Online ISSN : 2249-4588
Print ISSN : 0975-5853
DOI : 10.17406/GJMBR

Global Journal

of Management and Business Research: A

Administration and Management

An Analytical Study

Determinants of Service Quality

Highlights

Contemporary Market Scenario

Benchmarking for Indian Airlines

Discovering Thoughts, Inventing Future

VOLUME 16 ISSUE 12 VERSION 1.0

Global Journal of Management and Business Research: A
Administration and Management

Global Journal of Management and Business Research: A
Administration and Management

Volume 16 Issue 12 (Ver. 1.0)

Open Association of Research Society

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

Find a correspondence nodal officer near you

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

eContacts

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

Pricing (Including by Air Parcel Charges):

For Authors:

22 USD (B/W) & 50 USD (Color)

Yearly Subscription (Personal & Institutional):

200 USD (B/W) & 250 USD (Color)

Contents of the Issue

Global Journal of Management and Business Research: A
Administration and Management
Volume 16 Issue 12 Version 1.0 Year 2016
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Benchmarking for Indian Airlines Industry in Contemporary Market Scenario

By N. Thamarai Selvan, B. Senthil Arasu & S. Thanigai Arul

Air India Ltd

Abstract- Purpose: The purpose of the study is to analyse the performance of Indian air transport operators using key parameters and to benchmark production, marketing and overall efficiencies that can eventually guide top management in tackling present contemporary challenges prevailing in the Indian aviation market and also to provide insights in strategic decision making process.

Design/Methodology/Approach: This study applies two stage Data Envelopment Analysis (DEA) to evaluate the production and marketing and overall efficiency. Super-Efficient DEA model is used to calculate the efficiency scores and to rank the airlines. Eight Key performance indicators of production and marketing efficiencies are analysed from the year 2010 to 2014 to study the market dynamics.

Keywords: benchmarking, two stage DEA, super efficiency model, indian airlines industry.

GJMBR-A Classification: JEL Code: L10

BENCHMARKINGFORINDIANAIRLINESINDUSTRYINCONTEMPORARYMARKETSCENARIO

Strictly as per the compliance and regulations of:

Benchmarking for Indian Airlines Industry in Contemporary Market Scenario

N. Thamarai Selvan [α], B. Senthil Arasu [σ] & S. Thanigai Arul [ρ]

Abstract- Purpose: The purpose of the study is to analyse the performance of Indian air transport operators using key parameters and to benchmark production, marketing and overall efficiencies that can eventually guide top management in tackling present contemporary challenges prevailing in the Indian aviation market and also to provide insights in strategic decision making process.

Design/Methodology/Approach: This study applies two stage Data Envelopment Analysis (DEA) to evaluate the production and marketing and overall efficiency. Super-Efficient DEA model is used to calculate the efficiency scores and to rank the airlines. Eight Key performance indicators of production and marketing efficiencies are analysed from the year 2010 to 2014 to study the market dynamics.

Findings: The study proves that DEA can be used as is an effective tool in analyzing the production, marketing and overall efficiency airlines operating in India. Two significant results of this study are that Low Cost Carrier (LCC) is a bench mark airline for production and overall efficiency parameters in Indian airlines industry and that the production efficiency has higher impact on overall efficiency than marketing efficiency.

Research limitations/implications: These findings will help strategic decision makers of Indian airline companies to focus on improving production performance and also to emulate Low Cost Carrier models. The analysis carried out using five years data up to the year 2014 in domestic market will be of help to stake holders in the Indian aviation industry.

Keywords: benchmarking, two stage DEA, super efficiency model, indian airlines industry.

I. Introduction

India is one of the fastest growing aviation markets and currently the ninth largest civil aviation market in the world and is projected to be the third largest aviation market by 2020. Total passenger traffic stood at 190 Million during Financial Year (FY) 2015(Airport Authority of India –Passenger statistics-2015).Growth in passenger traffic has been strong since the new millennium, especially with rising individual incomes and low-cost aviation. Passenger traffic expanded at a Compounded Annual Growth Rate (CAGR)of 10% since 2009. The international and domestic passengers carried in last six years, along with growth rate from 2009-2015 is shown in figure 1.

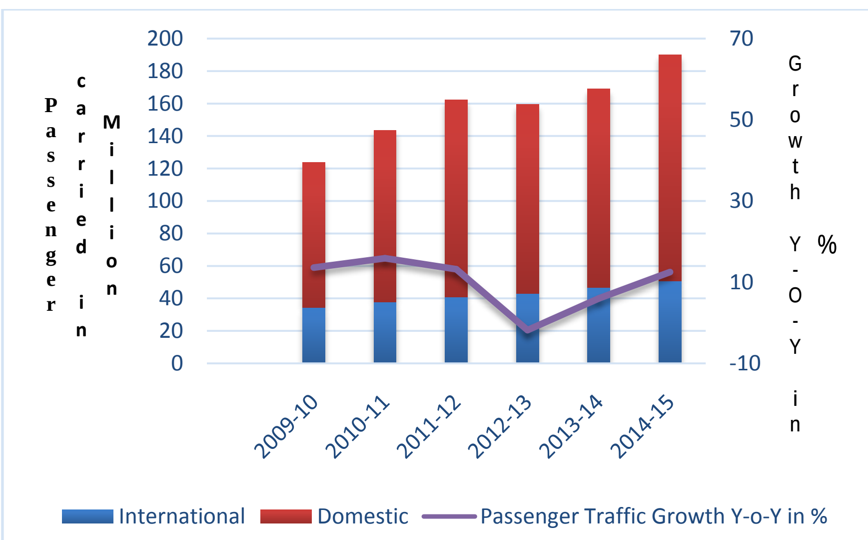


Figure 1: Passenger Carried (Millions) and Growth

Source: Airport Authority of India –passenger statistics -2009-15

Eighty five International airlines fly in the Indian sky, connecting over 40 countries. Although India's middle-income population is expected to increase from 160 Million in 2011 to 267 Million by the year 2016, the Indian air transport sector is one of the least penetrated air markets in the world with just 0.04 trips per capita per annum as compared to 0.3 in China and more than 2 in

Author α: Associate Professor, Department of Management Studies, National Institute of Technology, Trichy(NITT), Tamil Nadu, India. e-mail: selvan@nitt.edu

Author σ: Assistant Professor, Department of Management Studies, National Institute of Technology, Trichy (NITT), Tamil Nadu, India. e-mail: arasu@nitt.edu

Author ρ: Assistant General Manager, Air India, Chennai, Tamil Nadu, India.

the USA. As there is good potential for growth, Indian carriers plan to increase their fleet size to reach 800 aircrafts by 2020.The Indian aviation sector is likely to see investments totaling USD 12.1 Billion during 2012-17 of which USD 9.3 Billion is expected to come from the private sector(Government of India's Make in India portal).

II. Indianair Transport Industry (IATI) - an Overview

Presently eight airlines are operating in India of which, five airlines account for 97% of the market share. New startups Air cosata, Air Asia-India and Vistara are yet to make a noticeable impact in the market. Indigo, the market leader, Spice jet, and Go Air are Low Cost Carriers (LCC) and Air India (Owned by Government of India) and Jet Airways are Full Service Carriers(FSC). The market share as on August 2016 is represented in the following Figure 2.

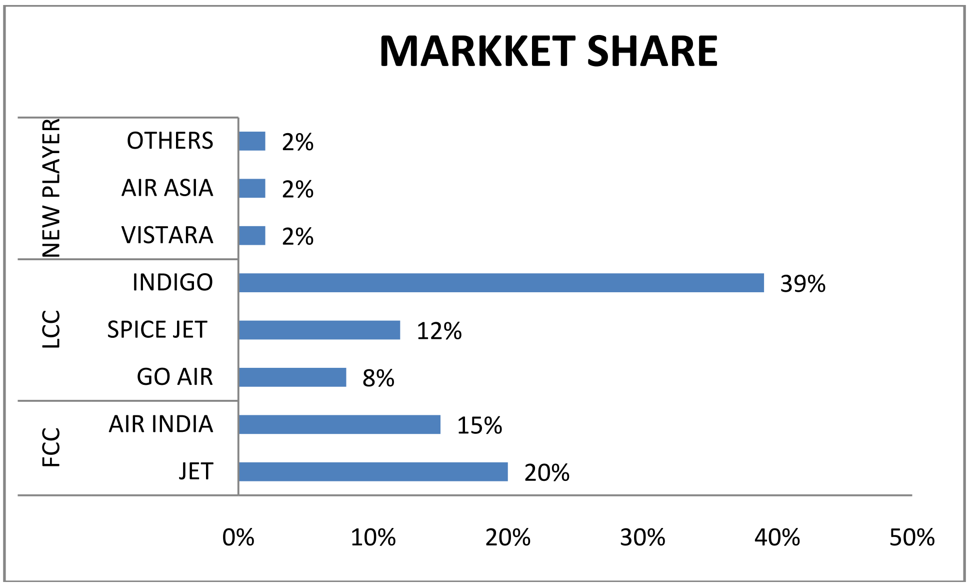


Figure 2: Market share as on August 2016

Source: Director General of Civil Aviation (DGCA), India

While India's LCCs have a domestic market share of 59%, passengers flying on full service airlines pay close to LCC fares in economy class. As a result India is virtually a 100% low fare market. In the Indian market LCCs and FSCs both operate from the same airports with new aircraft, offering high frequencies on key markets. LCC reliability, on time performance, consistency, ground product and cabin crew service standards, are comparable with or even better than FSCs. As per center for Asia pacific aviation (CAPA) report on Indian aviation states that from the Indian passenger's perspective there is little to distinguish between an LCC and an FSC in economy class other than the fact that the latter offers a complimentary onboard meal.

a) *Strategic issues in IATI*

Despite the phenomenal growth of the Indian aviation market and a very positive forecast for the future, Indian Air transport operators continue to struggle to stay afloat and make profits mainly due to low fares, drop in premium travels, low yields and tax burdens on fuel,. Many international airlines from other countries have started making profits after drop in oil price but in India the FSCs have been consistently making losses for last four years on the other hand, the LCCs, Indigo and Go Air are earning profits. Expected profit/ Loss for Indian airlines for FY 2015 are shown in Table 1.It's alarming to note that the total debt of Indian Airlines industry stands around $11.3 billion and 8 airlines have become defunct in last 10 years.

Table 1: Net Profit/Loss of Indian Carriers – (FY- 2014-2015)

Airline	Net Profit/(Loss) In $ -Million
Indigo	150-175
Go Air	14-15
Spice Jet	(-107)
Jet Airways	(-343)
Air India	(-900to –920)
New Airlines: Air Asia India, Air CoastaandVistara	(-50to -60)

Source: Center for Aviation – India (CAPA) Market study-2015

To avoid mounting losses and to continue to grow in the field the top management of IATI requires a clear vision that can be translated into adaptable strategies and managerial decisions to turn the airlines around. A comprehensive study including vital performance indicators as major input and output parameters have not yet been carried out for IATI. It is felt that Bench marking of Airlines must be carried out using performance indicators to achieve this objective. So far, the analyses carried out in India are primarily based on one of the many key performance indicators such as revenue earned, total number of passenger carried, passenger load factor, profit generated etc.

It is conceived that Data Envelopment Analysis (DEA) can be used to analyse the performance of IATI using the performance indicators. This study uses a two-stage DEA model to overcome shortcomings of the traditional one-stage DEA. Of the many key performance indicators used in studies reported in literature, the input and intermittent output variables for this study are selected after extensive discussions with Indian aviation experts and also with top management executives of IATI. The production, marketing and overall efficiency ranking are obtained using a super-efficient DEA model. The findings from the analysis are discussed. This article concludes with managerial implications, limitations of the study and future scope for academic research.

