

# Jaipuria International Journal of Management Research

*January - June 2020 • Issue 01*

VOLUME

06

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The objective of the journal is to provide a platform to faculty, research scholars and practitioners of management discipline globally to highlight new knowledge, innovation, technology usage and latest tools of research in the areas of management science. Its focus is on applied research and to bridge the gap between management theories and practice. The journal aims to follow international benchmarks in paper selection, refereeing, editing, proofing and production as per the latest methodology and standards. Its International Advisory Board provides policy guidelines for publications in the journal.

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## *Chief Editor's Desk*

I am glad to share the latest issue of Jaipuria International Journal of Management Research for the period of January to June 2020. It is a matter of immense pleasure and pride that in spite of wide spread global pandemic of COVID - 19 and complete lockdown of the entire country, we have been able to publish the journal in time as always and sharing the same with you.

Keeping in mind risks involved in physical copies distribution and non-availability of courier and postal services, we are bringing out this issue in electronic copy only and if the need arises, later we may print and send you the physical copies also once we all are through and got victory over this pandemic.

This issue contains 9 research papers covering different aspects of management research including Economics, HR, Leadership, Education Systems and Delivery, Logistics Development, Political Marketing and Start-ups, International Trade and Skills Development issues. It also has a case study on Food Junction Start-up and a book review.

Needless to mention, publishing this issue in time wouldn't have been possible without immense contribution of our authors, reviewers, advisory board members and editorial team. I appreciate the timely support given by all the stakeholders.

I sincerely wish this global pandemic to get over soon and we all revert back to our normal functions following the new social distancing norms and taking all precautionary measures of new normal that has emerged in the world today.

**Dr. Dayanand Pandey**

Chief Editor – Jaipuria International Journal of Management Research

Director – Jaipuria Institute of Management, Noida

## Editorial

Everyone's life has been impacted by COVID-19, the global pandemic and almost entire world has gone for shutdown/lockdown for varying intervals of time. Academic activities as we knew them have also been badly hit and the education is going for a big change in times to come. Education delivery models will also go through tremendous change and online delivery and online contents will predominate the education world in the near future.

In this backdrop, we are glad to bring out latest issue of our journal "Jaipuria International Journal of Management Research" (JIJMR) for the period of January to June 2020 well in time in spite of all hardships. This has been made possible for timely contribution of research papers by our contributors. We express our sincere thanks to them.

This issue contains 9 research papers, one case study and a book review.

The first paper by Singh and Sharma titled "Employability skills to thrive during fourth industrial revolution: upskilling secondary school learners" calls for Indian education system to make a shift in teaching-learning process at secondary school level to mitigate the impending challenge of fourth industrial revolution.

Second paper by Pandiya, Das and Banik on "Perspective of university teachers concerning adequacy of syllabus on developing human intelligence: a study of Assam (Central) university" investigates the human intelligence development syllabus of Assam University and identifies the strong and weak factors of the syllabus.

Third paper by Suresh Bhatt titled "Academic leadership and some personal reminiscences" is looking back at leadership provided by some of the great people like Albert Einstein, George B. Dantzig, C. R. Rao and J. N. Kapur and others in their respective fields and for advancement of knowledge.

Fourth paper by Prasad and Ghosal on "Evaluating the change in perceptual pattern towards destination wedding events: a mix-method study for post covid-19 scenario" explores perceptions of the consumers and changes in demand pattern of destination wedding for its planners after the emergence of Covid19 pandemic.

Next paper by Ritika Gugani on "A study on trade intensity between Central Asian countries and India" calls for more

policy interventions to enhance trade intensity between central Asian countries and India.

Harilal and Santhosh's paper titled "Presenteeism among college teachers in UAE and India" concludes that presenteeism is high for college teachers from India when compared with UAE and gender, marital status and income level of Indian college teachers have a relationship with presenteeism whereas gender, education, designation and income level of UAE college teachers have a relationship with presenteeism.

Next paper titled "Teaching of economics in the new paradigm" calls for a fresh looking in the teaching of economics as contents and ways of teaching economics are becoming irrelevant in the context of changing global environment.

Eighth paper by Volga on "Trends of the logistics development" studies transition from traditional Supply Chain Management to Digital Supply Chain Management based on Logistics 4.0 technologies to improve business efficiencies and to reduce the time of the organizational and management cycle.

Final paper of the current issue by Ravi Shankar Bhakat titled "Political marketing and start-ups" discusses how the political marketing agencies and start-ups emerged in this field focus on 360-degree communication for candidates and included three verticals: Content Development, Medium and Event.

Case study of this issue by Faize Nabi on "The fate of food junction" explores the various dimensions that have impacted the business of 'Food Junction' and questions to readers what would be the fate of this popular eatery point.

Finally the book review of the book "Economics in the age of Covid-19" deals with economic benefits of developing a vaccine for COVID-19 and growing mistrust for globalization.

We sincerely hope that our users will find the contents useful and will keep supporting us in bringing out a quality publication by contributing their valuable research papers and also recommending the journal through their institutions to UGC CARE body for inclusion of journal in UGC-CARE list.

Wish you happy and safe reading!

**Jitender Sharma**  
**Ashwani Kumar**



# *Employability Skills to Thrive during Fourth Industrial Revolution: Upskilling Secondary School Learners*

**Key words:** *Employability Skills; Fourth Industrial Revolution; Secondary School Learners; VUCA; India*

**Deepak Singh<sup>\*</sup> and Durgansh Sharma<sup>\*\*</sup>**

## **ABSTRACT**

The workplace of the future promises to be quite different from present days. The technological strides of recent years including digitalization, block-chains, artificial intelligence and other forms of technology would herald a new VUCA world. This would usher in new job opportunities on one hand while wiping out thousands of present day jobs. India aspires to be among top three economic superpowers by 2030 with a USD 5 trillion-economy by 2025. However, the future workforce seems woefully unprepared for being industry-ready to meet the challenges of Industry 4.0. Recent reports suggest that half of the 310 million school graduates that would form the next generation workforce will lack required job skills to lead the Fourth Industrial Revolution.

Hence, it is imperative for the Indian education system to make a shift in teaching-learning process at secondary school level to mitigate the impending challenge. Defining the new models of education thus becomes important to dole-out firms that are struggling to stay competitive. The current paper attempts to present an integrated model of general and vocational education at secondary level to dramatically transform the skill landscape. It would facilitate designing new models of education that reimagines the existing eco-system to embed the new-age skills among young learners. This seminal work attempts to foster a comprehensive and unified approach to close the skill-gap and aid multiple socio-economic outcomes to bridge the staggering income divide and inequality among society.

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## INTRODUCTION

The business organizations around the globe are struggling to stay relevant and be ahead of the pack in a VUCA (Volatility, Uncertainty, Complexity and Ambiguity) world, impacted by the wave of new-age technologies. These include big data analytics, robotics, Internet-of-Things (IoT), 3-D printing, cloud computing technology, block-chain, high speed mobile internet, artificial intelligence, etc. The new-age technologies are the key value drivers for the engine of growth in the Fourth Industrial Revolution (Kagermann, et. al, 2018). While thousands of the present-day jobs are threatened to be eliminated in coming years (Pinzone, et.al., 2017), another thousand different type of jobs would emerge as a result of these technological advancements (World Economic Forum, 2018). Thus global job market would demand the new employability skill sets which the nations need to attend to and focus on for building capacities to infuse efficiency and competitiveness across sectors. These transformations, if managed well, promise to raise the standards of living, better job conditions, improved quality of life. While, if left unattended, would pose risk of skill gaps, socio-economic polarization and widening skill-gap requirements (Ras, et.al., 2017).

UNICEF in a recent publication reports that of the estimated working population of 310 million school graduates in India by 2030, over half of them would fall short of the required skill sets of the new-age workplace or Industry 4.0. This calls in for a paradigm shift in the teaching-learning approach in primary and secondary school system in India to prepare learners for the desired skill-sets for future employability (Sharma, 2018). The new economy would call in for improvement in quality of learning to align the education and future of the work with emerging business models across different sectors. Thus it is widely accepted that an emerging model of education should evolve for embedding the desired skills among school learners (Umachandran, et.al, 2019).

There is a strong consensus among researchers that higher level of education and skill attainment is a key contributor to relative social mobility (Gloster, 2015). The key objective of this seminal work is to define the critical dimensions of quality learning for appraising the desired shift in the learning content and experience for readiness at workplace. This would facilitate developing an integrated framework of skill enhancement activities and stakeholders at secondary educational institutions. The other specific objectives of the article are as follows:

1. Identify the critical criteria for defining an academic framework of high quality education to impart future ready skills for secondary level learners.

2. Ascertain the key stakeholders and resources essential to transform the future of secondary level education.
3. Propose a sustainable ecosystem to connect stakeholders to mainstream the academic framework for ensuring access to young learners for bridging skill gap.

## THE VISION 2030

The acronym VUCA was introduced in early 1990s by US Army during their combat operations in Afghanistan and Iraq where they faced totally unpredictable situations. The corporates today face a similar challenge in different sectors of economy across the globe. There exists a contextual disruption in job market, increased socio-economic polarization and demand for the new-age skills at workplace. Hence, a Vision 2030 needs to be spelt out by the governments, institutions as well as policy makers at national and international levels for its stakeholders. This would set the right tone for corporate captains to lead in VUCA environment (Chawla, et. al., 2018).

## Envisioning India 2030

A ten-point vision had been laid down by the Government of India during presentation of the interim union budget 2018. The policy declaration spelt out at growing the GDP by USD 5 trillion by 2025 and doubling it to USD 10 trillion by 2030. The major drivers of accomplishing this vision were focused Infrastructure development projects, Digital-India initiatives, Clean Energy initiatives, Make-in-India, Sound Water management, Blue-economy, Space Programmes, Food sufficiency, Healthy India Programmes and Good Governance.

## UNESCO's Vision 2030: Sustainable Development Goal 4

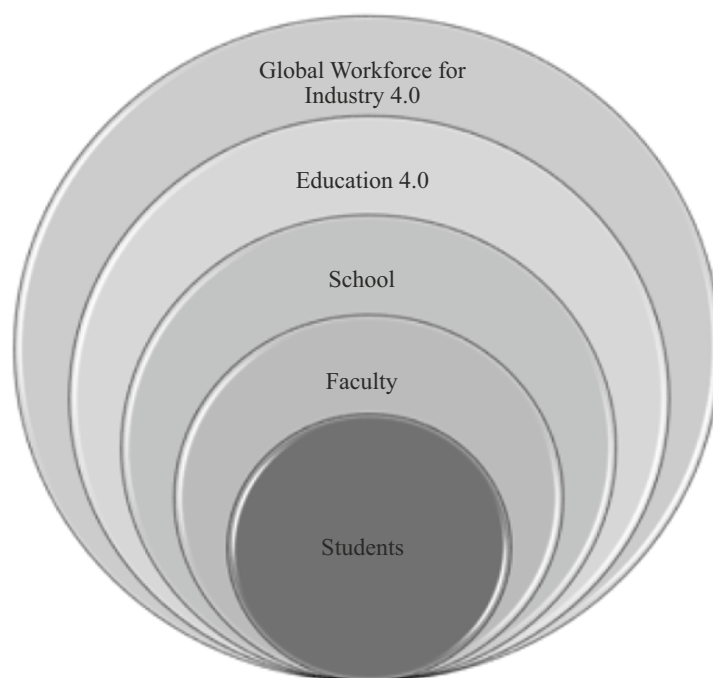
The 2030 Agenda for Sustainable Development was tabled in 2015 by UN member states to clearly outline a shared road-map with an aim at fostering peace and prosperity with triple bottom approach. Through its ambitious 17 Sustainable Development Goals (SDGs), it made a strong appeal to all nations for urgent action to end poverty and inequality through a global partnership (Fleac et.al. 2018). The main thrust areas were quality education, health, climate change, economic growth, clean energy, clean water, reducing inequality, infrastructural development, global partnerships. Special emphasis was laid on inculcating industry relevant technical and vocational skills among youth for employment and entrepreneurial opportunities through Sustainable Development Goal 4 (SDG 4) and Clause 4.

## THE 2030 SKILL SCORECARD: THE WIDENING SKILL- GAP

According to a recent report released in 2019 by UNICEF, Education Commission and Global Business Coalition for Education, it paints a crisis of skills where around 54 percent of youths in South Asian nations would complete their school education without the essential skills to be job ready for Industry 4.0 in the next decade. The youths of South Asian nations are projected to be sub-par in skills as compared to their counter parts in the other regions of the world. This projection is based on the estimates brought forward by UNICEF as per the

anticipated learning outcomes in 2030 for all South Asian countries.

The South Asian nations would be having the largest youth workforce in the world until the year 2040, leading a big opportunity to become vibrant and productive economies. This opens up window of opportunity for making robust investments in developing framework of general & vocational education which is student-centered at secondary level and whose learning requirements emanate from Industry 4.0 skill-sets (Fig.1).



**Figure 1 - General & Vocational Education Framework for Industry 4.0**

#### **EDUCATION 4.0: CRITICAL DIMENSIONS OF NEW-AGE EDUCATION FRAMEWORK**

There exists a positive relation between the education and relative social mobility as per many existing researches (Kwiek, 2015). Reports point to the fact that the enrollment in the primary & secondary schools and access to education have increased globally over the last decade. However, this may have not have translated to relative social mobility in equal measures.

One key obstacle to this has been the quality of education which has a prominent impact on productivity and earning outcomes of an individual. This clearly indicates to the growing belief that the quality of education needs to be defined in new dimensions and critical shift needs to take place in content and experience of a learner for being future job-ready. According to World Economic Forum report published in 2020, to define high quality education for the schools of the future, eight critical characteristics have been identified. It has been strongly suggested that there need to be a radical shift from present paradigms in learning contents as well as learning experiences.

This model of learning, termed as Education 4.0, would enable learners to be job-ready for the Industry 4.0.

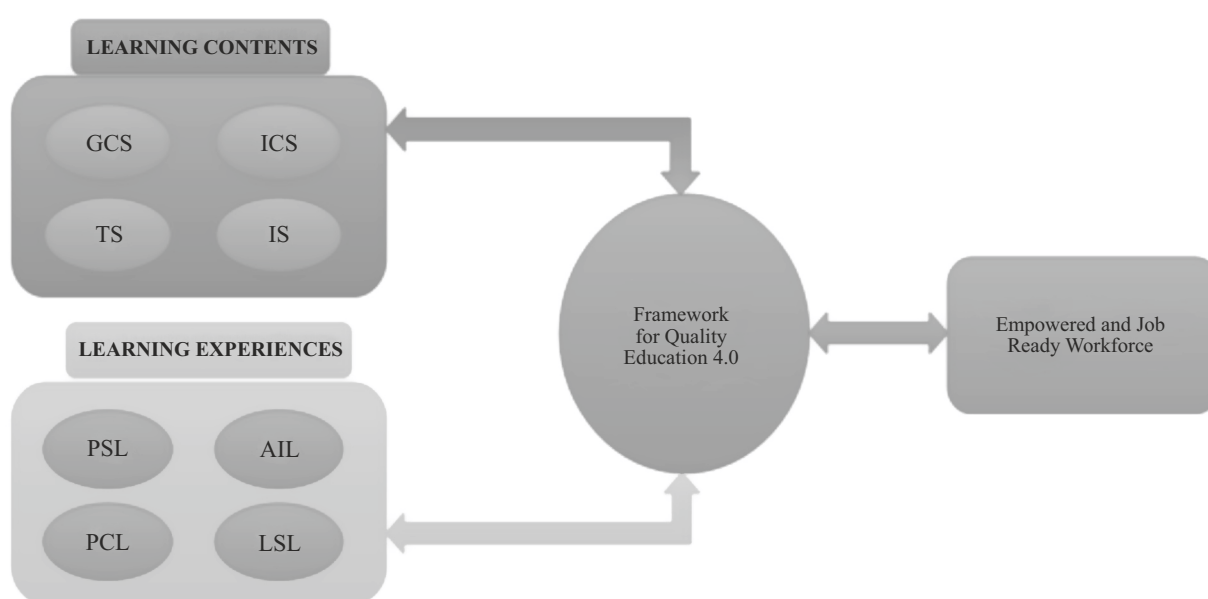
The critical dimensions of 'learning contents' that require shift are:

- **Global citizenship skills (GCS):** The learning content shift required to imbibe the skills quintessential on developing basic awareness related to the world, important sustainable issues and enabled role to play for betterment.
- **Innovation and creativity skills (ICS):** The learning content shift that nurture skills promoting innovation, as well as skills of creativity, analytical thinking, complex problem-solving and analysis of systems.
- **Technology skills (TS):** The learning content shift towards inculcating digital skill as programming as well demonstration of responsible and ethical behaviour while using technology (Rojko, 2017).
- **Interpersonal skills (IS):** The learning content shift that reflects on curating emotional intelligence

among learners to demonstrate skills of negotiation, social awareness, leadership, etc.

The critical dimensions of ‘learning experiences’ that require shift are:

- *Personalized and self-paced learning (PSL)*: This shift is essential to drive away from standardized form of learning centered environment to recognition of a diverse need of individual learner pace of learning which is more flexible.
- *Accessible and inclusive learning (AIL)*: This shift is essential to unlock the physical barriers of learning environment accessibility of few learners to all-inclusive learners who are beyond the boundary walls of school buildings.
- *Problem-based and collaborative learning (PCL)*: This shift is essential to do away from current practices of process-centered delivery mechanism to project or problem centered content delivery mechanism that fosters peer collaboration and team work essential to emulate the future of work.
- *Lifelong and student-driven learning (LSL)*: This shift is essential to go beyond the current system which is heavily biased towards learning and skilling during early years and declines over later stage. The need of hour calls in for a continuous upscaling of existing knowledge and skills that supports the future requirement of evolving economy and institutional requirements.



**Figure 2 - Critical Shifts in Dimensions of Quality Education for Skill Enhancement among Learners**

## KEY STAKEHOLDERS IN THE NEW MODEL OF EDUCATION

In a highly acclaimed publication by World Economic Forum, 2020, the document championed making learning a lifelong experience which is more outside the walls of the traditional schools, highly inclusive, problem-based and collaborative in nature.

This calls in for identification of key stakeholders who need to be configured for the schools of the future. The major entities/ stakeholders identified for designing model for general & vocational Education 4.0 in schools of future are:

*Secondary-Level Students:* They are the learners primarily at the secondary level at different educational institution across diverse background and geographies. They are quite eager to learn general & vocational courses using wider variety of

pedagogical tools and are keen on using diverse basket of pedagogies and content for a superior learning experience during learning process. They aspire and aim at gaining future job-ready skills and grow beyond the academic and professional attainment of their parents.

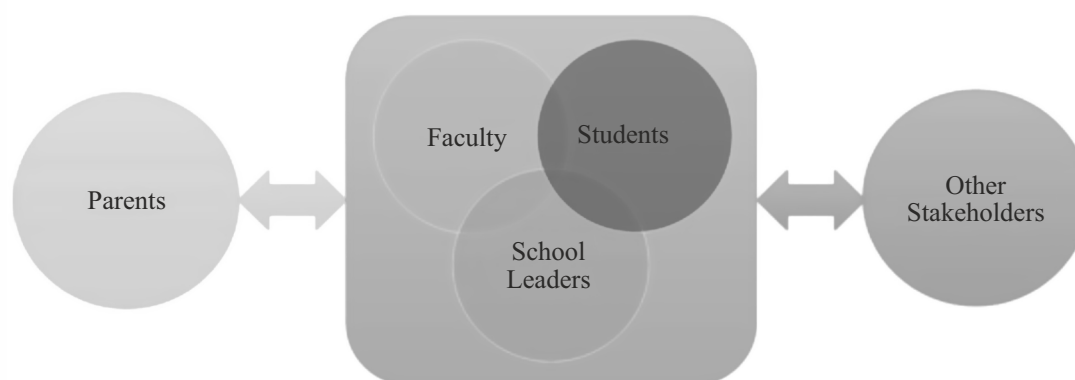
*Faculty:* They are among most important stakeholders in developing the desired ecosystem of teaching learning process. They are not only learner-centric but also have a personal preference to play role of facilitator/ mentor. They are willing to be a role model for the young learners in exerting positive influence on use of technology enabled learning environment and adoption process. They may be the first consumers of new age learning resources and ready to broaden their global horizons to develop competencies in general and vocational domain for its optimal dissemination among the young learners.

*School Leaders:* They are the Founders/ Management/ Administrators of the school who through their personal vision guides the system and processes of academic design, delivery and evaluation. They may be the prime movers of shifting learning content and learning experiences during teaching learning process for quality general & vocational education output (Bartell, 1994). They would like to create a robust network among the peer institutions, industry and governments across boundaries by using differential resources.

*Parents:* The parents are key drivers in this ecosystem as they would seek relative social mobility for

their ward. They seek a financial security and social status for these young learners. They look forward to quality education learning as an enabler not only to sustain the future jobs but also climb the socio-economic ladder in the society.

*Other Stakeholders:* The other key stakeholders include Government policy-makers & regulators, Industry, Academic partner institutes and Technology providers. They support for the content and experience enrichment during the general & vocational teaching-learning process by being facilitators to a wider platform.



**Figure 3 - Key Stakeholders for Quality General & Vocational Education in Schools of Future**

#### **GOVERNMENT INITIATIVES FOR SKILL ENHANCEMENT AT SECONDARY LEVEL**

India has emerged as the largest global population of around half-a-billion between the age group of 5 to 24 years (IBEF, 2019). This opens up a huge opportunity for imparting general and vocation based education for future workforce at a young stage. Ministry of Skill Development and Entrepreneurship in association with Ministry of Human Resource Development (Government of India) has been instrumental in initiating a number of projects for integrating education and skill building like- Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA), Unnat Bharat Abhiyan, Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) and Skill Strengthening for Industrial Value Enhancement (STRIVE), Kaushal Bharat, Kushal Bharat, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Policy for Skill Development and Entrepreneurship 2015, Skill Loan scheme, and the National Skill Development Mission.

To imbibe vocational education among students at an early age, the scheme of Vocationalisation of Secondary and Higher Secondary Education is promoted. It aims to offer a platform for students in select schools Under this initiative, close to 10,000 schools across the country have received sanctions for honing vocational education with

the prescribed general education from secondary class onwards. The Ministry of Skill Development and Entrepreneurship through National Skill Development Corporation is assisting UGC for three schemes- namely Deen Dayal Upadhyaya Kaushal Kendras, Community College, Bachelor of Vocational course. The important stakeholders in the implementation programme include- State Government, National Skill Development Councils (NSDCs), Sector Skill Councils (SSCs) and NSDC Training Partners.

#### **DEVELOPING SUSTAINABLE QUALITY EDUCATION MODEL 4.0: SCHOOLS OF THE FUTURE**

The integrated model (Fig.4) as conceptualized below attempts to identify and connect the stakeholders for value creation in the teaching-learning process. They need to be reconfigured for designing an ecosystem to facilitate an integrated network that would enable the desired critical shifts that were mandated for the learning content and experience among the secondary level learners for general & vocational education. The integration of key stakeholders would enable a platform of resource sharing to help better coordination of activities and application of resources among members within this ecosystem. The research article proposes a model to rewire the existing mechanism.



The following stakeholders/ entities are proposed during the creation of an integrated framework for enabling general and vocational education in the schools of the future for the learners at the secondary level:

- a. *Secondary Level Learner*: This entity represents the secondary level student engaged in teaching learning process for acquiring the skillset required by the Industry 4.0 across the different sectors and countries.
- b. *Educational Institution*: This entity, also called Schools of the Future, aims to offer a progressive learning environment to hone the required general and vocational skills for holistic development of student for industry-readiness under Education 4.0 framework. Spread across the globe, these institutions offer desired infrastructure to connect learners physically and digitally across the academic institutions both formal and informal ones.
- c. *Ministry/ Bureau of Skill Development & Entrepreneurship*: This entity is an official establishment in respective host countries that envisions the changing trends of jobs. It tracks and keeps a tab at the evolving skill sets required for the future workforce to sustain Fourth Industrial Revolution. It works with close collaboration with Ministry of Human Resource Development at central level. It also encourages progressive and facilitating environment of skill building capacities by hosting various national and international level competitions, conferences and offering scholarships.
- d. *State/ Local Government*: This entity is responsible for providing/ facilitating the policy guidelines, required infrastructure like Innovation Lab Schools, Video conferencing equipments, student mobilization monitoring, regulating, alignment of other stakeholders and technical boards and advocacy for skill enhancement. They support/ facilitate certificate (degree/ diploma) backing required by the learner after due assessment of learning outcomes (Busemeyer, 2012).
- e. *Skill Development Council*: This entity stands responsible for conceptualization and operationalization of vocational projects across educational institutions. It facilitates identification of avenues of cross-cultural exchanges among member nations, selection of training partners across different trades, establishing quality standards, information flow, etc. at national level.
- f. *Sector Skill Council*: This entity is responsible for identification of emerging sectors of economy, sector-specific skill-sets, accreditation of designed curriculum focusing STEAM (Science, Technology, Engineering, Arts and Mathematic) for the new-age courses like Artificial Intelligence, Robotics, Blockchain, Machine Learning, etc. It also need to support identifying Vocational Coordinators/ Country Coordinators across industries, bench marking training programmes, assessment of students and certifications, etc.

