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Shodh Gyaan

Knowledge Through Research



Centre for Research Studies, Birla Institute of Management Technology

Shodh Gyaan

Knowledge Through Research

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PATRON

Dr. H. Chaturvedi

Director (director@bimtech.ac.in)

ADVISORY COMMITTEE

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(asutosh@iiml.ac.in)

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(sarin@xlri.ac.in)

Dr. Bijoy Kumar
(kumarcfa@yahoo.com)

Dr. Khushwant Singh Kang
(khushwantkang@gmail.com)

Dr. A. Sahay
(arun.sahay@bimtech.ac.in)

EDITOR

Arpitha Reddy P

(arpitha.reddy_fpm16@bimtech.ac.in)

ASSOCIATE EDITOR

Surbhi Cheema

(surbhi.cheema_fpm17@bimtech.ac.in)

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**Shreya Mishra, Aditi Mudgal,
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Management Thought	1500
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Book Review	1000

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International Doctoral Consortium-2018

6th-8th June 2018 at BIMTECH, India

ABOUT IDC

In 2011, Prof. Albert Mills (Management Department), Sobey School of Business, PhD Program, Saint Mary's University Canada, founded the joint doctoral colloquium between the doctoral programs of York and the SSB, Saint Mary's University. The first such colloquium was held at Saint Mary's, with 18 students. Over the first seven years of IDC, generations of doctoral students have been exposed to innovative teaching and an impactful conference. Drawing on networks of scholars across the globe, the colloquium soon involved business school doctoral programs from the UK (Queen Mary University), Finland (University of East Finland; Jyvaskyla University; Aalto University; Oulu University, and Hanken University), Holland (Radboud University), Canada (SMU, York and Athabasca U.), the United States (UMASS Boston), Brazil (FGV, UFRGS), South Africa (Free State U.), and India (BIMTECH).

This has spurred the development of a strong network of graduates who are indelibly linked to IDC and partner Universities. This year the event is being hosted at Birla Institute of management Technology, India during June 6-8 when global Ph.D students and relevant faculty will meet.

KEY NOTE PROFILE



Maria Ceci Misoczky is Associate Professor and researcher at Escola de Administração da Universidade Federal do Rio Grande do Sul (UFRGS) in Porto Alegre, Brazil is the key note speaker for IDC 8.

Maria coordinates the subject area of Organization Studies of the Postgraduate Administration Program at the Federal University of Rio Grande do Sul. Her research interests include the organization of social struggles, focusing on socio-environmental conflicts and anti-colonial and anti-capitalist movements in Latin America. She also coordinates the Research Group Organization and Liberating Praxis and is the editor-in-chief of REBELA – Revista Brasileira de Estudos Latino-Americanos (Brazilian Journal of Latin American Studies, <http://rebela.edugraf.ufsc.br>). She maintains extensive links to academics, activists and policy makers throughout Latin America, and, as part of the CDM Board, would work towards enlarging the reach of CMS throughout the continent. This should include a move to involve other languages (than English) in the CMS discourse. She has always been in close touch with the grassroots of politics, organizing and struggle. An expression of this has been her recent involvement in supporting Haiti to construct a national health system.

AIM OF IDC

The aim of IDC is to become a truly international doctoral consortium, in content and participation. Till now IDC has attracted supporting business schools (i.e., those committed to send students on a regular basis) from every continent. This year there has been a representation from a school from Australia and University of Victoria, New Zealand.

LAST IDC

7th Annual IDC 7, 2017, was held for the first time at Jyvaskyla University in Finland and attracted 39 students from 12 countries in Asia, Australia, Europe, Latin America and North America.

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STUDENTS: WHY SHOULD THEY ATTEND?

The consortium is 1) generally critical, 2) broadly qualitative, 3) highly developmental, 4) very supportive, 5) intimate, 6) international, 7) involves leading scholars, and 8) run and developed by doctoral students.

1) There is a core of critical management studies scholars and students involved in the conceptualization and planning of the

consortium but encourage participation from those who identify with social change but do not necessarily identify specifically with CMS and those who are early in their research and would like exposure to research with a critical impulse.

