

# VIEWPOINT

AN INTERNATIONAL JOURNAL OF MANAGEMENT AND TECHNOLOGY  
Peer Reviewed Refereed Journal

Volume 11, Number 2

July-December, 2021

## ARTICLES

1. A Multidimensional and Holistic administrative functioning of IQAC and NAAC teams in HEI A Cohesive Alignment  
**Dr. Kumar Ratnesh, Dr. Ankur Goel**
2. A Pragmatic Study on Customer Confidence for the Stem-cell Therapy  
**Prof. (Dr.) Sudhinder Singh Chowhan**
3. Optimal Ordering Policy for Medium Scale Industries with Uncertain Demand  
**Dr. Deepika Sagta Joshi**
4. Go Green Role of Green HRM Practices in Organizational Sustainability  
**Dr. Minisha Gupta**
5. A Comparative Analysis of Public Private and Cooperative Sector Banks in Kumaun Region Uttarakhand an Empirical Study  
**Vaishali Bisht & Prof. L.K.Singh**
6. Emergence of E-learning and Online Teaching Due to COVID 19 Impact on School and College Education in India  
**Dr. Avanish Kumar Shukla, Avinay Avikash Kumar**
7. Factors responsible for high rate of unemployment in India  
**Dr. Anju Garg**
8. Impact of Covid 19 on Tourism Industry in India an Analytical Study  
**Dr. Sanjoli Jain, Dr. Vandana Jain, Ms. Ahinsa Jain**

# VIEWPOINT

**An International Journal of Management and Technology**  
 Bi-annual Journal of Teerthanker Mahaveer University  
 Peer Reviewed Refereed Journal

Volume 11 | Number 2 | July-December, 2021

**CHIEF PATRON**

Shri Suresh Jain  
 Hon'ble Chancellor  
 Teerthanker Mahaveer University

**PATRON**

Shri Manish Jain  
 Hon'ble Group Vice Chairman  
 Teerthanker Mahaveer University

**EDITORIAL ADVISORY BOARD**

Professor Raghuvir Singh  
 Vice Chancellor  
 Teerthanker Mahaveer University

**Father A.C. Jesuraman**  
 Professor, XLRI, Jamshedpur

**Dr. Aditya Sharma**  
 Registrar  
 Teerthanker Mahaveer University

**Mr. Akshay Randeve**  
 Director  
 Strategic Initiatives & Development at  
 Qatar Financial Centre Authority, Qatar

**Prof. D.P. Goyal**  
 Director  
 IIM Shilong

**Dr. Faiza Abbasi**  
 Assistant Director  
 UGC HRD, Aligarh Muslim University

**Prof. Harpreet Kaur**  
 Principal  
 Mata Surdri Devi College for Women,  
 University of Delhi, Delhi

**Prof. Javaid Akhtar**  
 Professor and Dean  
 F/O Management Studies & Research  
 & Coordinator, AMU Centre,  
 Aligarh Muslim University

**Ms. Kanika Sachdeva**  
 Business & Textiles Tutor  
 Hounslow Adult & Community  
 Education, London Borough of Hounslow

**Prof. Madhu Vij**  
 Faculty of Management Studies  
 University of Delhi

**Dr. Manjula Shayam**  
 (Retd. Prof.)  
 Yale University, U.S.A

**Dr. Manjula Jain**  
 Associate Dean  
 Teerthanker Mahaveer University

**Dr. M. Saeed**  
 Professor, Minot State university USA

**Prof. Mrinalini Shah**  
 Professor  
 (Decision Science) & Chairperson  
 Entrepreneurship Cell, IMT, Ghaziabad

**Dr. Prof. P.K. Yadav**  
 Professor  
 Emeritus, Gautam Buddha Technical  
 University, NOIDA

**Prof. R.K. Mittal**  
 Vice Chancellor  
 Chaudhary Bansi Lal University,  
 Bhivani

**Prof. Saji KB Nair**  
 IIM Lucknow

**Prof. Satyabhushan Dash**  
 IIM Lucknow

**Prof. S.C. Kundu**  
 Director & Dean  
 Haryana School of Business,  
 GJUS&T, Hisar

**Dr. Seema Sharma**  
 IIT, Delhi

**Prof. Sukumar Nandi**  
 Professor of Economics  
 IIM, Lucknow

**Prof. Sushil**  
 Professor  
 Strategic Flexible Systems and  
 Technology Management IIT, Delhi

**Chief Editor**

**Prof. Vipin Jain**  
 Principal

Teerthanker Mahaveer University

## EDITORIAL

Inconspicuously Management and Technology mount a major role after the unprecedented times of *Covid 19* in the 21st century. In today's ICT-driven world, management is the foundation stone and carter of innovation that drives new ideas for research. VIEWPOINT an International Journal of Management and Technology is a refereed and peer-reviewed journal, publishing high-quality papers on all aspects of education. It aims to represent and publish research in management and technology delivered by specialists of various disciplines. It includes studies and reviews conducted by multidisciplinary teams comprising of research work from various academic disciplines or professional specializations. The journal covers a very wide range of areas and we welcome submissions from practitioners at all levels and from all over the world.

In VIEWPOINT, articles are stringently vetted before publication in a journal; some issues can still go unnoticed. In this situation, readers can offer their interpretations by writing a letter to the editor. We also consider publishing comments on a previously published article, research reports, case reports, case series or a book review. The articles published in the issue are reviewed meticulously, with the intent to promote knowledge and entice researchers to publish their own work with us. We highly appreciate papers submitted in the context of education, training, or the development of tools and discuss work or findings where the education resource, training sessions, tool, or resource is entirely focused. The objective of this issue is to focus on topics that are likely to result in a noteworthy impact on the recent trends and assessment in the post-*Covid 19* academes.

The current issue deals with the innovative topics for research on higher learning and ICT voicing parameters for QAC and NAAC. Data based specifications have formed the foundation of the revised assessment and accreditation process of NAAC and have enforced every higher education institution in India to adopt ICT in its overall functioning, which has steadily become an inevitable thing for the qualitative functioning of all higher education centres in the nation. The introduction of ICT based methodology for assessment and accreditation of NAAC is with a vision for overall quality enhancement in academic organizations. In its entirety, NAAC has adopted ICT for assessment and quality assurance and custom ICT in student satisfaction surveys is a novelty in the process. The Institutional MOODLE learning system is an important platform of ICT that enhances the collaborative learning experience and is utilized as an educational tool for teachers. Here, a sincere attempt has been made through these peer-reviewed articles to showcase the effective implementation of ICT in higher education that can definitely boost digital literacy among the academia through these potentially high impact research themes and visions.

**Prof. Vipin Jain**  
**Chief Editor**

## Table of Contents

A Multidimensional and Holistic administrative functioning of IQAC and NAAC teams in Higher Education Institution: A Cohesive Alignment .....	1
Dr. Kumar Ratnesh <sup>1</sup> , Dr. Ankur Goel <sup>2</sup> .....	1
A PRAGMATIC STUDY ON CUSTOMER CONFIDENCE FOR THE STEM-CELL THERAPY .	10
Prof. (Dr.) Sudhinder Singh Chowhan.....	10
Optimal Ordering Policy for Medium Scale Industries with Uncertain Demand.....	15
Dr. Deepika Sagta Joshi.....	15
Go Green: Role of Green HRM Practices in Organizational Sustainability.....	25
Dr. Minisha Gupta .....	25
A COMPARATIVE ANALYSIS OF PUBLIC PRIVATE & COOPERATIVE SECTOR BANKS IN KUMAUN REGION, UTTARAKHAND: AN EMPIRICAL STUDY .....	33
Vaishali Bisht <sup>1</sup> & Prof. L.K.Singh <sup>2</sup> .....	33
Emergence of E-Learning and Online Teaching Due to COVID-19: Impact on School and College Education in India .....	42
Dr. Avanish Kumar Shukla <sup>1</sup> , Avinay Avikash Kumar <sup>2</sup> .....	42
FACTORS RESPONSIBLE FOR HIGH RATE OF UNEMPLOYMENT IN INDIA.....	55
Dr. Anju Garg .....	55
IMPACT OF COVID-19 ON TOURISM INDUSTRY IN INDIA: AN ANALYTICAL STUDY .....	62
Dr. Sanjoli Jain <sup>1</sup> , Dr. Vandana Jain <sup>2</sup> , Ms. Ahinsa Jain <sup>3</sup> .....	62

## A Multidimensional and Holistic administrative functioning of IQAC and NAAC teams in Higher Education Institution: A Cohesive Alignment

Dr. Kumar Ratnesh<sup>1</sup>, Dr. Ankur Goel<sup>2</sup>

<sup>1</sup>Assistant Professor, Dewan Institute of Management Studies, Meerut (U.P).

<sup>2</sup>Associate Professor, Dewan Institute of Management Studies, Meerut (U.P.).

<sup>1</sup>ratnesh737yahoo.co.in, <sup>2</sup>drankurgoel9@gmail.com

### Abstract

The purpose of the paper is to analyze the administration of IQAC (Internal Quality Assurance Cell) & NAAC (National Assessment and Accreditation Council) teams in a specific Higher Education Institutions (HEI) and examine their functioning in a multidimensional and holistic environment so as to bring about the efficient cohesive alignment between the two to achieve best accreditation grades. The paper employs exploratory research design with qualitative approach analyzing the secondary data obtained from the coordinator of IQAC and NAAC steering committee of specific HEI. The findings exhibit the 360 degree quality oriented administration and functioning of IQAC considering all parameters. Throughout the process the IQAC team is in tune with NAAC team members to serve the quality gaps immediately as recognized and required. The findings of the study are critically significant for all the HEI's of the concerned location for formation and strengthen their IQAC teams. The ideology here is that- not just the presence of such teams or just preparing the Agenda/Minutes are mandatory but the necessity is for radical transformation to achieve the NAAC objectives in a more realistic manner. This paper adds value to the existing policies, procedures, administration, functioning and formulation of IQAC and NAAC teams of concerned HEI's aspiring for the best grades.

**Keywords-** Cohesive, Holistic, IQAC, Multidimensional, NAAC, Quality assurance, Transformation

### Introduction

The Higher education sector ensures quality of the educational process with the help of Accreditation agencies established for the purpose. The main agency which accredits universities and colleges in general education is the National Assessment and accreditation Council (NAAC) established by UGC in 1994 with headquarters at Bangalore. An effective system of quality assurance should –

- Make a difference to students – both through the value that has been added and the measurement of the outcomes.
- Be owned by the institutions and accepted as valid by them.
- Be relevant to the purposes of higher education.
- Promote diversity;
- Be a cyclical process rather than a series of sporadic snapshots;
- Address the question of standards;
- Be conducted by national and international peers;
- Be conducted at a subject or programme level;
- Contain international comparative measures; and
- Be reported in terms that are easily understood by a lay audience.

Therefore to achieve the above stated parameters, there must be the formation of IQAC (Internal Quality Assurance Cell) in the HEI to function at every micro aspect and ensure the quality assurance. This IQAC must have the cohesive alignment with NAAC steering committee to have more and more realistic, broad, systematic and multidimensional administrative functioning in all spheres for the

achievement of holistic outcomes.

### Literature Review

All the studies conducted till dates have taken individual view for NAAC and IQAC. However this paper is derived as a case study transformed into an experienced and practical based research article highlighting the major functioning dimensions of IQAC and NAAC steering teams of a concerned HEI so as to ease out the process of accreditation for the first cycle.

#### Rationale and Need of the Present Study

As a proliferation of Higher Education Institutions in India, the quality is the enormous challenge for every single student as to progress for attaining higher educational qualifications. Globalized competencies are required in terms of in-depth insights and wide pool of understanding so as to advance the students to new frontiers of practical and applicable knowledge in diverse verticals with differential domains. Being the advent of cut throat competition and to implement the dimensions of NEP-2020, the time is not for introspection rather for critical review, ascertaining deviations, taking corrective actions and benchmarking themselves. This study is a need of an hour as a yardstick to gauge the preparedness and transitional level of these HEI's by highlighting the functioning of IQAC and NAAC steering teams.

#### Objectives of the Study

- To identify the various functional approaches, goals and domains of IQAC and NAAC teams of an HEI.
- To portray the comprehensive agenda for the quality teams of concerned HEI to be carried out throughout the process.
- To assess the molecular preparedness of a concerned HEI for the achievement of NAAC grades through efficient working

of IQAC.

- To ensure the concrete level of planning and administration of HEI through IQAC pertaining to all related aspects and domains of NAAC criterions.
- To formulate the cohesive alignment between IQAC and NAAC steering teams of concerned HEI.

### Research Methodology

Research Methodology applied in this research paper is quite simple and easy to understand and can be depicted as follows:

1. Research Design is **Exploratory** being the author has explored his/her vast pool of expertise, wisdom and knowledge in the same article.
2. Research Approach is **Qualitative** in nature as the key aspects related to the functioning of IQAC teams has been outlined.
3. Data Collection is all **"Secondary"** which after necessary editing and sorting has been framed in thirty one (31) in the findings part.
4. Sampling frame is one of the recognized HEI located in Meerut city based in Uttar Pradesh.
5. Sampling Method is "Convenience Sampling Method" observing the easy availability of required data based on author's experience itself.
6. Time frame of the study is based on the functioning of eighteen months (18) of IQAC and NAAC steering teams of HEI covering the COVID-19 duration majorly. August 2019 to December 2020 is the period concerned.
7. Experience based data has been edited by listing all the functional procedures and policies primarily related to the concerned HEI. In the second stage, the data has been refined and grouped under the various heads and subheads. In the third and final stage, the required

data is presented in a sophisticated manner so as to fulfill the outcomes of the research article.

**Data Analysis and Findings**

Data thus obtained has been subjected to be framed under the following thirty one (31) heads so as to demonstrate its realistic sense in achieving the outcome of the research.

**MOU's:** Signing 'Memorandum of Understanding (MOU)' with other universities and institutions aims for 360 degree academic excellence. Through these tie-ups, various students exchange programs as well as the faculty exchange programs will be arranged in order to enhance the knowledge in all academic spheres. More and more national & international tie-ups (MOU's) to be built up, to strengthen the knowledge pool of the HEI. It also includes the MOU's signed for membership of various societies, organizations and associates. IQAC and NAAC teams are supposed to obtain the progress reports of the same on the consistent basis.

**Introduction of new courses:** HEI has to undergo a research to analyze the requirement of the new courses and programs under the umbrella of various schools/departments of HEI. All stakeholders are expected - to whom schools/departments any new courses have been added, to prepare the complete details, course curriculum (Syllabus), Current progression on the same for session 20-21.

**Online Teaching Methodology:** Online Teaching Methodology is essential and integral part of all educational institutions all over the globe in the current pandemic situation. Schools are advised to appraise the said process as per the requirements of their schools/department/courses and suggest measures for its excellence in terms of transparency, attendance increment,

monitoring, lecture delivery etc.

HEI is advised to prepare the complete checklist for the exact delivery/monitoring of online classes and complete SOP for the same has to be prepared.

**Library Facilities:** Library facilities must comprise of inclusion of latest books (reference & text), journals and other study material for the students as well as for the faculty members. Access to the online journals must be available to the students & faculty members. HEI's are expected to provide the latest book requirements to the library for their courses. HEI must has a central library with mini libraries at all schools as well. Facilities of E-books, E-library, E-journals and access to online resources like J-Gate, NDL, and DELNET & AIR Combo pack (especially for Law) is available.

**Quality Audit Schedule:** The objective of the Quality Audit is to determine whether the institution, since its last audit has acted in compliance with the provisions of IQAC. HEI's are hereby suggested to implement 'Internal Quality Audit Schedule' in their respective schools/department for the same. The tree tier audit system must be in place as follows:

- Pre-Semester Audit
- Mid-Semester Audit
- End-Semester Audit

**Admission Process:** Admissions - the bread and butter of any institution must be aligned with Standard Operating Procedures as laid down by the Admission Committee detailing the parameters of eligibility, intake, fees, selection process, PI details, and Admission policy for international students etc. HEI's must be in the process of admissions through online, offline and mixed mode complying with all COVID-19 essentials. IQAC and NAAC

teams are supposed to track the details of this aspect on continuous basis.

**Alumni Connect Program:** All HEI's are advised to conduct "Alumni Connect Programs in a substantial number but in fair quality so as to reach the Alumni of the HEI and let them share their views, opinions and expertise so that the current students will be benefited in multiple domains. Even the students will be motivated enough and will get opportunities for placement in diverse fields. Alumni associations, clubs and updated database must be available at all times.

**Parents – Teacher Interaction:** All HEI's are advised to conduct the regular 'Parents-Teachers' interaction program in their schools and keep a proper record of it so as to outreach the final decision makers and make the parents aware of actual performance of their wards in multiple aspects. Parents must also be timely aware regarding the academic activities of the universities and the concrete involvement of their ward in the same like online class attendance. Parents of the students have been regularly in contact through the following modes as:

- Messages(SMS) & Email
- WhatsApp
- Letters on regular intervals.
- Regular Zoom meeting with parents

**Employer – Student Feedback:** Proper record, through a standard feedback planner must be ensured by every school/department regarding employer's viewpoint for our students. In this way we will be able to bridge the gap regarding the latest industry requirements and enrich the student's personality more competitively for future. A comprehensive feedback mechanism must be adopted through the

feedback from which contains various parameters to judge the professional abilities of the students.

**USR/Extension and outreached Activities:** University Social responsibility activities specifically aimed at delivering the social message all-around so as to integrate the essential stake holders of the society with academic domain. HEI's are required to design more innovative USR activities for their departments by involving every student, being the part of their course curriculum.

**GRC - COVID-19 counseling of Faculties:** The role of Governance, Risks and Compliance (GRC) in the COVID – 19 times must be ensured by all Schools/Departments as a means of counseling of all faculties associated with that school/department. Seeing the pandemic situation rising on a daily basis as per the national statistics regular counseling, monitoring and health checkup of all faculty members are highly essential. All faculties, along with parents and students have been personally counseled for following all essentials and safety measures for COVID-19.

IQAC and NAAC teams must ensure the same and obtain data on a regular basis.

**Proctorial Board:** The proctorial board at the school/department level must ensure the discipline among the students, Students Grievance Readressal, all rules/regulations are understood & followed, prevention of students in indulging any political/unmoral/ragging activities, to build up the good character of the students etc. All HEI's must have proper record at micro level for their respective schools/departments in order to channelize the proctorial board activities more smoothly.

**Purchase Committee:** Purchase



Committee must be a part of centralized purchase system for entire HEI and there is a placement of building infrastructure/Maintenance In-charge in every school/department so as to monitor the same and forward their purchase requirement to central committee on regular basis. Purchase committee working protocol must be regularly reframed by administrative head for the same. All purchase requirements on regular basis like New Course requirements, Inspection and other maintenance requirements are fulfilled through concerned authority and further indenting for the same to warehouse through proper channel.

**Research – Plagiarism Report:** Research plagiarism report is highly essential for all the research work conducted in all schools. HEI central library must be equipped with the latest software for the same. Therefore all the departments of HEI must ensure the proper research plagiarism report procedure for all the research work carried out in their concerned schools/departments.

**Measures to minimize Covid-19 spread:** Proper measures/actions must be taken by all schools/departments regarding to minimize the COVID-19 spread, at their level as well either physical measures or measure to create awareness for the same. HEI must keep a proper record of the same and continue their actions in future as well. Proper and regular sanitization must be carried on with complete social distancing, mask distributions with personal counseling.

**National Education Policy Awareness:** Moreover, all schools of HEI is conducting the webinars on New Education Policy 2020 through eminent speakers and creating sound awareness regarding the same. Even then the schools that have not planned yet must be requested to conduct

the same so as to make NEP-2020 as a robust success in near future.

**Planning of Activities & Formation of Clubs:** All departments are expected to plan and execute various academic activities (Extra-curricular & Co-curricular/ Webinar/ Workshops/ FDP/ SDP/ Seminars/ Industrial Visits etc) in more innovative and creative manner with adding a certain extra value even to the repeated activities like debate, extempore, poster making. Schools must maintain and report the proper data of all activities in a chronological manner. Similarly the formation of various clubs like cultural, literary, research, extension, recreational, academic etc must be formed and function properly.

**Consultancy Revenue:** All schools of HEI must ensure to generate consultancy revenue in their concerned fields through various revenue generating streams as per their specific fields and keep the proper and update record of the same. This demonstrates the practical utility and implementation of practical aspects of the concerned school/department.

**Start up and Patents:** Entrepreneurship development and skill enhancement in the concerned fields of study must be embedded in every school/department so as to bring out new start-ups and ventures. New inventions must be patented to have more conformity and transparency on the same.

Some of the achievements in this regard are as follows:

- Constitution of IPR Cell.
- Any startups by Home Science – Pickles, Snacks, Bakery items etc.
- Obtaining particular ‘Trade Mark’ – Immunoherbs (for pharmacy products and processed food

products).

- Obtaining particular 'Trade Mark' - Immunoherbals (for pharmacy products and process).
- Patent granting and publishing by the stake holders.
- Constitution of IIC (Institution Innovation Council) is highly mandatory.

