IPE Journal of

Management

Academic Research Effectiveness in Higher Education: Role of Spirituality

Moitreyee Paul, Lalatendu Kesari Jena and Kalpana Sahoo

Emotional Intelligence (EI) and Quality of Work-Life (QWL): Exploring the Connection

L. Gandhi and K.T. Vijaykarthigeyan

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Corporate Sickness: Critical Analysis of SICA Vs IBC: A Study

S. Pardhasaradhi

What Determines Emerging Market Multinationals Innovation: A Systematic Literature Review

Sandeep Yadav



Aims and Scope

IPE Journal of Management is a bi-annual, peer-reviewed journal which publishes empirical, theoretical and review articles dealing with the theory and practice of management. The aim of the journal is to provide a platform for researchers, academicians, practitioners and policy-makers from diverse domains of management to share innovative research achievements and practical experience, to stimulate scholarly debate both in India and abroad on contemporary issues and emerging trends of management science and decision-making.

Indexed in:

- Ebsco Database
- ProQuest
- Ulrichsweb
- International Impact Factor Services 11/5
- Indian Citation Index (ICI)
- International Institute of Organized Research (I2OR)





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The publication of IPE Journal of Management is supported by the grant received from Indian Council of Social Science Research (ICSSR), Ministry of Education, Government of India. New Delhi.

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Published by: Satyam N Kandula on behalf of Institute of Public Enterprise

Owned by: Institute of Public Enterprise

Printed by: Satyam N Kandula on behalf of Institute of Public Enterprise

Printed at: Wide Reach Advertising Pvt Ltd, 21, Surya Enclave, Trimulgherry, Hyderabad -500015.

Place of Publication: Institute of Public Enterprise, OU Campus, Hyderabad - 500007.

IPE Journal of Management

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IPE Journal of Management

Volume 10 No 2 July-December 2020 ISSN 2249 - 9040

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From the Editor's Desk...

IPE journal of management has presented itself as a reservoir of high quality management research. This journal has consistently made conceptual and pluralistic theoretical contributions for both academia as well as the practicing management professionals. Continuing its tradition of expanding the horizon of management research, this edition of the journal contains six thoughtful works of research.

The first paper titled, "Academic Research Effectiveness in Higher Education: Role of Spirituality "discusses the devising of spiritual strategies to nurture a holistic mindset for enhancing the academic research effectiveness for both doctoral students and academicians in higher education setting. It identifies the real life challenges of the doctoral research community and educators worldwide in contemporary educational landscape.

The second paper explains how the Quality of Work-Life (QWL) is affected by emotional intelligence (EI). This is an opportune moment to study emotional health of individuals already battered by unprecedented events. The business processes require revaluation to address the concern of the health and wellbeing of the employees. A better understanding of emotional intelligence (EI) could certainly equip us with means to enhance the various aspects of one's quality of work-life. The third paper titled, "What Determines Emerging Market Multinationals Innovation: A Systematic Literature Review" provides systematic review of the innovation literature from the last 10 years. This paper consolidates the state of academic research on managing innovation in emerging market multinationals (EMNCs). The next paper is titled, "Public Private Partnership for Development of Road Infrastructure with Reference to the State of Punjab". This paper describes two Public Private Partnerships based road projects in the state of Punjab and identifies the institutional arrangement and procurement process involved in development of these road projects.

The next paper titled, "Multigenerational Workforce and its Relevance in the Higher Education Sector in India – A Comprehensive Review of Literature" is a comprehensive effort that showcases the diversity and its importance in Indian educational sector. The final paper titled, "Corporate Sickness: Critical Analysis of SICA vs IBC: A study" discusses corporate sickness and how it is impacted by Sick Industrial Companies (Special Provisions) Act, 1985 and Insolvency and Bankruptcy Code, 2016, (IBC). These turbulent times have created disruptions in previous course of business. Moreover, now is the time for management researchers to carve out the new paths. For the next issue, I look forward to the receiving high quality theoretical and empirical works from researchers.

Academic Research Effectiveness in Higher Education: Role of Spirituality

Moitreyee Paul¹ Lalatendu Kesari Jena² Kalpana Sahoo³

Abstract

The purpose of this study is to portray the current research scenario depicting the plight of doctoral scholars and academicians and devising spiritual strategies to nurture a holistic mindset for enhancing the academic research effectiveness of both of them in higher education setting. The extant literature merely delved into the different research barriers of doctoral scholars. Understanding the necessity of nurturing the research aptitude skills of doctoral scholars and cultivating a mindset to face the troubles and overcome them through workplace spirituality this particular study was conducted. An exploratory approach was embarked upon while reviewing the journal articles that revealed the real-life challenges of the doctoral research community and educators worldwide in contemporary educational landscape. The positive and negative outcomes of the challenges of doctoral students and academicians are elucidated. Spirituality and various divine practices have been considered for nurturing a holistic mindset among doctoral students and academicians for improving their professional well-being and research effectiveness at academic workplace. Future recommendations are conspicuously defined regarding the roles and expectations from doctoral students, academicians and educational institutions in the present context. The present study adds a new insight into the extant literature by considering workplace spirituality's role in developing the research capabilities and dealing with the practical research challenges and psychological problems faced by doctoral scholars and educators at the university level.

Keywords: Academicians, Doctoral Students, Higher Education, Research Effectiveness, Workplace Spirituality

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Introduction

University is a knowledge enterprise that not only bestows knowledge but also propagates knowledge (Mukhopadhay, 2016). In refining the educational landscape, universities must have adequate faculty, research facilities, relevant curriculum and adequate infrastructure to flourish. At the university level, academic research quality is of paramount importance. However, there is an acute shortage of good quality academicians who are research-oriented and possess the requisite communication skills to impart their knowledge to students. The higher education in India has emerged as an asymmetric mix of philosophies of Western and Indian education (Suar, 2014). Since ancient times, the virtues of human value-based education were conveyed to the pupils by their *Gurus* (teachers) informally in '*Gurukulashrams*' (institutes of learning). The sole aim of higher education was to make the students more competent, innovative, flexible, and responsible citizens of the country by doing meaningful work and adding value to their livelihood.

With the passage of time, the quality of higher education has undergone a colossal transformation concerning phenomenal expansion and diversification. Doctoral students are expected to conduct ethical research focused on areas of national importance and societal development. They need to be equipped in proper research attributes and competencies like knowledge of doing literature review, awareness of various research methodologies, logical interpretation of data analysis findings, inborn spirit for teamwork and collaboration, presentation skills to communicate their research to the outer world and finally inner mental stability throughout their doctoral journey for timely submission of their doctoral dissertations and earning the coveted degree. Academicians are expected to do genuine research apart from teaching and mentoring pupils, executing professional and other administrative activities, and also displaying citizenship behavior. At the university level, ethics in teaching in the form of pedagogical competence, dealing with student and parent communities, maintaining professional conduct is the most vital part of the teaching profession (Suar, 2014). Hence, the right blend of teaching and research aptitude needs urgent attention.

However, the current academic scenario is different. There is a considerable gulf between knowledge gained in classrooms and its practical application. The current academic curriculum in our universities is devoid of any emphasis on learning specific skills leading to the diminishing employability amongst the graduates. The coursework is inappropriate in terms of their research needs causing dissatisfaction and forcing them to quit the program. This catastrophic situation deserves critical attention.

Therefore, it is the responsibility of higher educational institutions (HEI) or universities to develop proper educational policies and research

facilities. Genuine efforts are obligatory for sustaining the quality of research. This will require careful screening of doctoral students. Next, universities must be aware of the grave challenges faced by both of them. Proper institutional research support must be provided to them in the form of interactive peer-group learning, digital learning and expert guidance from supervisors actively involved in the research. Future implications of research must be on improving its standards and effectiveness in order to be recognized in the global platform. The workplace is changing relentlessly than ever before and we must strive hard to prove our credibility. One has to be innovative, agile and persistent in one's efforts to rise above the level of average professionals to respond to that change (Chakroborty, 2019). This thought has been nicely elucidated by martial art expert Bruce Lee through his iconic statement "Be Water, My Friend."

The purpose of this paper is to portray the current research scenario depicting the plight of doctoral students and academicians while teaching and conducting research. The paper also elucidates the role of different dimensions of spirituality in the workplace in tackling the present situation by devising a conceptual framework to enhance research effectiveness in doctoral research in higher education setting.

Current Research Scenario in Higher Education

Knowledge creation is the backbone of knowledge enterprises that generates and disseminates knowledge (Mitra & Mandke, 2004). A philosophical underpinning of quality is focusing on the complete well-being of both educators and students, promotion of ethical educational leadership through the creation of a positive work environment within the campus. Gradually, the idea of 'research universities' emerged. However, except for a few elite institutions (e.g. Indian Institute of Science, Bangalore) there is hardly any university that has got global recognition.

Research is an organized process of discovering, revising and interpreting facts, theories or techniques that has practical relevance. The research procedures vary across disciplines. Research is conducted primarily at four levels (E.g. PG, M. Phil., Ph.D. and Post-doc). Faculty members are involved in numerous research projects funded by governmental organizations. At post-graduate (PG) levels there is a bone of contention regarding the purpose of research. Laxity of research quality at this level pollutes the minds of budding researchers about the intensity of research. Different universities have different eligibility norms during admission. Doctoral research forms the crux of research in universities of developing countries and hence needs prime attention.

Secondly, researches are conducted individually or in groups. In teaching universities, academicians act as research supervisors to a large quantity of students hampering the quality of supervision. Universities are lacking in good supervisors. The few senior academicians who were involved in genuine research are entrusted with the duties of guiding Ph.D. scholars thereby compromising on their own research. Others are engrossed in preparing their teaching notes without focusing on genuine research.

Third serious issue is plagiarism in research. Most of the research available from the universities are found to be imitative thereby severely hampering the quality and there is no point in debating on its quality assessment (Mukhopadhay, 2016). Proper measures like organizing research methodology training workshops or art of academic writing workshops must be held inside campus to tackle this severe problem.

Fourth issue is the evaluation and assessment of doctoral theses in universities. The choice of external examiners for the assessment of a research is vital. The friendly nexus of mutual support between research guides and examiners does not facilitate quality assessment of research theses due to poor professional standard.

Fifth major bottleneck is the lack of adequate research facilities in the form of research laboratories, scientific equipments, poor availability of educational resources across disciplines. Lengthy academic publishing procedures and poor professional standard of research is most intriguing when the only criterion for promotion of academic staff in universities is research publications.

India's dream of reigning the education world still remain unfulfilled. India continues to depend on imported knowledge from flourished nations at a formidable cost which causes blockage in the flow of learning. Collaboration between industry-academic interface is necessary to increase research productivity through the adoption of novelty ideas and technologies. Differences in viewpoints regarding patenting rights also occur. Very few research collaborations happen with foreign universities and only a few manage to bag coveted research fellowships to pursue research abroad (e.g. Fullbright-Nehru Scholarships (USA-India), British Chevening Scholarships (UK-India)). Collaborative learning, incessant monitoring is facilitated in a classroom that is aesthetic and has basic research amenities. Quality of academic research has been articulated as a matter of concern since research affects one another. The external and internal indicators of excellent quality research are depicted in the form of a table given below:

Table-I: Indicators for Quality Research

External indicators	Description		
Sources and size of funding	External sources refer to governmental and private funding agencies and internal sources refer to intrauniversity funding support.		
Patenting and patent registration	Registration of a new product after development abiding by the rules and regulations of the Patents Law Act of 1970 (amended in 2005) and Copyright Act of 1957(amended in 1999).		
Research Publications	Publication of original research in the form of technical, conceptual, review journal articles in top tiered peer-reviewed Scopus indexed International journals.		
Peer Review	Maintaining anonymity of reviewers, multiple peer evaluation, using a set of criteria.		
Citation Index, Impact factor, h-index	Citation Index – Number of times a study has been refereed by other research scientists as an index of impact of authors. Impact Factor (Garfield factor)-This index indicates the number of citations of recent articles published in a journal as per the norms of Journal Citation Report. h-index – This is a method of quantifying scientific research output of a scholar.		
Honors and awards	Awards specific for a particular piece of individual research work or cumulative research (lifetime).		
Internal Indicators	Description		
Relevance and problem solving	Significance of the research and its societal contribution.		
Building quality	Screening of doctoral candidates through National Eligibility Test (NET). Promotion and incentives for faculties in universities based on quality research publications.		
Organization of the research program	Minimum eligibility requirement for doctoral research scholars, introducing coursework as a significant component and making it interdisciplinary full time, availability of research resources both offline and online.		
	Identification of only those faculties as research supervisors those who are actively involved in research themselves. Offering refresher programs on research methodologies specifically for social science researchers. Recognition of each guide for identification of areas of specialization.		
Supervision and Evaluation	Stipulate interactive and collaborative learning environments between supervisor and researcher and among researchers. Critical peer review examination of theses by senior research scholars from the angle of research methods, systematic organization of the theses and language of the theses. After this stage is over, the theses must be then sent to the Supervisor for personal review and approval.		

External indicators	Description	
Infrastructure and Research facility	Provision of quality infrastructure and research labs based on adequacy, functionality, comfort, safety and aesthetics. Research funding in terms of approval of certain amount of grants to participate and present papers at renowned International and national conferences must be provided. Research facilities in the form of library services like	
	access to various reputed journal databases in library and scientific equipment's, individual computers or workstations must be made available	
Originality in Theses or Doctoral Dissertation	Original thesis work reflecting the innovative ideas and scientific contribution of the research scholar	
Academic Integrity	Following and maintaining ethical conduct (e.g. avoiding plagiarism) while conducting academic research.	

Source: Mukhopadhay, M. (2016). Quality management in Higher education, Sage Publications, New Delhi, India.

Challenges Faced by Doctoral Candidates in Higher Education

Doctoral students face many problems during their doctoral journey. In modern times Ph.D. students are highly dissatisfied with their work resulting in attrition or delay (Bair & Haworth, 2004). There are several individual factors, supervisory relationship-related factors, workplace factors, institutional environment-related factors that cause disturbances during the doctoral course.

Individual Factors

Researchers must possess some innate professional skills and nurturing of the research competencies essential for genuine research. Firstly, doctoral students are facing problems choosing a feasible topic for their research. They start reading literature and find everything very appealing thereby failing to narrow down their desired research area. They are often unable to find the correct rationale for their study and most of the time students lose interest. They fail to understand the stark reality. Secondly, they lack the research ability to frame suitable research questions from extant literature and correctly identify the research gaps. Limited access to apt educational resources, non-availability of translation services are some major hurdles. Thirdly, during the phase of research data collection, unwillingness attitude of sample respondents, geographical barriers, and convincing target participants or institutions about the significance of their study cause major barriers. Students are deficient in leveraging the power of networks and building professional relationships (Phyalto & Keshken, 2012). They get easily disheartened due to rejection or failures without seeking for alternative options or having that tenacity to achieve

the goal while upholding one's self-esteem. Sometimes, doctoral students are engaged in standalone projects or are associated with other faculties in bigger projects (Kehm, 2006). Students value autonomy and freedom while designing or executing the project or expressing their opinions (Shin et al., 2018). Students in standalone projects cannot benefit from beneficial teamwork like peer learning and often experience intellectual loneliness from everyone (Shakni, 2018). Ph.D. students who regularly collaborate in research projects seem to complete faster (Bair & Haworth, 2004). They work on weekends due to time pressure causing interference with their personal lives leading to work-life conflict (Castello et al., 2017). Teaching tasks at some point of Ph.D. also poses delay (Bradley, 2009). *Finally*, delay in the academic publishing process due to poor writing skills, incorrect choice of research methodologies, and failure to present the data after analysis in the form of publications are some significant obstacles (Castello, Inesta & Corcelles, 2013; Cotteral, 2013).

Personality traits of individual scholars like discipline, sincerity, and respect towards Ph.D. supervisor and other psychological factors like getting inspired by the attitude of supervisor and peers also have a remarkable effect. Role conflict due to ambiguous educational policies leads to job burnout, role strain causing numerous mental health problems (Levecque et al., 2017; Nottingham, 2017).

Supervisory Relationship-Related Factors

Supervisory related factors are vital for doctoral research. Once a student is allocated to the supervisor for research it becomes a responsibility both on the part of supervisor as well as the doctoral student to fulfil the expectations both ways. Personal support may be unavailable due to a lack of supervisor's concern for the student, prior experience, awareness and experience in the promotion of interventions. Supervisor's physical presence, frequent meetings with students, providing timely feedback regarding work assignments via e-mail, or helping students in publishing process and timely submission of thesis (Pyhalto, Stubb & Lonka, 2009). Helping students to cope up with their personal problems, dealing with anxiety or depression by recommending spiritual practices prove to be highly effective. Academic support is essential for doctoral research. Supervisors may not give due attention to their students due to work overload. Mismatch in research areas may cause incompatibilities between them. Students may not receive the desired support from supervisors in learning new software and academic writing skills desired for research. Finally, supervisor's lack of prior experience of the research ecosystem(Nottingham, 2017; Devos et al., 2015; Johnston et al., 2016). Autonomy support should be a prime concern, but the system suffers from major flaws. Firstly, the lack of proper guidance to scholars in voicing out their own opinions regarding

research. Secondly, treating their ideas with due respect. Thirdly, a display of opposite controlling behavior might be considered negative (Devos et al., 2015).

Workplace Related Factors

An individual spends most of his time at the workplace fulfilling the goals of the organization. However, sometimes, an individual may not be able to deliver his best. A doctoral student might feel detached from his work (Vekkaila et al., 2013). One may experience loneliness due to a lack of peer support from fellow scholars and faculties (Bair & Haworth, 2004; Gardner, 2009). This may lead to academic stress and other health hazards (Phyalto et al., 2012; Levecque et al. 2017; Assembly, 2014). Most of the doctoral students enrolled are either full time or part-time. It poses difficulty for married women scholars to balance both their personal and professional lives (Gardner & Gopaul, 2012). To tackle these barriers, Assembly (2014) recommended doctoral candidates greater physical self-care, effective supervisory relationships, nutritional care (Benjamin et al., 2017; Maraise et al., 2018), and effective doctoral procedures (Peluso et al., 2011).

Institutional and Environmental Factors

Institutional and environmental support must be provided to doctoral scholars through the setting up of research infrastructure like research labs, individual workstations, and libraries for providing access to various educational resources. Universities suffer from lack of transparency (La touche, 2017), vague written norms and expectations from students, ambiguity in doctoral research training (Levecque et al., 2017), poor procedural communication, overlapping nature of processes, university procedures, lack of intra-university research collaboration and also collaboration dynamics between faculties and scholars and among doctoral scholars. Only a handful of universities have taken measures to promote intra and inter-university doctoral research environment.

Recently, Vinod Gupta School of Management (VGSOM), IIT Kharagpur in India launched a collaborative program with Singapore Management University (SMU) for 'SMU-IITKGP Inclusive and Immersive Experiential learning (I2XL) Programme.' The primary objective is research collaboration between them by enriching the student mindset on diverse managerial concepts, technological advancements and practical application in the financial sector. The research questions that have been chalked out from the extant literature are given below:

- Q1. What are the expectations from doctoral students in academia?
- Q2 How can spirituality contribute to promoting the spiritual wellness of doctoral students thereby increasing their academic research effectiveness?

Challenges Faced by Academicians in Higher Education

Working professionals in diverse sectors are dedicated individuals having specialized knowledge and serve the society by following the ethical norms of their respective profession. Educators also fulfill the minimum eligibility criteria for teaching in universities. They get rewarded financially or are appreciated informally for their service to the nation. Some of them are engaged as Ph.D. supervisors to research scholars and facilitate them to obtain the coveted degree. Others are involved in cumulative or lifetime research and the cream of the lot gets appreciation from professional bodies for their stellar performance in research. Some eminent personalities like Prof. Suman Chakraborty, currently a senior professor at Indian Institute of Technology (IIT) Kharagpur, was awarded the prestigious Shanti Swaroop Bhatnagar Award for his academic and research excellence in the field of mechanical engineering. Professors of International repute like Prof. Amartya Sen of Harvard University and Prof. Abhijit Banerjee of Massachusetts Institute of Technology (MIT) won the prestigious Nobel Memorial Prize for their research excellence in the field of economics. in 1998 and 2019 respectively. Another professor of Indian origin, Prof. Venkatraman Ramakrishnan, a British structural biologist, also shared the Nobel Prize in Chemistry in 2009, along with two other foreign researchers for their research on the structure and function of ribosomes. In all these cases, these researchers have traveled abroad to pursue research in worldclass foreign universities due to the availability of research facilities there, which is absent in Indian universities. That is the sad reality and grim phase of contemporary research in India.

Presently, the explicit universal codes are unavailable for Indian educators due to which they obey the traditional rules according to their academic institution. Academicians impart training to a massive quantity of students at a time, unlike other professions which have one-to-one client interactions. They develop mutual understanding and good rapport with students, irrespective of their cultural and educational background (Suar, 2014). Academicians come closer to students for understanding their practical situations in which they live, study and explore research. Both of them, through their combined and reciprocated efforts, try to achieve the goals of their designated courses or research undertaken. Their mentors assess students through comprehensive examinations and seminars, research publications, etc. Faculties have additional responsibilities of molding the personality of their pupils and churning them out as responsible citizens of their country.

However, they confront many barriers in the present context. Apart from the minimum academic credentials, educators must possess the right blend of competencies, be aware of the current advancements in technology and software usage, critical thinking and innovation, understand the level of adult learners and disseminate knowledge accordingly.

The research questions that have been formulated from the existing literature are as follows:

- Q3. What are the expectations of supervisors or academicians in academia?
- Q4. How can spirituality assist supervisors in cultivating the holistic mindset, research aptitude and psychological contract with doctoral students as well as improving their own research effectiveness in academia?

Positive and Negative Experiences of Doctoral Research

The positive and negative experiences during the stint of doctoral research are highlighted in the table below:

Table-2: Positive and Negative Experiences of Doctoral Research

Themes	Descriptions	Sources
Positive Experiences		
Development of research competencies	Gaining various research software skills, developing the research attributes and aptitude needed for conducting research	Corcelles et al., 2019; Cotterral, 2013.
Scientific communication	Developing the right scientific communication skills and writing skills to improve quality of research journal publications.	Castelló et al., 2013;
Perceiving themselves as active relational agents	Creating their own networks in with working professionals	Phyalto and Keshken, 2012; 2015;
Overcoming the time pressure	Proper time management leading to thesis submission	Gardner and Gopaul, 2012
Different stages of doctoral process	Understanding the various stages of doctoral research Maintaining academic integrity	
Discipline	throughout the stint of doctoral research	
Financial support	Getting adequate fellowships during the tenure of doctoral research	
Negative Experiences		
Disengagement	Not getting interest in one's topic or one's work	Vekkaila ,Phyalto and Lonka, 2013
Exhaustion &Isolation	Doing work in isolation like getting involved standalone projects without scope for collaborative learning	Bair and Harworth, 2004; Stub, Phyalto and Lonka, 2011; Janta 2012
Stress	Feeling academic work pressure due to teaching workload or other responsibilities	Phyalto et al., 2012.
Workplace Cynicism	Students subjected to workplace bullying, harassment by supervisor or peer researchers	Ali and Kohun, 2006; Phyalto et al., 2012; Vekkaila et al., 2013.

Themes	Descriptions	Sources
Relationship with other researchers	Not getting the peer support from fellow researchers, supervisor or other faculties	Jairam and Kahl, 2012; Phyalto et al., 2012. Ali et al., 2016;
Supervisory support	Getting the necessary support from supervisor and other advisory committee members	Bair and Harworth, 2012; Barnes and Rendall, 2012; McAlpine and
Disrespecting the supervisor	Students disrespecting Ph.D supervisors	McKinnon, 2013. Phyalto, Vekkaila and Keshken, 2015; Gardner, 2010.
Institutional support		
Research support	Lack of proper infrastructure like research labs or provision of scientific equipments. Funding support not provided toscholars involved in research projects	Zhao, Golde and McCormick, 2007.
Attrition	Quitting the doctoral program due to delay	Ali and Kohun 2006; Gardner 2009

Source: Developed by the authors

Spirituality's Role in Improving Academic Research Effectiveness in Higher Education

The doctoral students and academicians in higher education are confronting copious challenges at workplaces such as academic stress, burnout due to teaching work overload, workplace incivility, limited interaction with the outer world since most of the time are spent in their research labs. Students are also devoid of desired research facilities in their institutions. Most of the research studies or theories are focusing on growth of the external environment, rather, than concentrating on the students' and faculties' emotional and psychological engagement. Contemporary educators in higher education are mostly focusing on their own academic teaching preparation rather than on developing the self-actualization goals of doctoral students. Educators can express themselves through various selfdisclosure techniques and the scholars solicits both positive an negative feedback from them. Spirituality can address this issue by inculcating self-awareness skills, reducing the emotional gap by going beyond the intellectual curriculum to establish psychological contract with the doctoral scholars.

Workplace spirituality can play a vital role in reducing their health disorders and improving their academic performances. Recently, Joelle and Coelho (2019) added the new dimension of 'Emotional balance and inner peace (EBIP)' to the traditional spirituality at work (SAW) scale which comprised of four dimensions namely, opportunities for inner life (OIL), meaningful work (MW), alignment of values (AOV), and sense

of connection and community(SCC) pioneered by Ashmos and Duchon (2000). EBIP dimension imagines capturing the emotional balance and steadiness at an individual level. It was based on original Maslow's (1970) views which stated that, self-actualization is an enduring process that supports devoted people believing in core human values like authenticity, fairness, veracity, compassion, simplicity or purposefulness.

The spiritual dimension, opportunity for inner life (OIL) is about expressing one's true self, and capability to perform tasks (Ashmos and Duchon, 2000). Spirituality expresses an individual's inner need and ensures the highest levels of cognitive, moral and emotional development (West, 2004). Spirituality enhances our curiosity for righteousness and creates conformance and consistency with itself and the universe (Tacey, 2003). Passion and tenacity for professional excellence will ensure credibility and relevance at the workplace.

The spirituality dimension of meaningful work (MW) facilitates a student to find meaningful purpose in their work. College students seeking purpose in their work develop it spiritually (Parks, 2000). Greenway's (2006) study found that spirituality directly influences purpose in life but indirectly affects academic engagement, which ultimately leads to academic success. Doctoral students finding meaningfulness and purpose in their research work under the influence of spirituality will augment their research performance.

The spirituality dimension of alignment with organizational values (AOV) denotes the linkage between personal values and organization's mission (Rego & Cunha, 2008). It captures the workers' perceptions and attitudes towards the core values of their organizations (Ashmos & Duchon, 2000). Doctoral students' and academicians' aspirations must also align with their academic institutions' core values of being diligent and maintaining ethical conduct while conducting research and teaching resulting in ethical performance.

