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# **MAIMS JOURNAL OF COMMERCE**

**Volume 1 No. 1 January - June 2021**



**Journal of the Department of  
Commerce**

**Maharaja Agrasen Institute of Management Studies**

(Affiliated to Guru Gobind Singh Indraprastha University, Delhi India)

**Delhi India**

## **About the Journal**

MAIMS Journal of Commerce, started in January 2021, is a bi-annual refereed Journal of the Department of Commerce, Maharaja Agrasen Institute of Management Studies, Delhi India. The Journal aims at providing an opportunity to academicians, scholars, policy makers, and industrialists to publish their valuable research work in the field of commerce and its allied areas such as accounting, marketing, economics etc.

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Maharaja Agrasen Institute of Management Studies

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MAIMS Journal of Commerce is edited and published by Prof. (Dr.) Manju Gupta, Professor and Head, Department of Commerce, Maharaja Agrasen Institute of Management Studies, Delhi, India and printed by Amit Digital Prints, G 3, Ground Floor, Kundan House, Nehru Place, Delhi – 110019.

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### **Dr. Nand Kishore Garg**

Founder & Chief Advisor, Maharaja Agrasen  
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The Commerce department of MAIMS is starting its Journal title ***MAIMS Journal of Commerce***. The main objective of this journal is to provide a platform to leading researchers and practitioners from academia and industry in India and abroad to share their innovative ideas, experiences, and cutting-edge research in the fields of commerce and related areas.

Our vision is to establish this Journal as a high-quality publication that will be relevant, thought provoking and inclusive of a diverse range of voices and perspectives on socio-economic issues, including those of students, academic researchers and policy-makers.

I would like to take this opportunity to convey my best wishes to the Editorial Board for their collective efforts and dedication to bring out MAIMS Journal of Commerce. I am sure that the research papers published in MAIMS Journal of Commerce will make a significant contribution in developing new knowledge and provide solutions to key trade and business problems.

I am delighted and thankful to you all for joining us as readers and hope that all of you will join us as authors and reviewers of this Journal also.

Warm wishes!

## Message from Patron



### **Prof. (Dr.) S. K. Garg**

Director General  
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I am happy to present to you the first issue of '**MAIMS Journal of Commerce**' launched by Department of Commerce, Maharaja Agrasen Institute of Management Studies, Delhi.

This bi-annual peer reviewed Journal intends to publish high quality research papers in various fields of commerce like Security Portfolio, Financial Institutions, Risk Management, Financial Management, Behavioral Finance, Stock Market, Share Capital, Business Communications etc.

I am sure that the Journal will thrive to become a valuable source of information on various socio-economic issues for researchers, academicians and policy-makers. The papers published will help managers to navigate today's complex environment and take business decisions more efficiently.

The launch of the Journal is a result of tremendous efforts of the entire Editorial Board and I convey my compliments to them. I would also like to express my gratitude to all the authors of this inaugural issue for showing their interests in MAIMS Journal of Commerce.

I am sure that the collection of papers published in this Journal will provide the readers an insight in recent trends and research directions in emerging areas of the global economy.

My good wishes for the success of this endeavor.





**Prof. (Dr.) Ravi Kumar Gupta**

Director  
Maharaja Agrasen Institute of Management Studies  
Delhi India

I am very delighted to celebrate the launch of ***MAIMS Journal of Commerce***, a bi-annual peer reviewed Journal that publishes original research in the field of commerce started by Department of Commerce, Maharaja Agrasen Institute of Management Studies, Delhi.

Research is an essential and integrated component of studies at MAIMS and Research Journal of the Department of Commerce, 'MAIMS Journal of Commerce' is going to take academic standards of the Institute to the new heights. The Journal is meant for all who are pursuing the endeavor of research and policy design in the field of commerce and other related areas like economics, taxation, management etc. It provides a perfect opportunity to address critical socio-economic issues at the global level, exchange of new ideas and disseminate the advancements of the fast-growing field of commerce. The Journal plays a valuable role in accumulating high quality theoretical and/or empirical research papers.

The Journal is served by a very competent Editorial Board comprising of faculty members of the Department of Commerce, MAIMS under the guidance of its Advisory Board comprising of distinguished academicians and researchers. We strive to make MAIMS Journal of Commerce as a preferred platform to discuss and disseminate new dimensions of Commerce.

Best wishes.

### **Prof. (Dr.) Manju Gupta**

Professor and Head  
Department of Commerce  
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Delhi India



It gives me immense pleasure to present first issues of ***MAIMS Journal of Commerce***, an initiative of Commerce Department of Maharaja Agrasen Institute of Management Studies, Delhi. 'MAIMS Journal of Commerce' is a bi-annual peer reviewed Journal covering research papers on various commerce related areas.

The First Issue of the Journal comprises of six research papers, one case study and one book review. The first paper analyzes that the Total Quality Management (TQM) in HEI is a perception which these institutions can only attain through long period of planning, formulation and execution of annual quality program. Second paper discusses that how Indian pharmaceutical industry is poised for high consistent growth over the next few years, driven by multitude of factors. Third paper focuses to investigate whether the efforts and initiatives of Reserve Bank of India, Government of India and Banking Sector to boost Financial Inclusion are going in right directions or not. Fourth paper analyses the opinion of students about online teaching as it has become an effective way to dispense knowledge during the Covid-19 pandemic. Fifth paper focuses to know the impact on student's academic, mental, physical and social problems due to COVID 19. Sixth paper explains how better decision making always helps industries in terms of optimizing and minimizing costs.

On behalf of editorial board, I wish to express my sincere gratitude to all contributors/authors for sharing their valuable findings and ideas with us. I hope that MAIMS Journal of Commerce will serve the intended purpose and will be of immense use of researchers.

# MAIMS JOURNAL OF COMMERCE

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# Implementation of Total Quality Management in Higher Education Institutions

Neeru Gupta\* Anil Kumar Parti\*\* Ravi Kumar Gupta\*\*\*

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## ABSTRACT

In order to fuel the socio-economic development of the country, higher education is playing a more active role in our country and this requires a paradigm shift in terms of governance and service delivery. Higher education institutions must become more innovative leading to quality institutions of knowledge production and dissemination. Realizing the importance of higher education is important to improve the performance of this sector. Total Quality Management (TQM) in HEI is a perception, which these institutions can only attain through long period of planning, formulation and execution of annual quality program that definitely moves towards the accomplishment of the vision. Implementation of TQM concepts is one of such degree, which will go a long way in reviving the higher education system by embedding the awareness of quality. This study endeavors to analyze TQM in higher education and outline the literature on Implementation of TQM in HEI ensuring that the requirements of the stakeholders are met.

**Keywords:** *Total Quality Management, Higher Education Institutions, Annual Quality Programmes, Implementation of TQM, Stakeholders*

## INTRODUCTION

In this world of rapidly boosting competition, speedy changes of technology, falling quality, varying demographics, privatization and internalization in education have led to the use of the concept of TQM in education. Also, in the last few decades, several factors have contributed to raising public concerns

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over higher education institutions quality, quality management and improvement devices such as performance indicators, accreditations, programme, institutional assessment and quality audits. This has paved way for the implementation of quality management principles, methodologies, and tools to be applied by the Higher Education sector for its continuous improvement. Total quality management (TQM) is a way of managing to improve the effectiveness efficiency, cohesiveness, flexibility and competitiveness of a business as a whole. As defined by British Standard Institution, TQM consists of a “management philosophy and company practices which aim to harness the human and material resources of an organization in the most effective way to achieve the objectives of the organization”. Quality improvement has become a considerable force throughout the world. Although methods to improve and manage quality are numerous, it can be said that TQM is a critical determinant in the success of not only the manufacturing organizations, but also, Higher Education Institutions. Intensified global competition and increasing demand for higher quality in education have instigated an increasing number of HEIs to invest substantial resources in adapting and implementing Total Quality Management procedures, tools and techniques. Total Quality Management is defined as an integrative management philosophy and a set of guiding principles, representing the foundation of a continuously improving organization/institution. It constitutes the application of sound management principles, quantitative measurement methods and human resources with an underlying aspiration of improving all departments within an institution, surpassing the current and future needs of the stakeholders and increasing the overall performance. Over the past few decades, paramount figures in the field of quality management, Deming and Juran have developed and advocated abundant prescriptions in the area of Total Quality Management. Their insight into the field of Total Quality Management has provided a useful understanding of the underlying principles of Total Quality Management and has formed the basis against which subsequent researchers have formulated and verified critical success factors of Total Quality Management. Quality Management is a phrase that is used to encompass a vast array of tools, techniques and methodologies for continuous improvement. This paper looks at the implementation of TQM in HEI and obstacles for the effective implementation of TQM.

## **STATEMENT OF PROBLEM**

In developing nations, the quality and social relevance of higher education is

deteriorating due to several reasons. Total quality management is one of the important factors that shape the strategies of HEI in ensuring quality and continuous improvement. Hence, this study identifies the importance of implementation of TQM and overcoming the obstacles for its implementation which helps in improving the performance of higher education institutions, thereby, fulfilling the expectations of stakeholders.

### **OBJECTIVES OF THE STUDY**

1. To study the importance of quality and quality management in HEI
2. To understand the Principles of TQM that is important for the quality sustenance and improvement
3. To analyze the importance of TQM in HEI in economic development of a nation.
4. To study the need of continuous quality improvement, components of TQM, and challenges of TQM in higher education.
5. To analyse the means and strategies to be adopted by HEI for implementing TQM

### **RESEARCH METHODOLOGY**

A descriptive study has been conducted by understanding information in the existing literatures and research journals. The secondary data from the books, websites and research journals are used in the study.

### **LITERATURE REVIEW**

Black and Porter (1996) place emphasis on Baldrige Award criteria, revealing ten critical factors for the successful implementation of TQM, and these factors are: supplier partnership, People and customer management, customer satisfaction orientation, external interface management, communication of improvement information, strategic quality management, operational quality planning, quality improvement measurement systems, teamwork structure for improvement, and corporate quality culture.

Saraph et al.(1989) developed a reliable instrument to measure quality adoption and management practice this instrument based on 8 critical factors, these factors are: Role of divisional top management and quality policy, Role of quality department, Training, Product/service design, Supplier quality management, Process management operating Quality, data and reporting, Employee relations.

Ahire et al, (1996) expanded the practices even further and identified 12 factors that are critical for the implementation of TQM derived mainly from the literature, these factors are: Top management commitment, Customer focus, Supplier quality management, Design quality management, Benchmarking, use of statistical process control, internal quality information, Employee empowerment, Employee involvement, Employee training, Product quality, and Supplier performance.

Fotopoulos et al. (2009), surveyed 370 Greek companies, they find out that, leadership, process management, service design, human resource management, customer focus, Education and Training, and supplier quality management are critical success factors in TQM implementation.

Although there are many studies in TQM literature, authors such as (Idris & Zairi, 2006; Karuppusami & Gandhinathan, 2006; Prajogo & McDermott, 2005; Sila & Ebrahimpour, 2002; Singh & Smith, 2006; Vouzas & Gotzamani, 2005) recommend that further concern should be made for the evaluation of critical success factor of TQM, the results of their adoption and the type and extent of their relationships.

## **IMPORTANCE OF TQM IN HEI**

In the present competitive scenario, HEI's are forced to formulate and implement strategies within global context. Total Quality Management (TQM) has been described as a management philosophy and a way of thinking that has helped higher education institutions move towards achieving excellence in providing education. TQM helps create a culture of trust, participation, teamwork, quality mindedness, zeal for continuous improvement, continuous learning and eventually, a working culture that contributes towards HEI's success and existence. TQM must be widely recognized and successfully implemented in HEI's, giving them the edge in international as well as local competitiveness, to ensure high quality services and satisfy the needs of

stakeholders. HEI's must gain in-depth understanding of the key factors associated with the quality performance practices that is important to improve efficiency and enhance growth and sustainability.

### **TQM MODEL FOR HIGHER EDUCATION (DEMING CYCLE – PDCA)**

PDCA stands for Plan-Do-Check-Act. Higher education institutions must plan for achieving quality, Do the work according to the plan, Check whether it confirms with the standards and finally act on the difference. This PDCA cycle leads to continuous improvement. This PDCA Cycle was first proposed by Deming. Hence it is also called Deming's Cycle. Plan step in Deming cycle includes identifying and doing a research for the purpose of studying of what TQM really is and top management should understand the concept, its objectives for accomplishing their plan. This involves defining values, methodologies, tools, objectives and visions.

Do step in Deming cycle is about start implementing solutions. In this step, there must be some training to all faculties/employees about terms like Quality, TQM, Core Values, Methodologies and tools. Furthermore, Quality assessment cell must be established for assessment and improvement of quality in HEI's. Finally, some measures must be established to perform a benchmarking in order to recognize and reward improvements. Check step in Deming cycle has been regarded as evaluation step. This step has to do with evaluation of the first two steps i.e., plan and do steps. The management must evaluate to find out whether faculties and employees at all levels are working to meet the requirements of all stakeholders. Act step in Deming cycle involves taking measures and implementing changes in the system for the problems identified in the previous step.

### **HOW TO IMPLEMENT TQM IN HEI (PROPOSED STEPS)**

Any educational institution which wants to implement TQM should develop its own model. Here is a proposed model for implementing TQM in HEI.

- 1.) Understanding/Identifying: The top management of the educational institution should first understand what TQM is.
- 2.) Decision for Change: The top management must make decisions for



bringing in change for achieving quality and motivate other employees and faculties to adapt to changes.

- 3.) Preparation for implementing changes: The institution must determine the requirements of all stakeholders, identify the goals and vision to be achieved and prepare strategies to facilitate the flow of communication between and within the different levels of the organization.
- 4.) Training and education to faculties and other employees: The institution must devise training and development programmes to educate and equip faculties/employees, guiding them to carry on their work such that they will support the institution in meeting its goals thereby achieving quality.
- 5.) Initiative: The institution must take an initiative/give a start with new assignments/projects. There is no achievement without a beginning. Hence, a good leader may be selected by the HEI to begin and motivate other staff members for quality performance. Benchmarking may also be regarded as one of the effective tools for the successful implementation of TQM.
- 6.) Evaluation: The HEI must evaluate its performance annually for quality sustenance and improvement so that it will be able to achieve productivity and success in this competitive scenario. In this stage, the institution will be able to identify any problem/obstacle that is responsible for not achieving TQM and may take measures for overcoming such obstacles.
- 7.) Recognition: This is necessary to motivate a faculty/employee which will boost his/her morale and self-interest. Monetary or Non-monetary rewards may be awarded to employees to make them feel committed to their job as well as institution which will in the long run ensure quality.
- 8.) Continuous Improvement: TQM is a continuous process. It is an unending process of improvement. The TQM process should be reviewed and communicated to all levels of employees on a regular basis.