**Research & Development:** No educational institutions will survive without consistent R & D activities; therefore it is mandatory for all schools to have aligned research activities in their labs/departments. The academic fraternity of HEI including students must continuously strive to write and publish goods research papers and publish them in journals of repute. The PhD cell of the university must be completely modified with new research work course module and new research initiatives as per the UGC Guidelines.

**Finance and Accounts:** Finance and Accounts department serves a backbone for any HEI. However main concern here is the timely collection of fees, recovery of pending dues, disbursement of salaries, vendors payments, preparation of reports, reconciliation of accounts etc.

**Human Resource Data:** Proper recruitment, selection and deployment as per the relevant qualifications must be well planned and especially the personal files of every employee must be completed with all relevant documents. Comprehensive records in all HR related aspects must be completed beforehand. All critical positions of the HEI's must be duly filled pertaining to all parameters.

**Sports/NCC Facilities and Initiatives:** Sports are highly essential and integral part of any academic institutions. Similarly there must be separate unit for NCC related

activities in an Institution. Calendar of sports activities must be planned in advance and events must be organized accordingly. Proper record with necessary evidences must be organized for the same.

**Examination Cell:** Controller of Examination - COE office is highly responsible and critical domain for IQAC and NAAC consideration in terms of organization of all examinations (mid semester, semester, yearly) which should be highly transparent and reliable. Setting up of question papers, assembling them, reviewing and moderation must be well planned. Policies related to the overall assessment must be highly fair in terms of conduction of examination. All records, reports and minutes must be duly organized by COE office as NAAC and IQAC coordinators can any time require the same.

**CRIC Activities:** Corporate Resource and Interface cell is a vertical which covers the Placement Activities, Development of interface with the corporate world, shaping the students as per the industry requirement in terms of 'Aptitude, Attitude and Personality Development'. This vertical serves as a nerve in leveraging the key indicators of NAAC criterion.

**Revision in Course Curriculum:** Any revision in the course curriculum in terms of addition, deletion, modification in any course must be decided in advance, preceding to the start of academic term. All changes must be duly approved in the concerned Board of Studies meeting and record must be maintained in a proper manner to be presented to IQAC and NAAC team anytime.

**Academic Council Integration:** Academic Council is one of the most significant bodies to undergo the key decisions related to all key parameters related to academics of any HEI. Some of

the parameters are like International Students, Fee Structure and Deposition policy, Ordinance and Syllabus of all Programs especially the Doctorate, Examination System, Scholarship, Examination Committee, Academic Plan & Calendar, Result Declaration etc.

**Hostel/Transport Facilities:** Hostel facilities in terms of proper maintenance, cleanliness, safety and security, health concerns, proper food plan, quality check and inspection, maintenance of attendance, incoming and outgoing registers etc. must be duly taken care off. Similarly transport facilities must be equipped with proper GPS and with latest equipment's. IQAC team must have the routine audit of the same.

**Infrastructural Requirements, Maintenance & Sanitation:** Premises of an HEI must be well equipped with required infrastructure in terms of power back up, water treatment and harvesting plants, solar panels, plantations, fire safety, earth quake resistant, pollution free environments, proper labs and equipment's, cafeteria, gardens and lawns, playground, classrooms, conference rooms, faculty rooms, common rooms, seminar halls, reception area, toilets, branding of walls building maintenance on consistent basis must be done and after all in COVID-19 times proper sanitation and hygiene measures must be ensured in every spheres. Maintenance registers must be prepared by all building in charges and the department concerned.

**Systems & IT Integration:** Systems and IT is one of the indispensable aspect of any HEI leading to internet connectivity, implementation of ERP, original software's, hardware requirements, implementation of online class application etc. IQAC and NAAC teams must have a

routine check on all these parameters.

**Scholarships, Rebates, Consultancy, Discount Data, Annual Increments etc:**

All the data related to scholarship (internal and external), any fee rebates or discounts of any types, annual increment data off all employees must be recorded and maintained properly as IQAC and NAAC teams must conduct audit of the same any time.

**Suggestions and Recommendations**

Some of the suggestions related to IQAC and NAAC teams for functioning more coherently in such a competitive, multidimensional and holistic environment are as follows:

1. In HEI's Admission, Academics and Administration must be separate verticals all over and the NAAC objectives must be embedded from the very first day of HEI's inception.
2. Attainment of academic goals of an institution must not be hampered by any means taking all the factors and variables in consideration.
3. All the curricular, extracurricular and co-curricular activities are planned in such a manner that they must be completely aligned with some learning objectives and outcomes. Repetitive and routine activities must be avoided.
4. Adequate digital infrastructure/resources must be available if ICT enabled leanings have been promoted in HEI's being a need of an hour. Availability of latest software's, packages and applications is highly necessary.
5. HEI's especially the self-financed one's are fully transparent in their recruitment policies which must be governed by uniform norms related to qualification mix, salaries, promotion and advancement policies etc.

6. Especially in COVID times it is mandatory to provide adequate support and facilities for their professional, academic and intellectual development.
7. HEI's must develop the culture of innovativeness in each and every aspect by infusing the creative mindset in all stakeholders of their HEI's. Even a single act can be performed differently by the innovative thought process.
8. Multidimensional and Holistic development of the students is highly necessary.
9. IQAC and NAAC teams will continuously strive to have frequent meetings for gaps assessment and fulfilling the same.
10. Management of the institution must motivate the core IQAC and NAAC teams for their performance by reviewing them time to time.
11. All the HEI's from the very first day of their inception and function must be determined to practice as per the requirement of NAAC requirements.

### Conclusion

Quality consciousness in HEI's all across has initiated the narrowing down the gaps between the formation and the functioning of IQAC and NAAC teams. The IQAC must be overall responsible for all the molecular in depth analysis of each and every quality parameter considering the NAAC objectives. The role of IQAC can be easily extended just by

### References

1. **Gupta, A.K., Goyal, R. & Panjla, A.K (2016)**. IQAC as a tool for improving Quality Education in Higher Educational Institutes (HEI). *International Journal of Latest Trends in Engineering & Technology*. 7(2).
2. NAAC manual retrieved from [www.naac.gov.in](http://www.naac.gov.in) on 02/06/2021.
3. **Sawant, D.G (2016)**. Role of IQAC in

stimulating, reorganizing and streamlining overall all stakeholders' efforts in more innovative and achievable approach. IQAC team will be having more multidimensional functioning attitude with holistic empowerment. It must be kept in mind as well that the last minute preparation will be avoided if IQAC teams will tie their seatbelts just from the start itself to achieve sustainable long term accreditation objectives for an HEI.

### Limitations of the Study

The present study is accompanied with many limitations. However one of major one is that particular research article is just confined to single HEI of the concerned area. Even data obtained have the possibility of manipulation and window dressing as well being data has been collected on the basis of inputs received from the concerned person and the framework for the article has been framed out.

### Scope for Future Research

Being NEP-2020 to be implemented and HEI's institutions to be governed with new mandates of self-regulations which need to strengthen their accountability and procedural aspects therefore the scope of further research in this domain is unlimited. The research could be conducted more minutely in each domain and quality consciousness pertaining to HEI's with the help of primary data. The positivity factors related to IQAC and NAAC process can be highlighted so that even the dormant HEI's of all-around will come up for the obtaining quality assessment grades and rank

maintaining quality standards in teaching, learning and evaluation. *Pacific Science Review B: Humanities and Social Sciences*. 2(3).

4. **Singh, T.R (2018)**. Role of NAAC in Enhancing Quality on Higher Education in India: *Issues & Challenges*. *International Journal of Science & Research*.7 (11) 1483-87.
5. **Sun, Y., Anwar, A., Razzaq, A., Liang,**

- X., & Siddique, M. (2021).** Asymmetric role of renewable energy, green innovation, and globalization in deriving environmental sustainability: Evidence from top-10 polluted countries. *Renewable Energy*.
- 6. Jain, V., Purnomo, E. P., Islam, M., Mughal, N., Guerrero, J. W. G., & Ullah, S. (2021).** Controlling environmental pollution: dynamic role of fiscal decentralization in CO2 emission in Asian economies. *Environmental Science and Pollution Research*, 28(46), 65150-65159.
- 7. Sun, Y., Anwar, A., Razzaq, A., Liang, X., & Siddique, M. (2021).** Asymmetric role of renewable energy, green innovation, and globalization in deriving environmental sustainability: Evidence from top-10 polluted countries. *Renewable Energy*.
- 8. Jain, V., Navarro, E. R., Wisetsri, W., & Alshiqi, S. (2020).** An Empirical Study of Linkage between Leadership Styles and Job Satisfaction in Selected Organizations. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3720-3732.
- 9. Setiawan, R., Kulkarni, V. D., Upadhyay, Y. K., Jain, V., Mishra, R., Yu, S. Y., & Raisal, I. (2020).** The Influence Work-Life Policies Can Have on Part-Time Employees in Contrast to Full-Time Workers and The Consequence It Can Have on Their Job Satisfaction, Organizational Commitment and Motivation (Doctoral dissertation, Petra Christian University).

## A PRAGMATIC STUDY ON CUSTOMER CONFIDENCE FOR THE STEM-CELL THERAPY

**Prof. (Dr.) Sudhinder Singh Chowhan**

Associate Professor Department of Pharmaceutical Management, IIMR University, Jaipur.

### ABSTRACT

There has been a paradigm change in the diagnosis and treatment of many diseases thanks to medical technology. Furthermore, the health care industry is currently dealing with a slew of new, strange, and frustrating disorders. An individual stem cell has the power to transform into a variety of different types of cells in the body. Future applications might include the replacement of cells and tissues that have been lost or destroyed as a result of illness. The use of cord blood stem cells to treat incurable or difficult-to-cure illnesses is a new invention. For the development of the trust factor and the health care sector market, the proposed article outlines the real field case study for collecting an appropriate degree of knowledge among women for stem-cell therapy and umbilical cord blood banking.

**Keyword:** Women, Umbilical Cord, Stem Cell, Blood Bank & Health care

### Introduction

The umbilical cord of a baby is composed of muscle, which carries blood. Both cord blood and cord tissue is abundant reservoirs of active stem cells. For transplant medicine cord blood-stem-cells are commonly used to rebuild vigorous blood and resistant systems. Such cells are being studied for their potential to serve as the personal recovery kit of our body, which to help our bodies recover in different ways. A birth of new child signals a new opportunity. Stem cell therapy, which is considered regenerative medicine, aims to restore tissues from or use stem cells or their components, which are diseased, damaged or wounded. This is the next step of organ transplantation which requires a small availability of cells instead of donated organs.

### Literature Review

**D. Pandey, S. Kaur, A. Kamath (2018):** Cord Blood Stem Cell Banking: Potential

Donors' Awareness, Attitudes and Expectations from a Biggest Repository (India), this study aims to find out how much pregnant Indian women know about the benefits of UCB banking. A sample of potential donors from one of the world's largest potential UCB repositories (India) found that women were more aware of private cord blood banking than public banking, which is more widely publicised. 55.1 percent of those polled said they were indecisive whether or not to bank with UCB. It was assumed by more than half of the women who were expecting delivery that they would be informed about UCB.

**V. Gupta, L. Agarwal, P. Ballal, D. Pandey (2018).** This study aims to evaluate the present situation of obstetricians about UCB banking in terms of their awareness, attitude, and expectations from the practise. Obstetricians' understanding of UCB banking was low, but they had a good opinion toward it. In order to keep medical practitioners up-to-date, continuing medical education should focus more on matters of public relevance like these.

**A, Almaeen, F. A. Wani, A. K. Thirunavukkarasu (2021)** a survey of Jouniversity healthcare science students' views on stem cells and the importance of medically using them To find out what medical and dentistry students know and think about stem cells and how they could be used in medicine. Various interventional teaching programmes on the relevance of stem cells in medicine are advised for medical and dentistry students.

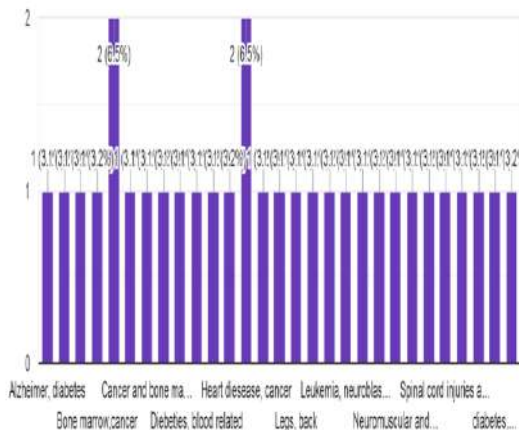
**N. Tiwari, A. Tiwari, R. Turbhekar, S. Girishankar (2016)** Perception of UCB Banking amongst Youth in India, To assess their perception for UCB banking and their willingness to do it.

### Rational Behind the Study

- To analyze the awareness level of respondents regarding diseases that can be treated with the stem cell therapy.

**Research Purpose & Objective**

- To explore the unexploited market potential for Stem-Cell Therapy and Umbilical Cord Blood Banking.



**Research Methodology**

The Empirical study has been done to know the exact level of awareness and acceptance of the customer.

- The sample was made with 45 sample size.
- Females or male above the Age group of 19 residing in Jaipur were chosen as the sampling element.

**Sampling element**

Sampling element of our research is any female or male above 19 residing in Jaipur & having basic understanding about stem cell banking.

**Data Collection Method**

- 1) Primary data
  - The data is collected through questionnaire and survey
- 2) Secondary data
  - Secondary data for our research is :

- i. Internet
- ii. websites

**Data analysis tool**

- Microsoft excel
- Chart

**Research Analysis & interpretation**

1) Bar Graph (Diseases where stem cell therapy can be useful)

Name any two disease where stem cell therapy can be useful Out of 45 respondents 31 respondents stated that they are aware about the stem cell therapy and diseases where stem cell therapy can be useful, apart from this they have also mention some diseases names which is written in the above graph.

It shows that the respondents are having basic knowledge regarding the stem cell therapy.

**2) Pivot Table (Qualification \* Awareness Scale)**

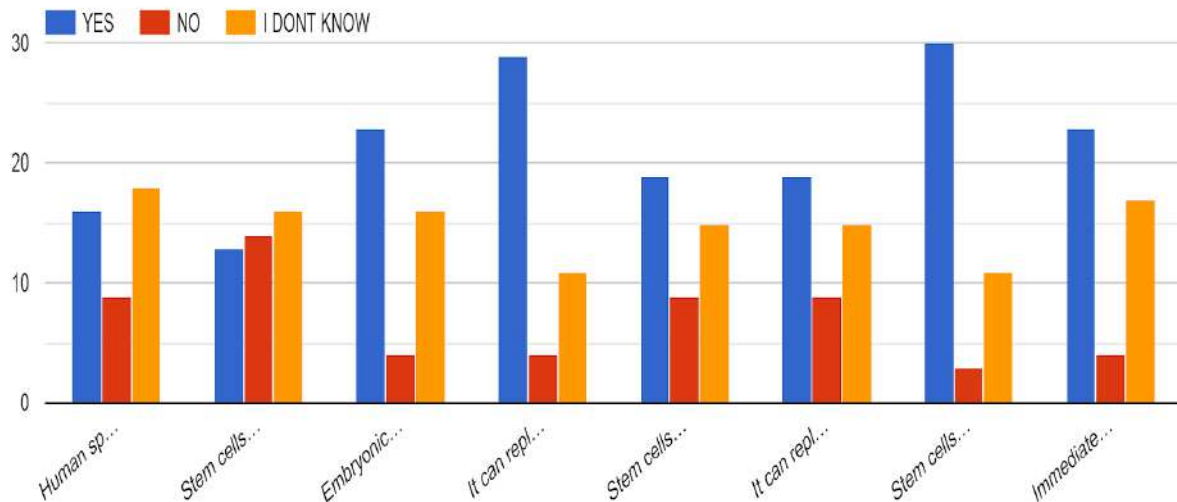
Highest Educational qualification	How much are you aware of the Stem Cell and its usefulness for any ailments/diseases arising in the future							Grand Total
	1	2	3	4	5	6	7	
GRADUATION	3	1	1	1	1	2		9
HSC						1		1
Ph. D.		1	1	2	3			7
POST GRADUATION	4	2	7	10	3	1	1	28
<b>Grand Total</b>	<b>7</b>	<b>4</b>	<b>9</b>	<b>13</b>	<b>7</b>	<b>4</b>	<b>1</b>	<b>45</b>

As per the above table we can interpret that there are no significance difference changes with educational qualification, but we can assume that more than 50 % of the respondents are having high scale knowledge for the Stem cell therapy & UCB Banking.

**3) Pivot Table (Statement\*Age – Group)**

Grand Total	43	43	43	44	43	43	44	44
Age group in years.	[Human sperms and eggs are considered a source of adult stem cells.]	[Stem cells obtained from adults are specialized cells that can form either bone or cartilage only.]	[Embryonic stem cells can be obtained from umbilical cord.]	[It can replace or it can be useful in a future disease.]	[Stem cells are unspecialized type of cells which are capable of forming any cell type.]	[It can replace the missing organs in near future.]	[Stem cells banks are now available in India.]	[Immediate relatives whose group's matches with the donor's stem cells can benefit from stem cell therapy.]
19-25	16	16	16	17	16	16	16	16
26-35	21	21	21	21	21	21	22	22
36-45	4	4	4	4	4	4	4	4
46-55	2	2	2	2	2	2	2	2

For each statement mentioned below tick the most appropriate answer of yours



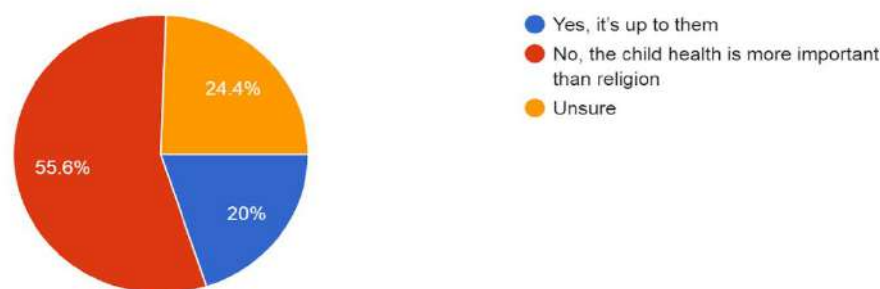
We can assume from the above table that awareness levels are high in the respondents although they are unsure in

some areas, where the improvement as well as promotion of the services is required.



#### 4) Pivot Table (Statement\* Qualification)

“Many religious also oppose stem cell therapy. Do you think it’s acceptable for some parents to refuse stem cell treatment for their children as it goes against their religious beliefs, even if the treatment could be lifesaving?”	Highest Educational qualification				
	Graduation	HSC	Ph.D.	Post-graduation	Grand Total
No, the child health is more important than religion	6	1		18	25
Unsure	1		3	7	11
Yes, it’s up to them	2		4	3	9
<b>Grand Total</b>	<b>9</b>	<b>1</b>	<b>7</b>	<b>28</b>	<b>45</b>



From the above graph & Pie- chart we can interpret that the respondents are comfortable with services and they are quite sensitive about the child health which shows that the Stem cell therapy has a bright future in India.

#### Findings

- 1) Many respondents were not even aware of the Stem-Cell therapy and were very happy and inquisitive to know more about it.
- 2) Individuals have high enthusiasm to know more about the stem cell & UCB banking.
- 3) An abundant market potential is available all around country and enormous number of job opportunities can be created for women; with strategic planning.
- 4) There are some community group believes that using stem cells is unethical, they might never enrolled themselves in the therapy.

#### Managerial Implications

- The Managers will get a broader avenue to design the profit-making models in the urban as well as the rural sector in the Health Care Sector.

#### Scope for Future Scope

- A lot of care can be given to the new-born infant and also to stop the death of infants and expectant mother.

#### Recommendation

- Gender Sensitized awareness camp must be organized especially in Women
- UCB banking needs to focus more on increasing the awareness level of banks & stem cell therapy

#### Limitations

- Cultural Limitations for non-welcoming attitude for the Stem Cell Therapy and Umbilical Cord Blood Bank among Families due to lack of awareness

## References:

1. **Almaeen A, Wani FA, Thirunavukkarasu A. (2021)** Knowledge and attitudes towards stem cells and the significance of their medical application among healthcare sciences students of Jouf University. *PeerJ*. 2021 Jan 19; 9:e10661.
2. **Gupta V, Agarwal L, Ballal P, Pandey D. (2019)** Cord blood banking: Antenatal care provider's roles and responsibilities. *Stem cells international*. 2019 Mar 7.
3. **Badawy AI, Riad NA, Abd El-Hammed BM, Hasaneen NM, Elsharkawy NB. (2019)** Nurses' Awareness, Attitude and Expectations Regarding Adult Hematopoietic and Placental Stem Cells Donation.
4. **Tiwari N, Tiwari A, Turbhekar R, Girishankar S. (2018)** Perception of UCB Banking amongst Youth in India.
5. **Catherine R, Akishya M, Raji D, Revathi P, Saranya K, Shahana I, Suganthi S, Vinodh V. (2018)** Knowledge and attitude regarding umbilical cord blood banking among antenatal mothers in OPD at Pondicherry Institute of Medical Sciences, Puducherry.
6. **Verma V, Tabassum N, Yadav CB, Kumar M, Singh AK, Singh MP (2016)**. Cord blood banking: An Indian perspective. *Cell Mol Biol*. 2016; 62 (3):1-5.
7. **Pandey D, Kaur S, Kamath A. (2016)** Banking umbilical cord blood (UCB) stem cells: awareness, attitude and expectations of potential donors from one of the largest potential repositories (India). *PloS one*. 2016 May 26; 11 (5):e0155782.
8. **Sahoo R, Rana L. Pregnant (2016)** women's Knowledge and Attitude about Stem Cells and Cord Blood Banking. *Asian Journal of Nursing Education and Research*. Nov 16; 10 (4):452-6.
9. **Jain, V., Chawla, C., Arya, S., Agarwal, R., & Agarwal, M. (2019)**. An Empirical Study of Product Design for New Product Development with Special Reference to Indian Mobile Industry. *Research Gate Publication*, 81, 1241-1254.
10. **Jain, V., & Sami, J. (2012)**. Understanding Sustainability of Trade Balance in Singapore Empirical Evidence from Co-integration Analysis. *View Point Journal*, 2(1), 3-9.