III. Literature Review

Data Envelopment Analysis (DEA) is a linear programming based technique that converts multiple output and input measures into a single comprehensive measure of performance. This is performed by the construction of an empirical-based production or resource conversion frontier, and by the identification of peer groups. DEA has also been widely applied in evaluating airline performance.

Schefczyk et al. (1993) used the DEA technique to analyze and compare operational performance of 15 international airlines using non-financial data such as available ton kilometer, revenue passenger kilometer etc. The study demonstrated that DEA can be a very effective tool to assess the technical efficiency of international airlines compared to financial analysis. Sickles et al. (1995) examined the performance of the eight largest European and the eight largest American airlines for a ten year period between 1976-1986 using two methods –parametric analysis using statistical estimation and non-parametric analysis (DEA) using linear programming. The authors observed discrepancy in the productive efficiency of European airlines even under the conditions of deregulations and liberalization of the airline industry. Michaelides et al. (2009) have employed both Stochastic Frontier Analysis (SFA) and DEA using a panel data set of 24 world's largest network airlines to estimate technical efficiency in International Air Transport for the period 1991-2000. The authors observed that the airlines achieved constant returns to scale with technical efficiencies ranging from 51% to 97%. They also observed that ownership (private or public) did not affect the technical efficiency of the airlines and the results from both SFA and DEA did not vary significantly. GeorgeAssafet.A.et al. (2009) measured the operating efficiency of UK airlines in the years 2002-2007. The study measured the technical efficiency of airlines through data envelopment analysis bootstrap methodology. The efficiency of UK airlines was found to continuously decline since 2004 to reach a value of 73.39 per cent in 2007. Factors that were found to be significantly and positively related to technical efficiency variations included airline size and load factor. Boon L. Lee et al. (2010) determined the Relative Efficiency of International, Domestic, and Budget Airlines. This study determined whether the inclusion of low-cost airlines in a dataset of international and domestic airlines has an impact on the efficiency scores of 'prestigious' and purportedly 'efficient' airlines. The findings reveal that the majority of budget airlines are efficient relative to their more prestigious counterparts. Moreover, most airlines identified as inefficient are so largely because of improper utilization of non-flight assets. Domenico Campisi et al. (2010) analyzed the relationship between low cost carriers (LCC) passenger traffic, secondary airports utilization and regional economic development in Italy. LCCs have been the fastest growing sector of the aviation industry. The routes served by these carriers were undersized in comparison with principal routes. The findings indicated that increased service at Italian secondary airports could affect economic development in the surrounding regions, including increased tourism and the potential for cluster development. Wen-Min Lu et al. (2011)analyzed the effects of corporate governance on airline performance (Production and marketing efficiency). The study applied two-stage Data Envelopment Analysis (DEA) truncated regression to find out if the characteristics of corporate governance affect airline performance. The results demonstrate that corporate governance influences firm performance significantly. Seong-Jong Joo and Karen L. Fowler (2012) studied comparative efficiency and determinants of efficiency for major world airlines found that revenues and expenses were significant in explaining the efficiency score of airlines.

Atul Raiet. al. (2013) determined the technical efficiency of US airlines during 1985-1995 using the DEA model. Results of efficiency analysis were applied to determine if efficiency and stock returns were related. Two portfolios, one consisting of efficient airlines, and the other consisting inefficient airlines, were compared. The efficient portfolio was found to outperform the inefficient portfolio by an annual margin of 23% using raw returns.

It can be seen that no bench marking tools including DEA have included Indian Airlines in their study and a literature survey shows that there are, hitherto, no articles reporting analysis of IATI. The input/output variables used in earlier DEA analyses of the airline industry and their key findings are given in Table2.

Table 2: Parameters studied and Findings

Year and name	Parameters		Findings
	Inputs	Outputs	
Schefczyk M (1993)	Available Ton-Kilometres (ATK), operating costs, and non-flight assets (NFA)	Passenger Revenue, Non passenger revenue(NPR)	DEA can be very useful tool to assess the technical efficiency of international airlines which otherwise was difficult to do using financial data
MICHAELIDES(2009)	employee, fuel and oil, fleet	total annual passenger-kilometers	Airlines achieved constant returns to scale with technical efficiencies ranging from 51% to 97%. ownership (private or public) does not affect the technical efficiency of the airlines
A. George Assafet al (2009).	labour expenses, aircraft fuel and oil expenses, aircraft value	Tone kilometers, available and total operational revenues	The technical efficiency of UK airlines has continuously declined since 2004 Airline size and load factor positively affect the efficiency.
Boon L. Lee (2010)	available ton-kilometers (ATK), operating costs, and non-flight assets (NFA)	revenue passenger-kilometers (RPK) and non-passenger revenue	Majority of budget airlines are efficient compare to their more prestigious counterparts. Most airlines identified as inefficient are mainly because of the overutilization of non-flight assets.
Domenico Campisi et al. (2010)	Accessibility and traffic growth.	Passenger traffic growth	LCCs have been the fastest growing sector of the aviation industry. Increased service level at Italian secondary airports could positively affect economic development in the surrounding regions.
Wen-Min Lu et al (2011).	FTE-Full time employees, Fuel, Seats, Flight Maintenance expenditure	RPK, NPR- Non passenger revenue	Two-stage Data Envelopment Analysis (DEA) is used corporate governance influences firm performance significantly.
Seong-Jong Joo and Karen L. Fowler (2012)	Expenses	Revenues, passengers, RPK, Seat factor	Efficiency of the airlines in Europe is the lowest comparing with Asia and North America.

Atul Rai (2013).	Number of planes, number of employees, and gallons of fuel consumed.	Revenue passenger miles, number of departures, number of passengers, and available ton-miles.	Airlines are grouped in to efficient and inefficient airlines The efficient portfolio outperforms the inefficient portfolio by an annual margin of 23% using raw returns

From the literature available, it can be inferred that DEA serves as an effective bench marking tool and multiple important parameters used as input and output variables can be extended to the Indian context as well. As most of the earlier studies have been carried out using older data sets, the findings probably may not be appropriate for present managerial decisions. This paper aims at analyzing the IATI using DEA model with vital parameters as variables. Five year data from FY 2009-2014 are collected for analysis so that the findings would not only give directions to guide in managerial decisions but also helps for future strategic planning.

IV. The Efficiency Analysis

Charnes, Cooper and Rhodes (CCR) model of DEA was firstused to study the performance of Indian Airlines. The choice of the CCR model is based on the evidence from prior literature that the airline industry shows a constant return to scale. Five airlines with 97% market share are taken as Decision Making Units (DMU) for analysis. CCR model analysis resulted in unity score for more than one DMU. It is also seen that five DMUs are not sufficient to analyse the performance using DEA model. Hence super efficient DEA model is used for analysis and to rank the airlines. With the super-efficiency model, a ranking among the DMUs are possible.

a) *Two-stage model*

Evaluating the organizations performance is a complex process that cannot take just one criterion or one dimension. Traditional DEA neglects the intermediate measure or linking activities (Fare and Whittaker, 1995; Chen and Zhu, 2004; Tone and Tsutsui, 2009). In this study two stage DEA model is applied. The overall efficiency score is calculated by combining production and marketing process. In the first stage, the production efficiency is calculated using three inputs namely fleet, employees and operating expenses, which produce two outputs which are taken available ton kilometers, and available seat kilometers. These two intermittent variables are taken as input variables for marketing efficiency calculations. The final out variables-parameters considered are revenue passenger kilometer, Total operating revenue and total cargo carried. The input, output, intermittent variables used in two stage DEA Model are shown in Figure 2.

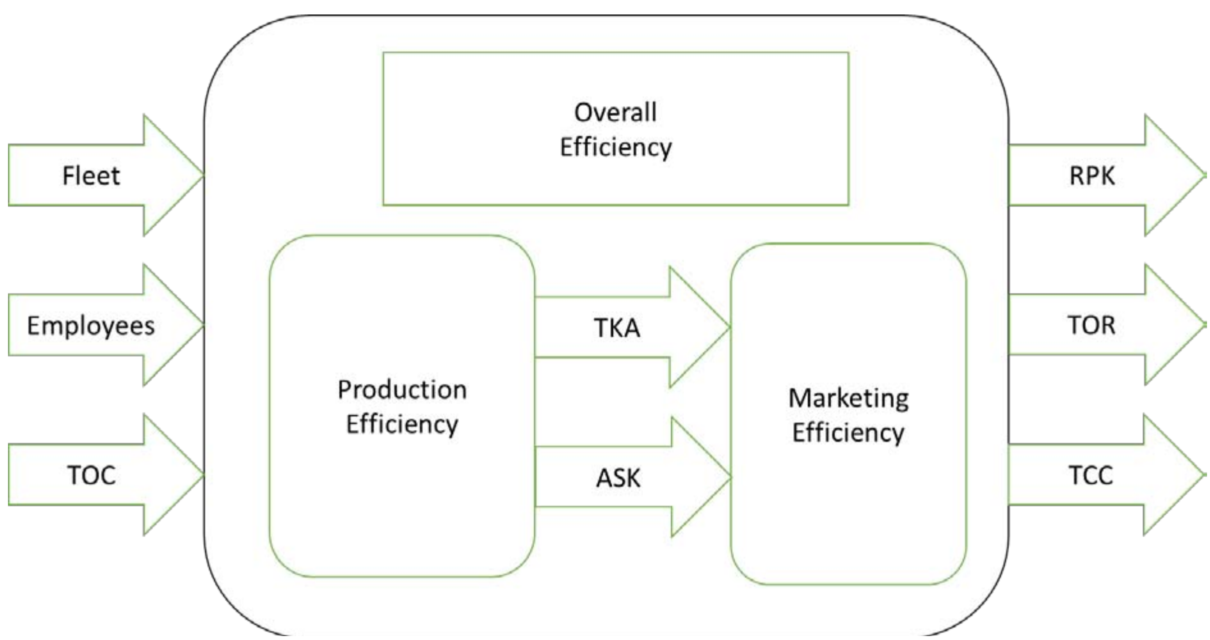


Figure 2: Two stage transformation model

The key parameters considered for this study after detailed discussions with Aviation experts and top management of IATI with definitions are listed in Table3.

Table 3: List of Key Performance indicators analyzed

Variables	Unit /Measurement	Definition
Input		
Aircrafts (Fleet)	Numbers	Total number of aero planes operated by the airlines including leased flights.
Employees	Numbers	Total number of full time employees
Operating cost (TOC)	Million in INR (Indian rupee)	Total cost spent for operations of the all aircrafts
Intermediate		
Available tone kilometer (ATK):	Million	The number of tonnes of capacity available for the carriage of revenue load (passenger and cargo) multiplied by the distance flown.
Available seat KM's(ASK):	Million	Available seat kilometres (ASK). The number of seats available for sale to passenger multiplied by the distance flown
Output		
Revenue Passenger KM's (RPK):	Million	The number of revenue passengers carried multiplied by the distance
Total Operating Revenue (TOR)	Million in INR(Indian Rupee)	Revenues received from total airline operations including scheduled and non-scheduled service
Total Cargo Carried (TCC)	Tons	The freight plus mail carried by an aircraft.

b) *Super-efficient DEA Analysis*

In standard DEA, DMUs are identified as fully efficient and assigned an efficiency score of unity if they lie on the efficient frontier. Inefficient DMUs are assigned scores of less than unity. To illustrate, figure 3shows four DMUs producing a single output and consuming two inputs x1 = x2. Minimum input combinations lie on the frontier connecting A, B and C, i.e., no other DMU produces the same output with a lower input combination. Unit D is dominated by the other three DMUs and produces the same output although with a higher input combination. The inefficiency of unit D can be measured by its radial distance to the frontier along the ray extending from the origin to D and intersecting the AB segment of the frontier.