## **BARRIERS / OBSTACLES FOR TQM IMPLEMENTATION IN HEI**

- 1 The major impediments for successful implementation of TQM include,
- 2 Poor Vision and Plan Statement
3. The Government Influence
4. Lack of highly qualified professionals
5. Lack of knowledge about the self-assessment mechanisms Resistance of institutional assessment /change.

6. Poor co-ordination between employees and departments
7. Lack of interest in training
8. Expectation of immediate results
9. Instability of leaders and departments
10. Rigid organizational structures
11. Lack of clarity about role and responsibilities
12. Lack of employees' commitment.

## **PRINCIPLES OF TQM IN HIGHER EDUCATION INSTITUTIONS**

### **1. Putting the customer first**

Customer in case of HEI's is none other than students. The fundamental aspect of TQM in higher education institutions is giving importance for catering to the need of the student community and making them employable to face the challenges in the current scenario.

### **2. Management by Fact**

The second principle which HEI's are adopting these days is management by fact. This principle is difficult to institutionalize, because every employee/faculty in a higher education institution holds different opinions, views and notions about how things should be done. Hence, rather than opinions, views and ideas, the facts are to be given due consideration by the management while making decisions on improving quality.

### **3. Principle of PDCA Cycle**

PDCA stands for Plan-Do-Check-Act. According to this principle, higher education institutions must plan for achieving quality, Do the work according to the plan, Check whether it confirms with the standards and finally act on the difference. This PDCA cycle leads to continuous improvement. This PDCA Cycle was first proposed by Deming. Hence it is also called Deming's Cycle.

### **4. Focus on prevention**

Taking corrective action is a common step in any organization/institution. But trying to prevent any cause is better than correction. As such TQM concentrates on prevention rather than correction. Whenever a problem has arisen in an HEI, the management must focus on finding out the root cause of the problem and solve such causes so that such problems do not occur in future.

## **5. Principle of employee involvement**

This principle emphasizes on how people should work together. For becoming a TQM oriented institution, the HEI's must respect the employee's views, opinions & suggestions.

## **CONCLUSION**

The Success of higher education institutions depends on their management strategy on how to identify, classify, analyze and react to the effective approach. This study reveals that TQM will have an excellent impact on the institution's goals, mission and vision, and creates value in enhancing quality and assuring growth. Even though the implementation of TQM brings a wide range of changes in HEI's, many institutions are not prioritizing its implementation. To conclude, total quality management is a concept rather than a process by itself. The TQM cannot be implemented overnight. Hence, the HEIs must analyze various obstacles carefully for the effective implementation of TQM for achieving continuous improvement and sustainability.

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# Marketing Strategies of Pharmaceutical Industry

Divisha Gupta\*

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## ABSTRACT

The Indian Pharmaceutical Industry has shown high interest in India due to its sustained economic growth, health care reforms and patent related legislations. Driven by increasing affordability, shifting disease patterns and modest health care reforms, the total consumer spending on health care products and services in this country grew at a compounded annual rate of the percent from 2000 to 2005. The pharmaceutical industry, which accounts for 15% to 20% of total health care spend, grew at an annual compounded rate of 9% during this period. The pharmaceutical industry is a knowledge driven industry and is dependent upon research and development for new products and growth. Indian pharmaceutical industry is poised for high consistent growth over the next few years, driven by multitude of factors. In this context it is important that the drivers of marketing strategy are thoroughly studied. All the four P's have been discussed at length to understand the unique characteristics of pharmaceutical marketing mix, and the differences they possess as compared to general marketing. This study forms the basis of developing more detailed text for pharmaceutical marketing.

**Keywords:** *New product Development; General pricing; Break even pricing; Competition based pricing; Warehousing; Promotional; Unethical practices in the sector*

## INTRODUCTION

The Pharmaceutical industry in India is the 3<sup>rd</sup> largest in the world in terms of volume and 14<sup>th</sup> largest in terms of value. It contributes 3.5% of the total drugs and medicines exported globally. India's healthcare industry is expected to reach USD 372 bn in 2022. Healthcare has become one of the largest sectors of the Indian economy, in terms of both revenue and employment. India, known as the Pharmacy of the World, is the largest

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provider of generic drugs and one of the biggest suppliers of low-cost vaccines globally. India has contributed significantly to global healthcare by ensuring high quality, affordable and accessible medicines around the world. India aims to achieve vaccination for 30 crore people in the next few months. An overall increase of 7.95% in budget allocation for Health Schemes in 2021-22 as compared to allocation in 2020-21. Pharmaceutical is one of the top ten attractive sectors for foreign investment in India. The pharmaceutical exports from India reach more than 200 nations around the world, including highly regulated markets of the USA, West Europe, Japan, and Australia. About 20% of the global exports in generic drugs are met by India. India supplied around 45 tons and 400 million tablets of hydroxychloroquine to around 114 countries globally. Marketing is, as in other industries is the driving force in pharmaceutical industry. There is a clear need for developing literature, which can take into account the needs of pharmaceutical marketing, and become a when they pursue a career in pharmaceutical marketing. Although, there is good quality international literature available, but it carries the perspective of developed countries, where things are very different from a developing country like India.

## **MARKETING STRATEGIES**

### **1. PRODUCT**

*A product is any tangible thing, which can be used to treat a medical ailment diagnosed in a human body.* As in general marketing terms, a pharmaceutical product can also be thought of at three levels:

- a) Core product
- b) Actual product
- c) Augmented product

In general marketing, the core product is the basic benefit that the consumers seek when they buy a product. In pharmaceutical scenario, this will be the disease treating characteristics of a product, which will be considered the core product. The actual product in pharmaceutical marketing suggests five characteristics that a product can have; a quality level, features, dosage form, a brand name, and packaging. Pharmaceutical products can be classified under

two main categories: Prescription products and OTC products. The criterion for division is whether a product is marketed to the medical profession or directly to the consumers.

### **1.1 Product Line Decisions**

A product line in context of pharmaceutical marketing is a group of products, which deal with basic guide to business graduates majoring in marketing to understand how things will be with the same disease category, or is promoted to the same segment of the medical profession. A company has to decide on having a certain number of products in one product line. The aim is to have a product line, which offers enough choices for the doctors while keeping the length of product line manageable and profitable. A company may increase the product line length either by stretching it upwards and/or downwards, or through product line filling.

### **1.2 Product Mix Decisions**

A product mix or product assortment consists of all the product lines and items that a company has to offer. A company may have a range of antibiotics, a number of painkillers, a few cough syrups and some other medicines in different categories. All of these put together will be called a product mix. A company's product mix has four important dimensions: width, length, depth and consistency. Product mix *width* refers to the different product lines a company carries; e.g. SmithKline & Beecham has a wide product mix comprising antibiotics, painkillers, multivitamins, skin treatments, and antiulcer ants. Product mix *length* refers to the number of items a company carries in its product lines. SKB has Fortum, Augmentin, Ampiclox & Ampicillin in its antibiotic's category. Product mix *depth* refers to the number of versions each product offers. SKB's antibiotic brand Fortum comes in 250 mg, 500 mg and 1 gram, and similarly the other brands are also available in different strengths. Finally, the *consistency* of the product mix refers to how closely related different product lines are.

## **2. NEW PRODUCT DEVELOPMENT**

New product development in pharmaceutical industry is a much more complex process as compared to other industries. The cost of development, the R&D capability, registration with the ministry of health, sourcing of raw material, all

make this a daunting task for any marketing team. The new product development process in India's pharmaceutical industry can be outlined as follows:

- Molecule identification.
- Molecule screening.
- Sourcing of raw material.
- Pilot batch manufacturing.
- Marketing strategy development.
- Test marketing/Clinical trial/user trial.
- Commercialization.

### **3. PRICE**

Price is one of the most interesting and controversial topics in pharmaceutical marketing. The responsibility of allowing a particular price lays with the regulatory bodies, as in case of India, The Ministry of Health.

#### **a. Cost Structure in Pharmaceutical Products**

- Cost of active ingredient: Usually the highest cost component. In most of the cases, it ranges between 10-30% of total cost of product.
- Cost of other ingredients: A minor element, usually not higher than 3% of total cost.
- Cost of packaging material: Varies according to a material being used. In absolute terms, cost of packaging material ranges between Rs. 5-10 per pack of 10 tablets/capsules, per 60 ml bottle of liquid, per 5 ml injection & per 50 grams tube of ointments.
- Cost of manufacturing: Depends on volume being manufactured in a factory.

Besides that, a company may amortize its R&D cost over a period of time, which becomes an additional cost component.

#### **a. General Pricing Approaches**

In view of the peculiar characteristics of pharmaceutical industry, we will try to discuss the different approaches actually applicable and practiced in



the industry.

#### **b. Cost-Plus Pricing**

This type of pricing is usually done for old molecules where market is very crowded, and a higher price cannot fetch the required market share. The objective of company in such scenario is to either get some additional volume for their manufacturing facility, or to complement their existing product range.

#### **c. Break-Even Pricing**

Normally adopted for products being manufactured for government tenders and institutional business. The concern is not profit, but again either to get volumes, or to get into large hospital pharmacies so that the positive impact may come from out-of-hospital practice of the doctors who have to prescribe their brand in hospital because of inclusion in pharmacy.

#### **d. Value Based Pricing**

This approach for pricing is most commonly used by Multinational companies, encashing their good rapport with the doctors, especially in case of new molecules. There are countless examples where the cost of product has no relevance whatsoever and company has priced a product as per the perceived value for the doctors in their opinion.

However, things are becoming difficult now, and companies must be very careful while adopting this approach. They have to not only be careful about the wrong judgment of perceived value that they may make, and also the possibility of launch of same molecule by a local company with good reputation and quality.

#### **e. Competition Based Pricing**

This is what most marketing-oriented companies attempt to do these days. They take into account not only the perceived value, but also the value being offered by competition, and then arrive at a reasonable price giving them good margin as well as keeping them competitive in the long run.

Distributor's margin varies from company to company, but industry average is around 10%.

#### **4. THE PLACE (Distribution)**

The distribution system in context of pharmaceutical marketing is a set of interdependent organizations involved in the process of handling the transportation of medicines from company's warehouse to the market, or to institutions' pharmacies, where it will be sold to the end user.

##### **a. Functions of Distributions Network**

The major functions performed by distribution system in pharmaceutical markets are the following:

- a) Warehousing*
- b) Physical distribution*
- c) Financing*
- d) Market Feedback*
- e) Promotional Activities*
- f) Follow up on Expiry Issues*

##### **b. Types of Distribution Channels**

In pharmaceutical industry, selling function is invariably handled by the company's own sales team due to highly technical and specialized nature of job, whereas the distributor is responsible only for the logistics part.

##### **c. Sales Structure**

The selling function can be handled in either of the following two ways with respect to pharmaceutical industry:

- i. Company's Own Sales Team
- ii. Contractual Sales Team

##### **d. Distribution**

The distribution function in pharmaceutical industry means physical

distribution & logistics in essence. The types of distribution setups a company may choose from are the following:

- i. Company's own distribution
- ii. National Contractual Distribution
- iii. Regional Contractual Distribution

#### **e. Channel Selection Decisions**

A company should consider the following things before finalizing the nature and structure of the distribution setup:

- Company Profile
- Marketing Focus
- Area Coverage
- Nature of Association
- Services Needed from Distribution

## **4 PROMOTION**

There is no winning formula for pharmaceutical promotion. All one can do is to understand the purpose of each tool, and then try to create a mix which works well under the given scenario.

### **4.1 In-Clinic Promotional Mix**

The most frequently used tools are those, which a salesperson takes into the doctor's clinic for discussing the products. These tools are normally a regular part of a salesperson's arsenal, and are provided by the company on a periodic basis.

- Detailing Aid
- Leave Behind Material
- Samples
- Gift/Giveaways
- Direct Mailers

## **4.2 Out-of-Clinic Promotional Mix**

With the ever-increasing shortage of time and attention inside the clinics of the busy medical practitioners, pharmaceutical companies are paying more and more attention to activities performed outside the chambers of the doctors. Some of these activities have been used since long, and some have just started to gain momentum.

- Clinical Trials/Studies
- Seminars/Symposia/Round Table Discussion
- Sponsorships
- Film Shows
- Advertisements
- Public Relations
- Other Activities
  - Free Medical Camps
  - Corporate Marketing
  - Hospital/Ward Improvement Programs
  - E-Marketing

## **5. UNETHICAL PRACTICES IN PHARMACEUTICAL MARKETING**

One of the sore areas in pharmaceutical marketing, especially promotion is the unethical practice, for which companies and the medical profession are equally responsible.

### **5.1 Practices at Promotional Level**

The most commonly adopted unethical methods with medical profession are the following:

- Expensive items are provided to the doctors, and in return the doctor agrees to support the company by prescribing its products.
- Sponsoring doctors to international conferences is another way of bribing them.
- Outstation launch meeting is another face of this menace.
- The worst form of unethical practice is where a doctor willingly accepts a cash reward in return of his prescription.

## 5.2 Practices at Trade Level

Trade oriented policies have become the easiest shortcut for the companies, which dump their stocks with extra discount/bonuses in trade, and expect the chemists to substitute the prescribed product with another branded generic, where he is getting extra benefit up to the tune of 30-40% in certain cases. In rural areas of India, it is a common thing to see a cousin or brother of the doctor running a pharmacy adjacent to his clinic. This cartel act in two three ways:

- The chemist informs the doctor about the brand on which he has got special discount and the doctor starts prescribing it at any given opportunity.
- The doctor asks the chemist to stock the product for which the doctor has been able to strike a deal with the company, and the chemist orders extra stock of that brand, which is liquidated on the doctor's prescriptions.
- The doctor asks for additional samples from the representatives visiting him, and gives them to the chemist, who sells them to patients, and the booty is then shared between the both parties.

Over the last few years, there has been a growing awareness amongst the doctors' community, which do not indulge in such practice and feel bad when someone from their community brings bad reputation for doctors. They have started to strongly condemn the companies who come up to them, with such offers and also try to influence other doctors to avoid supporting those companies.

## CONCLUSION

Government sources say that expenditure on medicines in India will grow at least 9 to 12% in the next five years or say, making India one of the top 10 countries in terms of medical spending. That places a lot of responsibility on all the stakeholders; private pharma companies, the government, regulators and international cooperation to maintain the general health of the public. The future of the industry depends on the medical infrastructure's ability to develop a formidable fight against chronic diseases and any other challenges that the industry is faced with.