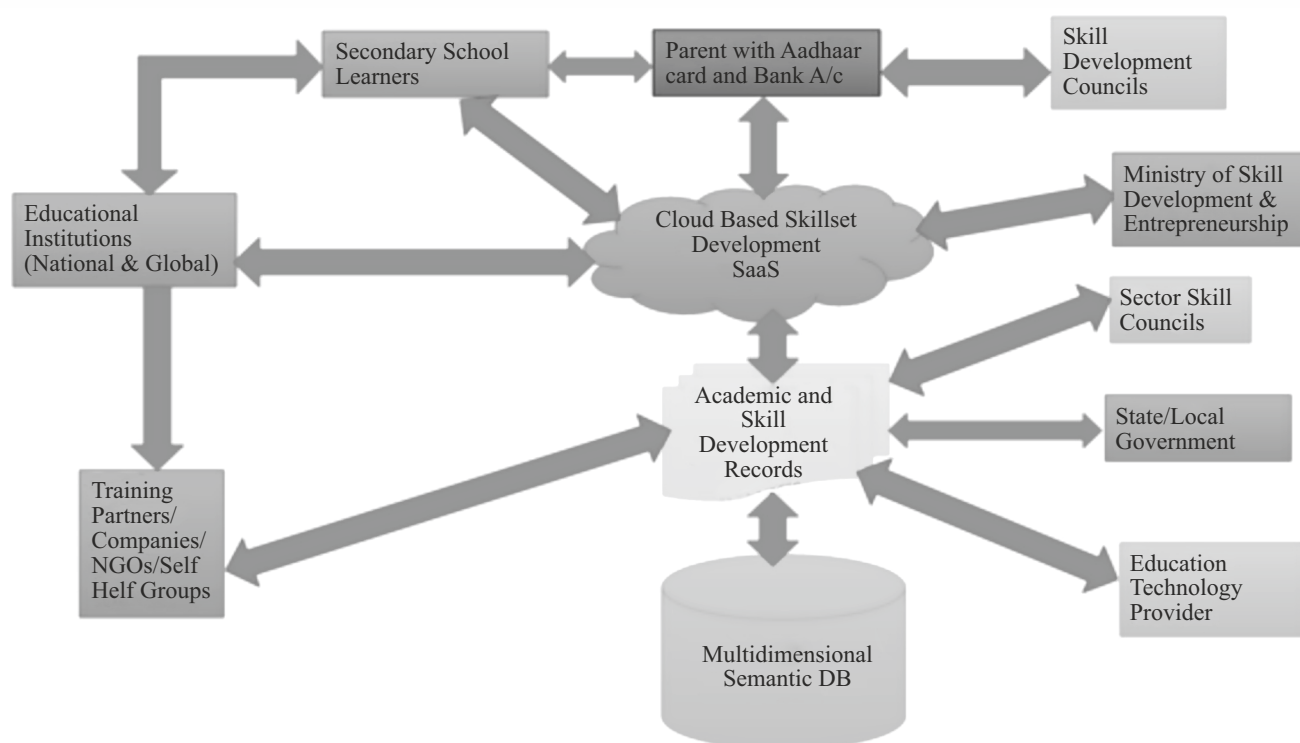


Figure 4 - Conceptual Model for General & Vocational Based Education for Industry 4.0

- g. **Training Partner:** This entity could be a private firm or a state-sponsored agency/ department/ NGO that is expected to facilitate industry integrated projects/ social projects that are field based (On-the-Job) and reflect challenges of Industry 4.0 (Ghobakhloo, 2018). They are responsible to develop and facilitate industry integrated modules and stage learning programmes, offer industry mentors/ vocational trainers, document outcome reports and disseminate them to the relevant stakeholders.
- h. **Education Technology Providers:** This entity includes technology partners that develop tailored programming that promotes digital learning among students (Good, 2019). It facilitates development of platforms including Apps that facilitate working on student projects focused on local/ global sustainable issues among learners from different nations forming learning circles.

## DISCUSSIONS

The integrated framework for imparting quality education for meeting the challenges in light of Fourth Industrial Revolution calls in for a model that wires the various stakeholders through a seamless technology-driven mechanism. The eight shifts learning contents and experiences are enabled through the creation, mining and dissemination of specialized information among the stakeholders using dimensional predictive analytics. Based upon the case study of 16 different schools designated as future model schools the uniqueness of learning contents and experiences were mapped. The components and enablers were studied to design the integrated framework that is intended to facilitate the learners embedding the requisite skills for Industry 4.0 (Lorenz et.al, 2015).

The 'Global citizenship skills' require design of curriculum focused on understanding of UN SDGs, geo-political issues and sensitivity towards global issues on sustainability (Maharjan, et.al., 2019). It can be enabled by setting up of Innovation Labs, designing curriculum based on sustainable resource mobilization among societies, International cultural exchange programmes, cross cultural sensitivity training among faculty, generous use of technology enabled platforms for exchange of views and resources. Higher Education Institutions can be a facilitator for these initiatives for students among the member nations. The 'Innovation & Creativity skills' require focus on critical thinking, problem solving, system analysis ability. It can be enabled by facilitating an environment that motivates students towards curiosity to develop new solutions, products, ideas based upon the emerging local issues faced by the community and industry (Erol, et.al., 2016). The active involvement of the coaches or mentors from the local industry of the host geography acts as a

facilitator. They would support understanding of these local issues and support building an enterprise that resolves the problem at hand from local lens of resource availability and constraints. The 'Technology skills' require ability to design technology and programming. It can be enabled by designing STEAM courses, simulation labs, digital work production mechanism to embed the technology skills (Motyl, et.al., 2017). The active engagement of Education Technology partners as well as parents' support to the students acts as a strong facilitator. The 'Interpersonal skills' require honing ability to lead, be a social influencer and emotionally stable person. The guidelines of UN SDGs could act as a signpost for the stakeholders, besides organizing learning circles among students of different nations, nominating country coordinators of the learning circles, conducting Youth Entrepreneurship Programmes and debates among students in a parliament-like setting (Scheyvens, et.al., 2016).

The 'Personalized and self-paced learning' experience requires role-play based approach to learning leads to a better learning outcome (Godwin-Jones, 2019). The customized learning modules enabled Apps and tablets, self-reflection of one's learning add to the self-paced mechanism. This can be facilitated by the Self Help Group formed by NGO's, corporate donors and foundations, etc. The 'Accessible and Inclusive learning' experience requires a student group rich in diversity enabled by self-formed cohorts, virtual lab setting, digital courseware availability and parent's dashboard for a follow-up (Navarro, et. al. 2016). This can be facilitated by an active role of a consortium of researchers, domain experts, local employers, etc. to drive this form of learning. The 'Problem-based collaborative learning' experience requires discovery learning approach than the quest for a right answer to a problem at hand (Ryshina-Pankova, 2018). It has to focus on idea-generation, design thinking, exploration of alternative pathways, and interdisciplinary approach among peers. The businesses facing VUCA environment, universities with innovation labs and local SMEs can be main facilitators for this experience among the young learners. The 'Lifelong & student driven learning' experience requires building core skills like presentation, creativity, listening, resilience, problem-solving, leadership and collaboration (Gandhi, 2014). Focus on curating content, pedagogy and self-reflection assessment mode forms the bed-rock of this experience for lifelong learning. Skill building partnership programmes powered by industry-academia-ministry association can be a facilitator to this experience.

The above-mentioned learning components and stakeholders/ entities are proposed during the creation of semantic database cluster. It would be used for the dimensional predictive analytics and supports our SaaS,



cloud-based model. Semantic Database keeps track of transactions through backbone connectivity with the communities of practice via domain of motivation while using the mode of game-based learning environment using Augmented Reality/Virtual Reality. This framework enables mapping the learning process of an active student in a personalized and self-paced manner.

Further, the learning analytics shall be applied to predict performance at workplace in the future while tracking the job-related traits in continuous improvement mode of the student concerned. These learning modules would reconfigure to offer a student with the pre-requisite industry relevant vocational knowledge and skills. It would advise and offer support through the channelization of intelligent bots and E-assessment shall take place with the help of neural networks towards individual evaluation. All these parameters with the support of stakeholders of Education 4.0 model shall be able to transform the current skillsets towards Industry 4.0 demands.

## **SOCIAL & MANAGERIAL IMPLICATIONS**

Association to Advance Collegiate Schools of Business (AACSB) is undeniably the leading body to accredit the management institutes globally. It professes to foster engagement, accelerate innovation, and amplify impact in business education. It sets a gold standard among the B-schools to aim at continuous improvement in engagement among learners, faculty, academic institutions and businesses. The objective of AACSB is to align the business studies offered to students with the real-life practices in business organizations. The proposed model of schools of the future education clearly focuses on fostering a learning journey among the secondary level students to move towards 'joys of learning' and shifting away from the 'pressure of assessment'. This would move closer to the cherished dream of relative social mobility of young learners towards higher echelons of society and lock-in the social polarization process. This would also support the outlook towards a global citizenship and inclusive development across different boundaries and societies. This would enable the transformation towards innovation driven economies and societies by offering an insight to the policymakers and academia alike.

## **REFERENCES**

Bartell, C. A. (1994). Preparing Future Administrators: Stakeholder Perceptions.

Budget 2019: FM outlines 10-point vision for India 2030.

<https://www.thehindubusinessline.com/economy/budget/budget-2019-fm-piyush-goel-outlines-10-point-vision-for-india-2030/article26149615.ece#>

Busemeyer, M. R. (2012). Two Decades of Decentralization in Education Governance: Lessons Learned and Future Outlook for Local Stakeholders. In Presentation Delivered at OECD Conference, 'Effective Local Governance in Education.

The SDG Goal 4 would more likely be accomplished when the proposed model sees the genuine implementation from the identified stakeholders.

This seminal work also aims to offer a working model of skill-building which is required to meet the challenges of the Fourth Industrial Revolution (You, et.al. 2011). The smart factories and institutions require a total break from the passive form of learning that was heavily biased towards mass production of uniform talent for disconnected societies. The interactive form of learning is a call of the day to inculcate innovative and differentiated talents for the connected societies. The aspiring nations, like India, require its young learners to share the responsibility of imbibing future job-ready skills that would script success story for corporate India that is struggling to be competitive and sustainable in the global market-place (Kaur, 2017). The huge skill gap pointed by UNICEF in its 2030 skill scorecard would by far be bridged when businesses, academia and policymakers work in alignment for capacity building processes for Industry 4.0.

## **CONCLUSION**

The paper works to achieve its stated objectives. The first objective was to identify the critical criteria for defining an academic framework of high quality education for secondary education learners. The eight critical criteria as proposed by World Economic Forum was conceptualized for shifting the learning contents and experiences for inculcating skills among secondary level learners to meet requirements for Industry 4.0. The second objective was ascertaining the key stakeholders and resources. The paper highlights the various initiatives from Government of India to upscale the eco-system of skill building among Indian population. Also a wider list of stakeholders was identified for developing an integrated model for the schools of the future. The last objective was to propose the sustainable eco-system to connect the multiple stakeholders for achievement of skill building capacities among the young learners. An integrated model using technological advancements formed the right set of platform for creating an eco-system that promotes the skill building among global learners forging multiple networks with industry, academia and governments.

- Chawla, S., and Lenka, U. (2018). Leadership in VUCA Environment. In Flexible strategies in VUCA Markets (pp. 213-224). Springer, Singapore.
- Education & Training Industry in India. <https://www.ibef.org/industry/education-sector-india.aspx>
- Erol, S., Jäger, A., Hold, P., Ott, K., and Sihm, W. (2016). Tangible Industry 4.0: A Scenario-Based Approach to Learning for the Future of Production. *Procedia CiRp*, 54(1), 13-18.
- Fleac, E., Fleac, B., and Maiduc, S. (2018). Aligning Strategy with Sustainable Development Goals (SDGs): Process Scoping Diagram for Entrepreneurial Higher Education Institutions (HEIs). *Sustainability*, 10(4), 1032.
- Gandhi, M. M. (2014). Industry-Academia Collaboration in India: Recent Initiatives, Issues, Challenges, Opportunities and Strategies. *The Business & Management Review*, 5(2), 45.
- GBC-Education 2030 Skills Scorecard. (2019). UNICEF. <https://www.unicef.org/press-releases/more-half-south-asian-youth-are-not-track-have-education-and-skills-necessary>
- Good, M., Knockaert, M., Soppe, B., and Wright, M. (2019). The Technology Transfer Ecosystem in Academia. An Organizational Design Perspective. *Technovation*, 82, 35-50.
- Ghobakhloo, M. (2018). The Future of Manufacturing Industry: A Strategic Roadmap Toward Industry 4.0. *Journal of Manufacturing Technology Management*.
- Gloster, R., Buzzeo, J., Marvell, R., Tassinari, A., Williams, J., Williams, M., Swift, S. and Newton, B. (2015). The Contribution of Further Education and Skills to Social Mobility.
- Godwin-Jones, R. (2019). Riding the Digital Wilds: Learner Autonomy and Informal Language Learning.
- Kagermann, H. (2015). Change Through Digitization -Value Creation in the Age of Industry 4.0. In *Management of Permanent Change* (pp. 23-45). Springer Gabler, Wiesbaden.
- Kaur Majithia, R. (2017). What's Next in Design Education? Transforming Role of a Designer and its Implications in Preparing Youth for an Ambiguous and Volatile Future. *The Design Journal*, 20(sup1), S1521-S1529.
- Kwiek, M. (2015). European Universities and Educational and Occupational Intergenerational Social Mobility. In *Facing Trajectories from School to Work* (pp. 87-111). Springer, Cham.
- Lorenz, M., Rüßmann, M., Strack, R., Lueth, K. L., and Bolle, M. (2015). Man and Machine in Industry 4.0: How will Technology Transform the Industrial Workforce through 2025. *The Boston Consulting Group*, 2.
- Maharjan, N., Kuroda, K., Okada, M., Nakamura, S., Aburatani, H., Yamaguchi, T., and Ichitsubo, M. (2019). Generic Skills Assessment through Implementation of Group Based Learning to Understand SDGs. *Journal of Education and Practice*, 1, 6.
- Motyl, B., Baronio, G., Uberti, S., Speranza, D., and Filippi, S. (2017). How will Change the Future Engineers' Skills in the Industry 4.0 Framework? A questionnaire Survey. *Procedia Manufacturing*, 11, 1501-1509.
- Navarro, S. B., Zervas, P., Gesa, R. F., and Sampson, D. G. (2016). Developing Teachers' Competences for Designing Inclusive Learning Experiences. *Journal of Educational Technology & Society*, 19(1), 17-27.
- Pinzone, M., Fantini, P., Perini, S., Garavaglia, S., Taisch, M., and Miragliotta, G. (2017, September). Jobs and Skills in Industry 4.0: An Exploratory Research. In *IFIP International Conference on Advances in Production Management Systems* (pp. 282-288). Springer, Cham.
- Ras, E., Wild, F., Stahl, C. and Baudet, A. (2017, June). Bridging the Skills Gap of Workers in Industry 4.0 by Human Performance Augmentation Tools: Challenges and Roadmap. In *Proceedings of the 10th International Conference on Pervasive Technologies Related to Assistive Environments* (pp. 428-432).
- Rojko, A. (2017). Industry 4.0 Concept: Background and Overview. *International Journal of Interactive Mobile Technologies (iJIM)*, 11(5), 77-90.
- Ryshina-Pankova, M. (2018). Discourse Moves and Intercultural Communicative Competence in Telecollaborative Chats. *Language Learning & Technology*, 22(1), 218-239.
- Scheyvens, R., Banks, G., and Hughes, E. (2016). The Private Sector and the SDGs: The Need to Move Beyond 'Business as Usual'. *Sustainable Development*, 24(6), 371-382.

School Education. <https://www.msde.gov.in/school-education.html>

Sharma, V. (2018). Soft Skills: An Employability Enabler. IUP Journal of Soft Skills, 12(2), 25-32.

Skill Development in Primary and Secondary Education. <https://pib.gov.in/newsite/PrintRelease.aspx?relid=191699>

Umachandran, K., Della Corte, V., Amuthalakshmi, P., James, D.F., Said, M.M.T., Sawicka, B., delGaudio, G., Mohan, T.R., Refugio, C.N., Aravind, V.R. and Jurcic, I. (2019). Designing Learning-Skills Towards Industry 4.0. World Journal on Educational Technology: Current Issues, 11(2), 150-161.

World Economic Forum. (2018). 5 Things to Know About the Future of jobs.  
<https://www.weforum.org/agenda/2018/09/future-of-jobs-2018-things-to-know/>

You, B. K., and Liu, N. (2011). Stakeholder Views on the Roles, Challenges, and Future Prospects of Korean and Chinese Heritage Language-Community Language Schools in Phoenix: A Comparative Study. Heritage Language Journal, 8(3), 67-92.

# *Perspective of University Teachers Concerning Adequacy of Syllabus on Developing Human Intelligence: A Study of Assam (Central) University*

**Key words:** Human Intelligence, IQ, University, Syllabus, Students

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## **ABSTRACT**

The linkage between human intelligence and its determinants is a subject of keen interest among the researchers around the world. It is evident from the existing literature that human intelligence is a matter of pre-natal development and its enhancement is a post-natal development. Considering the agencies which form part of the post-natal environment, educational institutions are one. The study considered determinants of human intelligence acknowledging the previous works on the theme of intelligence. It tried to gauge the relative worth of the determinants on improving the human intelligence which is influenced by syllabus in the higher education. Teachers presently serving in Assam University with experience of decades of teaching in one and/or more universities, teaching different subjects were considered for the survey. It was found that enhancing subject knowledge, learning abilities and retaining information were such determinants which were well taken care of by the syllabus whereas determinants like

developing motivation, balancing optimism & pessimism, developing a futuristic approach and developing capacity for complex cognitive process need enhancement through syllabus.

## **INTRODUCTION**

Human Intelligence is one such matter which matters in every sphere of life if one is to attain the objectives set with the desired quality of excellence within the time frame set. When it comes to industry and commerce its importance is manifold. In this era of fierce competition in the market the producers and the suppliers after having exhausted almost all other options to reduce the cost of production have finally, though lately, understood that it is the management of Human Resource in general and the management of the requisite type of talent in particular which would help them to compete successfully. Even after ensuring the right kind and amount of educational qualification and technical training and knowhow supported with the requisite experience when the industrialist and the traders could not attain the targets

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industrialist and the traders could not attain the targets and compete in the market to their satisfaction they started looking towards such human qualities in their employees which would rescue them. It was almost this time when the researchers with the support of academicians and professionals started devoting their time to identify the human traits and also the counts of intelligence quotients. It was so because it is these qualities in the manpower which ultimately ensure the attainment of the objectives of any organization.

The present study is being undertaken in the background of the above. The available literature broadly suggests that to a certain extent it is the determinants like race and gene which influence the intelligence and to the remaining extent it is the environmental determinants which shape and mold the intelligence in a person. The environmental determinants again, in the literature, are divided into two segments i.e., pre-natal and post-natal. This study proposes to identify those post-natal determinants which are capable of modifying, enriching and enlarging the Human Intelligence. Considering that it is the home environment which includes in it the environment of the locality and the habitation one grows in and the environment of the educational institutions one passes through are largely capable of influencing the human intelligence of a person before he/she enters into employment life or other such, an attempt is trying to be made to scan the contributions of educational institutions on the matter. The educational institutions are expected to carry on this responsibility through many ways their syllabus, pedagogy, examination tools, systems and pattern and extra-curricular activities for example. This study proposes to identify the extent the syllabus of the Indian universities is capable of fine-tuning of the intelligence in their pupils by noting down the perceptions of the syllabus makers.

## REVIEW OF LITERATURE

Imlahi, H., Kissani, I. (2015) conducted a study on Intelligence Quotient (IQ) and its correlations with eight environmental determinants. The study was conducted as quantitative research and the survey based on the students of fourth grade attended primary school. The study covered 74 pupils, and the tests that were used such as separated variance t-test, ANOVA analysis and Multiple Regression analysis. The researcher could find that the lack of sleep has a huge impact on the human intelligence since sleep helps to rest the mental and physical strengths and organize the memory and thoughts as a result any distribution would cause a decrease in productivity, increase of heart attack and most definitely lower the intelligence quotient. The researcher also found that sport and breakfast have a significant correlation with IQ since they highlight the importance of both of them in children's life. Finally, the family problems surprisingly

improve the IQ of schooled- age child since it pushes them to think more gradually.

Yesikar, V., Guleri, S.K., Dixit, S., Rokade, R., Parmar, S. (2015) conducted a study on Intelligence Quotient and its association with academic performance of medical students. The study was done to know the duration of preparation, self- study hours and the academic performance. The research was conducted in Madhya Pradesh. The study was done on 300 medical students using structural questionnaire. The researchers found that students with near average IQ work hard in their studies and their academic performance was comparable and even better than higher IQ students. The study also found that the students from middle and lower socioeconomic status generally had lower IQ.

Dehnad, Bagherzadeh, Bigdeli, Hatami, & Hosseini (2010) conducted a study to revise the present syllabi of English for specific purpose (ESP) postgraduate courses. The respondents in the study were postgraduates students, graduate students, head of the departments, ESP instructors and executive manager of ministry of health(MOH). Questionnaires and semi-structured interview were the tools used in the study. The result showed that there is a gap between the needs of the students (as described by themselves) and the MOH.

Eberly, Newton, & Wiggins (2001) initiated a study to examine the nature and content of general education syllabi with an objective to gain a better understanding of its attributes, to identify ways in which syllabi reflect and communicate University goals and objectives of general education. The researchers were of the view that syllabi must define the expectations of the instructors as well as the students.

## OBJECTIVE OF THE STUDY

The objectives were framed considering only such determinants which can be influenced by syllabus of higher educational institutions.

1. To identify and select such Post-Natal Environmental determinants which are capable of influencing human intelligence and can be influenced by syllabus of higher educational institutions.
2. To gauge the relative worth of the Post-Natal Environmental determinants in influencing human intelligence based on the responses of University teachers.
3. To compare the relative worth of the Post-Natal Environmental determinants capable of influencing human intelligence based on the select demographic identities of the University teachers.

## RESEARCH METHODOLOGY

The study is descriptive in nature and considered the

census method. In order to attain the objectives of the study initially an extensive review of the existing literature was carried out to identify the determinants that are pivotal to human intelligence. In order to ensure the correctness of the determinants so identified through the said literature review, some senior teachers of Assam University were consulted. The identified determinants were checked by the senior teachers and only those were retained for the study which found to be appropriate. In addition to it, suggestions of the senior teachers in the form of determinants which influence human intelligence were also considered. Since the study called for collection of primary data, a structured questionnaire was developed to have the views of the senior teachers of Assam University over the matter. Five point Likert scale

was used in the questionnaire to quantify the responses. Computational software i.e., Microsoft Excel was used for analysis of the data. The population of the study was 121 (Professors being 8 and Associate Professors being 32) which comprised the teachers serving in two ranks i.e., Professors and Associate Professors of Assam University. Even though it was decided to have a census study, owing to non-availability of some of the teachers during the period of data collection i.e., the month of March-April 2019, only 73 respondents could be contacted and only their views could be had of which 72 (52 from professors and 20 from associate professors) were accepted after carrying out the exercise of data cleaning. Statistical tools such as mean scores and rank were used to analyze the data.

**Table 1 - Details of Population and the Number of Traceable and Mistake Free Respondents**

Rank of the Teachers	Science & Technology		Social Science & Humanities		Total	
	Population	Traceable and Mistake free	Population	Traceable and Mistake free	Population	Traceable and Mistake free
Professors	34	21	55	31	89	52
Associate Professors	12	6	20	14	32	20
Total	46	27	75	45	121	72

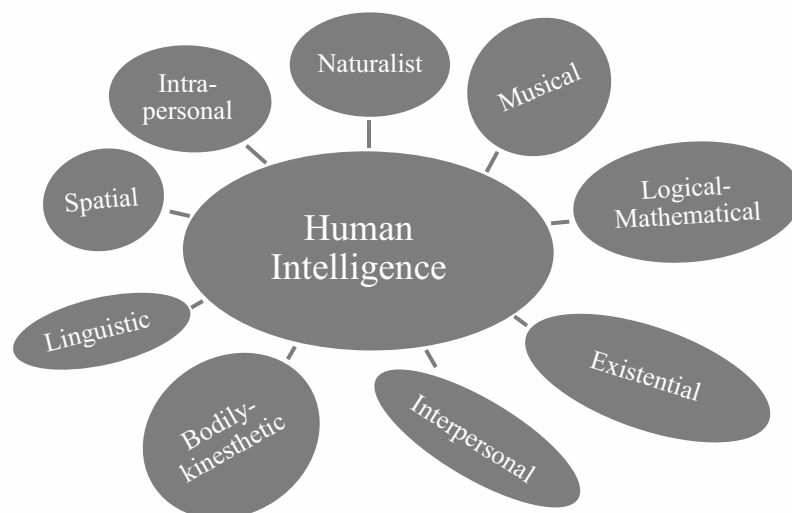
Source: Primary data

Note: the population is depicting the figures of professors and associate professors across science & technology and social science & humanities disciplines' of Assam University

## HUMAN INTELLIGENCE AND ITS DIMENSIONS

Intelligence is the ability to see meaningful relationship between things. It includes perceiving, knowing, reasoning and remembering. There is considerable relationship between a person's degree of intelligence and range of activities, the level of achievement and the

depth of understanding possible to him (Yesikar, Guleri, Dixit, Rokade, & Parmar, 2015). The human intelligence is related directly to cognition, emotion and experience of a person; therefore, we could say comfortably that it is the most complicated system by far (Imlahi & Kissani, 2015).



Source: Gardner, H (2011)



Schooling systems focus on range of intelligence which are essential for surviving and thriving in the world and include a narrow range of intelligence that involves primarily verbal/linguistic and logical/mathematical skills (Gardner, 2011). For a fuller human development and to reach a potentially high level of intelligence some other dimensions must be touched and talk about (Dickinson, 1999). These include Naturalist intelligence (understanding natural world), Musical intelligence (expressing and understanding music), existential intelligence (understanding life and death), interpersonal intelligence (understanding other people), bodily-kinesthetic intelligence (understanding physical activity), spatial intelligence (strengthening imagination)

and intra-personal intelligence (understanding the inner world of emotions).

### DETERMINANTS THAT GENERALLY INFLUENCE HUMAN INTELLIGENCE

A substantial amount of work is available on the subject matter of Human Intelligence. The researchers on the subject have worked on varied determinants of H.I., which includes the role of each of these in influencing the H.I of a person. A brief summary of the academicians, researchers and the experts who have contributed by establishing a relationship of the determinants under study with H.I. is served in Table no. 2.

**Table 2 - Table Portraying the Details the Determinants of Human Intelligence and the Corresponding Authors**

Determinants of Human Intelligence	Author
1. Subject Knowledge	(Furnham & Chamorro-Premuzic, 2006)
2. Learning Ability	(Jensen, 1989)
3. Comprehension	(Eagly & Warren, 1976)
4. Communication Skills	(Kuntz, Molen, & Born, 2018)
5. Motivation	(Duckworth, Quinn, Lynam, Loeber, & Loeber, 2011)
6. Thinking Ability	(Shi, Wang, Yang, Zhang, & Xu, 2017)
7. Reasoning Ability	(Kaufman, DeYoung, Reis, & Gray, 2011)
8. Self-Awareness	(Demetriou & Kazi, 2006)
9. Decision Making	(Wieder & Ossimitz, 2015)
10. Plan Making Ability	(Imlahi, H, 2015)
11. Idea Refinement Ability	(American Psychological Association, 1995)
12. Problem Solving Ability	(Anderson, 2006)
13. Information Retaining Ability	(Columbia Encyclopedia, Sixth edition, 2006)
14. Versatility	(Kim, 1990)
15. Attitude	(Mishra, 2016)
16. Stress Tolerance Capacity	(Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007)
17. Patience	(Potrafke, 2019)
18. Memory	(Sternberg, 2000)
19. Futuristic Approach	Pilot survey*
20. Balance between Optimism and Pessimism	Pilot survey*
21. Self-Regulation	(Voss, 2005)
22. Complex Cognitive Processes	(Hunt, 2010)
23. Recognize and Accept the Changes	(Menger, 2009)
24. Recognize Patterns	(Pfeifer, 1996)
25. Maturity Development	(Hunt, 2010)

Source: Review of literature

Note: The (\*) marks represent those determinants of HI which were suggested by the experts at the time of pilot survey to incorporate in the final questionnaire.

## RESULTS OF THE STUDY

### Relative Worth of the Post-Natal Environmental Determinants in Influencing Human Intelligence Based on the Responses of University Teachers

The determinants contributing to human intelligence have been identified with the help of a thorough review of

literature. After the identification, the determinants were ranked by utilizing the responses of the respondents. The data reveals that relatively the determinants of human intelligence like subject knowledge (ranked 1<sup>st</sup>), learning abilities (ranked 2<sup>nd</sup>) and retaining information (ranked 3<sup>rd</sup>) are well taken care of by the syllabus.