- 2) The core of the workshops are built around a range of qualitative approaches (e.g., Actor-Network Theory; auto-ethnography, etc.) to management and organizational studies research
- 3) Regardless of philosophical or paradigmatic leanings all participants experience a highly developmental program, with plenty of time to discuss their work and get feedback from other doctoral students and faculty
- 4) The consortium atmosphere is highly supportive and encouraging of students' work and helps them to move forward in developing and completing their doctoral work
- 5) The number of participants is limited to 50 in order to maintain an intimate feel and allow everyone to become exposed to each other's work and comments. [NOTE: priority is given to students from 'sponsor' schools].
- 6) The focus of the workshops is international both in terms of sponsor schools from each continent of the globe and the involvement of students from each sponsor school on the Student Organizing Committee that runs the consortium.
- 7) Each year we attract 12-18 leading scholars to run on-site workshops, including Rebecca Piekkari & Cristian Villanueva (2017), Karen Ashcraft and Peter Simonson (2016), Pushkala and Anshuman Prasad (2015), Paul Adler (2014), Hugh Willmott (2013), David Levy (2012), Anshuman and Pushkala Prasad (2011).

8) The Student Organizing Committee is a wholly student body who plan forthcoming doctoral consortiums, with input from students across the globe.

REGISTRATION IDC 8, 2018

The registration is open.

Please visit the website at <http://bimtech.ac.in/IDC/>

Last Date : January 20, 2018, noon (Indian Standard Time, GMT +5:30). Send filled forms with subject line- "International Doctoral Consortium" at email-id: idc@bimtech.ac.in

Please provide a title and 250-500 word abstract(s) along with a completed registration form. If you are interested in the bursary, please also provide the required information by the last date. There are a limited number of seats available for the research scholars.

Registration form link:

http://bimtech.ac.in/happening_right.aspx?mpgid=181&pgidtrail=223&type=Registration%20Form

Bursary Form link:

http://bimtech.ac.in/happening_right.aspx?mpgid=181&pgidtrail=224&type=Bursary%20Application%20Form

FOR DETAILS

Website link: <http://bimtech.ac.in/IDC/>

Send all queries to: idc@bimtech.ac.in

BIRLA INSTITUTE OF MANAGEMENT TECHNOLOGY

Plot No. 5, Knowledge Park-II, Greater Noida (NCR),

Uttar Pradesh - 201306, INDIA

Tel.: +91-120-2323001-10 Fax: +91-120-2323022/25

About Birla Institute of Management Technology (BIMTECH)

BIMTECH, situated at Greater Noida in National Capital Region, was established in 1988 under the aegis of the Birla Academy of Art and Culture and is supported by B.K. Birla Group of companies. BIMTECH is engaged in delivering research, academic programmes at master's and doctoral level, training and consulting to corporate and other organizations. BIMTECH has partnership with 40 foreign universities and organizations and is signatory of Responsible Business Education with PRME and UN Global Compact. It has been ranked in the top 10 private business schools of India and has come to be regarded as a premier institution to deliver quality education and impart values. There is a focus on fundamentals, respect for the individuals and a seriousness of purpose. This is reflected in various dimensions: interface with corporates, partnership with educational institutions of repute at international levels, building intellectual capabilities, initiatives in areas of societal concern, and strong cultural affinities.





CONTENTS

1. The Editorial	02
2. The Dean's Desk	03
3. An Empirical Study on Household Solid Waste Collection and Management in Balewadi, Pune <i>A. Abhyankar, A. Salunkhe, K. Sarda & T. Rahul</i>	10
4. Trade Liberalisation and WTO's Single Undertaking Approach: What's in for the Developing Countries?* <i>Ishupal Singh Kang</i>	19
5. Customer Satisfaction in B2B <i>Jasmin Veluri & Veenu Sharma</i>	29
6. Bullying at Work: Correlational Study Between Bullying, Anxiety, Depression and Psychological Capital <i>Shreya Mishra</i>	33
7. System Innovation for Sustainability Entrepreneurship and Triple Bottom Line: A Systematic Review <i>Surbhi Cheema</i>	47
8. Determinants of Export Performance of Selected Cash Agri-Products: Pre- and Post-Trade Liberalization in Tanzania <i>John Kingu</i>	58
9. Book Review Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty <i>Satender Rana</i>	61
10. A Report on Workshop on Predictive Analytics with R <i>Arpitha Reddy P & Aditi Mudgal</i>	69



The Editorial

Dear Readers,

Warm Greetings!

We are extremely delighted and overwhelmed to bring you the exciting January-June 2018 issue of *Shodh Gyaan*, Volume 5 on diverse fields of management.

This issue consists of research papers, articles, book review, "Thesis of the Issue" from different management disciplines and a "Research Workshop Series". The thesis of the issue is a summary of the thesis written by a doctoral student of Birla Institute of Management Technology (BIMTECH). The Research Workshop Series consists of a summary report on the workshop organized by Centre for Research Studies, BIMTECH. The research paper by researchers Abhyankar, Salunkhe, Sarda and Rahul of National Institute of Construction Management and Research deals with the solid waste management. This paper explains the reasons, need and efficiency of solid waste management. The paper by Singh, a researcher from SciencesPo, University in Paris, deals with the trade liberalization and world trade organization's single undertaking approach for developing countries and alternate approaches of single undertaking approach like critical mass, early harvest and plurilateral agreements.