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# **Institutional Responses towards Challenges of Financial Inclusion Initiatives**

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## ***ABSTRACT***

The present study emphasizes to investigate the whether the efforts and initiatives of Reserve Bank of India, Government of India and Banking Sector to boost Financial Inclusion are going in right directions or not, it is imperative to study the opinion of bankers regarding various aspects of financial inclusion and challenges faced by the banks in Haryana while implementing Financial Inclusion Schemes. Total 112 commercial bank branch managers of Rohtak & Rewari districts of Haryana participated in the study. Study summarizes that the 'Profitability concern', 'Inadequate Banking habits of the customers' and 'Influence of Informal Sector on the customers' are perceived as major challenges.

***Key words:*** *Financial Inclusion Initiatives, Reserve Bank of India, Banking Sector, Government of India.*

## **1.1 INTRODUCTION**

Financial Inclusion is very important for an individual as well as the whole society. An individual who is not financially included is Financially Excluded and consequences of Financial Exclusion are quite dangerous for healthy economic growth. Financial Inclusion can up-lift the standard of living and improves financial condition of the low income people and disadvantaged section of the society. And Banks play a pivotal role in financial inclusion discourse and hence accelerate the pace of economic growth. Different policy makers and experts is the success of every policy depends on the degree of inclusion, co-operation and satisfaction level of implementing authority. India

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is well diversified economy and society. It is essential to give proper attention to measurement of Financial Inclusion. There are experts who have attempted few aspects of Financial Inclusion. It was estimated the proportion of the adult population using formal financial services for more than 160 countries. Sarma (2008) developed Financial Inclusion Index using aggregate banking variables like total number of accounts, number of branches, and total deposit as proportion of GDP for 55 countries. World Bank (2008) gives a collective measure of access to formal financial services i.e. the an account with a financial representative for 51 nations. Beck et al (2009) discussed about the availability of large amount of data on different aspect of the financial system, still systematic indicators of inclusiveness of formal financial sector are being ignored. Financial inclusion is instrumental in reducing poverty and accelerating inclusive economy development. One of the basic factors in the successful execution of any programme is constant, effective and efficient tracking of its progress, so that one can do corrections if it is required. It is also quite important to quantify the degree of Financial Inclusion. for these two purposes, Financial Inclusion is required to be measured appropriately. A reliable tool to measure Financial Inclusion will help the authorities to know about the progress achieved and make policies for further improvement in the path of Financial Inclusion. Dependable Financial Inclusion Data, covering the major components of sustainable financial inclusion developments may be significant for the society on this front.

Since the present study emphasizes to investigate whether the efforts and initiatives of Reserve Bank of India, Government of India and Banking Sector to boost Financial Inclusion are going in right directions or not, it is imperative to study the opinion of bankers regarding various aspects of financial inclusion and challenges faced by the banks in Haryana while implementing Financial Inclusion Schemes. For this, survey method has been incorporated. Primary data has been collected using structured questionnaire from 112 commercial bank branch managers of Rohtak & Rewari districts of Haryana.

## **1.2 REVIEW OF RELATED LITERATURE**

The studies state that Formal Financial Institutions plays a wider role in developing Financial Inclusion. Cooperative banks are a feasible option for inclusive growth through rural development by creating opportunity for employment and income generation. The labour costs of cooperative banks are



considerably less. Cooperative banks create opportunities for employment and income generation in the rural areas (Nayak, 2012). Majority of bankers opine that financial inclusion is not profitable. But Financial Inclusion is not always only social banking; there is lot of potential to get business from the people at the bottom of the society (Rao, 2010). Financial Illiteracy is considered as a major hindrance in spreading financial inclusion (Massey, 2010). Customers are opening bank accounts basically for making deposits and taking loans. Personal loans followed by Gold loans were most preferred by the customers as per his study. Bank managers identified the most prominent factor influencing the customers in various transactions with the formal financial institutions are approach of the bank staff. To know the reasons for self-exclusion, author considered three factors namely Lack of Assistance, Lack of access and Lack of Affordability and among these three factors, Lack of Assistance on the part of the bank staff was identified as the significant factor. Bankers' perception on the refusal to open saving bank account is lack of documents followed by bad credit history. Challenges in front of DCB managers in the process of financial inclusion are shortage of bank staff and lack of infrastructure (V.V., 2013).

Studies have suggested that Financial Literacy is the significant factor in for achieving the aim of financial inclusion (Raihanath & Pavithran, 2014). For increasing financial inclusion, authorities are to provide training to their frontline staff, Business Correspondents as well as managers on the human side of banking (Rao, 2013). The Indian experience demonstrates that financial inclusion can work within the framework of mainstream banking with in a sound regulatory framework (Gopalan, 2011).

### **1.3 RESEARCH GAP**

Although, Banking Sector and Government of India floated various schemes of Financial Inclusion to include the vast section of disadvantaged people into formal financial system but it has not attracted the huge section of the society into formal system in real sense. The studies and literature have broadly explained various initiatives of Indian banking sector but limited studies have been conducted to know the perception of bankers towards implementation and operational issues specifically in Haryana. No detailed study has been found that have captured the perception of bankers in Haryana. This study focuses on analyze the perceptions of commercial bank managers towards challenges faced while implementing Financial Inclusion Initiatives in Haryana.

## 1.4 OBJECTIVE

To analyze the Challenges faced by the banks in Haryana while implementing Financial Inclusion schemes.

## 1.5 HYPOTHESES

Hypotheses have been formulated for achieving the objectives and in turn to have a proper insight in the relationship of Bankers' perception on various aspects of financial inclusion with respect to Districts & Types of Banks. Hypotheses have been formulated which is mentioned as below:

**Hypotheses:** The following Null Hypotheses are formulated and tested in this study for achieving the objectives of the study:

**H01:** Perception of Bankers' regarding Challenges for banks faced due to Financial Inclusion does not differ significantly in Rohtak and Rewari districts.

**H02:** Perception of Bankers' regarding Challenges for banks faced due to Financial Inclusion does not differ significantly in Public and private sector banks.

## 1.6 RESEARCH METHODOLOGY

Research methodology is a term that means the science of how research is done systematically and scientifically. It is a way to logically solve a problem, helps to understand the process of research and analyzes methods in addition to the information obtained by them.

A research design may be descriptive, exploratory or causal. The present study follows the Descriptive Research design. Both the Quantitative & Qualitative approach have been adopted for achieving objectives of this chapter. To know the perception of bankers on opportunities and challenges faced while implementing financial Inclusion initiatives, a structured questionnaire has been formulated. Questionnaire has been used to know the perception of bankers towards opportunities and challenges faced by the bankers while dealing with financially excluded people to include them into formal financial system and other aspects of financial inclusion especially in the context of Haryana State. Informal interviews have also been held with the Bankers to get a better insight into the perception on many undefined issues related to financial inclusion process. The scope of the study for this objective is Commercial banks of Haryana state. Bankers from Commercial banks of Haryana state is the population for this study. The branch managers were taken from Public Banks and Private Banks. 61 banks have been taken from public banks and 51 banks

have been selected from private banks. It has always been very difficult for any researcher to cover the whole population for the purpose of the study. Hence sample taken from a given population has been used. A sample is a small portion of a particular population or universe. Multi-level sampling has been used for this study. Two districts have already been chosen namely Rohtak and Rewari. Now from each districts, public and private sector bank branches were chosen using purposive sampling as all the managers were equally accessible for getting responses. Both rural and urban branches were chosen.

The effective sample size of the present study is 112 bankers. Initially, 120 bankers were targeted but some of the responses were inappropriate and incomplete. This number of sample size has been reached after the consultation with academicians and experts in the field of research. In fact the sample size suggested by Krejcie and Morgan table was more than 200. This number is quite large because of limitation of time and resources. So, 120 bankers were targeted but the usable responses were from 112 respondents. Total 61 public banks have been selected and 51 private banks have been selected for collecting data. This questionnaire is not a standardized instrument. It has been constructed according to the need and objective of the research. The instrument used by V.V. (2013) has been referred for constructing the scale on some of the aspects of Financial Inclusion. It was further discussed with the experts, academicians & bankers and modified.

## **1.7 DATA ANALYSIS & INTERPRETATION**

Data Analysis and Interpretation is an important part of research. It is the process of assigning meaning to the collected data, expressing important facts and determining the significance and implications of result. Data from Primary sources are gathered, reviewed and analyzed to arrive at the conclusion. Interpretation involves constructing a logical scientific argument that explains the data.

### **1.7.1 Challenges for Banks due to Financial Inclusion**

This section discusses the perception of Bankers regarding challenges faced by them in the drive of financial inclusion. The respondents were asked total 21 statements regarding challenges. These are grouped in four factors namely 'Lack of infrastructure facilities', 'Profitability concern', 'Inadequate Banking habits of the customers' and 'Influence of Informal Sector on the customers'.

#### **1.7.1.1 Lack of Infrastructure and Support**

It has been observed that some problems become challenges in front of bankers like Lack of Support, Less Freedom in Decision Making, Staff Shortage, and Lack of Computerization. For the purpose to get results on it, in this section questions were asked on 5 point Likert scale and the results has been shown as per exhibit 1.1.

**Exhibit 1.1 Lack of Infrastructure and Support**

<b>Lack of Infrastructure and Support</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Lack of Support from government/RBI	112	2.92	.871
Reduced freedom in decision making	112	2.81	.875
Staff shortage	112	3.06	1.034
Lack of infrastructure/ facilities at branches	112	3.03	.963
Lack of computerization/ automation	112	2.82	1.092

The exhibit 4.1 show that the mean score is high in case of ‘shortage of staff’ followed by ‘Lack of infrastructure’ and the mean perception is lesser in the case of ‘Reduced freedom in Decision Making’. The overall mean score is less than 3 indicating less agreement to ‘Lack of Infrastructure and Support’ as a challenge. Present study also partially support the study of V.V, (2013) regarding Lack of infrastructure and support as V.V. also stated that Lack of Infrastructure is the challenge perceived by bankers.

### **1.7.1.2 Inadequate Banking Habits**

This is a challenge in front of Bankers because people generally do not have good or adequate banking habits.

**Exhibit 1.2 Inadequate Banking Habits**

<b>Inadequate Banking Habits</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Poor people need consumption loans more	112	3.62	1.246
Poor People are afraid of starting own business	112	3.30	1.426
Customer may use the loan for some other purposes	112	3.19	1.291

Poor people use mobile phones but don't use mobile banking	112	4.00	.794
Lack of awareness among people about services	112	3.24	1.172

With inadequate banking habits, customers generally ask for ‘More Consumption loans’, ‘Fear to start own business’, ‘Amount of loan used for another purpose’, ‘Poor people don't use Mobile Banking’ and ‘Lack of awareness’. For this purpose questions were asked on 5 point Likert scale and the results shown in exhibit 1.2. It gives the mean of identified factors explaining the challenge related with inadequate banking habits in Haryana, based on the responses obtained from the bankers. It is depicted that all the statements have the mean values above the neutral value (3). Among these, the maximum mean is related with ‘Poor people use mobile but don't use mobile banking’ followed by ‘Poor people requires consumption loan more’. The overall average is more than three. So, Inadequate Banking becomes a challenge for bankers. Present study supports the study of V.V. (2013) regarding Inadequate banking habits.

### 1.7.1.3 Profitability Challenges

After analyzed the inadequate banking habits, an attempt is made to know the opinions regarding the profitability. For getting the responses under this section, the bankers were asked on the following factors like ‘People make willful default’, ‘Political Leader may advice not to repay the loan’, ‘Micro credit is not profitable for the banks’; ‘Large portion of No frill accounts remain dormant’ and “No frill account is not profitable for banks”.

**Exhibit 1.3 Profitability Challenges**

<b>Profitability Challenges</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
People make willful default	112	3.11	.702
Political leaders may advice not to repay the loan	112	3.25	1.151
Micro credit is not profitable for the banks	112	2.71	1.278
Large Portion of no frill accounts remain dormant	112	3.60	1.158
No-frill account is not profitable for banks	112	3.39	1.188

To know the perception, the bankers were asked to give their views on a five point Likert scale. An exhibit 1.3 provides the mean perception and standard deviation of this section. It is clearly seen from the exhibit 1.3 , that all the statements of this section except ‘Micro credit is not profitable for the banks’; have mean score above the neutral value i.e. 3. It clearly indicates that bankers have perceived profitability challenges as a major challenge posed by financial inclusion drive. Present study is strongly agree with V.V. (2013) regarding Profitability Challenge.

#### **1.7.1.4 Influence of Informal Sector**

After analyzed the Profitability Challenge, an attempt is made to know the opinions regarding an influence of Informal Sector. Under this section, the bankers were asked on the factors related with ‘Influence of Informal Sector’. To know the perception, the bankers were asked to give their views on a five point Likert scale. An exhibit 1.4 provides the detail of mean perception and standard deviation.

**Exhibit 1.4 Influence of Informal Sector**

<b>Influence of Informal Sector</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
Poor as well as rich people save with informal sector	112	3.19	.906
Poor may not have sufficient collateral	112	3.27	.949
Poor people are not able to produce the documents	112	3.15	1.084
Due to lack of awareness poor people go to moneylenders	112	3.51	1.131
Money Lenders are familiar with the poor people	112	3.54	1.013
Overdependence of people on informal sector	112	3.10	.995

It clearly reveals from the exhibit 1.4, that all the statements of this section have mean score above the neutral value i.e. 3. It can be inferred that bankers have perceived more rigorously on influence of informal sector. present study supports the research of World Bank (2008) and V.V. (2013) as poor people attracted by informal sector and become a reason for Financial Exclusion.

### 1.7.1.5 Challenges faced by Banks due to Financial Inclusion & District

The responses have been collected from the bankers on Challenges for Banks faced due to Financial Inclusion. Further, the interest of the study is to analyze the composite responses of bankers for ‘Challenges for Banks faced due to Financial Inclusion’ with regard of Rohtak and Rewari districts of Haryana. The following hypothesis has been tested.

#### **H01: Perception of Bankers’ regarding Challenges for banks faced due to Financial Inclusion does not differ significantly in Rohtak and Rewari districts.**

The responses have been collected from the bankers on ‘Challenges for Banks faced due to Financial Inclusion’. The null hypothesis H01 checks whether the perception of the bankers with regard to Challenges for Banks faced due to Financial Inclusion by Districts differs significant or not. To analyze the relationship between ‘Challenges for Banks faced by Financial Inclusion’ and districts, null hypothesis H01 is tested applying t-test. Though there was an issue of no normality still t-test is a robust test to check the hypothesis if groups sizes are comparable. So, t-test has been applied.