## Websites:

- <https://www.lifecell.in/>
- <https://www.cordlifeindia.com/>
- <https://www.mayoclinic.org/>
- <https://www.cordblood.com/>

## Optimal Ordering Policy for Medium Scale Industries with Uncertain Demand

Dr. Deepika Sagta Joshi

Associate Professor, Faculty of Commerce and Business Management, Amrapali Group of Institute, Haldwani, dsagta@gmail.com

**Abstract:** This research paper focus on model for establishing right order quantity for medium scale industries as uncertain demand and supplies issues are faced by them on regular basis due to unforeseen or proper forecast of future demand because of less research and development technology Medium scale industries finds difficulties to maintain proper ordering policy hence ordering extreme high or low quantity creates cost issues as right order plan will minimize the total inventory cost. To calculate the annual order quantity models such as lot size, economic order quantity, period cost, marginal cost etc. Once annual cost is calculated we can easily find out the optimum cost, with the help of given variable total order can be summarized into single algorithm like Wager – Whitin. Paper focus on cost analysis for three successive years and tries to maintain minimum ordering cost with uncertain demand.

**Keywords:** Economic Order Quantity, Wagner-Whitin Algorithm; Inventory Models; Inventory Costs

### 1. Introduction

The research focus on ordering cost of medium scale industries and finding the best optimal ordering policy in uncertain

demand to study the demand of raw material we have analyzed the data of last three years, after calculating the ordering cost with the help of suggested methods and comparing it with Wagner –Whitin company can compare the profitability of previous session. In introduction we will be discussing the types of method used to calculate ordering cost and the types of raw material required in industries based on demand analysis.

Stock or inventory are the items used in the process of raw material to finished, they are stock that are helpful to maintain inventory policy at all level of production it take care of replenished and perished raw material in order to minimize overall cost and increase the profit, company need to calculate ordering, inventory, carrying and out of stock cost. To maintain the lowest total cost medium scale industries need to control these four cost on continuous basis. Production manager have to manage tradeoff between carrying and ordering cost per unit each time of new order, once the order lot is small than loss can be controllable but if order size is high it become difficult to manage in the case of wrong estimation of future order manager can increase the carrying cost thus balance

between two is very necessary and this problem leads to correct estimation of order lot with least inventory cost.

Generally before deciding the demand we need to analyze the complexity of inventory model because they are dependent on items to be determine and the pattern of market supply even the probability of types of demand like perishable or nonperishable .

To assume the demand in real time we need to consider the time factor. It can be categorized under four types

1. *Planned & static time.*
2. *Planned & dynamic time.*
3. *Unplanned and static time.*
4. *Unplanned and dynamic time.*

We will assume ‘V ‘as the coefficient of variation in demand

And on the basis of variation we can draw the following parameters

1. Annual demand for all the months is constant i.e. V less than twenty percent
2. If annual demand average is same but there is variation on month basis than V can vary at small rate
3. In high probability variation can be very high

The above criteria are tabulated as follows:

Demand	Variation	Values in percent
Fixed annual demand	Least	0-20%
Fluctuating	Medium	More than

monthly but fixed annual		20%
Dynamic demand	High	More than 50%

(Table 1.1 exempling the variation analysis)

This research is carried out on medium scale industries that produces 20 to 30 products through the year with different capacity and size of sale, hence they need to maintain variety of small and large industries due to variety of finished and semi-finished goods in our research we will consider only three types of item through the year and try to understand the relationship between variation and demand

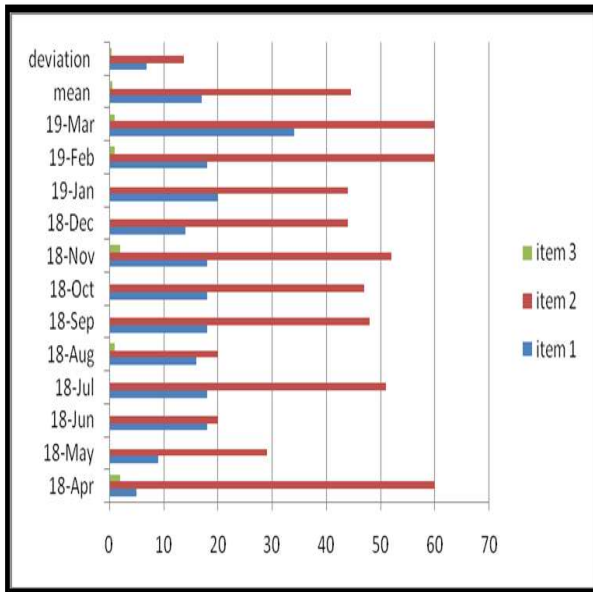
Demand nature			
month	item 1	item 2	item 3
Apr-18	5	60	2
May-18	9	29	0
Jun-18	18	20	0
Jul-18	18	51	0
Aug-18	16	20	1
Sep-18	18	48	0
Oct-18	18	47	0
Nov-18	18	52	2
Dec-18	14	44	0
Jan-19	20	44	0
Feb-19	18	60	1
Mar-19s	34	60	1
mean	17	44.58	0.58
deviation	6.8	13.7	0.49

(Table 1.2 describing the annual items demand size)

By calculating mean we can easily understand few things

1. In medium scale industry consumption of raw material is dynamic
2. Deviation variants value to zero to twenty percent

After analyzing the Table 1.2 company can evaluate the monthly inventory model



(Fig 1.1 annual consumption of raw material according to ABC analysis )

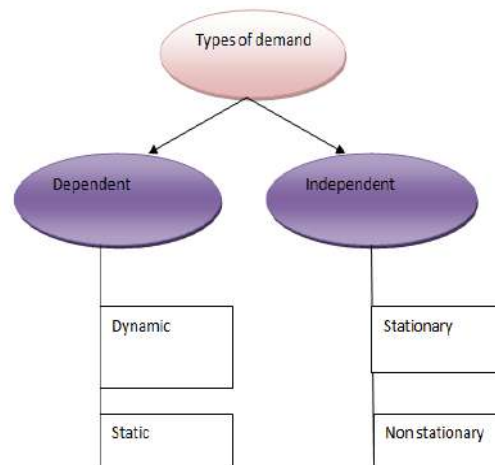
Figure 1.1 explain the consumption pattern of three items used as raw material under production process which is categorised under ABC analysis and observed all three items has different consumption rate on annual basis

**1.1 demand analysis:**

On sources of demand it is divided into independent & dependent .If an individual consumer like industrialist raises the demand of product that effects purchase of raw material in between the production process than they create need of product independently of others but in the case of

dependent demand each component from to purchase of raw material to finished good are closely associated with each other and are responsible for manufacturing plan.

Nature of demand is also associated with supply side, supply indication limitation on inbound production. In 2008 silver tries to identify lead time, random time of next demand but due to variety of raw material used in single production line it becomes difficult to identify lead time as an accumulation of full production process



(Fig 1.2 categorization of demand on the basis of raw material)

Figure 1.2 explain the demand category for establishing perfect ratio of input and output if production manager fails to forecast right demand of raw material than he will be facing severe consequences at production line which can increase lead time as well as cost .

**1.2 Consequence and shortfall:**

Warehouses are established to control the shortage of raw material or any

other products handled during production. shortage during the production process can increase downtime rate these losses cannot be control by any inventory process , to meet the dimension of separate model can be created that can cope-up with real environmental issues this challenges to achieve real raw material values through mathematical inventory

### 1.3 Inventory Models are classified below

*Lot for Lot:* Purchase of raw material exactly quantity required at particular period so that it match exactly net demand on the other side. Here items are purchased in the exact quantities required for each period. It sets planned orders to exactly match the net hence it ignore capacity limitation and at each period session inventory will be zero thus automatically carrying cost will be zero , total cost will be sum of ordering and carrying cost . This type of inventory model can be carried by that industry that have low ordering and holding cost.

*EOQ (Economic order quantity):* This model is mostly suitable when industry try to minimize inventory and holding cost . this can be only apply when inventory is constant over the period of time with the assumption that delivery of raw material will be 100 percent at single shot and reorder point arrives when previous

inventory reaches to zero as there would be fixed ordering cost at each order

*POQ (Period order quantity):* Economic order quantity work on assumption that demand will be uniform throughout the year but it cannot be true at all period sometimes market and climatic factors can fluctuate the demand . As both economic order quantity and period order quantity are similar to each other hence they are to reduce ordering and holding cost. To maintain this we need to calculate demand for each period of time rather than assuming constant demand throughout the year it may result into same ordering cost each time but it can different into size / quantity .

*Least unit cost:* In the medium scale industry where ordering cost is dynamic we can apply one more method that can reduce average cost i.e. least unit cost method.

Suppose 'n' is the average cost that can be minimized per unit for the next order size for every next order we will calculate the total of order and carrying cost ( as order cost is dynamic) and divide the total by number of units order . it might be possible with large order or inventory carrying cost average cost per unit increases. Than to find out best average cost we can calculate perfect order size.

### 1.4 Literature review

**Galbraith (1973)** redefine uncertainty as

the disparity between the information needed to execute a task and the information that is already with us. In the current scenario different uncertainties affects the processes of production in different ways.

**Dr. Ho. (1989)** differentiate them into two groups: System uncertainty & Environmental uncertainty. System uncertainty includes uncertainty related with the process of production, such as uncertainty in the production lead time, uncertainty in production yield and uncertainty in quality such as changes in product structure. This research gives birth to a new stage in the theory related with Inventory management

**Lam and Wong (1996)** by developing the Dolan Model, the basic concept behind the development of this model is proper coordination between seller and buyer inventory strategy that mutually benefitted both of them. In order to solve the joint economic lot size problem (JELS) with several Price breaks they apply fuzzy mathematical programming

**Chang (1999)** recognizes an inventory model of production in which the product quantity is considered as fuzzy number. Numerically he compares crisp and fuzzy model approach to solve this problem. Lin and Yao (2000) consider the optimal solution in solving the fuzzy case of

economics.

**Hsieh (2002)** introduces two fuzzy production inventory models with nebulous parameters for calculated production quantity. Total inventory cost of fuzzy production under these models based on the fuzzy arithmetic operations of function principle. The researcher tries to find optimal solution for the proposed model by the use of Graded Mean Integration Representation system by de-fuzzifying entire total production inventory cost and by the use of Lagrangean method to solve the problem of inequality constrain. Inventory models that concentrate on the issue of inventory coordination between a seller and a buyer is mainly studied in the literature. Joint economic lot sizing (JELS) model is the name given to this class of inventory model.

**Ms. Kulkarni S.M and Rajhans N.R (2012)** conducted the research on Determination of Optimum Inventory Model for Minimizing Total Inventory Cost, ELSEVIER publication in this paper they have tried to find out the total saving by calculating cost through various method but they didn't mention the demand type which arises the need of study on the basis of demand types because each raw material has different demand and supply relationship.

**Research gap:** For maintain inventory management and ordering cycle company

need to categorized types of raw material and there demand cycle , after reviewing above studies we can analyze that there is gap of study on demand determination and ordering cost . This paper will find the optimal ordering policy at uncertain demand.

## 2. METHODOLOGY

### 2.1 Selection of study

A medium scale industry consist of number of items that variants in cost and quality hence selecting the item of study is quite important 2.1. Selection of items for study. Production manager should pay fairly watch on choice of raw material, for this they can choose ABC model or EOQ model

ABC model classify the raw material according to their requirement , item under category A are those who are rarely used (top management) B are those who are often used (middle management) and are those who are frequently used (operational management) .

At medium scale industry mostly show following inventory pattern

Item category	Percentage usage	Item in firm
A	70 to 80 %	4 out of 30
B	50 to 30%	8 out of 30
C	5 to 10 %	18 out of 30

**(Table 2.1 percentage of items used according to ABC analysis)**

Hence selection can be classified like

Item 1: Raw material with the highest yearly consumption value

Item 2: Raw material with the medium annual consumption

Item 3: Raw material with the lowest annual consumption

### 2.2 Assumption:

In our study we have analyze the firm data only for one financial year hence lead time will be consider as zero and ordering cost will be constant throughout the financial year .

As cost of inventory or holding will be cost of next 'n' unit order and there will be no carrying cost.

## 3. DATA ANALYSIS

With the help of above given table 1.2 we can clearly understand the items have different demand and size pattern, in medium scale industry this would be the most appropriate factor for continuous deviation in ordering cost hence after calculating mean and deviation we can easily calculate the co- variance between the items of same category, calculating the same with the help of table 1.2

With this we can easily proof the fluctuation of order cost on the basis of demand.

### (Table 3.1 Co-variance analysis)

Now will be considering price factor with



Demand based analysis	Item 1	Item 2	Item 3
Mean	17	44.58	0.58
Standard deviation	6.8	13.7	0.49
Co-variance	40	30	84

the help of highest and lowest usage value as well as annual impact

Amount		Difference
highest value	1500	1487
lowest value	13	
highest cost	3000	2999.5
lowest cost	0.5	

(Table 3.2 calculating the difference between highest and lowest amount)

With the help of table 3.2 we can now calculate the highest and lowest consumption rate of the items

Consumption status	Consumption in amount
Highest	50 % of items
Lowest	22 % of the items

(Table 3.3 consumption rate of item)

On the basis of table 3.1, 3.2 and 3.3 company had calculated consumption rate of raw material and both highest and lowest consumption amount now it will help them to find out next ordering cycle before the inventory becomes zero and tries to minimize the inventory and carrying cost.

#### 4. INVENTORY ANALYSIS

With the help of following methods we will try to calculate the ordering cost to minimize the uncertain expenditure in medium scale industry.

Method	Calculation technique	Cost per method (table 1.2 & 3.2)
Lot for lot	Net requirement for each period will be order quantity also called discrete analysis	299700
Economic order quantity	Twice of total annual demand and total cost per order divided by holding cost $\frac{\sqrt{2SD}}{H}$	330400
Period order quantity	Planning period (weekly) into EOQ divided by annual demand = $P \cdot EOQ/A$	299700
Least unit quantity	Adding ordering and inventory cost and divide by number of unit in each lot ( choose the lot size with lowest unit cost) = $O+I/n$	317700

(Table 4.1 explaining the cost analysis under different models)

Now calculating the same cost with the help of Wagner –Whitin method and try to analyze whether it will provide least cost or not, as we have seen lot for lot and period order quantity has same value because in our research we have assume holding cost zero and ordering cost constant for whole year .

Wager -Whitin algorithm is suitable for those medium scale industry where we have different lot sizes that means demand is not fixed it varies from period to period, for this

we try to calculate minimum cost for time period 1 to t then function will be F (t) in our study we have twelve months or one financial year so for next period order cycle value of t will be t\*+1(till it complete N cycle) it will calculated same for all items 1, 2 and 3

$$F(t) = \text{Min} [\sum_{t=1}^n PXt + ItEt + YtSt]$$

Whereas P is production cost per unit

Xt production quantity under time t

It inventory handling cost

Et ending inventory carried in next period

Yt dummy variable (representing as 1)

St Set up cost

In this case we have to assume setup cost (functional value 1) as it cannot be zero and other variable can remain same as previous assumption

Method	Calculation technique	Cost per method (table 1.2 & 3.2)
Wager	F(t)= Min [	299700
Whitin	$\sum_{t=1}^n PXt + ItEt + YtSt]$	

(Table 4.2 calculation of cost under Wagner Within algorithm)

Hence we can easily analyze that either in dynamic or constant ordering cost the value fluctuation is nominal but at the Economic order quantity it is highest therefore for medium scale industry we can incorporate other methods with minimum cost such as Wager –Whitin.

Method	year 2016-	2017-2018	2018-2019

	2017		
	producti on line 2/ item 18	producti on line 3/ item30	producti on line 5/ total item30
Lot for lot	80000	254000	299700
Economic order quantity	150050	280000	330400
Period order quantity	83505	250500	299700
Least unit quantity	138000	248080	317700

(Table 4.3 inventory analysis of last three sessions)

During the year 2016-2017 company is having only two production lines therefore need of raw material is quite low at that stage company completes the production process with eighteen types of raw material , in the next year 2017-2018 they increase one production line but requirement of raw material increases from eighteen to thirty it could be symbol of producing altogether different product in past session company started two more production lines now total lines of production increase to five but requirement of raw material remains same this shows achieving optimal ordering with certain demand .

Profitability analysis(p1)	Profitability analysis(p2)
174000	45700
129950	50400
166995	49200
110080	69620

(Table 4.4 profitability analysis for 2017to 18 and 2018 to 19)

Profitability is continuously increasing

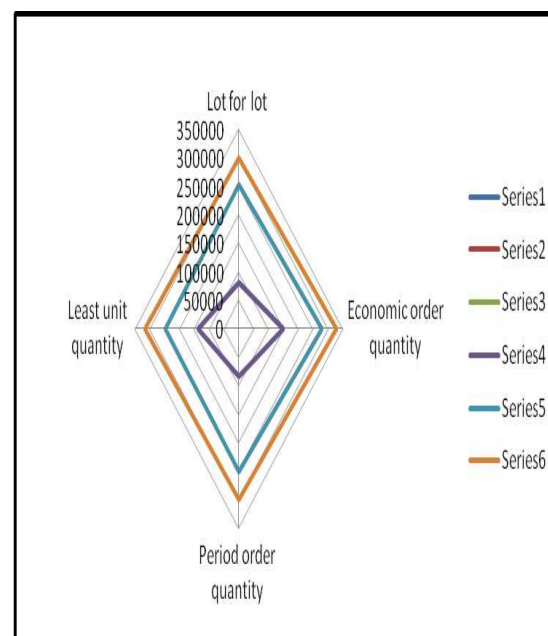
from each past year as company has understand the policy of maintaining optimal order policy , without increasing the types of raw material company manages to produce more output . After analyzing the table 4.3 for the year 2017-18 and 2018-19 company has increased production lines without increasing the raw material requirement therefore slight change in profit is noticeable but in the case of comparing from year 2016-17 company has shown far better performance

Medium scale industry need to maintain minimum inventory cost on uncertain demand, after calculating lot of lot cost and period order cost company can suggest there reorder point when previous stock is nil but they need to maintain stock for further sale but at certain demand company can also reduce inventory cost as well as ordering cost .

## 5. CONCLUSION

With the above study wayer equation provide the minimum inventory cost on yearly basis with the help of calculating highest and lowest value, cost and consumption of all the three items and also their usage in the firm out of thirty total items. Mean time we have also noticed difference in demand of goods and hence cost can be increased by increasing number of ordering cycle. In this study we can

assume inventory and holding as null because we are ordering next ‘n’ cycle of order when previous inventory becomes zero.



( Fig 5.1 frequently analysis for last three years )

With the help of above figure 5.1 it is noticeable that there can large variation between items required and because of this production manager cannot consider all items under one head he need to identify different heads for each item. Percentage of total inventory cost is high as compared to economic order quantity model. Wager – Whitin and Periodic order model shows minimum variation therefore production manager can use the Wager Whitin algorithm for calculating optimal ordering policy for medium scale industry under certain and uncertain demand.