The article by management student Jasmin and assistant professor Sharma deals with diverse concepts of B2B customer satisfaction and the factors influencing the customer decisions. The article by researcher Shreya deals with the correlation between employees' experience of workplace bullying, anxiety, depression and psychological capital (PsyCap). The paper by researcher Surbhi on "System Innovation for Sustainability Entrepreneurship and Triple Bottom Line" is a systematic literature review of papers from 2006 to 2017.

The "Thesis of the Issue" is the summary of John Kingu's thesis on Determinants of Export Performance of Selected Cash Agri-Products: Pre- and Post-Trade Liberalization in Tanzania. The book review is written by Rana from the field of Corporate Social Responsibility on "Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty". The review gives the details on the author's view, that deal with the reasons why policy makers fail to achieve what they intend to achieve. The broad aspects like Ideology and Inertia because of which policy outcomes fail. Instead they propose to use facts-based approach for policy making.

The last article is the report on the "Predictive Analytics with R Workshop" from Research Workshop Series. The workshop was organized by Centre for Research Studies, BIMTECH at greater Noida campus on 2nd and 3rd September, 2017. The workshop facilitators were Dr. Amarnath Bose and Dr. Amrendra Pandey from BIMTECH.

We assure that we will continuously strive to get the contemporary and interesting issues to you for a worthwhile reading experience. Please do share your feedback about the quality of the papers in this issue. The Editorial team would be happy and obliged to receive your valuable suggestions.

Hope you get a good reading experience!

Arpitha Reddy P
Editor

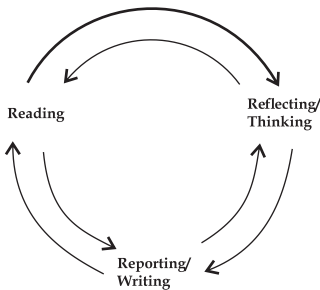
Surbhi Cheema
Associate Editor



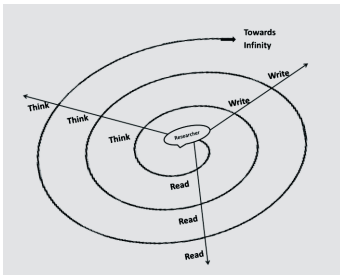
The Dean's Desk

Doctoral Students Need to Focus on Three 'R's of Research

After graduation, those who register for Ph.D/DBA/FPM degree feel that they are matured and that they know a lot about the field that they want to research in, little realizing that they are green horns in the field. They might have been outstanding in graduate course but do not realize that the world has changed by the time they have registered for doctoral course. In today's digitized and connected world, there is explosion of knowledge and all of us become irrelevant if we do not remain connected to our field of knowledge. The question, therefore, for all of us, especially doctoral students, arises as to how to connect and thereafter remain connected with one's field of research. I, generally, recommend to all pursuing doctoral degree to adhere to three 'R's during their doctoral journey - Reading, Reflecting and Reporting; in other words Reading, Thinking and Writing. The process is shown below schematically. There may, at times, be directional reversal which has been shown by thinner arrow.



Though reflecting and thinking are not same, they are somewhat similar. Likewise reporting is not same as writing; it is a wider term compared to writing; it being one form of reporting. My recommendation to doctoral students has always been to read, read....., think, think, thinkand write, write, write..... This is what I did during my doctoral work.



Even though you are doing as suggested above, it is not sufficient if you remain in the same orbit. In every cycle, you need to move up, moving to a new orbit of knowledge. The circle has to be given way to a spiral as depicted below; the spiral could be of any type, spiral of Archimedes, the logarithmic spiral, parabolic spiral, or the hyperbolic spiral.

While one of the models has been depicted above, the other models can be conceptualized by the students themselves. There could be a third model by mixing the two. Be it as it may, I have been asked umpteen number of times by the doctoral students as to how to derive the best out of Reading, Thinking and Writing.

The domain and methodology courses are delivered by faculty with precision but I, often, observe that the doctoral students are at bay when



the course work is over and they have to do the thesis work. The paragraphs below give them some tips in progressing well during their thesis work; in most of the cases, they are required to publish before the submission of thesis. No doubt, it requires field trips, data collection, analysis and interpretation, the work of Reading, Reflecting and Reporting should never stop. Given below are some tips for carrying out these activities.