The spiritual dimension of a sense of connection with coworkers (SCC) is vital because it arouses a feeling of interconnectedness with peers at the workplace (Daniel, 2015). It is quite easy to convince near and dear ones but requires a different skill altogether to influence peers or external stakeholders who have little or no allegiance towards us. Doctoral students and academicians need to convince others during research data collection about the significance of their proposed research. Spirituality enables them to develop mutual collaboration with colleagues at the workplace and also with other sample respondents during field surveys as a part of their doctoral research. The greater the uniqueness or authenticity one brings to the table the more appealing it becomes to others. Networking or growing rapport with working professionals has important consequences

on our career progression. Accordingly, students have to establish good rapport with working professionals who might be their target participants to conduct surveys or focus interviews for their research. Spirituality easily influences those researchers to correctly execute their research procedure. Establishing stronger ties with working professionals prove to be beneficial for eons to come. This will enable them to perform better and at the same time maintain a work-life balance.

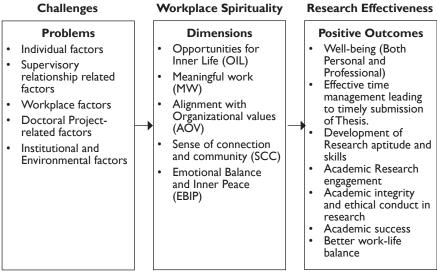
Finally, the spiritual dimension of 'emotional balance and inner peace (EBIP)' refers to our fulfillment and happiness at the workplace. Spirituality assists individuals in relieving stress and achieving a mental balance through personal fulfillment (Gupta et al., 2014). EBIP measures the importance of happiness in achieving inner peace and in sustaining trust when something goes wrong. It improves our quality of life (QWL), employee well-being and workplace wellness (Karakas, 2010).

In academics, it is essential for educators and doctoral students to derive mental satisfaction and contentment from the research work. Those who are emotionally strong and physically fit can handle all situations with utmost care. In academia, especially for doctoral students and their supervisors, publication of their research articles in good journals gives them mental satisfaction and an inner peace on the thought that they have been capable of identifying themselves in the global platform. Similarly, at the time of rejection of articles during the phase of the academic publishing process, they feel unhappy or sad. Spirituality will help them to overcome their failures and progress with much higher effort to achieve success. So, individuals those who are regularly involved in various spiritual practices can increase their concentration, achieve emotional stability to overcome this dismal phase of dejection. Spirituality is needed for self-knowledge and personality development. Supervisors can help students by making them understand their flaws in research, improve their academic writing standards and give them proper guidance through love and affection to overcome this gloomy phase and emerge victorious. In the case of married scholars, sometimes they may not get the family support to proceed with their work. Spirituality will benefit them by giving them the mental strength to maintain a work-life balance by smartly and skillfully balancing both lives and improving their work performance. This facilitates both of them to augment their teaching and research performance leading to research effectiveness and increasing their overall wellness.

The spirituality's role in augmenting the research effectiveness of doctoral students and academicians has been exemplified through conceptual frameworks as demonstrated in both the figures below respectively:

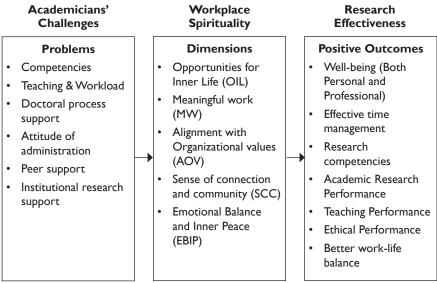
Conceptual Frameworks

Figure-1: Role of Spirituality at Workplace in Improving the Academic Research Effectiveness of Doctoral Scholars in Higher Education



Source: Developed by the authors.

Figure-2: Role of Spirituality at Workplace in Improving Wellness and Academic Research Effectiveness of Academicians in Higher Education



Source: Developed by the authors

Future Recommendations for Improving Academic Research Effectiveness in Higher Education

In this era of rising aspirations and falling values, the principal aim of education must be to fabricate students who are innovative, creative and intellectually sound besides having emotional intelligence (EQ) skills suitable for modern context. The key objective is to embrace different scientific and holistic approaches in redefining our educational landscape.

Firstly, we need to concentrate on developing the research skills of doctoral students. Organization, critical thinking, communication, research aptitude and inter-personal skills, EQ, stress and time management, capacity to grasp quickly are the foremost qualities that need to be nurtured in a budding researcher. Flow of information must be encouraged both ways in order to build up mutual trust and so that it gets reflected through creativity and innovation in their research. Spiritual techniques like yoga, meditation, relaxing while listening to soft spiritual music must be practiced habitually. Students must involve in sports and recreational activities to keep them physically fit and mentally strong. They can be engaging in painting, creative projects, joining a music class to keep their mind and body relaxed and evade stresses resulting in emotional wellness. Art therapy is a kind of a healing and therapeutic tool. Art is an expression of our deepest thoughts and feelings. Practicing art therapy may lead to the discovery of our selfemotions and yield deeper understanding of our life. Research skills need to be inculcated among students right from a tender age in under graduate (UG) and post-graduate (PG) courses. Recently, IIT Kharagpur launched a 'Do-It Yourself (DIY) Lab' to instill innovation spirit among UG students through participation in various research projects assisted by senior fellow students and faculties for mentoring them (Ghosh, 2019). Such educational initiatives must be propagated throughout the nation.

Academic professionals must possess research skills for enhancing their research productivity in the form of original research publications in toptiered referred International journals or engaging students in research projects to stimulate their creativity, critical thinking and analytical skills. Quality of publication can be gauged if the research journal articles and textbooks published by faculties are widely circulated and cited by upcoming researchers. Disseminating knowledge in classroom by upgrading their learning content and teaching pedagogy, maintaining professional conduct prove to be beneficial for the society. An academician must cultivate the requisite skills to enable students to get accustomed to research work culture, foster self-motivation and self-awareness skills, and practice meditation to tackle their mental health problems and provide mental support.

Educational policy makers should reconsider the intake quantity of Ph.D. candidates. Focus on improving the psychological contract and reducing emotional gap of research scholars is inevitable. Further exploration into different aspects of Ph.D. supervision like 'leaders-member exchange' to minimize ambiguity, augmenting collaboration dynamics specifically in the context of whole research ecosystem must be properly executed (Nottingham 2017). Spiritual wellness centres must be opened inside institutional premises to improve employee and student wellness (Barry et al., 2018; Marais et al., 2018). Professional advisors must be employed within campus to guide Ph.D. students to make a smooth transition from academia to industry or face the complexities of the higher academic world. Learning and development cell in universities must impart training to inculcate students' will power and truthfulness, increase their degree of concentration. Institutes must focus on urging students to share their personal experiences and experiential learning gained at conferences and seminars. Teachers must encourage students to reflect upon the their true inspiration, knowledge and experiences gained from such conferences.

Conclusion

It is indispensable to inculcate a spiritual mindset among research scholars and academicians to enhance the research effectiveness in the form of sharing of ideas, perspectives, competencies, truthfulness, building up mutual trust, augmenting mutual collaboration among them with industrial professionals, enriching the quality of life through proper work-life balance, and paving the pathway for development of self-actualization and growth. We must strive to achieve a consciousness-based education system within university premises, as stated by the Chinese philosopher Lao Tzu that, "The key to growth is the introduction of higher dimensions of consciousness into our awareness." Consciousness-based education relates knowledge gained in the classroom to one's inner life. Spiritual practices and healing techniques like art therapy are capable of promoting a sense of self-reliance, increasing our self-esteem, curbing stress, developing interpersonal skills, resolving conflicts, improving our memory and concentration thereby assisting individuals to create a better world to live in.

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21

Emotional Intelligence (EI) and Quality of Work-Life (QWL): Exploring the Connection

L. Gandhi¹ K.T. Vijaykarthigeyan²

Abstract

This paper aimed to understand how the Quality of Work-Life (QWL) is affected by emotional intelligence (El). The numerous characteristics of El and the degree to which it intersects with work-life quality have also been studied. The primary approach of this research was the analysis of literature. There was a study of literature on emotional intelligence and work-life quality in management education. The search included El and QWL related papers using the below-mentioned databases: Business Search Premier, and ProQuest. In researching the papers, the keywords used were Emotional Intelligence (El), Quality of Work-Life (QWL). Title and abstract analyses judged the suitability of each article. While the emphasis was on management education, it included several papers from other disciplines.

Findings – In order to better understand the quality of the work-life of management teachers, it is essential to understand emotional intelligence, particularly the perception and management of El. The results of this research can provide valuable knowledge for the development of theories.

Furthermore, in this relatively untapped research area, it is anticipated that this study will create more intellectual interest in studying how emotional intelligence can impact QWL. The results of this study will also work as useful support for B-School leaders and educators who endeavours to develop QWL and understand the dynamics that accept an emotionally intelligent faculty to work better and interact with students from diverse backgrounds.

Keywords: Emotional Intelligence, Emotion Management, Management Teachers' El, Perception, Quality of Work-Life

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Introduction

Precisely, two decades ago, Intelligent Quotient (IQ) was a buzz word among academic experts and industry staff; however, over the past two decades, Emotional Intelligence has gained considerable significance and attractiveness in different fields. Emotionally intelligent competencies are becoming substantially important and unavoidable practically in all fields such as successful leadership, team building, communication network, individual capacity, and constant growth, interpersonal skills, etc., Through the aid of emotional intelligence, future Managers will have to encourage others in this complex and highly competitive world to improve their leadership skills and potential.

Many of the research show that, even in most intellectual professions, emotional intelligence attributes to superior results. Goleman (2003) said, "Emotional Intelligence abilities were four times more important than IQ in determining professional success and prestige". Significant researchers propose EI as a premeditated construct of a success indicator in academic and industrial / organizational environments.

This study examines how emotional intelligence impacts work-life quality. In particular, the literature review attempts to understand the degree to which the capacity of the management educator to communicate with students from different backgrounds is impaired because of their emotional intelligence.

This inquiry was led by two questions:

- 1. What determines Work-Life Quality?
- 2. How is the quality of work-life affected by the emotional intelligence of the management teacher?

Methods of Literature Review

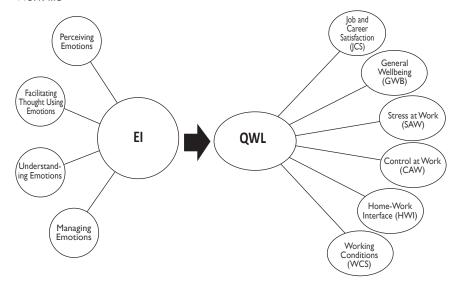
Literature about emotional intelligence and work-life quality in the field of management education has been reviewed. The search included EI and QWL related papers using the following databases: Premier, JSTOR, and ProQuest Market Search. In researching the papers, the following key search words were also used: EI, QWL. Title and abstract analyses judged the suitability of each article. While the emphasis was on management education, it included several papers from other disciplines. To define conceptual and organisational concepts in science and practice, the quest was extended to include academic journals that used EI, treatment, and emotion as search words. The following keywords were used: emotional intelligence, work-life quality, perception, and emotion management. Management Teachers' EI. In English only papers, the search was restricted to the last 10 years. Before the quest year, however, we included the seminal works. The initial research chosen from peer-reviewed journals were all articles. The conceptual context is given in the following section.

Conceptual Framework

Emotional Intelligence (EI) ties emotions and thought. As depicted in Figure-1, EI involves Perceiving Emotions, Facilitating thought using Emotions, Understanding Emotions, and the Managing Emotions that in turn affect work-life quality. Job and Career Satisfaction (JCS), General Well-Being (GWB), Stress at Work (SAW), Control at Work (CAW), Home-Work Interface (HWI), and Working Conditions (WCS) are the variables considered in QWL. Posit Work-Life Consistency also benefits from greater control and awareness of one's emotions, which also means increased emotional intelligence.



Figure-1: Model depicting interrelationship of Emotional Intelligence and Quality of Work-life



Emotional Intelligence factors

Perceiving Emotions: The ability to recognize emotions in oneself and others as well as in objects, art, stories, music, and other stimuli. All feels and responds to thoughts and emotions. And the world around you deals with emotional messages and sends them. Emotions provide important insights about experiences and the environment around you. This ability to interpret emotions begins with these emotional clues being aware of, and then correctly identifying what they represent.

Facilitating thought using Emotions: The ability to generate, use, and feel emotions as required in other cognitive processes to express feelings or

employ them. Emotions include information, and in our everyday lives, our ability to understand and think about this information plays an important role. This skill responds to questions like: Why do we feel happy? What would my friend feel like if I said that to him? What is going to be possible if I tell her that?

Understanding Emotions: The ability to understand emotional details, to understand, and to appreciate those emotional meanings, how emotions combine, and progress through relationship transitions. If feelings contain information, then it means that we will end up making a bad decision by ignoring this information. We need to remain responsive to our emotions at times, learn from these emotions, and use this data to make choices and take effective action.

Managing Emotions: The ability to be open to emotions and to modulate them to encourage personal awareness and development in oneself and others. How we feel has an impact on how we think. You can see the world one way if you feel sad, while you perceive the same events differently if you feel happy. People prefer to concentrate on information and look for mistakes in a sad or pessimistic mood. To create fresh ideas and new solutions to problems, those in a more optimistic mood are stronger. "It is a skill to know which moods are better for which situations and" getting in the right mood.

Quality of Work-life Factors

Job and Career Satisfaction (JCS): Job and Career Satisfaction (JCS) is the extent to which the organizational environment provides an employee with the best support that results in positive outcomes at job, such as a sense of accomplishments, great self-efficacy, and prospective happiness.

General Well-Being (GWB): The component of General Well-Being (GWB) ascertains the extent to which an employee feels happy with his or her life. General well-being is considered as people inspired and work influenced. Therefore, GWB combines wider dimensions of psychological power and physical health.

Stress at Work (SAW): The variable QoWL SAW is distinguished by the extent to which an individual perceives excessive pressures and feels stressed at work environment.

Control at Work (CAW): The aspect of Control at Work (CAW) illustrates the level to which an individual deems that they can implement what they contemplate to be an applicable level of control within their work ecosystem. This perception of power can be linked to several facets of work, such as the aspiration to give to the process of decision-making that influences them.

Home-Work Interface (HWI): The balance of work-life tests the extent to which employees believe they have control over when, and how they

work. To the shared benefit of the individual, organisation, and society, it may signify the sense of a person that he or she has a rewarding life within and beyond paid work. Within the WRQoL equation, the HWI element addresses work-life balance and reflects the degree to which the employer is supposed to support the employees' home life.

Working Conditions (WCS): The degree to which people feel that they are content with the conditions under which they perform. Working Conditions assesses the degree to which the employee is satisfied with the basic facilities, working conditions, and security needed to effectively perform their job. Dissatisfaction with physical working conditions, such as health and safety and job hygiene, for instance, may have a severe negative effect on employees of QoWL.

Literature Reviews

Emotional Intelligence and Job & Career Satisfaction

In their research study, Makkar & Basu (2019) identified the negative correlation between emotional intelligence and workplace behaviour, and that job tension was a factor in this association. The data needed for the study were gathered from 150 employees across four leading Indian banks, two each in the public and private sector, based in Mumbai, India. The researchers used Goleman's Emotional Intelligence (EI) framework, Robinson and Benett's Organizational Behavior Questionnaire, and Karasek's Task Quality Questionnaire for data collection, and conducted correlation and regression analyses. Researchers have also recommended that efforts also need to be undertaken to reduce the job stress experienced by employees in the Banking Sector in India, which could also improve their work situations.

Ekeke, and Ichella, and Nnochiri. (2019) Their work attempted to investigate the importance of Emotional Intelligence in the African hospitality market. For the study's objective, 100 hotel guests were surveyed to examine the role emotional intelligence plays in the hotel's customer retention. The study concluded that employees 'emotional intelligence and how they control their emotions, along with relationship management, are instrumental in improving customer satisfaction and maintaining their loyalty, which is important for the company's success in the hospitality field.

In their research, Sabarwal and Sharma (2019) explored the relationship between the police officials' emotional intelligence and their satisfaction level. The authors surveyed 100 police officers for the study's intent. As a demanding occupation, police workers must control their own and other emotions, be concentrated and productive in the workplace, which in effect gives them job satisfaction. From the analysis, it was clear that Police

Personnel's Emotional Intelligence has a positive impact on their work satisfaction. It was also noted that there is a higher degree of emotional intelligence among male police officers than female police.

Emotional Intelligence and Stress at Work

Alka, Gore, Jadhav, and Israel (2019) in their research tried to examine the relationship between Emotional Intelligence and Stress, Depression, Anxiety among the students pursuing medical and engineering courses. From the study conducted with 487 medical students and 481 engineering students, it was concluded that medical students experienced higher levels of stress, depression, and anxiety than the engineering students. However, the emotional intelligence levels of the medical students were significantly higher than that of the engineering students, which enables them to handle stress and depression, with more patience and composure.

In their study, Baharun, Hefniy, Ahmad, Faridy, and Rhini (2019) examined that the implementation of information and communication technology in Probolinggo, East Java, Indonesia, is expected to increase the competitiveness of computer-based national assessment activities in the present age of globalization, information technology and is a prerequisite for quality delivery. The entire learning process is active, interactive, productive, deliberate, conversational, contextual, and reflective, allowing for greater trust among students.

Dwiputra and Astika (2019) in their research tried to examine the moderating effect of Organizational Commitment and Emotional Intelligence on Role Stress and Turnover among the Tax Consultants of Bali Province. It was evident from the research conducted that, the role of stress results in turnover intentions of employees. It was concluded that organizational commitment and a higher level of emotional intelligence among the tax consultants result in reduced stress and weakens the turnover intentions in a significant manner.

Emotional Intelligence and Home-Work Interface

Krisnanda and Surya (2019) in their research have analysed that transformational leadership and employee performance are driven by emotional intelligence and spiritual intelligence. It is the higher levels of emotional intelligence of leaders that motivate the employees to perform more productively. If the leader can manage his emotions well and have a flexible attitude, he will be in a better position to motivate employees and make them feel less stressed about the work. Motivating the employees and empowering them to advance in their career, makes the leader admirable. Thus, emotional intelligence and spiritual intelligence play a crucial role among transformational leaders to derive the best performances from their employees.

In their research paper, 'Emotional Capacity and Associative Learning: How Feeling and Thinking about Emotions Affects Evaluative Conditioning' Hasford, Kidwell, & Hardesty (2018) have attempted to investigate how variations in emotional capacity indirectly and specifically affect conditioning attitude formation. It was concluded that the ability to feel emotions enabled the development of conditioned stimulus attitudes with valenced meaning. In comparison, the capacity to reason about feelings decreased the effect on subsequent explicit assessments of implicit conditioned stimulus attitudes. Besides, since evaluative conditioning requires concurrently conditioned stimulus-unconditioned stimulus pairings, the development of implicit conditioned stimulus attitudes was no longer affected by emotional experience.

Emotional Intelligence and Working Conditions

In their study, Andrews and Klevans (2019) tried to build a system to help teachers and trainers improve the emotional intelligence skills of entrepreneurial leaders, managers, workers, and business students alike. The framework proposed by the authors tries to address both individual and group level emotional intelligence skills which are essential for entrepreneurial leaders to lead and coordinate people in today's competitive work environment. The authors have developed the framework which combines the model of developing entrepreneurial success and a model for developing group emotional intelligence, to enable teachers and trainers to have the best of both the worlds to train the individuals to have their emotional intelligence and in enabling them to understand the emotional intelligence of the people with whom they work.

Olawoyin (2018) in the study tried to examine the relationship that exists between emotional intelligence and professional safety behaviours. It was stated that components of a competent professional in terms of Individual Personality, Emotional Intelligence, and Intelligence Quotient play a vital role in the success of the professional's career. Individuals with higher emotional intelligence are empathetic and perceive others' emotions easily. It also empowers them to make well-informed decisions under stressful conditions.

Emotional Intelligence and Control at work

In their study, Pradhan, and Jena (2019) tried to define the impact of transformation leadership on the innovative work behavior of employees and to explore the mediating role of meaningful work in balancing transformation leadership with innovative work behaviour. The research was performed using specific findings using the Sobel test and bootstrapping strategies with a total of 888 executives from two separate manufacturing organizations in Eastern India. It was found that there was a positive correlation between transformative leadership and innovative

work actions that reinforced that transformative leaders put forward highperformance standards from workers that inspire them to be more creative and innovative at work. The change leaders set their followers high and demanding targets so that they go the extra mile beyond mediocracy and perform exceptionally well. It has also been recognized that meaningful work plays a mediating role in the relationship between transformative leadership and creative work behaviour, as followers of a transformative leader would regard work as a sacred task that requires innovation and innovativeness on their part to achieve success beyond expectations.

In their study, Agarwal and Satsangi (2018) tried to investigate the relationship between emotional intelligence and management students' entrepreneurial self-efficacy. From the study conducted among 50 Agra District management students in India, it was observed that higher levels of emotional intelligence in terms of self-knowledge, self-management, social awareness, and social skills result in improving the self-efficacy of entrepreneurship. It was also concluded that male students have higher levels of emotional intelligence and entrepreneurial self-efficacy than female students.

Quality of Work-life and Job Satisfaction

Limbu and Bordoloi (2017) in their research examined the quality of work-life among the faculty of private degree colleges to understand the impact of workload and stress, social condition, rewards & benefits, and opportunities for career development on their quality of work life. It was established from the research that the monetary rewards & benefits offered to the faculty are inadequate. Also, the faculty in private colleges are subjected to more workloads & stress than the government or provincial college faculty. The faculty also opined that they are under constant fear of job which leads to additional stress and lack of quality of work life.

Joshi, Suman et al. (2015) in their research examined the correlation between emotional intelligence and job satisfaction of faculty of different engineering and management professors of institutions affiliated to UP Technical University, Lucknow. It was inferred from the study that, professors possessing a higher level of emotional intelligence tend to better understand their colleagues and are more satisfied with their jobs. It has also revealed that possessing strong control over one's emotions enables the professors to be more satisfied and content with their job than the professors who try to handle the emotions of their colleagues.

Quality of Workplace Resources and Job Satisfaction

In their study, Sorensen, Kirov & Holtgrewe (2018) examined how social partners in the waste sector in Austria, Bulgaria, and Denmark are working to protect the standard of employment from the adverse effects of two European patterns. To privatize and to recycle. From the study conducted,

it was found that privatization in all three countries has harmed the quality of employment. However, the effect of greening is very unclear, although it has been used in some instances by stakeholders to improve the quality of work. It was the strong collective agreements and high union density that forced private and international corporations into workplace alliances, allowing the reforms to some degree to be affected.

Bardoel and Drago (2016) in their research tried to examine the impact of IT systems on the work-life balance of Australian Physicians. It was concluded from the study that IT support for physicians' work-life balance is in alignment with the multiple works and home demands and resources. It is also understood from the study that the IT Support has reduced the longer working hours of the general physicians and the Australian Government's initiative to reduce after-hours or on-call work among the general physicians has significantly contributed to their overall work-life balance. It has been evident from the study that implementation of IT support reduces the stress and workload of the general physicians thereby contributing to their overall job satisfaction.

Quality of Work Life and Emotional Intelligence

Koyuncu, Burke, and Fiksenbaum (2016) in the research tried to study the work experiences among the male and female professors of Turkey. It was inferred from the study that, although female professors get paid lesser than the male counterparts, they are more satisfied at work. They are also able to perform their best both on the professional and personal front being academicians.

Esmaeili, Navaei, Goudarzian, & Yousefi (2015) in their research have tried to analyse the effects of imparting emotional intelligence training for nurses to enhance their quality of work life. It was evident from the research conducted with 70 nurses from the Mazandran University of Medical Sciences, Iran that; emotional intelligence training had a positive effect on the quality of the working life of these nurses.

Adeyemo, Terry & Lambert (2015) have revealed a significant correlation between emotional intelligence and the quality of working life. Their results also showed that work-life quality is predicted by emotional intelligence.

It was shown in a study by Amiri, Rashidi & Salajagheh (2015) that there is a clear positive correlation between emotional intelligence and fair pay, safe and healthy workplaces, creating growth opportunities and security, individual rights, social stability, social dependency on working life, development of human resources and overall quality of work-life scores.

Discussions and Conclusion

The overarching theme is that teaching excellence depends on faculty members' quality. They must have a wide understanding of their subjects,

curriculum, and educational expectations. Also, the excitement and a passion for learning across their career, for teachers to impart information to students play a crucial role. The quality of working life determines the output quality of the teachers in terms of teaching, research, publications, and consultancy assignments. Especially, the faculty members who are associated with university-affiliated colleges generally face issues connected to the quality of working life. This in turn affects the students' development also. When explored the various factors which enhance the QoWL, Emotional Intelligence plays a vital role. Therefore, it is important to research the correlation between emotional intelligence and the quality of work-life

The success of any educational institutions especially management institutes largely depends on the overall commitment of its faculty team. Emotional Intelligence is one of the deterministic factors of faculty commitment towards their organizations. Specifically, Self-awareness, Motivation, Empathy, and Social skills are crucial components that measure EI. Effective teaching, research involvement, quality publications, and consultancy assignments are the indicators reflecting the self-awareness and motivation components. Whereas volunteerism in institutional responsibilities, cordial relationship with students, colleagues are the indicators reflecting empathy and social skills. It needs to be conceived and driven by the faculty members wholeheartedly. Emotional Intelligence may also lead to good Quality of Work-Life which reflects inadequate and good compensation, safe and healthy working environments, the opportunity for skill development, continued growth, etc. The current period of globalisation calls for a strong degree of collaboration between people from different backgrounds, and higher emotional maturity at the individual level is needed to succeed. The origins of QWL reinforcement are the cultivation and practise of emotional intelligence. Emotional intelligence thus improves and raises the efficiency of an individual's work-life.

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Multigenerational Workforce and its Relevance in the Higher Education Sector in India – A Comprehensive Review of Literature

Mahnoor Sahrash*

Abstract

Diversity has been an important area of research worldwide. While by definition, diversity finds relevance across different disciplines, it finds increased usage in the business and management context, primarily to understand markets, market trends and employees. While the scope of diversity has only increased, to take into its fold, along with gender, race, socio-economic background and ethnicity, the latest frontier of diversity is age. The past decade has seen the prevalence of at least three generations working together in an increasingly Volatile, Uncertain, Complex and Ambiguous world. It is against this backdrop that this paper attempts to understand the available literature on a multigenerational workforce, as it is popularly called, in order to understand its relevance to the higher education sector in India. With the New Education Policy on the anvil, the system of education is going to reset to meet the challenges of the VUCA environment. The prevalence of a multigenerational workforce, one that brings with it the challenges inherent with generational cohorts, in the higher education sector, will play a crucial role in leading the changes that the education sector will shortly experience.