## REFERENCES

1. **Chase R.B., Aquilano N.J., Jacobs F.R. (2002).** Operations Management for Competitive Advantage, Tata McGraw Hill, New Delhi, India.
2. **Hira D.S., Gupta P.K. (2009).** Operations Research, S. Chand & Company Ltd., New Delhi, India.
3. **Taha H.A. (2009).** Operations Research-An Introduction, Pearson Prentice Hall, Indian Edition.
4. **Sharma J.K., (2009).** Operations Research theory & Applications, MacMillan Publications, New Delhi, India.
5. **S. K. Goyal (2009).** "Economic order quantity under conditions of permissible delay in payments," *Journal of the Operational Research Society*, vol. 36, no. 4, pp. 335–338, 1985.
6. **K.-J. Chung and Y.-F. Huang (2003).** "The optimal cycle time for EPQ inventory model under permissible delay in payments," *International Journal of Production Economics*, vol. 84, no. 3, pp. 307–318, 2003.
7. **J.-T. Teng (2002).** "On the economic order quantity under conditions of permissible delay in payments," *Journal of the Operational Research Society*, vol. 53, no. 8, pp. 915–918, 2002.
8. **M. K. Salameh, N. E. Abboud, A. N. El-Kassar, and R. E. Ghattas (2003).** "Continuous review inventory model with delay in payments," *International Journal of Production Economics*, vol. 85, no. 1, pp. 91–95, 2003.
9. **S. K. Goyal and B. C. Giri (2001).** "Recent trends in modeling of deteriorating inventory," *European Journal of Operational Research*, vol. 134, no. 1, pp. 1–16, 2001.
10. **Goswami and K. Chaudhuri (1991).** "EOQ model for an inventory with a linear trend in demand and finite rate of replenishment considering shortages," *International Journal of Systems Science*, vol. 22, no. 1, pp. 181–187, 1991.
11. **T. Chakrabarti and K. S. Chaudhuri (1997).** "An EOQ model for deteriorating items with a linear trend in demand and shortages in all cycles," *International Journal of Production Economics*, vol. 49, no. 3, pp. 205–213, 1997.
12. **B. C. Giri, T. Chakrabarty, and K. S. Chaudhuri (2000).** "A note on a lot sizing heuristic for deteriorating items with time-varying demands and shortages," *Computers and Operations Research*, vol. 27, no. 6, pp. 495–505, 2000.
13. **K. Jalan and K. S. Chaudhuri (1999).** "Structural properties of an inventory system with deterioration and trended demand," *International Journal of Systems Science*, vol. 30, no. 6, pp. 627–633, 1999.
14. **M. A. Hariga and L. Benkherouf (1994).** "Optimal and heuristic inventory replenishment models for deteriorating items with exponential time-varying demand," *European Journal of Operational Research*, vol. 79, no. 1, pp. 123–137, 1994.
15. **H. M. Wee (1995).** "A deterministic lot-size inventory model for deteriorating items with shortages and a declining market," *Computers and Operations Research*, vol. 22, no. 3, pp. 345–356, 1995.
16. **M. M. Jamal, B. R. Sarker, and S. Wang (1997).** "An ordering policy for deteriorating items with allowable shortage and permissible delay in payment," *Journal of the Operational Research Society*, vol. 48, no. 8, pp. 826–833, 1997.
17. **Chawla, C., & Jain, V. (2017).** Problems and Prospects of Tourism Industry in India-With Special Reference to Uttar Pradesh. CLEAR International Journal of Research in Commerce & Management, 8(9).

## Go Green: Role of Green HRM Practices in Organizational Sustainability

Dr. Minisha Gupta

Researcher, Quality Cognition Private Limited, Sweden

### Abstract

Green HRM is the inclusion of sustainable HRM practices in organizations. Green HRM has been studied recently with a focus on HR functions. However, the role of Green HRM practices in attaining organizational sustainability is yet to be explored. Therefore, this study reviews the literature on Green HRM practices with the objective to identify their role in attaining organizational sustainability with the changing dimensions of international business. The study has been conducted by reviewing a dearth of literature on Green HRM. 20 recent papers were included in the study to draw inferences for future research work. The study reveals that Green HRM practices namely developing green ability, motivating green employees, and facilitating green opportunities can help organizations in creating a niche for themselves and help in attaining sustainable competitive advantage.

Keywords: Green HRM, Organizational sustainability, Review of literature, International business.

### 1. Introduction:

With the increasing rate of environmental pollution, global warming, and biodiversity loss, every economy is seeking sustainable

solutions. This impacted the business organizations due to the constantly changing customers' expectations and recently emerging concerns from the upcoming job seekers (Teixeira et al., 2012). Irrespective of their sector, organizations are judged on the basis of their policies towards maintaining sustainable and green environment. Thus, for attaining sustainable competitive advantage, organizations are shifting their focus on initiating and implementing Green HRM practices.

Human resources are the drivers of maintaining a sustainable environment within the organization because they align organizational policies with sustainable developmental goals while focusing on environmental sustainability. They align company's strategies, core values, and culture with environment while addressing constantly changing customer needs, dynamic social trends, stakeholders' interest, and governmental rules. HR team creates a green environment where employees share the responsibility of maintaining environmental sustainability while striving to attain organizational sustainability. Previous research studies explain about the models, theories, and

determinants of Green HRM however, the role of Green HRM practices in attaining organizational sustainability is still to be explored. Thus, this study has been initiated to review from the literature about the role of GHRM in attaining organizational sustainability.

The study has been arranged in the following format. The next section will explain about the methodology used for reviewing literature, and after that an extended review of literature has been discussed below. A table of recently published significant articles was prepared which helps the futuristic scholars to pursue this research. On the basis of literature review, few findings were extracted which explain the role of GHRM practices upon organizational sustainability. Finally, the study was concluded with future research directions.

## **2. Review Method:**

The paper is based upon an enhanced review of literature to explore and describe the role of Green HRM practices in organizational sustainability. An enhanced review of literature helps to observe, summarize, and identify the major findings from the previous literature (Tranfield et al., 2003). The review method implemented in this study is based on the work of Yong et al., 2019. The review approach includes four main steps: duration of research work, selection of database, and selection of

articles.

**2.1 Duration of research work:** The research work has been compiled within the span of six months from April 2021 till September 2021. The time duration for reviewing the articles was selected from 2007 to 2021. In the year 2007, the importance of environmental training for cleaner production in Indian industry was highlighted in a research (Unnikrishnan & Hegde, 2007) due to which the research duration starts from January, 2007 and ends till September 2021. Most recent 20 papers were described in the review of literature.

**2.2 Selection of Database:** In order to carry out this study, online databases were researcher to identify relevant literature on Green HRM. Research articles and papers written in English language were selected from the databases including Science Direct, Emerald Insight, Springer Link, Taylor & Francis, Wiley Online Library, and SAGE Publications. Considering the requirement of the research study, only relevant and recent papers were used in this study.

**2.3 Selection of Articles:** In order to select the articles carefully for the research work, specific keywords were used while searching literature from the databases. The keywords included “Green human resource management”, “Green human resource”, “Green HRM”, and “organizational sustainability”, in the above defined online

databases. Then, articles having these keywords were selected from the available ones. Later, after reading the abstracts, most relevant articles were selected finally for the study.

### 3. Literature Review:

#### *Green HRM*

Green human resource management or Green HRM is a recently developed terms which has numerous advantages for the organizations in the times of dynamically changing business scenario (Aizgool et al., 2020). It has recently attracted research scholars from both developing and developed economies. GHRM can be explained as, HRM related aspects of environmental management (EM) and concentrates on the impact of HRM practices in saving environment by transforming organizational policies and structures (Renwick et al., 2008; Renwick

et al., 2013). GHRM practices are the combination of HRM practices and strategic HRM measures used by companies to save the environment and make it pollution free (Gholami et al., 2016).

GHRM practices are adopted into organizational systems at individual, group, and organizational level. Once organizations implement GHRM practices, their employees also shoulder the responsibilities of maintaining sustainable practices to preserve the nature and environment. They respond to support organizational policies and by leveraging their skills and abilities, organizations try to attain sustainable competitive advantage.

A table of recently selected 20 most important paper is given below:

**Table 1. Recently cited 20 significant papers on Green HRM**

No.	Author & Year	Country	Area/ Field of Study	Type of Paper
1	Fawehinmi, 2019	Malaysia	Education	Research Paper
2	Kim et al., 2019	Thailand	Hotel Industry	Research paper
3	Liboni et al., 2019	Brazil	General	Review Paper
4	Manmoud, 2019	Bahrain	Private companies	Research paper
5	Pham et al., 2019	Czech Republic	Manufacturing, Service,	Review Paper
6	Yong et al., 2019	Malaysia	General	Review Paper
7	Yong et al., 2019	Malaysia	Manufacturing	Research Paper
8	Srivastava et al., 2020	India	Education	Research Paper
9	Aboramadan, 2020	Italy	Education	Research Paper

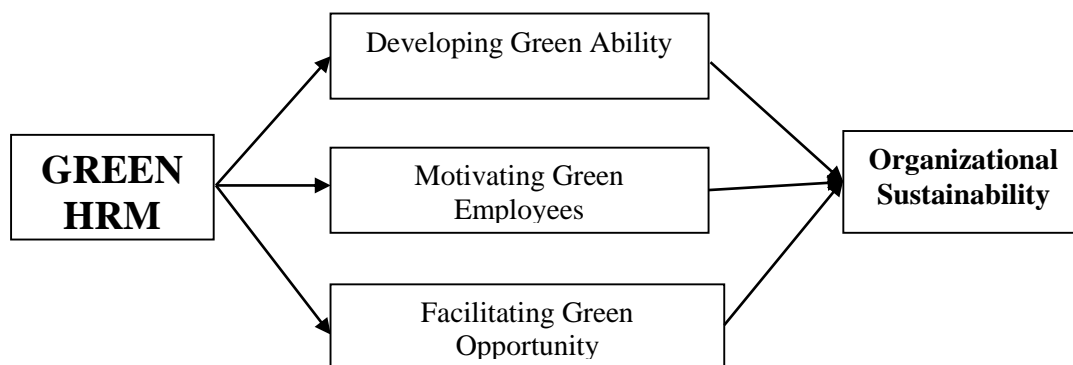
10	Cabral, 2020	India	General	Review Paper
11	Ghouri, et al, 2020	Malaysia	Manufacturing	Research Paper
12	Liu, 2020	China	Manufacturing	Research Paper
13	Mohammed, 2020	Italy	Education	Research Paper
14	Ojo et al., 2020	Malaysia	IT	Research Paper
15	Rubel et al., 2020	Bangladesh	Banking	Research Paper
16	Song et al., 2020	China	Manufacturing, Service & IT	Research paper
17	Tuul & Bing, 2020	China	General	Review Paper
18	Ababneh 2021	UAE	Hotel Industry	Research Paper
19	Rubel et al., 2021	Bangladesh	Banking	Research Paper
20	Alzgoool et al., 2021	Pakistan	Food Industry	Research paper

These research studies are from developing economies namely, India, China, Bangladesh, and Malaysia. These rapidly growing economies are constantly expanding their business operations to attain profits. However, with every expansion comes the risk of exploiting natural resources including land, environment, plantation which is also one of the big reasons for global warming. Thus, organizations from different sectors

are initiating Green HRM practices for themselves and their employees so that they can further leverage upon the skills of their employees.

**Findings of the Study:**

Green HRM basically has three components namely, developing green ability, motivating green employees, and facilitating green opportunity to the employees (Renwick et al., 2013).



**Figure 1. Green HRM leading to Organizational Sustainability**



Above stated figure is a concept which explains that, Green HRM leads to organizational sustainability. It develops green ability among employees, which is implementing green methods and processes while recruiting and selecting employees for the organization (Renwick et al., 2008). A specific job description explaining their roles in terms of environmental reporting, health and safety measures, harmful products which employees are exposed to, and green skills or competencies of employees. Companies conduct green orientation for their employees to ensure that they fully understand the organizational culture about maintaining and preserving environment.

Companies motivate their green employees by evaluating their performance. Performance standards are set by organizations by amalgamating topics such as environmental safety, taking responsibility to make environment green, communicating environmental concerns, and measures for making environment green. Training and development is the major intervention to manage waste and increasing awareness among employees to initiate activities like recycling waste, cluttering waste, ensuring minimum wastage, and innovating ways to safe environment.

Companies facilitate green opportunity to employees by injecting entrepreneurship

among them. Employees are facilitated to take risks and seek novel solutions for managing environment and ensuring sustainability. Their creative and innovative efforts are appraised and promoted by implementing them in the organization.

Organizations are able to meet balance between the three main pillars of environment sustainability which are, People, Planet, and Profit, by implementing Green HRM practices resulting into organizational sustainability. Organizational sustainability is maintaining long term business operations while satisfying customers' changing demands, maintaining green environment, meeting the demands of stakeholders, sustaining competition, and managing social needs. When organizations manage the dimensions of sustainable goals by implementing Green HRM then they are able to attain organizational sustainability.

### **Conclusion:**

This study explains the role of GHRM in attaining organizational sustainability. From the review of literature it has been identified that, previous studies were conducted in the field of marketing with specific focus on IT, hospitality, education, food, and manufacturing industry (Ojo et al., 2020, Alzgool et al., 2021). However, retail, construction, pharmaceuticals, FMCG, and other few industries are still to

be studied. Thus, future researchers can look for both qualitative and quantitative studies in this field and contribute to the literature.

#### References:

1. **Ababneh, O. M. A. (2021).** How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, 64(7), 1204-1226
2. **Aboramadan, M. (2020).** The effect of green HRM on employee green behaviors in higher education: the mediating mechanism of green work engagement. *International Journal of Organizational Analysis*.
3. **AlZgool, M., Ahmed, U., Shah, S., Alkadash, T., & AlMaamary, Q. (2021).** Going green during COVID-19: Examining the links between green HRM, green supply chain and firm performance in food Industry of Bahrain: The moderating role of lockdown due to COVID-19. *Uncertain Supply Chain Management*, 9(1), 79-88.
4. **Cabral, C., & Dhar, R. L. (2020).** Green competencies: insights and recommendations from a systematic literature review. *Benchmarking: An International Journal*, 28 (1), 66-105.
5. **Fawehinmi, O., Yusliza, M. Y., Mohamad, Z., Faezah, J. N., & Muhammad, Z. (2020).** Assessing the green behaviour of academics: The role of green human resource management and environmental knowledge. *International Journal of Manpower*, 41(7), 879-900.
6. **Gholami, H., Rezaei, G., Saman, M. Z. M., Sharif, S., & Zakuan, N. (2016).** State-of-the-art Green HRM System: Sustainability in the sports center in Malaysia using a multi-methods approach and opportunities for future research. *Journal of Cleaner Production*, 124, 142-163
7. **Ghoury, A. M., Mani, V., Khan, M. R., Khan, N. R., & Srivastava, A. P. (2020).** Enhancing business performance through green human resource management practices: an empirical evidence from Malaysian manufacturing industry. *International Journal of productivity and Performance management*.
8. **Kim, Y. J., Kim, W. G., Choi, H. M., & Phetvaroon, K. (2019).** The effect of green human resource management on hotel employees' eco-friendly behavior and environmental performance *International Journal of Hospitality Management*, 76, 83-93.
9. **Liboni, L. B., Cezarino, L. O., Jabbour, C. J. C., Oliveira, B. G., & Stefanelli, N. O. (2019).** Smart industry and the pathways to HRM 4.0:

- implications for SCM. *Supply Chain Management: An International Journal*.
10. Liu, Z., Mei, S., & Guo, Y. (2020). Green human resource management, green organization identity and organizational citizenship behavior for the environment: the moderating effect of environmental values. *Chinese Management Studies*. Vol. ahead-of-print No. ahead-of-print <https://doi.org/10.1108/CMS-10-2019-0366>
11. Ojo, A. O., Tan, C. N. L., & Alias, M. (2020). Linking green HRM practices to environmental performance through pro-environment behaviour in the information technology sector. *Social Responsibility Journal*. Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/SRJ-12-2019-0403>
12. Pham, N. T., Hoang, H. T., & Phan, Q. P. T. (2019). Green human resource management: a comprehensive review and future research agenda. *International Journal of Manpower*, 41(7), 845-878.
13. Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, 15(1), 1-14.
14. Rubel, M. R. B., Kee, D. M. H., & Rimi, N. N. (2021). The influence of green HRM practices on green service behaviors: the mediating effect of green knowledge sharing. *Employee Relations: The International Journal*. Accessed from: DOI 10.1108/ER-04-2020-0163.
15. Song, W., Yu, H., & Xu, H. (2020). Effects of green human resource management and managerial environmental concern on green innovation. *European Journal of Innovation Management*.
16. Srivastava, A. P., Mani, V., Yadav, M., & Joshi, Y. (2020). Authentic leadership towards sustainability in higher education—an integrated green model. *International Journal of Manpower*, 41(7), 901-923.
17. Teixeira, A. A., Jabbour, C. J. C., & de Sousa Jabbour, A. B. L. (2012). Relationship between green management and environmental training in companies located in Brazil: A theoretical framework and case studies. *International Journal of Production Economics*, 140(1), 318-329.
18. Tuul, O., & Bing, S. J. (2020). Green human resource management: a Theoretical review. *Proceedings of the Mongolian Academy of Sciences*, 39-47.
19. Yong, J. Y., Yusliza, M. Y., & Fawehinmi, O. O. (2019). Green human resource management: A systematic

- literature review from 2007 to 2019. *Benchmarking: An International Journal*, 27(7), 2005-2027.
20. **Wen, J., Mughal, N., Kashif, M., Jain, V., Meza, C. S. R., & Cong, P. T. (2022).** Volatility in natural resources prices and economic performance: Evidence from BRICS economies. *Resources Policy*, 75, 102472.
21. **Jain, V., Purnomo, E. P., Islam, M., Mughal, N., Guerrero, J. W. G., & Ullah, S. (2021).** Controlling environmental pollution: dynamic role of fiscal decentralization in CO2 emission in Asian economies. *Environmental Science and Pollution Research*, 28(46), 65150-65159.
22. **Sun, Y., Anwar, A., Razzaq, A., Liang, X., & Siddique, M. (2021).** Asymmetric role of renewable energy, green innovation, and globalization in deriving environmental sustainability: Evidence from top-10 polluted countries. *Renewable Energy*.
23. **Jain, V., Navarro, E. R., Wisetsri, W., & Alshiqi, S. (2020).** An Empirical Study of Linkage between Leadership Styles and Job Satisfaction in Selected Organizations. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3720-3732.
24. **Setiawan, R., Kulkarni, V. D., Upadhyay, Y. K., Jain, V., Mishra, R., Yu, S. Y., & Raisal, I. (2020).** The Influence Work-Life Policies Can Have on Part-Time Employees in Contrast to Full-Time Workers and The Consequence It Can Have on Their Job Satisfaction, Organizational Commitment and Motivation (Doctoral dissertation, Petra Christian University).
25. **Jain, V., Chawla, C., Arya, S., Agarwal, R., & Agarwal, M. (2019).** An Empirical Study of Product Design for New Product Development with Special Reference to Indian Mobile Industry. Research Gate Publication, 81, 1241-1254.
26. **Jha, R. S., Jain, V., & Chawla, C. Hate Speech & Mob Lynching (2019): A Study Of Its Relations, Impacts & Regulating Laws.**
27. **Chawla, C., & Jain, V. (2017).** Problems and Prospects of Tourism Industry in India-With Special Reference to Uttar Pradesh. *CLEAR International Journal of Research in Commerce & Management*, 8(9).
28. **Chawla, C., Jain, V., & Mahajan, M. T. (2013).** A Study on Students' Attitude Towards Accountancy Subject at Senior Secondary School Level-With Reference to Moradabad City. *International Journal of Management*, 177-184.
29. **Jain, V., & Sami, J. (2012).** Understanding Sustainability of Trade Balance in Singapore Empirical Evidence from Co-integration Analysis. *View Point Journal*, 2(1), 3-9.

**A COMPARATIVE ANALYSIS OF PUBLIC PRIVATE & COOPERTATIVE  
SECTOR BANKS IN KUMAUN REGION, UTTARAKHAND: AN EMPIRICAL  
STUDY**

**Vaishali Bisht<sup>1</sup> & Prof. L.K.Singh<sup>2</sup>**

<sup>1</sup> Research Scholar, Department of Management Studies, Kumaun University Nainital.  
E-Mail: bisht.vaishali11@gmail.com

<sup>2</sup> Professor & Head, Department of Management Studies, Kumaun University, Nainital.

**Abstract**

With the outset of financial deregulation, banks in India are operating under intense competitive pressure. In such scenario, in order to sustain and prosper it has become imperative for banks to create and maintain long term healthy relationship with their customers. For procuring fresh customers and to withhold their existing customers, banks are switching from their traditional ways of banking to modern banking keeping in view the interests of the customers. Now they have become more customers oriented and implementing CRM as a basic function in their day to day working. The present study was conducted with an objective of comparing the CRM performance of different sector banks in Kumaun region of Uttarakhand. For this ten basic CRM functions performed by banks were identified and ranked based on customer's perception. The analysis was carried out separately for each category of banks using Henry Garret Ranking Method and the CRM performance of different sectors was compared based on these results. The results revealed that location of

ATM's and safety and security of deposits were top ranked CRM practices in all sectors of banks and cooperative banks should put in more efforts towards better implementation of CRM systems.

**Keywords:** Customer Relationship Management, Banks, Financial Deregulation, Customers Perception

**INTRODUCTION:**

In this era of Liberalization and Globalization, maintaining good relations with customers, which ultimately leads to customer satisfaction and retention, has become a really challenging task for the business. Earlier the customers were less demanding as they had little knowledge and exposure so the producer could sell in his own terms and took little effort towards customer commitment. But, a major transformation in customer behaviour has taken place after Liberalization. Evolving and sustaining a deep-rooted relationship with the customers primarily depends on three major determinants the quality of the product offered, the service quality and the attitude towards customers.