**Exhibit 1.5 Challenges for Banks faced by Financial Inclusion & District**

Challenges	Mean	Std. Deviation	t-Statics	P-Value
<b>Lack of Infrastructure &amp; Support</b>				
Rohtak	14.14	2.453	-2.020	<b>.046</b>
Rewari	15.16	2.898		
<b>Inadequate Banking Habits</b>				
Rohtak	17.37	2.913	.042	.966
Rewari	17.35	2.810		
<b>Profitability Challenges</b>				
Rohtak	15.44	3.162	-1.980	<b>.050</b>
Rewari	16.69	3.527		
<b>Influence of Informal Sector</b>				
Rohtak	19.56	2.778	-.723	.471
Rewari	19.95	2.844		

Mean value of Lack of Infrastructure & support is higher in Rewari (15.16) in comparison of Rohtak (14.14) as perceived by Bankers and the difference is significant as P value is **.046** which is less than 0.05. Mean value of Inadequate Banking Habits is almost equal in both the district but difference is not significant as P value is .966 which is more than 0.05. Mean value of Profitability challenges is higher in Rewari (16.69) as compared to Rohtak (15.44) but the difference is significant at 5 per cent level of significance as P value is **0.050** which is equal to 0.05. In the case of Influence of Informal sector, the mean value of Rohtak (19.56) is less than as compared to Rewari (19.95) but the difference is not significant as P value is .471 which is more than 0.05. So, Hypothesis H01 has been partially accepted and partially rejected at 5% level of significance. Perception of bankers regarding ‘Lack of Infrastructure & support’ and ‘Profitability challenges’ differs significantly on the basis of districts. Mean score is more in case of Rewari districts. So, it can be inferred that Lack of infrastructure and Profitability issue are two major challenges posed by Financial Inclusion drive that are being perceived more prominently by bankers of Rewari.

#### **1.7.1.6 Challenges for Banks faced due to Financial Inclusion & Types of Banks**

The responses have been collected from the bankers on Challenges for Banks faced by Financial Inclusion. Further, the interest of the study is to analyze the composite responses of bankers for ‘Challenges for Banks faced due to Financial Inclusion’ with regard of Public and Private Banks of Haryana. The following hypothesis has been tested:

**H02: Perception of Bankers’ regarding Challenges for banks faced due to Financial Inclusion does not differ significantly in Public and private sector banks.**

The responses have been collected from the bankers on ‘Challenges for Banks faced due to Financial Inclusion’. The null hypothesis H02 checks whether the perception of the bankers with regard to Challenges for Banks faced due to Financial Inclusion by Types of Banks differs significant or not.

#### **Exhibit 1.6 Challenges for Banks faced by Financial Inclusion & Types of Banks**

<b>Challenges</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>t-statics</b>	<b>P-Value</b>
<b>Lack of Infrastructure &amp; Support</b>			13.488	<b>.0001</b>
Public Bank	16.57	1.936		



Private Bank	12.33	1.381		
<b>Inadequate Banking Habits</b>				
Public Bank	17.70	3.035	1.419	.159
Private Bank	16.94	2.580		
<b>Profitability Challenges</b>				
Public Bank	16.98	3.314	3.315	<b>.001</b>
Private Bank	14.94	3.165		
<b>Influence of Informal Sector</b>				
Public Bank	19.87	2.630	.489	.626
Private Bank	19.61	3.020		

To analyze the relationship between ‘Challenges for Banks faced due to Financial Inclusion’ and types of banks, null hypothesis H02 is tested applying t-test. Though there was an issue of non-normality still t-test is a robust test to check the hypothesis if groups sizes are comparable. So, t-test has been applied. The exhibit 1.6 showed that the mean value of Lack of Infrastructure & Support is higher in Public bank (16.57) in comparison of Private Banks (12.33) as perceived by the Bankers and the difference is significant at 5 % level of significance as P value is **.0001** which is less than .05. It suggests that there is significant difference among the perception of Public and private bank. Mean value of Inadequate Banking Habits is higher in Public Banks (17.70) in comparison of Private Banks (16.94) as perceived by Bankers but the difference is significant, as P value is .159 which is more than at 5 per cent of significance. In the case of Profitability Challenge the mean value of Public banks (16.98) which is higher in comparison of Private Banks (14.94) and the P value is **.001** which is significant at 5 per cent level of significance.

Here, again it shows that the difference is significant in the case of Public and Private Banks. Mean value of Influence of Informal Sector is slightly different in both Public and Private Banks and the difference is also not significant as P value is .626 which is more than 0.05. So, Hypothesis H014 has been partially accepted and partially rejected at 5% level of significance. Perception of bankers regarding ‘Lack of Infrastructure & support’ and ‘Profitability challenges’ differs significantly on the basis of types of banks. Mean score is more in case of Public Banks. So, it can be inferred that Lack of infrastructure and Profitability issue are two major challenges posed by Financial Inclusion drive are being perceived more prominently by bankers of Public Banks.

## 1.7.8 ANALYSIS OF INFORMAL DISCUSSION WITH BANKERS

To know the opportunities and challenges faced by bankers while implementing financial inclusion initiatives of Indian banking sector, some informal interview has been conducted with 38 bankers apart from the questionnaire. Some of the excerpts of the conversations held with bankers and their analysis are mentioned as below:

**1.7.8.1 Overburdened Staff:** Satisfaction is one of the factor which increases the efficiency. Many bankers were having the opinion that they are overburdened.

**Excerpts from Informal Interviews with the Bankers:**

- *“Saare kaam banko se karwana chahtey hain, faslon ka bema bhi, jeevan bima bhi aur pata nahi kya kya”*
- *“pehley dus din toh hum bus pension hi baadte hai ji”*

*“Daily worker private banks ke pass toh jate nhi hai aur hum par pressure ban jata hai ki banks ki timing badhaye jaye”*

On the basis of excerpts mentioned above, it can be concluded that the bankers feel over-burdened while implementing financial inclusion schemes in Haryana. Apart from the traditional banking, other things were also there to do which make them over-burdened and thus rude.

**1.7.8.2 Inappropriate recruitment process** Bankers actually face some problems with recruitment and selection system of Banking Sector. They said banking functions need regularity and staff turnover make them helpless.

- *“In engineers ko jab kahin aur naukri nhi milti toh banko mein aa jate hain phir naukri ko jab man aaye dhokar mar dete hain”*
- *“staff kee kami to hamesha hee rahati hai.”*

As per the above mentioned excerpts, it can be inferred that due to inappropriate recruitment process staff turnover ratio is quite high that creates shortage of staff in spite of regular recruitment and also increases cost of recruitment.

**1.7.8.3 Skill specialization:** Specialization makes all activities and functions effective but bankers respond like

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- *“Kisi bhi staff member ko kisi bji seat ka kaam de dete hain chahe ussey theek se karna aata hai ya nhi”*
- *“Shahar ke rangrooton ko rural credit kee samagh nahee hai”*
- *“gaon walon kee boli hee samagh nahi aati”*

There must be specifically specialized recruitment or training for each type of banking services which make person specialized and do effective work. Special training is required for working in villages. The success of Financial Inclusion Initiatives depend on the appropriate attitude of service providers i.e. bankers. If bankers feel overburdened and lack of skills, it affect directly on the implementation of the schemes and its efficiency & effectiveness. Inefficient work makes them rude. Rude behavior is complained by the customers. Shortage of staff again make service provider overburdened. So, this is a vicious circle and has to work on it.

## **1.8 CONCLUSION**

Using the primary data collected from 112 branch managers from public and private sector banks from Rohtak and Rewari districts of Haryana, analysis of the perceptions regarding challenges faced by bankers’ while implementing Financial Inclusion schemes. Analysis of the views of the branch managers summarizes that the ‘Profitability concern’, ‘Inadequate Banking habits of the customers’ and ‘Influence of Informal Sector on the customers’ are perceived as major challenges; Lack of infrastructure and Profitability issue are two major challenges posed by Financial Inclusion drive that are being perceived more prominently by bankers of Rewari and by bankers of Public Sector Banks. The analysis of informal discussion highlighted the some issues of real concern like over-burdened bank staff, lack of training and need for appropriate recruitment processes which required to be addressed in order to implement financial inclusion initiatives more effectively.

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# Online vs Offline Learning: A Study of Student Behavior

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## ABSTRACT

The research paper analyzes the opinion of students about online teaching as it has become an effective way to dispense knowledge during the Covid-19 pandemic. The face-to-face interaction between students and teacher have been affected due to online teaching, the situation is leading to students not attending online classes and being inactive toward their studies. Teachers are trying to implement various methods to regain their attention but are failing to do so because of the cons of online teaching methods. The objective of this paper is to understand the current behavior of students with regard to online teaching and the possibility of further improvement in teaching from the perspective of students. The findings of the paper have been based on studies conducted on online studying patterns and issues of online studies. Other studies used show the integration of online and offline education systems as well as the impact of the same on student life. It has been found that the majority of the students prefer a mix of online and offline education even when the online system does affect their extra-circular activities. The paper uses primary data to analyze the student's preferences about the current online education system and the opinion of students whether the education could be more enhanced or not, majority of students believed that both offline and online education systems could be more evolved to better suit the student's needs. It uses interviewing method to further understand the reason behind selecting a particular choice over another, therefore getting a clearer understanding of student behavior.

**KEYWORDS:** *Online Education; Covid-19 Pandemic; Student Behavior.*

## INTRODUCTION

Education is now becoming a right for everyone. The importance of education is spreading day by day. Even with the emergence of the pandemic of Covid-19, education does not come to a stop. Student's education has been shifted to

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online mode. "There are many terms for online education. Some of them are virtual education, Internet-based education, web-based education, and education via computer-mediated communication. The Web-edu project uses a definition of online education that is based on Desmond Keegan's (1988) definition of distance education." For online education to go on smoothly various platforms have come forward. Some developed in India to increase skills and different additional courses like "Bharat Skills", "e-Skill India", "Skills build" and others used for teaching and are developed internationally like "Google meet" and "Microsoft teams".

Online teaching does provide teachers or instructors with few advantages like sharing presentations and various video examples which makes learning more interactive. This also means that sudden disturbances in network connections could make the learning process more complicated, especially in a state like Delhi, where there is a constant disturbance in network connections at many places. Online Teaching incorporates the use of the internet to deliver study material to students in the form of video tutorials, presentations, and texts. It also allows one to carry on study even along with job and Massive Open Online Courses can be supplemented along with classroom teaching for dispensing knowledge in a better way amongst the students.

India holds an important place in the global education industry and has one of the biggest networks of higher education systems in the world. However, there is still a lot of potential for further growth in the education system. Pros and Cons of Online mode of education will help us with basic understanding of this type of education system.

### **PROS OF ONLINE CLASSES**

- You can learn whatever and whenever you want.
- You can learn at your place, anywhere.
- You can learn technical skills.
- There is less pressure in online classes.

### **CONS OF ONLINE CLASSES**

- You cannot interact face to face.
- Online classes increase personal responsibilities.
- In Online classes students, faculty, and other don't have the same opportunities to make network connections.

- In Online classes, you will need to in charge of your education.

## **OBJECTIVES**

The idea was to analyze the opinion of students about online teaching because it has become an effective way to dispense knowledge during the Covid-19 Lockdown. It was also aimed to find relative awareness of the concept of online education and offline education and to analyze the drawbacks in implementing online education and its correlation to health issues.

1. The effectiveness of offline and online teachings.
2. Student's willingness to attend online or offline classes
3. Student's expectations for online or offline classes
4. Student's behavior regarding extra cultural activities in online mode.

## **LIMITATIONS**

The limitation of this study was based on the limitations of various methods used for the study. In other words, the procedure used for collecting primary data and other required information.

1. Limitations of questionnaire filling.
1. Absence of face-to-face interaction with every respondent
2. The study was confined only to the students studying in Delhi.
3. There is a chance of rating wrong answers or making false choices in the questionnaire as some of the respondents may have misread the questions.
4. Lack of time and other resources as it was not possible to survey on a large scale.

## **THE IMPACT OF LEARNING DESIGN ON STUDENT BEHAVIOUR, SATISFACTION AND PERFORMANCE**

Pedagogically informed designs of learning are increasingly of interest to researchers in blended and online learning, as learning design is shown to have an impact on student behavior and outcomes. Although learning design is widely studied, often these studies are individual courses or programmes and few empirical studies have connected learning designs of a substantial number of courses with learning behavior. In this study we linked 151 modules and 111.256 students with students' behavior (<400 million minutes of online

behavior), satisfaction and performance at the Open University UK using multiple regression models. Our findings strongly indicate the importance of learning design in predicting and understanding Virtual Learning Environment behavior and performance of students in blended and online environments. In line with proponents of social learning theories, our primary predictor for academic retention was the time learners spent on communication activities, controlling for various institutional and disciplinary factors. Where possible, appropriate and well-designed communication tasks that align with the learning objectives of the course may be a way forward to enhance academic retention.

### **THE ROLE OF SOCIAL PRESENCE AND COMPUTER ATTITUDES IN STUDENT PREFERENCES FOR ONLINE VERSUS OFFLINE MARKING**

This study provided the first empirical and direct comparison of preferences for online versus offline assignment marking in higher education. University students ( $N = 140$ ) reported their attitudes towards assignment marking and feedback both online and offline, perceptions of social presence in each modality, and attitudes towards computers. The students also ranked their preferences for receiving feedback in terms of three binary characteristics: modality (online or offline), valence (positive or negative), and scope of feedback (general or specific).

Although attitudes towards online and offline marking did not significantly differ, positive attitudes towards one modality were strongly correlated with negative attitudes towards the other modality. Greater perceptions of social presence within a modality were associated with more positive attitudes towards that modality. Binary characteristics were roughly equally weighted. Findings suggest that the online feedback modality will most effectively maximize student engagement if online assignment marking and feedback tools facilitate perceptions of social presence.

### **ETHICAL ISSUES IN ONLINE EDUCATION**

Teaching at a distance raises ethical issues particular to the distance context. When distance teaching is also online teaching, the situation is even more complex. Online teaching environments amplify the ethical issues faced by instructors and students. Online sites support complex discourses and multiple relationships; they cross physical, cultural and linguistic boundaries. Data of

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various kinds are automatically recorded in a relatively permanent form. In a discussion of the practices and welfare of staff and students, we highlight ethical issues related to matters of equity and diversity, surveillance and consent, identity and confidentiality. Rather than attempt to resolve issues raised in this discussion, we pose questions to encourage exploration of those issues.

## **METHOD**

In this research paper, the qualitative and quantitative methodology is used. The qualitative data acquired through interviews help in understanding the reasoning behind the different answers given in the questionnaire. The quantitative data gathered through questionnaire help in basic understanding of the student behaviour with learning system. This mix approach combines the advantages of both the methods while diminishing the disadvantages to a bare minimum. The findings in this paper have been held by a primary survey conducted with students in Delhi with a questionnaire and then a few students are interviewed. With the help of secondary data, various basic concepts of online and offline education are understood, and through primary data collected through questionnaires and interviews, the student's behaviour is analyzed.