This paper attempts to provide a comprehensive review of available literature on multigenerational workforce in order to understand how this available research stacks up in order to provide the foundation for further study.

Keywords: Higher Education Sector, Multigenerational Workforce

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Introduction

Since the advent of civilized society, the idea of Generational cohorts has been seen(Ismail, 2016). According to Holian (2015), it has been observed that when there are different generations that work together in organizations, they will have an impact, owing to the difference that exist.

It has also been observed that inter-generational differences have an impact on almost all aspects of human resource management (Charrier, 2000), training and development (Berl, 2006; Tulgan, 996), career development (Ansoorian, et al, 2003; MsDonald & Hite, 2008), rewards and working arrangements (Filipczak, 1994), management style (Losyk, 1997, Tulgan, 1996) and having the potential to cause serious conflict within the workplace (Karp & Sirias, 2001).

Although, a lot of research work has been done on generational cohorts in the workplace, it has been observed that most of the research focuses on either Conflict Management or workplace values. There is a lack of a comprehensive research on a multigenerational workforce in a given industry and its impact on HR Policy in a holistic sense.

The endeavour of this research is to understand the implications of a multigenerational workforce, from the lens of an educator, specifically in the field of higher education, where educators also make up of at least three different generations.

Therefore, the research problem identified pertains to a multigenerational workforce as teaching faculty in the higher education sector in India.

Relevance of the Study

The higher education sector, while showing promising growth, has found that there are certain obvious issues that need to be tackled if India is to become a force to reckon with on the global stage. While certain parameters look encouraging, there are certain glaring issues that face higher education today. While on the one hand, the higher education sector is poised for a change, owing to the recent reforms in the form of the New Education Policy, the key to successful change remains with the teaching faculty. While a lot of literature focuses on higher education and its challenges, the focus has to come back on how the teaching workforce will influence and lead the change in this sector.

Just like all industries across the globe, all workplaces across the globe, the phenomenon of a multigenerational workforce is being observed. Simply put, it refers to the existence of different generational cohorts in one workplace. While the early 2000s saw a new found interest in this phenomenon, primarily in the USA, there has been extensive research on its prevalence across different countries.

While there has been consistency in research outcomes as evidenced by reviews, that there are differences as per generational cohorts, that are found prevalent at the workplace and therefore it has been concluded that generational diversity does exist and is not entirely the outcome of biased stereotypes prevailing in popular culture.

In India, however, the prevalence of different generations in the workplace has been seen from varied lenses. While certain research work focused on the way generational cohorts should be understood, certain other research works focused on specific sectors, such as ITES or banking.

What is missing from the research discourse is the prevalence of a multigenerational workforce in the higher education sector and its implications.

In keeping with the research that provides ample evidence on the differences that different generational cohorts bring to a workplace, the need of the current times is to not just understand the relevance of generational cohorts in the Indian workplace, but also to bring out the implications that a multigenerational workforce as teaching faculty will have on the human resource policies and practices of the higher education sector.

It has been noted that there are broad areas of work where specific intergenerational differences occur and are found to be of critical importance for the future of the workplace. With the advent of the New Education Policy and a resolute shift in how the higher education sector is structured, not to mention the added skill-sets that will be expected of teaching faculty, this research focuses on the relevance of different generations on these changes that the sector is about to experience.

Objectives of the Study

In keeping with the changing landscape of higher education, it is this research work's endeavour to bring out the different perspectives of different generations towards teaching job roles. In accordance with this, the following research objectives help guide the research in the intended direction, by identifying generational cohorts in the Indian context in the backdrop of India's population statistics.

- To identify the definition of generations in the international and Indian context, in order to establish generational cohorts meaningfully.
- To analyze the relevance of the Indian Higher Education sector as a relevant field of study for the implications of a multigenerational workforce in teaching job roles.
- To review available literature on the implications of a multigenerational workforce on HR practices and policies.

Review of Literature

The word 'generation' is used liberally in conversation with very little focus on what it actually means, rather, symbolizes. It is common to hear of people speaking about 'generation gap' or at times, ruing 'this' generation and in the process celebrating 'that' generation. Popular culture has also played an active role in furthering conversations on generations. In fact, it would not be an exaggeration to say that conversations on social media around generations seem to be almost as active as gender roles or even race-related issues.

All this notwithstanding, academic research has given a fair share of focus on generations in the context of the workplace. Not to mention, the earlier usage of generational study to understand markets, or more specifically, market segments. The workplace context was borne out of the realization that, in the early 2000s, the American workplace found four generations working side-by-side. This led to much conjecture on how the inherent differences prevalent in each generation can become a cause of either conflict or innovation.

The focus on generations as an area of study was first comprehensively discussed in the 1920s when Karl Mannheim wrote his treatise, 'Das Problem der Generationen', in the year 1928. Translated into English in the year 1952, it set the foundation for generational study by bringing out interesting facets of what can be defined as a generation and how it influences crucial world events.

Mannheim has defined generations as a sociological phenomenon and has said, 'people are significantly influenced by the socio-historical environment of their youth; giving rise, on the basis of shared experience, to social cohorts that in their turn influence events that shape future generations'.

In the larger scope of sociology, generational study borrowed heavily from the above categorization, using it to further research on important historical events, such as the Civil Rights Movement in the US, the rise of feminism and various other geo-political changes in the world. Much of this research however has been done in the western context, leaving out much of the developing world, for quite a period of time.

One of the reasons for a lack of generational study in the Indian context could also be because of the following observation made by Mannheim:

'Where novel events are rare and change is slow, as in traditional peasant societies, distinct generations may not appear'.

While the above observation may be true for the Indian subcontinent in the early part of the 20th century, Independence marked a shift in the social and geo-political makeup of the country, thus creating social events for the group of people at given points in time.

Another work of importance to generational study is The Fourth Turning Theory, as propounded by William Strauss and Neil Howe. Popularly called the Strauss-Howe Generational Theory, the premise is that historical events are associated with recurring generational personas or archetypes. Each turning, responsible for a type of persona is called a turning that generally lasts 20-25 years. And each such turning is characterized by a new social, political and economic climate. These turnings happen within a larger cycle, called the 'saeculum' that lasts about 80-100 years. In the context of American history, after each saeculum, there is a crisis in the system which is followed by a period of recovery. While their theories found critics and followers alike, their understanding of generational cohorts informed future research in the subject.

Despite that, it is agreed upon by scholars and researchers alike that defining the construct of 'generations' is difficult, considering how many scholars have made the attempt (Joshi et al.).

Over the past decade there has been an increasing focus on the study of multiple generations in the workforce across various sectors. Although there have been opposing views as far as research insights are concerned, with regard to any real differences actually being perceived among different generational cohorts in the workplace, there is found to be a need to conduct studies on generational cohorts in developing countries (Jonck et al., 2017, Martins & Martins, 2014).

Apart from understanding the phenomenon of a multi-generational workforce, it also imperative to note that the understanding of generational cohorts as also changed over the past few years. This is largely due to the fact that different countries and/or geographical reasons are exposed to radically different social, economic and political conditions which make them different from the time-tested understanding of generations.

However, the past decade brings about uniformity across the globe towards two generational cohorts, namely, Generation Y and Generation Z. More popularly called Millennials, Generation Y tends to share more global characteristics and outlook. And Generation Z seems to be the most globally connected, therefore espousing common causes and exhibiting common characteristics.

A survey of available literature seems to suggest that as per the common understanding of a multi-generational workforce, the major points of interest of study tend to be the above mentioned six themes.

At the outset, it has been widely agreed that there have been unprecedented changes in the workplace over the past two decades and as mentioned in the PWC research, demographical changes have also been seen.

In keeping with the peculiarities of each generation, it is imperative to understand that each generation will have a different understanding of reward requirements, have different training and development needs and will be motivated by different factors (Beechler & Woodward, 2009).

How different generations interact will also influence not just the work outcome, but will also affect team work and operations (Meredith et al, 2002).

Neil Howe and William Strauss (Strauss & Howe, 1991), are traditionally seen as pioneers of theorizing on generational cohorts and their research still provides a skeletal framework for intergenerational study.

Widely published research articles from research firms such as PWC, KPMG, Deloitte, to name a few and with the advent of many well-researched books on generational cohorts in the workplace, popular media tends to paint a picture of conflict and a lack of proper communications among different generations.

This is mainly because of popular media spinning off stereotypes depending on the research available. A simplistic reading of such research makes it possible, but a more nuanced understanding through the research work of Jean Twenge and Sean Lyons, there has been more empirical and experience-based research of the multigenerational workforce.

Nevertheless, available research displays two strains of conclusion. One strain brings out the inherent complexities associated with a mutigenerational workforce, whereas another brings out the complete lack of diversity across different generational cohorts.

Defining Generations

The oxford Dictionary defines generation as 'all of the people born or living in about the same time, regarded collectively'.

Though there seems to be an absence of proper research with empirical evidence, something that stands in stark contrast to the interest in workforce changes by global think tanks and consultants such as PWC, KPMG, McKinsey to name a few.

One of the earliest definitions, quoted by Jean Twenge, is 'generational cohorts include individuals born around the same time who share distinctive social or historical life events during critical development periods (Schaie, 1965).

Therefore, Twenge concludes that each generation is influenced by broad forces, namely, parents, peers, media, critical economic and social events and popular culture.

Taking this definition further, it is helpful to understand that, generations then, each have specific life events that they share with their own cohort members, in the past, specific to their own country or geographical location, and in the very recent past, more globally.

Generations in term of definition, are to last a period of 17-20 years, keeping in account the biological growth of the cohort. According to Strauss and Howe (1991) this time period is correct to map cultural changes between the generations.

According to Kondratieff (1979) and Thompson (2007), the twenty year gap also helps to map the economic growth or decline for the given cohort.

I recent years however, it has been seen that there has been a tendency to oversimplify the definition of generations as stated by Alwin and McCammon (2007), as 'birth cohort plus shared generational identity equals generation'.

Extensive research in psychology seems to have also played a role by using generational cohorts in broad categories (Twenge, Campbell & Campbell, 2017). Namely:

- *Cultural Models* where the focus on generation study is linked to cultural phenomena.
- *Persuasion Models* these models are borne out of focusing on broad attitudinal changes. The idea being that mass persuasion, tends to create a common attitude towards a particular cohort. Such mass persuasion is made possible through media, government policy and such like.
- Personality Models these models counter the long held belief that
 personalities don't change over time, as believed by Freud and James.
 Major like events are found to be associated with personality changes.
- *Social Contagion Models* these models focus on how social changes affect changes in a cohort, usually in cluster form.

If this definition were to be applied to understanding generational cohorts, a comprehensive review of literature brings out the following key conceptualizations for generations:

- Collective Consciousness: modern generational theory owes most of its basic understanding to the work of German Sociologist, Karl Mannheim, who, in his seminal paper,' Problem of Generation,' Mannheim defined a generation as 'a group that shares both a particular span of birth years and a set of world views grounded in historical events or social phenomena that have occurred during their formative years'. Therefore it can be seen that there are two aspects to understanding the definition of generations:
 - A common location in historical time
 - A distinct consciousness formed by the experiences of that time.

This subdivision was further used in research with regard to collective consciousness to derive generational cohorts (Dencker et al, 2008, Edmunds & Turner, 2005, Schuman & Scott, 1989)

According to Kelan (2014), it is the qualitative notion of 'common experience' that is shared during young adulthood that creates a shared understanding between members of a generation.

- *Age-Cohort* other researchers tried to group generations on the basis of:
 - Birth Years
 - Each group exhibiting a different outcome in terms of values, attitudes and behaviors.
 - Lyons and Kuron (2014) have focused on age based perspectives that impact individual attitudes and behaviours.
 - The underlying assumption being that a particular generational cohort will exhibit proximity in terms of attitudes and behaviours, as pointed out by Parry and Urwin (2011).

Strauss and Howe (1991) defined generation as 'a cohort-group whose length approximates the span of a phase of life and whose boundaries are fixed by peer personality'. Therefore, according to them, generational units span a 20 year time and are segregated by birth year.

This has been the standard division practiced for all practical purposes, especially in the American context. The primary use of the above division has been found in Marketing with the all too popular generational divide providing a basis for market segmentation and targeting (Kotler).

Although labels abound, Smola & Sutton (2002) have pointed out the variation with regard to defining the start and end dates for each generation.

• Event based – researchers such as Joshi (2010) have introduced the concept of generation in organizations as a cohort of individuals who experience a specific event within the same time interval. According to researchers, while it has been observed that generations are shaped by factors that are external in nature, namely, experiences in their lifetime and formative events, they may also be influenced by organizational factors such as their successive entry into organizations.

As per the comprehensive and slightly varied definitions given by researchers for the purpose of generational study, a comprehensive review by INSEAD as part of their working paper series on generational diversity at work, has coined the following definition for generation:

'Generations are cohorts of individuals who have grown up in the same historical and social context, whose shared formative experiences instill in them beliefs, values and general dispositions that differ from those of others born and raised in different contexts and time periods.'

In accordance to the above definition, generations therefore can be divided as follows:

Table-I: Generation Cohorts

Generations	Born Between
Traditionalists	1925-1944
Baby Boomers	1945-1964
Generation X	1965-1979
Generation Y	1980-2000

Source: Author's Compilation

However, according to Ng et al (2012), the start and end dates for defining generations should be seen as 'guideposts' rather than absolute boundaries.

Relevance of Generations in the Work place

Although generational study finds its origins in sociology under Mannheim, as mentioned earlier, it has found varied and interesting usage across different disciplines. It is used as marketing segmentation tool, as a voter behavior tool and as a measure of various social behaviours. Therefore it is only obvious that social behaviors that align with generational cohort theory will also find relevance at the workplace since, over the past two decades, not only has the workplace seen different generations working together but it has also seen generational diversity to be quite prevalent.

Employees belonging to different generational cohorts are reported to have different work ethics, expectations and values (Meredith et al, 2002, Smola & Sutton, 2002, Zemke et al, 2000).

These similarities and differences are found to be crucial in creating and maintaining a productive workforce. It has been found to be of strategic importance (Benson & Brown, 2011, Cogin, 2012, Gursoy et al, 2013).

However, there are certain aspects that come to the fore as challenges while trying to undertake generational study. These are:

- Ignoring the cultural and historical aspect of generational cohorts.
- The possibility of overlooking the impact of national culture on generations.
- The tendency to rely on Western conceptualization of generational cohorts.

There has, however been an interesting counter-argument that the lack of national or cultural influence on generations points to what is called 'global generations' (Edmund & Turner, 2005).

The above argument is supported by the belief that technology, communication and globalization continue to increase in influence, different nations will be impacted in a similar fashion, thus creating commonly shared events for a given cohort.

As argued by Zemke et al, while it is true that multiple generations were employed in the same organization before, it was also the case that they were not working together in that sense of the word, owing mostly to 'organizational stratification' and the 'structural topography' of an economy that was primarily manufacturing oriented.

Therefore, it was observed that senior, in other words, older, employees were in the head office, middle-aged employees tended to art of the midlevel management and the youngest, usually the more physically-abled, were found on the factory floor, in other words, in the lowest rung of the organization. Owing to this structure, the intermixing of different generations was rare.

Almost a century later, with the leaps and bounds with which the world economy has changed, it has been observed that social and physical separation are no longer hindrances to the intermixing of generations.

While generation gaps, as popular culture likes to put it, are not a new occurrence, what is new is that there is a four way divide in the generations at the workplace today. While the observation of four generations coming together in the seamless, less hierarchical workplace of today is true, there are other noteworthy socio-cultural issues that make this research more intriguing.

While a hierarchical set-up created a 'natural' flow of resources, power and responsibilities from older to younger people has been disrupted due to increased life expectancy, better health and access to more affordable health care as well as changes in lifestyle, technology and knowledge base. In effect, life for each generation as we know it has become more and more nonlinear, unpredictable and uncharitable.

Defining Generational Cohorts

A lot of research focuses on the overarching generational stereotypes that are backed by research. If Millennials are seen as having more altruistic values than their earlier counterparts (Alsop 2008, Lancaster & Stillman, 2010), then certain other studies found millennials to have lower levels of empathy (Konrath et al, 2011). The most commonly prevalent are:

Table-2: Characteristics Features of Generational Cohorts

Generation	Primary Life Events	Characteristic Features As Evidenced By Research
Traditionalists	Great Depression World War II	 Conservative Disciplined Have a strong sense of obligation Believe in moderation (Smith et al, 1997)

Generation	Primary Life Events	Characteristic Features As Evidenced By Research
Baby Boomers	Vietnam War	Achievement orientedIndependent
	Civil Rights Movement	 Positive outlook towards life (Zemke et al, 2000, Strauss and Howe, 1991, O'Bannon, 2001, Kupperschmidt, 2000)
Generation X	Economic Uncertainty High Unemployment	 Fairly Cynical Skeptical Cautious Challenge authority Deep distrust for corporations Lack loyalty (Kupperschmidt, 2000, Lancaster & Stillman, 2002)
Generation Millennials	Y/ Internet Boom Globalized Economies	 value diversity and change competent with communication media and technology overconfident and narcissistic (Martin & Tulgan, 2001, Lancaster & Stillman, 2002, Strauss & Howe, 1991)

Source: Author's Compilation

Identifying Generational Cohorts in the Indian Context

Within the Indian context research content is still very limited, more so because of a lack of clearly defined generational cohorts. While generational differences are prevalent across the globe, how a generation is defined is always influenced by the society around it. This is because the differences in society are because of factors that are cultural, political as well as socioeconomic (Hole et al).

As far as research studies on generational cohorts in the Asian context are concerned, Egri and Ralston (2004) compared the generational cohorts and personal values between USA and China. Generations in the Chinese context were divided as – Social Reform, Republican, Consolidation and Cultural Revolution. These demarcations were based on political and historical events (Srinivasan et al). There were found to be significant differences between the American and the Chinese cohorts as per the research.

A particular demarcation made by Erickson (2009) stands out as a comparative analysis with the more Americanized version. She defines generational traits to be a result of formative experiences, i.e., experiences that an individual has in the first 10 years of his life.

According to her the generation birth years can differ to a period of 5 years, with certain socio-political markers also differing with it.

Within India, research has thrown light on different ways in which generations can be categorized. According to the research report on 'Employee Generations' by SHRM, under the stewardship of Prof. Vasanthi Srinivasan, while the Strauss-Howe Generational Theory can form the basis of how we understand generational cohorts, in the Indian context, there are certain key socio-political changes that can help demarcate generations in the Indian context.

There has been some very relevant research that has sought to bridge this gap. Professor Vasanthi Srinivasan has been instrumental in trying to create generational cohorts for the Indian Workplace and has identified them as follows:

- Veterans Born between 1920 and 1945
- Free Gens Born between 1945 and 1960
- Generation X Born between 1961 and 1970
- E-Gens Born between 1971 and 1980
- Generation Y Born between 1980 and 1991

Table-3: Generational Cohorts in the Indian Context

Veterans	Free-Gens	Gen X	E-Gens	GenY
Born 1920- 1945	Born 1945-1960	Born 1961-1970	Born 1971- 1980	Born 1981-1990
Pre Independence Cohort	Post- Independence Cohort	Socialism-to- Liberalization Transition Cohort	'Confident India' Cohort	Millennial Cohort
 Unsure and wary Not in active employment 	 Believe in concept of lifetime employment Interim Seniors 	 Saw the upswing of economy and hastened to catch up with younger cohorts Believe in the power of change 	 Comfortable with change-largest cause of attrition at the Indian Workplace has seen the sharpest trajectory of success inspite of two large downturns 	 Feels less guilt in being an aggressive customer has seen the most significant economic blip in the form of the Economic Recession of 2008

Source: Generations in the Indian Workplace (Srinivasan V)

Research studies conducted by Hole et al (2010) have suggested the existence of three generations namely:

- Traditional Generation 1948 to 1968
- Non-Traditional Generation 1969 to 1980
- Generation Y 1981 onwards

Taking this study further, Ghosh and Chaudhari (2009) have identified Indian Generations as follows:

- Conservatives
- Integrators
- Y2K

On The other hand, Saundarya Rajesh has given the following break up for the Indian generations:

Veterans – 1920 to 1945

The pre-independent cohort that is almost invisible in the current workforce.

Free Gens – 1945 to 1960

Driven by loyalty and life-time employment, this cohort represents the population that came of age right after independence.

Generation X - 1961 to 1970

The transitionary cohort that saw the economy moving from a socialist to a liberalized one. Account for about 25% of the workforce today.

E-Gens – 1971 to 1980

Seen as more entrepreneurial and efficient, they are a much more economically robust and confident cohort that was part of the upswing in the economy.

Gen Y – 1981 to 1990

Represent the globalized mindset. Popularly called the Millennials.

According to Rajesh, workplace values of different generations were as follows:

Table-4: Generational Cohorts and their Attitude Towards Work

Generation	Year of Birth	Entered Workforce	Work Values	Work is
Free Gens	1945-1960	1960s - 1980s	*Hard Working *Conservative *Loyal	Inevitable
Gen X	1961-1970	1980s -1990s	*Flexibility *Job Satisfaction *Duty *Work Life Balance	A Challenge
E- Gens	1971-1980	1990s - 2000s	*Customized Careers *Entrepreneurial spirited *Own-Time	Exciting
Gen Y	1981-1990	2000s to now	*Value diversity *Better technical skills *Global in terms of mindset *Have a wider range of careers	A means to an end

Source: S. Rajesh

For the purpose of this research, generations will be categorized as per the above break up, since it gives the most comprehensive cohort division for the Indian population.

Therefore, Generation Z will be identified as individuals born after 1991. In the Indian Context:

According to the SHRM study, generations in the Indian Context can be further subdivided:

- Pre-Liberalization Generation (Pre-1991)
- Early Liberalization Generation (1992-2000)
- Rapid Growth Generation (2002-2006)
- Plateaued Growth Generation (2007-2012)

The above division seeks to throw light on the workplace values aspect of generational cohorts. Within this scope, and going ahead with the assumption that the given workplace values are a yardstick to take the research further.

The Need to Review Multigenerational Workforce in the Higher Education Sector

Over the past decade there seem to have been two parallels as far as generational study is considered in the field of management research. While one parallel looks at stereotyped characteristics associated with different generational cohorts, the other parallel seems to have created a newer subtype, the age meta-stereotype that focuses on what the researcher thinks they believe about different generational cohorts. Although widely seen being unfair stereotyping, it has also been observed that such stereotypes also have critical implications at the workplace. For example, the widely held stereotype that older people tend to be slower learners prompted trainers to lessen their expectations from older trainees.

In sum, people's belief in what others think about their age group can also interfere with their work behavior. Within this scope, Twenge, Campbell & Campbell identify three major concerns with regard to future research for multigenerational study. Namely:

- There is a need to develop models that can map changes in variables such as attitudes values, personality and such like, through cohorts and cohort members.
- A need to identify generational cut-offs in the context of historical and/ or cultural events.
- The need to identify models to predict future behavior for cohorts identified

It has been concluded by them that though generational labels may stick around to be used, they should be acknowledged as being generalizations and not precise definitions.

Different generational cohorts are argued to bring in such diversity to the workplace that these differences may have far reaching implications, including for human resource processes (Jonck, Van der Walt & Sobayeni, 2017).

It is also imperative to note that there has been certain implications identified by Chavez (2015) with regard to multiple generations as faculty in higher education. According to Chavez, implications towards educational leadership, learning and effectiveness, discrimination and fairness and the access and legitimacy take centre stage. The focus towards fair opportunity and the need to understand diversity was highlighted in the study.

Hannah and Fretwell brought out the differences among generations in terms of Centrality of Work, Personal Interaction, Technology, Need for Attention, Loyalty and External Locus of Control. The similarities exist as per a Gallup Report, cited by Giancola (2010), that Baby Boomers, Generation X and Generation Y, tend to have similar things that they look for, in terms of job characters, growth opportunities, management quality and compensation.

According to Twenge et al (2010), Baby Boomers, Generation X and Generation Y continue to value intrinsic rewards more than all other rewards. It is also important to note that all generations currently participating in the workplace recognize the importance of communication; they just don't come to a consensus with the mode of communication (Hannah & Fretwell).

While generational study and the prevalence of a multigenerational workforce has been finding currency in research, what is interesting to note is that the prevalence of a multigenerational workforce in the dynamic Indian Higher Education sector has largely gone unnoticed. Reasons thrive. But what has motivated this research has been the observation of generational cohorts exhibiting stereotypical traits in the higher education workplace. While several policy initiatives over the years have seen numerous changes in this sector, India as a country prides itself on a robust system of colleges and higher education institutions that make India a viable study destination.

With increasing policy changes, the education sector is poised for a revamp. The increased use of technology in the classroom, the existence of virtual learning as an almost permanent aspect of education, has brought forth the possibilities in the Indian Education Sector.

The Education Sector is broadly categorized as School Education and Higher Education (Ministry of Human Resource Development, Government of India).

Higher Education in India is further sub-divided as follows, as per the All India Survey on Higher education 2017-18:

- Universities
- Colleges
- Stand-Alone Institutions
- Other crucial characteristics of the Higher education system are:
- There are 903 universities of which 285 have colleges affiliated to them.
- There are 39,050 colleges in the country.
- The College density, that is, the number of colleges per lakh eligible population is the highest in Telangana, at 51.
- 78% colleges are privately managed; of which 64.7% are private unaided and 13.3% are private aided.
- AP and Telangana have 82% of private unaided colleges.
- Hyderabad ranks third in the list of maximum number of colleges, having 472 colleges.
- A total of 1, 44, 104 work as teaching faculty in the undergraduate collegiate sector in the entire country.

While the sheer strength of undergraduate colleges points to the obvious scale at which they function, the point of reference here is the number of active workforce that make up the undergraduate teaching faculty in the country. While India is oft-celebrated for its 'demographic dividend', owing to one of the largest young populations in the world, with the average age of the India at 29 years, it has to be remembered there are still at least two more generations working side by side with the youngest entrants into the sector. This is where the workforce becomes truly multigenerational.

The Prevalence of a Multigenerational Workforce in the Indian Workplace

As per the research titled 'The Indian Workplace of 2022' by PWC (2014), it has been found out that the Indian workplace of 2022 will be multigenerational, self-assured and open to adopting new technologies, with 76% of the sample polled stating that they 'are comfortable working with other generations as my own'. This observation points to another key demographic, the prevalence of the youngest workforce in the world (UNFPA). The same report also points to the observation that 71% of CEOs polled, recognize demographic shifts as a trend that will transform business.

