any year. Each year, the Open Association of Research Society elect up to 12 new Associate Members.





## BENEFIT

### TO THE INSTITUTION

#### GET LETTER OF APPRECIATION

Global Journals sends a letter of appreciation of author to the Dean or CEO of the University or Company of which author is a part, signed by editor in chief or chief author.



### EXCLUSIVE NETWORK

#### GET ACCESS TO A CLOSED NETWORK

A AMBRC member gets access to a closed network of Tier 2 researchers and scientists with direct communication channel through our website. Associates can reach out to other members or researchers directly. They should also be open to reaching out by other.

Career

Credibility

Exclusive

Reputation



### CERTIFICATE

#### CERTIFICATE, LOR AND LASER-MOMENTO

Associates receive a printed copy of a certificate signed by our Chief Author that may be used for academic purposes and a personal recommendation letter to the dean of member's university.

Career

Credibility

Exclusive

Reputation



### DESIGNATION

#### GET HONORED TITLE OF MEMBERSHIP

Associates can use the honored title of membership. The "AMBRC" is an honored title which is accorded to a person's name viz. Dr. John E. Hall, Ph.D., AMBRC or William Walldroff, M.S., AMBRC.

Career

Credibility

Exclusive

Reputation

### RECOGNITION ON THE PLATFORM

#### BETTER VISIBILITY AND CITATION

All the Associate members of ASFRC get a badge of "Leading Member of Global Journals" on the Research Community that distinguishes them from others. Additionally, the profile is also partially maintained by our team for better visibility and citation. All associates get a dedicated page on the website with their biography.

Career

Credibility

Reputation

## FUTURE WORK

### GET DISCOUNTS ON THE FUTURE PUBLICATIONS

Associates receive discounts on the future publications with Global Journals up to 60%. Through our recommendation programs, members also receive discounts on publications made with OARS affiliated organizations.

Career

Financial



## GJ ACCOUNT

### UNLIMITED FORWARD OF EMAILS

Associates get secure and fast GJ work emails with 5GB forward of emails that they may use them as their primary email. For example, john [AT] globaljournals [DOT] org..

Career

Credibility

Reputation



## PREMIUM TOOLS

### ACCESS TO ALL THE PREMIUM TOOLS

To take future researches to the zenith, fellows receive access to almost all the premium tools that Global Journals have to offer along with the partnership with some of the best marketing leading tools out there.

Financial

## CONFERENCES & EVENTS

### ORGANIZE SEMINAR/CONFERENCE

Associates are authorized to organize symposium/seminar/conference on behalf of Global Journal Incorporation (USA). They can also participate in the same 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. Additionally, they get free research conferences (and others) alerts.

Career

Credibility

Financial

## EARLY INVITATIONS

### EARLY INVITATIONS TO ALL THE SYMPOSIUMS, SEMINARS, CONFERENCES

All associates receive the early invitations to all the symposiums, seminars, conferences and webinars hosted by Global Journals in their subject.

Exclusive





## PUBLISHING ARTICLES & BOOKS

### EARN 60% OF SALES PROCEEDS

Associates can publish articles (limited) without any fees. Also, they can earn up to 30-40% of sales proceeds from the sale of reference/review books/literature/publishing of research paper.

Exclusive

Financial

## REVIEWERS

### GET A REMUNERATION OF 15% OF AUTHOR FEES

Fellow members are eligible to join as a paid peer reviewer at Global Journals Incorporation (USA) and can get a remuneration of 15% of author fees, taken from the author of a respective paper.

Financial

## AND MUCH MORE

### GET ACCESS TO SCIENTIFIC MUSEUMS AND OBSERVATORIES ACROSS THE GLOBE

All members get access to 2 selected scientific museums and observatories across the globe. All researches published with Global Journals will be kept under deep archival facilities across regions for future protections and disaster recovery. They get 5 GB free secure cloud access for storing research files.



ASSOCIATE	FELLOW	RESEARCH GROUP	BASIC
<p>\$4800 lifetime designation</p> <hr/> <p>Certificate, LoR and Momento 2 discounted publishing/year Gradation of Research 10 research contacts/day 1 GB Cloud Storage GJ Community Access</p>	<p>\$6800 lifetime designation</p> <hr/> <p>Certificate, LoR and Momento Unlimited discounted publishing/year Gradation of Research Unlimited research contacts/day 5 GB Cloud Storage Online Presense Assistance GJ Community Access</p>	<p>\$12500.00 organizational</p> <hr/> <p>Certificates, LoRs and Momentos Unlimited free publishing/year Gradation of Research Unlimited research contacts/day Unlimited Cloud Storage Online Presense Assistance GJ Community Access</p>	<p>APC per article</p> <hr/> <p>GJ Community Access</p>



# 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](mailto:submit@globaljournals.org) or get in touch with [chiefeditor@globaljournals.org](mailto: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

---

---

## **A**

Amicably · 30

---

## **C**

Cointegrating · 36, 37

---

## **E**

Eigenvalue · 3  
Enormous · 10, 17, 33  
Enthusiasts · 27  
Erodes · 27

---

## **F**

Feasible. · 30, 48, 57  
Fiscal · 18

---

## **H**

Hinged · 27

---

## **I**

Interim · 16  
Intricate · 48, 57

---

## **N**

Negotiation · 31  
Notorious · 27

---

## **O**

Omission · 29, 30  
Orthogonal · 3

---

## **P**

Phenomenon · 34, 42, 52  
Pistachios · 7, 8  
Plenary · 27  
Posterior · 58

---

## **Q**

Quibbles · 27

---

## **T**

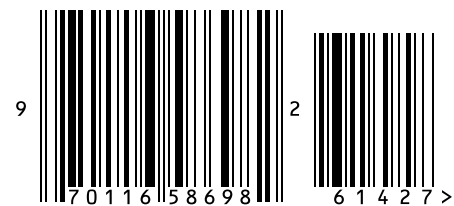
Tinbergen · 49, 58, 61



save our planet

# Global Journal of Management and Business Research

Visit us on the Web at [www.GlobalJournals.org](http://www.GlobalJournals.org) | [www.JournalofBusiness.Org](http://www.JournalofBusiness.Org)  
or email us at [helpdesk@globaljournals.org](mailto:helpdesk@globaljournals.org)



ISSN 9755853

© Global Journals