**Table 3 - Mean Scores and Ranks of the Determinants of Human Intelligence Based on the Influence of Syllabus of Higher Education as Perceived By all the Teachers**

Sl. No.	Determinants of Human Intelligence	Mean Scores	Rank
1.	Subject Knowledge	3.69	1 <sup>st</sup>
2.	Learning Abilities	3.33	2 <sup>nd</sup>
3.	Comprehension	3.21	4 <sup>th</sup>
4.	Communication Skills	2.85	15.5 <sup>th</sup>
5.	Motivation	2.65	25 <sup>th</sup>
6.	Thinking Abilities	2.96	7 <sup>th</sup>
7.	Reasoning Abilities	2.92	10.5 <sup>th</sup>
8.	Self- Awareness	2.94	8 <sup>th</sup>
9.	Decision Making Process	2.85	15.5 <sup>th</sup>
10.	Plan Making Abilities	2.82	18.5 <sup>th</sup>
11.	Idea Refinement	2.82	18.5 <sup>th</sup>
12.	Problem Solving Capacity	2.93	9 <sup>th</sup>
13.	Retaining Information	3.26	3 <sup>rd</sup>
14.	Versatile	2.71	20.5 <sup>th</sup>
15.	Attitude	2.89	12.5 <sup>th</sup>
16.	Stress Tolerance Capacity	2.71	20.5 <sup>th</sup>
17.	Patience	2.92	10.5 <sup>th</sup>
18.	Memory	3.04	6 <sup>th</sup>
19.	Futuristic Approach	2.69	22.5 <sup>th</sup>
20.	Balance between Optimism and Pessimism	2.68	24 <sup>th</sup>
21.	Self- Regulation	2.83	17 <sup>th</sup>
22.	Complex Cognitive Processes	2.69	22.5 <sup>th</sup>
23.	Recognize and Accept the Changes	2.88	14 <sup>th</sup>
24.	Recognize Patterns	2.89	12.5 <sup>th</sup>
25.	Maturity Development	3.10	5 <sup>th</sup>

*Source: Calculated from primary data*

On the contrary, the determinants like developing motivation (ranked 25<sup>th</sup>), balancing optimism and pessimism (ranked 24<sup>th</sup>), developing a futuristic approach and enhancing complex cognitive processes

(both ranked 22.5<sup>th</sup> with a common mean score) in a student are lacking behind in comparison to other determinants.

### Comparison of the Relative Worth of the Post-Natal Environmental Determinants Capable of Influencing Human Intelligence based the Groups Formed depending on the Ranks of the Teachers

During comparison of the determinants when made across the ranks of the teachers (Table 3) it was revealed that the factor 'subject knowledge' ranked 1st in the opinion of the respondents of both the ranks. The factor which occupied 2nd rank in the opinion of the respondents in the rank of Professors was 'learning abilities'.

Since the respondents in the rank of Associate Professors placed two determinants viz., 'learning abilities' and 'retaining information' together next to 1st rank the rank of these two came out to be 2.5th. The 3rd rank by the Professors was accorded to the determinant 'comprehension' whereas the Associate Professors preference for next to second position was in favor of three determinants equally viz., 'problem solving capacity', 'memory' and 'recognize patterns' and, therefore, the rank of these was 4th.

**Table 4 - Mean Scores and Ranks of the Determinants of Human Intelligence Based on the Influence of Syllabus of Higher Education as Perceived across the Ranks of the Teachers**

Sl. No.	Determinants of Human Intelligence	Professors		Associate Professors	
		Mean Scores	Rank	Mean Scores	Rank
1.	Subject Knowledge	3.71	1 <sup>st</sup>	3.64	1 <sup>st</sup>
2.	Learning Abilities	3.39	2 <sup>nd</sup>	3.09	2.5 <sup>th</sup>
3.	Comprehension	3.31	3 <sup>rd</sup>	2.73	13 <sup>th</sup>
4.	Communication Skills	2.89	13.5 <sup>th</sup>	2.64	18 <sup>th</sup>
5.	Motivation	2.69	24 <sup>th</sup>	2.46	23 <sup>th</sup>
6.	Thinking Abilities	3.00	7.5 <sup>th</sup>	2.64	18 <sup>th</sup>
7.	Reasoning Abilities	2.90	11.5 <sup>th</sup>	2.91	7.5 <sup>th</sup>
8.	Self-Awareness	3.06	6 <sup>th</sup>	2.64	18 <sup>th</sup>
9.	Decision Making Process	2.83	18 <sup>th</sup>	2.73	13 <sup>th</sup>
10.	Plan Making Abilities	2.81	20 <sup>th</sup>	2.91	7.5 <sup>th</sup>
11.	Idea Refinement	2.87	16 <sup>th</sup>	2.73	13 <sup>th</sup>
12.	Problem Solving Capacity	2.92	10 <sup>th</sup>	3.00	4 <sup>th</sup>
13.	Retaining Information	3.27	4 <sup>th</sup>	3.09	2.5 <sup>th</sup>
14.	Versatile	2.77	22 <sup>nd</sup>	2.55	21.5 <sup>th</sup>
15.	Attitude	2.96	9 <sup>th</sup>	2.55	21.5 <sup>th</sup>
16.	Stress Tolerance Capacity	2.87	16 <sup>th</sup>	2.27	24.5 <sup>th</sup>
17.	Patience	2.89	13.5 <sup>th</sup>	2.73	13 <sup>th</sup>
18.	Memory	3.00	7.5 <sup>th</sup>	3.00	4 <sup>th</sup>
19.	Futuristic Approach	2.81	20 <sup>th</sup>	2.27	24.5 <sup>th</sup>
20.	Balance between Optimism and Pessimism	2.65	25 <sup>th</sup>	2.64	18 <sup>th</sup>
21.	Self- Regulation	2.87	16 <sup>th</sup>	2.73	13 <sup>th</sup>
22.	Complex Cognitive Processes	2.75	23 <sup>rd</sup>	2.64	18 <sup>th</sup>
23.	Recognize and Accept the Changes	2.90	11.5 <sup>th</sup>	2.82	9.5 <sup>th</sup>
24.	Recognize Patterns	2.81	20 <sup>th</sup>	3.00	4 <sup>th</sup>
25.	Maturity Development	3.15	5 <sup>th</sup>	2.82	9.5 <sup>th</sup>

Source: Primary data

NB: Own calculation

The determinant which is capable of influencing only marginally was 'balance between optimism & pessimism' and therefore, could secure only the last rank i.e., 25th. On the other hand, the respondents in the rank of Associate Professors accorded two determinants viz., 'stress tolerance capacity' and 'futuristic approach' together the same rank which statistically came out to be 24.5th with a common mean score. The determinant which occupied the last but one position in the opinion of the respondents in the rank of Professors was 'motivation' rank wise which stood at 24th, whereas the same determinant was provided the status of the last but one by the Associate Professors but secured 23rd rank. In the opinion of Professors third from the last position was had by the determinant 'complex cognitive processes' which secured 23rd rank. The Associate Professors provided the status of 3rd from the last to two determinants together viz., 'versatile' and 'attitude' with a rank of 21.5 which is the outcome of statistical calculation, with a common mean score.

#### **Comparison of the Relative Worth of the Post-Natal Environmental Determinants Capable of Influencing**

#### **Human Intelligence Based on the Groups Formed Depending on the Broad Areas of the Subjects Taught by the Teachers**

It can be observed from table 4 that the determinant 'subject knowledge', among the determinants of Human Intelligence, was ranked 1st in the opinion of the respondents belonging to both the streams. The two determinants which acquired equal importance (for the 2nd and 3rd rank) in the opinion of the respondents belonging to the streams of science & technology securing 2.5th rank were 'learning abilities' and 'retaining information', whereas the determinant 'learning abilities' secured 2nd rank in the opinion of the respondents belonging to the streams of Social Science & Humanities. The determinant which secured the next position i.e., 4th has per the opinion of the respondents belonging to the streams of Science & Technology was 'maturity development' whereas the determinant 'retaining information' secured 3rd rank in the opinion of the respondents belonging to the streams of Social Science & Humanities.

**Table 5 - Mean Scores and Ranks of the Determinants of Human Intelligence Based on the Influence of Syllabus of Higher Education as Perceived across the Groups Formed Depending on the Broad Areas of the Subjects Taught by the Teachers**

Sl. No.	Determinants of Human Intelligence	Teachers Teaching Science and Technology		Teachers Teaching Social Science and Humanities	
		Mean Scores	Ranks	Mean Scores	Ranks
1.	Subject Knowledge	3.74	1 <sup>st</sup>	3.67	1 <sup>st</sup>
2.	Learning Abilities	3.37	2.5 <sup>th</sup>	3.31	2 <sup>nd</sup>
3.	Comprehension	3.26	5 <sup>th</sup>	3.18	4 <sup>th</sup>
4.	Communication Skills	2.70	23.5 <sup>th</sup>	2.93	8.5 <sup>th</sup>
5.	Motivation	2.85	19.5 <sup>th</sup>	2.53	24.5 <sup>th</sup>
6.	Thinking Abilities	3.07	7 <sup>th</sup>	2.89	11 <sup>th</sup>
7.	Reasoning Abilities	3.00	9.5 <sup>th</sup>	2.87	13 <sup>th</sup>
8.	Self- Awareness	2.96	11.5 <sup>th</sup>	2.93	8.5 <sup>th</sup>
9.	Decision Making Process	2.70	23.5 <sup>th</sup>	2.93	8.5 <sup>th</sup>
10.	Plan Making Abilities	2.89	17.5 <sup>th</sup>	2.78	18 <sup>th</sup>
11.	Idea Refinement	2.82	21.5 <sup>th</sup>	2.82	15.5 <sup>th</sup>
12.	Problem Solving Capacity	2.93	14.5 <sup>th</sup>	2.93	8.5 <sup>th</sup>
13.	Retaining Information	3.37	2.5 <sup>th</sup>	3.20	3 <sup>rd</sup>
14.	Versatile	2.93	14.5 <sup>th</sup>	2.58	22.5 <sup>th</sup>
15.	Attitude	3.04	8 <sup>th</sup>	2.80	17 <sup>th</sup>
16.	Stress Tolerance Capacity	2.93	14.5 <sup>th</sup>	2.58	22.5 <sup>th</sup>

Sl. No.	Determinants of Human Intelligence	Teachers Teaching Science and Technology		Teachers Teaching Social Science and Humanities	
		Mean Scores	Ranks	Mean Scores	Ranks
17.	Patience	3.00	9.5 <sup>th</sup>	2.67	20 <sup>th</sup>
18.	Memory	3.11	6 <sup>th</sup>	3.00	5 <sup>th</sup>
19.	Futuristic Approach	2.96	11.5 <sup>th</sup>	2.53	24.5 <sup>th</sup>
20.	Balance between Optimism and Pessimism	2.56	25 <sup>th</sup>	2.76	19 <sup>th</sup>
21.	Self- Regulation	2.85	19.5 <sup>th</sup>	2.82	15.5 <sup>th</sup>
22.	Complex Cognitive Processes	2.82	21.5 <sup>th</sup>	2.62	21 <sup>st</sup>
23.	Recognize and Accept the Changes	2.89	17.5 <sup>th</sup>	2.87	13 <sup>th</sup>
24.	Recognize Patterns	2.93	14.5 <sup>th</sup>	2.87	13 <sup>th</sup>
25.	Maturity Development	3.33	4 <sup>th</sup>	2.96	6 <sup>th</sup>

Source: Primary data

NB: Own calculation

Among the determinants of Human Intelligence which, as perceived, could influence only marginally the determinant ‘balances between optimism & pessimism’ got pushed to the last rank i.e., 25th in the opinion of the respondents belonging to the streams of Science & Technology. The respondents belonging to the streams of Social Science and Humanities, on the other hand, put two determinants viz., ‘motivation’ and ‘futuristic approach’ together in the last position, statistically the rank of which comes out to be 24.5th. The last but one position was accorded to two determinants together viz., ‘communication skills’ and ‘decision making process’, statistically the rank of which comes out to be 23.5 by the respondents belonging to the streams of Science & Technology, whereas the two determinants together viz., ‘versatile’ and ‘stress tolerance capacity’ were placed at last but one position, statistically the rank of which comes out to be 22.5th, by the respondents of the streams relating to Social Science & Humanities. In the opinion of the respondents belonging to the streams of Science and Technology third from the last position was had by two determinants together viz., ‘idea refinement’ and ‘complex cognitive processes’ which secured 21.5th rank. The respondents belonging to the stream of Social Science and Humanities provided the status of 3rd from

the last to the determinant ‘complex cognitive processes’ with a rank of 21st.

#### **Comparison of the Relative Worth of the Post-Natal Environmental Determinants Capable of Influencing Human Intelligence based on the Groups Formed Depending on the Teaching Experience of the Teachers in one or more University/Universities**

It can be observed from table 5 that the determinant ‘subject knowledge’, ranked 1st in the opinion of both the sets of the respondents i.e., having experience of making syllabus in Assam university alone and having experience of making syllabus in other universities. The determinant which occupied 2nd rank in the opinion of the respondents who were a part of the syllabus making exercise in Assam University only was ‘retaining information’ whereas the determinant ‘learning abilities’ secured 2nd rank in the opinion of the respondents who were involved in the syllabus making processes of other universities too. The 3rd rank by the respondents involved in the syllabus making process of Assam University alone was accorded to the determinant ‘learning abilities’ whereas by the respondents involved in the syllabus making processes of other universities too it was the determinant ‘comprehension’ which secured this rank.

**Table 6 - Mean Scores and Ranks of the Determinants of Human Intelligence Based on the Influence of Syllabus of Higher Education as Perceived across the Groups Formed Depending on the Teaching Experience in one or more University/Universities**

Sl. No.	Determinant of Human Intelligence	Respondents having Served only in Assam University		Respondents having Served in Assam University in addition to other University(ies)	
		Mean Scores	Ranks	Mean Scores	Ranks
1.	Subject Knowledge	3.76	1 <sup>st</sup>	3.65	1 <sup>st</sup>
2.	Learning Abilities	3.24	3 <sup>rd</sup>	3.40	2 <sup>nd</sup>
3.	Comprehension	3.17	4 <sup>th</sup>	3.23	3 <sup>rd</sup>
4.	Communication Skills	2.83	18.5 <sup>th</sup>	2.86	10.5 <sup>th</sup>
5.	Motivation	2.83	18.5 <sup>th</sup>	2.53	25 <sup>th</sup>
6.	Thinking Abilities	3.00	10 <sup>th</sup>	2.93	8 <sup>th</sup>
7.	Reasoning Abilities	2.93	13.5 <sup>th</sup>	2.91	9 <sup>th</sup>
8.	Self- Awareness	2.86	16 <sup>th</sup>	3.00	7 <sup>th</sup>
9.	Decision Making Process	2.86	16 <sup>th</sup>	2.84	12.5 <sup>th</sup>
10.	Plan Making Abilities	2.79	20.5 <sup>th</sup>	2.84	12.5 <sup>th</sup>
11.	Idea Refinement	2.93	13.5 <sup>th</sup>	2.74	17.5 <sup>th</sup>
12.	Problem Solving Capacity	3.03	7 <sup>th</sup>	2.86	10.5 <sup>th</sup>
13.	Retaining Information	3.34	2 <sup>nd</sup>	3.21	4 <sup>th</sup>
14.	Versatile	2.76	22.5 <sup>th</sup>	2.67	22 <sup>nd</sup>
15.	Attitude	3.00	10 <sup>th</sup>	2.81	14 <sup>th</sup>
16.	Stress Tolerance Capacity	2.76	22.5 <sup>th</sup>	2.67	22 <sup>nd</sup>
17.	Patience	2.86	16 <sup>th</sup>	2.74	17.5 <sup>th</sup>
18.	Memory	3.07	5.5 <sup>th</sup>	3.02	6 <sup>th</sup>
19.	Futuristic Approach	2.72	24 <sup>th</sup>	2.67	22 <sup>nd</sup>
20.	Balance between Optimism and Pessimism	2.79	20.5 <sup>th</sup>	2.60	24 <sup>th</sup>
21.	Self- Regulation	3.00	10 <sup>th</sup>	2.72	19.5 <sup>th</sup>
22.	Complex Cognitive Processes	2.66	25 <sup>th</sup>	2.72	19.5 <sup>th</sup>
23.	Recognize and Accept the Changes	3.00	10 <sup>th</sup>	2.79	15 <sup>th</sup>
24.	Recognize Patterns	3.07	5.5 <sup>th</sup>	2.77	16 <sup>th</sup>
25.	Maturity Development	3.00	10 <sup>th</sup>	3.16	5 <sup>th</sup>

Source: Primary data

NB: Own calculation

The respondents whose syllabus making experience was because of their employment in Assam University only opined that the determinants of human intelligence which need to be taken care of more with the help of the syllabus taught at the level of higher education are ‘complex cognitive processes’, ‘futuristic approach’, ‘stress tolerance capacity’ and ‘versatile’ because the contribution of the syllabus in being able to improve the

human intelligence in the pupils on the said aspects (determinants) was very little.

The respondents whose syllabus making experience was based on their employment in other universities as well in addition to Assam university opined that the determinants of human intelligence which need to be taken care of more by the syllabus taught at the level of higher



education are ‘motivation’, ‘balance between optimism and pessimism’, ‘versatile’, ‘stress tolerance capacity’ and ‘futuristic approach’ because the contribution of the syllabus in being able to improve the human intelligence in the pupils on the said aspects (determinants) was very little.

### **Comparison of the Relative Worth of the Post-Natal Environmental Determinants Capable of Influencing Human Intelligence based on the Group Formed Depending on the Years of Teaching Experience of the Teachers**

It can be observed from table 6 that the determinant ‘subject knowledge’ secured 1st rank in the opinion of

both the sets of respondents i.e., having experience of making syllabus for less than 20 years and having experience of making syllabus for more than 20 years. The opinion of both the sets of the respondents about the determinant ‘learning abilities’ also was the same as the respondents of both the sets ranked this determinant as 2nd. The 3rd rank by the respondents involved in the syllabus making process for less than 20 years was accorded to the determinant ‘retaining information’ whereas the ones involved in the syllabus making process for more than 20 years accorded the status of 3rd place to two determinants together viz., ‘comprehension’ and ‘retaining information’ having a rank of 3.5th which happens to be the outcome of statistical calculation.

**Table 7 - Mean Scores and Ranks of the Determinants of Human Intelligence Based on the Influence of Syllabus of Higher Education as Perceived across the Teachers Grouped into Teaching Experience in one or more University/Universities**

Sl. No.	Determinant of Human Intelligence	Respondents having Less than 20 years of Experience of Syllabus Making		Respondents having an Experience of Syllabus Making for 20 and More Years	
		Mean Scores	Ranks	Mean Scores	Ranks
1.	Subject Knowledge	3.63	1st	3.76	1st
2.	Learning Abilities	3.32	2nd	3.35	2nd
3.	Comprehension	3.12	4th	3.32	3.5th
4.	Communication Skills	2.76	20th	2.94	8th
5.	Motivation	2.71	23rd	2.59	25th
6.	Thinking Abilities	3.03	8.5th	2.88	10th
7.	Reasoning Abilities	2.95	12th	2.88	10th
8.	Self- Awareness	2.89	14th	3.00	7th
9.	Decision Making Process	2.87	15th	2.82	12.5th
10.	Plan Making Abilities	2.76	20th	2.88	10th
11.	Idea Refinement	2.84	16th	2.79	14th
12.	Problem Solving Capacity	3.11	5th	2.74	16th
13.	Retaining Information	3.21	3rd	3.32	3.5th
14.	Versatile	2.79	18th	2.62	23.5th
15.	Attitude	2.95	12th	2.82	12.5th
16.	Stress Tolerance Capacity	2.71	23rd	2.71	19th
17.	Patience	2.82	17th	2.76	15th
18.	Memory	3.00	10th	3.09	6th
19.	Futuristic Approach	2.76	20th	2.62	23.5th
20.	Balance between Optimism and Pessimism	2.71	23rd	2.65	22nd
21.	Self- Regulation	2.95	12th	2.71	19th
22.	Complex Cognitive Processes	2.68	25th	2.71	19th

23.	Recognize and Accept the Changes	3.03	8.5th	2.71	19th
24.	Recognize Patterns	3.05	7th	2.71	19th
25.	Maturity Development	3.08	6th	3.12	5th

*Source: Primary data*

*NB: Own calculation*

The respondents having an experience of making syllabus for less than 20 years opined that the determinants of human intelligence which need to be taken care of more with the help of the syllabus taught at the level of higher education are 'complex cognitive processes', 'motivation', 'stress tolerance capacity', 'balance between optimism and pessimism', 'communication skills', 'plan making abilities' and 'futuristic approach' because the contribution of the syllabus in being able to improve the human intelligence in the pupils on the said aspects (determinants) was very little. The respondents having experience of making syllabus for 20 and more years, on the other hand, opined that the determinants of human intelligence which need to be taken care of more by the syllabus taught at the level of higher education are 'motivation', 'versatility', 'futuristic approach' and 'balance between optimism and pessimism' because the contribution of the syllabus in being able to improve the human intelligence in the pupils on the said aspects (determinants) was very little.

## CONCLUSION

It can be seen from the results that determinants of human intelligence like subject knowledge, learning abilities and retaining information are well taken care of by the syllabus of higher education. The capacity of the syllabus in enhancing the subject knowledge of the students was among the 1st ranked determinants as calculated irrespective of the groups so formed based on the ranks of the teachers, broad areas of the subjects taught, teaching experience in one or more university/universities, and years of teaching experience of the teachers. Determinants like developing motivation, balancing optimism and pessimism, developing a futuristic

approach and enhancing complex cognitive process are some of the determinants which need attention from the syllabus making authorities as these were ranked among the least. A set of differences were noticed in the determinants for the last rank across the different select demographic identities of the teachers. The determinant balancing between optimistic and pessimist was ranked last by the teachers in the rank of professors whereas the determinant stress tolerance capacity and developing a futuristic approach were ranked last by the teachers in the rank of Associate Professor. The determinant balancing between optimistic and pessimist again was ranked last but this time by the teachers who thought science and technology whereas the determinant motivation and developing a futuristic approach were ranked last by the teachers who thought social science and humanities. The determinant complex cognitive processes were ranked last by the teachers who thought only at Assam University whereas the determinant developing motivation was ranked last by the teachers who not only thought at Assam University but at other universities too. The determinant complex cognitive processes was ranked last by the teachers who have experience of teaching for less than 20 years whereas the determinant motivation was ranked last by the teachers who have experience of teaching for more than 20 years.

In a nutshell, we can sum up the finding by indicating determinants viz., developing motivation, balancing between optimism & pessimism, developing a futuristic approach, enhancing capacity for complex cognitive processes and developing stress tolerance capacity to get emphasis by the syllabus makers at the time of syllabus making.

## REFERENCES

- American Psychological Association. (1995). *Intelligence: Known and Unknowns*. American Psychological Association.
- Anderson, M. (2006). *Intelligence*. MS Encarta Online Encyclopedia.
- Columbia Encyclopedia, Sixth Edition. (2006).
- Dehnad, A., Bagherzadeh, R., Bigdeli, S., Hatami, K., and Hosseini, F. (2010). Syllabus Revision: A Needs Analysis Study. *Procedia Social and Behavioral Sciences*, 1307-1312.
- Demetriou, A., and Kazi, S. (2006). Self-Awareness in g (with Processing Efficiency and Reasoning). *Intelligence*, 297-317.
- Dickinson, D. (1999). *Learning Through Many Kinds of Intelligence. Learning Through the Multiple Intelligences*.

- Duckworth, A. L., Quinn, P. D., Lynam, D. R., Loeber, R., and Loeber, M. S. (2011). Role of Test Motivation in Intelligence Testing. *Proceedings of the National Academy of Science of the United States of America*, (pp. 7716-7720).
- Eagly, A. H., and Warren, R. (1976). Intelligence, Comprehension, and Opinion Change. *Journal of personality* , 226-242.
- Eberlt, M. B., Newton, S. E., and Wiggins, R. A. (2001). The Syllabus as a Tool for Student-Centred Learning. *The Journal of General Education* , 56-74.
- Furnham, A., and Chamorro-Premuzic, T. (2006). Personality, Intelligence and General Knowledge. *Learning and Individual Differences* , 79-90.
- Gardner, H. (2011). *Frames of Mind: The Theory of Multiple Intelligence*. New York: Basic books.
- Hunt, E. (2010). *Human Intelligence*.
- Imlahi, H. (2015). Intelligence Quotient and its Environment Determinants in Children.
- Imlahi, H., and Kissani, I. (2015). Intelligence Quotient and its Environmental Determinants in Children. 1-34.
- Jensen, A. R. (1989). The Relationship between Learning and Intelligence. *Learning and Individual Differences* , 37-62.
- Kaufman, S., DeYoung, C. G., Reis, D. L., and Gray, J. R. (2011). General Intelligence Predicts Reasoning Ability even for Evolutionarily Familiar Content. *Intelligence* , 311-322.
- Kim, S. H. (1990). *Designing Intelligence: A Framework for Smart Systems*.
- Kuntzw, J., Molen, H. T., and Born, M. P. (2018). Mastery of Communication Skills. Does Intelligence Matter? *Health Professions Education* , 9-15.
- Menger, F. M. (2009). *The Origin of Human Intelligence*. World Scientific.
- Mishra, B. K. (2016). *The Study of Human Behaviour*.
- Pfeifer, R. (1996). *Symbols, Patterns, and Behavior: Towards a New Understanding of Intelligence*.
- Potrafke, N. (2019). Risk Aversion, Patience and Intelligence: Evidence Based on Macro Data. *Economics Letters* , 116-120.
- Schuttle, N. S., Malouff, J. M., Thorsteinsson, E. B., Bhullar, N., and Rooke, S. E. (2007). A Meta-Analytic Investigation of the Relationship between Emotional Intelligence and Health. *Personality and Individual Differences* , 921-933.
- Shi, B., Wang, L., Yang, J., Zhang, M., and Xu, L. (2017). Relationship between Divergent Thinking and Intelligence: An Empirical Study of the Threshold Hypothesis with Chinese Children. *Frontiers in psychology* .
- Sternberg, R. J. (2000). *Handbook of Intelligence*.
- Voss, P. (2005). *Essentials of General Intelligence: The Direct Path to AGI*. Artificial General Intelligence .
- Wieder, B., and Ossimitz, M. L. (2015). The Impact of Business Intelligence on the Quality of Decision Making - A Mediation Model. *Procedia Computer Science* , 1163-1171.
- Yesikar, v., Guleri, S. K., Dixit, S., Rokade, R., and Parmar, S. (2015). Intelligence Quotient Analysis and its Association with Academic Performance of Medical Students. *International Journal of Community Medicine and Public Health*, 275-281.