Gensler Research throws light on what are the ten factors that are going to influence in the Indian Workplace by 2020, of which Demographics is ranked third, after hierarchy and religion.

Demographics as the third factor, underlines the emphasis of the 'demographic dividend' that is talked about, since it has been predicted that the average age of India's population will be 29 years.

As per the research website, Statista, for the count of population within the period of 2008 to 2018, India's population figures were as follows:

Table-5: Count of Population in India – from 2008 to 2018

Age Group	Percentage of Population
0-14 years	27.05%
15-64 years	66.77%
Above 65 years	6.18%

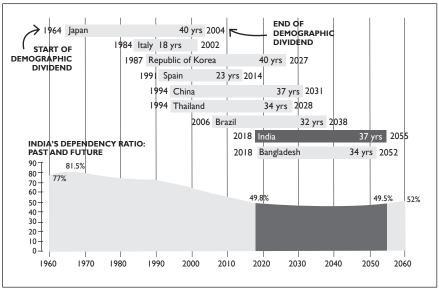
A population bursting at the seams, not withstanding, there has been a realization, over the past twenty years, of the immense possibilities of the youth that makes up most of the country's population.

Demographic Dividend, defined as, 'the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population is larger than the non-working age share of the population' (UNFPA), seems to be what India can hope to bank on, provided it makes policy and creates infrastructure that ensures this dividend. It can also be calculated as the proportion of working population out of total population.

Demographic divergence is another key aspect of the country's population. It has been observed that states in the southern part of the country are faring better in terms of demographic transition.

Another important aspect is the increase in the number and proportion of the elderly. Elderly being defined as sixty years and above. The number of elderly persons has increased from 76 million in 2001 to 103 million in 2011. By 2030, it is projected that the number of elderly will increase to 192 million, constituting 12.8 per cent of the total population.

Figure-I: Period of Demographic Dividend in Large Economies



Source: India enters 37 year period of demographic dividend, Economic Times, 2019

As per latest findings, since 2018, India's working-age population, that is, population aged between 15 and 64 years of age, has surpassed the dependent population, i.e, children aged 14 years and below and adults aged 65 and above. And this increase is expected to last till the year 2055 (Economic Times, 2019).

As can be observed from the above diagram, it can be concluded that in comparison to major Asian economies, India's demographic dividend is expected to last beyond Bangladesh and Brazil which are in closer competition. While China is considered as the closest competition for various other parameters of economic growth, India is ahead with as far as its demographic dividend is concerned.

India's population has increased four times, from 238 million at the beginning of the century to one billion at the end of it (UNFPA, 2017). As per the Census of India, 2011, there are 365 million young people, in the age group of 10-24, making India one of the youngest countries in the world. youth comprises of 30% of our total population, as per the 2011 census. By 2020, therefore, India's population age average is 29 years. It is to be noted that the working age population encompasses at least three generations, if one goes by western generational cohorts, namely, Baby Boomers, Generation X and Generation Y or Millennials. While three generations will always make up any workforce, three inherent differences of each cohort, tend to influence policy aspects as well as workplace culture, as evidenced by research that follows.

Multi-Generational Workforce as Teaching Faculty in Higher Education

While the phenomenon of multiple generations at the workplace has been discussed across various industries, it is imperative to note that the existence of research on generational diversity among teaching faculty in the Higher Education sector in India is almost negligible.

The foundation of multiple generations in Higher Education and its inherent challenges, was laid by Ronald A Berk (2013). Now, the meaning of being multigenerational has acquired new meaning in terms of understanding diversity (Arsenault, 2004; Crampton & Hodge, 2007; Kuron, 2012).

It has been observed that there has been enough negative interactions among generational cohorts due to difference in perspectives (Society for Human Resource Management, 2010).

What is mostly available in popular research literature is the existence of differences in a wide range of work-related aspects among different generations. There is also enough evidence to support that conflicts do occur because of generational differences (Cogin 2011). But these differences

have not been explored in the context of the teaching workforce in Higher Education.

While Berk identified potential areas of conflict, namely -dress/appearance, work hours/work ethic, technology, expectations for advancement, communication and respect/professionalism, there has not been any substantial research on the implications of higher education faculty in the Indian context.

The differences that are a direct result of a multigenerational workforce have been in the nature of six key themes as evidenced by a systematic review of existing research undertaken by Insead (2015). The themes identified were:

- work motivators or preferred job characteristics
- work values
- · work attitudes
- workplace / career behaviours
- leadership preferences or behaviours

In the context of teaching faculty in higher education, the themes mentioned above have been identified in the context of the functions and job roles that teaching faculty has. It is also important to note that the Indian system of education is vastly different from the systems prevailing in other countries and so, therefore, the approach towards understanding the prevalence and implications of a multigenerational teaching faculty will have to be done in the context of the roles and positions in this sector.

The following diagram sheds light on the colleges as per type of management existing in the higher education sector. Further, the next diagram depicts the post-wise classification of the teaching job role in higher education institutions, commonly called HEIs.

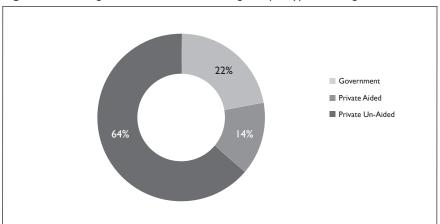


Figure-2: Percentage-wise Distribution of Colleges as per Type of Management in India

Source: AISHE Report, 2018-19

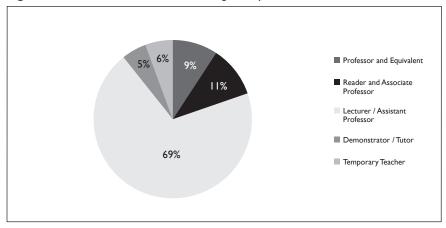


Figure 3: Post-Wise Distribution of Teaching Faculty

Source: AISHE Report, 2018-19

It is observed that the post-wise classification of teachers in HEIs is also skewed towards Assistant Professorship and/or Lectureship.

As observed, there is a large portion of teaching faculty that identifies as Assistant Professor or Lecturer. This in turn points to the fact that there are a large number of private colleges employing faculty and these faculty can only be identified as Assistant Professors or lecturers, since other forms of identification are prevalent only in aided and government-managed institutions.

A dearth of a common set of HR practices for privately-aided colleges, created a wide research gap in understanding the implications of different generations and their approach towards common HR practices as employed by privately-managed HEIs. The most common HR practices that are unique to each HEI are:

- · recruitment and selection
- orientation, training and development
- · career growth and management
- performance appraisal and review

While government and private-aided HEIs have a clearer mandate regarding the above, as evidenced by earlier education policies, private-unaided colleges have policies and regulations unique to their institution.

Therefore, the themes identified for the purpose of understanding the implications of a multigenerational workforce in higher education, with specific reference to private-unaided colleges, are:

- Motivation
- Perception of Skills for a Teaching Job Role
- Expectations of Leadership Abilities
- Effectiveness of Orientation

- Expectations for Self Development
- Motivation to Stay in the Current Job
- Job Satisfaction
- Perceptions towards a Teaching Job Role
- Effectiveness of Performance Appraisal Methods

Conclusion

While there exists a large portion of research on generational diversity and multigenerational workforce across different sectors, it has been observed that research on teaching faculty as a possible area of research with regard to implications of a multigenerational workforce are absent. When one realizes the immense opportunity and wealth of information possible through further exploration of higher education teaching faculty, there will emerge interesting facets that will help researchers provide crucial suggestions to make India a force to reckon with in higher education. The leaps and bounds with which our education landscape is changing, it is important that the teaching faculty should lead the change from the front.

In conclusion, while generational study finds usage in different fields of study, to use it to further understand teaching faculty, will help further research on the human resource aspect of this sizeable sector.

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Public Private Partnership for Development of Road Infrastructure with Reference to the State of Punjab

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Abstract

Public Private Partnerships (PPPs) are increasingly advocated to address deficiencies in the public delivery system and have been implemented in various sectors. In this context, the State of Punjab initiated various PPPs projects in infrastructure development. The study highlights the key players involved under the new arrangement. Based on case study on two PPPs road projects the present study describes the institutional arrangement adopted and the procurement process involved in development of these road projects. The State of Punjab laid out a well-defined PPP framework for development of infrastructures in the State. Another significant feature under the arrangement is the creation of a separate PWD (B&R) unit for PPP projects in the State.

It is observed from the study that the PPP road projects did not receive much competition from the private sectors. Furthermore, these projects underwent lengthy procurement processes. Pre-qualification of prospective bidders on one hand and project feasibility studies and documentations on the other hand were carried out in parallel. It is desirable that Private Sector Participation (PSP) should be involved in the early stage of the project development even before preliminary and feasibility were conducted.

Keywords: BOT Project, Infrastructure Development, Public Private Partnership, Punjab, Road Sector

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Introduction

Traditional public administration based on western liberal democratic political theory and its corollary the laissez-faire (individualist/capitalist) economic theory rests on the foundation of the dichotomy between public and private spheres of life. While the scientific management movement (classical and neo) sought to bridge the breach between the two opposite, conflicting areas of public administration and private business administration, post-modern public administration privileges Public Private Partnership (Bava (2008).

The proponents of Public Choice Theory in the early 60s and the New Public Management of 70s and 90s suggested a series of shifts of emphasis in the way in which the public sector should be organized and managed to cope with the demands of the present realities of social and economic development through market-based public administration and professionalism. Partly due to these external influences and partly due to the failure of the state-driven, socialist-command model of development policy, India introduced the New Economic Policy in 1991. The policy aims to integrate Indian economy with the world through liberalization, privatization, and globalization (LPG) models of development. As a result, a series of economic reforms were introduced including the PPP model in the delivery of public services. These changes shifted the role of the government from being owner and provider of goods and services to that of facilitator, enabler and regulator of market economy while the private sector plays the role of financier, builder and operator of services. The key strategy is to leverage market principles and private sector values to deliver cost effective and efficient public services in any development venture.

PPPs has been widely recognized as the innovative institutional mechanism to facilitate the private sector efficiency in public services and programs. According to UNESCAP (2011), governments worldwide have increasingly turned to the private sector to provide infrastructure services in various sectors mainly for several reasons which include: (i) availability of additional resources to meet the increasing needs of investment in infrastructure services, (ii) increased efficiency in project delivery and operation, (iii) access to advanced technology and (iv) Sustainable development in infrastructure facilities and services. The participation of private sectors in the economy, especially in developing countries, has become more inevitable and unavoidable to meet the contemporary challenges of infrastructure development on one hand and the long-term economic development on the other hand. PPP arrangement allows governments to leverage private sectors potentials in terms of their financial resources, technical expertise, and managerial skills. According to Singh and Jain (2008) PPP is a creative enterprise where the best of the two sectors are brought together to achieve fruitful results.

To provide broad based overarching regulatory framework and to provide guidelines for all relevant for infrastructure development in the state through structures of private sector participation based on commonly adopted principles such as BOT, BOO, BOOT, etc., Punjab Infrastructure (Development and Regulation), Act 2002 (The Act, hereinafter) was enacted. The Act provides for the establishment of Punjab Infrastructure Development Board (PIDB) as an apex decision-making body for overall planning and development of infrastructure sectors and infrastructure projects through PPP models. Since then, the State has been engaging the private sector in the provision of various infrastructure services across sectors. Road sector has bagged the highest number of PPP projects. Till 2010, 26 PPP road projects worth Rs 14,122.65 crore, both completed and under preparation, have been awarded in the State.

PPP in Road Sector Project: Background to the Study

Roads are the major mode of transportation services in Punjab. The state offers excellent infrastructure and has been declared as one of the best states in India in terms of rail, road and transport network and ranked first amongst the big states in terms of infrastructure (PHD, Research Report (2011). To retain and improve upon this position, the state government in recent years, identified various infrastructure sectors for rehabilitation, up-gradation, strengthening, operation and maintenance through different routes.

The state roads including state highways have been developed under different routes. Under the 1st phase of road sector development project, Engineering Procurement Construction (EPC) route was adopted with funding by PIDB through loans from financial institutions. However, due to several complications in securing financial loans through the EPC route, the PPP model was considered. The PPP model in the road sector was introduced in 2003 under the 2nd phase of road sector development project. Under this arrangement, private partners invest, construct or upgrade and operate and maintain and collect user fees during the concession period as per the Toll Policy. At the end of concession period, the project including project facilities and assets are handed over to the Government of Punjab.

With a view to create quality road infrastructure in the State, the Board, on in April 2003, identified 12 (twelve) road corridors to be rehabilitated, developed, operated and maintained under the 2nd Phase of Road Sector project on PPP BOT model. An Expression of Interest (EoI) was invited from interested private sector parties and out of 21 EoIs received, 19 PSPs were pre-qualified on June 23, 2003. However, the bidding process was terminated by GoP due to certain limitations in the bid documents. Thereafter, a new common Concession Agreement was drafted, and the

12 identified road projects were grouped into different Trenches and bidding process was restarted.

As on December 2010 (i.e., during the scope of the study), 9 BoT road projects with an aggregate length of 520.44 kilometers were completed and operational. Out of these 9 projects, 5 projects are 100% completed, 1 project with 85% completed (due to termination of original agreement) and the remaining 3 projects with incomplete Railway Over Bridges (ROB), with an estimated total private sector investment of Rs 624.22 crores, as shown in Table-1.

Table-1: Status of BOT Road Corridors in Operation (as on 10.12.2010)

SI. No.	Road Corridor	Length (km)	Estimated Cost (Rs in crores)	Remarks
1.	Patiala-Patran	48.60	48.10	100% Completed and toll started on 06.03.07
2.	Balachaur-Dasuya	104.96	123.64	100% Completed and toll started on 06.03.07
3.	Ferzepur-Fazilka	84.43	105.52	Completed except 1 no. of ROB and toll started on 11.03.08
4.	Patiala-Malerkotla	55.77	63.56	85% Completed and original agreement terminated. Toll not started
5.	Moga-Kotkapura	47.70	62.09	100% Completed and toll started on 25.04.08
6.	Hoshiarpur-Tanda	29.90	30.56	100% Completed and toll started on 28.02.07
7.	Kiratpur Sahib-Una	35.72	41.84	100% Completed and toll started on 19.11.07
8.	Bhawanigarh-Nabha- Gobingarh	55.42	70.25	Completed except 1 ROB and toll started on 26.05.10
9.	Dakha-Raikot-Barnala	57.94	78.66	Completed except 2 ROB and toll started on 15.05.09
	Total	520.44	624.22	

Source: Authors' compilation (2015) "Status of BOT Road Corridors in Operation as on 10.12.2010 obtained from office of the Chief Engineer (IP), Punjab PWD (B&R Branch), Sector 34A, Chandigarh.

Against the backdrop of the state's advocacy for PPP model of infrastructure development in general and the successful implementation in road sector in particular in Punjab, the study attempts to examine the institutional arrangement adopted and the process and procedure involved in execution of the road sector projects so as to draw out the critical success and failure factors of the select projects through two Case Studies

Objectives of the Study

• To study the institutional arrangement for PPP road sector projects in the state of Punjab

- To examine the processes involved in the selection of private-sector partner for the select road sector project in the state
- To analyse gaps and limitations of the select PPP road sector projects
- To provide suggestions for improving the implementation of PPP projects in road sectors based on the findings of the study

Scope of the Study

Out of these 9 PPP BOT projects that are completed and operational, 2 projects based on their length were selected. These 2 projects are:

- Balachaur-Garhshankar-Hoshiarpur-Dasuya Road, one of the longest stretch and
- Kiratpur Sahib-Una Road, one of the shortest stretches
 The primary data was collected from Offices of PIDB, Chandigarh and PWD (B&R), Chandigarh supported by field visit to select road corridors by the researchers during April 2015 to December 2015

Methodology

Case study approach has been adopted in the present study for more in depth understanding of the dynamics present within single settings so as to identify the gaps and limitations in the implementation process.

The study adopted qualitative method of data collection and both the primary and secondary sources of data were used. Primary data were collected from multiple sources such as documentation such as administrative and internal documents, written reports of events both published and unpublished from the offices of PIDB and PWD (B&R) Government of Punjab. These documentary sources were helpful to construct the chronology of events relating to the select projects. Observations made during field visits by the researcher himself serve as another important source of evidence of the study.

Institutional Framework for PPP Road Sector Projects

Punjab Infrastructure Development Board (PIDB)

Punjab Infrastructure (Development and Regulation), Act 2002 (PIDR Act 2002) spells out the policy, legal and regulatory framework for the private sector participation (PSP) in the development of infrastructure services from project identification to implementation. The Act established PIDB as the nodal agency for the overall infrastructure development planning in the State. The Board is a high-power decision-making body headed by Chief Minister and Minister of Finance of Punjab. The board is assisted by the Executive Committee, the Sectoral Sub-Committees and the Administrative Department all headed by the most senior civil servant of IAS Cadres.

Punjab Infrastructure Regulatory Authority (PIRA)

The Act also established PIRA as a quasi-judicial body to aid and advise the State in the formulation of appropriate policy relating to tariff; conduct of public hearing; regulate the working of the concessionaire in regard to the service to the consumer; to adjudicate upon any appeal against an order passed by Board or the State; and to adjudicate upon disputes inter-se two or more Concessionaires, operators of infrastructure projects, the State Government and the Board.

Public Work Department (Bridges and Roads)

Public Work Department (Bridges and Roads) of Punjab (PWD (B&R)) as being the owner of the road sector prepares and scrutinizes all estimates. They work in close co-ordination with PIDB and the project developer in the implementation of the road sector projects. As a Concessioning Authority, PWD (B&R) approves all activities associated with Planning, Design, Construction, O&M and operationalization of the Concession Agreement.

Road Sector Project Developer of the Board

To aid and assist PIDB in implementing the road sector projects through private sector participation on PPP model, Infrastructure Licensing and Financial Service Infrastructure Development Corporation Ltd. (IIDC) was appointed as the Project Developers of Board and MoA signed between the two parties on 17th September 2002. The main role of the Developer is to contribute the requisite technical, financial and managerial resources to undertake project identification, development and implementation. As the project developer, IIDC in coordination PWD (B&R) carried out a detailed project development work such as marketing, document preparation like EoI, draft Concession Agreement, financial analysis, structuring etc. as per MoA.

Survey and Data Collection for Road Corridors

The State PWD (B&R) prepared the technical drawings of each road with the help of the followings external agencies appointed during the project development:

- Soil Investigation and Benkelman Beam Deflection Test Agency: Technical Teachers Training Institute, Sector 26, Chandigarh
- Traffic Consultant Service: M/s Dalal Mott Mac Donald
- Digitalization Drawing Agency: Engineers Associates, Sector 5, Mansa Devi Complex, Panchkula

Project Financial Analysis and Bidding Strategy

The financial analysis and bidding strategy were performed based on the following parameters:

- The scope of work includes design, construction, operation, maintenance, and tolling. Capital subsidy to be provided upfront and in the form of a grant
- Upfront capital subsidy for all the roads
- Debt/Equity Ratio of 3:1
- Target Project IRR of 15% (post tax)
- Fixed toll rates as per the toll policy
- Concession period of 15 years
- Construction Period is fixed for 2 years
- Capital subsidy to be provided upfront and in the form of a grant
- The quantum of capital subsidy as the bidding parameter
- Technical Specifications and RFP documents based on the model followed by NHAI, MoRT&H dully modified for BOT option in compliance with PIDR Act 2002.

Based on financial analysis, bids are awarded to the bidder seeking the lowest grant or offering the highest concession fee.

Case Study I

Balachaur-Garhshankar-Hoshiarpur-Dasuya Road Project

Balachour – Garshankar – Hoshiarpur – Dasuya Road Project with a length of 129 Kms is the longest among the 9 Road Projects operational under PPP. The major portion of this road stretch lies in Hoshiarpur District, the north eastern part of Punjab State. The road corridor connects National Highway NH1A at Dasuya town of Hoshiarpur and runs through three homogenous stretches: Balachaour-Garhshankar, Garhshankar-Hoshairpur and Hoshairpur-Dasuya, connecting important towns and villages like Balachour-Damam-Saroa-Wahidpur-Satnair-Baderson-SailaKhurd-Chabewala-Mahalpur-Basi-Hariana-Bhunga-Garhdiwala-Hoshiarpur-Garhshankar-Dasuya.

The scope of work under the project involves upgradation, operation and maintenance of 104.96 km including Bypass length of 1.85 kms and bridges length of 1.28 kms with 172 intersections, 180 culverts, 30 major bridges. The width of the road ranges from 7 meters to 15.20 meters. The estimated total Project Cost was Rs 123.64 Crore. The land use of the corridor is 83% Rural, 9% Semi-Urban and 9% Urban.

Bidding Process and Selection of Concessionaire

Balachaur-Garhshankar-Hoshiarpur-Dasuya Road Project is one of the four road projects identified for implemented under different Trenches I. These four road projects are:

- Balachour Garshankar Hoshiarpur Dasuya
- Batala Mehta Beas
- Patiala Nabha Malerkotla Jagraon and
- Patiala Samana Patran

To restart the bid process, RFP documents for the above four roads were issued to the 19 pre-qualified bidders on January 12, 2005 inviting technical and financial proposals. Out of the 19 pre-qualified bidders 10 private parties attended the Pre-proposal Conference held on February 09, 2005 at Punjab Bhawan, Chandigarh.

In response to RPF document, only one party i.e. "M/s Rohan & Rajdeep Infrastructure, Ahmednagar" submitted the proposal for Balachaur-Garhshnkar-Hoshiarpur-Dasuya Road project on May 6, 2005. The Financial Proposal of M/s Rohan & Rajdeep Infrastructure was opened on June 10.2005, at PIDB Office Conference Room.

A comparison on the financial proposal quoted by the bidder and the financial estimates approved by the Board is shown in the following table:

Table-2: Financial Proposal Comparison of Balachaur - Dasuya Road Project

		,	
SI No	Parameters	Rs (in Crores)	Differences
I.a	Total Project Cost quoted by bidder	164.36	40.72
I.b	Total Project Cost quoted by GoP	123.64	40.72
2.a	Total Grant quoted by bidder	62.35	12.00
2.b	Maximum Grant payable by GoP (reserve price)	49.46	12.89

Source: Authors compilation (2015) "Financial analysis, Financial Proposal Evaluation Report for Balachaur – Dasuya Project Road, Punjab Road Sector Project - Phase II, p.2 from office of PIDB, Sector 34A, Chandigarh

The financial proposal quoted by M/s Rohan & Rajdeep Infrastructure was rejected as it exceeds the financial estimates approved by PIDB. The maximum grant (Equity Support) to Concessionaires for all road projects, as per the Concession Agreement, should not exceed an amount equal to twice the Equity and a sum equal to 40% of the total project cost. However, the bidder, as being the sole bidder of the project, negotiation was undertaken between the two parties where the bidder agreed to accept GoP terms of the contract. The grant quoted by the bidder in the revised financial proposal of Rs. 49.46 Crore, the maximum grant payable by GoP was accepted. Notice

of Award to the Concessionaire was issued on September 1, 2005 and the Concession Agreement was signed on December 6, 2005.

Appointment of Independent Quality Control Consultant

After following the procedure outlined for the appointment of IQCC provided in ToR, Gheerzi-Eastern Ltd New Delhi was appointed as the IQCC for Balachaur – Dasuya Road Project. The Concession Agreement dated May 8, 2006 was issued to IQCC.

The main role of the IQCC is to monitor the works and compliance by the Concessionaire with PERT charts, CPM and the project milestones set in the Project Completion Schedule.

Commencement of Construction and Commercial Operation

The construction commenced from February 15, 2006. The construction period, including construction of three Toll Plazas, was fixed for two years. During construction, the IQCC supervises and monitors the construction works and enforces compliance as per the specifications and standards of the Concession Agreement.

On completion of construction, tests were conducted as per MoRT&H specifications (Clause 900) and a report was prepared based on output-based performance standards such as Riding Quality (Road Surface), Traffic Signage and Road Markings, Toll Collection Operation System, Potholes, Rutting, Cracks, Drains etc.

A provisional Complete Certificate was issued by PWD (B&R), on February 28, 2007 and a Public Notice was issued to the general public on the same day authorizing the Concessionaire to charge, recover and appropriate fee (toll) from the users of Balachaur – Dasuya with effect from March 1, 2007. The toll collection from the road users started on March 6, 2007. 3 Toll Plaza are erected along the stretches of the road at an average distance of about 35 kms. These Toll Plazas are located at Kararwor near Mazari, Nangal Shahidan and Mangarh

Case Study II

Development of Kiratpur Sahib-Una Road Project

Kiratpur – Una Project Road is one of the shortest road stretches of the 12 Project Road identified by GoP. The scope of work involves upgradation, operation and maintenance of 35.72 kms along with widening of 12 major intersections, 10 bus bays, 6 truck lay byes, 8 road cross sections, widening of 6 bridges, construction of 3 new bridges and 13 new drainages, widening of junctions and intersections etc. at an estimated cost of Rs 41.84 Crore. The road project is a part of State Highway (SH) 25 and starts from Kiratpur Sahib, Rupnagar district on National Highway (NH) 21, runs through Anandpur Sahib and Nangal, and ends at Punjab and Himachal Pradesh State boundary in Una district.

Kiratpur – Una region is known for high agriculture activity and tourism. Kiratpur Sahib and Anandpur Sahib are renowned towns of historical significance. Nangal is an industrial hub known for fertilizers, copper, oil refinery, and Bhakra Dam for a large number of tourists all year round. Anandpur Sahib serves an important link to the State of Himachal Pradesh and Bhakra Dam.

Bidding Process and Selection of Concessionaire

Under the 2nd Phase of Road Sector Project – Trenche II, GoP identified five (5) heavy traffic corridors and the scope of work of these five (5) road projects were finalized on April 1, 2005 by PWD (B&R). These are:

- Hoshiarpur Tanda Project Road
- Moga kotakpura Project Road
- Ferozpur Fazilka Project Road
- Kiratpur Una project Road and
- Patiala Malerkotla Project Road

The key results of the financial analysis carried out based on Estimation of Base Case and Risk Adjusted Case for Kiratpur – Una Project Road is given in the following Table-5.