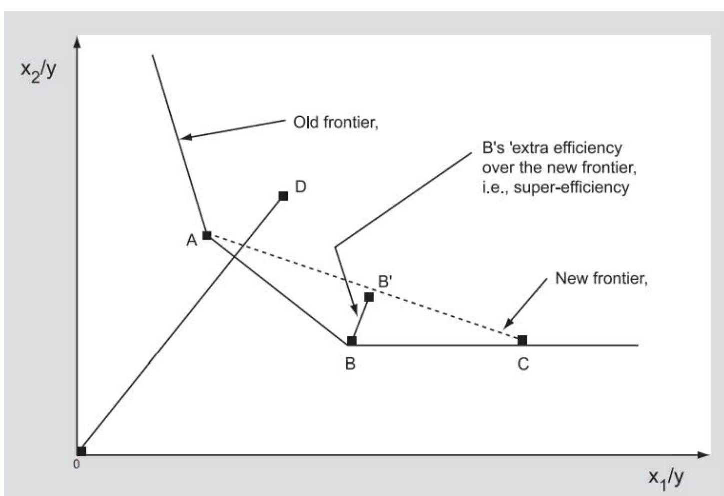


Figure 4: Standard and Super-efficient DEA Input-oriented Model

Source: Bruno Yawe (Zambia social science Journal 05-10-2010)

Further ranking of the efficient set of DMUs is possible by computing efficiency scores in excess of unity. Consider unit B in figure 4. If it were excluded from the frontier, a new frontier would be created comprising only units A and C. The super-efficient score for unit B is obtainable by calculating its distance to the new frontier whereby this 'extra' or 'additional' efficiency denotes the increment that is permissible in its inputs before it would become inefficient. The consequence of this modification is to allow the scores for efficient units to exceed unity. For instance, a score of 1.25 for unit B would imply that it could increase its inputs by 25 percent and still remain efficient. This super-efficient model (Andersen and Petersen, 1993) is applied in this analysis using the approach described in Zhu (2004).

V. Data Analysis and Findings

After selecting the parameters to get the best results from the study, the required data on TKA, ASK, RPK and TCC are collected for five years from DGCA yearly aircraft statistics published. Further, annual reports and balance sheets of these airlines are also referred to collect data on the number of employees, fleet, TOC& TOR. The analysis is carried out on five Indian airline companies operating in the domestic sector in the years 2009-10 to 2013-14 which account for 97% Indian domestic market. The airline companies include Air India, Jet airways, -FSC, Spice jet, Go air and Indigo-LCC. Each airline company is treated as one DMU in DEA analysis. Descriptive statistics for the airline sample taken for the year 2009 – 10 is shown in Table 4.

Table 4: Descriptive statistics for the year 2009-10.

Fleet	Employee	TOC	RPK	TOR	TCC
Min. : 8.0	Min. : 1216	Min. : 9088	Min. : 2398	Min. : 8961	Min. : 0
Median : 25.0	Median : 2691	Median : 21548	Median : 7268	Median : 26015	Median : 50296
Mean : 62.6	Mean :10064	Mean : 72006	Mean : 6920	Mean : 51308	Mean : 52302
Max.:147.0	Max. :31444	Max. :190318	Max. :10792	Max. :120485	Max. :101468

The minimum values represent the Go air (LCC) and the maximum values are for Air India (FSC).

Correlation coefficients for inputs and outputs for the overall efficiency for the year 2009-10 are presented in Table 5.

Table 5: Correlation coefficients matrix

	Fleet	Employee	TOC	RPK	TOR	TCC
Fleet	1					
Employee	0.933909	1				
TOC	0.989943	0.97447	1			
RPK	0.611132	0.355764	0.51357	1		
TOR	0.873607	0.642135	0.797479	0.819656	1	
TCC	0.939756	0.851864	0.913292	0.767698	0.848707	1

The results of the correlation coefficient matrix show a significantly positive relationship between inputs and outputs. The data set satisfies the assumption of isotonicity wherein, increasing the value of any input while keeping other factors constant should not decrease any output but should instead lead to an increase in the value of at least one output.

The production efficiency scores obtained using super efficient DEA with input and output variables taken for study are shown in Figure 5.

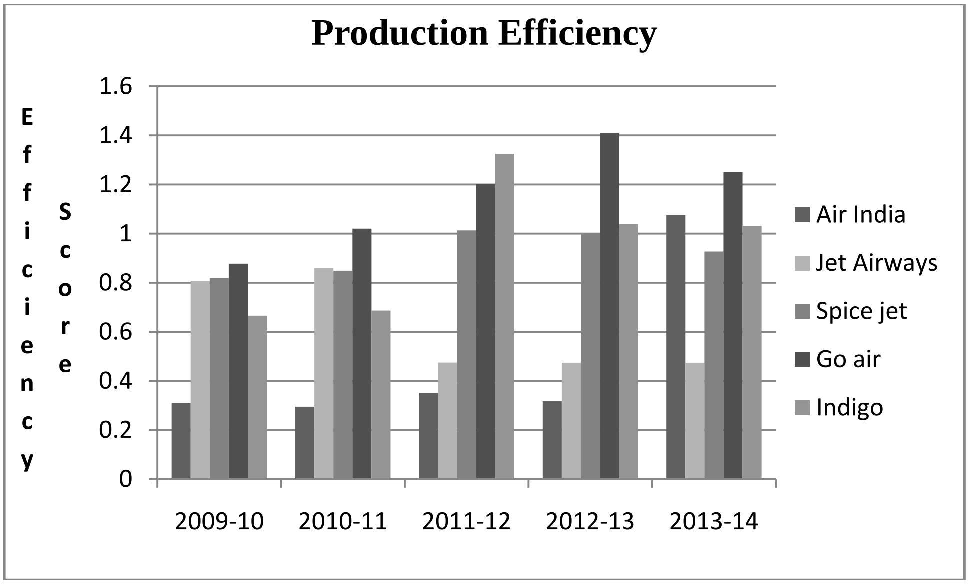


Figure 5: Comparison of Production Efficiency Scores

Table 6: Ranking of airlines by Production efficiency scores

	1	2	3	4	5
2009-10	Go air	Spice jet	Jet Airways	Indigo	Air India
2010-11	Go air	Jet Airways	Spice jet	Indigo	Air India
2011-12	Indigo	Go air	Spice jet	Jet Airways	Air India
2012-13	GO air	Indigo	Spice jet	Jet Airways	Air India
2013-14	GO air	Air India	Indigo	Spice jet	Jet Airways

LCC are seen to be very efficient, occupying the first position whereas FSCs are least efficient for all the five years. Indigo (LCC) occupied the fourth position in FY 2010- 11 had improved their performance in the following years. The finding is in line with higher aircraft utilization, more numbers of departures made by LCC (DGCA- Airlines performance data) than FSCs .This could be due to the reason that LCC's maintain similar type of aero planes, the maintenance of aircrafts, availability, and mandatory checks are optimized.

The marketing efficiency scores derived are reflected in Figure 6.

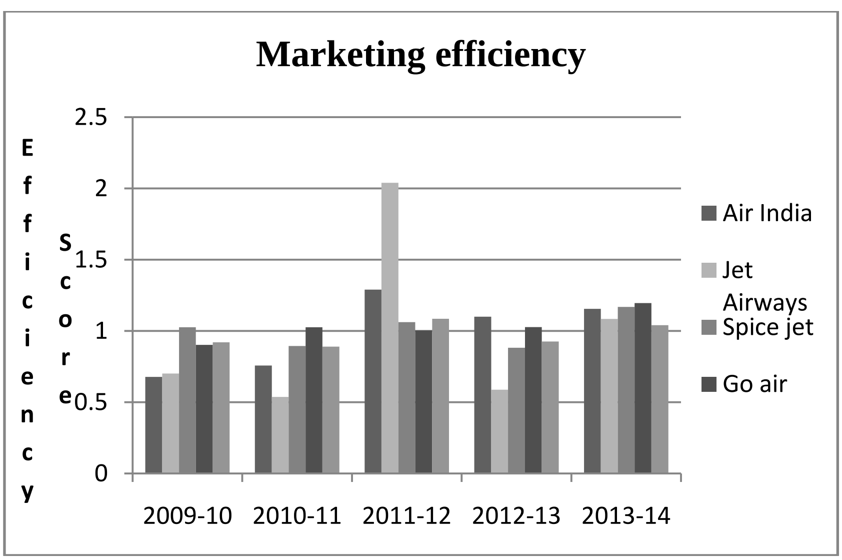


Figure 6: Comparison of Marketing Efficiency Scores

Table 7: Ranking of airlines by marketing efficiency

	1	2	3	4	5
2009-10	Spice jet	Indigo	GO air	Jet airways	Air India
2010-11	Go air	Spice jet	Indigo	Air India	Jet airways
2011-12	Jet airways	Air India	Indigo	Spice jet	Go air
2012-13	Air India	Go air	Indigo	Spice jet	Jet airways
2013-14	GO air	Spice jet	Air India	Jet Airways	Indigo

There is no consistent occupier for the first and last ranking either from LCC or from FSC. It is also observed that IATI competes only on the price front by offering attractive fares. This could be due to the fact that Indian passengers are sensitive to price, which causes IATI to adopt predatory pricing strategy (center for monitoring Indian economy Pvt. Ltd- passenger forecast May 2015)

The overall efficiency scores obtained by the combination of all input and intermittent variables are shown in table 10.

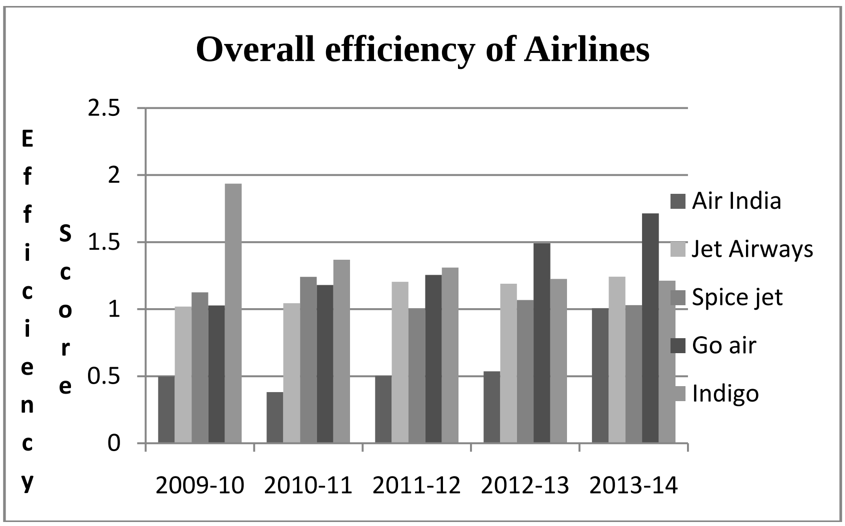


Figure 7: Comparison of Overall Efficiency Scores

Table 8: Ranking of Airlines by overall efficiency

	1	2	3	4	5
2009-10	Indigo	Spice jet	GO air	Jet airways	Air India
2010-11	Indigo	Spice jet	GO air	Jet airways	Air India
2011-12	Indigo	Go air	Jet airways	Spice jet	Air India
2012-13	GO air	Indigo	Jet airways	Spice jet	Air India
2013-14	GO air	Jet airways	Indigo	Spice jet	Air India

LCC are seen to be highly efficient and the Government-owned Airline Air India is least efficient consistently for five years. Spice jet –LCC is also found to be less efficient in the past three years, which is in line with losses observed by the airlines company. Similarly Go air has become profitable only in the past two years. Further analysis is carried out to find out the impact of production and marketing efficiency on overall efficiency. The correlation score is reproduced in the correlation matrix in table 9.