## **QUESTIONNAIRE ANALYSIS**

This research was conducted by an online survey over Google Forms and it was circulated through WhatsApp and e-mails. The response of each participant was collected using a linked survey which was automatically generated and recorded. The range of the students selected to fill the questionnaires has a similar schedule in respect to attending online and offline classes and subjects in their courses. This was done so that the respondents do not differ due to different practical and theory subjects.

No other demographic variables such as ethnicity, socioeconomic class, or residence were considered in the present study. The link was disconnected in one week. The questionnaire included 8 questions covering the various aspects required to predict the conclusions for our objectives. The period of application of the questionnaire was 8th-15th of April 2021.

The student population for the questionnaire filling is chosen under the age group of 18-21 in Delhi. The population mainly consist of college/UG students. The questionnaire has been attached as Annexure 1. The survey was conducted to understand the student's behaviour with online and offline learning. It further questions their preference with various variables like extra-circular activities,

seminars, and other activities. Also, which segment of education could be more enhanced than its present state. Different questions asked in the questionnaire tries to pin-point the issues and address them with the various options given for the answer.

### **INTERVIEW ANALYSIS**

Out of 119 people, roughly 10% which is 11 students at random were selected to conduct the interview. Interviews are useful for uncovering the story behind a participant’s experiences and pursuing in-depth information around a topic.

**Table 1**

<b>METHOD OF LEARNING</b>	<b>NO. OF STUDENTS</b>
ONLINE	16
OFFLINE	49
A MIX OF BOTH	54
TOTAL	119

Interviews may be useful to follow-up with individual respondents after questionnaires, e.g., to further investigate their responses. The responses recorded were used in the discussion and the conclusion. The advantages and disadvantages of interview in this study are:

#### **ADVANTAGES OF INTERVIEW**

- In depth information can be obtained from the respondent.
- Clarifications and explanations can be made.
- Complete responses can be obtained.
- Full control over respondent’s environment.
- Takes less time and effort of the respondent.
- Flexible for illiterates.

#### **DISADVANTAGES OF INTERVIEW**

- Biased analysis.
- Same set of questions may receive diverse answers.

- No Anonymity.
- Requires skilled and trained interviewers.
- Technical barrier.

## EFFICIENCY OF ONLINE AND OFFLINE CLASSES

**Table 2**

<b>PARTICULARS</b>	<b>EFFICIENCY OF ONLINE EDUCATION</b>	<b>EFFICIENCY OF OFFLINE EDUCATION</b>
AVERAGE (1-10)	5.12605042	8.042016807

According to the responses received from students, the offline classes have more efficiency than online classes. The restive average scaling is of 5.12 (out of 10) for online classes and 8.04 (out of 10) for offline classes. As could be seen by the above graph we can interpret that the efficiency of learning is always higher in offline than online teaching.

## ONLINE OR OFFLINE LEARNING OR A MIX OF BOTH

**Table 3**

<b>METHOD OF LEARNING</b>	<b>NO. OF STUDENTS</b>
Online	16
Offline	49
Mix of Both	54
Total	119

Out of 119 students, 54 students prefer a mix of both (online and offline) for their education, 49 students prefer offline education and only 16 prefer online education. Thus, the shortcomings of online or offline learning system can be reduced by using a mix of both as more students prefer a mix of both than one of the two options.

## LEARNING EXPERIENCE

**Table 4**

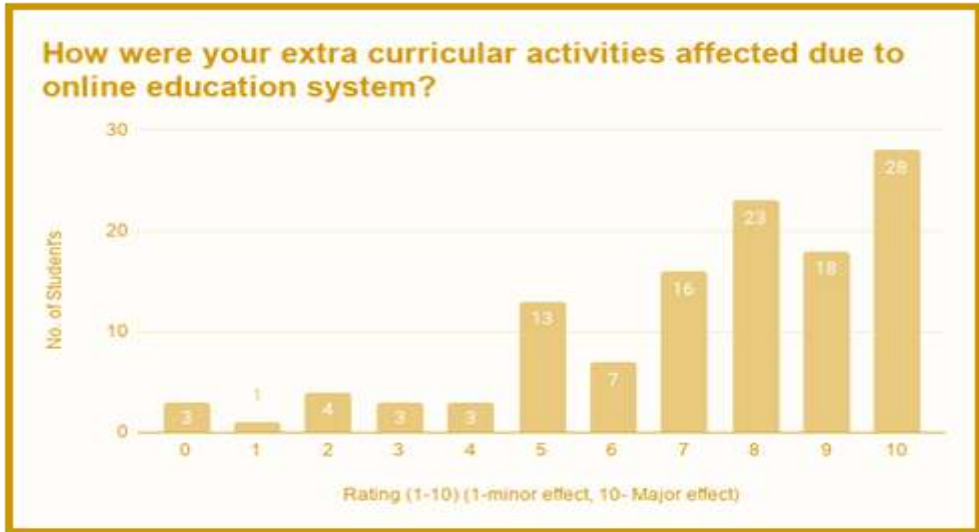
<b>METHOD OF TEACHING</b>	<b>NO. OF STUDENTS</b>
Both	58
None	1
Offline	39
Online	21
Grand Total	119

Out 119 students. 58 students believe both (online and offline) teaching methods can be improved/ enhanced. 39 students believe offline studies could be enhanced. 21 students believe online studies could be enhanced and only 1 believes none of them could be enhanced. This shows students have their standards on which both offline and online education system lacks. This also shows that the education system has much growth potential.

## EXTRA-CURRICULAR ACTIVITIES AFFECTED DUE TO ONLINE EDUCATION SYSTEM

**Table 5**

<b>RATING (1-10)</b>	<b>NUMBER OF STUDENTS</b>
0	3
1	1
2	4
3	3
4	3
5	13
6	7
7	16
8	23
9	18
10	28
GRAND TOTAL	119



**Figure 1:** Bar graph representation of Extra-circular activities affected- rating

The Rating for this question is from 1-10, 1 being minor affect and 10 being major effect to the extra cultural activities. As can be seen by the above majority of rating shows that cultural activities have been affected by a lot due to online education system. This does showcase that online learning has a major effect on extra-circular actives, whether positive or negative is further discussed in interviews conducted.

## DISCUSSION

Continuous efforts from teachers and the dedication of students are foremost for the growth of students there are gaps in the existing researches which may be covered through involvement of the opinion of the students and analyzing the effectiveness of e-learning with respect to adding value to the lives of the students instead of focusing on just the technological aspects of it. I believe that there is no better alternative than Online Education known in this dreadful pandemic. Through further alterations in the online education mode, while keeping in mind the health concerns of the stakeholders i.e. teachers and students, we can definitely overcome most of its ill effects.

Some recommendations gathered through interviews for the same:

- Make the Online classes shorter rather than longer.

- Online Yoga sessions, eye exercise, Blue Light Filter Applications can be installed on devices.
- Pedagogical practice is also important for effective online teaching i.e. fostering relationships, flexibility, and communication, etc.
- Participation of students could be increase if they see some incentive to it like getting a certain percentage of attendance would lead to no compulsion to submit few assignments.
- Mentor-mentee meeting pointing towards the choice of student's current need/requirements rather than previously set tests or assignments.
- Making everything compulsion may not work in a long run.

## **CONCLUSION**

While online education is a feasible method during the lockdown, the students and teachers are adapting to it day by day, and India has realized that it won't stop even amidst lockdown, nor the education system would cease. This lockdown has made us realize that we will overcome the chances and still grow effectively. Continuous efforts from teachers and the dedication of students are foremost for the growth of students there are gaps in the existing researches which may be covered through the involvement of the opinion of the students and analyzing the effectiveness of e-learning concerning adding value to the lives of the students instead of focusing on just the technical aspects of it.

Conclusion Drawn from Questionnaires and interviews is as follows:

- Students learn more through offline classes.
- Students prefer to take seminars in offline mode.
- Students do want to do extra-circular activities but it has been majorly down-side in various aspects due to the online education system especially in terms of physical cultural activities.
- The efficiency of offline classes is more than the efficiency of offline classes according to students.
- Students do believe they could attend a class schedule based on a mix of online and offline classes as compared to anyone in particular.
- Students are tired/ exhausted from the long class schedules, which in turn results in absences from lectures.

- Extra sessions are forced on students than given the topics desirable by the students.

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# Impact of COVID-19 on Students due to Online Classes

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## ABSTRACT

Within a short span of time, COVID 19 has changed student's life. Education industry has been affected by the pandemic, forcing the country to shut down all the colleges, institutes or universities. The study analysed the impact of COVID-19 on students in India. The purpose of the study is to know the impact on student's academic, mental, physical and social problems due to COVID 19. The study found that shifting from offline to online be a difficult task for students. Online classes made it hard for students to concentrate on studies due to internet connectivity issues, home environment etc. Physical and mental health problems like stress, anxiety etc. increased due to limited activities and lockdown restrictions made students less socially active. Technology and social media website didn't provide the same satisfaction as physical interaction. Online classes increase the screen time of students which causes eye-strain, headache, etc. Although, online classes are a great solution in the current pandemic situation but it definitely cannot replace the traditional way of offline classes.

**Keywords:** COVID 19; Students; Impact; Problems; Online classes

## INTRODUCTION

COVID-19 or Coronavirus has become infamous over a short span of just one year. It has rapidly taken over the entire globe and has impacted every person living on it. Its rising pace has shown its peak (as of May 2020) through its second wave in India. While even a more deadly third wave is being predicted, people have started adapting to this lifestyle despite the problems that it has created for them. Coronavirus or commonly known as COVID-19 is a communicable disease that attacks the respiratory system that may or may not

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cause serious illness, depending on your current illnesses. The virus transmits through droplets of saliva when an infected person sneezes and the best way to prevent is to social distance. Social distancing is highly effective when everyone stays at home and does not come in contact with anyone. Keeping this in mind, the Government of India imposed a lockdown in March 2020. This lockdown affected different people in different ways. The paper focused on how the student's life get affected due to COVID-19. The virus spreads from person to person, so the only solution to get rid of it was to shut the whole world down. Every country, according to how bad their situation was imposed a temporary lockdown. In India, the lockdown series was started in March 2020 and is still going in May 2021. Shutting the whole world down included every industry including Education, Tourism, Business, etc. This national closure of educational institutions affected millions of students across the nation. Educational institutions postponed or cancelled many of their events that required social gatherings. We did not know how long it would take to completely get rid of the virus and for things to go back to normal so we started adapting and innovating to cope with the situation. Due to the closing of classroom teaching in many colleges and universities, a shift to online learning became effective. Online learning prevented teachers and students from coming to the institute ensuring no social gathering and at the same time providing the same amount of teaching as an offline class. One might think that the only change that occurred was that of the environment and physical interaction but online classes come with many additional problems. Even though the board of education and the government took various measures to ensure the smooth flow of learning, the personal and academic lives of students were drastically affected.

The whole structure of education is now based online. From attending classes to submitting assignments to even exams, everything is now e-based. The only industry benefiting from this is the Learning Management Systems that have provided the best alternative to offline learning. Platforms like Zoom and Google meet had made online learning a little less problematic. Even though the notes and the theory of subjects are provided to the students on time, the development of the students might be missed.

A person might think that learning from the comfort of your home is the best way of education but it might not be true for many. Not everyone is able to afford smartphones, laptops or internet connections. Not everyone lives in a distraction-free household. Not everyone has the facility of the internet where

they live. All these factors are neglected by online education. Despite knowing about all these problems, there is nothing that we can do about them right now. We cannot leave our houses and put ourselves and others in danger. Students need to stay motivated and disciplined at all times. Keeping oneself safe and healthy is the primary concern of today's world. This article aims to provide a comprehensive report on the impact of the COVID-19 pandemic on online teaching and learning of various papers and indicate the way forward.

## **LITERATURE REVIEW**

Andria Praghlapati (2020) proposed that the COVID-19 pandemic has created the largest disruption of education systems in human history, affecting nearly 1.6 billion learners in more than 200 countries. Closures of schools, institutions and other learning spaces have impacted more than 94% of the world's student population. Social distancing and restrictive movement policies have significantly disturbed traditional educational practices. Reopening of schools after relaxation of restriction is another challenge with many new standard operating procedures put in place.

Gunther Eysenbach, Guy Fagherazzi, & John Torous (2020) supported that COVID 19 lead to the direct impact of school closures, especially for the more vulnerable and disadvantaged communities, and to facilitate the continuation of education for all through distance learning.

Sumitra Pokhrel & Roshan Chhetri (2021) found that the COVID-19 pandemic has brought into focus the mental health of various affected populations. It is known that the prevalence of epidemics accentuates or creates new stressors including fear and worry for oneself or loved ones, constraints on physical movement and social activities due to quarantine, and sudden and radical lifestyle changes. A recent review of virus outbreaks and pandemics documented stressors such as infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma.

Megan Kuhfeld, James Soland, Beth Tarasawa, Angela Johnson, Erik Ruzek, Jing Liu (2020) showed that as the COVID-19 pandemic upended the 2019–2020 school year, education systems scrambled to meet the needs of students and families with little available data on how school closures may impact learning. In this study, they produced a series of projections of COVID-19-related learning loss based on (a) estimates from absenteeism literature and (b) analyses of summer learning patterns of 5 million students. According to them,

returning students are expected to start fall 2020 with approximately 63 to 68% of the learning gains in reading and 37 to 50% of the learning gains in mathematics relative to a typical school year.

T. Gonzalez, M. A. de la Rubia, K. P. Hincz, M. Comas-Lopez, Laia Subirats, Santi Fort & G. M. Sacha (2020) proposed that the study analyzed the effects of COVID-19 confinement on the autonomous learning performance of students in higher education. The study found that a significant positive effect of the COVID-19 confinement on students' performance. The study concluded that COVID-19 confinement changed students' learning strategies to a more continuous habit, improving their efficiency. For these reasons, better scores in students' assessment are expected due to COVID-19 confinement that can be explained by an improvement in their learning performance.

Kunal Chaturvedi, Dinesh Kumar Vishwakarma & Nidhi Singh (2020) concluded that outbreak of COVID-19 affected the lives of all sections of society as people were asked to self-quarantine in their homes to prevent the spread of the virus. The lockdown had serious implications on mental health, resulting in psychological problems including frustration, stress, and depression. The study found a significant impact of COVID-19 on the students of different age groups: time spent on online classes and self-study, medium used for learning, sleeping habits, daily fitness routine, and the subsequent effects on weight, social life, and mental health. The study suggested that public authorities should take all the necessary measures to enhance the learning experience by mitigating the negative impacts caused due to the COVID-19 outbreak.

Changwon Son, Sudeep Hegde, Alec Smith, Xiaomei Wang & Farzan Sasangohar (2020) found that mental health issues are the leading impediment to academic success. Mental illness can affect students' motivation, concentration, and social interactions—crucial factors for students to succeed in higher education.