Table-3: Financial Analysis for Kiratpur – Una Project Road

	Base Cost (Rs in Lakhs)	Total Project Cost (Rs in Lakhs)	Grant Reserve Price Bid (% of TPC)	Grant (Rs in Lakhs)	Concession Fee (Rs in Lakhs) per annum
Base Case	3542.00	4310.23	0	-	62.00
Risk Adjusted Case	3542.00	4412.15	20.10	886.84	-

Source: Authors compilation (2015) "Financial Analysis for Kiratpur-Una Project Road, Punjab Road Sector Project, Phase II, Tranche II, Office of PIDB, Sector 34A, Chandigarh

To restart the bid process, an advertisement for notice inviting proposals from PSPs for the five Road Projects under 2nd Phase, Tranche II was published in the Newspaper on June 21, 2005. Revised RFP document was issued to all the pre-qualified bidders.

The Pre-proposal meeting was held on July 19, 2005 in PIDB Conference Room, Chandigarh and a Project meeting was held in Punjab Bhavan, New Delhi on August 22, 2005.

The following seven parties submitted their proposals:

- Modi Projects Ltd.
- M/s IDEB Construction Projects Pvt. Ltd.
- M/s Madhucon Projects Ltd.

- Rohan and Rajdeep Infrastructure
- M/s GPL-BLA-BCL(JV)
- P.D Aggarwal Infrastructure Ltd.
- Kalthia Engineering & Construction Ltd. J. V Vipul Octroi Centre

The number of proposals received against each road project under tranche II is shown in Table. Kiratpur – Una road project received seven proposals, highest number of bid proposals received under tranche II. The technical proposals of the seven bid proposals were opened on September 26, 2005 and their Financial proposals were opened on October 06, 2005.

Table-4: Number of Proposals Received for Each of the Project Roads Under Tranche II

SI. No.	Name of the Road Project	No. of Proposal(s) Received
Ι.	Hoshiarpur – Tanda Project Road	3
2.	Moga – Kotakpura Project Road	1
3.	Ferozpur – Fazilka Project Road	1
4.	Kiratpur – Una project Road and	7
5.	Patiala – Malerkotla Project Road	1

Source: Authors compilation (2015) "Financial Proposal Evaluation Report, Punjab Road Sector Project, Phase II, Trenche II, Office of PIDB, Sector 34A, Chandigarh

For Kiratpur – Una road project, as approved by GoP, the total project cost was Rs 4184 Lakh and the maximum Granted payable was 1674 lakh. The financial proposal for each of the interested bidders is shown in the Table-5.

Rohan and Rajdeep Infrastructure quoting the highest Concession Fee amounting to Rs 4185 Lakh in total was accorded the highest rank and the proposal was accepted. The bidder quoted equated annual instalments of Rs 321 lakh to be paid to the PIDB in each accounting year from year 3rd to year 16th and Rs 160.5 lakh each in 2nd and 17th year.

Notice of Award was issued to M/s Rohan and Rajdeep Infrastructure as the Concessionaire for Kiratpur – Una Project Road on December 9, 2005. The Concession Agreement on the same was signed on March 07.

Appointment of Independent Quality Control Committee (IQCC)

Following the procedure for the appointment of IQCC, M/s STUP Consultancy Private Limited was appointed as the IQCC for Kiratpur Sahib – Una Road Project for a period of 18 months from September 2006 to February 2008.

Commencement of Construction and Commercial Operation

The construction period of Kiratpur – Una road project was fixed for 18 months and construction of the project commenced on October 10, 2006.

Table-5: Proposed Disbarment of Grant/Charging of Concession Fee as proposed by Bidders for Kiratpur – Una Project Road

Rank		_	7	m	4	Ŋ	9	7
Remarks		4815 Concession Fee	Concession Fee	400 Grant	436 Grant	Grant	2050 Grant	Grant
Total (Rs. In Lakhs)		4815	1000	400	436	1373.15 Grant	2050	4211.17 Grant
	17	160.5*	200	0	0	0	0	0
	91	321	200	0	0	0	0	0
	15	321	200	0	0	0	0	0
	4	321	200	0	0	0	0	0
	10 11 12 13 14 15 16	321	0 200 200 200 200	0	0	0	0	0
	12	321	0	0	0	0	0	0
	=	321	0	0	0	0	0	0
	0	321	0	0	0	0	0	0
	6	321	0	0	0	0	0	0
(e)	00	321	0	0	0	0	0	0
ır Wis	7	321	0	0	0	0	0	0
d (Yea	9	321	0	0	0	0	0	0
Perio	2	321	0	0	0	0	0	0
ation	4	321	0	0	0	0	0	0
Oper	æ	321	0	0	0	0	0	0
n Period		160.5* 321 321 321 321 321 321 321 321 321 321	0	0	601	686.575	1025	1796.15
Construction Period Operation Period (Year Wise)	1 2	0	0	400	327	686.575	1025	2415.02
		Rohan& Rajdeep Infrastructura	Kalthia Engineering JV	GPL-BLA-BCL (JV)	PD Aggarwal Infrastructure Ltd	IDEB Construction Projects	Modi Projects Ltd	Madhucon Projects Ltd
S. So.		_	2	m	4	2	9	7

Source: Authors compilation (2015) "Financial Proposal Evaluation Report, Punjab Road Sector Project, Phase II, Trenche II, Office of PIDB, Sector 34A, Chandigarh

*The concession fee quoted by Rohan & Rajdeep Infrastructure is for half a year

The Provisional Completion Certificate was issued on November 18, 2007 after all tests were recorded. Commercial operation of the project and collection of Toll commenced from November 19, 2007.

Concluding Observations

The State of Punjab laid out a well-defined PPP framework for development of infrastructures in The State. PIDB at the apex, headed by the Chief Minister is a high-powered decision-making body, designed to be practical and result-oriented, drawing and sanctioning power from the highest authority in its implementation.

Another significant feature under the arrangement is the creation of a separate PWD (B&R) unit for PPP projects in the State. This specialized unit, a line department headed by Chief Engineer, (IP), PWB (B&R) functions independently from the nodal department in implementing PPP projects. As a result, PPP projects in the road sector have been successfully implemented in the State. Further, the appointment of Advisor (Technical) to Chief Minister of the state to oversee the performance of the Concessionaire helps improve maintenance of the road infrastructure.

The present study has shown that, despite its shortcomings, the model has been successfully implemented in the road sector and represents a promising way forward for many infrastructure projects in the state. Some of the limitations observed from the study are briefly discussed as given below:

Immature Introduction of PPP in Road Sector

While the state's first PPP bus terminal projects were at the initial stage of the tendering process, the model was introduced in the road sector projects. Within a span of seven months of inviting PSPs for development of Amritsar Bus Terminal on PPP BOT model (November 13, 2002) followed by other Mega Bus terminal projects, tenders were invited for the 12 identified road corridors on May 22, 2003. PPP model was introduced in parallel across infrastructure sectors without offering time to learn from its first venture. Project development processes of both sectors were carried out simultaneously, resulting in overlapping of project activities which further hindered the development process.

Failure to attract Competition from PSPs

The PPP road projects did not receive much competition from the private sectors. Although, these projects generated keen interest from private firms during the initial stage of the bidding process, few proposals were received during the final stage of the bidding process. For instance, the Balachaur-Garhshnkar-Hoshiarpur-Dasuya road project, under Tranche I resorted to negotiation as only one financial bid was received.

Midway Changes in Documentation

The draft RFP document and project related documents were redrafted after completion of the first stage of the bidding process. The project feasibility studies like soil tests, traffic count studies, etc. were conducted only after the pre-qualification stage. These changes led to delay in the overall procurement process.

Lengthy Project Development Process

Lack of proper planning from the very beginning of the project development resulted in delay the whole bidding process. The 12 identified road corridors were reorganized into trenches midway and the bidding process restarted after it underwent a lengthy bidding process. The whole bidding process took more than two years.

Limitations with Toll Collection

Payment of toll at the Toll Plazas on these roads also faced opposition from the road users leading to revenue loss of the Concessionaire. During the initial months of implementation, non-cooperation from the road users by way of agitations and bandhs on the roads often led to traffic jams and traffic diversion to the link roads. Misuse of power by local political leaders and senior bureaucrats by way of issuing passes and visiting cards to commuters to evade payment of toll tax is another limitation.

Recommendations

Early Involvement of PSPs for Consultations

It is observed from the study that these projects underwent lengthy procurement processes. Pre-qualification of prospective bidders on one hand and project feasibility studies and documentations on the other hand were carried out in parallel. It is desirable that PSPs should be involved in the early stage of the project development even before preliminary and feasibility were conducted. As UNESCAP Guidebook on PPP in Infrastructure puts it — "Engagement with interested private sectors from the very beginning of the project development is to get preliminary feedback on the feasibility of the proposed PPP projects. Preliminary response from the private sector helps in redefining the project ideas and subsequently in developing a project structure. The implementing agency also benefits by having a better picture of the capacity and interest of the private sector in implementing the project." Involvement of PSPs at this stage is a technical consultation and not related to procurement.

Need for Availability of Standardized Documents

It is observed from the study that the documents such as RFP and other contract documents were redrafted midway during the bidding process.

Preparation of such documents is a major administrative task. Availability of standardized documents from the outset of the project development with alternative clauses to contain possible midway changes, alterations etc. can greatly help in streamlining the administrative process and ensure timely completion of the procurement process of the project.

Development of Capacity of the Officials Involved in PPP Projects

As observed from the study, lack of skill and expertise on part of the officials and consultants involved in the PPP projects resulted in postponements of business activities during the procurement processes. There are many instances of lapse in departmental clearances with respect to release of work fronts, Test Certificates, etc. during the construction phase. It is recommended that the State should consider capacity-building programs for their officials and consultants involved in the PPP projects, particularly during these early years of PPP development.

Creation of Sector-Wise PPP Implementation Unit

As observed from the present study the creation of such specialized implementing units embodied the knowledge and skills that PPP required. It will also help in harmonizing the relationship between the PIDB and the concern implementing agencies. Such arrangements may be emulated across infrastructure sectors if PPP projects are to be implemented on a large scale.

Use of Public Communication

The successful implementation of PPP projects also largely depends on the perception of the stakeholders towards the project. Use of media and good public communication mechanisms build public awareness about the benefits and effectiveness of PPP and also ensure transparency. Media campaigns should be launched months before the bidding process to clear the misconceptions and apprehensions about the project. The whole procurement process should be open to the public.

Dissemination of Information to the Local Residents about PPP

It is observed from the study that most residents were not aware of the services being provided under PPP arrangement. Under such circumstances some of the aggrieved / affected persons at the project site of displacement will not be aware of their rights and rights to appeal to the concerned authorities for their grievances. Awareness campaigns about PPP projects also increase the visibility and social acceptability of the project.

Captive Local Residents Must be Exempted from User Charges

In the absence of other alternative roads, as desired by the captive local residents, the PPP road should be open to use by them, especially non-

commercial vehicles without any payment of tolls. This would ensure local support for the project and avoid local oppositions and legal challenges.

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Corporate Sickness: Critical Analysis of SICA Vs IBC: A Study

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Abstract

The Sick Industrial Companies (Special Provisions) Act, 1985 (SICA) is the legal framework based on Tiwari Committee Report, 1984. The objectives of the SICA are a) Timely detection of Corporate sickness; b) Speedy determination of remedial and ameliorative measures and c) Expeditious enforcement of the measures. However, the legal and institutional framework under SICA is not in compatible with its objectives. Board for Industrial and Financial Reconstruction (BIFR) is a quasi-judicial body constituted under SICA. The defective cardinal provisions of SICA ultimately resulted in referring to BIFR only failed sick industrial companies rather than sick industrial companies. The provisions of SICA were primarily driven by debtors and failed in balancing the interest of stakeholders. The terminal cause of sickness i.e., total net worth erosion, could not help in addressing the root causes of sickness. The globalization and liberalization envisaged market economy which necessitated the ease of doing business, freedom to exit and to pave the way for entrepreneurship development. Accordingly, these dynamic economic reforms are reflected in Insolvency and Bankruptcy Code, 2015. (Code/IBC). The lack of compatibility between policy, legal and institutional framework under SICA to path breaking reforms under IBC has drawn the attention of World Bank in ease of doing business. The good governance and institutional framework with institutional culture under IBC with four pillars viz: Insolvency and Bankruptcy Board of India, (IBBI), Insolvency Professionals (IPs), Information Utilities (IU) and Adjudicating Authorities (AAs) could fructify the objectives of Code. The process, mechanism and ecosystem developed in compatible with IBC, is unparallel. The Code explores all the possible ways with utmost importance to going concern concept, when that is not practicable then to go for liquidation. The working results of code primarily considered in the paper in terms of the process and the impact it has created, however, during COVID-19 pandemic there is a temporary setback. The effectiveness of the code is comprehended based on behavioral and strategic perspective, which is quite satisfactory.

Keywords: Adjudicating Authorities, BIFR, BLRC, Corporate Sickness, IBBI, IBC, Information Utilities, Insolvency Professionals, Sick Industrial Companies, SICA

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Introduction

Insolvency and Bankruptcy Code, 2016, (IBC), (Act 31 of 2016) has emerged after elaborate process of consultations with the stakeholders and comprehensive study of literature on corporate sickness under Sick Industrial Companies (Special Provisions) Act, 1985 (SICA) (Act 1 of (1986). SICA was enacted for timely detection of corporate sickness, speedy determination of remedial & ameliorative measures and expeditious enforcement of these measures. SICA defined a sick industrial company is a company after incorporation five years must have elapsed and had incurred accumulated losses equal to or exceeding its net worth at the end of the financial year and few further clauses. SICA constituted a quasijudicial body named Board for Industrial and Financial Reconstruction (BIFR) and an appellate authority Appellate Authority for Industrial and Financial Reconstruction (AAIFR). BIFR was entrusted with regulatory, administrative and adjudicating authorities. The review of literature under SICA regime enlightens us that the entire process of corporate sickness was debtors driven under the legacy of License Raj. The policy, legal and institutional framework under SICA had no compatibility or focused approach for effective results. As such, SICA regime was a like a rudder less ship in the high ocean neither knowing the destination nor the pathway or direction. The SICA despite encouraging preamble, failed due to lack of dynamic legal and institutional framework. The political intent was not conducive to address the issues under License rai and later during the transition from Licence raj to Liberalisation. Insolvency Bankruptcy Code, 2016 (IBC) emerged as a dynamic economic legislation after elaborate churning process on economic theories, comprehensive approaches to corporate sickness, Insolvency and Bankruptcy codes of several countries in global scenario. IBC primarily addressed ease of exit which is essential in market driven economy. Entry and exist freedom are ensured under IBC. IBC is an economic reform developed to protect and balance the interest of stakeholders focusing on balancing their interest of maximization of value of assets (Sahoo, M.A. 2019). IBC emerged, after lessons drawn from the failure of Corporate Sickness under SICA. No sooner IBC was enacted, quickly gone ahead with appropriate amendments in consonance with market economy. It took all the measures to maintain timeline and thereby maximization of value of Assets. The services of Insolvency Professionals and Institutional development and culture developed under IBC framework is highly appreciated. It is a pathbreaking economic policy reform focused on meticulous time frame adherence in providing justice. The legislation is hallmark in providing ease of doing business and freedom to exit in case of corporate failure. It is designed, based on several committee reports on corporate sickness and insolvency especially on Vishwanathan T.K.'s BLRC Report, (BLRC Report, 2015).

IBC is pathm breaking reform, with the policy framework, legal framework and institutional frame progressively meeting all challenges with success with its inbuilt strong philosophy, mechanism, Institutional communication, Institutional development and culture with clear political mandate and Institutional framework under four pillars viz IBBI, Independent Adjudicating Authorities – NCLT/DRT Insolvency Professionals, (IP), Information Utilities (IU). IBC could bring about professionalism and culture in the entire process in accomplishing its objectives.

Research Gap

The legal framework under SICA due to its defective definition and defective cardinal provisions, only failed sick industrial companies were referred to BIFR. The incipient sickness was ignored, though Tiwari committee report (1984) provided for 50 per erosion as criteria for sick industrial company, however SICA considered 100 percent erosion of capital which made the legal and institutional framework a futile effort. Tiwari Committee (1984) was constituted by Government of India to suggest remedial measures for corporate sickness. SICA could not provide effective provisions to provide for timely detection and speedy remedial solutions. It was primarily debtors driven approach and not a behavioral law. As a result, maximization of value of assets could not be ensured and the interests of stakeholders could not be provided. The SICA had no effective time line and behavioral approach to drive stakeholders to come to terms for rehabilitation, rather it only furthered the corporate sickness with the legal and institutional framework. BIFR had no ultimate judicial powers and BIFR was a quasijudicial body with legal limitations. Therefore, the legal and institutional framework did not provide for conducive ecosystem for revival. The recovery was the main focus and the ease of doing business and freedom to exit was ignored virtually. Though there were policy initiatives in Omkar Goswami Committee Report (1993), and Justice Erradi Committee Report (2000), the same did not take effective legal and regulatory framework for implementation, until Bankruptcy Laws and Reforms Committee headed by Viswanathan, T.K submitted a comprehensive report in 2015 which was the basis for the enactment of Insolvency and Bankruptcy Code, 2016. There is a need to review and draw lessons why and how the SICA failed and lessons to be drawn from the policy, legal and institutional framework. Further to make critical evaluation as to what extent IBC is a pathbreaking reforms and what needs to done further to improvise.

Accordingly, to focus on following areas of Research to comprehend pathbreaking dynamic legislation IBC under market economy from erstwhile while SICA regime and to draw a comparative critical analysis.

Compatibility between policy. Legal and institutional framework both under SICA

- Why and how did SICA failed to provide ameliorative measures?
- Theoretical framework on corporate sickness and turnaround measures
- Contribution of Behavioral Law, i.e., IBC in Balancing the interest of stakeholders with strategic and behavioral perspective
- Policy, Legal and Institutional framework for ease of doing business and freedom to exit thereby contributing for entrepreneurship development
- Maximization of the value of assets by adherence to timeframe focusing on going concern basis.
- Impact of debtors driven approach to creditors approach under IBC and what are the issues and implications in this regard.

Accordingly, an attempt is made in this paper to address the journey of SICA vs IBC with critical analysis to comprehend how IBC has addressed the failures of SICA, in terms of policy, legal and institutional framework. The paper also traces the significance of behavioral perspective corporate sickness both for the failure of SICA and success of IBC. The Behavioral perspective is substantiated from Nudge Theory and comprehensive approaches of corporate sickness.

The objectives of this paper are:

- To Comprehend the Nudge Theory and Behavioral Approach with reference to Corporate Sickness in terms of policy, legal and institutional framework paving way for ease of doing business.
- To understand the Major Comprehensive Approaches of corporate sickness and turnaround measures which would serve as theoretical framework for resolution and corporate restructuring.
- To review the failure of SICA: Why? How? What are the Lessons drawn in terms of management practice?
- To comprehend IBC and its Strategic and Behavioral Perspective
- To review the Socioeconomic and Sociocultural dimensions of the Nudge Theory and its issues and implications under SICA vs IBC
- Critical Analysis of SICA vs IBC issues and implications

The main theme of the paper is to trace the root causes of failure of SICA and lessons drawn thereunder to pave way for the pathbreaking enactment of dynamic legislation Insolvency and Bankruptcy Code, 2016. These objectives are framed to comprehend why and how SICA failed; and how this behavioral legislation, IBC emerged from the failure of SICA. Further to understand how IBC emerged as an outcome of an elaborate comprehension of theoretical framework, market dynamics. And understanding the behavioral, strategic, socioeconomic and sociocultural perspectives of BLRC report in arriving at insolvency resolution and maximization of value of assets.

• To Comprehend the Nudge Theory and Behavioral Approach with reference to Corporate Sickness in terms of policy, legal and institutional framework paving way for ease of doing business. The IBC is paradigm shift in the approach and process from erstwhile process, procedure and mechanism for corporate sickness either for revival or for liquidation under SICA. IBC is focussing on legal framework as tool to trigger economic growth and economic activities by behavioural transformation. It is understood that, IBC Philosophy, legal framework, process and ecosystem is based on nudge theory, (Thaler, R. H., & Sunstein, C. R. 2009) The purpose of the theory is to focus on nudge methods and diagnostic tools in understanding the theory and its impact when applied on various contexts. These contexts and situations primarily relate to understanding the people and establishing the relationships with them in enhancing thinking process and effective decision making.

The theory has emerged to enhance the thinking process with behavioural and strategic perspective in modern times specially to trigger economic activity with socioeconomic and sociocultural perspective. The concept focuses on unravelling the behavioural pattern of the people and traces their attitude, decision making process and ultimately traces the very basis of thinking process, belief mechanism, perception and observation. After tracing the process of forming belief and thinking, it develops certain tools and techniques to improve thinking and making effective and pragmatic decisions. The entire process acts as change agent and also provide mechanism to manage the situations. Ultimately the process aids in diagnosing and identifying the existing defective and unhelpful and negative influence on the people and their attitude. Then the process enables by all means to modify the thinking process to bring about paradigm shift in their thinking and decision making.

The concept has relevance in legal, political, socioeconomic and sociocultural dimensions of the concept of corporate sickness. In terms of Nudge theory as explained above with reference to the legal framework triggers socioeconomic and sociocultural dimensions to accomplish the desired results envisaged. The political intent and policy framework precede Legal frameworks. Therefore, basically political intent must be there for in its policy framework to emerge, which in turn through legal framework would enable to achieve socioeconomic objectives. These policies must be manifested in the form of legal framework. Further, Law and Economics are interwoven in the legislation for fructifying their objectives. What was not possible in 67 years of independence in the field of GST and Corporate sickness was made possible with two codes viz. GST and IBC, 2016. The entire framework of code is based on the understanding of how people think, make decisions and behave. Precisely in the context of Code, how stakeholders of Code would behave. Further what kind of legal structure and economic objectives helps people improve their thinking and decision. How do we manage change of all sorts? Above all identifying, tracing and modifying the existing unhelpful influences and factors on people. In this

regard the kind of mind set prevailed in Licenceraj, or protected economy under pre-liberalization era and more specially the defective SICA and operation of BIFR under such defective legal framework is comprehended. Thereafter, what kind of paradigm shift was possible with nudge approach is attempted under IBC.

Nudge theory seeks to improve understanding and management of the 'heuristic' influences on human behaviour which is central to 'changing' people, (November, 2017. nudge theory-workplace performance) Obviously, this is the central to the Code in achieving its objectives. The change or transformation is essential in the Code, its internal system and Ecosystem outside especially financial systems with compatible financial reforms. Traditionally, with reference to choice of decision people understand that, people think and take decision, is based on rationality. It is presumed that they do not take instantaneous decisions, but in fact it is not correct. Nudge theory focuses on how do people behave with reference to alternatives available, how do they think and act in a more pragmatic manner rather than traditional approach. Nudge theory focuses on how do people design and arrive at their alternatives or choices with given problem for decision making. What factors influence the thinking process and decision making as to designing the choices and taking decision is the crux of the nudge theory. Nudge theory postulate that people think and take decision as to designing the choices based on their own instincts and it may be even irrational.

This great philosophy and theory we have missed in SICA regime, hence it was debtors driven and the law was imposed in vain. The behaviours of other stakeholders were not adequately perceived and understood. Law ultimately needs to be linked to human thinking and their reaction. Economics without understanding the behaviour of stakeholders and without appropriate law is likely to fail. The behavioural economics need to be properly understood. In nutshell, the nudge theory is a modern concept focussed on indirectly persuading people to bring midshift mechanism to bring change in the thinking process and decision making. The change in the approach and process is comprehending the true nature of thinking process of people and their attitude. It is not based on traditional method of imposing, command, control, stipulating instructions, strict enforcement and rule book. The theory motivates and encourages indirectly which would empower and trigger them to do the tasks as envisaged. It is not based on punishing but changing their attitude to avoid the possible punishment with fully understanding their instincts.

This requires conscious framing of law, mechanism process and ecosystem. Therefore, the design of choice which influence the stakeholders shall be the entire process under IBC.

Nudge theory accepts that people have certain attitudes, knowledge,

capabilities, etc., and allows for these factors (whereas autocratic methods ignore them). Nudge theory is based on understanding and allowing for the reality of situations and human tendencies (unlike traditional forcible instruction, which often ignores or discounts the reality of situations and people). Fundamentally (and properly, according to its origins) Nudge theory operates by designing choices for people which encourage positive helpful decisions; for the people choosing, and ideally for the wider interests of society and environment, etc. The recognition of this theory perhaps enabled to understand imbalances under SICA especially among stakeholders. The SICA was working negatively, because its legal structure was not based on behavioural perspective of attitudes, knowledge, capabilities. The promoters' failures, need for change of management, shifting the Insolvency Professional to private professionals, overriding effect of Code over other laws are few reformative measures which yielded results to IBC as envisaged. This is precisely the purpose of IBC. Hence the very preamble of the Code is focussed on the reality of situations of human tendencies and it encourages the positive helpful decisions among the stakeholders. The philosophy and process are driven by the same including the ecosystem of the Code.

Therefore, Nudge theory apart from providing a systematic procedure or methodology for tracing and identifying the alternative or choices available and modification thereof to do away with the redundant or unhelpful choices and arrive at right decision. This contributes a great deal in the public policy, public administration, corporate governance and management and triggering economic activity by avoiding all the possible hurdles. It directly hits at the problematic areas and removes the bottlenecks and provides conducive environment and relationship. This is another major breakthrough for the Code, because the entire SICA regime there were several lessons drawn from the failure. The Nudge Theory has given methodology for identifying, analysing and reshaping the existing debtors driven approach, promoters controlled and defective economic policies and legal structure. The unhelpful environment in corporate sickness has given several behavioural dimensions of the stakeholders. The literature review of SICA regime helped to provide comprehensive behavioural law in the form of Code.

Nudge theory has roots from Maslow, McGregor, Herzberg and other motivation theories especially in drawing ethos, philosophy and thinking process, ethics, integrity etc for the business administration.

These philosophies and understanding are consciously addressed by Banking Law Reforms Committee Report, (BLRC Report, 2015). Vishwanathan, T.K. was the chairman of the committee. Based on the Report, ultimately the Code emerged. The mandate of Banking Law Reforms Committee Report, it appears took note of this theory in its recommendations and accordingly focussed on behavioural and strategic perspective of liquidation and resolution in maximising the value of assets by balancing the interests of stakeholders.