Through the study and application of Customer Relationship Management

(CRM) it is possible to enhance the marketing productivity and improve mutual value both for the organization and the customers by enhancing marketing efficiencies and elevating marketing effectiveness. Business enterprises can attain a high level of marketing efficiency by setting viable operational goals, which may include reduced cost of distribution, better organized system of order processing, lowering down the excess cost of acquiring new customers as well as through customer retention economies. Since marketing is consumer oriented, its effectiveness can be enhanced by judicious selection of customers for its different programs, providing customized products and services to serve the needs of individual customer, gaining customer loyalty and commitment, moving into new markets and developing new products, changing the nature of competition for their company.

C.R.M. provides assistance to the different sectors of the economy including banks for efficient utilization of the proficiency and knowledge of their employees in order to achieve the objectives of the organization. These dynamics permit the banks to expand their observation regarding the client's activities and their manner of decision making. Customer Relationship Management enhances the performance of the banks by offering superior client

facilities, providing required assistance to the marketing staff in order to seal contracts at a faster pace, cross-marketing their merchandises in a more efficient manner, develop competent contract hubs, acquire new clients, streamline selling, simplify selling process and boost their earnings.

CRM has become an essentiality in all the customer-oriented industries including banking industry. It helps banks in delivering refined personalized experience to their customers. It has proven to be a special weapon for banks which is extremely useful in achieving their marketing and sales targets and surpassing customer expectations. In recent years banks in India are investing enormously in CRM systems in order to create and foster long term relationship with the customers, delivering mutual benefits to both the parties. The basic objective behind these customer-centric activities is the concept that by delivering need based valuable services to their customers' banks can improve their competitive position and create superior profits.

#### **REVIEW OF LITERATURE:**

**Newell, (2000)** states that the true value of a company can be determined by the value they generate for their customers, and in turn the value that the customer repays to the company. It is also important to understand that the value cannot be

generated merely by large stock of information and upgraded technology. The real value exists in knowing your customers and utilizing this knowledge efficiently, to manage their customer relationship. He also emphasizes that customer knowledge is the essence of CRM.

Later **Royals,(2000)** revealed through his study that; unfortunately the companies are rarely converting customer information into customer knowledge, and hence are unable to deliver value to their customers. However, if a company transforms customer information into customer knowledge and utilizes this knowledge adequately for building relationship with the customers it will result in customer loyalty followed by profits. He also mentions that CRM if applied in an appropriate manner contributes to the profits.

**Ronald et al.,(2003)** conducted a study on “**Service Failure, Recovery: The Impact of Relationship Factor on Customer Satisfaction.**” The basic objective of the study was to find out the impact of customer relationship on customer satisfaction in case of service failures. The findings of the study disclosed that customer relationship acts as a weapon to defend a service organization from the negative impacts of service failures on customer satisfaction. Customers who wanted to create or maintain long-term

relationship were satisfied with the mere expectation of service recovery, which ultimately leads to greater customer satisfaction from the services delivered after recovery.

According to **Verhoef (2003)** CRM is a business activity that results in customer satisfaction and hence contributes to the profitability and revenue generation. CRM also referred to as relationship marketing, is an Information Technology assisted process that helps business to evaluate the buying behaviour and product/service requirement of the existing as well as prospective customers.

**Arvind Singh (2004)** states that in actual the most productive and preferable asset for an organization is its strong customer base rather than assets like building, fixtures etc. He enforces on taking customer service and related profitability to greater height through improved interactive banking and client links, which leads to enhanced customer relationship. He suggested that banks all over the globe must no longer work as profit or product driven distributors but rather as improved and novel service providers who focus on satisfying their customers. He also discusses how the basic nature of banking has changed drastically due to rapid technological developments, which are forcing the banks to reassess their strategies. The banks must therefore, focus more on managing customer relationship to

survive and grow in such volatile markets.

**Madhu and Kapoor (2008)** studied how customers perceived the services offered by the organizations' employing CRM differently. The result of the study was that the services provided by the banks employing CRM were rated more favorably as compared to the non-CRM banks. This shows that the CRM banks are providing superior services.

**Roy and Shekhar (2010)** points out that for their survival it has become crucial for Indian banks to adopt customer centric strategies that focus on maintaining and boosting long term relationship with existing customers.

#### **OBJECTIVES OF THE STUDY:**

The objectives taken for this research paper are as follows:

1. To analyze the perception of customer on C.R.M. factors in the public, private and cooperative sector banks in the Kumaun Region, Uttarakhand.
2. To evaluate the perceived service ranking of the clients in the banks of Kumaun Region, Uttarakhand.
3. To comprehend and analyze the efficiency of CRM factors in the banks of Kumaun Region, Uttarakhand.

#### **HYPOTHESES OF THE STUDY:**

The hypotheses taken for this research paper are as follows:

H1: There is no significant impact of different parameters on the efficiency of CRM.

H2: There is no significant difference between performance of public, private & cooperative sector banks.

#### **RESEARCH METHODOLOGY:**

The research methodology taken for this research paper is as follows:

- **Area of Study:** The six districts of the Kumaun region in the state of Uttarakhand were taken for this research paper.
- **Factor Construction:** 10 factors were considered after thorough studies which were directly related to Customer Relationship Management in the banking sector of the state. The district headquarters of each district was selected from the Kumaun region in the state of Uttarakhand. The places that were considered were District Almora (Headquarters Almora), District Bageshwar (Headquarters Bageshwar), District Champawat (Headquarters Champawat), District Nainital (Headquarters Nainital), District Pithoragarh (Headquarters Pithoragarh) and District Udham Singh Nagar (Headquarters Rudrapur).
- **Duration:** The study was conducted from January 2021 to June 2021.
- **Interview Schedule:** A schedule was constructed of 10 factors and the responses of the same were recorded.



- **Population:** 10 customers from each public, private and cooperative sector banks from each district were selected from the Kumaun Region, Uttarakhand.
- **Data Collection:** Primary method of data collection was used.
- **Data Analysis:** The responses were analyzed on the basis of Henry Garret Ranking Method. For which ten CRM functions were identified and ranked on a scale of 1 to 10 based on the responses of the selected customers. The ranking was done separately for each category of banks to compare the effectiveness of CRM practiced by them.

### DATA ANALYSIS AND INTERPRETATION

TABLE I HENRY GARRET FACTOR RANKING FOR PUBLIC BANKS

SL. NO.	FACTOR DESCRIPTION	TOTAL SCORE	PERCENTAGE {Total Score/100}	RANKING
F 1	Location of ATMs	8200	82.00%	I
F 2	Safety and Security	7000	70.00%	II
F 3	Availability of Stationery	3465	34.65%	IX
F 4	Adequate Cheque Drop Boxes	3944	39.44%	VII
F 5	Prompt Issue of Credit / ATM Cards	5200	52.00%	IV
F 6	Timely Renewal of Credit Card	3840	38.40%	VIII
F 7	Receipt of Statement in Time	5460	54.60%	III
F 8	Transparency in Service Charges	4140	41.40%	VI
F 9	Wide Acceptability of Card	4321	43.21%	V
F 10	Phone Banking Facility	1800	18.00%	X

Source: Field Survey

The factor that got highest rank was location of ATMs with a score of 8200. Safety & Security got the second highest rank with a score of 7000. Receipt of statement in time with a score of 5460 was

third. In fourth position were prompt issue of Credit/ATM cards with a score of 5200. Wider acceptability of card was fifth with a score of 4321. Transparency in service charges with a score of 4140 was sixth.

Adequate Cheque drop boxes with total score of 3944 were seventh. In eighth number was timely renewal of credit cards with a score of 3840. The penultimate

position was occupied by availability of stationery with a score of 3465. The last position was occupied by phone banking facility with a total score of 1800.

**TABLE II HENRY GARRET FACTOR RANKING FOR PRIVATE BANKS**

SL. NO.	FACTOR DESCRIPTION	TOTAL SCORE	PERCENTAGE {Total Score/100}	RANKING
F 1	Location of ATMs	6478	64.78%	II
F 2	Safety and Security	7420	74.20%	I
F 3	Availability of Stationery	1197	11.97%	VIII
F 4	Adequate Cheque Drop Boxes	1450	14.50%	VI
F 5	Prompt Issue of Credit / ATM Cards	1092	10.92%	X
F 6	Timely Renewal of Credit Card	1200	12.00%	VII
F 7	Receipt of Statement in Time	3780	37.80%	III
F 8	Transparency in Service Charges	2916	29.16%	IV
F 9	Wide Acceptability of Card	2900	29.00%	V
F 10	Phone Banking Facility	1134	11.34%	IX

**Source:** Field Survey

The factor that got the highest rank for private sector banks was safety & security with a score of 7420. Location of ATMs was second with a score of 6478. Third factor was receipt of statement in time with a score of 3780. Transparency in service charges with a score of 2916 was fourth. The fifth factor was wide acceptability of cards with a score of 2900. Adequate

Cheque drop boxes with score of 1450 was sixth. Seventh in tabulation with a score of 1200 was timely renewal of credit cards. Eighth position was taken by availability of stationery with a score of 1197. Penultimate position was occupied by phone banking facility with a score of 1134. Prompt issue of credit/ATM cards were last in tabulation with a total score of 1092.

**TABLE III HENRY GARRET FACTOR RANKING FOR COOPERTAIVE BANKS**

SL. NO.	FACTOR DESCRIPTION	TOTAL SCORE	PERCENTAGE {Total Score/100}	RANKING
F 1	Location of ATMs	8200	82.00%	I
F 2	Safety and Security	7000	70.00%	II
F 3	Availability of Stationery	3843	38.43%	VII

<b>F 4</b>	Adequate Cheque Drop Boxes	6786	67.86%	III
<b>F 5</b>	Prompt Issue of Credit / ATM Cards	5200	52.00%	V
<b>F 6</b>	Timely Renewal of Credit Card	5846	58.46%	IV
<b>F 7</b>	Receipt of Statement in Time	4200	42.00%	VI
<b>F 8</b>	Transparency in Service Charges	3600	36.00%	VIII
<b>F 9</b>	Wide Acceptability of Card	2900	29.00%	IX
<b>F 10</b>	Phone Banking Facility	1800	18.00%	X

Source: Field Survey

According to the ranking method location of ATMs with a score of 8200 was first. Safety & security with a score of 7000 was second. At the third place were adequate Cheque drop boxes with a score of 6786. The fourth position was taken by timely renewal of credit card with a score of 5846. Prompt issue of credit/ATM cards with a score of 5200 was fifth. At the sixth spot was receipt of statement in time with a score of 4200. Availability of stationery with a score of 3843 was seventh. At the eighth spot was transparency in service charges with a score of 3600. At the penultimate position was wide acceptability of card with a score of 2376. The tenth spot was taken by phone banking facility with a score of 1800.

**FINDINGS:**

1. All the banks were following CRM measures.
2. Some difference exists in the efficiency of CRM practices among different sector banks.
3. Location of ATM's and safety and security of deposits and operations were considered to be the top ranked services in all the categories of banks.
4. The phone banking services were ranked poorly for all the banking sectors hence banks must work towards improving their phone banking services in Kumaun Region.
5. The cooperative sector banks lag behind in proving customer oriented services so they must work more toward

developing customized services based on the needs of individual customers.

6. The issue of debit and credit card was found to be time-taking process in private sector banks.

**CONCLUSION:**

CRM is a basic function of every business venture including banks, which demands a comprehensive strategy and procedure to perform successfully. This all is not possible by merely purchasing C.R.M. software and implementing it in the day to day jobs of the banks. For this to happen the banking sector must collect accurate client information and develop a database based on their requirements and must decide upon how to use the available database and the selected software in the best of their interests.

**REFERENCES:**

1. Newell, F. (2000) Loyalty.com: Customer Relationship Management in the New Era of Internet Marketing. McGraw Hill, New York.
2. Royals, L. (2000), Planning for Relationship Marketing. Cranfield School of Management Marketing Management: A Relationship Marketing Perspective, 231-248.

3. Ronald, L.H., Ganesan, S., and Noreen, M. K. (2003) Service Failure Recovery: The Impact of Relationship Factors on Customer Satisfaction. *Journal of Academy of Marketing Science*, Vol .2(1), 7–28.
4. Verhoef, P., C., (2003) Understanding the Effects of Customer Relationship Management Efforts on Customer Retention and Customer Share Development. *Journal of Marketing*, Vol. 67, 30-45.
5. Josala, M., and Kapoor, S. (2008) CRM: A Comparative Tool for Indian Banking Sector. *Communications of the IBIMA*, 5 (1), 178-188.
6. Singh, A. (2004) Customer Relationship Management-New Horizons in Banking. *Journal of Banking*, Vol.14 No.2, 15.
7. Roy, S.K., and Shekhar V. (2010) Dimensional Hierarchy of Trustworthiness of Financial Service Providers. *International Journal of Bank Marketing*, Vol. 28, 47-64.
8. Anuradha, R., Sumathi, L. & Vetrivel, V. (2019). Effect of Customer Relationship Management in Public and Private Banks. *International Journal of Trend in Scientific Research and Development*, 3(5), 764-766.
9. Das, S.K. (2012). Customer Relationship Management in Banking Sector: A Comparative Study of SBI and Other Nationalized Commercial Banks in India. *Arth Prabandh: A Journal of Economics and Management*, 1(6), 68-82.
10. Das, S.K. (2012). Customer Relationship Management in Banking Sector: A Comparative Study of SBI and Other Nationalised Commercial Banks in India. *Arth Prabandh: A Journal of Economics and Management*, 1(6), 68-82.
11. Frow, P. & Payne, A. (2009). Customer Relationship Management: A Strategic Perspective. *JBM*, 3(1), 7-27
12. Sethi, A.S. & Singhal, B.P. (2015), Identification of Factors Affecting Tourism Destination Competitiveness: A Study in Uttarakhand, Avahan: A *Journal of Hospitality & Tourism*, 3(1), 48-56.
13. Wen, J., Mughal, N., Kashif, M., Jain, V., Meza, C. S. R., & Cong, P. T. (2022). Volatility in natural resources prices and economic performance: Evidence from BRICS economies. *Resources Policy*, 75, 102472.
14. Jain, V., Purnomo, E. P., Islam, M., Mughal, N., Guerrero, J. W. G., & Ullah, S. (2021). Controlling environmental pollution: dynamic role of fiscal decentralization in CO2 emission in Asian economies. *Environmental Science and*

- Pollution Research, 28(46), 65150-65159.
- 15.** Sun, Y., Anwar, A., Razzaq, A., Liang, X., & Siddique, M. (2021). Asymmetric role of renewable energy, green innovation, and globalization in deriving environmental sustainability: Evidence from top-10 polluted countries. *Renewable Energy*.
- 16.** Jain, V., Navarro, E. R., Wisetsri, W., & Alshiqi, S. (2020). An Empirical Study of Linkage between Leadership Styles and Job Satisfaction in Selected Organizations. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3720-3732.
- 17.** Setiawan, R., Kulkarni, V. D., Upadhyay, Y. K., Jain, V., Mishra, R., Yu, S. Y., & Raisal, I. (2020). The Influence Work-Life Policies Can Have on Part-Time Employees in Contrast to Full-Time Workers and The Consequence It Can Have on Their Job Satisfaction, Organizational Commitment and Motivation (Doctoral dissertation, Petra Christian University).
- 18.** Jain, V., Chawla, C., Arya, S., Agarwal, R., & Agarwal, M. (2019). An Empirical Study of Product Design for New Product Development with Special Reference to Indian Mobile Industry. *Research Gate Publication*, 81, 1241-1254.
- 19.** Jha, R. S., Jain, V., & Chawla, C. Hate Speech & Mob Lynching (2019): A Study Of Its Relations, Impacts & Regulating Laws.
- 20.** Chawla, C., & Jain, V. (2017). Problems and Prospects of Tourism Industry in India-With Special Reference to Uttar Pradesh. *CLEAR International Journal of Research in Commerce & Management*, 8(9).
- 21.** Chawla, C., Jain, V., & Mahajan, M. T. (2013). A Study on Students' Attitude Towards Accountancy Subject at Senior Secondary School Level-With Reference to Moradabad City. *International Journal of Management*, 177-184.
- 22.** Jain, V., & Sami, J. (2012). Understanding Sustainability of Trade Balance in Singapore Empirical Evidence from Co-integration Analysis. *View Point Journal*, 2(1), 3-9

**Dr. Avanish Kumar Shukla<sup>1</sup>, Avinay Avikash Kumar<sup>2</sup>**

<sup>1</sup>Associate Dean Research, College of Business Hospitality and Tourism Studies, Fiji National University Nasinu, Suva, Fiji Island. avanish.shukla@fnu.ac.fj

<sup>2</sup>Tertiary Scholarships and Loan Service, Manager Student Services, Suva, Fiji Island. avinaykmr@gmail.com

**Abstract:**

The conventional classroom format of face-to-face lectures is now the only focus of Indian educational institutions viz. Universities, Colleges and Schools and this is a huge issue in India. While many academic institutions have adopted blended learning, many others are still using antiquated methods. As a result of the sudden appearance of a devastating virus known as Covid-19 (SARS-CoV-2), a global panic ensued. Approximately 32 million students in India were unable to switch schools or universities, and all educational activities were halted as a result. In the wake of the COVID-19 outbreak, we have learned that change is inevitable. When the World Health Organization declared it a pandemic, educational institutions were compelled to grow and embrace platforms equipped with cutting-edge technology. Educators all across the world were forced to make an abrupt switch to teaching students online as a result of this unusual set of circumstances. Online teaching and learning has led numerous educational bodies that were previously reticent to amend their old-style teaching methods to do so. Online learning is discussed in the paper and a SWOC study of e-learning strategies is conducted during a time of crisis. Additionally, this research study sheds light on the emergence of education technologies and other star-ups

during pandemics and natural catastrophes and makes recommendations to academic institutions on how to address the issues connected with online learning. The research study will seek to analyse the origins of Covid-19, its influence on education, and its future implications. The role and significance of the internet for the duration of COVID-19, internet censorship in various parts of Western Uttar Pradesh, and, most significantly, this study will provide light on the critical situations of COVID-19.

**Keywords:** Education, COVID-19, Private Schools, Teachers, Internet

**Research Methodology:**

Mainly secondary sources were used to get data for this research work. In order to arrive at an objective conclusion, historical and contemporary works were employed to build a framework for the study. Covid-19's influence on India's educational system has been studied using data acquired for this purpose.

**Questions for Research:**

1. Is there a storey behind “COVID-19”?
2. By what means is India going to deal with “COVID-19”?
3. Is the online platform going to be a big deal at “COVID-19”?

4. Is it possible to replace instructors with virtual ones?
5. In order to assess the effect of "COVID-19" on Indian education?
6. Why are some sections of Western Uttar Pradesh experiencing limited internet access?

**The study's objectives are as follows:**

For the purposes of this evaluation, the following are to be assessed or examined:

1. What caused dangerous coronaviruses to surge in number and origin?
2. In what ways did the fatal virus affect India's educational system?
3. How the virus has affected underprivileged children and private teachers is depicted in this section.
4. To determine whether or not instructors can be replaced by virtual learning.
5. To determine the internet's maximum connection limit

**Introduction:**

The COVID-19 epidemic has shown vividly how important digital networks and service platforms are. We've gone from a "nice to have" to an essential part of our everyday lives thanks to the virtual platform that connects our houses to the online and the activities they enable. It's time to re-evaluate whether or not big corporations are too significant to be trusted to set their own norms of conduct. The development and binge of the distinct (2019-nCoV) corona-virus, or the SARS coronavirus 2, an health issue that threatens the entire globe

(SARS-CoV-2). It was first discovered in bats in Wuhan, Hubei province, China, in December of 2019 and has since been transmitted to people via an unknown intermediary animal. Inhalation or contact with contaminated droplets transmits the illness, which has an incubation period of 2–14 days. Fever, cough, sore throat, and other signs of illness such as shortness of breath, exhaustion, and malaise are common. Despite our physical separation, our minds and hearts remain intertwined. We don't seem to mind if a pandemic like COVID-19 restricts our ability to engage in any outside activity. There are two reasons for this: First, everyone is focused on surviving, and second, social media is making sure we don't miss anything! In addition to streaming services like Netflix, Hotstar, and Prime, we have seen a shift in how people interact with one another on social media. We'll remember this epidemic for how we exploited social media to its full potential for years to come.