Table 9: Correlation Matrix

	Production	Marketing	overall
Production	1		
Marketing	0.16	1	
overall	0.46	0.24	1

Both production and marketing efficiencies have positive impacts on overall efficiency whereas the increase in the production performance has a higher impact on the overall performance of the Indian airlines. Marketing efficiency has comparatively lower effect.

VI. Conclusion

This study has been performed using the latest data available and therefore, the results give valuable insights to airlines strategic decision makers to increase efficiency. Eight vital key performance indicators are taken as variables for analysis to produce reliable results. The practical implications from the study are

- Airlines in India must emulate the LCC model to be highly efficient.
- Available resources may be allotted to increase technical efficiency, which in turn produces more seats and capacity for sale.
- Marketing efficiency has less impact than production efficiency on overall efficiency of the Airlines. Indian Airline companies may try to adopt new innovative marketing strategies other than pricing to improve overall efficiency.
- FSCs must focus on improving their technical efficiency so that overall efficiency can be increased.

The results derived correlate well with the performance of the Indian air transport market in last five years. LCCs s are in a position to stay afloat but FSCs have been making heavy losses, which have gone as far as forcing Air India to go in for bailout package with Indian government and causing Jet Airways to sell their shares to foreign carrier Ethihad Airways. It is also observed that the no Indian airlines operator has hitherto implemented notable marketing initiatives that could change the market dynamics other than offering attractive fares.

The limitation of this study is that IATI is analysed, taking only the domestic market of Indian airlines, which account for 68% of passenger carried (for the FY2015). The performance of Indian Airlines has not been compared with foreign carries or other Asia pacific carriers. Future studies may be carried out by including international data and comparing with foreign carrier's data.

This study may lead to more analyses in the Indian aviation sector using proven tools, which will be helpful for all stake holders in the industry. Future studies could group Indian carriers into LCC, FSC and Government owned, to get better insights. Improvements in marketing efficiency may be attempted by carrying out gap analysis, important and performance analyses (Fang-Yuan et.al.) on Indian airlines sector. This work may also open up further academic research and analyses aimed at guiding the industry to optimize resources.

References Références Referencias

1. Andersen P and NC Petersen (1993).A Procedure for Ranking Efficient Units in Data Envelopment Analysis. *Management Science* 39(10): 1261-1264.
2. Atul Rai (2013). Measurement of efficiency in the airline industry using data envelopment analysis. *Investment Management and Financial Innovations*, Vol 10, Issue 1, 2013.
3. Airport authority of India (AAI), www.aai.aero.com (assessed on 1.05.2015).
4. Boon L. Lee and Andrew C. Worthington (2010).The Relative Efficiency of International, Domestic, and Budget Airlines: Nonparametric Evidence. Journal of Economic Literature -classifications: D24, L93.
5. Bruno Yawe (2010). Hospital Performance Evaluation in Uganda: A Super-Efficiency Data Envelope Analysis Model. *Zambia Social Science Journal*, Vol. 1, No 1.
6. Charnes, A., Cooper, W.W., Lewin, A.Y. and Seiford, L.M. (Eds) (1994), Data Envelopment Analysis: Theory, *Methodology and Applications*, Kluwer Academic Publishers, Boston, MA.
7. Chen, Y., Zhu, J., 2004. Measuring information technology's indirect impact on firm performance. *Information Technology and Management Journal* 5 (1–2), 9–22.
8. Centre for Aviation – India (CAPA), www. centreforaviation.com (assessed on 1.07.2015)
9. Center for monitoring Indian economy Pvt. Ltd., www.cmie.com (assessed on 1.07.2015)
10. Domenico Campisi, Roberta Costa, Paolo Mancuso (2010). The Effects of Low Cost Airlines Growth in Italy. *Modern Economy*, Vol.1, Pp59-67
11. Director General of Civil Aviation, (DGCA) Government of India, www.dgca.nic.in, statistics on airlines from 2009-14
12. Fang-Yuan Chen, Yu-Hern Chang (2005).Examining airline service quality from a process perspective. *Journal of Air Transport Management*. Vol.11 Pp. 79–87.

13. Fare, R., Whittaker, G, (1995). An intermediate input model of dairy production using complex survey data. *Journal of Agricultural Economics* 46 (2), Pp201–213.
14. George Assaf. A and Alexander Josiassen (2009). The operational performance of UK airlines: 2002-2007. *Journal of Economic Studies*, Vol. 38 No. 1, 2011 Pp. 5-16.
15. Good DH, LH Roller and RC Sickles (1995). Airline Efficiency Differences between Europe and the United-States – Implications for the Pace of Ec Integration and Domestic Regulation. EJOR. EJOR 8: 508-518.
16. International Air Transport Association (IATA), www.iata.com (assessed on 1.05.2015).
17. Make in India, Government of India, www.makeinindia.com (assessed on 1.05.2015)
18. MICHAELIDES, P. G., BELEGRI-ROBOLI, A., KARLAFTIS, M., MARINOS (2009), T. International Air Transportation Carriers: Evidence from SFA and DEA Technical Efficiency Results (1991–2000). *European Journal of Transport and Infrastructure Research*, Vol.9 (4), pp. 347–362.
19. Schefczyk M (1993). Operational Performance of Airlines: An Extension of Traditional Measurement Paradigms. *Strategic Management Journal*.1: 301-317.
20. Seiford, L.M. and Thrall, R.M. (1990), "Recent developments in DEA: the mathematical programming approach to frontier analysis", *Journal of Econometrics*, Vol. 46 Nos 1/2, pp. 7-38.
21. Tone, K., Tsutsui, M., 2009. Network DEA: a slacks-based measure approach. *European Journal of Operational Research* 197 (1), 243–252.
22. Wen-Min Lu, Wei-Kang Wang, Shiu-Wan Hung, En-Tzu Lu (2012). The effects of corporate governance on airline performance: Production and marketing efficiency perspectives. *Transportation Research*, Elsevier, Part E 48 529–544.

This page is intentionally left blank

Global Journal of Management and Business Research: A
Administration and Management
Volume 16 Issue 12 Version 1.0 Year 2016
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Determinants of Service Quality Factors towards the Public Specialized Banks of Bangladesh

By Md. Rasel Uddin, Akash Saha, Md. Julfikar Ali & Md. Jewel Rana

Begum Rokeya University, Rajshahi University

Abstract- To make customer concerned with services and making long term relationship for the sustainable business organization there no time to compromise the expectation of customer and making available for. This study is related with the determinants of service quality factors concentrated on the specialized banks of Bangladesh. The empirically descriptive study has been conducted over the 75 respondents those are the customer of three specialized banks of Bangladesh. A well stuffed questionnaire was set to collect the primary data with considering each bank 25 respondents, it has been analyzed with taking the help of different statistical tools and encoding the data with Statistical Package for Social Sciences –SPSS (v-21).After Disseminating data it presents for the reader to make well perceive.

Keywords: determinants, specialized banks, services, customer expectation, contented.

GJMBR-A Classification: JEL Code: E59

DETERMINANTSOFSERVICEQUALITYFACTORSTOWARDSTHEPUBLICSPECIALIZEDBANKSOFBANGLADESH

Strictly as per the compliance and regulations of:

Determinants of Service Quality Factors towards the Public Specialized Banks of Bangladesh

Md. Rasel Uddin [α], Akash Saha [σ], Md. Julfikar Ali [ρ] & Md. Jewel Rana [Ѡ]

Abstract- To make the customer that concerned with services and making long term relationship for sustainable business organization there no time to compromise the expectation of customer and making available for. This study is related with the determinants of service quality factors concentrated on the specialized banks of Bangladesh. The empirically descriptive study has been conducted over the 75 respondents those are the customer of three specialized banks of Bangladesh. A well stuffed questionnaire was set to collect the primary data with considering each bank 25 respondents;it has beenanalyzed with taking the help of differentstatistical tools and encoding the data with Statistical Package for Social Sciences –SPSS (v-21).After Disseminating data it presents for the reader to make as for the well perceive. It has been revealed that explanatory variables are strongly associated to explain the service quality factors of Public Specialized Banks.The multiple regression analysis is a technique of multivariate analysis, adopted to determine the importance of the perceived service quality factors in this research. By regression, we can articulate that, if these factor changes then what will be the impact on overall customer satisfaction.The study finds that Reliability and Responsiveness are the most relative factors in determining the customer satisfaction ofpublic specialized banks followed by empathy, tangible and assurance. It also finds that these five factors or dimensions vary across gender, age, education level, and occupation. It is the recommending issues to make the better services of the customer that's why the specialized banks of Bangladesh requisite follow the adaption by the means of customer database system, modern and trendy basis services, sophistication genre of environment, integrating more professional efficiency to serve the more integration of the customers'oriented services of the baking sectorsin Bangladesh.

Keywords: determinants, specialized banks, services, customer expectation, contented.

I. Introduction

Amplified competition, highly erudite customers, and intensification in ordinary of living are obliging many businesses to assessment their customer service strategy. Commercial banks are concentrating more determinations to preserve prevailing customers somewhat than to attain new ones since the price tag of obtaining new client is superior than cost of absorbent standing customers. Make the most of customer satisfaction through quality customer service has been termed as 'the ultimate weapon' by Davidow and Vital (1989). The expectation that comes from service determination the factors of customers such as endorsements of services, particular needs and bygone understandings The anticipation of service and the apparent service result may not be equal, thus separation a gap. So for the determining the level of services there very much important to make a level of services that the customers expect, what are the available by the industry for. Specialized banks of Bangladesh are the banks they are trying to meet the customer satisfaction by providing the sophistication mode of services with taking the determinations of particular services of banking sector. They are giving the forces to bounce the best with integrating service environment. Customer satisfaction and service quality is interconnected with each other. Gratification of customer is contingent upon service quality and service quality is progressively offered as a strategy by marketers to make a place themselves more meritoriously in the financial market. Due to the arrival of e-banking, quality of service has been enhanced a lot as related to outdated banking services and for the trending situation at all everything is now on the level of challenging why not for the specialized banks of Bangladesh.

II. Objectives of the Study

The objectives are the followings: -

- To identify the customers' attitude towards the present service quality of banks.
- To find the persuadingfactors of services.
- To evaluatethe performance of government specialized bank on the basis of quality of services
- To make some recommendations from the overall level of service quality in governments specialized banks.