Another major outcome of nudge theory is that the confrontation can be minimised. This has huge impact on a behavioural law such as IBC where there is Mindshift mechanism works well with stakeholders. Though theory has origin in ethics and social welfare, the applicability of theory is extended to economic legislation, public administration, complex business administration and governance where socioeconomic, sociocultural, political and legal issues and implications are involved, such as IBC. The theory is also relevant in behavioural and strategic perspective in dynamic business environment and more forceful 'directing' and autocratic methods of 'changing' people/behaviour. The Ecosystem under IBC has conscious understanding of the theory and its implications especially in the financial sectors and its reforms. The Banking system is revamped in tune with the framework of IBC. The entire philosophy and process under four pillars of IBC viz Adjudicating Authorities, Insolvency and Bankruptcy Board of India, Information Utilities and Insolvency Profession could create great impact in the accomplishment of objectives of the Code. Further, this could bring about social engineering as the underlying philosophy which has roots in nudge theory. The entire mechanism under IBC has behavioural perspective rather than imposing the law under compulsion. That is why the response to the dynamic legislation from the stakeholders is very effective. The Theory blended ethical standards in the entire liquidation and resolution process. The socioeconomic dimensions are addressed comprehensively in the form of maximisation of value of assets and going concern concept. Nudge theory could give a philosophical framework for the designing the policy framework, legal framework and Institutional framework under IBC for its objectives. The entire process is driven by the behavioural dimensions and strategic perspective. It is based on social engineering.

To understand the Major Comprehensive Approaches of Corporate Sickness

The following major comprehensive for approaches to prevention and control of corporate sickness are discussed mainly to comprehend the revival process involved in diagnosing the root cause of sickness, turnaround conditions and alternative turnaround solutions available to formulate rehabilitation strategy. These models are primarily presented with a view to assess and identify the significance of these models and also later to analyze to what extent these approaches find place in the Legal framework under SICA and IBC.

• Gupta's Causal Diagnostic approach to prevent & control corporate sickness, (Gupta, L. C., & Sekhar, A., 1988)

- Back to Basics Model of Panacea for Corporate Sickness of Kharbanda and Stallworthy, (Kharbanda, O. P., & Stallworthy, E. A., 1985)
- Tracing the Trajectories of Corporate sickness by John Argenti, (Argenti, John, 1976)
- Transformation of Corporate Mature business Crescendo model of rejuvenation by Charles Baden Fuller & Stopford Baden-Fuller, (C., & Stopford, J. M., 1992)
- Approaches of Srivatsava, (Srivastava, S. S., 1986), Misra. B. (Mishra B. 1990)
- Sahu P.K. (Sahu, P. K.1985), Bedbak, H.K. (Bedbak, H. K.1990), Mohanty A.K. & Sahu P.K. (Mohanty, A.K. and Sahu, P.K.,1990), Mohapatra, R.P. (Mohapatra, R.P.1990) Mishra, D.P. & Sahu, P.K. Sahu, (P. K., & Mishra, D. P. 1992) and many others

Gupta's Causal Diagnostic Approach to Prevent & Control Corporate Sickness

The approach of Gupta has strategic and behavioral perspective. This model is comprehensive diagnostic approach based on causal analysis in identifying causative factors of sickness. The model provides suggests turnaround requirements and methodology. The model visualized competitive environment and it is conducive to every situation. It has socioeconomic focus in protecting the interest of labour, society and the nation. He focused on change management, ethical standards etc. to safeguard sociocultural values. He also addressed the significance of maximization of value of assets throughout the process and mechanism he suggested in his model. Gupta makes certain fundamental observations on the concept of sickness relating to causal analysis, process of sickness, and forewarning systems. He considers that the problem of industrial sickness is gained by making a distinction between two types of cases, viz., (a) Weak management; and (b) Economic maladjustment. The first type requires strengthening or replacement of a firm's management. The second type arises from economic, social and technological changes.

Gupta's conceptualized his causal analysis approach in following five steps: viz.

- Causal analysis by unravelling the chain of causes and identifying the originating or root causes
- These originating causes could be viz Lack of project feasibility, managerial, Lack of financial strength, strategic and ill luck
- Prediction of financial conditions with appropriate rations and taking remedial measures for control
- Identifying the conditions conducive for ameliorative measures viz, Dynamic motivating management at the top, project viability, strategic planning and implementation, providing funds at right time

- Coordinating and implementation of the remedial or ameliorative measures at different stages
- Gupta's Causal Diagnostic approach to prevent & control corporate sickness

An understanding of the originating cause is essential for devising of effective remedial measures, preventive as well as curative. The whole chain of causation should be traced upwards and downwards so as to reach a proper understanding of the problem. The real cause needs to be distinguished from superficial cause for effective turnaround. The approach is applicable to every type of industry irrespective of nature and size and also in any type of business environment.

 Back to Basics Model of Panacea for Corporate Sickness of Kharbanda and Stallworthy

Kharbanda and Stallworthy have made an in-depth study on corporate failure. Their study addressed various issues relating to corporate failure and covered prediction and prevention, panacea of corporate failure. The study maintains that the top management, i.e., CEO, is solely accountable for success or failure of an enterprise. The study reveals that reasons for business failure relate to the concept 'why' and symptoms relate to the concept 'how'. They further maintained that there are as many symptoms as there are failures. The study considered reasons for failure as observed in various research findings. The study after review of the literature on crisis management identified that good crises management is seen as a combination of following four factors. They are (a) Close collaboration between the parties (b) The Retention of production resources (knowledge, plant and workforce) (c) Maintenance or increase of efficiency (d) Equitable distribution of the costs.

After identifying that the good management is the key factor for corporate successes the study substantiated as to how a poor management could collapse an enterprise. The causes of collapse are (a) Top management (b) Accounting information (c) Change (d) The manipulation of accounts (e) Rapid expansion (f) the economic cycle. The patterns of companies observed can be used to discern potential failure and help towards turnaround. The management is the vital factor both in the cause of failure and also in formulating turnaround measures. This relates to foundation blocks for good management, viz., (a) Back to basics management (b) Interpersonal relations (c) Effective communication.

The good management is ultimate panacea for corporate restructuring. This analogy has global recognition especially crisis management. The study recognises the significance of basic principles of management in strategic challenges even in the case of corporate turnaround. This holds god even in market economy in globalised business environment.

Tracing the Trajectories of Corporate sickness by John Argenti

Argenti's (1976), A study on corporate failures focused on three trajectories of Corporate failure. He has considered several variables of corporate failures in all the three trajectories which have impact on corporate failure. Symptoms of failure occurs if not addressed on time, ultimately it takes the status of causes of failure. He has drawn clear distinction between the symptoms of failure and causes of failure. It is postulated in the theory that inefficient or poor management will successfully ignore accounting data and information on symptoms of corporate failure. According to him, the poor management indulge in overtrading, or take of massive project without understanding their capabilities, and ignore other normal symptoms of failure. These symptoms are reflected in the forewarning financial ratios and the management not only ignore these forewarning ratios but also adopt to window dressing as a coverup devise and this leads corporate failure.

Type I trajectories arise because not properly understanding the inter relationship between various financial variables. In the beginning the cost structure is not based on proper estimation or under estimation of costs results irreparable from corporate failure. Type II trajectories of failure relate to the firms which are doing well and good growth beyond normal expectation is established. The corporate has no required strategic and operational capabilities to sustain and grow, hence the project fails. This happens because of lack of dynamic strategic leadership. Type III Trajectories of corporate failures is mainly because of lack of vision and strategic planning and implementation. The management does not focus on SWOT analysis and comprehend the dynamics of changes in the business environment. The management lacks external focus and complacent with its projection and does not take reactive measures to face the market challenges. In each of these trajectories Argenti rightly focused on several details symptoms which need to be addressed at right time for corporate turnaround.

• Transformation of Corporate Mature business – Crescendo model of rejuvenation by Charles Baden Fuller & Stopford

Charles Baden-Fuller and John Stopford developed the Crescendo model of rejuvenation. This model helps to solve the problem associated with maturity of a firm. The basic philosophy behind the model is that maturity is a mindset, and with a system and process the rejuvenation problem can be solved. The model is based on the case studies of many MNCs, viz., BOC, Hot point, GEC group, Weir Group, Richardson, Komatsu, Caterpillar, etc. to name a few.

There are many routes mature business might take, however, in the crescendo model the following four stages for rejuvenation are suggested.

They are:

- Galvanize: Providing a top motivating management with strategic perspective for corporate transformation
- Simplify:-in place of complex redundant structure and process with less clarity replace with simple efficient and effective process
- Build: Identify and build new competencies and capabilities and build
- Leverage: identify the advantages and commercially exploit the same in a phased manner

This model is an exhaustive study based on the case studies of Multinational Companies. In meeting the challenges of a matured firm, the model brings transformation in turnaround with strategic perspective. It is based on the strategic factor which is very relevant in a market economy. It is applicable to only matured firms. This model is suitable for the Type III failures discussed in the Argenti's trajectories of corporate collapse. The model is compared with the transformation of caterpillar to butterfly to highlight the critical process involved therein.

• Other approaches on corporate sickness of Srivastava, Sahu and BidhaniMisra. B. (1990), Sahu P.K. (1990), Bedbak, H.K. (1990), Mohanty A.K. & Sahu P.K. (1990), Mohapatra, R.P. (1990), Mishra, D.P. & Sahu, P.K. (1990) and many others have classified the causes of sickness into internal and external. However, the number of factors causing reasons was not the same, but there is unanimity as to the basic concept.

To Review the Failure of SICA: Why? How?

In the year 1985 SICA was enacted on the basis of Tiwari Committee Report, (Tiwari, T., Hazari, R. K., Davar, D. N., Mehta, D. R., Ahuja, P. K., Jagannathan, R., ... & Jayaraman, S. 1984). SICA ignored many suggestions of the Tiwari Committee, 1981 and also suggestions made in various approaches to the concept of sickness. Instead of calling an unwell unit as sick unit, SICA only treats a failed unit as a sick unit under SICA. There is no distinction between a sick unit and a failed unit. SICA omitted certain vital recommendations like potential sick units to be considered for revival. Sickness is a stage prior to failure and this fact is totally ignored under SICA. In view of the aforesaid inadequacies, SICA did not provide any scope to BIFR to prevent sickness in respect of potentially sick industrial companies even after its amendment in 1993. The inadequacies also curtailed the role of BIFR. The recommendations of Goswami Committee, 1993 for removing the barriers to corporate and industrial restructuring were virtually ignored. There were legal defects in arriving the criterial of corporate sickness viz., 100 percentage erosion of net worth, cash losses for two consecutive years and 7 years (later reduced

to 5 years) period elapse after incorporation for referring to BIFR, Naik, S.A.1999).

It was debtors driven approach and ignored the creditors' interest, cost of funding and resulted in huge Non-performing assets. The BIFR was a quasi-judiciary authority, and SICA did not separate judiciary from administration. It was not a behavioral legislation; it was debtors' paradise and it motivated many managements to further the sickness to get registered with BIFR and could get moratorium for indefinite period.

There was no compatibility between criteria and objectives of the SICA viz., a) Timely detection of sickness; (b) Speedy determination of remedial and ameliorative measures; and (c) Expeditious enforcement of remedial measures. There was no compatibility between policy, legal and institutional framework. Ultimately even after fifteen years of its operations, BIFR could hardly provide rehabilitation to less than 10 percent units registered with it and many units were referred to concerned High Court for winding up. Hence, the first Chairman of BIFR, referred it as Board for Industrial Funeral Rites. It was neither a proactive nor reactive legislation. There was obscurity during SICA regime in several reasons mainly because of pre liberalisation era, Licence raj with protectionism. The market economy was not perceived despite recommendations of Goswami Committee, 1993. (Goswami, O.1993)

According to Narayanan (Narayanan, M. S.,1994) the experience has shown that much of industrial sickness is due to mismanagement, whether deliberate or because of incompetence; but unfortunately, the BIFR did not have the machinery necessary to exercise the powers effectively, and there are other obstacles in the way. Due to the defective definition of sick industrial companies the entire procedure of BIFR has become a futile exercise.

The Comprehensive models were not incorporated in SICA. There was not separate profession like Insolvency Profession to take care of resolution or liquidation plans, the judiciary was not separated from Administration. SICA left it to the choice of company management to submit the Rehabilitation Scheme and later discussed and approved at Consortium meetings of Banks and Financial Institutions. On the basis of management and Consortium's appraisal BIFR expressed its final verdict. Therefore, BIFR had no discretion of compelling the parties to frame schemes and implement within the timeframe. BIFR could only persuade them. BIFR had no mechanism under SICA to appraise and monitor the cases on the lines suggested by the aforesaid theories nor SICA provided any acceptable mechanism. This resulted in the then existing management to take advantages of the loopholes of the legislation to their advantage. It did not base on any core economic theories despite many research findings available in changing market dynamics. Though the preamble

was proactive the provisions were not in consonance with its preamble. The Act could not visualize the futuristic dynamics of market economy, not adequately borrowed from inhouse studies like Gupta, L.C., Omkar Goswami and several others.

However, several studies have given wide scope to bring amendments to keep in tune with market economy. Gupta, L.C., (Gupta, L. C., & Sekhar, A., 1988) suggested for tracking the root cause of sickness and determining the remedial measures based on turnaround conditions. Omkar Goswami during 1993 suggested the mechanism how BIFR should function in market economy and suggested for setting up National Company Law Tribunals. Based on his recommendations the Government as a proactive step was focused on convergence of law. Hence, the provisions of SICA were incorporated in Companies Act and in place of BIFR, AAIFR and High Court there was NCLT was constituted and eventually SICA was repealed later. Accordingly, Companies (Amendment) Act, 2002 was enacted with aforesaid proposition, however, the same did not materialize due to stay order granted against the operation of NCLT from Supreme Court. Thereafter, these provisions under the Companies Act had no sanctity till 2016 when IBC was framed as a consolidation of several legislations. A market economy primarily envisages removal of barriers for corporate and industrial restructuring with a suitable legal framework.

IBC - Strategic and Behavioral Perspective

IBC is one stop solution but it did emerge after wide consultations of stakeholders, experts, academicians especially after comprehending the national and global scenario. The Bankruptcy Law and Reforms Committee Report, 2015, (Vishwanathan, T.K., 2015) headed by Vishwanathan, T.K. considered adequately the similar Code in US, UK and several other countries, then customized and improvised to suit the Indian Economy and Indian Business Environment. His recommendations were virtually emerged as IBC, 2016

The objective of IBC is consolidation of several laws on the insolvency resolution and corporate restructuring. The IBC, a behavioral law provided ease of doing business. The global business environment considered this paradigm shift in the economic reform. The IBC is enacted drawing the similar code being implemented in U.K, USA and several other countries, BLRC Report is prepared after availing the rich experience of these countries with reference to insolvency and bankruptcy reforms.

Secondly it has CIRP mechanism to provide timely insolvency resolutions. The Information Brochure of CIRP published by IBBI states that the IBBI forms the major component of Ecosystem for IBC (Ojha, R.,2019). It has regulatory, quasi judiciary, legislative and administrative role. The IBBI created a new culture for institutional development in regulating Insolvency

Professionals, other professionals and Institutions under ecosystem. It provides rules and regulations and regulates Information Utilities for timely and authentic information for effective functioning of IBC.

Thirdly, Insolvency and Bankruptcy Code, 2016 (IBC) has drawn lessons from the past failures of SICA. The recommendations of Omkar Goswami Committee, 1993 and Justice Erradi Balakrishna, 2000 have categorically suggested substantially the dynamics of market economy and need for ease of exit. These are considered in BLRC Report.

Fourthly, IBC is a behavioral law. It is creditors driven while giving option of approaching the Code by both debtors and creditor. It is based on creditors in control, (Insolvency and Bankruptcy Code A Miscellany of Perspectives, 2019). The BLRC recommendations is comprehensive and based on several of the international economic theories especially taking cognizance of a) endowment of resources b) Competition c) Innovation and how these factors can decide the fate of an entity. The market forces are given highest importance. The need for honorable exit is considered as a natural phenomenon while giving importance of ease of entry. Further cost of credit and availability of funds with the financial creditors envisages ease of entry and exit for the long run survival of not only financial creditor but also the growth of industries and economy in general. Therefore, IBC is a behavioral legislation based on creating a culture among stakeholders for consensus for win-win situation in pragmatic perspective. The dynamic legislation is an economic legislation with a vision and strategic perspective and creating platform for strategy focused resolutions and reorganization of corporate entities at micro level and economy at macro level.

Fifthly, the IBC is a mile stone in paving a way for institutionalized creditor in control. It provided creditor driven approach as against debtors driven approach under SICA regime. This approach and mechanism enable maximization of value of assets and more liquidity in the hands of creditors. This in turn gave new Phillip to entrepreneurship development and balancing the interest of stakeholders, (Sahoo, M.S.,2019).

Finally, the IBC has brought substantial shift in the thinking process of behavioral perspective of creditors and other stakeholders. The IBC also in a big way helped to settle the issues outside the code. IBC enables directional approach and provision of the higher level timely authentic information is really contributing for maximization of value of assets. This is where we need to understand the success of IBC as behavioral law from strategic perspective. In the Quarter Newsletter of IBBI, Jan-Mar., 2020 (IBBI's Insolvency and Bankruptcy News, 2020) it is highlighted that the art of value maximization in CIRP. It requires to be understood carefully that while aiming to maximise the value in a corporate insolvency resolution process as unidirectional approach may yield sub-optional outcomes. It elaborately focused on Liquidation value, Resolution value, fair value and

enterprise value. It further focused the significance of corporate governance and its implications in rescuing the failing companies in quarter newsletter Oct-Dec.2019 vol. 13, (Insolvency and Bankruptcy News,2019). IBC also provided an atmosphere for good Corporate governance and rich culture of preventing corporate failure to a greater extent. In the Quarter Newsletter of IBBI, April-June., 2019, (IBBI's Insolvency and Bankruptcy News, 2019) the chairman, IBBI states he focused on a resolve for resolution – the need for time bound insolvency resolution of corporate debtors for maximization of value of their assets, being the part of IBC (amendment) bill, 2019. He further brought out in July-September, 2019 Insolvency and Bankruptcy news, how IBC is focused on socio-economic factors and protecting the interest of stakeholders. Rather he focused how collectively stakeholders need to respond to rescue the company, (IBBI's Insolvency and Bankruptcy News, 2019). The life a company is as significant as human life from socioeconomic and behavioral perspective.

Critical Analysis of SICA vs IBC - Issues and Implications

SICA is debtors driven and reflects protected economy without behavioural or strategic perspective of market economy whereas IBC is creditors driven. There is no consideration of balance of interest under SICA and whereas in IBC balance of interest of stakeholders is one major philosophy. The SICA is not in consonance with market economy and whereas the entire IBC framework and ecosystem is in tandem with market economy. The recommendations of the Omkar Goswami Committee, 1993 or Justice Erradi Balakrishnan Committee, 2000 did not yield adequate pragmatic results, perhaps partially due to lack of concrete political intent during the then scenario. IBC is a pathbreaking economic legislation with strong political will and administrative skill. SICA furthered Sickness and net erosion furthered without proper mechanism for timely outcome to maximise the value of assets, whereas IBC the entire framework and ecosystem is focussed towards timebound outcomes and maximisation of value of assets. The liquidation weapon is hanging on the neck of debtors and creditors whereas SICA was debtors driven, where the debtors dominated the show and the entire process ultimately ruined the interest of stakeholders

SICA did not separate judiciary from Administration whereas IBC separated the same. IBC has professional approach and good governance and developed institutional framework with global standards. The four pillars under IBC work in perfect coordination and with behavioural and strategic perspective, wherein AAs are in forefront and have created a great culture of balance of interest and maximization of value of assets in the given time frame. Despite initial setback the timeline in respect several cases it is maintained. The COVID-19 did affect the mechanism and outcome which is a pandemic and universal beyond the hands of any body.

Timeline is the hallmark under IBC framework and whereas SICA totally failed due to lack of legal and institutional framework.

SICA did not contributed for sustaining and growing the entrepreneurship and whereas IBC consciously promoted entrepreneurship. Entrepreneurship development was addressed by IBC by creating avenue for free exit in respect of failures of entrepreneurs in withstanding the competition in this innovative and competitive environment. IBC provided for fast-track liquidation process for them. In SICA the debtors driven approach ultimately with continuous defaults affected the creditors from further exposure in the financial market. Whereas, in IBC with time bound process of resolution or liquidation promoted the interest of creditors. The process is creditors driven and simultaneously balancing the interest of all the stakeholders. SICA is not based on comprehensive approaches of corporate sickness whereas IBC has borrowed several economic theories and based on the report of BLRC 2015. Despite the recommendation of Omkar Goswami Committee, 1993 and Justice Erradi Balakrishna Committee, 2000 under SICA, the corporate restructuring did not take place. SICA consciously ignored market economy and socioeconomic and sociocultural factors due to perhaps lack of political intent. Whereas IBC has incorporated the said factors in its comprehensive framework and also implemented with letter and spirit with the compatible ecosystem.

In view of the above, SICA totally failed in addressing socioeconomic and sociocultural issues. Despite the preamble focussing on timely detection and expeditious enforcement of measures, the same was not backed by the Institutional framework. There was no recognition of strategic perspective to focus on maximisation of assets or protecting the stakeholders' interest. There was no philosophy to consciously focus on socioeconomic and socio-cultural dimensions in the approach under SICA. In fact, SICA did not focus on a) Behavioural aspects such as nudge theory and social engineering; b) Strategic focus to draw revival mechanism from comprehensive approaches such as Gupta and others c) compatibility between policy, legal and institutional framework. SICA furthered the corporate sickness inherently because of defective law. The Debtors took advantage of SICA and found it convenient to perpetuate the default in their payments. There was total imbalance in the interest of stakeholders. The interest of creditors, employees, society, nation, consumers were ignored in this debtor driven regime under SICA. The perceptions of stakeholders were not given importance. There was no strategic move to revamp the Act despite Goswami Committee Report, 1993.

The model of Gupta, L.C., (Gupta, L. C., & Sekhar, A.,1988) suggested for tracking the root cause of sickness and determining the remedial measures based on turnaround conditions. Omkar Goswami, (Goswami, O.,1993) during 1993 suggested the mechanism how BIFR should function

in market economy and suggested for setting up National Company Law Tribunals. Accordingly, Companies (Amendment) Act, 2002 was enacted with aforesaid proposition, however, the same did not materialize due to stay order granted against the operation of NCLT from Supreme Court. Thereafter, these provisions under the Companies Act had no sanctity till 2016 when IBC was framed as a consolidation of several legislations. A market economy primarily envisages removal of barriers for corporate and industrial restructuring with a suitable legal framework. The lessons drawn from these failures are addressed in IBC.

The IBC is based on changes in Financial System and market economy There is a need to comprehend the flaws in fundamental assumptions in the lending especially by bankers. The main flaw lies in making assumption that information on lending is symmetrical but in fact is proved to be wrong in actual scenario especially in financial markets. This exception is vital for bankers and debtors, (Ganagopadhyay, S., 2019). Further as observed by Subhashish Ganagopadhyay, apart from interest rate there are other factors in economic literature focused on adverse selection, (Stiglitz and Weiss, 1981). There are three phases in Bank lending i.e. at the beginning, operational phase and third loan repayment phase. The operational phase is in hands of corporate debtor at his option. The second phase is under discretion of corporate debtor. As further observed by Subhashish Ganagopadhyay that one part of the literature on credit rationing shows how moral hazard (Holmstrom and Tirole, 1977), (Holmstrom, B., & Tirole, J.,1997) or opportunistic behavior by the debtor in the second phase, is an important determinant of banks' willingness to lend. More is the ability of banks to anticipate and prevent moral hazard, greater will be the bank's willingness to lend. By opportunistic behavior we mean action taken by the debtor, in the second phase of the life-cycle of a project.

Further it is observed by Subhashish Ganagopadhyay, (Subhashish Ganagopadhyay, S, 2019). that Financial market infrastructure performs three fundamental roles in the real economy viz., run the payment system, channel savings to new investment and, reallocate failed investments to new investments with positive returns. The ease with, or the cost at which the third happens is a function of the bankruptcy institution. Maksimovic and Phillips (1998) Wihlborg, Ganagopadhyay and Hussain (2001) and Bernstein, Colonnelli and Iverson (2018) have studied the efficiency of different bankruptcy systems in the world. As observed by Ajit Ranade, (Ranade, A.,2019), based on the works of Aghion, Hart and Moore (1992) the modern capitalist market-oriented economy works on the foundation of the sanctity of contracts. What happens if a contract is breached? What is the recourse? Economic theory makes a distinction between ex-ante and

ex-post behavior and the incentives of players involved in a contract. A contract which is attractive and mutually beneficial ex-ante, may not turn out to the so ex-post, (Ranade, A. 2019).

A corporate failure due to lack of Innovation or meeting the challenges of competition or other reasons, must be provided exit if opted, if not it gives rise to several issues. That is where the role of the state comes in, even enforcing contracts between them. This in fact created obscure situation as we witnessed during SICA regime. Socioeconomic factors also envisage maximization of value of assets either by restructuring or insolvency.

IBC has addressed behavioral and strategic perspective of insolvency resolution. Further, IBC has also drawn several understandings from major theoretical frameworks discussed. This coupled with nudge theory, experiences of other countries in respect of their codes, with valuable recommendations of BLRC ultimately IBC could emerge. IBC with its legal and regulatory framework and ecosystem, could implement the objectives with satisfactory success despite temporary setbacks which are being solved on ongoing basis. The benefits will accrue as time passes and ecosystem fully evolved. The success needs to comprehended based on paradigm shift in the process and implementation and not completely on numbers. IBC has been meeting challenges by all means in terms of legal, regulatory and administrative reforms. The road is under construction and we can expect further manifold progress in future.

Conclusion

The IBC framework is a pathbreaking shift from the mindset of totally protected unprofessional approach of SICA. IBC has ultimately focused on maximization of value of assets and freedom to exit. The IBC while focusing on going concern concept at the same time allowed for timely exit for maximization of value of abandoned assets. This in turn promoted entrepreneurship culture for startups to grow. The stakeholders' interest is balanced under IBC. The Debtors driven approach of SICA to Creditors driven approach of professionalism and good governance in protecting the interest of stakeholders is the hall mark. The four pillars under IBC have established a resolution and liquidation mechanism of global standard with conducive ecosystem. Though there is a setback due to COVID-19 nevertheless the operational results of Adjudicating Authorities are encouraging under given constraints. The timely amendments and expeditious enforcement of measures established institutional development and culture under the regulatory framework of IBBI and other Institutions under IBC.

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What Determines Emerging Market Multinationals Innovation: A Systematic Literature Review

Sandeep Yadav*

Abstract

This study consolidates the state of academic research on managing innovation in emerging market multinationals (EMNCs). Based on the systematic review of the literature in the last 10 years (since 2010), we provide an integrated framework of the micro and macro-level factors influencing the innovation in EMNCs. In the micro-level factors, we have identified the role of firm-specific factors such as structure and culture of the firm, firm absorptive capacity, human resources practices, global networking, relationship with suppliers, competitors and own subsidiaries and innovation team management in managing innovation. At the macro level, competition in local and foreign market, government support, and institutional context are found to be important. Previous studies have more focused on the Indian and Chinese EMNCs, the studies have taken a crosssectional(static) view of the innovation and home country-based macro -level factors' impact on innovation. The future researcher needs to study innovation in other emerging market firms with a dynamic longitudinal process-based orientation. Future research on innovation in EMNCs also needs to consider the impact of macro-level factors on EMNCs innovation from the host country context. Current empirical studies have measured innovation either by innovation input (R&D investment) or innovation output (patent, the new product developed). Future studies should use multiple measures of innovation for more robust results.