# *Academic Leadership and Some Personal Reminiscences*

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S. K. Bhatt\*

## **ABSTRACT**

On one end of the leadership spectrum, there is Machiavelli-conniving, ambitious and ruthless. On the other, there is Cyrus the Great-humble, generous and loyal. Along this spectrum of great leaders and motivators, used so often in business books, speeches and anecdotes, there is hardly a mention of great teachers and academicians that have inspired and motivated young minds over generations. In this paper, after a preliminary discussion of traits, qualities and motivational drives that relate to leadership, we shall invoke great exemplary teachers of our times: Albert Einstein, George B. Dantzig, C. R. Rao and J. N. Kapur and others, and the leadership they provided in their fields of education, human development and advancement of knowledge. After all, inspiring is way better than leading and managing.

## **INTRODUCTION**

**The Leadership:** Charisma was thought to be a

common trait associated with leadership. Unfortunately, there have been ample examples that points to a lack in ethical values could reverse the leadership impact. Hitler, Benny Ebbers, CEO of WorldCom, Jeffery Skilling of Enron and Berny Madoff, former NASDAQ chairman and investment and Ponzi scheme operator came to be known for their notorious leadership. The author remembers the messages he used to receive, as the chairman of the MBA program committee from AACSB (American Association of Colleges and Schools of Business, an accreditation granting agency), to introduce more ethics content in the program. This was after the advent of World.Com and Enron. Over the years, the five common leadership traits (Dyck and Neubert, 2010) the experts could be agreeable, are the following: 1.The desire to lead, 2. Drive, 3. Self Confidence, 4. Honesty and Integrity, 5. Intelligence and job-relevant knowledge. Every leader would have these characteristics in varying amounts in them. World has known a high numbers of

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great leaders over ages such as Winston Churchill, George Washington, Abraham Lincoln, Franklin Roosevelt, Mahatma Gandhi, Nelson Mandela, Martin Luther King, Thomas Alva Edison, Plato, Confucius, Buddha, Aristotle, Newton, Einstein and so on.

A glance at the leadership literature reveals that the setting out a list of qualities and criteria for leadership has a vast variety of factors that determine a successful leader. This is the reason that identifying a great leader creates confusion and debate. As mentioned earlier, Ganges Khan finds himself on the lower side of the leadership spectrum as many historians have called him ruthless, aiming at victory by any means, immoral/inhuman or otherwise.

On the whole, the success of the leadership is in fulfilling the objective of the stated mission. Courage, motivation and farsightedness are three characteristics that would be common in every great leader. How a leader motivates his/her followers or workers is a subject of psychology but most recently the case of Paul O'Neill has garnered attention in leadership literature. Paul O'Neill (cnn/fareedzakaria /GPS/tough decisions/Paul O'Neill) was appointed the CEO of the Pittsburg based aluminum giant ALCOA. Whispers were abounding in the company as O'Neill did not come from aluminum background. In his first board meeting, O'Neill found that the national standard for the ratio of injuries to workers was 5%. Though ALCOA was doing much better than national standard, he commanded a 0% rate of accidents and injuries. Every expert in the company was flabbergasted, saying that it is next to impossible. O'Neill stuck to his order. The company's market value rose from \$3 billion in 1988 to 27.53 billion in 1999 while the net income increased from \$200 million to 1.484 billion per year during this period. In human resource management literature, it is termed as a release of "discretionary energy" by the workers. When the workers realize that the administration is caring for them, they work with enthusiasm and vigour that reflects their gratitude.

Unfortunately, there is a big confusion among the leadership experts in identifying a great leader or his/her leadership quality. For example, the great warrior Genghis Khan is debated as a murderer of hundreds of thousand people cannot justify being called a great leader, and so is his descendant Timur Lane caused the death of seventeen million people almost 5% of world population of that time in the 13th century. The traits of leadership will vary as the underlying field and the mission changes. We shall enlist some of the areas where the leadership characteristics are focused as the mission demands.

**Social Leadership:** Raja Ram Mohan Roy (Brahmo Sabha), Swami Daya Nand (Arya Samaj), Swami Viveka Nand (Rama Krishna Mission), Devendra Nath Tegore (Brahmo Samaj) and Mahatma Gandhi can form a

formidable group of social leadership. Their common trait was a compassionate and a selfless service to the society. Mahatma Gandhi had to indulge in the social reform to fulfill his larger mission that was the liberation of India because a fragmented and a segregated society could not stand up to an oppressor.

**Spiritual Leadership:** It is natural for India to produce great spiritual leaders. Asceticism, renunciation, spiritual practices and social service are common traits. The place for a guru in the Indian society reigns supreme. The author is fortunate to host Mahamandaleshwar Shree Vedvyasanand Sarasvati ji of Geeta Ashram, Rishikesh, India, when the author was the president of the Hindu Society of Manitoba in Winnipeg, Canada. The author is privileged to know Swami Pragya Nand of Shanti Kunj, Haridwar. On a personal note, Shree Mahamandaleswarji expressed his sadness about buffalo sacrifices in village fairs as a part of Kali puja. Guru ji did leave a great question to ponder. Ironically, the solution does lie with spiritual leaders like him. Due to their efforts, now Buffalo sacrifices are stopped. Uttarakhand boasts of two of the most well-known spiritual cities- Rishikesh and Haridwar. Hordes of devotees throng temples, bring riches to gurus, ashrams and what not. Unfortunately, the villages up above the hills in Garhwal and kumaon are sulking due to lack of work and proper motivation. The villagers are trapped into alcohol, smoking and chewing of tobacco and panmasala, the carcinogenic matter that causes cancer. The government can play a big role in developing a strategy to exhort the gurus and swamis in these temples and recognize them to perform social and spiritual services to villages and encourage people to rid these habits injurious to health.

Leadership pursuit and analysis is not new. The well-known leadership expert Professor Jack Hawly (1993) of Harvard University in his book- "Dharmik management", bases his discussion on leadership on a story in Mahabharata, occurred some five thousand years ago. In the story of the epic Mahabharata, the Kuru scion, Bhishma is lying on the bed of arrows, as he could delay his death till the northern phase of Sun that occurs on 14th January of every year and Yudhishtira, one of the princes, asks him about the duties of a leader. What is said on "raj dharma" that is, duties of a ruler, leaves the reader in disbelief that such lessons were conjured up some five thousand years ago in India. Hawly refers to the sixth part (khanda) of Mahabharata, written by Sage Vedvyasa some five thousand years ago. Luckily, the author could speak Sanskrit, the language in his childhood in which the Mahabharata is written. At the same time, the author of Mahabharata and the author of this paper lived at the bank of same river called Nayar or Naradganga in district Garhwal in India.

**Political Leadership:** A political leader is a great



communicator, understands his/her people's needs, culture and aspirations. He/she has the courage of moral conviction and works for the betterment of the people. Two most well-known political leaders Uttarakhand has given to India are: Bharat Ratna Govind Ballabh Pant of Almora who was the first chief minister of Uttar Pradesh and a home minister in Nehru's cabinet, and Vichitra Narayan Sharma, the author's relative, of Navada, Dehradun. He was a minister in Nehru's first cabinet of 1952, and was a constant companion of Mahatma Gandhi during the freedom struggle. The Khadi movement and the Khadi Gramodhyog is said to be his brain child.

**Military Leadership:** One thing that author's province Uttarakhand can feel proud in the field of military leadership. There are three Army Battalions in Uttarakhand: Garhwal, Kumayun and Gorkha. Disseminating information, tactical and strategic decision making, thinking on your feet, discipline and valor comes naturally to military leaders. The author's father-in-law fought Japanese Army in Burma in 1942 during the Second World War, as a British sergeant. The author reminisces an event in 1986, during an international conference of Indian Operations Research Society at New Delhi University when the author was introduced to General G.S. Rawat (retired), who at that time was the director of an MBA school in Noida. The general asked, "Where are you from Doctor?", "I am from Garhwal. Sir!" was the reply. He shook hands and said, "I am also a Pahari and I am very proud to see you here". Later, the author would come to know that General Rawat was the second-in-command of the Indian army under Field Marshal Manekshaw. They together won the Bangladesh war on Dec.16, 1971 in which ninety thousands of the enemy soldiers surrendered. This honor will be further topped by another Uttarakhandi, when General B.C. Joshi became the Indian army chief in 1993. Currently, Gen. Bipin Rawat is the C in C of Indian armed forces. Gen. Eisenhower, Gen. Patton, Audi Murphy, are great commanders.

**Technical Leadership:** Every corporation and business would need technical expertise such as accountants, investment experts, and actuaries tend to account for risks, and disaster management, and lawyers specializing in corporate law. No organization wants to repeat the fates of Enron and worlddotcom. As health and education is accounting for larger and larger portion of national budgets (60% in Canada), universities are warming up to include health care specialization in their MBA program.

**Entrepreneurial Leadership:** Many entrepreneurs claim that entrepreneurial ship cannot be taught. It is in you. One is born with it. Obviously, the author had a queer feeling when he was invited to lecture in an entrepreneurial school known as SEEDS (Self Employment and Entrepreneurial and Development

Society) in Vancouver, funded by the government of British Columbia, Canada. The author was further encouraged to meet a fellow Uttarakhandi, Sunil Rawat, instructing there. The school runs for 48 weeks. The first 10 weeks are devoted to classes that train them in preparing business plan, concepts of business, market research, demand supply data and break even analysis. The remaining 38 weeks are spent on business counseling. The B.C. government sets aside a fund of one billion dollars. The students (candidates) submit business projects and upon the approval of the application (projects), the funding is allotted with 25% liabilities and a prime +2% interest rate on loan. A fellow IITian at IIT Kanpur, in 1967, N.R. Narayana Murthy of INFOSIS is the most well-known entrepreneur of India.

**Business Leadership:** The whole business education is geared towards preparing business leaders. The complexity is due to so many factors to comply with. The organizational structure, whether pyramid or flat, the mission, the state of economy, consumer choices, keeping abreast with research, motivating workers are everyday tasks. Paul O'Neil, discussed above is a great example of a business leader. As Steve Jobs said, "We cannot afford to make things that consumers want today. By the time we make it, they would have changed their minds" The first meaning of management is acting in different interpersonal roles. (Sveningsson and Alvesson, (2016). As figurehead, the manager performs social, ceremonial and symbolic duties. The role of a leader here means creating a positive working climate and motivating and developing subordinates. In short, the Following Mintzberg's (1973) table describes ten managerial roles.

Interpersonal roles	Information manager	Decision maker
Figure head	Monitor	Entrepreneur
Leader	Disseminator	Disturbance handler
Liaison	Spokesperson	Resource Allocator, Negotiator

**Academic Leadership:** A teacher or a professor is responsible to update the society with the most current state of knowledge, be it philosophy, sociology, management or Science or Medicine. For this a teacher has to acquire the current state of knowledge in his/her field, and obtains the future state of knowledge, by researching for the benefit of the upcoming students. That is why a teacher keeps a global view of knowledge that he/ she is imparting to the future generations of students regardless of geographic boundaries. For scholastic development, it works both ways; a student searching for



a great teacher and a teacher searching for a future student. The author saw it personally while at IIT Kanpur, in 1967, the world renowned professor of Topology, Dr. Kelley of UCLA, took along with him (my colleague to be later), a genius young boy from Bihar, named Vashishtha Narayan Singh.

Nobel Laureate Kenneth Arrow (2000) and others in their book state that education is the fundamental for advancement and economic benefit for a society. Great teachers/professors train their students for dedication to knowledge and teach them how to think.

## HISTORY OF LEADERSHIP

Professor Jack Hawley (1993) of Harvard University in his book- *Darmik Management*, bases his discussion on the first lessons of leadership that occurred in the battle field of Mahabharata, (Rishi Vedavyasa, 3102 BCE). Prof. Hawley refers to part 6, the Anushashan Parva. The Mahabharata war occurred in the year 3102 BCE. (Wikipedia). Mahabharata describes the war between two groups of cousins, the Pandava and the Kauravas for the succession of the throne of Hastinapur, the modern day Delhi. The war was fought in Kurukshetra, a town in modern day Haryana. The Pandavas won the war. The Kuru scion, King Bhishma, the grandfather, is lying in the middle of the battlefield on a bed of arrows, counting his last breath. He had a boon by which he could delay his death till the northern phase of Sun (always the 14 January or the day of Lohari celebration in Punjab, and Pongal in Madras, India). On this day, the sun moves from the southern to the northern phase of the equator. In Hindu calendar, the date of this solar based festival is fixed on the same day every year whereas the dates of other festivals change as they are lunar based. The eldest Pandava, Yudhishtira, asks about the duties of a king (leader). What Bhishma responded was a lesson on "Raj Dharma" or Duties of a King that used to be referred by the ex-prime minister of India, Late Atal Vihari Vajpai. Though the Mahabharata treatise was written in Sanskrit, the author was lucky to be speaking in Sanskrit in his childhood in his village in Garhwal. Sanskrit is a state language of the province of Uttarakhand and Garhwal. Coincidentally, the author of Mahabharata and the author of this article lived on the bank of same river, the Narad Ganga or Nayar River in Uttarakhand.

In Mahabharata, this question of prince Yudhishtira to grandfather Bhishma is presented in a superior state of spirituality. In Hinduism, Lord, the Supreme Being, has to perform three tasks of 1. Creation, 2. Sustenance of righteousness (dharma), and 3, absorption and recreation. For these three activities, the Lord is recognized as Brahma, Vishnu and Shiva respectively. Lord Shiva is also called Lord of time. In Sanskrit, time is referred as Kaal, which also means death. It is elaborated by the fact that we all are moving towards death as time passes by.

What form of life (specie) one will get, will be decided by Lord Shiva according to his/her quality of life in the current birth. The energies required for performing these activities, are represented by the female divinities known as Saraswati, Laxmi, and Parvati respectively. While the battle of Mahabharata was on, the leadership question is raised through the dialogues between Goddess Parvati and Lord Shiva in the 151st chapter, part 6 of Mahabharata under the Daan dharma section, p.592. Here, Goddess Parvati is asking Lord Shiva, "O Lord! What makes the person sitting on the high chair, surrounded by others is being called a king? From physical appearance, they all look the same." The Lord said, he is the king of the state or the country because his behaviour and decisions impact the lives of his subjects, the people of country that he rules. In order to understand people's problems and understand his subjects, the king has to achieve utmost humility. For this he has to practice knowledge and remain in the accompaniment of the teachers and the seniors in the society. For this the king has to conquest his sense organs. He should select his ministers who are humble, knowledgeable, and have passed the test of truthfulness and honesty; and are good at the art of spying to understand the problems of the people. At this point, the author can only offer his salutations to prof. Jack Hawley of Harvard University, who, in spite of being brought up in the Western culture would take pains to read a Sanskrit book and bring the message of leadership to the world.

In what follows now, will be a description of some great professors that the author, luckily, came in contact directly or indirectly with all possible humility. It would also be a demonstration of how these great professors looked at the meaning/value of education and the universality of it that it is beyond the geographical boundaries.

### George B. Dantzig.

Professor Dantzig is the author of the well-known optimization problem solving tool, Linear Programming or the Simplex Method of Management Science. Around the same time in 1939, Professor Leonid Kontorovich also invented the simplex method. As Kontorovich's method was in reference to an economic problem, he also received the Noble Prize in Economics in 1975. For Dantzig's contribution, the Mathematical Programming Society has instituted the George B. Dantzig Prize. (Wikipedia). A movie "Good Will Hunting" is inspired by his life.

The author was a Ph.D. student in Mathematics at IIT, Kanpur and in 1970, had completed the comprehensive and written his first article on solving a fractional control programming using a stationary fractional programming method, (Bhatt, 1973) and Appendix. As the author could not get any feedback about the paper, in desperation he

sent it to Professor Dantzig at the Stanford University, California, USA for a consideration in his journal of optimization theory. Some three months had passed and it being his first paper, the author sent back a reminder for his kind consideration. A couple of weeks later, the author received a package from Dr. Dantzig stating that he had sent the paper for revision and as he did not receive any reply, therefore, he (Dr. Dantzig) revised the paper himself and it would appear in the volume 11, number 4 issue of the journal. It also stated- "communicated by G.B. Dantzig" which made the author's name well referred. The author wanted to thank him but didn't know how. It was quite perplexing for the author as to how a busy person such as Prof. Dantzig was - member of Rand Corporation, in 1973 he founded System Optimization Lab, received National medal of Science from Pres. Ford in 1976. He still found time for a student from a remote country. It sure was a way of establishing universality of education and an immense amount of encouragement.

### **Satyendra Nath Bose and Albert Einstein.**

After completing his Ph.D. at IIT, Kanpur, the author received an appointment at the Indian Statistical Institute, (ISI), Calcutta, and now Kolkata in 1972 as a lecturer in the prestigious Research and Training School (RTS) of ISI. The author was interviewed by R.R. Bahadur of Bahadur Likely hood Principle fame. When the author joined the department, Prof. S. N. Bose was the president and Dr. C.R. Rao was the director of the Institute. When the author saw his name in the list of faculty in the RTS department, he also saw the name of SN Bose in the list. The author checked with his departmental colleagues as to how he could meet professor Bose, he was told that the professor does not keep good health and one would have to go to his house to meet him.

While Prof. Bose was in the faculty of Dhaka University, during 1924 he wrote a paper on Plank's Law and Hypothesis of Light Quanta, and sent it to the British Journal of Philosophy magazine which rejected it. He then sent it to Albert Einstein for a possible publication in his journal of Physics. Bose in his letter wrote that, "Though I am a complete stranger to you, I don't feel any hesitation in making such request. Because we are all your pupils though profiting only from your teachings and writings." Einstein wrote back that Mr. Bose! "Unfortunately, the journal of Physics only accepts the articles written in German and therefore I have translated your article in to German and will be published in the next issue." No matter how distinguished and busy Professor Einstein may have been, he had time for a researcher from a remote land of Bangladesh. The recent experiments in 2009 in the LHC (Large Hydron Collider) distinguished the fundamental particle as Bosons (to recognize Prof. Bose) and Fermions. The theoretical model used for calculations is known as Bose Einstein Statistics.

Two years later, in 1974, Dr. Bose died in the local hospital and his body was brought to the ISI campus for a homage. At the time of death, Prof. Bose was working on the some unsolved problems of Magic squares and Latin squares.

Lesson: You are never old to do research and contribute to education.

### **C.R. Rao.**

Dr. C. Radhakrishna Rao was the Director of ISI when the author joined there as a lecturer in 1972. Dr. Rao was a FRS (Fellow of the Royal Society, England) like Prof. Satyen Bose. He was awarded by the government of India with the second highest award of Padmavibhushan, second only to Bharat Ratna, the highest award the government of India offers. The introduction to his world renowned book of 1965 on Linear Statistical Inference introduces him as the one who would be found in any statistician's list of five top statisticians of the world.

His predecessor, Dr. P.C. Mahalanobis who had passed away just two months before the author joined, was personally close to the Prime Minister Jawahar Lal Nehru and helped build the second five year plan, the Mahalanobis Plan (1956- 1961) for India. Dr. C.R. Rao too was a member of the Planning Commission of India. The plan focused on three pillars, Energy, Transportation and Communication. To collect the information for decision making, the department of NSS (National Sample Survey) was setup within ISI so that projections for the population, quantities of grains, pulses and vegetables such as potato, onions, tomato (POT) are available. The fact that onions have crossed the price of Rs. 200/kilo in the year 1919, shows a slag in the system. His birth day of 29 June is celebrated as "Statistics Day" in India.

On the first week of August, 1972, when the author arrived at the campus in Kolkata, with his wife and four children, the dean of the Institute made a trunk call to the director, Dr. C.R. Rao to Moscow. He allotted the author with his own, the Director's condominium. Pretty aghast at this offer, the author was told of the ISI policy of allotting the residential houses according to family size, and not based on rank.

Following December, the author was working on a paper at night at around 10 pm., when there was a knock at the door. When the door was opened, low and behold! There were these two gentlemen, the director Dr. C.R. Rao and the so called Euler- foiler Dr. Sharad- chandra Shankar Shreekhanda, one of the greatest mathematician of India, who had found the counterexample for the 1782 Euler conjecture on Latin Squares. When the shocked and nervous author asked as to what he could do, in came the reply- we would love to have tea with you. This made the author overwhelmed and humbled and asked himself,

“Where on earth do you find a President of a university going to a junior lecturer’s flat asking for a cup of tea. It was told later that here in ISI, scholarship reigns supreme. All else do not matter.

During the summer of 1975, there was a news in the ISI campus that Dr. Rao has left for Delhi for a special meeting with the then Prime Minister Indira Gandhi. It was told that the prime minister has to select eight India Scientist to go to the Eastern Block countries under a certain cultural exchange program. A month later, Dr. Rao called the author and congratulated him saying, “Dr. Bhatt, you are going to the Hungarian Academy of Sciences for three month in August. Prepare your passport and enjoy the Hungarian wine”. It was told that when the Prime Minister Indira Gandhi asked for the nomination of a scientist to go to Hungary, Dr. Rao raised his hand and proposed the name of S.K. Bhatt. It was unanimously approved by the distinguished panel, the best of India.

The author was of course overwhelmed with this selection of a one out of a billion Indians. One often hears a word around India that there is too much of regionalism, cast based favouritism, and what not. Here Dr. Rao comes from south, Andhra Pradesh and the author comes from a remote northern Himalayan village where no one in the family has gone to school prior to the author’s birth. His father, two uncles and one aunt never crossed a gate of a school. It was known about Dr. Rao that he is humble, helpful etcetera, but it was something else.

### **S.S. Shrikhande.**

In 1975, the author was looking for a good schools for his four children and it was suggested that IITs have central schools, so the author responded for an advertisement for an assistant professor position at IIT Bombay. Reaching there for interview and meeting some of the lecturers there who were my senior from IIT Kanpur, I was told that they have decided to hire only a Marathi (the local population of the province of Maharashtra). I did not believe it and thought of it as a rumour. At the interview, The author was introduced to the interview board and there was Dr. S.S. Shreekhande who shook hand saying that we know each other very well. After the interview when the author reached Kolkata, he received a large package in the post that was in appointment for lecturer’s position with five advanced increments. One could see a world class scholar not agreeing to petty regionalism if at all there was.

### **Ellice L. Johnson.**

In the summer of 1968, the Head of the Mathematics Department, Dr. J.N. Kapur asked the author to attend the Summer School on Operations Research designed for the University Professors organized by the United States PL 490 program. This was being set up at the Hindu College

of the Delhi University during the months of May and June 1968. The program was chaired by Prof. Ellice Johnson, a professor at Georgia Inst. of Technology, Atlanta, USA. He was also with the IBM Thomas J. Watson Centre at Yorktown Heights, New York. Dr. Johnson was a student of George B. Dantzig. The author was lucky that he got the Proficiency Award at the Summer School.

Back at the IIT, Kanpur, the author got a call from the head of the department, Dr. J.N. Kapur that someone has come to you. There surprisingly it was Prof. Ellice Johnson. The head asked the author to take the visitor to the guest house. Upon going there, the first thing Dr. Johnson spoke of the offer he wanted to give the author to come to the IBM Research Centre. Totally aghast at the offer, it did not take long to decline it due to the precarious situation the author’s wife was in a joint family at the edge of poverty. Dr. Johnson shook his head emphasizing that any one in this whole wide will give his right hand for it. Later he made the offer in writing and the author declined again. Of course, the author missed those chances and much more so when the author came to know that he was to be working with a certain Harry Markowitz, who would receive the Nobel Prize in Economics in 1990 later. Ellice Johnson would later receive the IBM Fellow in 1990, George Danzig Prize in 1985 and John Von Newman Prize. This incident does illustrate as to why the United States of America is the most advanced country in the world as they follow the principle of meritocracy not just within the country but would attract the best talent even if they have to look for out side of the country.

### **J.N. Kapur.**

In 1962, the author was a scientific assistant at the Defence Research Organization in Dehradun. However, the author joined the local D.A.V. College part-time program in Mathematics and passed by a first division. Encouraged by it, the author applied for a Ph.D. program at IIT, Kanpur in 1967. For 5 positions, there were 28 Gold medalists, one second rank holder, and the author, with just a first division. Of course in the interview, the author was regretting for this advent. Low and behold, Dr. J.N. Kapur called the author and asked him to join the Ph.D. program. It may have been the fact that the author had done his masters with a full time job to show a dire commitment.

After comprehensive review, Dr. Kapur suggested a topic of entropy optimization, but the author’s supervisor, Dr. S.K. Gupta and the author had started some work in mathematical programming. The author did attend the classes in Entropy Optimization though.

Dr. Kapur was a dedicated teacher and like a guardian to every student. He would always suggest to the author to always have a research problem in mind.



Later in 1985, at the University of Manitoba, the author received a call from Ian Goulter, the head of Civil Engineering Department to guide a student from Ghana, Kofi Awumah on the reliability of water resource network. The author did not know much about civil engineering but when we saw the water resource network and the reliability issues, the author immediately saw an entropy model will apply here fine. (Amumah, 1990). The fundamental paper is published in the prime journal of Hydrology. Could never thank Prof. J. N. Kapoor enough. A total dedication to research was learnt there.

#### **Prof. Daven Bose.**

Almost at the time of joining ISI, Kolkata, in 1972, the author received a call from prof. Daven Bose, head of the department of Economics. Dr. Bose was a very busy but humble person as he was also the Chairman of West Bengal Planning Commission. He seemed to have read my paper on Optimal Control Theory and there was a new trend in economics to create optimization models that were continuous in nature involving an integral sign. Gerard Debrue was working on such models that will fetch him the Nobel Prize in 1983 later.

At his advice, the author planned to deliver 10 seminars or lectures to the faculty of Economics some of them were from Harvard and MIT. After each lecture, we would all go to the canteen for tea. A professor from Jadavpur University will invariably come down for tea with us and join discussion. The author was introduced to him and the name was Amartya Sen. We would have good time. Of course it was not written on his face that he would win the Nobel Prize in 1998. Later the author would be using his HDI, Human Development Index in the study of life expectancy, health, income per capita etc.

#### **REFERENCES**

- Awumah, K.; Goulter, I. and Bhatt, S.K. (1990). Assessment of Reliability in Water Distribution Networks using Entropy Based Measures, Stochastic Hydrology and Hydrolics, PP 309-320.
- Bose, R.C. and Shreekahnde, S.S. (1959). The Faldity of Euler's Conjecture About the Non-Existence of Two Orthogonal Latin Squares Of Order  $4t+2$ , Proceedings of National Academy of Science, 45(5), 734-737.
- Arrow, K., Bowles, S. and Durlaf, S., (2000). Meritocracy and Economic Inequality, Princeton University Press, Princeton, N. J.
- Bose, S.N. (1924). Plank's Law and Hypothesis of Light Quanta. Zeitschrift fur Physik, Germany. (Editor: Albert Einstein).
- Dyck, B. and Mitchell, N. (2010). Management - Current Practices and New Directions. Houghtton \ Mufflin Harcourt Pub. Co.
- Hawley, J. (1993). Reawakening the Spirit in Work - The Power of Dharmik Management Barret Cobler Pub. Inc. USA.
- Kapur, J.N. and Kesavan, H.K. (n.d.). Entropy Optimization Principles with Applications. www.amazon.ca.
- Mintzberg, H. (1973). The Nature of Managerial Work. New York: Harper & Row.