III. Literature Review

The replication of portion is to carry an insightfulassessment of the past inquest all of it accompanying with theDeterminants of Service Quality Factors, encircled by the researches completed the subsequent study, enclosed by the explores thru the followings.Business dictionary.Com explained service

Author α: Lecturer, Department of Accounting and Information Systems, Faculty of Business Studies, Begum Rokeya University, Rangpur-5400, Bangladesh. e-mail: raselru91@gmail.com
Author σ ρ: Department of Management Studies, Faculty of Business Studies Begum Rokeya University, Rangpur-5400, Bangladesh. e-mails: akash_saha@yahoo.com, julfikar05.bd@gmail.com
Author Ѡ: Department of Marketing, Faculty of Business Studies,University of Rajshahi. e-mail: jewel.mkt07@gmail.com

quality by followings way "assessment of how well a delivered service conforms to the client's expectations. Service business operators often assess the service quality provided to their customers in order to improve their service, to quickly identify problems, and to better assess client satisfaction.'' [1]. Jain, Gupta & Smrita (2012) "The Reliability and Responsiveness are the most relevant factors for the service quality perception and they have compared the individual scores with the average mean value scored by the private banks." [2]**Ashaduzzaman, Moniruzzaman& Sheila (2012),**'The organization needs to ensure the right products and services supported by the right promotion and making it available at the right time for the customers. A business that caters to their customers` needs will inevitably gain the loyalty of their customers, thus resulting in repeat business as well as potential referrals. Consequently, it is imperative that businesses get to know their customers. Study revealed Positive and significant relationship has been found between service quality dimensions (reliability, responsiveness, assurance, empathy, and tangibles) and customer satisfaction.'[3]**Heryanto (2011)**, "there is a significant relation between the service quality and the customer satisfaction. And service quality is very important and consists of actions like quick response, commitment, staff availability, right service fat right time, complaint solution, competency and capability of the staff in the bank''[4]**Holy Ghost, Fatima and Gnanadhas, Edwin (2011)** "The existence of a close bond between the service quality factors and the customer satisfaction level and the impact of the service quality factors on customer satisfaction was varying with the demography of the customers.×[5]**Munusamy, Chelliah and HorWaiMun (2010),"**The assurance has a positive relationship with customer satisfaction, but without significant effect and the Reliability is the timeliness and accuracy in service provided, reliability does not have much impact on customer satisfaction. Tangibles include the appearance of the company, and the study found that it has high positive correlation with customer satisfaction." [6]

Customer relationship is one alternative facet the banks essential to be given par prominence dealing customer relation resourcefully is a plus that the banks should distillate to win the state of affairs. Aforementioned study mostly overwhelmed services factor and quality issues from different pipelines by this study, it is interpreted determinates of services quality of government specialized banks at the context of Bangladeshi banking mode and customer satisfaction culture practices determinants. From side to side this study it'll be shown the different insightful service quality determinants towards the specialized government bank of Bangladesh.

IV. Methodology

This research is empirically descriptive in nature. The primary data has been collected throughpersonal interview while respondents were conducting banking activity. It has covered theopinion of customers of three government special banks.The information about customer satisfaction in specialized banks of Bangladesh has been obtained through a survey conducted at a sample of population. A total of 75 respondents were taken as sample based on randomly technique. The survey questionnaires were conducted via face to face interviews. Respondents wereasked to respond about their perceptions of the servicesquality provided by government special bank in Bangladesh in terms of the five services qualitydimensions. To record the responses of the sample respondents, a structured questionnaire wasused. Five point *Likert*scaleranking as 1 (strongly disagree), 2(disagree), 3(Neutral), 4(agree) and 5(strongly agree) has been used to pull togetherthe data.

a) *Respondents' Profile:*The customer is vested in in three banks namely BDBL, BKB and RAKUB to the survey. The profiles of customer are described below:

Table 01: Name of Bank

Name of bank	Frequency	Percentage
BDBL	25	33.3%
BKB	25	33.3%
RAKUB	25	33.3%
Total	75	100%

The following table shows that, out of 75 respondents an equal number of 25 respondents (33.3%) from the three banks namelyBDBL, BKB and RAKUB.

Table 02: Age Group of Customers

Age	Frequency	Percentage
Under 20	3	4%
20 – 30	24	32%
30 – 40	18	24%
40 – 50	17	22.67%
Above 50	13	17.33%
Total	75	100%

According to the table, we can see that most of the respondent's age limit is 20-30 years and the percentage is 32. The second highest percentage is 24 that are between 30-40 years and the 40-50 years is 22.67%, above 50 years' percentage is 17.33 and less than 20 years is 4% respectively.

Table 03: Gender of Customers

Gender	Frequency	Percentage
Male	62	82.67%
Female	13	17.33%
Total	75	100%

From the table of the gender of the respondents, it is asserted 82.67% respondents are male and 17.33% respondents are female. So the majority of the customers are male.

Table 04: Occupation of customers

Particular	Frequency	Percentage
Business man	19	25.33333%
Service holder	13	17.33333%
Housewife	7	9.333333%
Farmer	21	28%
Student	6	8%
Others	9	12%
Total	75	100%

From the above table it can articulate that most of the clients are farmer 21 then businessman 19, service holder 13, others 9, housewife 7and student 6 respectively.

Table 05: Account Types of Respondents

Particular	Frequency	Percentage
Saving Account	32	42.67%
Deposit Account	21	28%
Current Account	16	21.33%
Loan Account	06	8%
Total	75	100%

After investigating the above data, it has found that42.67% customers have a saving account which contains the most percentage. Loan account has the less percentage. Deposit account and current account have 28% and 21.33% respectively.

Table 06: Educational Qualification of Respondents'

Educational qualification	Frequency	Percent
Below SSC	9	12%
SSC	13	17.33%
HSC	19	25.33%
Graduation	14	18.67%
Post-graduation	9	12%
Others	11	14.67%
Total	75	100%

The table shows that 9 persons are below SSC. the most numbers of customers are HSC conceded which contains the percentage 25.33%. The number and percentage of graduate and Post-graduate are 18.67%, 12% respectively.

Table 07: Main Causes for Choosing Specialized bank

Reason able Interest	Personal relation with banker	Good or efficient service	Effective service charges	Employees Behavior	Location of the bank	Reputation of the bank	Total
15	4	9	12	7	19	9	75
20%	5.33%	12%	16%	9.33%	25.33%	12%	100%

The above table shows that 25.33% of the clients prefer or choose this bank for Location of the bank. About 16% clients choose forEffective service charges & 9.33% clients choose for employee's behavior, for personal relation with banker 5.33 %. For the reputation of the bank and Good or efficient service clients are both 12% each.

Table 09: Duration of Accounts

Less than 6 Months	6 – 12 Months	1 – 2 Years	3 Years and above	Total
6	14	21	34	75
8%	18.67%	28%	45.33%	100

45.33% or 34 persons are related with the bank about 3 Years and above. 8%, 18.67%, 28% are respectively less than 6 Months, 6 – 12 Months and 1 – 2 Years ancient.

V. Findings and Analysis

Correlation Analysis: The relationship between two or more variables is called correlation.Toknow the strength of the relationship correlation is used.

Let some hypothesis:

1. H_0:There is no relationship between reliability and customer satisfaction.
2. H_0:There is no relationship between responsiveness and customer satisfaction.
3. H_0:There is no relationship between assurance and customer satisfaction.
4. H_0: There is no relationship between empathy and customer satisfaction.
5. H_0:There is no relationship between tangibility and customer satisfaction.

Correlations

		Customers Satisfaction	Reliability	Responsiveness	Assurance	Empathy	Tangibles
Customers Satisfaction	Pearson Correlation	1	.421**	.330**	.134	.170	.238*
	Significance(2-tailed)		.000	.004	.252	.144	.040
	N	75	75	75	75	75	75
Reliability	Pearson Correlation	.421**	1	.033	.014	-.053	-.118
	Significance(2-tailed)	.000		.781	.902	.654	.314
	N	75	75	75	75	75	75
Responsive ness	Pearson Correlation	.330**	.033	1	-.122	-.217	-.036
	Significance(2-tailed)	.004	.781		.299	.061	.762
	N	75	75	75	75	75	75
Assurance	Pearson Correlation	.134	.014	-.122	1	-.121	-.102
	Significance(2-tailed)	.252	.902	.299		.301	.383
	N	75	75	75	75	75	75
Empathy	Pearson Correlation	.170	-.053	-.217	-.121	1	.006
	Significance(2-tailed)	.144	.654	.061	.301		.956
	N	75	75	75	75	75	75
Tangibles	Pearson Correlation	.238*	-.118	-.036	-.102	.006	1
	Significance(2-tailed)	.040	.314	.762	.383	.956	
	N	75	75	75	75	75	75

***. Correlation at 0.01(2-tailed)*

**. Correlation at 0.05(2-tailed)*

These variable Reliability and Responsivenesshas a significant relationship ($p<.0.01$) with customer satisfaction ($r=.421$) and ($r=.330$) respectively. So these reject the null hypothesis. Therefore, it can be said that there is a weak positive relationship between reliability and customer satisfaction. And there is a weak positive relationship between responsiveness and customer satisfaction statistically significant at 1% level of significant. Tangibles statistically significant at 5% level of significant ($r=.238$, $p<.05$). Assurance and Empathy both have weak positive relationship with customer satisfaction.

The empirical result of the study is presented in the SPSS output below-

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.707[a]	.500	.464	.57438

a. Predictors: (constant) Tangibles, Empathy, Reliability, Assurance, Responsiveness.

In the model summary, multiple R=.707, means that relationship between dependent and independent variables is strong positive, R^2=.500 This means that explanatory variables are strongly associated to explain the service quality factors of Public Specialized Banks and the adjusted R^2=.464, which tells that after taking into account the number of regresses, the model explains 46.4% of the variation in determining the service quality factors of Public Specialized Banks in Bangladesh.

a) Analysis of variance

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Significance
Regression	22.783	5	4.557	13.812	.000[b]
Residual	22.764	69	.330		
Total	45.547	74			

a. Dependent Variable: Customers Satisfaction

b. Predictors: (constant) Tangibles, Empathy, Reliability, Assurance, Responsiveness.

From the ANOVA table, found that the P-value to obtain F-value (13.812) is almost zero. So overall acceptability of β has been tested by analysis of variance (ANOVA), which also shows the acceptability of the model at the 5% significance level.

b) Multiple Regression Analysis

The multiple regression analysis is a technique of multivariate analysis, adopted to determine the importance of the perceived service quality factors in this research.After analyzing the regression, we can articulate that, if these factor changes then what will be the impact on overall customer satisfaction. When a problem involves three or more variables, it is subjected to multivariate analysis. When the data are on interval scale and one wish to find out the levels of perceived service quality,Given the levels of two or more independent variables, multiple regression analysis would be conducted. Therefore, the models are specified as follows:

$$Y=\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where

Y=customer satisfaction, $X_1=$ Reliability, $X_2=$ Responsiveness, $X_3=$ Assurance, $X_4=$ Empathy, $X_5=$ Tangibles, ε *=error* .

$\beta_1 - \beta_5 =$ regression coefficient to be estimated.

The coefficient αrepresents the intercept and all $\beta_1 - \beta_5$are partial regression coefficients. The least squares criterion estimates the parameter in such a way as to minimize the total errors. Regression output is automatically produced by the SPSS program. After analyzing the multiple regressions output, researchers will identify underlying dimensions, or factors, that explain the correlations among a set of variables.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Significance
		B	Std. Error	Beta		
1	(Constant)	-3.604	.662		-5.442	.000
	Reliability	.463	.087	.459	5.347	.000
	Responsiveness	.312	.065	.426	4.826	.000
	Assurance	.352	.122	.251	2.878	.005
	Empathy	.391	.109	.316	3.573	.001
	Tangibles	.330	.086	.331	3.833	.000

a. Dependent Variable: Customers Satisfaction

The estimated regression equation is,

Y^= -3.604+.463X1+.312X2+.352X3+.391X4+.330X5

VI. Recommendations and Conclusion

*Recommendations:*Overall, public specialized banks of Bangladesh actively participate in the growth and expansion of the national economy by its services properly. Ifbanks, follow the following recommendation then the dissatisfied customers will be turn into satisfied. After then some of the problems were mostly viewable while measuring clients' satisfaction. Followings are some suggestions for improving service quality. These are:

i. Modern Looking Equipment:The present age is highly competitive and there are many banking institutions around the clients. So they expect more and want to get customized service. But most of the branch of specialized banks was not well decorated like other private and public commercial bank so that lack of modern looking equipment decreases the confidence of customers for further investment.

ii. Reception Desk:The activities of reception desk are fully absent here. From the survey result it is found that most of the customer are disagreed or strongly disagreed on the point of reception desk employees are neat appealing.

iii. Number of Employee:Compare to the customers, the number of employees is not sufficient. So employees couldn't give quality service to which may affect the reputation of specialized banks of Bangladesh.

iv. Sincerity to Solve the Problem(s):Most of the customers have given their opinion that banks don't sincerely solve their problem and work process is slow. So hasty service is requiring for solve the customers' relevant problem. That's will make the customer satisfaction scenario on the side of banks think so.

v. Online Banking &ATM Booth:Most of the customers giventheir valuable opinion for that. So they should give more concern on start online and ATM booths service and solve these sought of problems as soon as possible.

vi. Increase Professional Efficiency:New employees always have inefficiency in their profession. So bank should arrange sufficient training program for new employees to improve their work knowledge and effectiveness.

vii. Promotional Strategies: A bank takes various types of promotional strategies to introduce its services and to influence clients to take that service. But these banks have no effectiveactivities like this.

viii. Customer Oriented Pricing Strategy: Today's market is highly price sensitive. If clients see they are paying much more than receiving, then level of dissatisfaction increase. So banks should reduce its higher charges & interest rate.

ix. To make all Scheme and Services Available:All the scheme and services are not available in banks which can make the customer satisfied. So banks should make all the scheme & services available like others private bank such as locker service.