Keywords: Emerging Market, Innovation, Internationalization, Multinationals, R&D

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Introduction

Emerging market multinational corporations (EMNCs) are prominent internationally due to growth in the economic power of emerging markets and an increase in the openness of economies. Over the past few decades, EMNCs are both a cause and consequence of globalization (Gammeltoft & Hobdari, 2017). Many firms from Asia and other emerging markets have expanded internationally in the search for efficiencies, innovation, new markets, and other sources of inputs (Gammeltoft & Hobdari, 2017). EMNCs are also expanding in the developed markets to access the knowledge-based intangible assets in the form of new technology and practices and in other emerging markets to exploit the existing capabilities. These firms are disaggregating the value chain to have production activities where the labor and the raw material cost is low, having R&D centers where the cost of innovation is low and the national security for the intellectual property rights is high (Cano-Kollmann, Hannigan, & Mudambi, 2018). One of the megatrends is the exchange of intangible assets in the form of patents and R&D activities. The second and third megatrend indicate the increasing role of innovation activities for the EMNCs to compete and survive with other firms. So, it is important to study the innovation and its antecedents in the context of EMNCs. Given the importance of innovation for the EMNCS, they have the opportunity as well as pressure to innovate (Gorodnichenko et al., 2010). The opportunity for EMNCs is country-specific such as a huge market, low cost of innovation, and access to external knowledge due to their presence in the developed markets. Innovation pressure for the EMNCs is because of the presence of the developed market multinationals (DMNCs) in the same market with better technology. Multinational corporations (MNCs) create value by integrating technological knowledge across the borders. MNCs not only access knowledge and resources across the borders but also exploit their existing knowledge in the large market(Williamson, 2015). EMNCs can exploit their existing innovation capabilities and international marketing by internalization in the developed and other emerging markets (Borini et al., 2017).

Managing innovation becomes important for the EMNCs to compete with local firms and DMNCs. Firm and country-specific factors will drive to effectively manage innovation to meet the local demand in the emerging market by producing cheaper, simple technology products for low-end customers by tapping the non-consumer (Ray & Kanta Ray, 2011). EMNCs have the advantage of understanding the preferences of the local customer (N. Agarwal et al., 2018). Understanding the customer's perspective will drive EMNCs to produce the minimum viable product

at the lowest cost to meet the customer demand. Production of the minimum viable product at a low cost is called the low-cost innovation strategy. This strategy is a challenge for the DMNCs as they are having a relatively weaker knowledge of the customer's preferences in the emerging market. EMNCs access external knowledge by expanding internationally. This knowledge is in the tacit form and difficult to integrate with the existing knowledge. The firm should have a minimum level of the internal knowledge base to integrate the tacit external knowledge. Internal knowledge of the firm is in the form of R&D investment and the patents which are called the absorptive capacity of the firm. Absorptive capacity help EMNCs to integrate the externally acquired tacit form of knowledge in the form of patents and R&D (Hussinger, 2010). The innovation of the firm is also supported by human resources practices (HRP). HRP such as recruitment of the employee, training of the employees, and encourage the participation of the employees in the R&D projects impact firm innovation (Suseno et al., 2017). Firm structural forms such as decentralization of the authority will provide flexibility to innovate and encouraging the employee to participate in the product and process development activities (Oswal et al., 2014). R&D project team management is also important to reduce the duplication of the research activities and increase coordination across the research centers (Ignatius, Leen, Ramayah, Kah Hin, & Jantan, 2012). Business model innovation is accomplished by process and product innovation. This enables firms to unlock the new markets in low-income economies by reducing the price of the final product (Borini et al., 2017). Global networking of the EMNC with individuals and firms at home and the foreign market will help to access the global value chain. Global value chain networks will help in developing the knowledge capabilities of the EMNCs and impact innovation (Cano-Kollmann et al., 2018). EMNCs have good relationships with the suppliers (Ray & Kanta Ray, 2011) and their subsidiaries (Awate et al., 2015) to access their knowledge base for innovation. EMNCs associates with their subsidiaries in developed nations and DMNCs to upgrade their innovation and output capabilities (Awate et al., 2018). These associations are in the form of strategic alliances, joint ventures, licensing, and others. Firm employee mobility within and across the firm is also important for reverse knowledge spillover and efficient resource allocation (Choudhury, 2017). The above-discussed factors such as absorptive capacity, human resource practices, firm structure and culture, having customer perspective, the project team management, global networking, relationships with various stakeholders, employee mobility, and mode of innovation are under the control of the firm. These factors are called micro-level factors in the current study which influences the innovation of EMNCs.

Industry and economy level factors are also important for the innovation activities of EMNCs. Emerging market firms like China and India have a country-specific advantage due to high supply and demand enablers in the form of low-cost engineer and scientist availability, government support, and entrepreneurial spirit of the businessman (Yip & McKern, 2014). Firms' motivation to invest in R&D depends on the uncertainty in the economy. This uncertainty depends on the country-specific factors such as the government support for the investment in the R&D and the institutional context like economic, political, and cultural factors. EMNCs have several advantages over DMNCs as they can learn by imitation or reverse engineering of DMNCs, get benefited by the skilled low-cost labor market, mobility of employee from foreign affiliates, and horizontal & vertical knowledge spillover by linkages with local and foreign firms (J. Li et al., 2016). The competition of the EMNCs with the local firms and the DMNCs has a challenge for the firm to differentiate and lead to innovation capabilities development. A high level of competition motivates EMNCs to innovate and compete (Gorodnichenko et al., 2010). The abovediscussed factors such as government support, institutional context, and the competition with the rivalry firms are outside the control of the firm and called the macro-level factors in this study.

This study aims to systematically review the literature on the managing of innovation in EMNCs by accounting for the micro and macro-level factors. Our focus on firm-level factors will help to identify the antecedent of innovation that is under firm control. A review of the macro-level factors will help in understanding the relationship management with outsiders and dealing with institutional complexity to manage innovation because they are not under firm control. We have reviewed the articles related to EMNCs innovation published in the last ten years. Further section discussed the article's selection and review strategy. Descriptive analysis of the articles provides information regarding the year-wise, emerging economy-wise, industry-wise, and methodology-wise description of the reviewed articles. Then we discuss the finding from the literature review and provide an integrated framework with micro and macro factors influencing innovation in the EMNCs. The final section of the paper discusses the research gaps and future research agenda.

Review Method and Sample Selection

We have used a systematic literature review to integrate the existing literature on innovation management by EMNCs. The systematic method of the literature review was proposed by Tranfield, Denyer, & Smart (2003) in medical science literature, to overcome the criticism of the traditional literature review. A traditional literature review involves the subjectivity

and bias of the researcher. The main objective of the systematic literature review is to identify research key contributions in a field and descriptively present and discuss.

There are two important steps in the systematic literature review:

- Define the inclusion criterion of the primary studies
- Identify data sources and selection of studies

The Inclusion Criteria

We have used the following criteria to include a study

- The focus of the study should be innovation (Process, product, business model) management in the emerging market multinational firms (EMNCs)
- We have included all the studies published in and after 2010
- · We have included only peer-review journal articles
- We have included studies published in "B" or above category journals according to ABDC 2019 journal ranking

Study Selection and Data Source

We have used SCOPUS and Business Source Ultimate of the EBSCO database to find the relevant articles. We have used a combination of the keywords: emerging / developing / transition market multinationals, emerging/developing/transition economies multinationals with innovation and product development. The search using these keywords in title, abstract and author keyword in both databases yielded a total of 342 articles from SCOPUS and 234 articles from EBSCO (2010-2019). This resulted in a total of 576 articles from the search. Then we removed duplicate and below B category journal (as per ABDC ranking) and find 89 articles for further use in the study. We read the abstract and the introduction of these 89 articles whenever required. Finally, we find 38 articles that are based on innovation in the EMNCs.

Descriptive Analysis

This section discusses various general characteristics of the reviewed study sample.

Year-wise Publications

Figure-1 shows the year-wise publication distribution of the articles. There is an increasing trend in the publication over the years. Most of the articles included in the study are published in the last five years.

10 9 8 8 7 6 5 5 4 4 3 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Figure-I: Year-Wise Sample Studies Distribution

Journal-Wise Publications

Table-1 shows the journal-wise distribution of the articles. The study includes articles from 22 journals. Articles are published in technology-related, international business, literature review based, strategic management, and economics journals. International Journal of Emerging Markets(4), International Journal of Technology Management(4), Technovation(3) individually having the maximum number of journals in the study.

Table-I: Journal-Wise Articles Distribution

Journal Title	No. of Articles	
American Economic Journal: Macroeconomics	I	
Asia Pacific Business Review	1	
Critical perspectives on international business	2	
Global Strategy Journal	2	
Industrial and Corporate Change	1	
International Business Review	2	
International Finance Review	1	
International Journal of Emerging Markets	4	
International Journal of Innovation Management	1	
International Journal of Technology Management	4	
Journal of Business Research	2	
Journal of Business Strategy	1	
Journal of International Business Studies	2	
Journal of International Management	2	
Journal of World Business	1	
Long Range Planning	2	
Management and Organization Review	1	
Management International Review	1	
Organization Science	1	

Journal Title	No. of Articles
Technological Forecasting and Social Change	2
Technovation	3
Thunderbird International Business Review	I
Grand Total	38

Country and Industry-Wise Publications

Figure-2 shows countries focused on the study in the sample papers. More than half of the studies are related to the Chinese and Indian economies. Seven papers in the study have taken a sample from multiple emerging economies in the study. One conceptual paper has considered the overall context of emerging economies for the study. Rest papers are based on Africa, Brazil and Malaysia countries.

18
16
14
12
10
8
6
4
2
0
Africa Brazil China EMNEs Germany India Malaysia Multiple South Emerging Africa Nations

Figure-2: Country-Wise Articles Distribution

Table-2 shows the industry focused on the sample studies. 13 papers included in the review have not mentioned any specific industry context. 7 papers have taken multiple industry context in their studies. Rest papers are more focused on the manufacturing and auto industry sectors.

Industry Type	No. of Publications
30 regions of china	I
Auto industry	4
Electronics and electrical (E&E) projects	I
Engineering	1
Financial services	[
Healthcare industry	2
Manufacturing	3

Industry Type	No. of Publications	
Manufacturing & Service	1	
Multiple Industries	7	
Not Mentioned	13	
Pharmaceutical industry	1	
Solar power industry	1	
Technology-based firms	1	
Wind energy industry	1	
Grand Total	38	

Methods Used in Studies

Table-3 shows the method used by sample studies. Most of the papers are empirical and 9 papers are conceptual. In the empirical studies, only N. Agarwal et al. (2018) have used the mix method approach (VOC Method, Analytic Hierarchy Process technique). Other studies are having an equal distribution of qualitative and quantitative approaches.

Table-3: Methodology Used in the Studies

Type of Methodology	No. of Publications	
Empirical	29	
Mix Method	1	
Qualitative	14	
Quantitative	14	
Conceptual	9	
Grand Total	29	

A diverse set of the Analytical approach used by the sample studies is shown in Table-4. The case study is the most used analytical approach, used in 10 papers. Various studies have used multiple case studies and a comparative case study approach. Other qualitative approaches used are such as A Replication Logic from multi-source data collection, Experts Group discussion, and survey instrument methods. There is a large number of quantitative analytical techniques used in the sample papers. This diversification in the quantitative is because of the availability of big data and the development in the econometric models. The quantitative method is applied both on the cross-sectional as well as longitudinal panel data. The quantitative method used for the continuous dependent variable is fixed and random effect panel models, GMM model, and 2SLS regression models. The models such as logistic regression, Probit regression, and Tobit regression are also used for categorical dependent variables.

Table-4: Analytical Procedure Used in the Empirical Studies

Analytical Method Used	No. of Publications	
2SLS regression	I	
A Replication Logic from multi-source data collection	1	
Case study	10	
Descriptive Statistical Analysis	I	
Experts Group discussion	I	
fixed-effects and random-effects model	1	
Fuzzy-set qualitative comparative analysis (fsQCA)	I	
Generalized method of moments (GMM)	2	
Hierarchical regression	2	
Historical case analysis, Quantitative text-analysis	1	
Logistic regression	I	
Probit model	2	
SEM Path Analysis	1	
survey instrument	I	
Tobit model	1	
Tobit regression	1	
VOC Method, Analytic Hierarchy Process technique	1	
Grand Total	29	

Findings and Discussion

Table-5 is showing the research question of interest and the main finding of the papers used for the literature review. We have discussed the micro and macro-level factors impact on EMNCs innovation in the next section.

Table-5: Primary Research Question and Finding from the Studies

Author	Emerging Country	Research Question	Major Finding
Williamson (2010)	Multiple	How does EMNCs create cost challenge for rivalry firms	EMNCs focus on more value at less expenditure for target customers
Gorodnichenko et al. (2010)	Multiple	Impact of foreign competition and linkages on EMNCs innovation	Foreign competition and linkages improve innovation
X. Liu, Lu, Filatotchev, Buck, & Wright (2010)	China	Role of employee mobility and FDI intensity on Chinese High-tech firms innovation	Employee mobility positively related to innovation performance
Ray & Kanta Ray (2011)	India	Innovation choices for the Indian market	early-stage collaboration with suppliers is important for product development

Author	Emerging Country	Research Question	Major Finding
Ignatius, Leen, Ramayah, Kah Hin, & Jantan (2012)	Malaysia	Firm technology learning impact on NPD	Acquisition of interfirm knowledge influence NPD success
H. Li, Zhang, & Lyles (2013)	China	Process of knowledge creation, search, and spillover in the Chinese market	It is a reciprocal process between foreign and domestic firms
Zheng (2014)	China	Factors driving technology innovation in Chinese EMNCs	Follow multiple routes of innovation as strategic and operation innovation
Yip & McKern (2014)	China	Challenges for Chinese EMNCs in moving from imitation to innovation	The localization of R&D facilities help in overcoming the innovation challenge
Oswal, Ruigrok, & Agrawal (2014)	India	Internationalization impact on firm-specific asset acquisition by EMNCs	Rapid organizational transformation and gained the confidence to compete globally help in asset acquisition
Chittoor & Aulakh (2015)	India	Indian multinationals special issue review	Innovation done in developed nations is modified and served to emerging nations Competitive
Williamson (2015)	Multiple	Source & nature of competitive advantage for EMNCs	advantage depends on innovation and mergers & acquisition strategies, value chain configuration
Gugler & Vanoli (2015)	China	Foreign competitiveness impact on Chinese affiliates technological capabilities	Patent count by foreign affiliates is more for Chinese firms
Awate, Larsen, & Mudambi (2015)	India	Examining EMNCs R&D internalization strategies	Knowledge accessing is preferred over knowledge sourcing in catching up innovation by headquarters Technological
J.Agarwal & Wu (2015)	(EMNCs context)	Role of innovation in e-commerce growth	innovation and strategic behavior of EMNCs decide the growth

Author	Emerging Country	Research Question	Major Finding
Lynch & Jin (2016)	China	Challenge of global success for EMNCs	Developed a strategic options matrix including innovation importance
J. Li et al. (2016)	China	Impact of OFDI on EMNCs innovation	The positive relation between OFDI & innovation is moderated by firm absorptive capacity, foreign presence of firm & home-based competition
Kotabe & Kothari (2016)	Multiple	The deciding factor of EMNCs competitive advantage	Innovation capabilities decide initial competitive advantage in a developed nation
Kowlaser & Barnard (2016)	South Africa	Impact of network ties on innovation in EMNCs	Strength & breadth of ties are complimentary for team innovation, Tie novelty is preferred over trust in EMNCs
Elia & Santangelo (2017)	Multiple	Impact of home & host country National Innovation System(NIS) on strategic asset seeking of EMNCs	Relatively weaker home NIS motivate firm to go for strategic asset seeking
Dellermann (2017)	China	Inter-organizational network impact on innovation of Chinese EMNCs	The reverse innovation approach is followed by the small firms
H.Wu, Chen, & Liu (2017)	China	OFDI impact on EMNCs innovation at home	The positive relation between OFDI & innovation is moderated by EMNCs R&D intensity and host nation firm ownership in EMNCs
Perri, Scalera, & Mudambi (2017)	China	International connectivity impact on innovation	Geographically dispersed international linkages improve innovation capabilities
Gammeltoft & Hobdari (2017)	Multiple	How strategic asset seeking investments impact innovation	Country specific advantage and dynamic capabilities improve innovation
Suseno, Salim, & Setiadi (2017)	Malaysia	Impact of contextual condition on firm learning & its outcome	Firms learning and its outcomes are a response to economic, political, and competition changes in the host country

Author	Emerging Country	Research Question	Major Finding
Choudhury (2017)	India	Impact of intrafirm mobility on innovation	Individual mobility between headquarters and localized R&D improve patent generation
Borini, Cahen, & Oliveira Jr. (2017)	Brazil	Innovation capabilities impact on accelerated technology-based foreign investments	Innovation capability delays the internationalization process followed by NTBFs from emerging markets
Zhenzhen Xie & Li (2017)	China	Firm export intensity impact on NPD success	Find an inverted U-shape relationship between export intensity and NPD success
N.Agarwal et al. (2018)	India	Examining EMNCs innovation perception	Affordable & ease of use considered in NPD in emerging markets
Hertenstein & Williamson (2018)	China	How suppliers relationships impact NPD strategies	The localization of R&D improve NPD success
Cano-Kollmann et al. (2018)	Multiple	Role of the global network in EMNCs innovation	Global network with firms and individuals improve innovation
Awate et al. (2018)	India	Strategic evaluation of EMNCs in a nascent stage	Innovation capabilities & fast catch-up decide success in the long term
Adegbile & Sarpong (2018)	Africa	Opportunities & challenges for African EMNCs in seeking disruptive innovation at the base of the pyramid	Firm and country- specific factors are important for disruptive innovation at the base of the pyramid
Hensmans & Liu (2018)	China	EMNCs headquarters and subsidiaries relation impact on innovation	The ability of subsidiaries managers to challenge normative expectation by headquarters decide innovation pattern
J.Wu, Ma, & Liu (2019)	China	Impact of firm technological capability on new product performance	Relation on EMNCs internationalization is mediated by technological capability
J. Liu (2019)	China	Technology-driven FDIs and innovation pattern of EMNCs	In a different context, FDIs used as accelerator and starter for innovation following two different paths of learning: Glider & Helicopter

Author	Emerging Country	Research Question	Major Finding
J.Wu & Park (2019)	China	Role of international institutional complexity on EMNCs innovation performance	International institutional complexity and EMNCs innovation performance have inverted U-shape relationship
Krishnan & Prashantham (2019)	India	How the Indian market is a source of innovation	Spillover by R&D localization of developed nations MNCs has improved innovation at low cost for EMNCs
He, Khan, Lew, & Fallon (2019)	China	Role of innovation- related FSA's in having a competitive advantage during internationalization	Realization of existing FSA's and acquiring new FSA help in having a competitive advantage

Firm-Level Factors

This section provides a detailed discussion of the micro-level factors impacting firm innovation. We have discussed the finding from the existing studies related to micro-level (firm-level) factors such as the absorptive capacity of the firm, firm structure and culture, human resource practices, having customer perspective, the project team management, global networking, relation with foreign subsidiaries and suppliers, employee mobility, and mode of innovation.

Absorptive Capacity

The absorptive capacity of a firm is defined as the capability to identify new and valuable external knowledge, analyze it and integrate it with existing knowledge to increase information about market trends and commercialize it (Cohen & Levinthal, 1989; Hussinger, 2010). EMNCs access external knowledge by expanding internationally. This knowledge is in the tacit form and lies with the researchers. It makes it difficult to integrate the external knowledge with the existing knowledge. The firm should have a minimum level of the internal knowledge base to integrate the tacit external knowledge. Internal knowledge of the firm is in the form of R&D investment and the patents which are called the absorptive capacity of the firm. Absorptive capacity help EMNCs to integrate and leverage the externally acquired tacit form of knowledge with the firm existing knowledge base (Hussinger, 2010). This strengthening of the existing knowledge base and increased absorptive capacity will increase EMNCs innovation capability (Cohen & Levinthal, 1989). Knowledge

relatedness is also important for easier integration of external knowledge. If EMNCs are acquiring the knowledge from other firms in the related or same industry then their knowledge base is considered to be related.

J. Wu et al. (2019) find that a higher R&D intensity of the firm helps to integrate technological knowledge in the international market. This knowledge helps in developing new capabilities and is further exploited to compete successfully with foreign and local competitor firms. Taking a sample of Chinese EMNCs, J. Li et al. (2016) found that the regional absorptive capacity of the emerging market has a positive impact on the innovation performance of the domestic firms and moderate the relationship between the OFDI (outward foreign direct investment) and innovation performance of the domestic firms. Reginal absorptive capacity is the quality and existing R&D expertise of the geographical region in which EMNCs are located. The acquisition of the valuable strategic asset is not the only important thing for the EMNCs. Subsequently, they also must be able to adapt and exploit the valuable asset for the benefit of the firm that is dependent on the regional absorptive capacity.

Absorptive capacity for the EMNCs is required when they are integrating external knowledge from the suppliers, local and foreign competitors, DMNCs, and their subsidiaries. Absorptive capacity will enable a firm to leverage the acquired knowledge in product and process improvement and have a positive impact on firm innovation.

Structure and Culture

Organizational structure is defined as a firm-specific pattern of authority, relationships, and communication between members and groups (Thompson, 1967). Various structural characteristics of the firm like flexibility, formalization, centralization, and cross-functional teams are found to be important when a firm is playing in the international context (Oswal et al., 2014). Some structural characteristics such as formalization and centralization of the authority make the firm less flexible because the decision power is in the top management's hand and the channel of communication is also complex. The centralization of the authority gives the power of decision making to the top management team who are there at the headquarter and they communicate it their subsidiaries in other countries through a formal channel of communication that is timeconsuming and complex. A cross-functional team across the subsidiaries can help in the learning across the department and reducing the duplication efforts for innovation. Brem & Freitag (2015) compared Indian and German firms in their team structures and functional organization in new product development(NPD). They found that the structured process of new product development and heterogeneous product development teams have a no different impact on NPD success in both contexts. The structured process of the NPD makes the process of innovation more rigid. This provides less scope of the changes for the betterment of product during the NPD and reduces the innovation performance. A heterogeneous team will have people with different knowledge bases. The NPD process requires people with expertise in the same field. This expertise and in-depth knowledge about the product improve the NPD performance.

Cultural attributes of the firm like employees' cross-cultural competencies and confidence to compete in the international context are important(Oswal et al., 2014). Oswal et al. (2014) found that the more self-confident top management team can perform better in the multinationals firms from EMNCs and have the low-cost advantage to innovate. The cross-cultural competencies of the employee depending on their prior experience. The employees who have worked priory in the MNCs and different country context will have a broader exposer and knowledge about the culture. This makes employees more flexible in the changing cultural contexts and improves their self-confidence. The structural component of the EMNCs like decentralization of authority, less degree of formality, and the optimally heterogeneous R&D team with diverse knowledge, skills, and certain field experts make the firm more flexible and have a positive impact on the firm innovation. The culture of the firm such as proving flexibility to the employee to contribute to innovation and prior cross-cultural experience also has a positive impact on firm innovation performance.

Human Resources Practices (HRP)

People management is one of the key factors for firm innovation. People management includes factors like recruitment of the employees, training, and education of employees, promotion, and others. HRM (Human resource management) practices are having a significant impact on firm innovation because innovation is driven by individuals in a firm-specific context. HRM practices are developed over time by the firm and lie at the strategic core. Training is important for the acquisition of new knowledge and developing new skills in the employees. Employees are the important knowledge resource in the context of firm innovation. To keep pace with the development of the technology, EMNCs employees are required to upgrade their knowledge and skills by the technology training and education practices (Y. Li et al., 2006). Promotion and other forms of reward increase the employee's motivation to participate in the innovation activities.

We have identified only a few studies that account for the HRP role in the EMNCs innovation. Zheng (2014) found that the innovation capabilities of

the Chinese firms are highly related to their strategies to manage human resources. HRM practices which support the collection of the external information and knowledge by allowing interaction with the member outside the firm have better innovation performance. The interaction of the firm member with the external member help in the reverse knowledge spillover and get validation of the research idea. It implies that human resource practices are required to acquire, share and create new knowledge in the economic context of the host country (Suseno et al., 2017) to improve the innovation performance of the EMNCs.

Project Team Management

Managing the new product development and R&D teams across the subsidiaries is important for the innovation of the EMNCs. Project team size, structure, and interaction with the outside member shave a significant impact on the firm innovation. Brem & Freitag (2015) suggested that the optimum level of heterogeneity in the NPD team improve innovation performance. Because the NPD process also requires a certain number of field-specific experts with deep knowledge to ensure the validation of the project. The very large size of the project team can also lead to biases like groupthink and negatively impact the innovation activities of the firms(Brem & Freitag, 2015). Ignatius et al. (2012) investigated the impact of technological learning of the NPD teams across functions on the NPD success. They have taken a sample of 105 project teams from the nine EMNCs and found that the knowledge acquisition by the project teams has a positive impact on NPD success and speed of NPD. This is because the cross-functional interaction enables information processing across the teams and causes knowledge spillover. These interactions will ease the communication across the functional teams and improve the speed of NPD.

In EMNCs team innovation also dependent on the ties inside the organization with other R&D teams and strong ties outside the organization (Kowlaser & Barnard, 2016). Ties help in the effective distribution of the information which enables firms to take upfront decisions and avoiding repetitive work by the various team for NPD. It implies that the shared understanding among the teams is important (Ignatius et al., 2012). Brem & Freitag (2015) compared the NPD practices of the German and Indian MNCs. They found that the use of the heterogeneous NPD team is not substantially different between the R&D subsidiaries of the two nations. Firms need to have cross-functional R&D teams to reduce repetitive work and cross-learning which will improve their innovation performance. The ties of the project team members inside and outside the firm are important to get feedback and validation the innovative projects.

Customer Perspective

It is about knowing the demand of the target current and potential future customers. EMNCs are operating in the home and host countries that make it difficult to satisfy the need of a diverse set of customers. Previously we have discussed that the increasing demand in the emerging markets is the scope of serving for the MNCs. EMNCs are at the advantages in comparison to the DMNCs to satisfy the home country customer's demand. EMNCs are based in emerging markets and aware of the culture that helps to understand and predict the future demand more precisely.