In the end, readers may be wondering as to what happened to those two offers in 1975, one from the Honourable prime minister and the other from the IIT, Bombay. The author could not utilize any of them. Exactly during this period of May 1975, the author received an unsolicited offer from a certain University of Manitoba, Canada. The author decided to join there. Just for authentication, the offer is being attached herewith to assuage curiosity.

#### **CONCLUSION**

Just to assuage reader's curiosity, the author approached the dean of his faculty in 2008 to apply for retirement. the Dean instead offered the author either to go on half load for life or accept the position of Professor Emeritus for life. The author accepted the second choice. It was then unanimously passed in the faulty council. When the author approached the Dean's secretary for the keys of the new office, the secretary reminded him, "Professor! These keys also have the key for the security of the management faculty building, therefore, please, make sure to return the keys before you leave this world". Of course, the author accepted it with delight and gratitude.

#### **DEDICATION**

This article is dedicated to Dr. APJ Abdul Kalam, Ex-President of India, for his lifelong service to humanity, science and inspiring youth. Dr. Kalam died on July 27, 2015, of a heart attack while delivering a lecture to the students of the Indian Institute of Management, Shilong, Assam, India.

Rishi Vedavyasa, (3102 BCE). Mahabharata, Part 6, Anushashan Parva, 15th Edition, 2015. Geeta Press, Gorakhpur, India.

Rao, C., R. (1965). Linear Statistical Inference and its Applications. John Wiley and Sons.

Sveningsson, S, and Alvesson, M. (2016). Managerial lives - Leadership and Identity in an Imperfect World. Cambridge University Press.

## APPENDICES

### Dantzig's Communication

Appointment from the University of Manitoba.

JOURNAL OF OPTIMIZATION THEORY AND APPLICATIONS Vol. 11, No. 4, 1977

#### An Existence Theorem for a Fractional Control Problem<sup>1</sup>

R. K. Bhow<sup>2</sup>

Communicated by G. H. Dantzig

**Abstract.** Computational algorithms in mathematical programming have been much in use in the theory of optimal control (see, for example Refs. 1-3). In the present work, we use the algorithm devised by Dinkelacker (Ref. 3) for a nonlinear fractional programming problem to prove an existence theorem for a control problem with the cost functional having a fractional form which subsumes the control problem considered by Lee and Marcus (Ref. 4) as a particular case.

#### 1. Introduction

Let a system of differential equations be given, that is,

$$\dot{x}_i(t) = f_i(t, x^1, \dots, x^n, u^1, \dots, u^m), \quad i = 1, \dots, n, \quad (1)$$

where  $f_i(t, x^1, \dots, x^n, u^1, \dots, u^m) = f_i(t, x, u)$ ,  $i = 1, \dots, n$ , are real continuous functions on  $R^1 \times R^n \times R^m \subset \Omega$ , where  $\Omega$  is a nonempty compact subset of  $R^{n+m}$ . By the Carathéodory existence theorem (Ref. 5), for each choice of the function  $u(t) = \{u^1(t), \dots, u^m(t)\}$  on  $-\infty < t_0 \leq t \leq t_1 < \infty$  as a measurable vector-valued function taking values in  $\Omega$ , the differential system

$$\dot{x}^1 = f^1(t, x, u(t)), \quad i = 1, \dots, n, \quad (2)$$

has a unique absolutely continuous solution  $x(t)$  on a subinterval of  $t_0 \leq t \leq t_1$  with the prescribed initial condition  $x_1 = x(t_0)$ .

<sup>1</sup> The author is thankful to the referee for suggestions.

<sup>2</sup> Department of Mathematics, Indian Institute of Technology, Kanpur, India. Now at the Indian Statistical Institute, Calcutta, India.



The University of Manitoba  
Faculty of Administrative Studies

Department of Actuarial and Business Mathematics

Winnipeg, Manitoba R3T 2N2  
June 6, 1975

Dr. Suresh Kumar Bhatt,  
Research and Training School,  
Indian Statistical Institute,  
203 Barrackpore Trunk Road,  
Calcutta, 700035, India.

Dear Dr. Bhatt:

It gives us great pleasure to invite you to join the Faculty of Administrative Studies of the University of Manitoba for the year 1975-76 as a Visiting Professor in the Department of Actuarial and Business Mathematics. We are able to offer you a salary of \$12,000 for the year from September 1, 1975 to August 31, 1976 which would be paid monthly and an additional sum of up to \$2,000 for expenses incurred in traveling to Winnipeg and returning to Calcutta.

We plan to have you teach three sections of our first year course, Introduction to Business Mathematics, for a total teaching load of nine hours per week during the 26 weeks of the academic year which runs from September 16 to April 9. There are two weeks holidays at Christmas and a one week study break in February.

This teaching load will leave you considerable free time for your research. We are particularly interested in the unique contribution that you can make to the Department in this area. We hope that you will be able to establish profitable collaborations with the other members of the Department, particularly Dr. Spector, and so further our research program.

If you require any additional information from us please do not hesitate to request it. For our part, we would appreciate hearing from you at your earliest convenience whether these arrangements would be satisfactory to you.

Yours very sincerely,

J. Callahan

Dr. J. Callahan,  
Acting Head,  
Department of Actuarial and  
Business Mathematics.

jc/lm



# *Evaluating the Change in Perceptual Pattern towards Destination Wedding Events: A Mix-Method Study for Post COVID-19 Scenario*

**Key words:** Destination Wedding, Tourism, Economy, Perception, Mix Method, COVID 19

**Bikram Prasad\* and Indrajit Ghosal\*\***

## **ABSTRACT**

The Covid-19 pandemic has, along with recession, led to fears of an imminent economic crisis. The nations around the globe have implemented lockdown and self-quarantine measures to prevent COVID 19 from spreading. The entire period of lockdown and other allied measures of social distancing have brought safety to people but with a sharp decline in the Economy. In an advancing situation of pandemic, when it is unpredictable about its prolonged effect, there is an increasing stress on the individual, society and legislative bodies. This situation has led to various Socio-Economic repercussions across the globe. In lieu of such situation, the economic crisis has impacted almost every facets of industry with tourism and hospitality being impacted massively. The tourism industry have suffered a loss of 850 million to 1.1 billion international tourists since the pandemic of Covid19. In such situations the tourism industry should operationalize and optimise their service

facilities without compromising the customer satisfaction. This investigation have explored the perceptions of the consumer and its relevant changes in their demand pattern from the destination wedding planners after the emergence of Covid19 pandemic. An mix method research design of Embedded sequential technique have been followed to extract the factors affecting the perception of the consumer about the destination wedding events after the Covid19 scenario. The implied findings of the research will help the event planners and destination wedding agencies to rationalise their service delivery with relevant changes in consumer perception after COVID 19.

## **INTRODUCTION**

Coronavirus disease 2019 also abbreviated as COVID-19 is an disease caused due to infection by severe acute respiratory syndrome (SARS-CoV-2).It has been traced in 2019 in month of November and it's first case was detected in China. After that, the virus has spread across

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the globe making it a global pandemic. According to the reports of World Health Organisation (WHO), the total confirmed cases of COVID-19 across the globe are 4.53 million confirmed cases with about 1.63 million cases recovered (16th May 2020). It is mainly infected to a person when a person touches an object, metallic surface that is already contaminated with the virus and touches their nose, eyes, or mouth. The consequence of the pandemic has led to strict healthcare safety measures which are mainly preventive, containment measures. This has caused a major disruption in the economies across the globe. The impact of this disruption has been observed across the primary sectors that is involved with extraction of the crude products, secondary sectors and tertiary sectors. Among all the industries, the hospitality and travel industry have been worst affected. The organisations like Marriott International with approximately 174,000 number of employees have been poised many workers on furlough (USA today 2020). The Hilton Worldwide has also informed it's lenders about precautionary measures it is taking by borrowing an amount of 1.75 billion dollar to maintain the economic sustainability in the situation of pandemic. The study has deeply investigated about the changes in the perception of the consumer due to repercussive Socio-Economic impacts of the global pandemic of COVID 19.

## **THEORETICAL FRAMEWORK**

The popularity of destination wedding has grown tremendously over the last two decades. This destination wedding occasion have gotten propelling just as boosting factor for the travel industry (Jang et al., 2007). This expanded inundation of visitor have additionally prompted expanded intrigue and appeal of destination (Getz, 2008). According to Goldbatt, 2002, Destination wedding can be characterized as an occasion having a place with type of religious, civil or pirate. Destination weddings are generally conducted outside the outside the bride or groom's hometown (Daniels and Loveless, 2007; Shumann and Amado, 2010). Through destination wedding, bride, groom and different members shape their dream, aspiration tangled with feelings of constructive sexuality with feelings of observing unique landscape Johnston (2006, p. 199). Contemporary researches about destination wedding have demonstrated about the prudent parts of destination wedding as far as direct, indirect and instigated impact alongside social, environmental and perspectives for business operations. This events of destination wedding helps in upgrading destination showcasing alongside exploration of nearby heritage, cultural presentation of individuals dwelling in the destination, local food and customs (Bowdin, Allen, O'Toole, Harris and McDonnel, 2006; Daniels and Loveless, 2007; Fortezza and Del Chiappa, 2012; Blancas et al, 2015). This study will profoundly concentrate on the apparent assistance conveyance parameters of goal

wedding occasion There is no uncertainty that sorting out and facilitating a wedding is an upsetting encounter for brides, grooms to be, and close family, not only in terms of impressive money related cost. It is also hence that most couples look for a less unpleasant alternative: the utilization of an overseas wedding organiser who will assist them in an organised manner. The weddings showcase is part around 60/40 between short take and long stretch trips (Mintel, 2008). There is consequently a stronger Pre-demeanour towards long stretch bundles than progressively customary occasions which still favour Short pull. Goals, for example, the Caribbean, Maldives, Mexico, Mauritius and South Africa are centre for long stretch special first night destinations which have ingested a portion of the wedding Market. These centre goals likewise have legal, Cultural and etymological systems which facilitate a direct encounter and Pre-wedding private prerequisites tend to be Shorter (generally three days or less).

## **SOCIO ECONOMIC IMPLICATIONS AND KEY DRIVERS OF PERCEPTUAL CHANGE**

The fear about the contraction of disease and its future probable effects have led to marked changes in the consumer behaviour. This behaviour is manifested among the people through following of social distancing, lock down, self-quarantine as means to prevent them from COVID 19 disease. The socio-economic scenario that the populations around the globe thought would have wider implications for consumer behaviour as well as for the consumer among tourists. The behavioural measures are also imposed by drafting newer policies to mitigate the situation of Global Pandemic. This can be in the form of reduction in participation in labour activities, cancellation of domestic and international flights, restrictions in the visit of afflicted regions. These factors have led to the sharp decline in the number of tourist. According to the World and Tourism Council, 50 million jobs associated with the tourism industry could be at risk. According to World Economic Forum reports March 2020, the European Tourism Manifesto Alliance have laid stress to take urgent steps for the survival of tourism industry. These steps include Aids from the government, Short-term loans and long-term loans and fiscal relief measures.

Furthermore, these factors have led to a sense of fear about touring at international destinations as well as a sense of xenophobia. Likewise, the economic disruptions have led to sudden changes in the employment rates, salary cuts, reduction in the investments, and reduction in CAPEX commitments. Hence in lieu of such scenario, the Destination Wedding Planners must understand the demands and behavioural changes in terms of social and Economic dimensions.

## RESEARCH GAP AND RESEARCH PROBLEM

The academic researchers and philosophers have deeply explored about the importance and parameters of the various events and festivals. The researchers have examined the significant importance of festivals (Dodds et al., 1991 and Monroe, 1990). The theoretical work of (Baker and Crompton, 2000; Lee et al., 2007b; Oliver, 1999) studied the relationship between satisfaction and loyalty in depth. But there is dearth of literature investigating the perceived dimensions of service delivery constructs affecting the serviceability aspects of the destination wedding events impacted due to Socio-Economic Repercussive Effects due to COVID 19. This investigation will deeply apprehend about the unmanifested constructs of service delivery spinning within the destination wedding events with changes in perception and consumer behaviour due to COVID 19.

## RESEARCH OBJECTIVE

To extract out the perceived factors affecting the service delivery aspects of the Destination Wedding evolved due to Socio-Economic Repercussive effects of COVID 19.

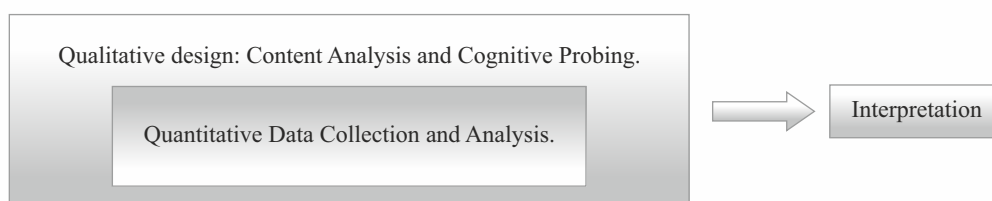
## RESEARCH METHODOLOGY

The Research framework proposes an approach based on Idiographic philosophy as coined by German Philosopher Windelband (1901). The level of analysis includes detailed conversation analysis and quantitative investigation later. The methodology of mixed method

research has been followed in this research. The methodology of embedded sequential design has been followed in this research.

**Step I:** The method of quantitative investigation have been conducted through convenience sampling. A structured questionnaire based on the 5 point Likert scale has been distributed to screen out the latent unmanifested variables. The process of data collection involves distributing questionnaire among the respondents who were the part of destination wedding event. The questionnaire has been distributed through Digital way. Online survey have been conducted and questionnaire have been distributed among the specific respondents. The sampling unit of respondents have been obtained from the Destination Wedding Planners. The questionnaires have been designed in such a way that it will take optimal interview time.

**Step II:** After the quantitative investigation, qualitative investigation has been conducted among the respondents. After obtaining the consent, a cognitive probing has been done. The questions conducted during interview were designed to get their views and perception about the destination wedding events post COVID 19 scenario. The answer given by the respondents have been subjected to qualitative investigation and text analysis. The textual analysis have been done through consecutive steps of Tokenization, Stop word Removal, Stemming and Lemmatization and Basic Test Statistics.



**Figure 1 - Embedded Sequential Design Conducted for the Study**

## FINDINGS OF THE STUDY

The findings of the study have been obtained in phases of quantitative and qualitative and later collectively compared. The results of the quantitative and the

qualitative investigation have been compared through Pillar Integration Process.

### Step I: Quantitative Findings

**Table 1 - Reliability Test on 24 Variables**

		N	%
Cases	Valid	100	100.0
	Excluded <sup>a</sup>	0	.0
	Total	100	100.0

a. Listwise deletion based on all variables in the procedure.

**Table 2 - Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.883	.890	24

**Table 3 - Variance Values Obtained through Rotated Component Matrix for Factor I**

Statement Number	Statement of Variables	Variance Values	Factors
1	The wedding planner provides facility of music shows.	0.566	Epicurean dimensions at economical cost
2	The wedding planner proves facility for thematic dance.	0.654	
3	Provision for cross cultural facilities at the destination by Indigenous Artisans.	0.763	
4	Provision for Wedding dress which may not be exclusive.	0.654	
5	Arrangement for beverages according to demand.	0.675	

**Table 4 - Variance Values Obtained through Rotated Component Matrix for Factor II**

Statement Number	Statement of Variables	Variance Values	Factors
6	Choosing destinations with safe environment	0.564	Choosing destinations with socially peaceful.
7	Culture of hospitality	0.653	
8	Lesser financial fraud	0.657	
9	Safety of women	0.765	
10	Place should have lesser reports of Covid 19	0.763	

**Table 5 - Variance Values Obtained through Rotated Component Matrix for Factor III**

Statement Number	Statement of Variables	Factors	Factors
11	Delivering food according to time.	0.765	Service with healthcare protocols
12	Proper synchronization with the events.	0.764	
13	Facilitating service according to wedding brochure.	0.675	
14	Proper Arrangement of themes and stages	0.763	
15	Proper availability of decoration Economic factors	0.652	

## Step II: Qualitative Investigation

The cognitive probing have been done by the investigation through scheduled interview. The response given through the interview have been subjected to qualitative investigation in which the process of computational linguistics have been followed. For the process of qualitative investigation, the Term Frequency Wordcloud, Network Diagram through Term

Co-occurrence and Bigram have been obtained. The findings of the study have been crystallised from the Lexicon based sentiment analysis and Thematic Analysis-Parts of Speech tagging with integration from the sentiment analysis. The sentiments have been clubbed in word cloud and the network diagram with Co-occurrence. As indicated from the network diagram, three key factors have been obtained. The three key factors underlying

destination wedding destinations are i) Compatibility with hedonistic aspirations ii) Socially cheerful with lesser crime records. iii) Reliability of service iv) Maintenance of healthcare safety protocols.

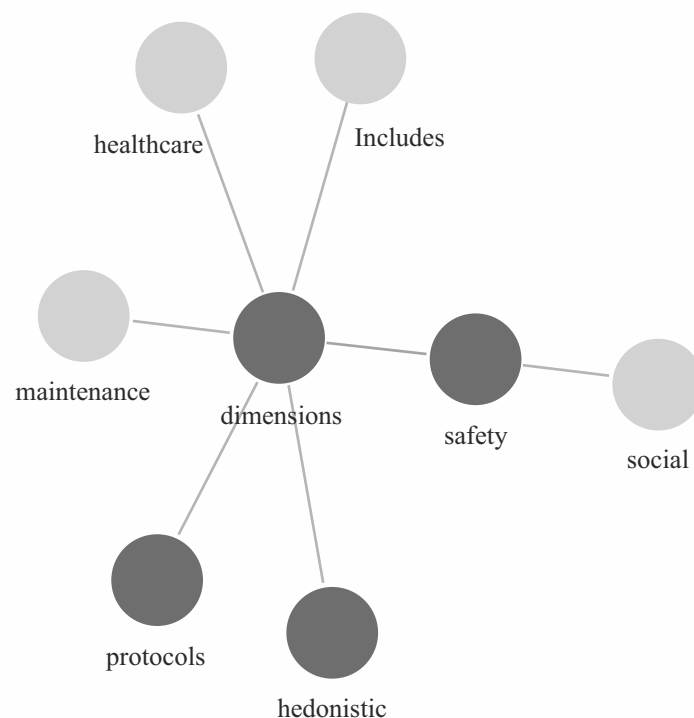
The bigram of the words have been calculated with compression ratio of 6.032 for wedding\_hedonistic aspirations, 3.20 for wedding\_social environment, 12.3 for wedding\_healthcare safety protocols.

**Table 6 - Computational Linguistics through Bigram Analysis**

United Words	N	Compression Ratio
wedding_hedonistic aspirations	6	6.032
wedding_social environment	8	6.032
wedding_healthcare safety protocols.	5	12.3




**Figure 2 - Word Cloud Diagram Depicting Key Words during Qualitative Analysis**



**Figure 3 - Qualitative Investigation Depicted through Term Co-Occurrence Process**



**Table 7 - Pillar Integration Process to Extract Themes through Listing, Matching and Checking**  
**Step III: Display through Pillar Integration**

Response Rates in Percentage	Quantitative Categories	Pillar Building Themes	Qualitative Categories	Qualitative Data as taken from the Transcripts of the Interview
				
Response rates for Strongly Agree: Statement 1:65% Statement 2::55% Statement 3:45% Statement 4:45% Statement5:71%	Epicurean dimensions at economical cost.	Epicurean dimensions at optimised expenses.	Compatability with hedonistic aspirations	“The event should be organised with provisions of food, music and wines. But the Covid Pandemic is life threatening. Cut in investments as liquidity flow is compromised”
Response rates for Strongly Agree: Statement 6:54% Statement 7:47% Statement 8:65% Statement 9:66% Statement 10:76%	Choosing destinations with socially peacefull.	Event organisation at place of lesser social offence.	Socially cheerful with lesser crime records.	“The place of lesser frauds, thieves and social compatability should be sought. The wedding planner should opt for such venues as they are better informed about the fact”
Response rates for Strongly Agree: Statement 11:86% Statement 12:67% Statement 13:78% Statement 14:78% Statement 15:75%	Service with healthcare protocols	Service with safety protocols of Covid19	Maintenance of healthcare safety protocols.	“The service should be arranged according to healthcare measures. The workers and staffs should wear masks and use hand sanitisers. The place should be kept Sanitised during the event with adherence to social distancing.”

## DISCUSSIONS AND MANAGERIAL IMPLICATIONS

The findings of the research can help in collaging the changes in consumer behaviour and alteration in factors affecting serviceability of the Destination Wedding Events. The key factors obtained through the pillar integration process are i) Epicurean dimension sat optimised expenses ii) Event organisation at place of lesser social offence iii) Service with safety protocols of Covid19. The findings of the research can help in qualitative assessment of the sentiments among the participants of wedding events especially for the post Covid 19 arena. This research can be a value addition for the wedding planners to plan and execute the wedding plans as well as optimise their operational expenses customised according to consumer. In the situation, when the consumers as well as organizations are planning for optimising operational expenses and budget allocation, the extracted results can help in executing such strategy

and planning. The findings of the study will strongly advocate for policy level changes from the Public stakeholders as well as for the Professional Wedding Planner agencies and other concerned stakeholders.

## RESEARCH LIMITATIONS

The research have been conducted with the online survey. Hence the process of convenience sampling have been chosen based on the convenience. This can limit the depth of result too some extent. The study can be conducted across specific countries to understand and evaluate the cross-cultural factors and their impact on service delivery resulted due to the global pandemic of COVID 19.

## ORIGINALITY/VALUE

This investigation will guide in exploring the untapped potential of wedding destinations and the change in the perception of consumers regarding serviceability of destination wedding planners evolved due to COVID 19.

## REFERENCES

- 1) Resilient Leadership Responding to COVID-19 | Deloitte Insights [Internet]. [Cited on March 20, 2020]. Available from: <https://www2.deloitte.com/global/en/insights/economy/covid-19/heart-ofresilient-leadership-responding-to-covid-19.html>
- 2) Marriott Furloughs Tens of Thousands of Employees due to Coronavirus [Internet]. USA Today. [Cited on March 20, 2020]. Available from: <https://www.usatoday.com/story/money/2020/03/17/marriott-furloughs-layoffs-coronaviruscovid-19/5068070002/>
- 3) Hotels Chains Maneuver to Deal With Coronavirus Gut Punch [Internet]. Skift. [Cited on March 20, 2020]. Available from: <https://skift.com/2020/03/18/hotels-chains-maneuver-to-dealwith-coronavirus-gut-punch/>
- 4) This is how Coronavirus Affect the Travel and Tourism Industry[Internet]. World Economic Forum [Cited on March 20, 2020]. Available from: <https://www.werforum.org/agenda/2020/03/world-travel-coronavirus-covid19-jobs-pandemic-tourism-aviation/>
- 5) Amy. European Tourism Sector Demands Urgent Supportive Measures to Reduce Devastating Impact of COVID-19 [Internet]. Hotel-Online. [Cited on March 20, 2020]. Available from: [https://www.hotel-online.com/press\\_releases/release/european-tourism-sectordemands-urgent-supportive-measures-to-reduce-devastating-impact-of-covid-19/](https://www.hotel-online.com/press_releases/release/european-tourism-sectordemands-urgent-supportive-measures-to-reduce-devastating-impact-of-covid-19/)
- 6) Baker, D.A. and Crompton, J.L.(2000). Quality, Satisfaction and Behavioral Intentions. *Annals of Tourism Research* 27 (3), 785–804.
- 7) Blancas, F.J., Lozano-Oyola, M. and González, M. (2015). A European Sustainable Tourism Labels Proposal using a Composite Indicator. *Environ. Impact Assess. Rev.* 54, 39–54.
- 8) UNWTO (2018). UN Tourism Highlights 2018 Edition. <https://www.e-unwto.org/doi/book/10.18111/9789284419876>, Accessed date: 31 July 2019.
- 9) Baker, D.A. and Crompton, J.L. (2000). Quality, Satisfaction and Behavioral Intentions. *Annals of Tourism Research*, 27, 785-804. [http://dx.doi.org/10.1016/S0160-7383\(99\)00108-5](http://dx.doi.org/10.1016/S0160-7383(99)00108-5)
- 10) Schumann, F.R., and Amando, C. (2010). Japanese Overseas Weddings in Guam: A Case Study of Guam's First Hotel Wedding Chapel. *South Asian Journal of Tourism and Heritage*, Vol. 3(1), P. 1-25.

# *A Study on Trade Intensity between Central Asian Countries and India*

**Key words:** *India; Kazakhstan; Kyrgyzstan; Tajikistan; Turkmenistan; Uzbekistan; Central Asia; Trade Intensity Index*

**Ritika Gugnani\***

## **ABSTRACT**

Since 2009, India is trying to promote trade relations with Central Asian countries namely Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. So the aim of the study is to look into the efforts by both the sides and estimate the Trade Intensity Index of India with Central Asian Countries. The study found that the trade deficit with Kazakhstan have continuously expanded during this time period. However, the trade balance improved with all the other central Asian countries including Kyrgyz Republic, Turkmenistan, Uzbekistan and Tajikistan between 2010-2018. Other than pharmaceutical products electronic machinery, mechanical machineries like boilers etc. also holds lot of potential and their share in exports is continuously rising. The trade share of Kazakhstan and Uzbekistan is continuously rising but share of Kyrgyzstan, Tajikistan and Turkmenistan is

fluctuating between 2010-2018. Indian exports to Central Asia over the time period of 2010-2018 has been concentrated in the area of consumer goods but with capital goods holds lot of potential. Trade Complementarity Index of Central Asian Countries is increasing after 2010 especially in case of Turkmenistan. The policy efforts are demonstrating moderate effects. There is room for more policy interventions.

## **INTRODUCTION**

India shares straightforward relationship with Central Asian economies as there are hardly any disputes with these countries namely Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Historically, also India holds close ties with these countries. The current security compulsions are pushing India towards higher level of security and economic cooperation with

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these countries. Russia, China and Iran are also sailing in same boat and are emphasizing on closer ties with these countries. In terms of trade relations India has established good presence in Central Asian countries in the energy and Pharmaceutical sectors. Trade in consumer goods is rising but certain trade barriers are coming in way. Central Asian Countries see India as an associate with no political and territorial goals. They believe that India is likely to play a balancing role amidst the powerful neighbors like Russia, China and Iran (Warikoo 2016). Central Asian countries are source of huge amount of supply of natural gas. As per a report by British Petroleum, the natural gas reserves together in Kazakhstan, Turkmenistan and Uzbekistan are estimated to be more than 700 trillion cubic feet (BP Statistical Review of World Energy, 2019). India's engagement with Central Asia came to limelight with Mr. Nursultan Nazarbayev, President of Kazakhstan becoming chief guest in republic day parade in New Delhi in 2009 (Media

Advisory, Ministry of External Affairs, Media Center, 2009) The budding association got another spur with launch of "Connect Central Asia" policy in 2012. China has funded many infrastructure projects in central Asian Countries. In the current political landscape in these countries United States of America (USA) political influence has reduced along with political independence from Soviet Union. So it becomes imperative that India tries to hold good trade relations with these countries to strengthen its position in the region.