VII. Conclusion

As the conducted report points out, there are some problems that surface in the effort of evaluating customers' satisfaction. First, above findings suggest the need and relevance of heavy investment on tangibles particularly computer based banking, Mobile-banking, 'anywhere and anytime banking', etc. Today, customers are exposed to the standards of international banking and expect the same range of service quality from specialized banks of Bangladesh specialized banks of Bangladesh should continually assess and reassess how customers perceive bank services as to know whether the bank meets or exceeds or be below the expectations of their customers. Customer service is complex in nature and dynamic in action. Also, what is 'good service' today may become 'indifferent service' tomorrow and 'bad service' the next day.They are doing quite good but if they want to maintain a strong position among all the commercial banks running in Bangladesh then they requireaccentuating more on uninterrupteddevelopment of the service to gratify their appreciated customers. The banking sector in Bangladesh is undergoing major changes due to competition and the advent of technology. The process of fulfilling customer needs, therefore, requires tailoring bank services that customers want, rather than making them accept whatever banks can conveniently provide. All the leading banks in our country have various extra facilities to offer the customers in comparison with other banks but specialized banks of Bangladeshare mostly so lag behind. The benefits of such surveys represent a clearer picture of the customers' necessity. In this method these banks have the coincidental to consent to a higher customer contentment level and preserve a durablebond with their customer.

References

1. http://www.businessdictionary.com/
2. Jain, Vibhor., Gupta, Sonia., Jain, Smrita. (2012). Customer Perception on Service Quality in Banking Sector: With Special Reference to Indian Private Banks in Moradabad Region. IJRFM,Volume 2, Issue 2, February 2012, ISSN:2231-5985, 597-610.
3. Md. Ashaduzzaman, Md. Moniruzzaman Khan, Sheila Farhana(2012, User Satisfaction Review of Private Commercial Banks in Bangladesh, South Asian Journal of Commerce and Management; ISSN: 0975-8259; Volume 3, Number 2, April-June 2012
4. Heryanto. (2011). Effect of Service Quality on Customer Satisfaction with Bank Nagari,Main Branch Padang. International journal of Business and Management Tomorrow Vol1 no.2, November 2011, ISSN:2249-9962, 1-14.
5. Fatima, S., EdwardGnanadhas, M. (2011). Impact of Service Quality in Commercial Banks on the Customer satisfaction: An Empirical Study. International Journal of Multidisciplinary Research Vol.1 Issue 6, October 2011, ISSN 2231 5780, 19-37.
6. Munusamy, Jayaraman.,Chelliah, Shankar., Mun, HorWai. (2010). Service Quality Delivery and Its Impact on Customer Satisfaction in the Banking Sector in Malaysia. International Journal of Innovation, Management and Technology, Vol 1, No. 4, October 2010, ISSN:2010-0248, 398-404.
7. Edvardsson, B., Larsson, G. and Setterlind, S. (1997), "Internal service quality and thepsychological work environment: an empirical analysis of conceptual interrelatedness",Service Industries Journal, Vol. 17, No. 2, pp. 252-63.
8. Brooks, R.F., Lings, I.N. and Botschen, M.A. (1999), "Internal marketing and customer driven wave

fronts", Service Industries Journal, Vol. 19, No. 4, pp. 49-67.
9. Lindgreen, A., Palmer, R., Vanhamme, J., Wouters, J. (2006), "A relationship managementassessment tool: Questioning, identifying, and prioritizing critical aspects of customerrelationships", Industrial Marketing Management, vol. 35, Issue 1, pp. 57-71
10. Chaston, I. (1994), "Internal customer management and service gaps within the UKmanufacturing sector", International Journal of Operations and Production, Vol. 14, No. 9,pp. 45-56.
11. Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), "SERVQUAL: A multi-item scalefor measuring consumer perceptions of the service quality", Journal of Retailing, Vol. 64.
12. http://www.businessdictionary.com/definition/service-quality.html
13. https://en.wikipedia.org/wiki/Service_quality
14. https://en.wikipedia.org/wiki/Bangladesh_Bank
15. https://en.wikipedia.org/wiki/Ansar-VDP_Unnayan_Bank
16. https://en.wikipedia.org/wiki/Palli_Sanchay_Bank
17. https://en.wikipedia.org/wiki/Shimanto_Bank
18. https://en.wikipedia.org/wiki/Rajshahi_Krishi_Unnayan_Bank
19. https://en.wikipedia.org/wiki/Bangladesh_Krishi_Bank
20. http://bankinfobd.com/banks/list_of_banks/Commercial
21. http://businessnews24bd.com/category/banking-news/
22. http://www.banknews24.com/

Global Journal of Management and Business Research: A
Administration and Management
Volume 16 Issue 12 Version 1.0 Year 2016
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Employees Empowerment and their Performance in Private Sector: An Analytical Study

By Miss Richa Aryan, Dr. Surat Singh & Dr. Amrinder Singh

Chandigarh University

Abstract- The purpose of this paper is to explore the different dimensions of employee empowerment and to determine the impact of employee empowerment tools on performance of private sector employees in Punjab. Structured questionnaire is used to collect the required primary data from 80 respondents in private sector in Punjab. Descriptive statistics, correlation, regression analysis, factor analysis and t-test are used as statistical tools in analysis. The study found that Performances of employees are significantly affected by independent decision making and open communication in the organization. Getting equal rights in organization is the most important factor which improves performance of the private sector employees. The first factor 'communication empowerment 'explained 25.90 percent of the total variance and it comprises five variables namely encouragement of open communication, authority to correct problem, input is solicited in planning changes and job gives sense of accomplishment.

Keywords: *empowerment, employee performance, factor analysis, descriptive statistics, rotated component matrix.*

GJMBR-A Classification: *JEL Code: J54*

EMPLOYEESEMPOWERMENTANDTHEIRPERFORMANCEINPRIVATESECTORANANALYTICALSTUDY

Strictly as per the compliance and regulations of:

Employees Empowerment and their Performance in Private Sector: An Analytical Study

Miss Richa Aryan [α], Dr. Surat Singh [σ] & Dr. Amrinder Singh [ρ]

Abstract- The purpose of this paper is to explore the different dimensions of employee empowerment and to determine the impact of employee empowerment tools on performance of private sector employees in Punjab. Structured questionnaire is used to collect the required primary data from 80 respondents in private sector in Punjab. Descriptive statistics, correlation, regression analysis, factor analysis and t-test are used as statistical tools in analysis. The study found that Performances of employees are significantly affected by independent decision making and open communication in the organization. Getting equal rights in organization is the most important factor which improves performance of the private sector employees. The first factor 'communication empowerment 'explained 25.90 percent of the total variance and it comprises five variables namely encouragement of open communication, authority to correct problem, input is solicited in planning changes and job gives sense of accomplishment. The research offers a more precise way to understand the impact of different factors of empowerment on performance of employees'. Management of private sector organizations can recognize the importance of empowerment to improve the productivity and performance of organization.

Keywords: empowerment, employee performance, factor analysis, descriptive statistics, rotated component matrix.

I. Introduction

Motivated and empowered employees have the capability which can help the organizations to reach at top. A good manager can use empowerment techniques to enhance the quality and quantity of performance of employees. Empowerment arise when independence in decision making, freedom, power and autonomy is given to employees for innovation and creativity. Empowerment can also be used as a motivational tool to make the employees more satisfied in terms of non monetary rewards. Empowerment allows a worker to follow a self directed path towards journey of organizational success. An organization can make the efforts of employees more successful by making their employees innovative in getting new ideas and in rational decision making by giving them power and authority. Employee empowerment is important because of shorter span of time for taking decisions, Employees directly connected to work need to take decisions. In addition to these Satisfaction and performance of employees depends on the authority that has been given to the individual.

Three levels have been used to study empowerment: At initial level encouraging employees to play a more effective role in their work, at next level involving the employees so that ways can be improved in which things can be done and at the highest level enabling the employees to make bigger decisions without referring to seniors. Employee empowerment can be done by Inspiring creativity and innovation, Equal distribution of power, Independence in executing the duties, Giving equal rights in organization, Allowance of independent decision making, Authority to correct problem, Input is solicited in planning changes ,and when organizations encourages feedback. In 21st century of advance technology and where human talent is the key to progress for an organization, employee empowerment is as necessary as any other resource in the organization so that employees can take quick decisions and respond in time to any changes. Organizations that are committed to employee empowerment they are in a position to motivate and retain their employees, even though it's a multifaceted management tool which needs to be nurtured and handled with a lot of care. Employee empowerment is a positive element in an organization. But it depends on the situation & circumstances. Empowering employees develops self confidence & loyalty in them & helps in enhancing customer satisfaction.

II. Significance of the Study

This study examines the impact of Employee empowerment on performance of employee and determines to what extent it is successful in private sector organizations. This paper tries to make the managers and top management realize the importance of Employee empowerment as a means of enhancing performance of employees. This study suggests that companies using the Employee empowerment approach can gain new insights. Employee empowerment can improves performance of

Author α: Research scholar, University School of Business, Chandigarh University. e-mail: richaaryan14@gmail.com
Author σ ρ: Associate Professor, University School of Business, Chandigarh University. e-mails: suratsingh789@gmail.com, amrinder783@gmail.com

employees. The study will provide guidance top management in the development of Employees work.

III. Objectives of the Study

The objective of this study is to throw light towards a very vital aspect of Employee management, known as Employee empowerment. The research will analyze the relationship between the Employee empowerment and its effects on employee's performance at private sectors in Punjab. The ultimate objective is to determine the impact of Employee empowerment on performance of employee. The study will reveal the relationship between employee performance and employee empowerment. It explores effect of different dimensions of Employee empowerment on employees.

IV. Review of Literature

Bradley and Benson (1990) explore the forebear, bridging and central role of employee empowerment. Sample of 111 employees in 4 organizations have been collected for research. Their result indicated that actions of external leaders, the responsibilities given to Employees, Personnel policies, and social structure of Employees all worked to enhance employee–empowerment experiences. Their study reveals that empowered Employees were also more productive and proactive than less empowered Employees, and had higher levels of customer service, job satisfaction and Employee commitment.

Pilar, Angel Martinez and Mauela (2005) explores in their research survey of university research and development employees about the mediator role on the relationship between performance of organization and employee empowerment. The results reveal that employee empowerment has positive impact on performance of organization and on its attitudes.. The moderator role indicated that Employee labor flexibility and age diversity decreased the positive affect of Employee empowerment on Organizational performance. Perceived work based social support positively, moderated the impact of Employee empowerment on productivity of employees; on the other hand work-based organizational support moderated its effect on customer service. Finally, perceived fairness and Employee gender's diversity were also positively related to the job satisfaction.