**COVID-19 and its impact on Education:**

Many people were affected by the Corona-virus, which devised from China and binge at a frightening proportion world-wide. Every advanced nation has knelt before it in awe. Every industrialized country's efforts to improve its health care systems have failed. The rest of the world is baffled as to why this disease has yet to be cured. Benjamin Franklin, one of the country's first presidents, correctly predicted that the highest return on investment is found in education. Policymakers and rulers should take note of Franklin's investment analysis. In our

nation, especially in rural areas of Western Uttar Pradesh, education, a fundamental human right, is in a pitiful state. Once again, the situation has been altered by COVID-19. The planet is in danger from the Corona virus's Grasim gibbets. As a result, people are more afraid of it than the guardian god of death. The rulers' use of lockdown has proven crucial and successful. Simultaneously, almost two hundred countries worldwide spent a bunch of revenue on education to help their countries rise by increasing the number of hardworking individuals who want to prove their worth in any subject they want to pursue. Unfortunately, in our nation, the above segment is administered largely via inexperienced administrators who have been nominated by the governing coalition. More bureaucracy in the educational system leads to a decrease in the quality of educational services. Modern systems equipped with cutting-edge technology and highly trained teachers are the only ways to overcome the trauma. With this approach, the educational system's foundation will be strengthened, and its effectiveness will be greatly enhanced. It's impossible to make a difference without investing, and if it is done, it must be done correctly. Even after nine months, several sections of Western Uttar Pradesh still do not have access to 4G internet service at all. It's easy to see how this has impacted the education industry. Teaching using Google Classroom and YouTube needs a high-speed Internet connection. It irritates and pinches the 2G service. Not everyone in rural areas of Western

Uttar Pradesh can afford a smartphone, which creates a barrier to attending YouTube classes. In order to create cultures free of regionalism, dogma, and skewed perceptions of others, we feel education is essential. In our opinion, the world has begun to move at the pace of leopards, from fragmentation to unity. The more complicated or challenging the world grows, the more creative we must be in order to deal with it. The current century has unquestionably brought about a shift in perspective on what it means to be alive. The problem is that our country has yet to adapt its goals and objectives to the changing demands of the present and future. Whenever the Almighty infects a country with any ailment, that nation's treatment follows suit. This cure, however, can only be found by those who have the necessary training and resources to do it. A significant amount of money must be invested in education in order to break down all of the barriers. One of the most common Chinese proverbs is that if you desire a long life, you must teach others. I hope that decisive action will be taken to solve the most pressing issues that have yet to be addressed.

### **India's Reaction to the Crisis:**

#### **• Diksha portal**

It includes curriculum-aligned e-Learning content for students, instructors, and parents, such as video courses, worksheets, textbooks, and assessments. The curriculum was developed by more than 250 instructors who teach in several languages under the supervision of the country's C.B.S.E. and N.C.E.R.T. board.



These app may be used online or offline both. It has over 78,000 Electronic books in numerous languages for grades 1st to 12th developed by C.B.S.E. and N.C.E.R.T. additionally, the information may be accessed via QR codes included in textbooks. The software is available on the App Store for iOS & the GooglePlayStore for Android. “[www.diksha.gov.in](http://www.diksha.gov.in) or [www.seshaqun.gov.in/shaqun](http://www.seshaqun.gov.in/shaqun)”

#### • **E-Pathshala**

It is an N.C.E.R.T. - developed Electronic-learning application for grades 1st to 12th in a variety of idioms. The app includes books, videos, and audio files in Hindi, Urdu, and English for children, educators, and parents. In addition to the audio and video resources listed above, N.C.E.R.T. has also made 696 e-books and 504 flip books available on this website in a number of languages for grades 1st through 12th grade. Mobile applications are available. “[www.epathshala.nic.in](http://www.epathshala.nic.in) or [www.epathshala.gov.in](http://www.epathshala.gov.in)”

#### • **(NROER) National Repository of Open Educational Resources portal**

Additionally, it offers a broad variety of STEM-related games, such as participatory programs and movies for students and instructors in a variety of languages. Classes 1-12 have their content mapped to it, and instructors have access to materials that are in line with that. All in all, the database contains 15232 documents and files in 399 distinct collections as well as 2887 papers and 1543 multimedia assets in various languages. “<http://nroer.gov.in>”

#### **For Higher-Education**

##### • **SWAYAM Platform**

As the nation-wide online-educational portal, it provides access to 1899 courses in a wide range of academic disciplines, including high school (classes IX to XII), college (undergraduate and postgraduate), and professional training (certificate programmes). Because it's interwoven with traditional schooling, it's unique. SWAYAM courses can be transferred for credit (max. 20 percent). “<https://swayam.gov.in/>”

##### • **Swayam Prabha**

Dozens of television stations provide instructional information 24 hours a day, seven days a week. With a Door Darshan Free-Dish-Set-Top-Box and Antenna, you may watch these channels from anywhere in the country. Detailed information on the channel line-up and other features may be found in the portal. Classes from 9th to 12th grade, as well as undergraduate and graduate programmes in engineering, as well as courses for out-of-school youth, adults, and teachers in the arts, sciences, business, performing arts, humanities, and social sciences, are all represented on the network's programming schedule. “<https://swayamprabha.gov.in/>”

##### • **E-Post Graduate Pathshala**

This course is intended for post - graduate learners. During this lockdown time, post-graduate learners can use this portal for electronic-books, online courses, and learning resources. This platform's significance lies in the fact that students may use these resources

even if they don't have internet connectivity for entire diurnal. "<https://epgp.inflibnet.ac.in/>"

### **COVID-19 and Education: Positive Impact**

The COVID-19 epidemic has had a significant impact on India's school system, but educational institutions there have risen to the occasion and are doing all in their power to keep kids safe and well-supported at this time of crisis. The Indian education system was given the chance to evolve from a bygone period to a new one. In terms of beneficial effects, consider the following.

- In addition, COVID-19 has advanced the use of digital technology in education. There has been a shift in educational institutions toward a mixed learning model. Teachers and students alike were encouraged to become more tech-savvy as a result of the programme. Curriculum development and pedagogy have undergone a substantial shift as a result of new means of delivering and assessing learning. Additionally, it provides access to a huge number of students at once.
- Learning management systems (LMS) are becoming increasingly popular among educational institutions. Creating and enhancing learning management systems for educational institutions has provided a huge opportunity for the firms that have been developing and strengthening these systems (Misra, 2020).
- When schools are under lockdown, kids can't get their hands on textbooks or other

study materials, so they're forced to turn to digital versions instead.

- A new way of teaching and learning together is now possible, and there is a way to make things better in this area. Also, teachers and professors from all over the world can work together to learn from each other's skills (Misra, 2020).
- This epidemic has resulted in a dramatic increase in the use of online meetings, such as webinars and video conferences.
- In the pandemic, individuals were compelled to understand and utilize digital technology, which resulted in an increase in digital literacy.
- Learning materials are easily shared among students, and questions about those materials may be answered by email, text message, phone call, and various social media platforms alike "WhatsApp or Facebook".
- Teachers and students are able to connect with people from all over the globe because to the global reach of the Internet. Students were able to adapt to a global community.
- Throughout pandemics, learners are able to better cope their time through online schooling.
- Thru the epidemic crisis, most learners chose "ODL" mode because it supports self-learning, provides access to a wide range of materials, and allows students to tailor their learning to their own requirements.

### **COVID-19 & Education: Negative Impact**

COVID-19 has wreaked havoc on the education industry. It has had a number of detrimental effects on education, including the following:

- Classes have been halted and examinations at various levels have been postponed because of the disruption. In other cases, the yearly exams and entrance tests have already been postponed. Entrance to the programme was delayed. The damage of virtually three months of the 2020-21 academic year due to the lockdown has exacerbated the problem of continuity in education and made it more difficult for kids to return to school after a long absence.
- Due to COVID-19, most of the recruiting was postponed. With employers postponing the on-boarding of students, student placements may also be hampered. This pandemic is likely to raise the unemployment rate. Fresh graduates in India are afraid that their employment offers from private sector employers would be withdrawn due of the present economic scenario. As of the beginning of April, the jobless rate in India's metropolitan areas has risen to 30.9 percent, up from 8.4 percent in mid-March, according to the Centre for Monitoring Indian Economy (Educationasia.in). People's focus shifts away from schooling and toward finding work, as unemployment rises.
- There are instructors and students who aren't ready for online education. This rapid shift from face-to-face studying to online learning hasn't been easy for some teachers and students alike.
- Restrictions imposed by COVID-19 on international employment options may lead to job losses in other countries, and students may not be able to find work outside of India after graduation.
- There may be fewer job openings in other countries, and graduates may not be able to find work outside of India if this trend continues. As a result of COVID-19, numerous people lost their employment and just backed home from other countries also. This means that soon-to-be college grads may have a difficult time finding job that matches their abilities and interests. As a result of the strike, many students who were hired after campus interviews would be unable to begin their new jobs as scheduled. There's a chance that Indians who work abroad may be laid off. Recent graduates in India are particularly worried about missing out on job opportunities in the private sector owing to mobility limitations as a result of the current epidemic.
- Parents have a greater obligation to educate their children: some parents are well-educated and can lead their children, while others may lack the education necessary to teach the children at home.

- Nutritional loss due to school closure: The government of India's Mid-Day Meals programme is aimed to improve the nutrition of school-aged children across the country. The temporary cessation of school lunch programmes has major ramifications for pupils' daily nourishment as a result of the school closures. Mid-day meals are also a significant impact in increasing school enrolment, according to several research.
- Digital divide: Since many students have poor or no access to the internet, as well as a lack of access to computers, laptops, or mobile phones that can facilitate online learning, there may be a digital gap among students. According to numerous accounts, the shutdown has had a particularly negative impact on India's underprivileged pupils, who are now unable to take advantage of online learning opportunities. Online education and learning during pandemic COVID-19 might widen existing gaps between the affluent and the poor, urban and rural.
- As a result of the epidemic, the higher education industry has been severely impacted. In the worst-hit nations, many Indian students who were enrolled in several universities overseas are already fleeing, and if this trend continues, the demand for foreign higher education would plummet significantly in the future.
- School and college fees were not paid on time: Unemployment is expected to be a major issue for many parents during this lockdown, which might have an impact on private institutions that are incorporated into today's mainstream higher education system.
- Educational activities should be planned such that they preserve a social distance between students and the government and educational establishments. COVID-19 rules allow 30-40 percent of students and teachers to work in two shifts per day at schools and institutions.
- The availability of modern technology and the internet is an absolute need in our day and age. As a result, digital capabilities are essential if students are to complete their education during pandemics and the necessary setup must be made available to the most remote and impoverished places. Public subsidies are required to narrow the internet divide and keep students engaged in online education. Digital education has to be addressed by state governments and private organisations, not just the federal government.
- Distant learning raises many important issues that need to be addressed by the government and other stakeholders, including the availability and accessibility of Internet-enabled devices and safe learning environments as well as the development of teaching competencies for educators, families and learners to use digital-expedients.

### **Still Limited Connectivity:**

As the global community of the future grows, the Internet is taking the place of the town square. Why Shackles and fetters only exist in rural parts of western Uttar Pradesh. Every day, the percentage of people who use the Internet grows, like neurons in a massive brain, and this trend is projected to continue. In order to make the Internet accessible to everyone in the country, how can we restrict access to it in particular areas? Citizens should not be denied access to the Internet on the basis of law and order in today's world. The authorities in this country are refusing to listen to the innumerable calls for a reassessment of the existing deadlock despite the fact that the restrictions on Internet use have no basis, logic, or explanation. Students in remote locations are unable to participate in online classes due to a lack of internet access. In today's world, the internet is people's life support system, and the government is attempting to take away their freedom to use it. Why are there so many shackles and fetters in these places? When it comes to worldwide communities, "the Internet is becoming a sort of town square". The Internet has made us all feel like neurons in a massive brain. The number of people who use the internet on a regular basis is steadily rising, and this trend is projected to continue. To what end would restricting Internet access in specific regions of the country help India reach its Digital India goal of making the Internet open to everyone? Internet access is now a democratic right that should not be restricted

under the guise of maintaining public safety.

Today's Internet restrictions in this country are completely without validity or reasoning, yet the authorities refuse to listen to innumerable pleas for a reassessment of the existing deadlock. Many Western countries, including the United States, have openly voiced their displeasure with the government's decision to deny Internet access to millions of citizens, but the government has remained steadfast in its opposition and resolute in its refusal to back down from its position. Amnesty International has also voiced its displeasure with the government's decision.

### **The trials and tribulations of being a private school teacher:**

In the eyes of God, teachers are a great gift to us. People like them are what it takes to create a strong country and a better world. We learn the value of a pen over a sword from a mentor. In society, they are highly regarded for their efforts to improve the lives of others. They serve as the foundation of society, educating and improving the lives of those they come into contact with. A teacher isn't only a teacher; he or she is also an educator. They are able to play a variety of roles depending on the situation. When we're down, they become our best friends, and they treat us like their own children when we're injured. As a result, we can observe the power of a great teacher in influencing and guiding a student's development. Teachers in the private sector are more likely to feel undervalued, disrespected and underpaid than teachers in the public sector. But few people are

aware of the amount and scale to which private school teachers are exploited in a manner comparable to that experienced by the workers in our textile mills and brick kilns. For the first time, both students and parents agreed on the importance of educators in their children's education, thanks to Covid-19's outcome. All teachers have tightened their belts since the Covid-19 hit the road and are now providing their pupils with online education through a variety of online study tools. When it comes to online education in particular, Private School professors are making an enormous contribution. They haven't missed a thing in their quest to give students with access to quality online education. Teachers at private schools are often given commands by their principals, and they follow them with all of their hearts and minds. Orders include online examinations, reviewing of papers, preparation of tasks for pupils, and phone calls to parents regarding fees, among others. The principal of the school has little regard for the instructors' well-being. When Section 144 was implemented, private school instructors received morning calls from their principals telling them to report to school and do certain responsibilities. When it comes to the implementation of Section 144 and how these instructors would get to school, these principals have no idea. Private school instructors, on the other hand, are afraid to say anything because they know that if they do, they would be expelled or dropped from the school. It's a fact, nevertheless, that these instructors don't have

any other income than what they earn as educators. Since March 2020, no private school teachers have taken a dime from the school. You can only fathom how they will survive and feed themselves. As a result, in Western Uttar Pradesh, the private school industry grew to be an imperialistic industry. Only the education and professional lives of private school teachers are being severely disrupted by this continuous epidemic. May God have compassion on all private school instructors and provide them with the strength and resources they need to recover from their experiences of mental anguish and physical pain. It was agreed by the government that private teachers would be given some financial assistance. However, nothing has been done thus far, and the lives of private school instructors continue to be consumed by the flames of inaction. Assume the role of a public school instructor who receives a sizable monthly income from the government coffers while doing no work and teaching classes online. The administration assured a good state, but I'm not sure it's a welfare state if some citizens are going to bed hungry because they don't have enough food to eat. Beau Crate's children have been attending private schools instead of government institutions since they are receiving a better education. Why isn't the government setting a reasonable pay for private instructors, setting a reasonable price structure for private schools, and setting a reasonable transportation cost for private schools? There is a possibility that the authorities are deliberately backing private

school mobsters in order to elicit votes and donations from the public.

### **Can virtual learning take the role of teachers?**

With humanity's entire life at stake, COVID-19 has forced individuals throughout the world to live solitary lives within their own houses. The Internet has become their only source of hope. Even while physical contact is forbidden due to its possible role in the deadly spread of new coronaviruses, it is an important tool for individuals to keep in touch with each other in the virtual world. To stay on top of the latest developments in coronavirus research and treatment, as well as effective preventive strategies that the general public can learn about and implement to help keep the disease at bay in terms of its physical and psychological dangers and impacts, health practitioners rely on internet connectivity. In today's fast-paced society, learning is supposed to be as close as a mouse click away. E-books have replaced traditional books, and physical classes have been replaced with online courses. E-learning, or "edu-tech," is another name for the notion of an online learning environment, and the word "virtual learning" refers to it. An educational setting in which computers and the internet play a key role in the learning process is known as a virtual learning environment (VLE). They are meant to enhance the student's educational experience. Weblogs, discussion forums, audio and video conferencing, wikis and other social networking sites are all included in the VLE. Email and whiteboards are also part of the VLE.

This idea is gaining traction because of the positive impact it has on others. India's education system has been dramatically transformed by virtual learning. Because students are not dependent on teachers, classroom teaching has become more than just confined to a single room. Students can avoid the embarrassment of a classroom full of their peers and focus on their grades. As a result, students' self-esteem and enthusiasm for studying are boosted through virtual learning. Virtual learning's student-centered teaching methods decrease students' reliance on teachers while increasing their self-assurance. Students' self-esteem and motivation are boosted as a result of virtual learning, which is also advantageous from a pedagogical standpoint. The advent of online education has been like a breath of fresh air for anyone who has had difficulty grasping the notion of classroom instruction. Online discussions are easier to follow and the subject at hand is better understood this way. When all is said and done, can technology ever replace a teacher in the life of a student? Students have used schools as learning environments for decades. When you first meet new people, you begin to learn the skill of socializing. There's a lot more to choose from when it comes to educational institutions. It is the teacher who serves as a student's closest confidant, adviser, mentor, and cheerleader throughout his or her academic career. Teachers can never be replaced by electronic learning. It is the instructor who will save the day if the system suddenly fails due to a malfunction

involving both software and hardware. Using computers and the internet to teach students is at the heart of virtual learning. This undermines the fundamental tenets of education, to say the least. There is no one to lead, instruct, and force children to gain the social skills that are so critical in today's internet environment. Virtual learning is a new concept that has the potential to bridge the learning gap and be a valuable teaching tool in the classroom. Students who are more adept at using technology tend to fall behind their peers who are less adept. Since the teacher assumed this new role, it was her job to make the most of available technological resources while also meeting the individual requirements of each student. Throughout their lives, teachers have acted as mentors, guides, leaders and facilitators. Motivated, energized, and inspired the pupils to pursue their dreams. No robot or artificial intelligence machinery can perform this task. They cannot replace the teacher's warmth and concern with a machine of the same calibre. Although virtual learning resources have the potential to transform the teaching and learning process, they cannot totally replace teachers.

#### **Recommendations:**

1. For educational advancement, India should embrace all available technologies.
2. There should be no exploitation of teachers at private schools in India by the Indian government.
3. There should be no discrimination in the internet since it is a fundamental right of citizens.

4. Investing more in education is essential for India's future prosperity.
5. Students should be taught how to utilize the internet in the classroom so that they can use it effectively in the event of a disaster.
6. Teachers should receive instruction on how to use computers and other technological devices in the classroom.

#### **References:**

1. T. Abel, D. McQueen (2020), The COVID-19 pandemic calls for spatial distancing and social closeness: not for social distancing! Int J Public Health, 10.1007/s00038-020-01366-7 Google Scholar
2. D.K. Ahorsu, C.-Y. Lin, V. Imani, M. Saffari, M.D. Griffiths, A.H. Pakpour (2020), The fear of COVID-19 scale: development and initial validation Int. J. Mental Health Addiction, 10.1007/s11469-020-00270-8 Google Scholar
3. S.K. Brooks, R.K. Webster, L.E. Smith, L. Woodland, S. Wessely, N. Greenberg (2020), The psychological impact of quarantine and how to reduce it: rapid review of the evidence The Lancet, 395 (10227) (2020), pp. 912-920, 10.1016/S0140-6736(20)30460-8 ArticleDownload PDFView Record in ScopusGoogle Scholar
4. Schimmenti, J. Billieux, V. Starcevic (2020), The four horsemen of fear: an integrated model of understanding fear experiences during the COVID-19 pandemic Clin Neuropsychiatry, 17 (2), pp.