The study is arranged based on following outline. First, a brief account of the macroeconomic scenario in India and the five Central Asian countries is discussed, followed by the share in the trade of Central Asian countries (CAC) in India's total trade. Then trade intensity is analyzed to look into further trade flows between the countries. The time period of the study was decided between 2010-2018 to see the effect of different policy measures taken by India to boost trade ties with Central Asian countries after 2009.

**Table 1 - Macroeconomic Profile of Central Asian Countries (2010-2018)**

Country	GDP Growth (%) (2010-2018)	GDP per Capita (2010-2018)	Labour Force Total 2018
Kazakhstan	4.46	10316.27	9119482
Kyrgyz Republic	4.06	990.01	2546670
Uzbekistan	6.73	2015.09	14615383
Tajikistan	7.03	905.147	2360481
Turkmenistan	8.98	6207.13	2523688
India	7.015	1681.77	489465316

*Source: Author's Compilation from World Development Indicators (WDIs) updated on 27 February, 2020*

Table 1 describes the macroeconomic profile of the Central Asian countries (CAC) and India. The analysis is done to see how the macroeconomic profile of the countries are changing post 2009 since India has started focusing on these countries. The GDP per capita data indicates that Kazakhstan, Turkmenistan are rising in terms of standard of living and hence their importance as export destination is also increasing

#### **ANALYZING THE CURRENT TRADE STRUCTURE**

For understanding the trade structure between India and five Central Asian countries the composition of major exports and imports between two regions is analyzed for the time period of 2010-2018. India's total turnover of trade with Central Asian countries has grown from less than \$1 billion in 2010 to US\$1.3bn in 2018 (as per the Trade Map data).

**Table 2 - Share of Central Asian Countries in India's Trade Basket**

	Share of Central Asian Countries in India's Total Trade Basket (in %)								
Country / Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Kazakhstan	0.053	0.047	0.055	0.089	0.15	0.077	0.072	0.157	0.106
Kyrgyzstan	0.004	0.004	0.004	0.0047	0.0047	0.0048	0.0046	0.0084	0.0036
Tajikistan	0.0068	0.0037	0.0058	0.0060	0.0082	0.0063	0.0056	0.0097	0.0043
Turkmenistan	0.007	0.007	0.010	0.0095	0.015	0.0196	0.013	0.010	0.009
Uzbekistan	0.014	0.018	0.0185	0.019	0.027	0.025	0.022	0.032	0.036
Total Share	0.086	0.0799	0.094	0.129	0.204	0.133	0.117	0.217	0.159

*Source: Author's Compilation from Trade Map, ITC (n.d.) data*

Table 2 shows the recent trade share of these countries in India's trade. The share of Kazakhstan and Uzbekistan is continuously rising but share of Kyrgyzstan, Tajikistan and Turkmenistan is fluctuating.

The total trade has grown from US\$272 million in 2010 to US\$422 million in 2018. It seems that due to governments' efforts the trade is increasing though at a very slow pace.

**Table 3 - Export, Import and Trade Balance of India with Central Asian Countries**

Year	Kazakhstan			Kyrgyz Republic			Uzbekistan			Turkmenistan			Tajikistan		
	Exp	Imp	TB	Exp	Imp	TB	Exp	Imp	TB	Exp	Imp	TB	Exp	Imp	TB
2010	146,212	157,500	11,288	24,324	10,32	23,292	56,589	24,088	32,501	28,849	12,781	16,068	16,353	22,411	-6,058
2011	236,117	122,562	113,555	29,496	726	28,770	87,818	52,138	35,680	39,363	13,917	25,446	21,288	6,744	14,544
2012	262,961	163,994	98,967	31,959	2,297	29,662	110,160	33,550	76,610	70,595	8,356	62,239	29,046	15,875	13,171
2013	275,732	441,841	-166,109	37,240	648	36,592	119,823	35,080	84,743	62,998	13,118	49,880	47,654	560	47,094
2014	237,906	924,993	-687,087	36,036	486	35,550	168,281	39,101	129,180	100,736	15,484	85,252	60,004	3,619	56,385
2015	168,372	337,545	-169,173	29,861	1,582	28,279	107,855	56,500	51,355	80,464	47,786	32,678	31,348	9,875	21,473
2016	125,026	320,361	-195,335	26,620	1,808	24,812	90,750	46,489	44,261	57,245	21,702	35,543	19,714	14,689	5,025
2017	118,397	1,04,0,262	-921,865	30,896	31,112	-216	130,671	104,454	26,217	59,627	14,982	44,645	24,389	47,547	-23,158
2018	138,684	743,400	-604,716	28,420	1,706	26,714	193,324	107,045	86,279	41,705	33,391	8,314	20,510	15,394	5,116

Source: Author's Compilation from Trade Map, ITC (n.d.) data

Table 3 demonstrate the export, import and trade balance with Central Asian Countries between the time periods of 2010-2018. The trade deficit with Kazakhstan have continuously expanded. However, the trade balance improved with all the other CAC including Kyrgyz Republic, Turkmenistan, Uzbekistan and Tajikistan.

Table 4 reveals that which are products which India is specializing in while exporting to Central Asian

countries. As seen in Table 4 amongst top ten products exported from India to Central Asian countries vehicles (or tramway rolling stock, and parts and accessories) showed continuous rise. So other than pharmaceutical products electronic machinery, mechanical machineries like boilers etc. also holds lot of potential and their share is continuously rising.

**Table 4 - Major Products Exported from India to CAC (Percentage Share)**

Product code	Product label	2010	2011	2012	2013	2014	2015	2016	2017	2018
30	Pharmaceutical products	37.8	32.9	28.97	33.84	31.9	37.53	36.45	46.9	40.58
85	Electrical machinery and electronic equipment and parts	7.15	15.84	15.64	9.75	2.92	3.06	3.32	1.79	4.35
84	Machinery, mechanical appliances, nuclear reactors, boilers	11.30	8.93	12.24	10.26	10.86	10.80	13.24	9.80	18.23
09	Coffee, tea, mate and spices	14.58	10.47	9.34	8.25	8.11	9.71	10.92	7.80	6.49



Product Code	Product Label	2010	2011	2012	2013	2014	2015	2016	2017	2018
90	Optical, photographic, cinematographic, medical or surgical apparatus	2.24	3.18	1.95	0.97	1.45	1.38	2.14	2.11	2.13
27	Mineral fuels, mineral oils and products of their distillation	0.11	0.84	0.07	0.01	0.02	0.0021	0.0013	0.02	0.02
29	Organic chemicals	1.17	1.49	1.69	2.73	1.34	2.03	1.52	1.58	2.57
87	Vehicles other than railway or tramway rolling stock and parts and accessories thereof	0.40	2.25	6.15	3.12	5.09	1.54	4.09	2.88	4.93
61	Articles of apparel and clothing accessories, knitted or crocheted	1.19	1.83	2.94	4.35	6.95	2.97	1.50	1.06	1.13

Source: Author's Compilation from Trade Map, ITC (n.d.) Data

Table 5 reveals that in terms of imports from Central Asia India is importing from Uzbekistan, Kazakhstan and Turkmenistan. There is rising importance of Kazakhstan and Uzbekistan in terms of trade relations.

**Table 5 - Share of India's Import from Central Asian Countries**

	Share of Central Asian Countries Import in India's Trade Basket (in %)								
Country/Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Kazakhstan	0.045	0.0265	0.0335	0.0948	0.2014	0.0864	0.0898	0.2343	0.1465
Kyrgyzstan	0.0003	0.0002	0.0005	0.0001	0.0001	0.0004	0.0005	0.0070	0.0003
Tajikistan	0.0064	0.0015	0.0032	0.0001	0.0008	0.0025	0.0041	0.0107	0.0030
Turkmenistan	0.0037	0.0030	0.0017	0.0028	0.0034	0.0122	0.0061	0.0034	0.0066
Uzbekistan	0.0069	0.0113	0.0069	0.0075	0.0085	0.0145	0.0130	0.0235	0.0211

Source: Author's Compilation from World Development Indicators (WDIs) updated on 27 February, 2020

Table 6 reveals that value of Indian exports to Central Asia over the time period of 2010-2018 which has been concentrated in the area of consumer goods but with capital goods holds lot of potential. Raw material to goods to Tajikistan showed continuous increase between 2010-2016.

**Table 6 - India's Exports to Central Asia by Stage of Processing (Value in US\$1000)**

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Kazakhstan									
Capital Goods	17543.8	7110.27	44323.1	72609.5	50902.3	19866.4	21077.3	26149.5	14065.3
Consumer Goods	108530	131955	181100	179655	197488	192759	137061	85964.7	89864.6
Intermediate Goods	5408.51	6272.91	8488.03	8128.77	24817.7	23859.4	8982.57	10586.2	10884.9
Raw materials Goods	2334.65	816.915	1886.3	2345.81	2519.7	1418.05	1243.5	2248.12	3574.81
Kyrgyz Republic									
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Capital goods	654.297	2709.58	1465.1	2473.67	1322.1	1231.97	1455.49	1081.02	2274.22
Consumer goods	23004.8	17859.8	23027.6	26046.8	33027.3	32601.2	23977.3	24131.6	26940.7
Intermediate goods	1189.5	2483.93	2717.82	2917.51	2878.65	2116.35	4262.64	1388.82	1668.08
Raw materials	227.219	1181.52	2271.35	518.343	9.413	85.363	165.209	18.363	38.4746

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Uzbekistan									
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Capital goods	11552.4	12579	26257.8	41669.3	33985.5	49483	26110.8	26877.5	62380.3
Consumer goods	27981.9	29004.6	40793.1	48073.2	59557.5	91873.8	65696.8	51055.1	52541.4
Intermediate goods	10556	11659.2	15970	14973.2	18046.4	20264.2	15626.2	12734.3	15209.3
Raw materials	534.452	1586	4718.77	5305.52	8116	6655.48	417.423	82.254	418.14
Tajikistan									
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Capital goods	568.238	2560.61	2768.77	871.779	730.03	943.195	2149.6	1214.55	1151.79
Consumer goods	7256.7	8721.26	11868.6	19345.2	33279.8	35239	17142.4	11521.1	18331.1
Intermediate goods	1561.6	345.07	1630.22	3323.43	1408.37	10332.1	2889.15	5116.14	3040.26
Raw materials	6364.85	4627.15	4989.22	5447.1	12228.5	13485.9	9165.58	1856.93	1838.11
Turkmenistan									
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Capital goods	9833.66	6863.7	11373.2	42918.4	22777.5	22032.4	10868	16467.4	5747.5
Consumer goods	23006.8	19943.3	22830.7	21194.4	24125.7	24421.1	19366.6	21051.8	20311.6
Intermediate goods	1702.81	1632.76	2302.48	5015.1	6209.2	5716.97	5101.34	5866.35	2712.69
Raw materials	1316.6	406.883	2853.26	1465.22	9884.26	48563.3	45117.5	13859.1	30811.8

Source: Author's Compilation from World Development Indicators (WDIs) updated on 27 February, 2020

## EMPIRICAL ANALYSIS OF TRADE COMPLEMENTARITY

As per the World Integrated Trade Solution (WITS) the trade complementarity (TC) index shows prospects for intraregional trade and it assess how well the structures of a country's imports and exports match. The current study wanted to check whether trade complementarity has

changed after 2009 efforts of India and Central Asian Countries to build stronger trade ties.

The TC between countries k and j is defined as:  $TC_{ij} = 100 (1 - \sum (|m_{ik} - x_{ij}| / 2))$  Where  $x_{ij}$  is the share of good i in global exports of country j and  $m_{ik}$  is the share of good i in all imports of country k.

**Table 7 - Trade Complementarity Index of Central Asian Countries**

Country / Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Turkmenistan	35.71	36.02	37.40	38.88	41.36	42.52	43.28	43.46	48.38
Kyrgyz Republic	58.30	60.92	64.01	64.73	64.97	60.96	58.85	61.97	63.77
Kazakhstan	48.87	49.78	51.37	51.62	47.79	51.3	51.6	54.06	56.5
Tajikistan	56.39	55.47	60.60	59.96	62.83	59.44	56.00	60.50	61.38
Uzbekistan	48.08	46.32	49.90	48.37	50.63	53.66	53.17	55.54	51.63

Source: Author's Compilation from World Development Indicators (WDIs) updated on 27 February, 2020

Table 7 indicates that Trade Complementarity Index of Central Asian Countries is increasing after 2010 especially in case of Turkmenistan. For other countries it is in fluctuating side though it poses a positive picture only.

The second indices which this study is assessing is Trade Intensity Index. The trade Intensity Index is used for products. Its focus is not on markets. It measures a reporter country exports more as a percentage to partner in comparison to world on an average.

According to Balassa (1965) Trade intensity index is measured as the ratio of a trading partner's share to a country/region's total trade and the world trade with the same trading partner. It is calculated as:

$$TII_{ij} = \frac{tij/Tiw}{twj/Tww}$$

Where  $TII_{ij}$  is the total value of total trade of country/region  $i$  with country/region  $j$ ,  $Tiw$  is the total value of the total trade of country/region  $i$  with world,  $twj$  is the value of world trade with country/region  $j$ , and  $Tww$  is the value of world trade. If the value of  $TII$  is one or more and it means that there is potential opportunity to increase trade between country  $i$  and  $j$

**Table 8 - Trade Intensity Index for Central Asian Countries with India**

Year	Kazakhstan	Kyrgyz Republic	Tajikistan	Turkmenistan	Uzbekistan
2010	0.4168	0.517	-	0.432	-
2011	0.3730	0.4157	-	0.369	-
2012	0.3751	0.378	-	0.376	-
2013	0.3169	0.349	-	0.421	-
2014	0.3425	0.374	0.84	0.404	-
2015	0.342	0.455	0.568	0.404	-
2016	0.303	0.422	0.397	0.647	-
2017	0.237	0.409	0.524	0.737	0.644
2018	0.254	0.320	0.389	0.606	0.667

*Source: Author's Calculation, ITC Trade Map*

As shown in table 8 trade intensity index is less than 1 for all the central Asian countries. This means that connectivity and other barriers needs to be removed to increase the trade with these countries. The complete data set was not available for Tajikistan and Uzbekistan, hence  $TII$  could not be calculated for them. The moderate  $TII$  scenario between India and Central Asian countries despite an improved Trade Complementarity Index showed that trade barriers still exist very strongly. Hence government should try to resolve issues related to bilateral trade cost and reduce trade barriers for better trade flow with these countries

## SUGGESTIONS

Looking at the GDP annual growth and increasing GDP per capita, the Central Asian countries can be good stable markets for exports and other trade relations. On the basis of export basket analysis, it can be concluded that further export diversification can be achieved with these countries in capital goods and raw material. Good potential is observed in machinery and electronic

equipment, mechanical appliances, coffee, tea and spices etc. The  $TII$  of India and Central Asian Countries though is moderate as it seems trade barriers are high limiting the trade flow between the them. India recently allocated Rs 1000 million in the budget of 2020 to support development of Chabahar port to overcome the long lasting problem of direct connectivity between India and Central Asian countries. All these efforts might bear some fruits in future.

## CONCLUSION

The importance of these countries cannot be undermined due to changing world order where China and Russia ties are becoming stronger. Hence importance of these countries are growing in comparison to earlier times where they were considered landlocked countries. Potential of capital goods cannot be ignored as seen in the trends. Hence there are other sectors which are becoming important in terms of growing export potential. Out of these five countries Uzbekistan, Kazakhstan and Turkmenistan are becoming important import partners.

## REFERENCES

1. Agrawal, P. and Sangita, S. (2017). Trade Potential between India and Central Asia. *Margin: The Journal of Applied Economic Research*, 11(4), 418-448.
2. Balassa, B. (1965). Trade Liberalization and “Revealed” Comparative Advantage 1. *The Manchester school*, 33(2), 99-123.
3. Media Advisory, Ministry of External Affairs, Media Center. (2009, January 23). Retrieved from [www.mea.gov.in](http://www.mea.gov.in): [https://mea.gov.in/media-advisory.htm?dtl/6102/ State +visit+of+HE+Mr+Nursultan+Nazarbayev+President+of+the+Republic+of+Kazakhstan+January+2326+2009](https://mea.gov.in/media-advisory.htm?dtl/6102/State+visit+of+HE+Mr+Nursultan+Nazarbayev+President+of+the+Republic+of+Kazakhstan+January+2326+2009)
4. ITC (n.d.), Trade Map. Retrieved 21 Feb, 2020, from [ttp://www.trademap.org/Index.aspx](http://www.trademap.org/Index.aspx)
5. Warikoo, K. (2016). Central Asia and South Asia: Opportunities and Challenges. *India Quarterly*, 72(1), 1-15. doi:10.2307/48505479
6. The World Bank (n.d.), World Development Indicators. Retrieved on 10 Feb, 2020, from <http://data.bank.worldbank.org/data/>

# *Presenteeism among College Teachers in UAE and India*

**Key words:** *Presenteeism, College Teachers, Teaching, India, UAE*

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## **ABSTRACT**

Teaching profession is one of the important and respectful jobs in the world. The teachers are playing a major role in the development of nations. Here a study is undertaken on the presenteeism among college teachers in UAE and India who are in the middle of this changing environment. Presenteeism is a concept in which, a person is going to work while ill. This paper aims to study the difference in level of Presenteeism among college teachers in India and UAE and the influence of socio-demographic factors on presenteeism level among college teachers in UAE and India. The study was conducted among 120 college teachers from India and UAE. The result indicates the intensity of presenteeism among college teachers. Presenteeism is high for college teachers from India when compared with UAE. Gender, marital status and income level of Indian college teachers have a relationship with presenteeism. Gender,

education, designation and income level of UAE college teachers have a relationship with presenteeism.

## **INTRODUCTION**

Teaching is one of the most respectful jobs and the one that gives high status in the society. This job is considered as a service to the society. The teaching job has a vital role in the development of the society. The teachers help students to grow the shoulder, the responsibility of taking their nations ahead of others. The teachers help the students to acquire knowledge, update the knowledge and mould the knowledge. The teachers are giving the taste of knowledge and are motivating them. Nowadays teachers are not only acting as lectures but also a guide, motivator, counsellor, colleague and as a friend too. Teaching is called as the mother of all profession. The famous Sanskritsloka 'Guru Bhrama, Guru Vishnu, Guru Devo Maheswara' shows the honour giving to gurus in the

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Indian context. Teaching is a process that facilitates learning among scholars. Teaching needed specialized knowledge and skills to meet the needs of the individual and society. Nowadays the workload of teachers is concentrated on curricular and extracurricular activities. The work pressure style of the modern environment also started to attack the teaching profession. Presenteeism is a concept in which people get engaged in work even while they are ill. Different researches show that presenteeism is related to reduced productivity due to health problems (Schultz and Edington, 2007). According to Johns (2010) model health problems, individual factors and contextual factors leads to Presenteeism. Presenteeism differs from absenteeism. When an employee is absent, superior know that person is absent and productivity is zero, but in the case of presenteeism the person is present and productivity is reducing, so it is difficult to identify and measure presenteeism symptom and its consequences. Due to changes in the working environment, problems faced by individuals are changing. In this scenario, it is worth exploring the influence of presenteeism among college teachers.

## LITERATURE REVIEW

The origin of the word 'teach' lies in the Old English *tæcan* meaning 'show, present, point out', which is of Germanic origin; and related to 'token', from an Indo-European root shared by Greek *deiknūnai* 'show', *deigma* 'sample'. A teacher is a person who hears things through the ear of the student, who sees things through the eyes of the student and understand things through the mind of the student, said by Swami Vivekananda. Presenteeism is a debated topic recently among researchers in the management area and business scenario. The concept of presenteeism is, working elevated hours even when unfit (Simpson, 1998) and also going to work without considering an unhealthy feeling (Dew et al., 2005). A healthy group of an employee is a productive workforce and the employee well being is important due to health and productivity are related (Loeppke et al., 2009). Different researches show that the cost of absenteeism to organisation, employee and society is a sizeable one. The cost loss due to presenteeism is greater than absenteeism (Goetzel et al, 2004). So the policies and strategies for reducing cost loss from absenteeism should be carefully framed by considering presenteeism. The efforts to reduce absenteeism may lead to an increase in presenteeism. Researches found out that stressful life is directly related to health problems and absenteeism (Jerlock et al., 2006). So we can conclude that presenteeism concept that is related to health problems have a relationship with stressful life. Due to changes in the modern working environment, every person faces stressful life in any phase of life. Self-rating health problems and health

related symptoms predict presenteeism than absenteeism (Caverley et al., 2007). Stanford presenteeism scale measure presenteeism, specialised in addressing nature and extent of negative impact on the performance of employees (Koopman et al., 2002). The Stanford presenteeism scale is used for this study due to its validity and reliability. According to the Sainsbury Centre for Mental Health, cost of presenteeism due to the mental health problem is 1.5 times than the number of workdays lost due to absenteeism (Sainsbury Centre for Mental Health, 2007). The studies show that presenteeism (Caverley et al., 2007) and absenteeism (CBI/Ffizer, 2010) is high for employees from public sector units due to job security and better employee welfare measures.

## OBJECTIVE AND METHODOLOGY OF THE STUDY

The main objective of the study, which is descriptive in nature, is to identify the presenteeism level of college teachers in the UAE and India. The study compares presenteeism among college teachers in India and UAE, and also the influence of social demographic factors on presenteeism. The study explores the relationship of demographic factors like age, experience, gender, marital status, education, income level and designation on presenteeism experienced by college teachers in India and UAE. The targeted population consists of college teachers in UAE and India. The population is limited to college teachers working in private management institutes in India and UAE. The study is also limited to management institutes offering MBA Courses. The responses are collected through random sampling method by selecting three emirates in the UAE and three states in India. The emirates selected from UAE are Dubai, Ras-Al-Khaimah, Fujairah and from India are Kerala, Tamil Nadu and Delhi. Data were collected from 120 respondents, 20 from each emirate and states. Simple random sampling method was used to collect data from each emirate and states. The institutes are randomly chosen from each emirate and states. Similarly, samples were randomly chosen from selected institute's faculty profile. The data was collected through e-mail. Stanford presenteeism scale was used in this study. Cronbach's alpha (.83) of the scale indicate adequate reliability, and factor analysis shows a valid result (.98). The Stanford presenteeism scale shows a high degree of reliability and validity. The data analysed with a different statistical tool like ANOVA, Correlation and t-test by using SPSS Software.

## HYPOTHESIS OF THE STUDY

H11- There is significant relationship between presenteeism levels of college teachers in the UAE and India.

- H12- There is significant relationship between presenteeism levels of college teachers in the UAE and India when experience is taken as a controlling factor
- H13- There is significant relationship between presenteeism levels of college teachers in the UAE and India when age is taken as a controlling factor
- H14- There is significant relationship between presenteeism level of college teachers and gender.
- H15- There is significant relationship in presenteeism level of college teachers and marital status.
- H16- There is significant relationship between presenteeism level of college teachers and education.

H17- There is significant relationship between presenteeism level of college teachers and income level.

H18- There is significant relationship between presenteeism level of college teachers and designation

### FINDINGS AND DISCUSSION

Presenteeism among college teachers, especially from management institutes in India and UAE are analysed and results are discussing below. Table No: 1 shows that 120 respondents participated in the study, 60 respondent from India and 60 from UAE. The different Demographic Frequencies are tabled below.

**Table 1 - Demographic Frequencies**

Demographic Variables	Working Country		Total
	India	UAE	
Gender			
Female	32	14	46
Male	28	46	74
Total	60	60	120
Marital Status			
Single	14	9	23
Married	46	46	92
Divorced	0	5	5
Total	60	60	120
Qualification			
PG	35	19	54
MPhil	4	6	10
PhD	21	35	56
Total	60	60	120
Income (US dollar, Monthly)			
Below 500	35	0	35
501-1000	15	7	22
1001-1500	8	28	36
1501-2000	2	21	23
Above 2001	0	4	4
Total	60	60	120
Nationality			
Indian	60	45	105
UK	0	10	10

Demographic Variables	Working Country		Total
	India	UAE	
US	0	5	5
Total	60	60	120
<b>Experience (In years)</b>			
1-5	18	7	25
6-10	24	22	46
11-20	11	25	36
21-30	7	6	13
Total	60	60	120
<b>Designation</b>			
Lecturer	29	19	48
Senior Lecturer	0	6	6
Assistant Professor	21	9	30
Associate professor	1	13	14
Principal	5	0	5
Professor	4	7	11
Dean of Business Studies	0	6	6
Total	60	60	120
<b>Age (In years)</b>			
18-30	7	6	13
31-40	11	23	34
41-50	24	20	44
51-60	18	11	29
Total	60	60	120

#### Analysis between Presenteeism of College Teachers in India and UAE

Analysis of presenteeism among college teachers from management institutes in India and UAE shows an

r-value of  $-.121$  ( $P > .05$ ), which indicates no relationship between the variables. The mean is high for teachers from India (18.75) and least for teachers from UAE (16.73). (Table No: 2)

**Table 2 - Analysis between Presenteeism of College Teachers in India and UAE**

Working country/ Presenteeism	N	Mean	Std. Deviation	Pearson Correlation	Sig.
India	60	18.75	3.46	-.121	.359
UAE	60	16.73	4.87		

#### Analysis between Presenteeism of College Teachers in India and UAE (Experience as Control Factor)

Analysis of presenteeism among college teachers from management institutes in India and UAE with experience as a controlling factor shows an r-value of  $-.123$  ( $P > .05$ )

which indicates no relationship between the variables. The mean is high for teachers from India (18.75) and least for teachers from UAE (16.73). The r-value of  $-.123$  between presenteeism of college teachers in India and UAE is indicating a negative relationship between variables. (Table No: 3)

**Table 3 - Analysis between Presenteeism of College Teachers in India and UAE (Experience as Control Factor)**

Working Country/ Presenteeism	N	Mean	Std. Deviation	Pearson Correlation	Sig.
India	60	18.75	3.46	-.123	.353
UAE	60	16.73	4.87		

**Analysis between Presenteeism of College Teachers in India and UAE (Age as Control Factor)**

Analysis of presenteeism among college teachers from management institutes in India and UAE with age as a controlling factor shows an r-value of  $-.126$  ( $P > .05$ ),

which indicates no relationship between the variables. The mean is high for teachers from India (18.75) and least for teachers from UAE (16.73). The r-value of  $-.126$  between presenteeism of college teachers in India and UAE is indicating a negative relationship between variables. (Table No: 4)

**Table 4 - Analysis between Presenteeism of College Teachers in India and UAE (Age as Control Factor)**

Working Country/ Presenteeism	N	Mean	Std. Deviation	Pearson Correlation	Sig.
India	60	18.75	3.46	-.126	.349
UAE	60	16.73	4.87		

**Analysis of Presenteeism and Gender**

Analysis of presenteeism among college teachers from management institutes in India with gender shows a t-value of 2.240 ( $P < .05$ ) and indicates a relationship between the variables. The mean is high for female teachers (19.65) and least for male teachers (17.71).