## **RESEARCH METHODOLOGY**

The study used exploratory research methodology. For analysis purposes, a questionnaire was developed. A questionnaire is a research tool that consists of questions related to the research topic. Primary data was collected from the students of various colleges of Delhi. The data collected was quantitative in nature. The questionnaire consisted of 20 close-ended questions whose answer

was to be chosen from the options, 1- Strongly Disagree2- Disagree3- Neutral4- Agree5- Strongly Agree (5-point Likert Scale). The questionnaire was divided into four sections relevant to the factors that impacted a student’s life. The first section was ‘Academic life changes due to online classes’ where 5 questions related to the topic were asked. The second section consisted of 7 questions related to ‘Problems related to online classes’. The third section covered questions related to ‘Health problems due to online classes’ in 4 questions. The last section had 4 questions related to ‘Social behaviour changes due to online classes’. The statistical tool used in the study is frequency distribution table and the responses collected were of 100 students.

## RESULTS

The questionnaire titled ‘Impact of COVID-19 on Student’s Life’ was circulated for a limited period of time and had 100 responses. The results of each section were as follows:

### D) Academic Life Changes due to Online Classes

Questions related to how the COVID-19 pandemic affected student’s experiences with online and offline classes, teaching, change of exam patterns, use of Learning Management Systems and academic goals were asked. The most important task in a student’s life is education and the pandemic had no bias at all and affected the entire nation’s education system. Students were forced to switch to online classes due to lockdown restrictions. Many students faced similar problems while attending online classes.

**Table 1: Academic Life Changes due to Online Classes**

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Procedure of online learning	26	34	12	27	1
Procedure of offline learning	0	13	16	38	33
Change of exam patterns	2	15	32	42	9
Learning Management Systems	2	10	15	58	15

Pandemic affected your academic goals	1	11	11	50	27
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*Source: Author's data respondents*

Students find offline learning a lot more effective than online learning. The ability to concentrate and grasp things has reduced in students due to online classes. Most students find themselves distracted while attending online classes. They have become less attentive. The changes in the exam patterns from subjective to objective have students on both sides. Some students feel that objective exams are better as they do not have to write an unnecessary amount of answers to a question. They feel like choosing an option is a much easier way of attempting an examination. On another hand, students who prefer subjective type questions have a mentality of thinking that even if they do not know the exact answer, they might get some marks if they write something in the answer.

Learning management systems have proven to be the most effective and efficient way of online education even in the eyes of the students. It has made attending classes, getting and submitting assignments easier. Classwork, homework, notes, quizzes, everything can be found in one place. While classes of colleges were sorted, students felt like their academic goals for the future were affected. Students who wanted to opt for higher education faced some difficulties. Admission processes were changed, examinations were delayed, coaching centres were closed and made it hard for them to prepare.

## **II) Problems related to Online Classes**

Questions based on how online classes were in terms of concentration and general experience with online classes were asked. The main aspect of online classes i.e. questions related to internet connectivity was asked in this section. Questions related to infrastructure and skills for studying from home like workspace, distractions, etc were asked in this section.

The main tool to connect a student to its teacher in online mode is a good internet connection. While many students do not live in a place where a good connection is available others were not able to afford it. Already the pandemic made many people lose their jobs, colleges and universities cannot expect everyone to have a decent connection. A good internet connection might even be a secondary problem for some, primary being lack of smartphones or computers.

**Table 2: Problems Related to Online Classes**

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Was internet connectivity an issue?	3	9	13	64	11
Did you feel like changing your connection?	11	12	23	41	13
Was your concentration affected due to internet issues?	2	14	14	42	28
Was teacher's internet connection an issue?	1	3	11	74	11
Do you prefer home over college for studying?	32	34	8	13	13
Were you able to study with distractions at home?	21	43	13	16	7
Do online classes lack two-way communication?	0	10	10	55	25

*Source: Author's data respondents*

Many students faced internet connectivity issues while attending online classes. Platforms used for conducting online classes take a lot of internets and a weak connection might not be the best option. Due to the connectivity issues, several students thought of changing their current internet connections which might result in additional expenditure. It is not advisable to spend too much money in the current state of the economy as your company may downsize. Internet issues also affected the concentration of students at times. Offline classes do not have such issues and hence maintains the concentration level of the students.

The connectivity issues are not only faced by the students, issues might be in the teacher's connection too. Disconnecting from class often takes back the interest of students from attending classes. Colleges and universities provide a healthy learning environment. Good classrooms with comfortable furniture and no distractions play an important role in learning. But due to the pandemic and

lockdown, students have to attend classes from their homes. Some students find it convenient as it eliminates their travelling time while most are not able to concentrate on their studies due to the distractions in their homes. No teacher to hold them accountable, students often use phones while attending classes, grasping nothing from the class. All these distractions in their houses make it hard for them to cope up with their studies.

Online classes at times lack two-way communication between teachers and students. Students feel lazy to switch on their microphones to answer. Online classes may be the best solution to deal with education in our current scenario but is surely not a perfect one.

### III) Health Problems due to Online Classes

Questions related to physical and mental health were asked in the survey. Staying inside your house might seem relaxing at first but after a short while, you start to miss the outside. Sitting at home in front of the screen all day can really affect both physical and mental health. Even though students are familiar with spending hours and hours in front of the screen, earlier they used to get a break when they had other activities to do and offline classes to attend. Travelling to college and going out with friends at least gave them some physical movement.

**Table 3: Health Problems due to Online Classes**

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Did you feel strain in your eyes?	0	7	6	58	29
Did you feel health issues due to low activities?	1	10	18	48	23
Did you often feel headaches?	0	18	16	45	21
Did not going out affected your mental health?	0	1	18	49	32

*Source: Author's data respondents*

Sitting in front of a screen all day can be harmful to your eyes. Students often felt the strain in their eyes after attending long hours of lectures. The fact that they couldn't even go out to relax made them come back to the screen to watch a movie or show to relax. Online classes added a considerable amount of screen

time to student's schedules. For some students, eyes strain often head to mild headaches. Apart from academics, many students indulge in physical extracurricular activities like sports which used to keep their physical health in check. But now that their physical activities have gone down severely, they have started to face physical health issues. Weight gain has affected their body image and lowered many of their confidence. This can often lead to stress or anxiety in young students. A change of environment is really important to relax which was often not available to students. Stress due to exams and deadlines and future academic goals and now due to low self-confidence can often create mental health issues in a person.

While depression is predicted as another pandemic that might be coming our way, it is really important for everyone to find a relaxing activity that they can do at home like cooking and painting. In these insane times, it is really important for everyone to stay sane and stay healthy.

#### **IV) Social Behaviour Changes due to Online Classes**

Questions related to social activity were asked to understand how students are dealing with no physical interaction or face to face communication with their friends.

**Table 4: Social Behaviour Changes due to Online Classes**

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Has your social gatherings reduced?	0	34	12	52	1
Have you become less socially active?	1	9	19	58	13
Will social media websites satisfy your social needs?	7	44	32	14	4
Does technology provide similar social satisfaction as physical interaction?	57	20	8	12	3

*Source: Author's data respondents*



The global pandemic came with lockdown restrictions which reduced social gatherings for everyone. It is important for students to maintain a social circle at this age. But for some introverted students, it becomes really hard to maintain a social life when they have to put in the extra effort. Meeting every day in college is a lot different from texting or calling. You cannot call someone at a time and expect them to pick up because you don't know if they are free or not. Receiving a reply to your text may also take a while. These factors contributed to making a considerable amount of students less socially active.

Social media websites are a great way to keep in touch with everyone. Facebook, Instagram, WhatsApp etc. can be a great pass time to see what your friends are up to but it definitely does not satisfy students social needs. Lack of physical interaction in social media makes the technology less satisfactory.

## **DISCUSSIONS**

The study supports literature review of [Pokhrel\(2020\)](#) who states, “It is known that the prevalence of epidemics accentuates or creates new stressors including fear and worry for oneself or loved ones, constraints on physical movement and social activities due to quarantine, and sudden and radical lifestyle changes.” Our study also shows that pandemic has changed the lives of the students. Reduction in physical activities have created health issues and contributed to stress and anxiety among students. The study recommends following solutions for better engagement of student's in online classes:

- Online classes should be made shorter or should have regular breaks in between so that students don't feel strain in their eyes.
- Classes with group communication should be encouraged so that the students can maintain their social lives.
- Seminars on mental health and how students can cope up with staying at home all the time could be organized.
- Participation of students could be increased if they see some incentive to it like getting a certain percentage of attendance would lead to no compulsion to submit few assignments

## **CONCLUSIONS**

The virus gave us no option other than to shut the whole world down. While we just could not stop our lives, we began adapting and finding solutions to how we can overcome the situation. The solutions were in favour of some while

others suffered. Temporary closing of schools and colleges switched offline education to e-learning. Students had different opinions on how they are living life in the current scenario. The following conclusions were drawn from the study:

- Students prefer offline classes over online learning.
- More than 50% of students agree with the change of exam patterns from subjective to objective and found Learning Management Systems like Google classrooms a great solution to our current situation.
- Internet connectivity issues of both students and teachers made it hard for the students to concentrate in classes and they often felt like changing their network.
- Majority of the students do not prefer the home environment over college classrooms due to the distractions in their homes that make it hard for them to cope with the classes.
- Students felt the strain in their eyes and headaches due to sitting in front of the screen all day.
- Students faced both physical and mental health issues due to lockdown restrictions.
- Due to the reduction in their social activities, many students have become less socially active.
- While students disagree that social media can satisfy their social needs, they strongly disagree that technology gives the same type of satisfaction as physical interaction.

Further study on the topic is required as this study was conducted within a limited period of time. Other authors may conduct a study in future for a better understanding and long term effects of the topic.

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# Ensemble Based system for Better Decision Making

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## ABSTRACT

Better decision making always helps industries in terms in terms of optimizing and minimizing costs. Ensemble method is considered as a multiple classifier system that have enjoyed growing attention within the computational intelligence and machine learning community solution. The idea behind ensemble learning is to exploit the characteristics of several independent models by combining them in order to achieve higher performance for better decision making. Ensemble learning methods gives classification accuracy by aggregating the prediction of different classifiers. Ensemble method builds a set of base learners from training data and performs classifications by taking the vote on the predictions made by each base learner. This paper reviews ensemble classification methods such as bagging, boosting, random subspace and random forest.

**KEYWORDS:** *Bagging, Boosting; Combining classifiers, Random subspaces, Random Forest; Training sample size.*

## INTRODUCTION

For better management decision making there is a requirement of vast amounts of data and powerful pattern extraction algorithms. Ensemble learning is a term in machine learning for methods that combine multiple base learners to make a decision in supervised machine learning task. Multiple classifier system known as ensemble systems have proven to be very effective and extremely versatile in broad spectrum of problem domain. In an ensemble method there are multiple classifiers and combining the output of multiple classifiers in order to get better prediction or classification accuracy. If we have a committee of  $m$  models with uncorrelated errors simply by averaging them the average error of model can be reduced by a factor of  $M$ . an ensemble system have proven themselves to be very effective and extremely versatile in a broad spectrum of problem domains and real world applications. Ensemble based decision making process is

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nothing new to as humans we use such systems in our daily lives so often that it is perhaps second nature to us. Examples many the essence of democracy where a group of people vote to make a decision is in fact an ensemble based decision making. Ensemble method uses multiple base learners to obtain an aggregated decision which is better than any independent base learners. Often it is found that ensemble learner improve predictive performance and the reason behind of better predictive performance overfitting avoidance, computational advantage and representation. The main objective of ensemble learning is that by combining multiple models, the errors of a single base learner will likely be compensated by other learners, and as a result, the overall prediction performance of the ensemble would be better than that of a single base learner. Different learners which are used in ensemble method may be decision tree, neural network, and support vector machine so on. Ensemble methods can be divided into two main frameworks: the dependent framework and the independent framework. In the dependent framework, the output of each base learner affects the construction of the next learner. In this framework knowledge generated in previous iterations guides the learning in the next iteration. In the independent framework each base learner is built independently from other base learner. Often it is found that no learner is absolutely better than other learner, no one good learner for many problems but they may work on parts of the data and by combining weak learners it is possible to get a very strong learner. The main idea behind ensemble method is to reduce bias and variance. Bias is a measure how flexible the model is and variance is high when give different subset of data as training set and the model output are very different.

The ensemble methodology is to aggregate multiple weighted models to obtain a combined model that outperforms every single model in it. Dietterich [1] explained three fundamental reasons for the success of ensemble methods: statistical, computational and representational. In addition, bias-variance decomposition [2] and strength correlation [3] also explain why ensemble methods work. Bagging, boosting and the Random subspace and random forest are designed for, and usually applied to, Decision Trees, where they often produce an ensemble of classifiers, which is superior to a single classification rule In the following subsections provide a brief review of these most popular ensemble methods.

## **STATE-OF-THE-ART ENSEMBLE LEARNING SYSTEM FOR DECISION MAKING**

Ensemble Learning techniques are being used as combining different algorithms power into a single collaborated method philosophy. As a result, we can increase accuracy of our decision making by means of ensemble different algorithms. Each algorithm can be thoughtful under different circumstances. Ensemble makes more powerful results for decision making process. Ensemble has two main methods at literature; these are called bagging and boosting [4]. To understand bagging, suppose that you are a patient and would like to have a diagnosis made according to your symptoms. At this situation, you may choose to ask a couple of doctors opinion instead of taking only one doctor's opinion. If most of these doctors give a certain diagnosis, you can give a decision according to the final idea or best diagnosis since its most common one among them. You can choose, the final diagnosis according to majority vote, if each doctor gets an equal vote. Intuitively, a majority vote made by a large group of doctors may be more reliable than a single doctor [4]. In boosting methodology, suppose that as a patient, you have certain symptoms again. Instead of consulting one doctor, you again talk with several doctors. Suppose you assign weights to the value or worth of each doctor's diagnosis, according to their accuracies of previous diagnoses they have made.

At classification and prediction problems final diagnosis then can be calculated as a combination of the weighted diagnoses. This is the main idea behind boosting methodology. Adaboost is one of the most popular boosting algorithm [4]. When data are highly dimensional and the training sample size is small compared to the data dimensionality, it may be difficult to construct a good single classification rule. Usually, a classifier constructed on small training sets is biased and has a large variance as the classifier parameters are poorly estimated. Classification methods generally refer to the mapping of data items into predefined groups and classes. It is also referred to as supervised learning and involves learning and classification [5]. In the learning phase, training data are analyzed by classification algorithm; during the classification phase, test data are used to estimate the accuracy of the classification rules. The ensemble methods used to improve the classification accuracy. The ensemble methods bagging, boosting and random forest methods have been well studied by different researchers in their papers in recent years and applied widely in different applications.