J. Wu et al. (2019) studies the Chinese firm in the healthcare sector and found that understanding the customer preferences and product requirements in the international context is important for the NPD success. The firm's technological capabilities and choice of the market have a significant impact on organizational learning. Technological capacities of the firms help to identify diverse customer market demand and have a positive impact on the product innovation in the internalizations process by EMNCs (J. Wu et al., 2019). EMNCs are based in large emerging markets and have the advantage of understanding the local customer demand. EMNCs can produce the minimum viable products at a low cost for huge technology unserved emerging markets and have a cost innovation advantage over DMNCs.

Mode of Innovation

EMNCs can follow various modes of innovation such as product, process, and business models innovation. EMNCs follow a different product development strategy in the home market because they are having a better knowledge of the local customer's demand and produce the minimum viable product and the lowest price. EMNCs put cost innovation challenge for the DMNCs in the emerging market context. EMNCs can offer high technology at a low cost. They are providing the verities of the product at low cost and also moving from niche to mass market to challenge competitors from DMNCs (Williamson, 2010).

In the case of process innovation, EMNCs are rule-breakers. They are changing the structure of the organization and identifying the new ways to innovation development leading to process innovation (Zheng, 2014). Zheng (2014) examines two Chinese firms using case study methods and identified that firms are more focused on developing internal resource capabilities like learning and knowledge creation, structural changes, entrepreneurial behavior, and strengthening financial base to improve product and process innovation. Development of the capabilities of the internal resources will improve the knowledge and skill of the employees

and increase their motivation for entrepreneurial activities. EMNCs use the reengineering process to develop the product at a low cost leading to process innovation (Williamson, 2015). Reengineering of the process includes the change in the research team, organization structure, and practices that are favorable for the process of innovation.

Business model innovation by the EMNCs is also focused on reducing the price of the product to serve in the emerging mass market. Business model innovation includes identifying new ways to produce, sell, finance, and serve the existing product and services (Williamson, 2015). Business model innovation is changing the way of operating which will reduce the cost of production and satisfy the need of a large diverse customer segment. Brem & Freitag (2015) identified differences between the NPD practices of the Indian and German firm's R&D subsidiaries. There is a difference between the process coordination, creativity techniques, use of the reward systems, the average age of the team for NPD, and market orientations. Indian firms have less permanent and small size of the R&D team in comparison to the German firms. The temporary and frequent changes in the R&D team members reduce the impact of the learning effect and innovation output. German firms also prefer to take innovative ideas from their suppliers and competitors which improves their innovation performance. They don't find any difference between the use of the heterogeneous teams for NPD, support from the top management, and the use of the structured process for NPD. This implies that these factors are equally important for all the MNCs. The product and process innovation performance by changing the organizational structure, developing internal resource capabilities, and going as rule-breakers in the mass market by serving the product and services in different ways.

Global Networks

The global network here means the relationships of EMNCs with the individual and the firms in the foreign market as well as the home market. Global networks are beneficial both for the emerging and developed market firms by enabling the transfer of tacit knowledge and reducing the cost of production and technology development (Cano-Kollmann et al., 2018). The firm from the emerging market gets access to the global value chain by networking and learn to upgrade in a higher value-added process during its catchup process (Cano-Kollmann et al., 2018). EMNCs have country-specific advantages such as availability of natural resources, low cost of labor, huge domestic market but they are not having a strong firm-specific advantage while going globally. The access to the global value chain and

network of global production by various modes such as licensing, joint venture, open-end manufacturing, and others help in the accumulation of the firm-specific advantages (FSAs)(J. Liu, 2019).

Taking a sample of the Chinese MNCs, Gugler & Vanoli (2015) found that the location of the Chinese affiliates in the innovation center and clusters in the developed market will help in creating new knowledge due to network effect. Bridging ties with foreign partners improve the innovation capability of EMNCs (J. Wu et al., 2019). Perri et al. (2017) examines a sample of Chinese Pharmaceutical industry firms and found that connectivity with the individuals who are located in the developed economies' research institutions is an important source of knowledge. These individuals have connectivity by the full range of the potential linkages with the global locations and provide the recombined ideas from the diverse global locations. Kowlaser & Barnard (2016) analyzed the strength, breadth, and the location of the ties in the technology-intensive manufacturing firm from South Africa. They found that both weak and strong ties contribute to innovation. People differ in the formation of the ties. Some people can form more weak ties to access the novel information while others can form more strong ties as a source of trust. In the context of the EMCs, trust matter more than the novelty of the ties and both strength and breadth are complementary for the innovation. The above studies conclude that the networks have a positive impact on the EMNCs innovation. The tie strength and breadth with the individuals as well as firm is equally important for EMNCs innovation.

Relation with Suppliers

Suppliers is connected at the lower end of the value chain to provide the raw material and services for operating of the firms. Ray & Kanta Ray (2011) studied the case of TATA Motors designing the world's cheapest car Tata Nano and find that the collaboration with the supplier of car component designers impacts the choice of technology used, designing of the product, and NPD practices. Collaboration with suppliers will put pressure on the responsibility on them. Early-stage relationships with suppliers also help in exchanging knowledge and getting the innovative idea for product development. The involvement of the suppliers in the early NPD stage also helps in lowering costs and optimizing features valued by the mass market. Collaboration with suppliers in the Tata Nano case also reduced the decision time for final design as various suppliers are having rich knowledge of the market. After the launch of the car also these suppliers helped in easy access of their workshops and servicing.

Hertenstein & Williamson (2018) examined the impact of the supplier's relation to innovation strategies for product development and R&D

configuration to compete internationally in the automobile sector. They have used a comparative case study method and by taken one firm from Germany and China each (Volkswagen and SAIC). They found that the German firm prefers long term relationships with suppliers which enable closely integrated in-house product development. Chinese firms draw external knowledge-based on market feedback and make short-term relationships across various suppliers to improve the product rapidly. These short term relationship commitment with the suppliers are because of the high uncertainties in the emerging market context. On the one hand, these short relationship with suppliers increases the cost of the transaction by frequent contracts, on the other hand, reduce the impact of economic uncertainties. The above findings show that EMNCs have short term opportunistic relationships with the suppliers for product development. The relationship with the suppliers in the early stage of product development enables firms to design their processes accordingly and improve innovation performance.

EMNCs and Subsidiary Relations

One of the motives of the emerging market firm to establish in the developed market is to access technological knowledge. EMNCs establish their subsidiaries in the target countries for the acquisition of resources and market share growth globally. Resources can be tangible such as raw material, manpower and also can be intangible such as knowledge-based resources. Knowledge-based acquisition and reverse spillover improve the innovation capabilities of the EMNCs. The relationship of EMNCs with subsidiaries are important to the transfer of knowledge (Hensmans & Liu, 2018).

Awate et al. (2015) proposed that EMNCs headquarters are more dependent on their R&D subsidiary in the developed market and prefer knowledge accessing than knowledge sourcing. Because the accessing of knowledge from their subsidiaries is less complex than outsourcing knowledge from other external sources. EMNCs establish subsidiaries in developed markets to catch up with the innovation. This helps in avoiding the time cost diseconomies of the innovation process because the investment in the innovation is a long and riskier process. Hensmans & Liu (2018) proposed that the constructive conflict between the subsidiary and the headquarters managers will enhance the innovation subsidiary. Constructive conflict help to reach a more efficient decision for the firm investment in riskier innovation projects. Subsidiaries' knowledge-based relationships with the headquarters will be strong when the subsidiary managers can challenge the headquarters normativity. Challenging the normativity process of innovation will cause the restructuration of the

innovation process in a productive way. These studies the constructive conflict between Headquarters and subsidiaries, a smooth flow of knowledge from the subsidiary is important for EMNCs innovation.

Employee Mobility

Employee mobility is defined as the movement of employees between and within firms. Intrafirm mobility of employees between the headquarters and subsidiary allows the face to face interaction with the peoples who are responsible for the allocation of the resources. This allocation of the resources can be distributed efficiently for the firm by employee interaction. Mobilization of the employees create linkages between the organization. These linkages help in the transfer of tacit knowledge from the inventor. The more centered allocation of the resources at the headquarters is redistributed for innovation projects by employee mobility (Choudhury, 2017).

Choudhury (2017) took data of 50 fortune multinationals from India and found that the employee mobility between the subsidiary and parent firm before any R&D investment increases the patent frequency of the firm. The short term business trips to R&D subsidiaries improve resource allocation for the R&D. X. Liu et al. (2010) found that human mobility is a major source of knowledge spillover and impacts the local firm innovation capability in the emerging markets. Taking a panel data of Chinese hightech firms they found that the interfirm employee mobility and foreign returned entrepreneurs improve the innovation of EMNCs. X. Li, Liu, & Thomas (2013) also proposed that foreign returnees who have worked or studied in the developed countries may be a source of knowledge spillover in emerging countries because they are in direct contact with the developed nations' scientific community. The above findings indicated that the withinfirm employee mobility help in better resource allocation for the innovation activities of the firm. The between firm mobility of the individual from the developed market to the EMNCs have a knowledge spillover effect and improve the innovation capabilities of EMNCs.

Macro-Level Factors

Macro-level factors include both industry and economy level factors that are not in control of the specific firm. Zheng (2014) discussed various theoretical aspects that identify the role of external factors in firm innovation. Institutional theory suggests that the pressure from the external formal and informal institutions influence firm innovation (North, 1991). In this section, we have discussed the industry and economy level factors that impact the EMNCs innovation.

Role of Government

The government plays an important role in the emerging economies' firms' innovation. Emerging markets government provides support for innovation and takes initiatives to enable rapid catchup with the developed economies. China has a quasi-federal economic system for distributing resources among the regional entities. The government support proving infrastructure, science parks, and research centers, and education for enabling innovation in EMNCs. There is evidence from the Chinese government for proving research grants to state-owned firms to support the innovation culture(Yip & McKern, 2014).

Different emerging economies' governments have different strategies to promote innovation. Awate et al. (2018) compared the recent state of the Indian solar industry with the early stages of the Chinese industry. For the nascent firms the Chinese government support development of the domestic firms in the early years and the Indian context the government support focusing only on market capitalization. The nascent EMNCs are encouraged to adopt the dominant proven technologies in the initial stage because it's too uncertain and costly for them to experiment with the new technologies. The movement of the Chinese firms from imitation to innovation is also supported by the government to invite DMNCs in China to establish their R&D(Yip & McKern, 2014). The Chinese government is one of the major sources of supplies for innovation to the local firms. The government can improve the innovation capabilities of the EMNCs by acting as supply enablers in the early stage of innovation and inviting the DMNCs to locate their R&D in the emerging market for knowledge spill-over.

Competition in Local and Foreign Markets

Competition with the local firms and DMNCs has a significant impact on the innovation strategies of the EMNCs. EMNCs face challenges when they try to catch up with the already established firms in the industry where they are not having any specific technological advantage(Lynch & Jin, 2016). EMNCs can form strategic linkages with DMNCs to learn in the home market itself (Gammeltoft & Hobdari, 2017). Process and business models are more important for the EMNCs to have a competitive advantage over the local firms that are having less absorptive capacity, scale, capital, and local distribution access to invest in the process innovation(Williamson, 2015). Firms that feel high competition pressure from the foreign are more innovative and they more likely to acquire new technologies and develop new products that do not matter for the firm who do not feel the competition pressure(Gorodnichenko et al., 2010). The high

sense of competition by the firm motivates them to invest in innovation activities to maintain their competitive advantage over rivals.

J. Liu (2019) has investigated two wind energy firms from china and by an extensive case study and process tracing approach they found that both the firms have followed two different patterns of innovation by technology foreign direct investment to compete in the local market. The pioneer established an industry that has accumulated technology and production capacity due to their early entry in the industry and follows a Glider model of innovation by imitating the foreign technology and having not much in-house R&D capacity. On the other hand, the latecomers in the industry follow a Helicopter model of innovation with heavy investment in the inhouse R&D and quick acquisition of the external foreign knowledge and exploit it (J. Liu, 2019).

As the emerging market have more investment and become more sophisticated the flow of the knowledge become more prevalent in the all direction like from foreign subsidiary to headquarter, between domestic firms, between foreign firms and other form reverse spill-over of the knowledge. This reciprocal and dynamic process of the knowledge spillover in the emerging market causes strong competition between multinationals firms (X. Li et al., 2013). Analyzing a sample of 6197 auto industry firms from China, Z. Xie & Li (2018) found that in the Chinese context the relationship between the export intensity and the product innovation success is inverted-U shaped and the innovation is more strong due to the intense home market competition. At the lower level of the export intensity, the EMNCs can improve their innovation due to exposure to the overseas market. As the level of the export increases, EMNCs come into direct competition with DMNCs in the host markets. This reduces the innovation focus of EMNCs as they are more engaged in responding to competitive pressure by DMNCs.

A panel study of the Chinese MNCs shows that the high competition at the home market will reduce the likelihood of the subsidiaries to transfer the technology and product knowledge base back to the home due to the fear of loss of the intellectual property(J. Li et al., 2016). They also found that the relationship between the OFDI reverse knowledge spillover and the domestic innovation performance is negatively moderated by the high competition at the home market. The above-discussed studies show the mixed results about the impact of competition on EMNCs innovation. On the one hand, high competition in the home and the host country market put pressure on the EMNCs to innovate, while on the other the weak institution of the EMNCs home market hinders the reverse knowledge spill-over from the subsidiary and reduces innovation.

Institutional Context

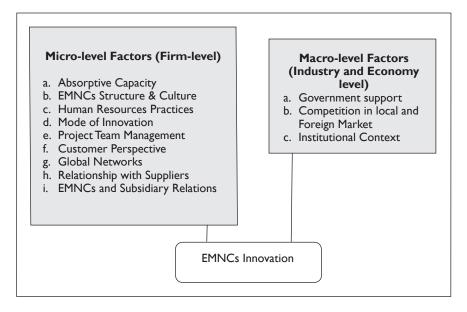
The difference in the financial and economic development, cultural and political institutions cause institutional diversification across economies (J. Wu & Park, 2019). Challenges by the institutional context are one of the main reasons for EMNCs to access knowledge by foreign investments. These challenges for the EMNCs in the emerging market context are such as low quality of institutional regulations, lower national information security. These are required to be strong for intellectual property security. OFDI is used by the EMNCs as a strategy to overcome the institutional and market constraints and leverage complementary knowledge to build up their knowledge capabilities (J. Liu, 2019). The emerging-market possesses high market uncertainties and creates challenges for the nascent firm to invest in new technologies (Awate et al., 2018). Ray & Kanta Ray (2011) found that the Indian firm's difficulties of getting foreign technology approval and license, high import tariff are also a barrier for new technology implementation for the Indian auto industry firms. Elia & Santangelo (2017) found that the weak national innovation system (NIS) of the emerging markets (China, India, Brazil, and Russia) cause EMNCs to engage in the acquisition of the strategic assets from the developed economies firms in the early stage of their internalization. In the later stage of internalization, EMNCs tend to acquire more strategic assets in the strong home country NIS. The weak and non-effective law of the home country has challenges for the EMNCs to balance between the risks and benefit while heavily investing in the R&D (J. Wu et al., 2019). EMNCs ability to create, acquire and share the knowledge for innovation in the host country depending on the supportive factor such as host country political, economic, competition, and identifying changing customer demands (Suseno et al., 2017).

J. Wu & Park (2019) examined a panel set of 767 Chinese EMNCs for the impact of the institutional complexity on innovation performance. They proposed that the institutional complexity causes the high cost of managing the information during the internalizations but at the same time provides learning opportunities. So they concluded that the institutional complexity has a U-shape relationship with the innovation performance of the EMNCs. J. Wu & Park (2019)also found that the top management team (TMT) diversity help to reduce the institutional complexity and the relationship between institutional complexity and innovation performance of EMNCs is positively moderated by TMT diversity. The diverse TMT structure will provide a wide range of experience of members in the different contexts that will reduce the uncertainty of decision making. These studies indicate that the weak institutions and high institutional complexity in the

emerging markets reduce the investment in R&D by EMNCs. Institutional barriers also complicate the import of new technologies in emerging markets. EMNCs tend to invest in R&D and acquire knowledge from the developed market firm due to high-quality institutions and more security for intellectual properties in the particular context.

Figure-3 is summarizing all the micro-level and macro-level factors which impact the EMNCs innovation.

Figure-3: Micro and Macro level factors affecting EMNCs Innovation



Theoretical Synthesis

The most used theoretical framework in the sample studies is the OLI paradigm, institutional theory, and resource-based view. Institutional theory is used to explain the different models of innovation in Chinese multinationals due to institutional differences (Zheng, 2014). For example, in the case of the African multinational, the innovation approach at the bottom of the pyramid is different by creating supportive organizational and market infrastructure (Adegbile & Sarpong, 2018). The firms in the emerging economies also develop a local R&D center, try to build local political support in the case of African multinationals. J. Wu & Park (2019) used institutional theory to explain the role of institutional complexity in the innovation of EMNCs. They find a moderate level of institutional complexity is required for innovation.

The resource-based view is extended to explain the path followed by Chinese multinationals for innovation (Zheng, 2014). They combined the

resources for strategic, organizational, and operational innovation. Lynch & Jin, (2016) provided a framework of strategic options for innovation in international expansion.

OLI theory is used by various studies for providing innovative strategies for the EMNCs (Adegbile & Sarpong, 2018; Borini et al., 2017; Gammeltoft & Hobdari, 2017; Gugler & Vanoli, 2015; J. Li et al., 2016; Oswal et al., 2014; Williamson, 2015). OLI paradigm argues that firms need to have a countryspecific ownership advantage, host country location-specific advantage to internalize the operation in the host country as FDI (Dunning, 1988). Studies have extended the boundaries of the international business theory which assumes the homogeneous country and firm-specific advantage for MNCs. These studies proposed that in the emerging economies context the country-specific advantages are dynamic, the innovation is contingent on the absorptive capacity of the firm and parent nation. EMNCs have a different value chain configuration in comparison to DMNCs for better innovation capabilities. The level of competition in the home market and the foreign presence of the competitors is an important determinant of firm innovation. The OLI framework is used to differentiate the countryspecific advantage for EMNCs innovation (J. Agarwal & Wu, 2015; He et al., 2019).

The theory of internationalization of the R&D activities is also widely used to explain the innovation pattern of EMNCs (Awate et al., 2015; Gugler & Vanoli, 2015; Hertenstein & Williamson, 2018). In the developed economies firm's context, this theory is used to explain the localization of R&D in the emerging economies. In the case of the EMNCs, this theory makes a comparative assessment of the R&D activities in the local and host countries. The institutional difference is important to decide the location of the R&D centers. The international suppliers and firm subsidiaries play an important role in access to knowledge by the EMNCs (Awate et al., 2015; Hertenstein & Williamson, 2018).

Springboard theory is used by two studies that propose unique innovation-based motives of internationalization of the EMNCs (Perri et al., 2017; H. Wu, Chen, & Liu, 2017). These studies argue that emerging market firm's rapid internationalization is motivated by asset seeking motives. These studies have also used the LLL (linkage, leverage, and learning) framework to stress the role of connectivity among geographically dispersed inventors and the ownership of the foreign firm in EMNCs (Mathews, 2006). EMNCs form linkages with the firm in the developed economies to learn and further leverage the learning in process of international expansion.

Innovation theory is used to identify the role of suppliers in innovation and to develop a strategic option framework for EMNCs innovation(Lynch & Jin, 2016; Ray & Kanta Ray, 2011). Innovation theory is also used to identify the strategic architecture of innovation in the EMNCs (Lynch

& Jin, 2016; Ray & Kanta Ray, 2011). The international diversification literature is used to emphasize the role of internalization in product performance and learning behavior of EMNCs (J. Liu, 2019; J. Wu et al., 2019). The knowledge-based view (Grant, 1996), explains the process of transfer of knowledge between headquarters and their subsidiaries. Studies found the positive role of constructive conflicts between the parent firm and subsidiaries on innovation performance (Hensmans & Liu, 2018). The external knowledge acquisition also reduces the complexities of the new product development (Ignatius et al., 2012).

Conclusion

The review of the literature suggests that various firm-level micro factors and economy level macro factors impact the innovation in the EMNCs. In the firm-level factors, we have identified organizational structure and culture, HR Practices, firm absorptive capacity, mode of innovation, global networks, relationship with the foreign subsidiaries, relationship with the suppliers, employee mobility across and within the firm, and having a costumer's perspective impact the EMNCs innovation. In the macro-level factor, we have identified factors such as the, competition with the local and DMNCs, government policies and support, and institutional context play an important role in managing innovation in the EMNCs. EMNCs are taking active steps to harness the external source of knowledge and innovation as a prominent strategy to build up their firms' specific capabilities. Innovation by the internal knowledge flow is becoming more important for the EMNCs to compete with the rivals (Johanson & Vahlne, 1977). The current stage of the internalization puzzle is becoming less puzzled for EMNCs due to the development of the firm's specific advantages through technological innovation in the global value chain(He et al., 2019). Knowledge transfer between the home and the host country is greater when the host country has a higher economic level, parent firm and subsidiary have close ties and subsidiaries have higher capabilities (Gammeltoft & Hobdari, 2017). The knowledge spillover from subsidiaries and other firms to the EMNCs depends on employee mobility, competitiveness in the economy, and the cost of the external knowledge search(X. Li et al., 2013). Stronger national information security plays an important role in EMNCs while acquiring high tech firms and investing in new technologies(Elia & Santangelo, 2017). EMNCs dynamic capabilities such as flexibility, frugal innovation, aggressive internationalization, and capabilities to combines exiting resources can allow them to offset the weakness of not having firm-specific technological capabilities(Gammeltoft & Hobdari, 2017). EMNCs are having cost advantages by creating new ways of delivering technology to target customers and customization at low prices with larger variety despite following simply low price and differentiation strategies(Williamson, 2010). This has emerged as a new strategy called cost innovation by value for money revolution. For enabling the innovation for the EMNCs the government has to take steps such as bringing back their bright mind from developed nations and strengthening the national security system for intellectual property(Yip & McKern, 2014). Adegbile & Sarpong (2018) suggest that to manage innovation in a country like Africa EMNCs have to create a supporting organizational and market structure, develop local research centers, have a strong market and cultural knowledge, and have local political support. Innovation has become an important element for the EMNCs to survive both in the short and the long run. EMNCs cannot focus only on building the output capabilities. They need to catch up fast with the mature industry and DMNCs due to their initial low absorptive and learning capacity it's become more difficult for them to compete and survive (Awate et al., 2018).

Future Research Directions

The review of the literature suggests some gaps in the research that can be addressed by future researchers. First, as per the current sample of the studies, most of the studies are focused on the Chinese and Indian context. The future researcher needs to examine other emerging nations also. The comparison of emerging markets will be a better approach for rich understanding. The emerging economies differ in their level of institutional development, rate of institutional transition and have a different framework of informal institutions (Peng et al., 2008), which impact firm innovation strategy.

Second, the firm-level sample taken in many of the review studies is cross-sectional and for a short length of period. Future research needs to examine the phenomenon as a long longitudinal process to understand the dynamics of the innovation. This will help in understanding the mechanism through which micro and macro-level factors impacting EMNCs innovation. The process of innovation is time-consuming and take longer periods to have outcomes. A cross-sectional study gives only a static view of the process of innovation.

Third, most of the studies taken sample firms from a single country or institutional context. Future researchers should prefer to take samples from multiple contexts to understand the interaction effects. They should prefer comparative case studies for the EMNCs across multiple countries for better exploration of the phenomenon. There is a need to understand how the home country's institutional environment impact EMNCs innovation.

Forth, Current studies have focused mainly on the home country-level macro factors and the EMNCs innovation in the home country context only. Future studies need to consider innovation activities in both the home and host countries. Studies based on the home country need to

acknowledge the difference within the country or subnational level institutional difference. For example, studies can explore the impact of home country industrial cluster presence on EMNCs innovation strategies (Upadhyayula et al., 2017; Yadav & Upadhyayula, 2021a). The ownership strategy of the firm such as business group ownership, family ownership, and institutional ownership may have a differential impact based on the institutional context. For example, Yadav (2020) found that EMNCs based in India are having a differential impact of institutional ownership on firm strategy. OLI theory highlights the importance of the host country for firm internationalization (Dunning, 1988). As per OLI theory, the host country factor such as intellectual property protection, availability of factors of production impact firm internationalization strategy and further internationalization of R&D.

Fifth, future studies should investigate the impact of the organizational structure and various mechanisms on the various mode of innovation such as NPD, process innovation, and business model innovation. There is a need to understand the process of growth and learning in innovation management teams. In EMNCs the employee management becomes an important issue given the language diversity, cultural diversity, diversity of age, and employee motivation due to employees from the home country, host country, and the third country also (Yadav & Hazarika, 2021). Future studies need to examine, how EMNCs deals with employee management issues in R&D teams both at the subsidiary and parent firm level.

Sixth, the priority of future research should be to investigate how the firm-specific assets imply the development of global competition and decide the future behavior of EMNCs. When the firm is acquiring external knowledge the integration process is more complex. Future research should prefer a process-oriented approach to find human resource management, the impact of the home and host country macro-level factors on the innovation. Future studied should understand the process of the search and knowledge spillover by accounting characteristics of EMNCs and their subsidiary or foreign firms by a longitudinal approach.

Seventh, the Innovation of the firms in the current studies is measured in terms of the innovation input(R&D Expense) and innovation output(Patent, NPD) which are not complete measures. Future research should use multiple measures for the robustness of the results. Finally, Although the well-established theoretical perspectives are used to explain the innovation behavior of EMNCs. The recent perspectives such as springboard by Luo & Tung (2007), show different internationalization patterns of the EMNCs. They argue that EMNCs internationalize at a faster pace with high commitment modes. EMNCs sometimes don't follow the traditional process model of internationalization which assumes the process with increasing commitment into the international market with accumulated

rich experiential learning (Johanson & Vahlne, 1977). The springboard internationalization of the EMNCs throws more challenges to EMNCs and the driving factor of innovation in this kind of process is not studied yet. Another theoretical lens as LLL (linkage, learn, and leverage) perspective by (Mathews, 2017) is important for understanding EMNCs innovation. This framework highlights the linkage of EMNCs with other firms to overcome the liability of foreignness and resource constraints. They learn from the network of organizations to develop competitive advantages, which are later leveraged in other markets. Future studies can also explore how timing and speed of internationalization impact EMNCs innovation strategies (Yadav & Upadhyayula, 2021b).

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