Analysis of presenteeism among college teachers from management institutes in UAE with gender shows a t-value of 5.852 ( $P < .05$ ) and indicates a relationship between the variables. The mean is high for female teachers (22.07) and least for male teachers (15.10). (Table No: 5)

**Table 5 - Analysis of Presenteeism and Gender**

Gender/ Presenteeism	India					UAE				
	N	Mean	Std. Deviation	t	Sig.	N	Mean	Std. Deviation	t	Sig.
Female	32	19.65	4.23	2.240	.029	14	22.07	2.97	5.852	.000
Male	28	17.71	1.86			46	15.10	4.12		

**Analysis of Marital Status and Presenteeism**

Analysis of presenteeism among college teachers from management institutes in India with marital status shows an F value of 19.258 ( $P < .05$ ), which indicates a relationship between the variables. The mean is high for single teachers (21.85) and least for married teachers

(17.80). Analysis of presenteeism among college teachers from management institutes in India with marital status shows an F value of .197 ( $P > .05$ ), which indicates no relationship between the variables. The mean is high for divorced teachers (21.85) and least for single teachers (16.33). (Table No: 6)

**Table 6 - Analysis of Marital Status and Presenteeism**

Education/ Presenteeism	India					UAE				
	N	Mean	Std. Deviation	F	Sig.	N	Mean	Std. Deviation	F	Sig.
Single	14	21.85	4.41	19.258	.000	9	16.33	8.00	.197	.822
Married	46	17.80	2.48			46	16.67	4.42		
Divorced	0					5	18.00	.00		
Total	60	18.75	3.46			60	16.73	4.87		

**Analysis between Qualification and Presenteeism**

Analysis of presenteeism among college teachers from management institutes in India with qualification shows an F value of 2.810 ( $P > .05$ ), which indicates no relationship between the variables. The mean is high for PhD qualified teachers (19.57) and least for M Phil

qualified teachers (15.25). Analysis of presenteeism among college teachers from management institutes in UAE with qualification shows an F value of 11.338 ( $P < .05$ ), which indicates a relationship between the variables. The mean is high for PG qualified teachers (17.68) and least for M Phil qualified teachers (9). (Table No: 7)

**Table 7 - Analysis between Qualification and Presenteeism**

Qualification/ Presenteeism	India					UAE				
	N	Mean	Std. Deviation	F	Sig.	N	Mean	Std. Deviation	F	Sig.
PG	35	18.65	3.70	2.810	.069	19	17.68	4.78	11.338	.000
MPhil	4	15.25	.50			6	9.00	.00		
PhD	21	19.57	2.97			35	17.54	4.16		
Total	60	18.75	3.46			60	16.73	4.87		

**Analysis between Income and Presenteeism**

Analysis of presenteeism among college teachers from management institutes in India with income shows an F value of 7.527 ( $P < .05$ ), which indicates a relationship between the variables. The mean is high for 1501-2000 income level teachers (27.00) and least for 1001-1500

income level teachers (16.50). Analysis of presenteeism among college teachers from management institutes in UAE with income shows an F value of 7.571 ( $P < .05$ ), which indicates a relationship between the variables. The mean is high for 1001-1500 income level teachers (18.95) and least for 1501-2000 teachers (10.25). (Table No: 8).

**Table 8 - Analysis between Income and Presenteeism**

Income/ Presenteeism	India					UAE				
	N	Mean	Std. Deviation	F	Sig.	N	Mean	Std. Deviation	F	Sig.
Below 500	35	19.25	3.23	7.527	.000	7	12.42	3.77	7.571	.000
501-1000	15	17.66	2.58			28	17.07	5.23		
1001-1500	8	16.50	2.77			21	18.95	2.92		
1501-2000	2	27.00	.00			4	10.25	.50		
Total	60	18.75	3.46			60	16.73	4.877		

**Analysis between Designation and Presenteeism**

Analysis of presenteeism among college teachers from management institutes in India with designation shows an F value of 1.935 ( $P > .05$ ), which indicates no relationship between the variables. The mean is high for teachers at professor grade (27.00) and least for teachers at the grade of Associate professor (15.00). Analysis of

presenteeism among college teachers from management institutes in UAE with designation shows an F value of 10.125 ( $P < .05$ ), which indicates a relationship between the variables. The mean is high for teachers at professor grade (20.85) and least for teachers at the grade of Assistant professor (09.00). (Table No: 9).



**Table 9 - Analysis between Designation and Presenteeism**

Designation/ Presenteeism	India					UAE				
	N	Mean	Std. Deviation	F	Sig.	N	Mean	Std. Deviation	F	Sig.
Lecturer	29	17.75	2.58	1.935	.118	19	17.68	4.78	10.125	.000
Assistant Professor	21	19.57	3.80			6	9.00	.00		
Associate professor	1	15.00	.			9	16.66	3.04		
Principal	5	19.80	1.64			13	18.84	2.67		
Professor	4	21.25	6.65			7	20.85	4.22		
Dean of Business Studies	0					6	12.16	2.99		
Total	60	18.75	3.46			60	16.73	4.87		

## CONCLUSION

The research was conducted to identify presenteeism among college teachers in management institutes from India and UAE. The study was conducted among 120 teachers from India and UAE by using Stanford presenteeism scale. The presenteeism of college teachers from India and UAE was analysed using various statistical tools like ANOVA, correlation and t-test. The presenteeism among college teachers in India and UAE was related to gender, marital status, qualification, experience, designation and income level. The gender and income have a relationship with presenteeism of

college teachers in India and UAE. The presenteeism of college teachers in India and UAE shows a negative relationship. The marital status of Indian college teachers have a relationship with their presenteeism. The qualification and designation of college teachers in the UAE have a relationship with their presenteeism. The mean value of presenteeism among Indian college teachers is high when compared with teachers from UAE. Further study on presenteeism of college teachers is open for researchers to identify other influencing factors including a detailed study with other departments as control variable.

## REFERENCES

1. Caverley, N., Cunningham, J.B., and MacGregor, J.N. (2007), Sickness Presenteeism, Sickness Absenteeism, and Health Following Restructuring in a Public Service Organization, *Journal of Management Studies*, Vol. 44, pp. 304-19.
2. CBI/Pfizer (2010), On the Path to Recovery: Absence and Workplace Health Survey 2010, available at [www.cbi.org.uk/pdf/20100607-cbi-pfizer-absence-report.pdf](http://www.cbi.org.uk/pdf/20100607-cbi-pfizer-absence-report.pdf) (accessed 7 December 2010).
3. Dew, K., Keefe, V. and Small, K. (2005). Choosing to Work when Sick: Workplace Presenteeism. *Social Science & Medicine*, 60, 2273 – 2282.
4. Goetzel, R.Z., Long, S.R., Ozminkowski, R.J., Hawkins, K., Wang, S. and Lynch, W. (2004), Health, Absence, Disability and Presenteeism Cost Estimates of Certain Physical and Mental Health Conditions Affecting US Employers, *Journal of Occupational and Environmental Medicine*, Vol. 46 No. 4, pp. 398-412.
5. Jerlock, M., Gaston-Johansson, F., Kjellgren, K.I. and Welin, C. (2006), *BMC Nursing*, 5, Available at : [www.biomedcentral.com/1472-6955/5/7](http://www.biomedcentral.com/1472-6955/5/7) (accessed 20 May 2007).
6. Johns, G. (2010). Presenteeism in the Workplace: A Review and Research Agenda. *Journal of Organizational Behavior*, 31(4), 519–542. <http://dx.doi.org/10.1002/job.630>.
7. Koopman, C, Pelletier, K.R., Murray, J.F., Sharda, C.E., Berger, M.L., Turpin, R.S., Hackleman, P., Gibson, P., Holmes, D.M. and Bendel, T. (2002), Stanford Presenteeism Scale: Health Status and Employee Productivity, *Journal of Occupational and Environmental Medicine*, Vol. 44, pp. 14-20.

8. Loeppke, R., Taitel, M., Haufler, V., Parry, T., Kessler, R.C., and Jinnett, K. (2009). Health and Productivity as a Business Strategy: A Multiemployer Study. *Journal of Occupational and Environmental Medicine*, 51(4), 411–428. <http://dx.doi.org/10.1097/JOM.0b013e3181a39180>.
9. Sainsbury Centre for Mental Health (2007), *Mental Health at Work: Developing the Businesscase*, Policy Paper 8, Sainsbury Centre for Mental Health, London.
10. Schultz, A.B., and Edington, D.W. (2007). Employee Health and Presenteeism: A Systematic Review. *Journal of Occupational Rehabilitation*, 17(3), 547–579. [HTTP:// dx.doi.org/10.1007/s10926-007-9096-x](http://dx.doi.org/10.1007/s10926-007-9096-x).
11. Simpson, R. (1998). Presenteeism, Power and Organizational Change: Long Hours as a Career Barrier and the Impact on the Working Lives of Women Managers. *British Journal of Management*, 9, 37 – 50. DOI:10.1111/1467-8551.9.s1.5

# Teaching of Economics in the New Paradigm

**Key words:** Economics, Teaching - Economics, New Global Environment

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## ABSTRACT

Economics as a course traditionally provided theoretical and technical material supported by logical thinking. In the changing modern world, students of economics are confronted with newer concepts, techniques and detailed analysis. They have to master indifference maps, revealed preferences, kinked demand curve, cross elasticity, marginal propensity to consume liquidity preference, model building, sampling error linear programming, game theory, input-output matrices. In the existing system of higher education, we give degrees and better grades to the students who depend exclusively on their memory and have not learned how to think. Mere gathering of not knowledge but information and lack of ability to think and analyze is the result of traditional way of teaching economics. Teaching of economics should result in building clear conceptual framework so as to

enable students to apply this in practice to solve various problems both at micro and macro levels, building analytical skills and communication skills.

## INTRODUCTION

Economics is an important discipline that has deep impact on human life. In fact, it is concerned with day-to-day living. The present methods, contents and results of teaching economics are becoming irrelevant in the context of changing environment. Many developments that have taken place in the post-liberalization period in particular have added new dimensions to higher education. The growing domain of economics with its practical importance, generation of new ideas, changing attitudes of decision-making units, addition of complicated subject matter to already complex set of ideas, inter-disciplinary impact on thinking and time dimension of course content which cannot extend

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beyond one academic year or a semester have all contributed to the changing nature of economics. The teaching of economics requires a fresh look in the new paradigm.

### **ECONOMICS-A DYNAMIC SUBJECT**

Economics as a subject traditionally provided theoretical and technical material supported by logical thinking. Howard R. Bower states that there has been the introduction into economics of enormously greater refinement of detail and more elaborate technical apparatus. A generation ago graduate students in most Universities concentrated on mastering Marshall's Principles which was a kind of bible for economists, they studied a fairly non-mathematical and non-theoretical type of statistics; they read economic history and history of economic thought and they specialized in various other fields. In the changing modern world, students of economics are confronted with newer concepts, techniques and detailed analysis. They have to master indifference maps, revealed preferences, kinked demand curve, cross elasticity, marginal propensity to consume, liquidity preference, model building, sampling error, linear programming, game theory, input-output matrices. Critical minimum effort, PERT, SQS, Queuing theory and what not? The knowledge dimensions of economics have expanded so fast that it has become difficult for a student to digest, correlate and use it in practice. The students are under such a pressure that they hardly have time to grasp the full significance of what they are learning. In the existing system of higher education, we give degrees and better grades to the students who depend exclusively on their memory and have not learned how to think. Mere accumulation of not knowledge but information and lack of ability to think and analyse is the result of traditional way of teaching economics.

### **TEACHING-A PURPOSEFUL ACTIVITY**

Teaching is a social and professional activity. It is a process of development. It is a system of action, which induces learning through interpersonal relationship. Teaching is a purposeful activity. The ultimate objective of teaching is to bring about an integrated development of student's personality. Teaching is an art, a skill that needs to be developed. It has far-reaching effect on student in shaping his/her personality. A teacher has to act as "Change Agent" to transform the students into better human beings.

Teaching is not a new process but is receiving new interpretation. Teaching in the new paradigm is to facilitate learning. A teacher has to create a conducive environment for learning. A teacher himself has to be a learning person. Teaching is that where a teacher is not an instructor nor a taskmaster but a facilitator and a guide.

According to Aurobindo Ghose, nothing can be taught. It has to be learnt. Teaching should be viewed as an interaction between a teacher and a learner. It is an active learner who makes the teaching more effective. Teaching is not a mechanical process. It is an intricate, exacting and challenging job. The teaching-learning process should keep the learner at the center, guide him and promote his development.

### **A TEACHER-AN ARTIST**

A teacher is like an artist. The art of teaching calls for a high degree of flexibility and adaptability. Learning is the end-result of teaching. Nothing is taught if learner has not learnt. It is, therefore, necessary that the learner should be actively involved in the process of learning. Learning is growth, adjustment & understanding. It has to be purposeful and give substantial meaning to human life. According to John Locke, the English Philosopher, the purpose of education should be four-fold viz. Virtue, Wisdom, Breeding and Learning. He believed virtue as the first purpose of education. Herbert Spencer contends that to prepare students for complete living is the function which education has to discharge. All round development of the individual in harmony with nature has to be the purpose of education says Rabindranath Tagore. Textbook oriented learning and competitive success ignoring basic and most important values of human living is the result of our present system of teaching. Higher education and teaching at the temples of higher learning must broadly result in training the intellect, physical health and well being, personality development and leadership, vocational training and development of emotional and spiritual quotient.

A teacher should have sufficient academic knowledge, training, orientation and love for teaching. Knowledge management is the greatest challenge before teachers of any discipline. Focus on learners; understanding them, involving them through activity based learning creating interest in the subject, sharing experience, integrating experience with teaching and emphasis on participative learning are the requirements of the present day educational delivery system. Curriculum designing by concerned faculty or a teacher and maintaining teacher-student ratio at 20: 1 is also the need of the hour.

### **OBJECTIVES OF TEACHING ECONOMICS**

Economics is a problem-oriented discipline. It deals with the problem of scarcity and choice both at the macro and micro level. The teaching of economics should make the student to

- i) Learn how to think;
- ii) Analyze problems at micro and macro levels;
- iii) Develop judgement in the treatment of issues;

- iv) Use imagination and creativity; and
- v) Learn how to communicate.

Teaching of economics should result in building clear conceptual framework so as to enable students to apply this in practice to solve various problems both at micro and macro levels, building analytical skills and communication skills. Ability to think, analyse and apply knowledge in solving problems should precisely be the objectives of teaching in the changed context.

## METHODOLOGY AND TEACHING STRATEGIES

The methodology to be adopted for teaching economics in the new paradigm and traditional method of education delivery are different in many respects. A distinction between them will be useful in analyzing further an effective method and strategy for teaching.

<b>DISTINCTION BETWEEN TRADITIONAL METHODOLOGY AND MODERN METHODOLOGY</b>	
<b>TRADITIONAL</b>	<b>MODERN</b>
1. Teacher-Centric	1. Learner-Centric
2. Chalk & Talk Method	2. Participative
3. Spoon-feeding	3. Self-paced learning
4. Feed-backover a period of time.	4. Immediate Feed back
5. Many students with varied interests and different levels of IQ	5. Each student to himself
6. Conditioned Environment	6. Flexibility
7. Passive Learner	7. Active Learner
8. Less Interactive	8. More Interactive
9. Theoretical orientation	9. Application-oriented

The Methodology adopted in the traditional setting was autocratic in nature. A survey of collegiate teachers of economics broadly indicated that around 80% of the teachers still follow traditional method of lecturing, lesson demonstration, tutorials and programmed instructions. In rural areas, 95% of teachers use only lecture method based on standard text books written by teachers. Teaching aids like Overhead Projector, LCD, DLP are seldom used. With the advent of certification of quality by National Accreditation and Assessment Council set up by the University Grants Commission, awareness about teaching aids is slowly growing.

Financial constraint, lack of knowledge and ability to use these aids have acted as major limitations particularly in the rural areas. NAAC has encouraged organizing seminars, workshops and use of computers. But a major departure from Lecturing methods has not occurred.

Lecturing is one of the ancient methods adopted at the collegiate level. It is teacher-centric and one-way method. There is less or no participation by students in the learning process. Teaching through lecturing method does not become effective and has lost importance in the changed context.

The tutorial system which spread from Oxford and Cambridge to other Universities is now a universal part of

teaching economics in almost all Universities. But due to overcrowding of classes and distorted teacher-student ratio with relatively small number of teachers, the scope of tutorials has become more restricted.

Lesson demonstration and programmed instructions only supplement the traditional method of teaching economics.

## TEACHING STRATEGIES FOR THE FUTURE

Teaching strategies in the new paradigm should focus on interactive and participative learning. The use of teaching aids, both audio and visual, exhibition of films, charts, use of field survey, graphical presentation, seminars, workshops, group discussion, assignments, question-answer sessions, projects, role play, games and computer-assisted instructions will make teaching effective and meaningful. This type of usage of activities and teaching aids will help in achieving the true objectives of higher learning by building skills and creating interest in the subject.

Many Universities and degree colleges are employing the case study method in economic analysis in U.S.A and other countries. It is believed that this approach builds a cumulative understanding of economic analysis at the graduate level. It creates an awareness that economic



theory is a technique of thinking which has to be learnt by practice. It helps in developing problem-solving approach.

### **CASE STUDY METHOD - AN EFFECTIVE TOOL FOR LEARNING**

A Case is a description of a problem given to the student. It gives facts, figures, opinions, emotions, views and related issues. It may be an event of economic nature as reported in the newspaper or a periodical. A student has to read the case, identify the main issues, define the problem, set the objectives, analyse the facts, find out alternatives, evaluate them, make a choice, implement the decision and monitor it. This will help a learner in developing

- a. Analytical skills
- b. Application skills
- c. Creative skills
- d. Communication skills
- e. Social skills
- f. Self-analysis skills

The common errors likely to be committed while analyzing the case include search for the answer, unrealistic solutions and premature conclusion. A teacher in this method acts as a facilitator and makes learner more active.

Teaching of economics in the changed context should also encompass the following components.

#### **1. Lesson Plan**

A teacher should prepare and give a lesson plan with suitable break up and appropriate reading references. The references should include basic material, textbooks, periodicals and journals and web-sites. Internet technology usage will be an integral part of learning process.

#### **2. Redefine Curriculum**

In the Indian University system, the syllabi is provided by the Universities. Syllabi should be considered as a basic framework. A teacher should re-define this by relating it to contemporary issues. It is the duty of the teacher to make the syllabi relevant, meaningful, interesting and useful with given constraints.

#### **3. Identify Sources of Information**

A teacher should keep on updating sources of information on various issues, problems, concepts and other relevant fields. A student has to be provided latest possible information. Additional sources may create interest for the student in the subject.

#### **4. Plan for Activities**

Activity based learning should be the motto design appropriate games, role-play exercises, and other such activities that create interest and involve students making the students actively participate to learn. This will make learning enjoyable.

#### **5. Use Audio-visual Aids**

The extensive use of charts, graphs, films, exhibitions, overhead projector, recorded lectures, computer-aided presentation, LCD, DLP and other electronic gadgets should form an integral part of teaching.

#### **6. Visit to Work Places**

The field visits and visits to places of work of different types will give experience and through experience learning will take place. It helps in application orientation. A student will learn as to how concepts can be applied to practice.

#### **7. Interaction with Experts and Practicing Economists**

A teacher should take initiative in organizing periodical interaction of students with experts and practicing Economists. This will help them in developing practical problem solving approach in life besides updating the knowledge.

#### **8. Students Seminars/Group Discussions**

The Seminars, Group Discussions and presentations by students on contemporary issues outside the curriculum concerning economics with socio-political dimensions will help students in understanding problems in a broader perspective.

#### **9. Student Exchange Programme**

Inter-college and Inter-University student exchange programmes will provide diverse opportunities of learning and experience which will enrich the knowledge base of the students.

#### **10. Assignments and Projects**

Assignments on concepts and live projects in various organizations for a shorter duration of few weeks may make the course interesting with active involvement of students in the learning process.

#### **11. Changing Methodology - Innovation**

A teacher should not adopt the same method and make learning monotonous for learners. A continuous innovation in teaching methodology will make teaching of economics more effective, meaningful, interesting and useful. It will definitely add value to the process of learning.

## 12. Continuous Evaluation for Feedback

Feedback from learners is an important tool for a teacher to know whether his teaching has been effective or not. A continuous evaluation not based on memory but on understanding of the subject and abilities and skills developed by the learner should be done.

## CONCLUSION

Economics is a dynamic and fast changing discipline. The traditional way of teaching needs to be refined. Innovations in teaching methodology and strategies should be the part of this exercise. Too much dependence on lecturing and inadequate or no contribution of the student to the learning process has made teaching of economics monotonous. We should put more responsibility on the student for achieving educational objectives. Teaching of economics should have interdisciplinary character and should provide the opportunity for use of analysis.

The problem orientation of introductory analysis will help in establishing relationship of economics with public policy. Its motivational advantages in strengthening the student's interest in economics. An elementary course in Mathematics and Statistical Methods relevant to economic analysis should be made a part of teaching process. Newer concepts and techniques must be taught particularly those concepts that are relevant to Indian conditions. We should teach students the concept of knowledge management. Alertness, updating knowledge using various interdisciplinary sources and innovative mind are the prerequisites of teaching economics in the new paradigm. Learning should be the end-result of teaching. A teacher should recognize individual differences among students. He should cause, facilitate and promote learning. A case study approach to teaching is more realistic and useful. Plato remarks "Learning occurs in the mind irrespective of place and time". Teachers must orient themselves towards this.

## REFERECNCES

1. Knopf, K. A. and Stauss, J. H. (Ed) (1960). The Teaching of Elementary Economics, Hold, Rinehart and Winston (New York).
2. Guillebaud, C.W. (1954). The Teaching of Economics in the United Kingdom.
3. Bowen, H.R. (1953). Graduate Education in Economics. American Economic Review, Supplement Part-2 1953 PP 101-103.
4. UNESCO : The University Teaching of Social Sciences: Economics 1954
5. McNair, M. P. (1954). (Ed) . The Case Method at the Harvard Business Schoold, McGraw Hill.

# *Trends of the Logistics Development*

**Key words:** *Business-Structures, Cooperation, Economic Flows Processes, Integration, Logistics, Supply Chain Management (SCM), Technologies.*

**Avechkina Volga\***

## **ABSTRACT**

This article discusses some aspects of the innovative forms of logistics organization and management. Modern trends of the economic development are based on a new technological order and are associated with the transition from Traditional Supply Chain Management to Digital Supply Chain Management, ones based on Logistics 4.0 technologies, integrated and functioning in the unified information and communication space is substantiated. Innovations in logistics promote to reduce the time of the organizational and management cycle, to focus on organizational and functional coordination of participants in the logistics chains and, therefore, to improve business efficiency.

## **INTRODUCTION**

The relevance of following modern trends in logistics development implies the active use of analysis and

synthesis methods in approaches to the research of Economics and economic relations, because this is conditioned with the transition from the resource paradigm in the theory and practice of economic activity to the process-system paradigm[1]. A characteristic feature of the current stage of economic development is the new economic relations based on the cooperation of producers, suppliers and consumers. The aim is to maintain and improve the competitiveness of business organizations in a dynamically changing marketplace. The economic essence of logistics has to be considered not only as the management system for organization and optimization of the economic flow processes (material, informational, service, financial, social) of producers' economic activities, but as an infrastructure of the system of the socio-economic reproduction as well. Currently the development of logistics involves the active use of innovative forms of organization and management.

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## KEY PARTS

Functional areas of logistics add the process of organizing and managing of the economic flows the certain usefulness, have forming a cumulative utility for the consumer, which is characterized by the following components:

- the utility of the form (which is created in the process of transforming the economic flow into a demanded product);
- the utility of the place and time (which are created as the result of the delivery (transportation and moving) of the economic flows, that meet the needs of consumers with timely replenishment of stocks, information, service);
- the utility of owning (which is formed as the result of attracting consumers to the product, creating demand (customers' needs and wants) and stimulating desire for the acquisition of goods).

In this regard, the chain of the full cost is formed as a set of materialized labor, the result of which is «the total (gross) utility.

A number of interrelated tasks, which are solved within the framework of logistics systems, are determined by the ordering of links of economic flows. In turn, the optimal solution of logistics tasks involves the formation of a single system of numerous links between the participants, as well as the search for new forms and reserves to improve the efficiency of logistics, based on the creation of unified information and communication channels in the supply chain and the development of cooperation relations: manufacturer supplier consumer.

The digital revolution in the economy has predetermined the emergence of logistics 4.0 as an economic flows control system based on digital and Internet technologies. Experts note that both the reason and the consequence of applying innovations in logistics is the growing competition.

The main vectors of logistics 4.0 are: transport exchanges, automation of streaming processes, digitalization of techniques and equipments, information and communication innovations. Experts highlight the most important technological trends in logistics 4.0:

- 3D Printing
- BigData Technology;
- Cloud-basedTechnology;
- Internet of Things (IoT);
- Robotics, Automation, Self-driving Devices;

- Block-chain.

**3D Printing** - methods of manufacturing three-dimensional products based on digital models - makes it possible to speed up the delivery of goods to the market by setting up production near the buyer and to personalize products for any consumer needs. This contributes to reduce to minimum the volume of inventory, transportation costs and risks of obsolescence of products (Hull, 1995). As an example, Mercedes-Benz Trucks together with the engineers of the parent company Daimler uses 3D printing technology to resolve the problem of outstanding orders for the delivery of repair parts: the required part/component is printed at the nearest factory.<sup>1</sup>

**Big Data Technology** - Analytical data assessment based on the mechanism of Big Data technologies provides business entities with the opportunity to increase flexibility and responsiveness in the supply chain: by using a large volume of up-to-date information from various sources it helps to clarify expected results, to diagnose failures, to make adjustments to processes and to ensure synchronization taking into account market factors (Press, 1999). Big Data technologies provide full visibility of the logistics chain from the manufacturer to the consumer in real time.

**Cloud-based Technology** - Modular cloud logistics platforms provide open web access to relevant Internet resources and Internet services that can be flexibly configured and integrated into supply chains. Cloud-based global supply chains combine all data and information into a single system, providing real-time management and targeted order fulfillment (via an online system). In 2006, the companies Amazon EC2 and Google started up the projects named "Elastic Computing Cloud".

**Internet of Things (IoT)** - IoT is the concept of a computer network of physical devices equipped with built-in technologies for interacting with each other or with the external environment. As an example, with the help of IoT sensors, the Swiss firm Sky Cell was able to create special containers for transporting Biopharmaceuticals that require strict compliance with humidity levels and temperature regimes. Due to this, in 2017, the level of damage to pharmaceutical products during transportation decreased from 8.5% to less than 0.1%. BELAZ is an example of using Internet of Things technology in Belarus: the company equips its products with wear sensors, which allows, firstly, to carry out timely maintenance of quarry vehicles (to plan the purchase of spare parts and repairs), and secondly, taking into account the received information about the operation and exploitation, to make the necessary changes to

<sup>1</sup>URL: <https://news.drom.ru/Mercedes-Benz-3D-54307.html>.



construction and technical solutions, improving the quality of the created quarry vehicles.