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- **Bagging**

Bagging is a simple yet effective approach for generating an ensemble of independent models in which each learner is trained using a sample of instances taken from the original dataset as a replacement. Bagging is based on bootstrapping the training set and aggregating the bootstrap versions of the original classifier. In order to ensure a sufficient amount of instances per learner, each sample usually contains the same number of instances as in the original dataset. According to L. Breiman Bagging is widely used in classification and regression [6]. There are different improved versions of bagging for classification [7]. D.-P. Niu proposed regression based bagging neural network for Nosiheptide fermentation product concentration prediction [8]. W. Kim proposed bagging support vector regression for wireless sensor network target localization [9]. S. B. Kotsiantis proposed an efficient distributed method that uses different subsets of the same training set with the parallel usage of an averaging methodology that combines linear regression and regression tree models [10]. Bagging has recently been shown to be effective in facial recognition challenges when using extreme learning machines as base learners [11]. It is also worth noting that bagging decision trees can be viewed as a particular instance of the random forest technique [12].

- **AdaBoost**

AdaBoost is the most well-known dependent algorithm for building an ensemble model [13]. The main idea of AdaBoost is to focus on instances that were previously misclassified when training a new learner. The level of focus given is determined by a weight that is assigned to each instance in the training set. In the first iteration, the same weight is assigned to all of the instances. In each iteration the weights of misclassified instances are increased, while the weights of correctly classified instances are decreased.

In addition, weights are also assigned to the individual base learners based on their overall predictive performance. AdaBoost is a sequential ensemble method that was originally developed to enhance classification tree [14]. There are several AdaBoost variants for classification such as: confidence-rated AdaBoost for multi-class classification, these boosting algorithms to multiclass classification problems, particularly to the multi-label case in which each

example may belong to more than one class. [15]. soft margin AdaBoost with regularization [16].

- **Random Subspace**

The random Subspace method benefit from using random subspaces for both constructing and aggregating the classifiers. When the number of training objects is relatively small compared with the data dimensionality by constructing classifiers in random subspaces may solve the small size of problem. Random subspace is also widely used in regression. It is similar to bagging but applies bootstrapping to the feature space instead of sample space. A prediction was formed by combining bagging and random subspace together with local linear map forming a regression ensemble [17].

- **Random forest**

Random forest is a supervised ensemble learning algorithm that is used for both classifications as well as regression problems. But however, it is mainly used for classification problems. The random forest algorithm creates decision trees on data samples and then gets the prediction from each of them and finally selects the best solution by means of voting. Random forest popularity continues to increase, primarily due to its simplicity and predictive performance. Random forest is easy to tune method compared to other methods. Random forest uses a large number of independent unpruned decision trees. Kulkarni and Sinha reviewed different versions of random forest. They presented a specific taxonomy of random forest and compared the existing random forest methods [18]. Random forest [3] combines the concepts of bagging and random subspace.

Random forest has gained popularity in high dimensional and ill-posed problems [19-20]. Researchers have investigated methodologies of feature and tree selection and best-split selection. There are improved versions of random forest reported in the literature: stratified random forest [21] with weighted feature sampling. The random forest algorithm was originally developed for using decision trees as base learners, largely because of the process of choosing different feature subsets when splitting the nodes. However, this step can easily be replaced by using the broader random subspace method which can be applied with other types of learners.



## CONCLUSION

Ensemble methods imitate human nature by seeking several opinions before making an important decision. Ensemble-based systems provide simple, elegant, and powerful solutions to a variety of management decision making problems. Originally developed to improve classification accuracy by reducing the variance in classifier outputs, ensemble based systems have since proven to be very effective in a number of problem domains that are difficult to address using a single model-based system. The main idea of such methods is to weigh several independent models and combine them in order to improve predictive performance. This paper has reviewed the state of art on ensemble classification. Different papers related to ensemble classification have been discussed. Bagging is useful in Linear Discriminant Analysis for weak and unstable classifier. Ada Boosting is useful only for large training sample and Random subspace, random forest may be useful for weak classifier obtained on small and critical sample size. The success of bagging, AdaBoost, random Subspace and the random Forest depends upon many factors, including the training sample size, the choice of a base classifier, the exact way in which the training set is modified.

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## Challenges for Women even in the 21<sup>st</sup> Century-No Domestic Violence but its Economic Abuse Nowadays

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**ECONOMIC ABUSE** is defined as behavior that denies a person economic or financial autonomy according to the *Family Violence Protection Act (2008)* Vic. It is the threatened or actual behavior that is coercive, deceptive or unreasonably controlling of another person's financial independence without that person's consent. Economic abuse often occurs in conjunction with other kinds of physical or emotional abuse. This could include being left with substantial liability and debt, or being excluded from employment.

Economic Abuse may include:

- Controlling a partner's credit cards, bank account and access to money
- Withholding, or threatening to withhold, the financial support necessary to meet a person's reasonable living expenses if that person is dependent on them for financial support to meet those living expenses.
- Stopping someone from holding a job or going to school as a means of controlling their ability to be financially independent.
- Forcing a partner to incur debts in their name or ruin their credit rating
- changing joint mortgages or bank details without one partner's consent

For many people in situations of domestic violence, economic abuse can be used as a way to force them to stay in a physically abusive relationship.

### OBJECTIVE

To study the level and impact of Economic abuse on the health and financial wellbeing of victims, but sadly it is understudied and still not discussed openly.

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## THE CASE

Ms. Gurnidh kaur is the single child of her parents. She got married to Jatinder Singh 3 years ago. Her daughter, mother-in law and brother in-law were the other members of the family. Her mother in-law is a widow but was retired from the MTNL and has her own handsome pension. Parents of Gurnidh are also educated and are quite well-off, they both are retired from Indian Defense Services, they spent

lavishly on Gurnidh's wedding and also gifted her a car as a token of love. Gurnidh is also very much educated, she is Assistant professor in one of Delhi's private college and pursuing her PhD. her husband Jatinder Singh is also educated and working as PGT in a Govt school Of Delhi, Her brother in-law runs his own business of readymade garments, so both the families are very educated and have sound financial background. Gurnidh and Jatinder also has a daughter who is 1 year old. While sharing the thoughts with me(investigator), she was very expressive and very open to the questions asked by me(investigator). She told that her mother in-law is very dominating and cunning as well, due to her rude nature her sister in-law left her brother in-law, also her mother in-law is not also very happy with the granddaughter as she always wanted to have a Grandson. Gurnidh was very upset with this matter because she was expecting that as her mother in law is educated and being living in 21<sup>st</sup> century she will be an open minded lady but her perception and assumption went wrong and on top of it her husband is also a Mama's Boy(puppet of her mother).While discussing she shared that there is a practice in her house that everyone transfers their salary and earnings to her mother in-law's account and then the old lady gives the money earned by them to them only as a pocket money, which sounds very unusual but Gurnidh trying to be a good daughter in law accepting the same norm and following it with the whole heart till the time her daughter was not born but after having daughter her expenses increased so she stopped transferring her salary to her mother in-law account and took the decision by her own without involving her husband into it because she thought that she is a working women and can take her decisions by her own like every working women takes and does which was her assumption as she believes that this is 21<sup>st</sup> century and in this era every women is empowered to take their on calls but her husband proved her wrong and quarreled with her on this issue as he didn't liked her decision to take care of her own earnings, as he does not want Gurnidh's involvement in these kinds of

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financial matter so from here story of economic abuse gets started, Jatinder started forcing her physically as well as mentally to transfer the salary to her mother's account.

Her husband was of suspicious nature and used to grill her for everything. I despite of a working professional and a mother of very small kid, her husband and mother in-law forced her to do the household chores on daily basis and Gurnidh is also doing the same because she still want peace in the family but her husband banged her on regular basis on one and another issues. Her husband is also not happy with the girl child so he is not affectionate to the baby girl even. Gurnidh has no say in any of the decisions in the family. Her husband and mother in-law takes all the decisions, even they withdraw the money from her account without taking her consent and forced her to do the signatures on the cheques and doesn't give her any explanation that where they are withdrawing the money. She also narrated that one day she debited 10,000 rs from her on account to buy a gold ring for herself but after her husband got to know this he blocked her debit card and threatened her with domestic abuse. After bearing it for long Gurnidh started narrating the things to her parents and was expecting that her parents will surely take some steps to take her out of this pathetic conditions as she has the perception that it's the modern era now and the parents are highly qualified so they will do something but the parents couldn't come forward on the issue and asked Gurnidh only to adjust and keep on saying that after certain period everything will be fine, have patience and this shattered her. Gurnidh again started adjusting with the issues and started transferring her salary into her mother in-law's account just to maintain harmony in the family as she left with no other option. As she learnt that being female she has to adopt the system and realized that economic abuse and economic violence is the part of every women life be it be a educated women or the uneducated one, situations for the women remains the same, earlier it was domestic abuse but now a days economic abuse has become part of the system which is still in the native stage as no one knows that this kind of abuse or violence also hampers and questions women empowerment.

## **CONCLUSIONS**

For women, financial stress and disability were important markers of economic abuse.

## **DISCUSSION**

To authenticate the information provided by the subject the investigator inquired her husband but he refused to give any statement and only told that no women is satisfied from their in-laws and it's the habit of all daughter in law's to defame their mother in-law. To authenticate the information neighbors were also asked certain questions and they responded that the family of Jatinder is very greedy and wife of Jatinder's brother also left the house due to her mother in-law and the nature of her husband. She suffered the same type of torture in the house and finally filed a divorce case. From the above case study, it can be interpreted that Gurnidh Kaur is both emotionally and economically violated. Her demand for economic independence is the cause of violence against her in the family, dominating attitude of her mother in-law seem to be another reason of her sufferings. Lack of support from husband and his suspicious nature and also no support from parents gives rise to the violence. Cultural practices like preference to son can also be a factor of torture in this case.

## **KEY TAKEAWAY**

1. Economic abuse faced by Gurnidh poses questions on Women Empowerment that is it there in Indian society?
2. Domestic violence has taken a new name now that is Economic Abuse
3. Gender discrimination is still the part of 21<sup>st</sup> century
4. Education plays no role in curbing Gender Inequality.

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## Book Review



### TITLE

Quest for Restoring  
Financial Stability in  
India

### AUTHOR(S)

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### ISBN-13

9789353884901

### PAGES

396

### PUBLICATION

SAGE Publications

### YEAR: 2020

### PRICE: INR 695

### REVIEWED BY

Kaial Mittal\*

## Quest for Restoring Financial Stability in India

Viral V. Acharya is the Professor of Economics in the Department of Finance at New York University Stern School of Business (NYU Stern). He was the Deputy Governor of the Reserve Bank of India (RBI) from 23 January 2017 to 23 July 2019, in charge of monetary policy, financial markets, financial stability and research. Dr Acharya has been the Director of the National Stock Exchange of India and the NYU Stern Initiative on the Study of Indian Capital Markets, and a member of the Economic Advisory Committee of the Financial Industry Regulation Authority (FINRA), International Advisory Board of the Securities Exchange Board of India, Advisory Council of the Bombay Stock Exchange Training Institute and Academic Research Council Member of the Center for Advanced Financial Research and Learning (CAFRAL, India). In addition, he has served as an academic advisor to the Federal Reserve Banks of Chicago, Cleveland, New York and Philadelphia; the Federal Reserve Board of Governors and the Advisory Scientific Council of the European Systemic Risk Board.

In his book titled, Quest for Restoring Financial Stability in India, Former Deputy Governor of RBI, Dr. Acharya, and talks about his quest for restoring financial stability in India. Dr Acharya shares a feasible plan to address the recapitalization needs of public sector banks, offering solutions on how to improve credit allocation by credit intermediaries and establish viable and efficient capital markets. Elucidating the need-of-the-hour reforms, this book also raises several stark and unanswered questions related to the re- emergence of fiscal dominance in India, not just of monetary policy tools but also of banking regulations.

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The book starts with list of figures and tables quoting the various facts and figures for the empirical proofing of the content. After that, in the acknowledgements section, Acharya says these speeches and minutes were “truly my voice, my lifeblood, and my *raison detre*”. He calls them “the result of toiling tirelessly throughout many a night, distilling and pouring every drop. Apart from this, what two unique things was, First, Acharya dedicating his book to his late school teacher –Shailendra Sir- who he credits for igniting the fire in him during school days. We do see authors dedicating books to families, friends but rarely to school teachers. Second, proceeds of the book are going towards Pratham, an NGO which has been trying to improve India’s primary education for a long time. In his book, Acharya said there is not a better way to contribute to society than furthering the cause of education.

One of its highlights is the Foreword by Dr. Y.V. Reddy, Former Governor, Reserve Bank of India. Reddy who starts with a quote from Dr. B.R Ambedkar. Ambedkar in the Constituent Assembly (1949) had warned that if the Parliament does not make a law to limit the borrowing of the executive now, it is highly unlikely that any future Parliament will make any such law! Ambedkar had foresight on many political and economic matters and one could add fiscal accountability to the list as well. Reddy points out how post bank-nationalization, public sector banks were forced to buy government bonds at pre-fixed interest rates to support high government borrowing. Post 1991 reforms, the practice continued even when government bonds were auctioned on account of high SLR. The story is not very different for State Governments whose bonds were also pushed on public sector banks.

Acharya in Preface to the book explains and expands on these ideas further. Unlike Prefaces of other books, this one is more like the main chapter of the book. The title of Preface says it all: “Fiscal Dominance – A Theory of Everything in India”. The Preface starts like a scene from one of those crime thrillers: “I left New York for Mumbai on the evening of 21 January 2017. As I sat at Newark Airport waiting to board a United Airlines flight, I couldn’t help reflect on the fact that the Indian banking sector was sitting on one of the highest non-performing loans to assets ratio among the G-20 countries – a marked departure since its standing in 2009.”

The author further reflects how Indian banking crises has been going through a silent crisis with undercapitalized public sector banks coupled with lack of significant market discipline, ever greening of loans or zombie lending. Acharya wrote two bullet points to fix the crisis. First, fix health of banking sector especially public sector banks through series of reforms such as

recapitalization, Prompt Corrective Action, timely recognition of losses and decisive resolution of stressed assets. Second develop financial markets to improve efficiency of capital allocation, reduce dependence of system on banks and allow market based mechanisms to reward and punish the borrowers for their outcomes.