- 41-45 View Record in Scopus Google Scholar
5. Centers for Disease Control and Prevention. (2020). Coronavirus disease 2019 (COVID-19): Stress and coping. Retrieved 13 April, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/about/coping.html> Google Scholar
  6. M.A. Mamun, M.D. Griffiths (2020), First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: possible suicide prevention strategies *Asian J Psychiatr*, 51 (102073), 10.1016/j.ajp.2020.102073 Google Scholar
  7. B.K. Wiederhold (2020), Social media use during social distancing *Cyberpsychol Behav Soc Netw*, 23 (5), 10.1089/cyber.2020.29181.bkw Google Scholar
  8. K.R. Kaufman, E. Petkova, K.S. Bhui, T.G. SchulzeA (2020) global needs assessment in times of a global crisis: world psychiatry response to the COVID-19 pandemic *BJPsych Open*, 10.1192/bjo.2020.25 Google Scholar
  9. World Health Organization. (2020). Healthy At Home. Retrieved 18 April, 2020, from <https://www.who.int/news-room/campaigns/connecting-the-world-to-combat-coronavirus/healthyathome> Google Scholar
  10. D.L. King, P.H. Delfabbro, J. Billieux, M.N. Potenza (2020), Problematic online gaming and the COVID-19 pandemic *J Behav Addict*, 10.1556/2006.2020.00016
  11. C.H. Ko, J.-Y. Yen (2020), Impact of COVID-19 on gaming disorder: monitoring and prevention *Journal of Behavioral Addictions*.
  12. M.D. Blasi, A. Giardina, C. Giordano, G.L. Coco, C. Tosto, J. Billieux, (2019), Problematic video game use as an emotional coping strategy: evidence from a sample of MMORPG gamers *J Behav Addict*, 8 (1), pp. 25-34, 10.1556/2006.8.2019.02 Cross-Ref View Record in Scopus Google Scholar
  13. D.F. Jacobs (2018), A general theory of addictions: a new theoretical model *Journal of Gambling Behavior*, 2 (1), pp. 15-31, 10.1007/BF01019931 CrossRefView Record in ScopusGoogle Scholar
  14. O. Király, R. Urbán, M.D. Griffiths, C. Ágoston, K. Nagygyörgy, G. Kökönyei, (2015), Psychiatric symptoms and problematic online gaming: the mediating effect of gaming motivation *J Med Internet Res*, 17 (4), Article e88, 10.2196/jmir.3515 Cross-Ref View Record in Scopus Google Scholar
  15. J. Billieux, A. Schimmenti, Y. Khazaal, P. Maurage, A. Heeren (2015), Are we over pathologizing everyday life? A tenable blueprint for behavioral addiction research *J Behav Addict*, 4 (3), pp. 119- 123, 10.1556/2006.4.2015.009 CrossRefView Record in Scopus Google Scholar
  16. E.J. Khantzian (2013) Addiction as a self-regulation disorder and the role of self-medication *Addiction*, 108 (4), pp. 668-669

Cross-Ref View Record in Scopus, Google Scholar

17. Wen, J., Mughal, N., Kashif, M., Jain, V., Meza, C. S. R., & Cong, P. T. (2022). Volatility in natural resources prices and economic performance: Evidence from BRICS economies. *Resources Policy*, 75, 102472.
18. Jain, V., Purnomo, E. P., Islam, M., Mughal, N., Guerrero, J. W. G., & Ullah, S. (2021). Controlling environmental pollution: dynamic role of fiscal decentralization in CO<sub>2</sub> emission in Asian economies. *Environmental Science and Pollution Research*, 28(46), 65150-65159.
19. Sun, Y., Anwar, A., Razaq, A., Liang, X., & Siddique, M. (2021). Asymmetric role of renewable energy, green innovation, and globalization in deriving environmental sustainability: Evidence from top-10 polluted countries. *Renewable Energy*.
20. Jain, V., Navarro, E. R., Wisetsri, W., & Alshiqi, S. (2020). An Empirical Study of Linkage between Leadership Styles and Job Satisfaction in Selected Organizations. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3720-3732.
21. Setiawan, R., Kulkarni, V. D., Upadhyay, Y. K., Jain, V., Mishra, R., Yu, S. Y., & Raisal, I. (2020). The Influence Work-Life Policies Can Have on Part-Time Employees in Contrast to Full-Time Workers and The Consequence It Can Have on Their Job Satisfaction, Organizational Commitment and Motivation (Doctoral dissertation, Petra Christian University).
22. Jain, V., Chawla, C., Arya, S., Agarwal, R., & Agarwal, M. (2019). An Empirical Study of Product Design for New Product Development with Special Reference to Indian Mobile Industry. *Research Gate Publication*, 81, 1241-1254.
23. Jha, R. S., Jain, V., & Chawla, C. Hate Speech & Mob Lynching (2019): A Study Of Its Relations, Impacts & Regulating Laws.
24. Chawla, C., & Jain, V. (2017). Problems and Prospects of Tourism Industry in India-With Special Reference to Uttar Pradesh. *CLEAR International Journal of Research in Commerce & Management*, 8(9).
25. Chawla, C., Jain, V., & Mahajan, M. T. (2013). A Study on Students' Attitude Towards Accountancy Subject at Senior Secondary School Level-With Reference to Moradabad City. *International Journal of Management*, 177-184.
26. Jain, V., & Sami, J. (2012). Understanding Sustainability of Trade Balance in Singapore Empirical Evidence from Co-integration Analysis. *View Point Journal*, 2(1), 3-9.

**Dr. Anju Garg**

Associate Professor, Head of Department (Economics), D.A.V. College Bulandshahar, Uttar Pradesh.  
arunanjugarg@gmail.com

### **Abstract**

The goal of this study is to gain a better understanding of India's labour market and the relationship between unemployment and rate of inflation and gross domestic product of nation. We utilized facts from the year 2000-2019 in our investigation. To investigate the association among rate of unemployment of India, rate of inflation and gross domestic product, regression analysis is utilized. Two or more variables can be correlated by using regression analysis techniques. Unemployment is a dependent variable, whereas the gross domestic product (GDP) and inflation rate are both independent variables. The final study's findings are illustrated using a linear regression analysis. We can readily establish the effect of using linear regression analysis, determine the effect of rate of inflation and gross domestic product of India on joblessness in India. Redundancy is significantly predisposed by GDP.

**Keywords:** Gross Domestic Product (GDP), Unemployment, Economy, Inflation

### **Introduction:**

With a total population of 1.3 billion, India makes up around 20% of the global total. When it comes to unemployment, this means that it's not only an issue in India, but it's an issue worldwide. It is vital to do research and have a better grasp of the situation because of the high rate of unemployment in India. Unemployment

and economic growth are two of the most pressing challenges facing every emerging economy. Unemployment and poverty were a major problem when the country earned independence in 1947. (Pravin, 2013).

The "Youth Bulge" or "Demographic Dividend" appears to be one of the primary elements fuelling imminent economic expansion of India. Indian policymakers will have to deal with youth unemployment and underemployment for some time, even if the number of young people employed has lessened as college and school enrolment rates have escalated. These young people are an important asset to the economy, a driving force for social change, and a catalyst for technical innovation. Even while these resources are plentiful, it's difficult to put them to good use. This century's most pressing economic development challenge is sometimes referred to as the "Youth Conundrum".

### **Problem Statement**

India's unemployment problem is caused by a number of variables, many of which are unknown. In contrast, gross domestic product and rate of inflation are two of the utmost vital determinants of the country's unemployment rate. High unemployment in emerging economies like India is a result of both GDP and inflation, which are important factors in every growing country's economy. The underlying

study topics can be addressed by concentrating on the two primary elements that influence the rate of country's unemployment:

- 1) What is the effect of India's Gross Domestic Product on the rate of unemployment?
- 2) What is the effect of India's inflation rate on unemployment?

### **Literature review:**

Unemployment and inflation are the biggest challenges facing emerging economies. To establish if an inflation-unemployment trade-off exists, this article examines the rate of unemployment and inflation during a six-year period in the Indian economy. It used to be that a growth in inflation would lead to a decrease in joblessness, but this connection has now reversed.

According to **Xinhe's (2021)** the Phillips curve is the most essential tool, findings depicts the connection between rising wages and decreasing levels of unemployment. According to the study's conclusions, a lack of jobs has contributed to the rise in inflation. Every emerging market's economy struggles with high rates of unemployment. A correlation between inflation and unemployment was found, although this correlation is non-existent in India's economy. The future of India's economy depends on a well-trained and capable workforce. India's economy has reaped the benefits of rising school and college attendance proportions, as well as a higher share of the populace under 25 years of age, in recent years.

**Mehra (2018)** found that a substantial number

of literate young individuals are inept to obtain a job because of inelastic employment opportunities, which contributes to the problem of literate joblessness. Educational and tactical debates on the reasons of unemployment are not uncommon. As is generally known, an ever-increasing population need a wide variety of job opportunities. In many countries, including India, unemployment remains a big concern. Many studies have been undertaken in an effort to better understand the reasons of unemployment.

**Khem, Chand (2017)** in his study stated about economic growth metric was the gross domestic product. Estimates of gross domestic product and unemployment were based on data from the World Bank database. Regression analysis and Correlation were used to examine the impact of economic growth on the unemployment rate. The association between unemployment rates and economic growth has been proven to be significant. Another finding was that GDP explains 48% of the difference in unemployment rates.

### **Unemployment and its situation in India**

Economic growth relies heavily on the creation of new jobs. Diversification and development of the private sector is an important part of India's economic history. Growth has resulted in relatively stable economic systems in India. When compared to the preceding reporting period, there has been a large increase in collective employment. With relatively strong organized sector development and improved labour productivity, it is clear that further

reductions in real wages are insufficient to enable the creation of new jobs. Many emerging markets are experiencing an increase in the number of unemployed or underemployed people. All of these factors lead to joblessness on a personal level: hunger, disease, psychological stress, despair, and the loss of human values.

### **Types of unemployment:**

There are several types of unemployment. Cyclical unemployment is the term used to describe unemployment caused by shifts in the economic cycle. An imbalance between the demand and supply of labour might lead to "frictional unemployment." Structural unemployment can be caused by a lack of cooperative production components or by a shift in the economic structure of society. According to one expert, this isn't due to improvements in manufacturing processes, but rather organisational approaches. Joblessness disguised as ready for employment is actually a lack of other requirements that prevents them from finding work throughout the year. A detailed explanation of this is provided below.

- 1) Unemployment that fluctuates with the economy.
- 2) Secondly, there's "Frictional Unemployment."
- 3) Chronic Joblessness.
- 4) Unemployment Due to Technology
- 5) Masqueraded Joblessness

### **Methodology:**

As the name suggests, regression analysis seeks to find connections or correlations between a set

of independent variables. Unemployment is the study's dependent variable. It is possible for independent factors to impact (affect) the dependent variable. Gross domestic product and inflation rate are two independent variables of the study. Effect of gross domestic product and inflation rate on country's unemployment rate is determined by regression analysis. It is possible to understand how the dependent variable changes when a change is made to one or more of the independent variables using regression analysis.

The regression analysis was purposely used to obtain the least viable sum of squares and to generate a line that watchfully matches the statistics. Numerous values of  $R$ ,  $R^2$ , the significance of  $F$ , the coefficient and the  $P$ -value are included in the study. To be successful in our regression, we must pay close attention to the values listed above. We will, however, proceed to the next level of regression, which is known as linear regression. If two variables have a linear connection, the metric 'Multiple  $R$ ' can be used to assess the strength of that relationship. Known as the coefficient of correlation, its value can be anything from -1 to 1. Good and negative relationships are rated by the strength of their positive and negative aspects (Mazher, Gharlegghi, Fah, 2015). How trustworthy they are (statistically significant) may be determined by looking at their "Significance  $F$ " value. Your hypothesis is acceptable if Significance ( $F$ ) value is less than 0.10. (10 percent). A separate independent variable should be used if it's bigger than 0.10.

In order to better understand and visualize the link between the two variables, we'll perform a simple linear regression analysis. The null hypothesis that each independent variable has no relationship to the dependent variable is tested using P-values. Changes in the independent variable have no effect on the dependent variable if there is no correlation between them. The hypothesis is accepted if the p-value is less than 0.05; else, it is rejected. Because there is no substantial association

between the independent and dependent variables (Wadood, Gharleghi, Samadi, 2016).

### Unemployment Data

People who have been out of work for at least a month are considered to be jobless. The number of unemployed people varies according on the state of the economy and other variables. The following table displays India's unemployment rate from 2000 to 2019. (Bank, Macro Trends, and 2021).

**Table 1:** Unemployment rate in India from 2000 to 2019. (Bank, World Bank, 2019)

Year	Unemployment rate (%) (Y)
2000	5.75%
2001	5.73%
2002	5.77%
2003	5.77%
2004	5.72%
2005	5.65%
2006	5.52%
2007	5.41%
2008	5.36%
2009	5.61%
2010	5.65%
2011	5.65%
2012	5.66%
2013	5.67%
2014	5.60%
2015	5.56%
2016	5.51%
2017	5.41%
2018	5.33%
2019	5.27%

### Empirical Analysis

There is a table below showing India's unemployment rate since 2000, GDP, and inflation rate. Because the World Bank's

website is widely accepted, India's GDP figures are taken from this source. (The World Bank, 2019)

**Table 2:** Unemployment rate, GDP and Inflation rate of India from 2000 to 2019. (Bank, World Bank, 2019)

Unemployment Rate (%) (Y)	GDP.MKTP.CD (X1)	Inflation, consumer prices (Annual %) (X2)
5.75%	468395000000.00	26932712500
5.73%	485441000000.00	27815769300
5.77%	514938000000.00	29711922600
5.77%	607699000000.00	35064232300
5.72%	709149000000.00	40563322800
5.65%	820382000000.00	46351583000
5.52%	940260000000.00	51902352000
5.41%	1216740000000.00	65825634000
5.36%	1198900000000.00	64261040000
5.61%	1341890000000.00	75280029000

Unemployment Rate (%) (Y)	GDP.MKTP.CD (X1)	Inflation, consumer prices (Annual %) (X2)
5.65%	1675620000000.00	94672530000
5.65%	1823050000000.00	103002325000.00
5.66%	1827640000000.00	103444424000.00
5.67%	1856720000000.00	105276024000.00
5.60%	2039130000000.00	114191280000.00
5.56%	2103590000000.00	116959604000.00
5.51%	2294800000000.00	126443480000.00
5.41%	2652750000000.00	143513775000.00
5.33%	2713170000000.00	144611961000.00
5.27%	2868930000000.00	151192611000.00

**Summary output:**

As can be seen from this table, the linear regression equation closely fits the original

data. The following is a breakdown of the R-squared:

**Regression analysis output:**

Multiple R	0.561395131
R Square	<b>0.286513175</b>
Adjusted R Square	0.190808842
Standard Error	0.00142545
Observations	20

**Table 3: ANOVA Analysis**

	d. f.	sum of squares	mean squares	F-	Sig. (F)
<b>Regression</b>	2	0.0000100545	0.0000050273	3.2931058	0.0846319
<b>Residual</b>	17	0.0000285475	0.0000016793		
<b>Total</b>	19	0.0000424622			

**Table 4:** Regression Analysis of Unemployment rate gross domestic product and Inflation rate of India Analysis

	<b>Coefficients</b>	<b>SE</b>	<b>t-Stat</b>	<b>P-value</b>
<b>Intercept</b>	0.05636288200	0.000871525	67.64	0.0876660000
<b>GDP.MKTP.CD (X1)</b>	0.00000803437	0.00000379522	2.380000000	0.032184944
<b>Inflation, consumer prices (annual %) (X2)</b>	-0.00008537	0.000105229	0.799	0.471225799

	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
<b>Intercept</b>	0.059976539	0.064021802	0.059976543	0.064021804
<b>GDP.MKTP.CD (X1)</b>	0.0000170416	0.0000010272	0.00000000000000001704	0.000000000000000001027
<b>Inflation, consumer prices (annual %) (X2)</b>	0.000150301	0.000338128	-0.00015026	0.000338129

**Conclusion:**

India's gross domestic product has a significant influence on unemployment, whereas rate of inflation has minimal effect, according to our research. There is evidence that unemployment, GDP, and inflation are only somewhat related to one another, based on the study's findings. Unemployment, GDP, and inflation all have an effect on the standard of living of the average person in growing economies. Low unemployment, price stability, and other goals are aspired to by every emerging country's economies. Depending on the country, unemployment and inflation rates might trade off at different periods, especially in the near future.

This means that the Indian government (policymakers) should put their efforts towards

reviving India's economy and boosting the country's global competitiveness.

It's time for the Indian government to consider some of the recommendations offered in this report. The Indian government should place more emphasis on domestic prosperity than on importing foreign ideas. Another recommendation is that research and development funding be increased so that country may produce cutting-edge innovations that will increase employment whereas concurrently paying workers a fair wage. With the COVID-19 outbreak, India's economy was also severely affected. In the wake of this problem, many individuals have lost their employment throughout the world. People who have been laid off because of the crisis must be rehired by the government.



**References:**

1. **Chahal, M. (2018).** Unemployment Scenario in India. *International Journal in Management and Social Science*, 06(11), 135-139.
2. **Chand Khem, T. R. (2017).** Economic Growth and Unemployment Rate: An Empirical Study of Indian Economy. *Journal of Indian Economy*, 4(2), 130-137.
3. **Dr. Mahesh Kumar Kurmi, D. B. (June 2021, 06 25).** In-Depth Assessment of the Impact of Covid-19 on Indian Economy. *EPR International Journal of Economic and Business Review-Peer Reviewed Journal*, 9(6), 43-53.
4. **M. Rakna, N. M. (2017).** Causes and Effects of Unemployment in India. *Indo – Asian Journal of Multidisciplinary Research (IAJMR)*, 3(4), 1168-1171.
5. **Malayaranjan Sahoo, J. S. (2019).** The relationship between unemployment and some macroeconomic variables: Empirical evidence from India. *Theoretical & Applied Economics*, 26(1), 115-128.
6. **Mazher, U., Gharlegghi, B., & Fah, B. C. Y. (2015).** A study on the factors affecting total quality management in the Saudi Arabian construction industry. *International Journal of Business and Social Research*, 5(3), 30- 40.
7. **Mehra, G. (2018, January 3).** Unemployment: Stumbling Block to Economic Growth. *International Journal of Research in Humanities, Arts and Literature*, 6(1), 71-78.
8. **Nalla Bala Kalyan Kumar, V. J. (2012, September 1).** Employment and unemployment in India. *Bookman International Journal of Accounts, Economics & Business Management*, 1(2319-426).
9. **Pravin, S. (2013).** Combating Youth Employment in India. *Friedrich-Ebert-Stiftung*.
10. **Venkatanarayana, M. a. (2012).** Youth employment and unemployment in India. *IGIDR publications*.
11. **Xinhe, X. (2021).** Unemployment, Inflation and Impact of GDP in India. *International Conference on Financial Innovation and Economic Development*, 166, pp.641-647
12. **Wadood, S., Gharlegghi, B., & Samadi, B. (2016).** Influence of change in management in technological enterprises. *Procedia Economics and Finance*, 37, 129-136.
13. **Bank, W. (2019).** World Bank. Retrieved from <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2019&start=1960&view=chart>
14. **Bank, W. (2021).** Macro trends. Retrieved from <https://www.macrotrends.net/countries/IND/india/unemployment-rate>. India Unemployment Rate 1991-2021. Retrieved 2021-06-27.

## IMPACT OF COVID-19 ON TOURISM INDUSTRY IN INDIA: AN ANALYTICAL STUDY

Dr. Sanjoli Jain<sup>1</sup>, Dr. Vandana Jain<sup>2</sup>, Ms. Ahinsa Jain<sup>3</sup>

<sup>1</sup>Assistant Professor, Taxila Business School, Jaipur, Rajasthan. sanjoli@taxila.in

<sup>2</sup>Guest Faculty, Jain University, Bengaluru, Karnataka. vandana264@gmail.com

<sup>3</sup>Guest Faculty, U.R. Services, Moradabad, Uttar Pradesh. ahinsajain2018@gmail.com

### Abstract

Covid-19's impact on India's tourist industry is the focus of this study. The country of India is a joy for tourists. There is significant potential for Indian tourism due to the country's diverse cultural and historical history as well as its diverse ecosystems, landscapes, and natural wonders. It is often regarded as the most important and rapidly expanding sector. Additionally, tourism has the potential to be a substantial source of jobs and foreign exchange for the country. The tourist sector has become extremely unstable as a result of the realm of pandemics and infectious illnesses. Even in India, travel restrictions were in place after the outbreak of COVID-19, which crippled the tourism industry worldwide. As a result of the massive epidemic of the new coronavirus, the tourism sector has suffered greatly. The authorities in India enforced travel restrictions, social isolation, and a lockdown as the disease spread, sending the country's tourism industry into free-fall. As a result of the virus fear, many tourists cancelled their trips, which caused a major drop in the number of tourists. The purpose of this research is to have a better understanding of the significance of the Indian tourist industry and the influence of COVID-19 on it.

**Keywords:** COVID-19, Recession, Lockdown, Travel, Tourism,

### Introduction

By the end of March 2020, the coronavirus had infected numerous people throughout the world, prompting a worldwide health scare. The Wuhan virus, which was previously known simply as the Novel Corona Virus, spread to other nations and eventually reached India. 185 nations have been affected by the virus's spread as of mid-May. Especially affecting the tourist industry, which has been one of the most important drivers of growth. The World Travel & Tourism Council (WTTC) ranks India as the third-largest contributor to global GDP in 2018 among 185 nations. According to the World Economic Forum's Travel & Tourism Competitiveness Report 2019, India came in at number 34. There are worries of an imminent economic catastrophe and recession due to the border shutdowns and travel restrictions imposed by the governments of every single country, which represent the world's greatest economies. This year's COVID-19 travel cancellations have led to a 67 percent decline in both inbound and outgoing tourism from January through February compared to the same period last year, according to the National Tourism Administration. The travel and tourism sector is expected to lose 10008 million jobs worldwide as a result of the COVID-19 pandemic (Statistic, 2020). As of March 2020, all foreign flights and visas to and from India

have been halted by the Government of India. As it turned out, COVID-19 would have a significant influence on the country's economy and tourist industry. Many foreign visitors flock to India, producing jobs and tax revenue for the country as a result of the country's rich cultural heritage, traditions and unrivalled hospitality. Around 87.5 million jobs, or 12.75 percent of total employment, have been produced in the Indian tourist industry, resulting in a GDP contribution of INR 194 billion (WTTC, 2018). In many nations, tourism is a key economic engine and a big source of job opportunities. In addition to creating jobs and bringing in money, it also generates tax revenue and foreign exchange. In addition, the industry grew by 3.2% in comparison to 2018, bringing in 10.8 million foreign tourists worth USD 29.9 billion in 2019. In March 2020, there will be a 66.4 percent decrease in the number of foreign visitors visiting India compared to the same period last year (TAN, 2020).

### **Literature Review**

The Indian and World tourist business is seem to be heading into a major problem which is also producing a stock market collapse in all the divisions. Tourists are unable to go to any countries, which has a significant impact on the global tourist business. Due to the virus's continued spread and effects on healthcare instability and economic disintegration, it is now beginning to have an effect on India's GDP. The motive of the research is to quantity the effect of the prevalence of COVID-19 on the tourist business in India and internationally.