Martin and Hans (2001) explore that importance of Employees work to success of innovative projects. They developed a comprehensive concept of collaboration in Employees, called Employees work quality. Six facets of Employees work quality construct were specified: communication, coordination, balance of member contribution, mutual support, effort, and cohesion. The result reveals that Employees work quality was significantly associated with Organizational performance as rated by Employee members, Employee leaders and Employee external managers. Furthermore, Employees work quality showed strong association with Employee members' personal success.

Meyerson and Dewettinck (2012) in their research on effect of empowerment on employees performance reveals that empowerment and its implementation in organization do impact the performance of employees .They explores that delegation of authority ,reward based on performance and suggestion system have the most powerful impact on performance of employee. Empowerment is the cause of improvement in employee's performance .If employees are allowed to get involved in decision making in choosing a job. They will perform the job with more competence and with more enthusiasm.

Celik et.al (2014) evaluates the effect of employee empowerment applications on organizational creativity and innovativeness in enterprise .They found that there is positive and meaningful relationship of employee empowerment tools and organization creativity and innovativeness. Organization which uses employee empowerment techniques for creativity and open communication, employees of that organization seems to be more productive .Need is to set up a system of empowerment according to the needs of the organization.

V. Research Methodology

The scope of the study will be limited to private sector employees in Punjab. This research will cover the aspects related to the activities related to empowerment in private organizations and different tools that are used by private organizations for empowerment. This study was conducted in private organizations in Punjab region. The data was collected from top level and middle level employees as the target group of the study. This research took a period of two months during which data was collected from the field, organized, analyzed and presented in analytic form. The study employed the use of self structured questionnaire to collect the required primary data. Descriptive statistical analysis technique was employed to obtain useful summary of responses. Simple random sampling is used and total sample population of eighty employees. Simple random sampling was used since no complexities were involved. Simple random sampling is used and total sample population is eighty respondents. Primary data was collected through the use of self-structured questionnaires. The factor analysis technique with rotated method was employed in order to extract the important factors (variables) which have been given in table 1 below. The 21 version of SPSS has been used to analyses the data.

Table 1

Sr. No	Variables used for factor analysis
1	My organization Inspires creativity and innovation
2	Power is equally distributed in the organization
3	Non-managers have power and authority to execute their duties
4	Employees have independence in executing their duties
5	All should have equal rights in the organization
6	My organization allows for independent decision-making
7	Open communication has been encouraged in my organization
8	Power is centralized in the organization
9	Managers helps to improve confidence in task performance
10	My organization encourages feedback from the employees
11	My manager consults me before making decisions that will affect me
12	This is the type of job in which I can feel a sense of accomplishment
13	I have the authority to correct problems when they occur.
14	The work I do makes a difference here.
15	I feel valued as a team member.
16	My input is solicited in planning changes.
17	Involved in creating vision for future.
18	Highly satisfied with recognition.

The variables (factors) have been extracted on the basis of Eigen values greater than one. From this we designed a questionnaire to solicit employee's views on a five point scale where 1= Strongly agree, 2 = agree, 3 = neutral, 4= disagree, 5 = strongly disagree. After identifying the list of variables, the correlation matrix was designed and the factors have been extracted on the basis of Eigen values by using the Principal component analysis and the rotation method varimax with Kaiser normalization.

VI. Interpretation of the Output

1. *Descriptive Statistics:* The first output from the analysis is a table of descriptive statistics for all the variables under consideration as shown in the following table 2

Table 2: Descriptive Statistics

	Mean	Std. Deviation	Analysis N
organization inspires creativity and innovation	1.86	.807	80
equal distribution of power	2.66	1.006	80
powers of non managers to execute their duties	2.79	.924	80
independence in executing their duties	2.56	.939	80
equal rights in organization	2.20	.802	80
allowance of independence decision making	2.64	1.022	80
encouragement of open communication	2.46	1.030	80
power is centralized	2.20	.906	80
managers help to improve confidence	2.21	1.052	80
organization encourages feedback	2.33	.952	80
managers consults the employees	2.74	.896	80
job gives sense of accomplishment	2.66	1.018	80
authority to correct problem	2.53	.968	80
employees work make difference	2.44	.966	80
feel valued as a team member	2.25	.907	80
input is solicited in planning changes	2.58	.839	80
involved in creating vision for future	2.44	.953	80
highly satisfied with recognition	2.48	1.031	80

Global Journal of Management and Business Research (A) Volume XVI Issue XII Version I Year 2016
23

As is obvious from the above table, the mean, standard deviation and number of respondents(N) who participated in the survey are given .From an analytical look on the mean column of the table ,one can conclude that the variable 'powers of non managers to execute their duties ' is the most important variable that influences the performance of employees. It has the highest mean of 2.79.

2. *Correlation Matrix:* The next output from the analysis is the correlation coefficient matrix. The principal diagonal of the correlation matrix contains 1s, because the correlation coefficient between a variable and itself is always one .The correlation coefficients above and below the principal diagonal are the same. The value of the determinant of the correlation coefficient matrix is given at the foot of the table below. The value of the determinant should be at least 0.00001 for carrying the factor analysis. The value of the determinant in our study being 0.003 allows us to carry with factor analysis .The value of the determinant (0.178) being greater than necessary value (0.00001) shows that multi co linearity is not a problem for the present dataset. Furthermore by applying 1\3 rule, it can be concluded that there is positive correlation among the variables. In other words, if at least 33 percent of the correlation coefficients are positive, we say that the correlation among the variables is positive .This condition has also been used in our study as shown in the following table 3

3. *Kaiser meyer olkin (KMO) and Bartlett's Test:* The KMO measures the sampling adequacy the value of which should be greater than 0.5 for a satisfactory factor analysis to Proceed. In our study, this value is 0.687, which is approximately equal to 0.7 that also allows us to proceed for factor analysis.

Bartlett's test is another measure of the strength of the relationship among variables. This tests the null hypothesis that the correlation matrix is an identity matrix. We would like to reject this null hypothesis, because for factor analysis to work, we need some relationship between variables and if the R matrix were an identity matrix then all correlation coefficients would be zero. Therefore, we want this tests to be significant (i.e have a significance value less than 0.05).From the same table given below, we can see that the Bartlett's test of Sphericity is significant. That is, its associated probability is less than 0.05.In fact it is actually .000 in the present study, i.e. the significance level is enough to reject the null hypothesis .Therefore, we reject the null hypothesis of identity matrix. The results are shown in following Table 5.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.687
	Approx. Chi-Square	426.320
Bartlett's Test of Sphericity	Df	153
	Sig.	.000

As is obvious from the above table, Bartlett's test is highly significant ($P<0.001$), and therefore, factor analysis is appropriate.

4. *Communalities:* The next item from the output is a table of communalities which shows how much of the variance in the variables has been accounted for by the extracted variables (factors). For instance about 73 percent of the variance in the variable, organization inspires creativity and innovations is accounted for by the extracted factors, while 75 percent of the variance in the variable ,the power is centralized is accounted for by the extracted factors and so on, as shown in the table -5 given below.

Table 5: Communalities

	Initial	Extraction
organization inspires creativity and innovation	1.000	.731
equal distribution of power	1.000	.665
powers of non managers to execute their duties	1.000	.639
independence in executing their duties	1.000	.607
equal rights in organization	1.000	.622
allowance of independence decision making	1.000	.667
encouragement of open communication	1.000	.701
power is centralized	1.000	.759
managers help to improve confidence	1.000	.572
organization encourages feedback	1.000	.446
managers consults the employees	1.000	.706
job gives sense of accomplishment	1.000	.727

authority to correct problem	1.000	.655
employees work make difference	1.000	.709
feel valued as a team member	1.000	.680
input is solicited in planning changes	1.000	.530
involved in creating vision for future	1.000	.665
highly satisfied with recognition	1.000	.617

Extraction Method: Principal Component Analysis.

5. *Total variance Explained:* SPSS output 5 lists the Eigen values associated with each linear component (factor) before extraction, after extraction and after rotation. Before extraction SPSS has identified 18 linear components within the data set. We know that there would be as many eigen values as there are variables .The eigen values associated with each factor represent the variance explained by that particular component and SPSS also displays the Eigen values in terms of the percentage of variance explained .The first few factors explain relatively large amount of variance whereas subsequent factors explain only small amount of variance. SPSS then extracts all factors with Eigen values greater than 1, which leaves us with six factors .The Eigen values associated with these factors are again displayed in the columns labeled extraction sums of squared loadings. Eigen values of the factors after rotation are displayed. Before rotation ,factor 1 accounted for considerably more variance than the remaining five (25.9%, compared to 10.72 %, 8.59%, 7.52%, 6.26%, 5.96%), However, after extraction, it accounts for 14.89% of variance compared to 11.73%, 11.64%, 10.50%, 9.37% and 6.82% respectively). Thus it is obvious from the table 6 given below that about 64.98 percent of the total variance has been explained by the factors and all the remaining factors are not significant.

Table 6: Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.664	25.908	25.908	4.664	25.908	25.908	2.681	14.897	14.897
2	1.930	10.723	36.632	1.930	10.723	36.632	2.112	11.735	26.632
3	1.547	8.594	45.226	1.547	8.594	45.226	2.096	11.642	38.274
4	1.355	7.527	52.754	1.355	7.527	52.754	1.891	10.508	48.782
5	1.128	6.268	59.021	1.128	6.268	59.021	1.688	9.378	58.161
6	1.074	5.967	64.988	1.074	5.967	64.988	1.229	6.828	64.988
7	.920	5.112	70.100						
8	.805	4.475	74.575						
9	.769	4.270	78.845						
10	.689	3.825	82.670						
11	.653	3.628	86.298						
12	.489	2.719	89.017						
13	.474	2.632	91.650						
14	.435	2.416	94.066						
15	.362	2.013	96.079						
16	.270	1.498	97.577						
17	.239	1.328	98.905						
18	.197	1.095	100.000						

Extraction Method: Principal Component Analysis.

6. *Rotated component (factor) matrix:* There are several things to consider about format of this matrix. First, factor loadings less than 0.5 have not been displayed because we asked for these loadings to be suppressed. Second, the variables have not been listed in the order of size of their factor loadings because we have not asked for the output to be sorted by size.

The idea of rotation is to reduce the number of factors on which the variables under investigation have high loadings as shown in Table 7

Table 7: Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
encouragement of open communication	.793					
authority to correct problem	.749					
input is solicited in planning changes	.636					
job gives sense of accomplishment	.506					
managers consults the employess		.787				
powers of non managers to execute their duties		.726				
allowance of independence decision making		.542				
organization encourages feedback						
equal rights in organization			.762			
highly satisfied with recognition	.517		.570			
feel valued as a team member			.503			
involved in creating vision for future						
organization inspires creativity and innovation				.814		
equal distribution of power				.695		
employees work make difference					.831	
independence in executing their duties					.533	
managers help to improve confidence					.510	
power is centralized						.858

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.[a]

Using the factor loadings, the empowerment attributes were grouped into their respective factors and were named according to their collective representation. The main findings of the study have been summarized as follows:

Factor 1

First factor consist of five variables, namely encouragement of open communication, authority to correct problem, input is solicited in planning changes, and job gives sense of accomplishment. The total variance explained by factor 1 is 25.90 percent. This is named as 'communication empowerment'.

Factor 2

This factor includes three variables namely the managers consults the employees, powers of non managers to execute their duties, allowance of independence decision making. The total variance explained by factor 2 is 10.72 percent .This is called as 'consultation empowerment'.