The preface is then followed by compilation of Acharya's speeches given during his tenure. For ease, he divides the speeches in six sections:

1. Resolving Non-Performing Assets (NPAs) and Recapitalizing Banks
2. Creating a Public Credit Registry
3. Incorporating the Financial Cycle in the Monetary Policy Framework
4. Improving Monetary Policy Transmission
5. Developing Viable Capital Markets and Ensuring External Sector Resilience
6. Striking the Right Balance: Enhancing the Autonomy of the Central Bank, the Markets and the Real Economy

The **first section** of **Part 1** emphasized on need and possible ways to decisively resolve Indian banks' stressed assets. Dr. Acharya suggested two different models - Private Asset Management Company (PAMC) and a National Asset Management Company (NAMC). This plan also recognises the concomitant need for bank resolution via private capital raising, mergers, and asset sales. The PAMC plan would be suitable for sectors, such as metals, engineering projects, construction, telecom, and textiles, where the stress is such that assets are likely to have economic value in the short run, with moderate levels of debt forgiveness.

The NAMC plan would be necessary for sectors where the problem is not just one of excess capacity but possibly also of economically unviable assets in the short- to medium-term. For example, the power sector, where projects have been created to deliver aggregate capacity that is beyond the estimated peak utilization anytime soon. Many of these are stalled as they have no fuel inputs and little or no income realization due to lack of credible purchase agreements. Their scrap value is likely small and the only efficient use is as an ongoing concern. If input and output requirements are sorted out, and as power consumption needs rise, these projects could eventually provide value. For a

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country with per-capita consumption of electricity that is only one-third of the world average, it is reasonable to expect that a well-run power asset won't end up being a white elephant.

Unlike the first model (PAMC) where asset recovery is likely to be relatively quick, these assets may require a long time to start generating cash flows. In addition, the government should have incentives to clear approvals and purchase agreements to make them viable. For both these reasons, such assets would be best quarantined into a national asset management company (NAMC). The NAMC would perform several functions to get the ball rolling: raise debt, say government-guaranteed in part, for its financing needs; possibly raise some more to pay off banks at a haircut, likely steep but softened by payment in the form of security receipts against the asset's cash flows; keep a minority equity stake for the government; and, bring in asset managers such as ARCs and private equity to manage and turn around the assets, individually or as a portfolio. Infrastructure assets that are also long-lived and create externalities (development of townships, improvements in overall productivity, etc.) could be resolved in similar way.

When it comes to recapitalization of public sector banks, Acharya felt that the government should ask in return significant corrective actions, and wherever possible, injections of private capital for loss-sharing with the taxpayers. “We must not allocate capital so poorly, recreate “Heads I Win Tails the Taxpayer Loses” incentives, and sow the seeds of another lending excess,” he cautioned. Acharya proposed five options for recapitalization of public sector banks: through private capital rising, asset sales, mergers, prompt corrective action and disinvestments.

The **second section of Part 1** is on A Bank Should Be Something One Can “Bank” Upon, inspired by the real meaning behind banking upon something, a statement of credibility, of confidence, of trust – something that ideally a bank must earn over time by making prudent choices. The prime focus is on three simple concepts: what are bank deposits, what are bank loans, and that bank deposits can be demanded immediately by depositors but bank borrowers may not repay their loans exactly at that time. Highlighting the importance of banking, in this manner is the life-blood of an economy, channels savings in the form of demand deposits into borrowings in the form of bank loans or bank credit, fuels and lubricates growth, and improves everyone's welfare.

In regard to maturity transformation risk, Dr. Acharya explained three concepts: bank liquidity, bank capital, and inter- bank markets, stating that it should be clear then that a bank has many tools to manage the risk of maturity transformation, the risk that deposits are demanded with immediacy while its assets are yet to make full repayments. The worse the quality of its assets, the less a bank can rely on cash flows from assets to meet unexpected withdrawals, and therefore it must pre-arrange in the form of liquidity and capital. The tools – liquidity, capital and inter-bank markets – are not mutually exclusive though they clearly affect each other, and are more attractive at some times than others.

The **third section of Part 1** is on restoring public sector banks health in India, by quoting the Japanese asset price bubbleburst of 1992 and the European debt crisis, and their subsequent impacts on the respective banking sectors as lessons for the Indian banking sector, which, according to Acharya is going through a 'silent crisis'. In his book, Acharya questions if India can end things differently from Europe and Japan, although the initial situations look 'ominously similar' to their predicaments. The ex-RBI deputy governor writes that on several counts, the issues faced by Japan and Europe were also 'rather similar' too.

In the book, Acharya first turns to consider the positives of the balance sheet resolution agenda that the RBI and the Govt. of India have embarked upon and then highlights the unfinished part of this agenda — its Achilles' heel — the lack of a clear and concrete plan for restoring PSBs health

The **fourth & last section of Part 1** is on Prompt Corrective Action (PCA) framework of the Reserve Bank of India (RBI) which is an essential element of its financial stability framework. It lays out the case for structured early intervention and resolution by regulators for banks that become under-capitalised due to poor asset quality or vulnerable due to loss of profitability. Detailing the mandatory and discretionary actions under the RBI's Revised PCA framework, it compares and contrasts these with the PCA framework operating in the United States. Finally, it documents empirically how Indian banks under the PCA framework are being restored back to health through better capitalisation, preservation of capital, and provisioning for losses.

The **Part 2** primarily focuses on Public Credit Registry (PCR), an extensive database of credit information for India that is accessible to all stakeholders. Generally, a PCR is managed by a public authority like the central bank or the banking supervisor, and reporting of loan details to the PCR by lenders and/or borrowers is mandated by law.

In the **first section** of **Part 2**, Dr. Acharya states that a transparent and comprehensive public credit register is the need of the hour in India. More and more countries are moving towards this with a view to improving the credit culture in their jurisdictions. Such registers help in enhancing efficiency of the credit market, increase financial inclusion, improve ease of doing business, and help control delinquencies. Incorporating unique identifiers for the borrowers (Aadhar for individuals and CIN for companies), Reserve Bank's BSR1 and CRILC datasets can quickly be converted into a useful PCR covering customers of SCBs to start with. It can then be expanded to cover other financial institutions in India. A comprehensive PCR down the road will be even more effective.

The **second section** of **Part 2** concludes that the PCR and the GSTN are two giant strides that utilize modern technological advances for improving information access and quality. Together, they hold the rich promise of enabling us to democratize and formalize credit in India. In a country like India with a low credit to GDP, efficiently increasing affordability and access to credit are paramount goals.

The **third section** of **Part 2** highlights that PCR is an important step to democratize and formalize credit. With a PCR tracking every credit transaction from its origination to closure (initial terms, repayment, default, restructuring, etc.), and being linked to various digital systems in place, it would be possible to identify and get to know well businesses, even micro enterprises and micro entrepreneurs. This will allow lenders to assess the borrower's credit risk keeping in view the viability of cash flows, ask the relevant questions (e.g., are there other underlying issues that are affecting ability to pay the loan in spite of healthy cash flows from the micro enterprise?), and price the loan terms without compromising on due diligence. Credit products could get transformed with the possibility of sanctioning small ticket loans with short maturity and zero or low collateral requirement. Borrowers and entrepreneurs can build their reputation and credit quality by

repaying well such initial information-building loans. Gradually, they can borrow more and at longer maturities, potentially making capital investments to enhance productivity.

The **fourth & last section of Part 2** states the relevance that banks can learn from shampoo sachet revolution of 1970s. He starts saying India may be the 5th largest economy in the world in terms of GDP but ranks 142nd on GDP/capita basis. This shows we have a long way to go. The shampoo companies were early to understand these gaps and introduced sachets to reach to people with low incomes and irregular cash flows. The banks should do the same. What is the point of giving loans to people based on monthly installments when income flows are during harvest and highly irregular? By figuring cash flow patterns and then using technology, banks can help achieve higher financial inclusion.

The **part 3** incorporates the financial cycle in the monetary policy framework. The financial cycle can play a decisive role in the transmission of monetary policy decisions. The impact of these decisions is amplified when the financial cycle is booming, and it is compressed when this cycle is busting.

The **part 4** focused on Monetary Transmission, It is essentially the process through which the policy action of the central bank is transmitted to the ultimate objective of stable inflation and growth. The policy action consists typically of changing the interest rate at which it borrows or lends “reserves” (in our case, Rupees) on an overnight basis with commercial banks. In other words, monetary transmission is the entire process starting from the change in the policy rate by the central bank to various money market rates such as inter-bank lending rates, to bank deposit rates, to bank lending rates to households and firms, to government and corporate bond yields, and to asset prices such as stock prices and house prices, culminating in its impact on inflation and growth.

The **first section of part 4** highlights why monetary transmission is important and why it has not worked well in India? Dr. Acharya talked about the channels of monetary transmission - (i) interest rate channel, (ii) credit channel, (iii) exchange rate channel, and (iv) asset price channel and also

states that these are not stand alone channels; rather, these work at the same time, and may reinforce or interact with each other, so that their individual impact is difficult to disentangle. It also needs to be recognised that the transmission mechanism is complex. The speed and strength at which the central bank's policy rate changes travel to the rest of the economy could vary widely from country to country depending on the structure of the economy and the state of its financial system.

The monetary policy actions are felt with a lag of 2-3 quarters on output and with a lag of 3-4 quarters on inflation, and the impact persists for 8-12 quarters. Given that monetary policy impacts output and inflation with long lags, it is critical for monetary policy actions to be forward-looking, i.e., monetary policy needs to respond to expected output and inflation developments. Of course, the expected evolution of output and inflation is uncertain, thereby rendering the transmission analysis even more challenging, adding to the complexity of the central bank's decision-making. The key point is that the monetary policy would be less effective.

In the **second section**, he further added ways to improve the transmission process by shift the loan pricing system from an internal benchmark to an external benchmark and shoring up bank balance sheets by two steps together – asset resolution and bank recapitalization – are expected to strengthen bank balance sheets significantly and improve banks' ability and willingness to lend at rates in consonance with policy rates and result in an improved monetary transmission.

The common theme underlying these recommendations is to improve monetary transmission by ensuring that changes in the policy rate transmit quickly and adequately to banks lending rates in a transparent manner without any cross-subsidization and discrimination between existing and new borrowers. The idea is also to make banks' liability side more flexible so that the objectives of improving monetary transmission by the Reserve Bank and maintaining healthy net interest rate margins by banks are aligned.

In **part 5**, Dr. Acharya provides insights about the viable Capital market in India and managing the interest rate risk, capital flows and Forex reserves in India. In the **first section of part 5**, various options for managing interest rate risk at banks are mentioned like (a) Measures that address P, viz., the G-

Sec portfolio size of banks; (b) Measures that address D, viz., the duration risk; and, (c) Measures that address the valuation impact in scenarios with potentially large changes in yield. The **second section of part 5** talks about the models of reserves and capital controls. Basically to manage the capital flows, RBI Approach is: i) To Caps on external debts ii) Limits by investor's horizon iii) limits on maturity of investments iv) rationing high-liquidity demanders v) Harmonizing ECB and Masala Bonds.

In the **last and third section of part 5**, Dr. Acharya deep insights on CGFS reports on drivers of capital market development and broadly categorized into two: (i) drivers which create an enabling environment for financial development, and (ii) drivers which are more capital market specific. He also enumerates four of the important initiatives underway to develop Indian capital markets further: a) Task Force on Offshore Rupee Markets b) Internal Working Group on Market Timings c) Task Force on the Development of Secondary Market for Corporate Loans d) Committee on the Development of Housing Finance Securitization Market. He concludes that Indian capital markets have evolved steadily to a stage of long-run viability, the potential for developing and strengthening them further is limitless...

In **part 6**, Dr Acharya tries to strike the right balance, by enhancing the autonomy of the Central Bank, the Markets and the Real Economy. In **first section of part 6**, Dr. Acharya is of view point that to secure greater financial and macroeconomic stability, the efforts need to be extended to effective independence for the Reserve Bank in its regulatory and supervisory powers over public sector banks, its balance-sheet strength, and its regulatory scope. Such endeavor would be a true inclusive reform for the Indian economy's future. He is of the opinion that as many parts of the world today await greater government respect for central bank independence, independent central bankers will remain undeterred. Governments that do not respect central bank independence will sooner or later incur the wrath of financial markets, ignite economic fire, and come to rue the day they undermined an important regulatory institution; their wiser counterparts who invest in central bank independence will enjoy lower costs of borrowing, the love of international investors, and longer life spans.

In **second section of part 6**, focuses on crowding out effects of government financing on financial stability and monetary transmission. Dr. Acharya states  
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that when governments undertake a lot of expenditure, they may spend beyond immediate revenues and raise financing but may be constrained by the limited pool of savings in the economy. In turn, when a government dissaves and takes away a large portion of these savings, there is less left for the private sector, eventually “crowding out” investments by the private sector. Crowding-out can imply that (i) the private sector is unable to generate adequate financing; (ii) the private sector has to pay higher costs to raise its financing; and (iii) the private sector needs to rely on external financing, i.e., dip into savings abroad. He summarizes that there is a growing trend in the global economy to ask for more to be undertaken by governments. This is justified when the government is providing goods that the private sector cannot provide an adequate measure -such as education, health and infrastructure. He further added that revenue expenditures or welfare programs demanded from the governments come at a cost to investments by the private sector in the economy and suggest some possible remedies to alleviate the crowding-out the effects of government financing in India.

One possible solution is for the government to improve the share of capital expenditures which currently stands at a meager 14% for India. Serious rationalization could be undertaken in the form of cutting back on subsidies and programs that are not delivering long-run growth, and instead, focusing on the provision of public goods such as education, health and infrastructure. Another way is for the government to reduce its borrowings in the market by divesting more of its public sector enterprise shares. There could be efficiency gains if there are more private investors playing an effective role in the governance of public sector enterprises. This would reduce the need for market borrowings by the government and that way reduce the crowding-out; it would enhance productivity, raise net government dividends and facilitate a greater balanced budget compared to outcomes under high government borrowings.

Finally, there could be continued emphasis on efficient rollouts of important structural reforms such as the time-bound resolution of non-performing assets under the Insolvency and Bankruptcy Code (IBC) and the creation of national markets via the Goods and Services Tax (GST). The much-needed land, labour and agricultural reforms could be undertaken, all of which can help crowd-in private sector growth.

The book has earned advance praise from a breath-taking bevy of domain

experts, including Mervyn King, Raghuram Rajan, C. Rangarajan, Shyamala Gopinath, Maurice Obstfeld, Y Malegam, Easwar Prasad, N Vaghul, Usha Thorat and Rakesh Mohan. On that set of recommendations alone, this book is worth a read – by students, practitioners, commentators, Mint Street and New Delhi. Including, and perhaps especially, if you are likely to disagree with some of the arguments and would like to further the debate.

In India, it is a practice that former RBI Governors release books which are just a compilation of their speeches which are freely available on RBI's website! Acharya's book was an addition to this list and to top it all it also includes his submissions to minutes of RBI's Monetary Policy Committee.

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