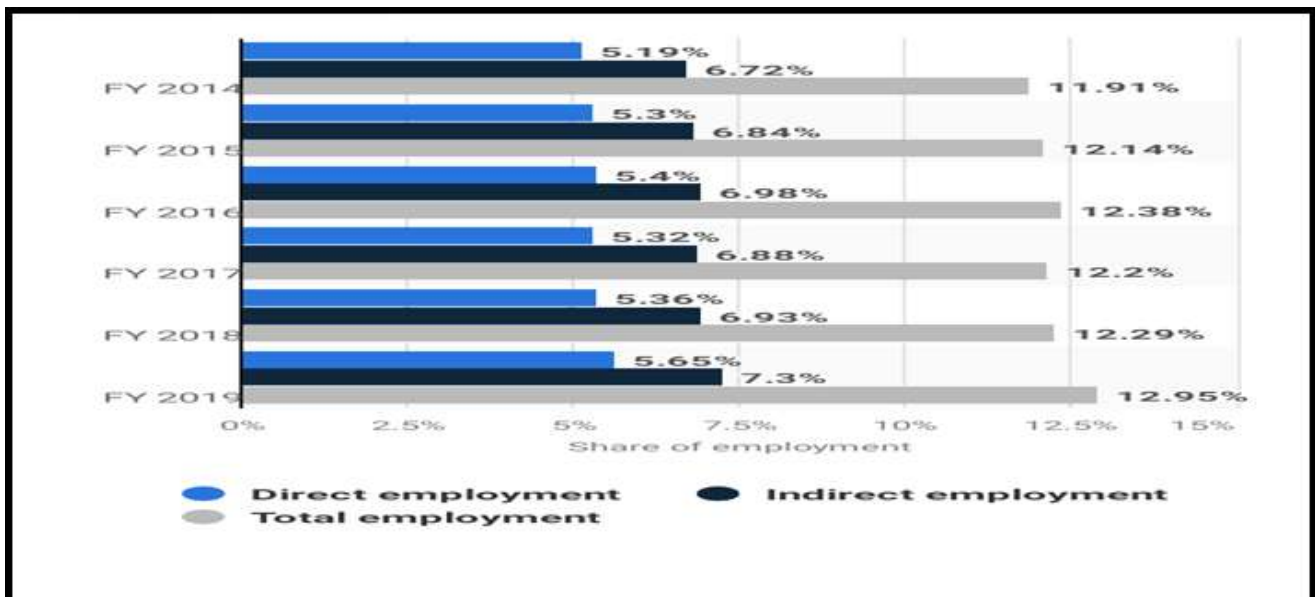
In the past, terrorist acts, epidemic outbreaks, such as SARS-CoV-2, Ebola, and Swine flu, have had a significant impact on global tourism. There has been a significant impact on nearly every business, including tourism, due to the recent outbreak of the COVID-19 virus, which originated in Wuhan, China. The virus has spread to every continent via air travel and continues to spread rapidly. As a preventative measure, numerous nations have partially or totally closed their borders and halted all flights and activities, including pilgrimages and cultural sites. Because of this, travel throughout the world has slowed tremendously. Travel-related losses are expected to reach \$2.1 trillion by 2020, according to the World Travel & Tourism Council, with up to 75 million jobs at risk (WTTC, 2020). On 30<sup>th</sup> January 2020, the 1<sup>st</sup> incidence of the COVID-19 epidemic was recorded in our country. As soon as the first incident was reported, the authorities began checking passengers at all airports. As of July 31, 2020, the WHO recorded 1.64 million confirmed cases of Covid19 in India, with 35.75 thousand fatalities. There will be a major loss of employment and money if the travel sector, including airlines, hotels and restaurants, shrinks by 50 percent by 2020. Therefore, the tourist industry faces a difficult problem in coping with this issue. Secondary research was used in this study, and all of the procedures for doing secondary research were rigorously adhered to. "What are the implications of coronavirus on the tourist sector in India and the rest of the world?" Many academic

publications, government papers, historical records, and statistical databases are used to acquire the necessary data for the study on the influence of the COVID-19 on the Indian tourist business.

### Tourism in India

One of the world's oldest civilizations, India is also a popular tourist destination. A wide range of travel and tourist options are available in India ranging from cruises to eco-tourism to

film and religious tourism. A wide range of tourist options has made India a popular destination for both local and foreign visitors. Prior to the outbreak of the pandemic, the travel and tourism sector in India was seeing fast growth. In 2018, the Indian tourism sector generated revenues of 17.04 lakh crore, or 8.9 percent of India's GDP, and employed about 43,7354 people, or 7.9 percent of the country's workforce



**Distribution of employment in the travel and tourism sector across India from 2014 to 2019 Source: - Statista 2021**

Coronavirus pandemic spread rapidly, halting activity both domestically and internationally. As a preventative measure against the virus's spread, countries throughout the world proceeded to implement travel restrictions. Worldwide, the tourist business is congested, but in nations where religious and pilgrimage travel is particularly popular, the situation is even worse. It's one of those countries. Travel and tourism organisations in India are struggling with a "total standstill" in the sector

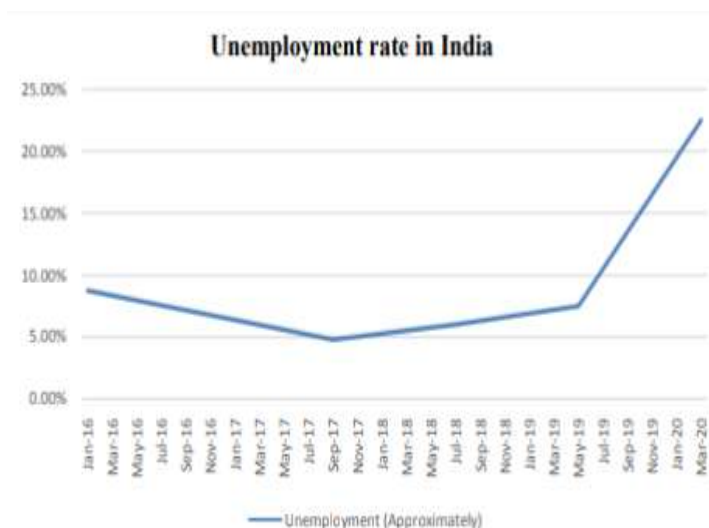
due to cancelled bookings from customers. Between February and March 2020, the crisis was at its worst. With the imposition on travel bans abroad, the planes and trains came to a stop as the crisis has touched its nerve centres.

Due to India's cancellation of travel to over 79 nations during the lockdown period, foreign flights were halted. Regulated domestic flights were operating as scheduled. FTAs and Indian domestic travelers saw a considerable drop.

Foreign tourist arrivals (FTA) in India totalled

11 million in 2019, while the country's foreign exchange (FX) was Rs. 199,865 crore. About 59.8% of FTAs were signed with the top five states of Uttar Pradesh, Delhi, and Tamil Nadu & Maharashtra. In addition, the cancellation of

different events, activities, and festivals resulted in significant employment losses for many organizers and enterprises, as a result of these cancellations.



Unemployment rate in India 2016 – 2020.

Source:- Centre for Monitoring Indian Economy Survey.

### Influence on India's Tourism Industry of the Covid-19 Pandemic

As a result of the Corona virus outbreak, both international and local flights have been cancelled. As a result, the number of people who travel inside the country for pleasure or pleasure-related reasons has decreased. One hundred and seventy-one of India's archaeological sites are listed with the Archaeological Survey of India (ASI). ASI data shows that ticketed monuments generated a total of 251.56 crore in FY 2018, 296.68 crore in FY 2019 and 288.52 crore in FY 2020 (January – April) from ticketed attractions. Domestic travel will be at its height during summer holidays if the current situation doesn't

alter by May, and employment may become an issue.

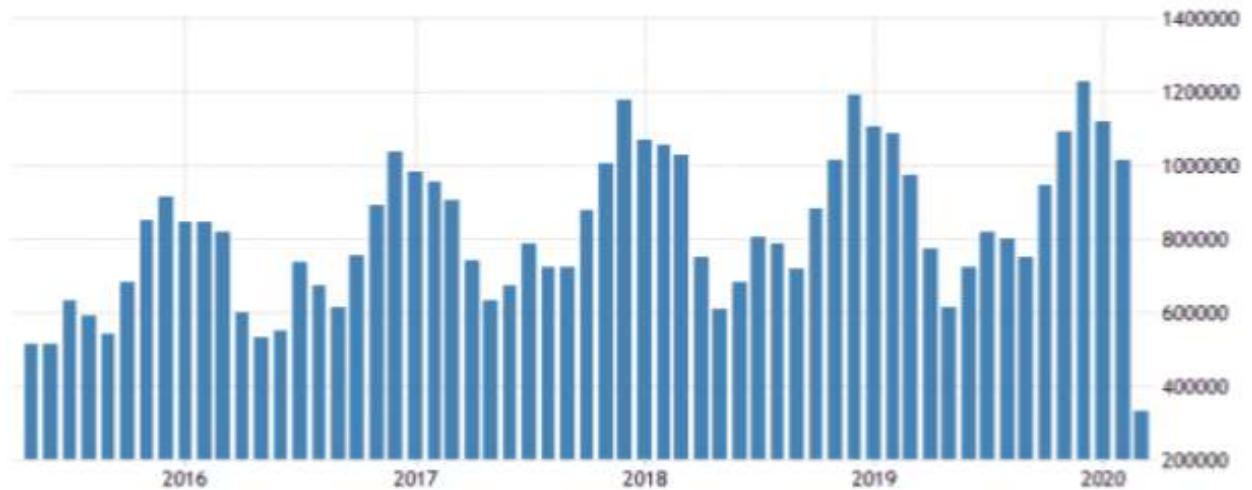
The COVID-19 epidemic has also had an effect on the local tourist business and vacation reservations to areas viz. Jaipur in Rajasthan and the highlands. In India, travelling in summer breaks is the busiest time of year for tourists. More than 28 percent less people flew domestically this summer compared with previous year since most people buy their tickets two to three weeks in advance. Leh, Guwahati, Coimbatore, Srinagar, and Amritsar are the most affected summer destinations with a 38 percent decline in visitors. This follows a 19 percent decrease in domestic airline fares.

It has been revealed that foreign tourist arrivals

(FTA) are down by roughly 71% annually in the January-March quarter, while local visitors account for 38% of total arrivals. The Ministry of Tourism of India shares this worry.

According to official statistics, FTA decreased by 8.9% month over month and 6.9% year over

year in February of 2020. As a result of India's decision to suspend all tourist visas till April, the atmosphere became tense. As a result of limitations, the number of Indian visitors would decline in 2020 compared to the previous five years.



Loss of Tourists in India in 2020 compared to last 5 years

Source: Trading Economics. Com | Department of Tourism, India

Due to the epidemic, the Indian tourist and hospitality industry might lose roughly 41 million jobs, or 69 percent of its workforce. If this trend continues as the demolition of Covid-19 continues, it will have an adverse effect on the economy of the country.

Nearly 600 foreign flights to and from India were cancelled between February 1 and March 6 due to the coronavirus epidemic, according to Ministry of Civil Aviation data. Airfares on the most popular domestic routes have dropped by 22% since last year, and this trend is projected to continue throughout the summer. More and more airline firms appear to be on the verge of bankruptcy because of dwindling cash reserves. New coronaviruses have caused a 22% to 29%

drop in international arrivals to India, according to the Ministry of Civil Aviation there.

### India's post-lockdown tourism

Because to the COVID-19 epidemic, everything has been turned upside down. Tourism may see a boost as a result of the state boundary reductions. There are several firms that allow their employees to work from home, while others provide working from home vacations. Some of the world's most well-known lodging companies, like Airbnb and Vista, have begun offering homestays as an alternate option during the epidemic. During the pandemic, homestays have become popular workstations, therefore the standard rules are being followed in conjunction with accurate sanitization and

facial cover.

Hotels may rest easy knowing that the well-being of their visitors is of the utmost importance. Sterilization and the usage of personal protective equipment by F&B and cleaning employees are nearly always required by hotel standards. For the current generation, social isolation has become the norm. Keyless access, check-in and check-out online, and touchless parking valet are just a few of the safety steps restaurants are taking to guarantee little touch with customers from the time they arrive at their establishment until they depart.

For the protection of passengers, airlines and the aviation industry are also adhering to sanctuary protocols. In terms of infrastructure and automation, Indian airlines and the aviation industry are among the best in the world. Passengers' wait times at security checkpoints are being cut in half because to new technologies including RFID-tagged trays, computerized traveller screening systems, and automatic tray retrieval. Prime Minister Narendra Modi's Digital India plan is being carried out through the industry-led Digi Yatra programme organized by the Ministry of Civil Aviation., is a new initiative from the government of India. Customers can use face recognition technologies to process admission and exits at numerous checkpoints, including security check-in, boarding, and more. For air passengers, Digi Yatra will make travel and identity checks more convenient. In order to reduce restraint, the Indian railroads have implemented improvements such as Air

filtering with latch plasma filter and titanium dioxide coating on titanium dioxide-coated copper-coated handrails.

In the rail and aviation industries, the COVID-19 epidemic has opened the door to significant innovation and revolution. The epidemic has forced airlines and railroads to re-evaluate their business models from the ground up and make necessary adjustments to their day-to-day operations and procedures. To attract more domestic visitors, the government of India has launched a number of promotions.

In the wake of Covid-19, Odisha has begun a road crusade. The road initiatives are aimed at allowing visitors from neighbouring states to discover Odisha's many attractions. Uttarakhand, Himachal Pradesh, and regions of Karnataka, Maharashtra's & Goa, neighbouring states all have individuals willing to rent out their homes for a week or two to visitors.

### **Conclusion**

COVID-19 has had a devastating effect on the tourism industry, and it might last for a long time. Researchers in this study looked at how much harm the virus is doing to travel and how much it will cost in terms of lost revenue and lost jobs for countries all around. As a result of the Coronavirus, the tourism sector has been able to deal with both the massive thread and the seeming slowdown in economic activity. As a result, the tourist sector is seeing an influence from it. Despite the fact that measurements were collected, it appears that they were ineffective in preventing the spread of coronavirus.

In order to resume travel after the epidemic, travel and tourism businesses will have to earn back the faith of customers. There is a distinct difference between the tourism industry and other sectors in that the former depends significantly on customer confidence and as a result will take more time to get back to business as usual during the recovery phase. Companies must reclaim the trust of travellers and guarantee that significant tourist locations, like guesthouses and cafeterias, are disinfected to protect them from COVID-19. The destiny of the virus relies on how it spreads and how it is controlled.

#### References:

1. **Dogra, T. (2020).** Impact of Covid-19 on The Tourism Industry in India. International Journal of Advanced Research, DOI: 10.21474/IJAR01/12006; DOI URL: <http://DX.doi.org/10.21474/IJAR01/12006> ; November
2. **Jaipuria, S., Parida, R., & Ray, P. (2021).** The Impact of Covid-19 on Tourism Sector in India; Recreation Research, 46, 245-260; <https://doi.org/10.1080/02508281.2020.1846971>
3. **Patel, P., Sharma, J., Kharoliwal, S., & Khemariya, P. (2020).** The Effects of Novel Corona Virus (Covid-19) in the Tourism Industry in India. International Journal of Engineering Research & Technology (IJERT); 9(05).
4. **Chawla, C., & Jain, V. (2017).** Problems and Prospects of Tourism Industry in India- With Special Reference to Uttar Pradesh. CLEAR International Journal of Research in Commerce & Management, 8(9).
5. **Gupta, N., Sharma, M., Rastogi, M., Chauhan, A., Jain, V., & Yadav, P. K. (2021).** Impact of COVID-19 on education sector in Uttarakhand: Exploratory factor analysis. *Linguistics and Culture Review*, 5(S3), 784-793.
6. **Kaur, M., Sinha, R., Chaudhary, V., Sikandar, M. A., Jain, V., Gambhir, V., & Dhiman, V. (2021).** Impact of COVID19 pandemic on the livelihood of employees in different sectors. *Materials Today: Proceedings*.
7. **Jain, V. (2021),** Sustainable tourism: Based on craft and culture, South Asian Journal of Marketing & Management Research, 11 (10), pp132-137
8. **Jain, V., Chawla, C., Agarwal, M., Pawha, M. S., & Agarwal, R. (2019).** Impact of Customer Relationship Management on Customer Loyalty: A Study on Restaurants of Moradabad. International Journal of Advanced Science and Technology, 28(15), 482-492





## SUBSCRIPTION DETAILS

# VIEWPOINT

An International Journal of Management and Technology  
Peer Reviewed Refereed Journal

Annual Subscription (two issues) is as follows:

Students/Research Scholars/Alumni	Rs. 500
Institutions/Corporate	Rs. 1000

---

### SUBSCRIPTION FORM

We are interested in subscribing the Journal Viewpoint-An International Journal of Management and Technology.

A Bank Draft/Cheque bearing number \_\_\_\_\_ dated \_\_\_\_\_  
\_\_\_\_\_ for Rs. \_\_\_\_\_ drawn in favour of Teerthanker  
Mahaveer University, Moradabad, payable at Moradabad towards subscription is enclosed.

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_ PIN/ZIP: \_\_\_\_\_

Country: \_\_\_\_\_

Phone No: \_\_\_\_\_

FAX: \_\_\_\_\_

E-Mail: \_\_\_\_\_

---

Signature with Date

---



## CALL FOR PAPERS

**VIEWPOINT An International Journal of Management and Technology** solicits contributions from academicians, research scholars, industrialists and corporate executives on all aspects of management thought, research and practice. The journal welcomes innovative and preferably research-based articles in any functional area of management. We also look forward to practical case studies from the practicing corporate executives and managers.

Articles contributed must be relevant to management theory as well as practice. Submissions should indicate an understanding of the relevant literature and the contribution of the submissions to the body of research. Empirical articles should have an appropriate methodology and be able to relate their findings to the existing literature in the area.

Each paper at Viewpoint is refereed and peer reviewed and the process of review is thorough. Articles sent to us will be initially screened by the editor for relevance and overall quality and thereafter will be sent for formal review. Inappropriate or imitated submissions will not be forwarded for a formal review. Those considered appropriate will be subject to a blind review process that may take 1-2 months. Authors may be asked to revise and resubmit a manuscript based on the referees' comments.

View Point comprises of the following four sections:

**Viewpoint:** Perspective on emerging issues that call for immediate attention of the corporate sector or government.

**Research:** Research Articles

**Case Study:** Based on practical real life situations in the industries.

**Book Reviews:** Book reviews are welcome on the latest publications in the area of management and IT.

### Guidelines for Authors

The following details of style and other requirements for submission to View Point must be strictly adhered to by the contributors: A soft copy of the paper for consideration for publication should be e-mailed to [viewpoint.cmca@tmu.ac.in](mailto:viewpoint.cmca@tmu.ac.in)

One hard copy of the contribution along with a declaration assuming the responsibility of authenticity and that the paper article have not been

published anywhere else should be sent on A4 size paper addressed to:

### The Editor

**Viewpoint- An International Journal of Management and Technology, Teerthanker Mahaveer Institute of Management and Technology**

(Teerthanker Mahaveer University)  
Delhi Road, Moradabad-244001

**Contact:** 9568416000, 9568417000, 7500317000  
9917200216

Email: [viewpoint.cmca@tmu.ac.in](mailto:viewpoint.cmca@tmu.ac.in)

1. Manuscript should be a word file with 1.5 line spacing with 1 and 1/2 wide margin on the left and 1/2" on the right. Font size for headings should be 14, for sub headings and text should be 12. Times New Roman font should be preferred.
2. Manuscripts should not exceed 5,000 words (about 18 to 20 A-4 size pages. The cover page of the manuscript must contain the title of the paper, author's name, mailing address, email address, professional affiliation, and acknowledgments, if any. The first page of the paper must also provide the title of the paper.
3. Every manuscript must include a 100-150 words abstract and 4-8 keywords
4. All notes must be serially numbered. These should be given at the bottom of the page as footnotes.
5. Professionally drawn graphs and diagram must be provided wherever necessary along with the manuscript. Tables and figures should be numbered as Table 1, Table 2, etc and should be given on a separate page at the end of the paper.
6. References should be given separately at the end of the paper in APA format and arranged alphabetically. The list should include only work that the author/s has cited.
7. Along with the manuscript, the author is requested to submit his/her brief biographical sketch including the email id. Inviting articles for the next issue of Viewpoint (Volume 12, Issue 1) scheduled to be published in the month of July 2022. The contributions may be sent latest by 30th May, 2022 on the given email ID



# TEERTHANKER MAHAVEER UNIVERSITY

(University established under Govt. of Uttar Pradesh Act No. 30, 2008)

**Teerthanker Mahaveer Institute of Management & Technology (TMIMT)**

Delhi Road, Moradabad - 244001, U.P.

**Ph. :** 0591-2476805, 2360500, **Fax :** 0591-2360077

**Mob.:** 9568416000, 9568417000, 7500317000

**Email:** principal.management@tmu.ac.in, admissions@tmu.ac.in

**Website:** www.tmu.ac.in