**Robotics** - Robotics in logistics make it possible to provide flexible automation of warehousing and fast execution of orders (robots for collecting, packing and sorting of goods, robots for unloading and loading), as well as to increase the speed and volume of freight traffic, reduce errors from the use of manual labor and reduce costs. The using of robot systems in the warehouses of the Amazon logistics company has reduced operating costs by 20%<sup>2</sup>. In 2016, the Belarus 4522 (IT- tractor) was tested - it is an agricultural robot with a capacity of 450 HP (with a built-in precision farming system) that performs ploughing and sowing functions according to a computer program set by the operator<sup>3</sup>.

**Block-chain** - Block-chain distributed databases (distributed registry), which are a continuous sequential chain of blocks built according to certain rules that contain information (data about time, date, participants, and process) (Swan, 2016). The main purpose of the block-chain technology system is to store and securely transmit (exchange) information (data) without intermediaries within the block of chains. The block chain structure is formed as a continuously growing (and branching) chain of blocks, in which each subsequent fragment (permanent and unchangeable) contains complete information about the previous fragment, therefore – the information of the entire network (Tapscott, 2017). Since 2015, the international block-chain Consortium Hyperledger (Open Ledger Project), created with the support of the Linux Foundation, has been functioning. It unites more than 120 companies from various fields, including finance, automotive, logistics, healthcare, the Internet of Things (IoT) and aviation. The main goal of the Consortium is to create a single block-chain platform (distributed registry platform with open source code) that help companies to implement block-chain technology in their business processes: to create stable industry applications and hardware systems to perform specific business operations<sup>4</sup>.

## REFERENCES

1. Oliver, K. and Webber, R. (n.d.) Supply Chain Management: Logistics Cateches up with Strategy. The Online Magazine Strategy+Business [Electronic resource] URL: <http://www.strategy-business.com/article/03304>. - The date of access: 2019/15/01.
2. Greengard, S. (2015). The Internet of Things. The MIT Press Essential Knowledge series, 232 p.
3. The Concept of Development of the Logistics System of the Republic of Belarus: Resolution of the Council of Ministers of the Republic of Belarus of December 28, 2017.1024. – Minsk, 2018.

## TRENDS IN THE REPUBLIC OF BELARUS

The development of information and communication technologies in the Republic of Belarus is carried out within the framework of the State Program for the Development of the Digital Economy and Information Society [3]. Since 2012, beCloud has been working as the first infrastructure operator whose platforms are hosted and functioning on the basis of its own data center<sup>5</sup>. Belarus is developing its own transport exchange Transinfo. by, which has already registered 55,000 businesses<sup>6</sup>. Since 2018, the Association (Distributed Registry Technologies) has been functioning in the country, consolidating the efforts of economic entities working with block-chain technology. RFID (Radio Frequency Identification) tags, automated control and monitoring systems are used in the Republic.

Along with that, according to experts, Belarus lacks ready-made service solutions (software products) for business, which determines its significant lag in the development of logistics.

## CONCLUSION

Thus, the use of digital technologies in logistics (logistics 4.0) makes it possible:

- to optimize the management of all technological processes in the supply chain;
- to shorten logistics cycles;
- to increase the level of customer service;
- achieve sustainable economic development of an economic entity;
- to improve competitiveness

According to experts, logistics 4.0 is becoming a driver for the development of many companies.

<sup>2</sup>URL: [https://hightech.fm/2017/09/15/amazon\\_robot\\_workers](https://hightech.fm/2017/09/15/amazon_robot_workers).

<sup>3</sup>URL: <http://news.21.by/other-news/2018/07/08/1543506.html>.

<sup>4</sup>URL: <https://forklog.com/blokchejn-konsortsiy-hyperledger-project-i-enterprise-ethereum-alliance>.

<sup>5</sup>URL: <http://becloud.by/activities/rp/>. | <sup>6</sup>URL: [https://www.tppm.by/announcement/index.php?ELEMENT\\_ID=22885](https://www.tppm.by/announcement/index.php?ELEMENT_ID=22885).



# *Political Marketing and Start-Ups*

**Key words:** *Political Marketing; Start-Ups; 360 Degree Marketing Approach*

**Ravi Shankar Bhakat\***

## **ABSTRACT**

Political marketing is the process by which political candidates and their ideas are directed at voters in order to satisfy their potential needs and thus gain their support for the candidate and ideas in question. Political marketing agencies focus on 360-degree communication for candidates and included three verticals: Content Development, Medium and Event. This paper deals with the start-ups engagement in political marketing and ethical concerns and how social media can be used for political marketing.

## **INTRODUCTION**

Political campaigns and commercial campaigns are having similar characteristics. Commercial campaigns

focus on promoting particular products, services, or ideas to the consumers, with an aim of creating the awareness of products, services or ideas and reassert and refine their distinguishing competitive brand positioning, for continuing their profit level and market share. Similarly, political campaigns intend to promote parties, candidates, political agenda or political causes, targeting at voters as a commercial consumers, where the purpose is garnering votes, increasing awareness and to improve the possibilities of winning the election. The success lies in the fact that, candidate or the party must position themselves based on the position in electoral race both they are a follower, challenger or leader; and they disregard to recommend the implications of competitive positions and impact of policies communication.

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The issue with the political positioning is that the creation of steady image with a single theme. The brand and voting consumption analogy seems to have a stronger bond in certain respects. Meticulously there is a significant relation between marketing management and political campaign management field, as political marketing arena has adopted certain methods and practices of brand marketing. This presumes the resemblance between consumers and voters are in sense for the idea of demand or vote management. Furthermore, there is a controversy that in spite of the similarities, consumers and voters are relatively different on considering their respective contexts in detail. Political marketing is a perspective from which to understand phenomena in the political sphere, and an approach that seeks to facilitate political exchanges of value through interactions in the electoral, parliamentary and governmental markets to manage relationships with stakeholders.

### DEFINING POLITICAL MARKETING

Political marketing is “the process by which political candidates and their ideas are directed at voters in order to satisfy their potential needs and thus gain their support for the candidate and ideas in question” (Shama 1976). Lock and Harris (1996) define political marketing as both a discipline and an activity. As a discipline, political marketing is “the study of the processes of exchanges between political entities and their environment and amongst themselves, with particular reference to the positioning of both those entities and their communications”, whilst as an activity, political marketing is “concerned with strategies for positioning and communications, and the methods through which these strategies may be realized, including the search for information into attitudes, awareness and response of target audiences. (Lock and Harris 1996)

Henneberg (2002) proposed that “Political marketing seeks to establish, maintain and enhance long-term political relationships at a profit for society, so that the objectives of the individual political actors and organisations involved are met. This is done by mutual exchange and fulfilment of promises” (Henneberg 2002).

Hughes and Dann (2009) integrate and develop the AMA(American Marketing Association) definitions and propose that political marketing is “a set of activities, processes or political institutions used by political organisations, candidates and individuals to create, communicate, deliver and exchange promises of value with voter-consumers, political party stakeholders and society at large”. One of the latest study after 2010,

Winther-Nielsen (2011) considers political marketing to be “concerned with reciprocated exchanges of value between political entities and their environments”. As such, Winther-Nielsen’s (2011) definition builds on Lock and Harris (1996) with its focus on entities and environments, and follows the modern perception of political marketing as focusing on exchanges of value.

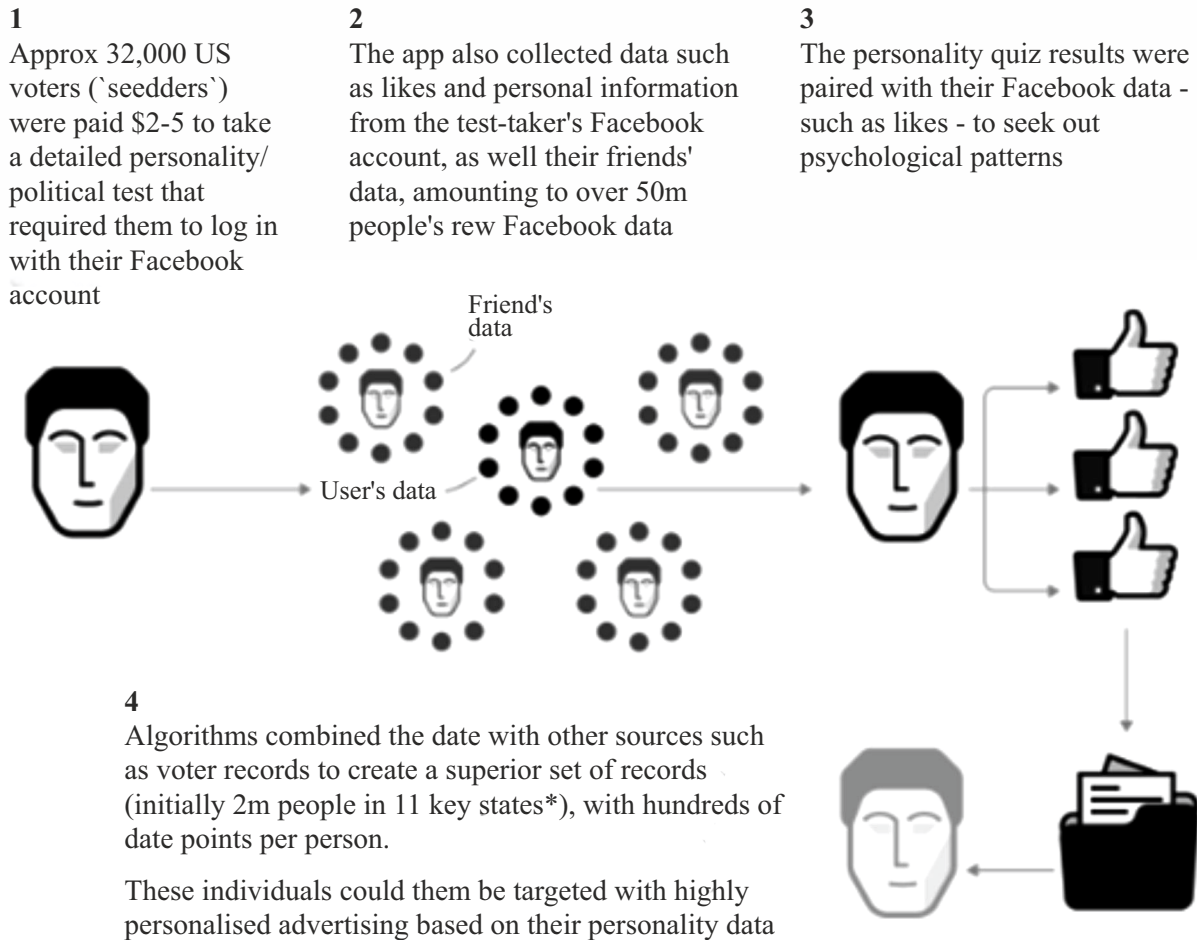
### BEST PRACTICES: 360 DEGREE MARKETING APPROACH

Political marketing agencies focus on 360-degree communication for candidates. This can be broadly categorized in three verticals - first is ‘content development’, which includes manifesto development, punch-lines and slogans, speeches and interviews to be delivered by leaders and audio-visual bytes broadcasted through mainstream and social media. Second is the ‘medium’ through which the content is disseminated, and this includes television, radio, newspaper, social media, loudspeakers, accessories like caps, badges and outdoor advertising, including banners, posters, pamphlets and hoardings. Efforts are directed towards repetition of catchy content through all possible mediums of communication for it to stay as top-of-mind-recall of voters. The third, and very important, category is ‘event’, which enables on-ground symbolic activity to show strength through public meetings (rallies), resentment through protests, connectivity through road shows, inclusiveness through religious visits and dinner programmes. In all these three categories, the leader remains at the centre of the political marketing. Ideologies are withering and elections are becoming more and more idol-centric. The persona of a leader is taking over the policies of his/her party. Elections around the world are following in the footsteps of US presidential-type campaigns where the face of a party is the most important tool. Thus, the primary task of a political marketing agency is to carefully craft the image of a leader, who acts as the brand ambassador of party, policy, government and the people at large. Clever strategies are designed to malign the competitors by exposing their weakness and in response the opposition also carries out similar campaigns.

### SERIOUS ETHICAL ISSUES

On a broad perspective, consumers are considered to be voters and also conversely considered. This is reasonable for believing that the ground process of political with commercial media messages is related. For instance voters might be affected by the image of politicians and political parties brand image which is similar to individual getting influenced by product or service brand image.

### Cambridge Analytica: How 50m Facebook Records Were Hijacked



The infamous case of Cambridge Analytica, which allegedly breached the privacy of users and analysed perceptual trends from social media site, Facebook. A UK-based company Global Science Research (GSR), hired by Cambridge Analytica, created an app and collected data from millions of Facebook users, in what Facebook claims to be 'in violation' of its policies. It is also alleged that they designed political communication strategies for their clients' to influence the voters' choice based on these trends. It might be noted here that such practices are voraciously used to influence the economic choice of consumers, more popularly termed as 'digital marketing', but this is the first time where political choice has been allegedly influenced. The question is, whether influencing one's economic choice through marketing is acceptable and political choice is not.

Even in India, Prashant Kishor of IPAC is a renowned talented political strategist. He partnered with BJP for 2011 Gujarat state elections and then during 2014 Lok Sabha elections. He is considered to be the person behind 'Chai PeCharcha', high tech public meetings, hologram technology (3D rallies), PR techniques etc. in contemporary situation. He then partnered with Nitish Kumar for 2015 Bihar Election, Capt. Amarinder Singh for Congress in Punjab and recently for YSR Jagan in

2019. The only failure he had was during UP assembly elections in 2017 when he was employed by Congress, and quit due to non-cooperation. Based on present news many politicians are reaching out to Him viz. DMK Stalin, TMC Mamata Banerjee to craft a strategy for respective state elections in upcoming years. In all this activity, Prashant Kishor seems only driven by profits, an election strategy organization giving its resources and expertise to the highest bidder. It is like Desi version of Cambridge Analytica. In a certain way, he works as a Political Mercenary.

### CONCLUSION

Considering the various cases, external foreign intervention in the electoral process cannot be denied. Maybe it is time we think about the extent to which political parties and governments can use paid agencies for social media. Perhaps we need to rethink the entire premise of boosting social media using paid promotions, especially for political and electoral purposes. Maybe we need to put a stop to the way election management companies have started taking over the democratic process and reducing elections to a marketing exercise akin to that of selling a soap or hair oil.

## REFERENCES

- Hughes, A. and Dann, S. (2009). Political Marketing and Stakeholder Engagement, *Marketing Theory*, 9(2): 243-56.
- Lock, A. and Harris, P. (1996). Political Marketing: Vive la Difference! *European Journal of Marketing*, 30(10/11): 21-31.
- Shama, A. (1976). The Marketing of Political Candidates, *Journal of the Academy of Marketing Science*, 4(4): 764-77.
- Winther-Nielsen, S. (2011.) *Politisk Marketing: Personer, Partier og Praksis*, Copenhagen: Karnov Group.
- <https://www.cioandleader.com/article/2018/03/21/cambridge-analytica-case-look-beyond-scam>
- <https://economictimes.indiatimes.com/news/politics-and-nation/social-media-engineering-how-congress-bjps-war-room-are-trying-to-woo-voters-in-Karnataka/articleshow/63445558.cms?from=mdr>

# Case Study

## *The Fate of Food Junction*

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Faize Nabi\*

### BACKGROUND

Aligarh is situated in the western part of Uttar Pradesh and is a very important educational and commercial hub of India. The city has developed itself as an important business center of Uttar Pradesh. The city is famous for its lock industry. The locks produced in Aligarh are exported all over the world. The city is an important center for brass hardware and sculptures as well. Recently, the city has been included in the list of smart cities of India and under new Defense Corridor Scheme; some local industries have bagged promising contracts for manufacturing defense equipments.

The Railways Over-bridge popularly known as “Katpula” almost divides the city in two halves; old Aligarh and Aligarh Muslim University or Civil Lines. The Aligarh Muslim University grew out of the work of Sir Syed Ahmad Khan, the great Muslim reformer and statesman, who in the aftermath of the Indian War of

Independence of 1857 felt that it was important for Muslims to gain education and become involved in the public life and government services in India. That mission and vision, inspired him to establish the Mohammedan Anglo Oriental College in 1875 which later grown into the world renowned Aligarh Muslim University in 1920. It was one of the first purely residential educational institutions set up either by the government or the public in India.

Nearly 18000 students reside in twentyhalls of residence within the university Campus. Each Hall consists of several hostels. The capacity of a hall varies from 500-1000 rooms each, thus making effective seating capacity of 1000-2000 resident students per hall. Each Hall is equipped with a dining hall which serves breakfast, lunch and dinner to residents at a nominal cost. During last few years, a large number of students’ protests and complaints have been registered pertaining to monotonous menu and

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quality of food served in dining halls. It has also been observed that a large number of students either subscribes to private tiffin services or eat at dhabas available close to campus.

## INTRODUCTION

Mohammad Salim was a bright student. He stayed in AMU during 1991-1997. He passed out with a Master's degree in Business Administration. During his stay in AMU, he resided in three halls; Hadi Hasan Hall (1991-1995), Nadim Tarin Hall (1995-1996), and Mohammad Habib Hall (1996-1997). Besides being above average in academics, he took active part in extra-curricular activities as well. He was Senior Food Monitor during last two years of his tenure in AMU.

Salim undertook corporate employments during 1997-2001. He worked with some notable organizations in service sector in India and abroad. During 1999-2001 he was working with a hyper market chain in UAE (Dubai). He had savings of approx. Rs. 1 Lakh in hand. He wanted to start something of his own in India. A lots of business ideas were flooding his mind. After a prolonged brainstorming, he came to the conclusion that with a meager fund at his disposal, he might venture into a business which posed the least risk. Out of his sheer experience, he was aware that in AMU Campus the resident students were not at all satisfied with the quality of food served in the dining halls. He had himself witnessed a crowd of students' frequently visiting dhabas for meals. The idea of finding a business in providing the students quality food at a reasonable cost within close proximity to the AMU campus itself flashed as exciting and convincing proposition.

In the meantime, Salim came to know that his colleague and close friend Nasir has also started a family restaurant in Mathura. He immediately contacted Nasir to discuss the prospects of starting a food outlet specifically catering to AMU students. Discussion with Nasir further strengthened his decision to start this business. Now Salim was thrilled to start this business as early as possible.

Salim discussed the idea with his cousin Danish, who immediately offered to become his partner. Danish was pursuing a Diploma in Software Development from NIIT, Delhi. But he found the business idea so convincing that he wanted to be a fifty percent partner. It was mutually agreed that expenditure and gains would be equally shared and Danish would devote as much time as he could manage to the business.

Soon after in-depth discussions and deliberations it was decided that each partner would contribute Rs. 80000 towards expenditures, and keep 20000 as reserve funds. The duo found a suitable space for their restaurant in Hyatt Market, which was just opposite AMU Lawn

Tennis Ground, at the junction of Sir Syed Hall North, Sir Syed Hall South, and Aftab Hall. Nasir willingly assisted in finding the chef and other staff. It was thought 'Food Junction' would be the name given to their restaurant. Pilot study by the partners also strongly suggested that AMU students, who were otherwise bored and fad up with the same taste and smell of dining hall food had to explore either at the cheap dhabas situated in the vicinity of the campus or costly food at restaurants like Mezbaan or Quality or a middle choice of vegetarian dhabas at Tasweer Mahal or SootMill, would welcome the concept of Food Junction.

## CASE BODY

Food Junction, a restaurant with a difference, was meant to serve tasty and hygienic food to AMU students at a reasonable cost. The restaurant was managed by a team of AMU alumni. With lots of planning and blueprints on paper, the basic requirements in men, material and other aspects were listed and executed. The cook hired was one of the best available in Aligarh. His was popularly known as 'China Ustad' for his expertise in Chinese cuisines. It was said that he was sacked from The Oberoi, Mumbai for his drunken behavior. However, the young entrepreneurs were not at all worried with this as they believed in the competency of the cook. As the management team was new to food business therefore, China Ustad assisted in preparing the menu. Against the wishes of the managing team he resolved to stay-on to his reputation and introduced a 'menu' which comprised Indian, Chinese, Mughlai and South-Indian dishes along with fast-foods like a range of sandwiches, burgers. The deliberations and discussions with the management team and the cook could only lower the prices of the dishes. Hence, high quality food at a low cost became the unlisted motto of Food Junction. Special instructions were issued to the chef and staff members regarding safeguards pertaining to health and hygiene.

During the inaugural day on 9th November, 2001, the sales were Rs. 5000/- plus which was quite a remarkable achievement. Soon, the quality, taste and value for money became the hall mark of Food Junction and it attracted not only the AMU students but also there were abundant packing order from the families of AMU teachers and other local residents. The Restaurant also became a preferred venue for fresher and farewell events. The average daily sales fluctuated between Rs. 5000-6000 per day.

Despite low pricing profit margins were quite good. Daily break-even point was Rs. 1000/-. On an average 50% of the sales were profit margins. Salim decided to push the profits back into improving the décor of the restaurant. So, gradually, profits kept on being invested in improvements like fancy wall paintings, door-mates, fancy lighting, underground cabling, bamboo-fencing,

light-house etc. In the meantime, the restaurant also attracted some fresher and farewell events of engineering and medical students.

It came December and the sales were as dipped down to Rs. 1000-1200 per day as the students had left the campus for over two months during winter vacation followed by Ramdan and Eid. China Ustad was not that active now as he used to be. Most of the time he was drunken and refusing to attend to the customer orders. One evening, there was a crowd of customers at the eagerly waiting for their respective orders. Salim enquired the reason of delay to find out that China Ustad was heavily drunk and refused to deliver the orders. Realizing the importance of a cook for a new venture like this, which went overnight famous for the taste and quality of its food, Salim tolerated the behavior of the cook but to his dismay his erratic and undisciplined behavior got further aggravated with the passage of time. Salim decided to look for a replacement of China Ustad. He contacted Guman Singh, the assistant chef in a famous restaurant in Aligarh. At the salary which China Ustad was getting he was more than willing to join Food Junction.

Guman Singh took place of China Ustad. But the large customer base, which was fan of China Ustad's dishes like Butter chicken, Chilly chicken were not satisfied with the change in taste and the change in cook. The sales further nose-dived. Meanwhile, Guman Singh was caught by the management team for cheating in purchase of raw materials. The management team was doubly compelled to replace the cook again.

Factors which further aggravated the hardship were lack of funds as whatever the profits were they are all pooled in the decoration and improvements of the Food Junction, like a bamboo structure and railings, wash basing inside bamboo hut and so on. The working capital was almost

zero; sales were dipping down on a day to day basis. In effect, there came the days of almost negligible sales. New team was hired from Agra, which arrived and took over the restaurant during the last week of January, 2002. The total salaries to be paid to the staff were fixed at Rs. 18000/- per month including those of two bearers which were retained from the last batch of employees. The sales were so down that sometimes even the sales figure could not touch a meager Rs. 1000/- mark, which were also the restaurants minimum per day expenses.

Now, Salim got highly perturbed and could not sleep for about 4-5 nights in the dilemma as how to revive and survive the failing and falling restaurant. Sometimes he was so disturbed that even he thought of closing down the restaurant. While his partner Danish who has already left the site and joined his diploma studies at NIIT, Delhi. Food Junction required full-time attendance of Salim for almost 18 hours per day.

Salim phoned Danish to immediately rush to Aligarh to discuss the fate of the Food Junction. Before disconnecting the call, he could hear Danish enquiring if he should ask his father to pump in some capital? Salim was thinking he had almost burnt up his capital. Danish was not physically sharing responsibilities for the last three months. He had lost his sleep due to anxiety and fear of not only losing Food Junction but his hopes for future too. Physically too, he was overburdened.

### QUESTIONS

- 1) In your opinion, what factors may be responsible behind such a dramatic fall in sales?
- 2) Imagine you are Salim, what would be your stand regarding the fate of Food Junction in the meeting?
- 3) Could the Food Junction be saved? Critically evaluate.

**Table 1 - One-time (Fixed Expenditure)**

Head	Amount (Rs.)
Space (Shops) Security	80000/-
Furniture	25000/-
Electricity Connection	5000/-
Power Generator	5000/-
Bamboo Fencing	25000/-
Refrigerator and other kitchen equipments	20000/-
Total	1,60,000/-

**Table 2 - Recurring Expenses (Per Month)**

Head	Amount (Rs.)
Rent	2000/-
Staff Salaries	18000/-
Electricity Bill	2000/-
LPG	4000/-
Diesel	5000/-
Total	31000/-

# *Book Review*

## *Economics in the Age of Covid-19 by Joshua Gans*

*USA: The MIT Press, 2020  
(Kindle Edition). 132 Pp.*

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**Jitender Sharma\***

One of the first and authentic texts how economics would take shape in the age of COVID-19 coming out from MIT University Press, this book revolves around the concept that much hyped concept of globalization has peaked and will see its reverse now as nations are no more trusting each other.

This book explores in details how this pandemic evolved, how the testing has been done in different countries and most important aspects about development of a reliable vaccine to treat and control this pandemic.

It has been able to put forward the point that whichever country will develop the reliable vaccine for the pandemic will have all political and economic benefits. It gives possibility of such a huge global prize for the first easily manufactured and effective vaccine since all governments would like to have availability of vaccines for their citizens and would even like to give free to all citizens. There can be multiple political and economic

mileages that can be available the first developer of the vaccine. This possible vaccine will be like a gold mine and many economic activities will evolve around this vaccine development and sale.

Going through the different chapters, it can be said that first four chapters of the book comprehensively covers one's understanding about the economics of the pandemic shutdown also covering in details possible fallouts of not shutting down. Chapters related with science of the pandemic and the rationale for and limits of testing were average and doesn't provide any new insights except what has already been available in public domain. Remaining chapters suggesting solutions for developing vaccines were just suggestive with any meaningful insights.

Primarily, this book is about two core aspects one is growing mistrust in globalization and secondly the economic benefits of developing an effective vaccine for COVID-19.

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Miller-Rushing, A. J., Primack, R. B., Primack, D., & Mukunda, S. (2006). *The satanic gases: Clearing the air about global warming*. Washington, DC: Cato Institute.

**In-text reference:** (Miller-Rushing, Primack & Mukunda, 2006)

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**In-text reference:** (Galley, 2004)

### **Journal Publications**

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**In-text references:** (Allen, 2004)

Begley, S., & Murr, A. (2007, July 2). Which of these is not causing global warming? A. Sport utility vehicles; B. Rice fields; C. Increased solar output. *Newsweek*, 150(2), 48-50.

**In-text references:** (Begley & Murr, 2007)

### **If journal pages are continuous**

Miller-Rushing, A. J., Primack, R. B., Primack, D., & Mukunda, S. (2006). Photographs and herbarium

specimens as tools to document phonological changes in response to global warming. *American Journal of Botany*, 93, 1667-1674.

**In-text reference:** (Miller-Rushing, Primack, Primack, & Mukunda, 2006)

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**In-text reference:** (Mora & Maya, 2006)

### **Website contents**

United States Environmental Protection Agency. (2007, May 4). Climate Change. Retrieved from the Environmental Protection Agency website: <http://www.epa.gov/climatechange>

**In-text reference:** (United States Environmental, 2007)

Gelspan, R. (2007). *The Heat Is Online*. Lake Oswego, OR: Green House Network. Retrieved from The Heat Is Online website: <http://www.heatisonline.org>

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