Factor 3

This factor comprises three variables namely equal rights in organization, highly satisfied with recognition, feel valued as a team member. This factor is termed as 'motivational empowerment' which explains 8.59 percent of the total variance.

Factor 4

This factor includes two variables namely organization inspires creativity and innovation, equal distribution of power. This factor is named as 'co - determination empowerment' which explains 7.52 percent of total variance.

Factor 5

This factor consist three variables namely employees work make difference, independence in executing their duties, managers help to improve confidence. This factor is named as 'autonomy empowerment' which explains 6.26percent of total variance.

Factor 6

This factor consist one variable namely power is centralized. This factor is named as' control empowerment', which explains 5.96 percent of total variance.

VII. Conclusion

The study made an attempt to identify the factors affecting the empowerment of private sector employees in the Punjab state by analyzing the sample of 80 employees who have been interviewed personally through a structured questionnaire. The 21st version of SPSS has been used for analysis purposes. The factor analysis technique has been used and the factor analysis using principal component extraction method with varimax rotation has extracted six factors which explained 64.98 percent of the total variance. All the six factors 'communication empowerment', consultation empowerment', motivational empowerment', 'co-determination empowerment', 'autonomy empowerment', 'control empowerment' represents different empowerment attributes important to employees. The first factor 'communication empowerment 'explained 25.90 percent of the total variance and it comprises five variables namely encouragement of open communication, authority to correct problem, input is solicited in planning changes, and job gives sense of accomplishment. The second factor 'consultation empowerment' explains 10.72 percent of the total variance and it includes three variables namely the managers consults the employees, powers of non managers to execute their duties, allowance of independence decision making. The third factor 'motivational empowerment' comprises three variables namely equal rights in organization, highly satisfied with recognition, feel valued as a team member and it explained 8.59 percent of the total variance. The fourth factor 'co determination empowerment includes two variables namely organization inspires creativity and innovation, equal distribution of power and explained 7.52 percent of the total variance .The fifth factor 'autonomy empowerment' explained 6.26 percent of the total variance and it also includes three variables namely employees work make difference, independence in executing their duties, managers help to improve confidence. The sixth factor explained 5.96 percent of the total variance and it includes one variable namely power is centralized. The variable, Power of non managers to execute their duties having the highest mean 2.79 is most important to employees as concerned to empowerment followed by the variables, managers consult the employees and equal distribution of power, job gives sense of accomplishment and allowance of independent decision making.

References Références Referencias

1. A Theoretical Concept and Empirical Organization Science, Vol.12, No. 4, 435449 (Carnicer, Sanchez, Perez, & Jimenez, 2005) (Briône & Nicholson, 2012) (Celik & Celik, 2014) (Demġrcġ & Erbaġ, 2010) (Ganjinia, Gilaninia, Poorali, & Sharami, 2013) (Mehrabani & Shajari, 2013) (Meyerson & Dewettinck, 2012)(Nadu, 2015)
2. Briône, P., & Nicholson, C. (2012). Employee empowerment : (January).
3. Bradley, L. And Kirkman, B.R. 1999, Beyond Self-Management: Antecedent and consequences of Employee Empowerment, in: The Academy of Management Journal, Vol. 42, No. L, 58-74.
4. Carnicer, P. D. L., Sanchez, A. M., Perez, M., & Jimenez, M. J. V. (2005). Team empowerment: an empirical study in Spanish University R & amp; D teams. International Journal of Human Resources Development and Management, 5(1), 69. Http://doi.org/10.1504/IJHRDM.2005.005986
5. Celik, A., & Celik, N. (2014). The Effects of Employee Empowerment Applications on Organizational Creativity and Innovative-Ness in Enterpriseses : The Case of OIZ Adnan Celik, phd, 10(10), 99–107.
6. Demġrcġ, M. K., & Erbaġ, A. (2010). Employee Empowerment and Its Effect on Organizational Performance, 142–146.
7. Ganjinia, H., Gilaninia, S., Poorali, R., & Sharami, M. (2013). OVERVIEW OF EMPLOYEES EMPOWER-MENT IN, 3(2), 38–43.
8. Mehrabani, S. E., & Shajari, M. (2013). Relationship between Employee Empowerment and Employee Effectiveness, 2(4).
9. Meyerson, G., & Dewettinck, B. (2012). Effect of Empowerment on Employees Performance Abstract : 2(July), 40–46.
10. Martin, H. And Hans, G.G. 2001 Employee Work Quality and Success of Innovative Projects, in:
11. Nadu, T. (2015). Impact of Employee Empowerment on Organisational performance Case of Automobile Industry in Chennai city of Tamil Nadu in India., 2(4), 20–31.
12. Pilar, D., Angel, M., Manuela, P., & Maria, J. (2005). Team Empowerment: An Empirical Study in Spanish University R & D Teams". International Journal of Human Resources Development and Management. 5 (1), 69-84

Global Journals Inc. (US) Guidelines Handbook 2016

www.GlobalJournals.org

FELLOW OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (FARSB)

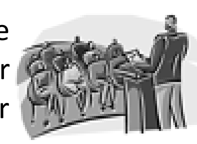
Global Journals Incorporate (USA) is accredited by Open Association of Research Society (OARS), U.S.A and in turn, awards "FARSBA" title to individuals. The 'FARSBA' title is accorded to a selected professional after the approval of the Editor-in-Chief/Editorial Board Members/Dean.

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

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

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

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



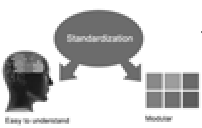
Once FARSBA title is accorded, the Fellow is authorized to organize a symposium/seminar/conference on behalf of Global Journal Incorporation (USA).The Fellow can also participate in conference/seminar/symposium organized by another institution as representative of Global Journal. In both the cases, it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

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

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

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

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



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

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

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

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

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

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

MEMBER OF ASSOCIATION OF RESEARCH SOCIETY IN BUSINESS (MARSBA)

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

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

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

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

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

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

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

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

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

It is mandatory to read all terms and conditions carefully.

Auxiliary Memberships

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

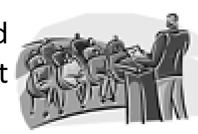
Global Journals Incorporation (USA) is accredited by Open Association of Research Society, U.S.A (OARS) and in turn, affiliates research institutions as "Institutional Fellow of Open Association of Research Society" (IFOARS).

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

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

The Institute will be entitled to following benefits:

The IBOARS can initially review research papers of their institute and recommend them to publish with respective journal of Global Journals. It can also review the papers of other institutions after obtaining our consent. The second review will be done by peer reviewer of Global Journals Incorporation (USA)
The Board is at liberty to appoint a peer reviewer with the approval of chairperson after consulting us.
The author fees of such paper may be waived off up to 40%.



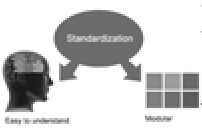
The Global Journals Incorporation (USA) at its discretion can also refer double blind peer reviewed paper at their end to the board for the verification and to get recommendation for final stage of acceptance of publication.

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

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

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

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



After nomination of your institution as “Institutional Fellow” and constantly functioning successfully for one year, we can consider giving recognition to your institute to function as Regional/Zonal office on our behalf.
The board can also take up the additional allied activities for betterment after our consultation.

The following entitlements are applicable to individual Fellows:

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

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

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

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

Other:

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

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

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

Note :

"

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

"

Process of submission of Research Paper

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

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

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

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

(II) Choose corresponding Journal.

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

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

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

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

MANUSCRIPT STYLE INSTRUCTION **(Must be strictly followed)**

Page Size: 8.27" X 11'"

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

You can use your own standard format also.
Author Guidelines:

1. General,

2. Ethical Guidelines,

3. Submission of Manuscripts,

4. Manuscript’s Category,

5. Structure and Format of Manuscript,

6. After Acceptance.

1. GENERAL

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

Scope

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

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

2. ETHICAL GUIDELINES

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

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

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

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

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

2) Drafting the paper and revising it critically regarding important academic content.

3) Final approval of the version of the paper to be published.

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

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

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

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

Please mention proper reference and appropriate acknowledgements wherever expected.

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

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

3. SUBMISSION OF MANUSCRIPTS

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

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

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

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

4. MANUSCRIPT'S CATEGORY

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

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

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

Research articles: These are handled with small investigation and applications

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

5.STRUCTURE AND FORMAT OF MANUSCRIPT

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

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

(a)Title should be relevant and commensurate with the theme of the paper.

(b) A brief Summary, "Abstract" (less than 150 words) containing the major results and conclusions.

(c) Up to ten keywords, that precisely identifies the paper's subject, purpose, and focus.

(d) An Introduction, giving necessary background excluding subheadings; objectives must be clearly declared.

(e) Resources and techniques with sufficient complete experimental details (wherever possible by reference) to permit repetition; sources of information must be given and numerical methods must be specified by reference, unless non-standard.

(f) Results should be presented concisely, by well-designed tables and/or figures; the same data may not be used in both; suitable statistical data should be given. All data must be obtained with attention to numerical detail in the planning stage. As reproduced design has been recognized to be important to experiments for a considerable time, the Editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned un-refereed;

(g) Discussion should cover the implications and consequences, not just recapitulating the results; conclusions should be summarizing.

(h) Brief Acknowledgements.

(i) References in the proper form.

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

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

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

Format

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

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

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

Metric SI units are supposed to generally be used excluding where they conflict with current practice or are confusing. For illustration, 1.4 l rather than 1.4 × 10-3 m3, or 4 mm somewhat than 4 × 10-3 m. Chemical formula and solutions must identify the form used, e.g. anhydrous or hydrated, and the concentration must be in clearly defined units. Common species names should be followed by underlines at the first mention. For following use the generic name should be constricted to a single letter, if it is clear.

Structure

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

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

Abstract, used in Original Papers and Reviews:

Optimizing Abstract for Search Engines

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

Key Words

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

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

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

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

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

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

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

Acknowledgements: Please make these as concise as possible.

References

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

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

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

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

Tables, Figures and Figure Legends

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

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

Preparation of Electronic Figures for Publication

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

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

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

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

6. AFTER ACCEPTANCE

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

6.1 Proof Corrections

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

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

(Free of charge) from the following website:

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

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

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

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

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

6.3 Author Services

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

6.4 Author Material Archive Policy

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

6.5 Offprint and Extra Copies

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

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

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

TECHNIQUES FOR WRITING A GOOD QUALITY RESEARCH PAPER:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Informal Guidelines of Research Paper Writing

Key points to remember:

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

Final Points:

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

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

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

General style:

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

To make a paper clear

· Adhere to recommended page limits

Mistakes to evade

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

In every sections of your document

· Use standard writing style including articles ("a", "the," etc.)

· Keep on paying attention on the research topic of the paper

· Use paragraphs to split each significant point (excluding for the abstract)

· Align the primary line of each section

· Present your points in sound order

· Use present tense to report well accepted

· Use past tense to describe specific results

· Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives

· Shun use of extra pictures - include only those figures essential to presenting results

Title Page:

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

Abstract:

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

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

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

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

Approach:

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

Introduction:

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

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

Approach:

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

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

Procedures (Methods and Materials):

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

Materials:

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

Methods:

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

Approach:

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

What to keep away from

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

Results:

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

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

Content

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

What to stay away from

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

Approach

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

Figures and tables

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

Discussion:

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

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

Approach:

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

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

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

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

Criterion for Grading a Research Paper (Compilation) by Global Journals Inc. (US)

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

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	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
Introduction	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
Methods and Procedures	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
Result	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
Discussion	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
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

INDEX

Global Journal of Management and Business Research

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

ISSN 9755853