Reading

Regular and repeated reading influences every aspect of our thinking. It builds a cognitive processing infrastructure that contributes to the ability to reason using words and numbers. (Stanovich, 2003). It is at the root of crystallized intelligence that represents a person's depth and breadth of general knowledge and vocabulary. Great persons' lives have been shaped through reading; Knowledge acquired through reading has even saved lives. Take the case of Thomas Edison, the great researcher, inventor and innovator. Formal schooling had eluded him but he became a voracious reader and remained so till his last breath. He benefited from reading books that were available in his father's home library. Not content with this, he visited Detroit public library where his frequency was highest. In his name there were 1,093 U.S. patents that included 1084 utility patents. In addition, 9 artistic design patents were registered in Edison's name. He created General Electric which remains at the helm of industrial world even today after more than a century. Newton, too, was very studious. It is said about him that either he was involved in business or "civilities of life" or was engrossed in a book with a pen in his hand to make notes. In fact, Rupert Baker, the Royal Society's library manager, calls Newton "a serial offender" as he used to make notes in the library book's page-corners. Newton's discovery

of gravity that has been projected as a fairy tale and considered to be a "bright idea" which came effortlessly is in reality, a discovery that took considerable time for reading and reflection. On the other hand, we have Abraham Maslow, a social scientist (psychologist), who writes about himself, "With my childhood, it's a wonder I'm not psychotic. I was the little Jewish boy in the non-Jewish neighbourhood . . . I was isolated and unhappy. I grew up in libraries and among books, without friends . . . My father wanted me to be a lawyer." After attending the law school for two weeks, he told his father that he does not want to be a lawyer and that he wanted to study rest of the things. Thereafter, reading, reflecting and reporting, he become what he is known for, and is considered in the category of Sigmund Freud, Erik Erikson and B. E. Skinner The doctoral students are mainly required to read research based books, peer reviewed articles and research reports. As far as books are concerned, I recommend to them to first find the right book related to the subject matter of research. Before deciding to read the book, they must know their query and the problem(s). One needs to go through the introduction thoroughly, interpret author's key words and come to terms with the author by grasping the author's propositions. Obviously, the students need to determine which of the problems of his concern has the author solved, and which he has not. They should not stop here; they need to make a critique of the book, the first rule is - do not begin criticism till you have completely read the book, reflected on it and thus, you are in a position to make interpretation. The issue is not about agreeing or disagreeing but about judgement which can be made only after you have understood properly the author's stand on the problems he has dealt in the book. Even if you disagree, never disagree disputatiously or contentiously. Make your judgement by recognizing the difference between knowledge and mere personal opinion.



You should make a note of where the author is uninformed, where misinformed, where illogical and where the author's analysis or account is incomplete. This helps in scholarly discussions.

Research paper

Research papers are read by the doctoral students throughout their course as well as during thesis work and its writing. Beyond courses and literature review, at times, I assign papers for reading and making a critique. Just like books, the students need to first scan all the articles that get thrown up during search through keywords. After going through abstracts, decide the relevant article that you need to read in full. When you read a research paper, your goal should be to understand the purpose of the paper, logical process that it has undergone and the scientific contribution that it is making. This requires going through the paper several times till you internalize it. Deep reading of several hours is needed to understand research papers.

Reading a research paper is a critical process. Unlike at undergraduate level, you should not presume that the authors are always right. It pays to be probing and suspicious. While reading the paper, go on asking questions that arises in your mind, especially about the purpose, the methodology and the conclusions drawn. If the authors attempt to solve a problem, question whether the authors are solving the right problem. If they are dealing with right problem, think whether they have considered various alternative solutions. Look at the limitations of the solution and whether the authors have noticed and clearly admitted these limitations. As building stands on the foundation, the research paper stands on existing theory and assumptions until and unless the authors are investigating a new field and working through grounded theory. Go through the assumptions a couple of times and decide whether the

assumptions the authors have made are reasonable. Given the assumptions, whether the logic of the paper is clear and justifiable or there is a flaw in the reasoning.

In empirical papers, whether quantitative or qualitative or mixed methods, the data constitute the building block. Consider whether the authors have gathered the right data to substantiate their argument and whether the sampling was right for collection of data. Further, one needs to ponder over whether the processing and interpretation of data are correct. Consider whether more data or other types of data were required to substantiate the argument. These are elements for reading a research paper critically; they help you tear apart the paper but what is also necessary is to build (synthesize) it up. You should do both analysis as well as synthesis; the later requires much more creativity. Creative reading is harder; it requires more positive thinking. Look for good ideas in the paper; consider other applications for these ideas as well as possible extensions that the paper did not deal with. Could there be possible improvements that might make important contribution? Can I start doing research based on this paper by taking the idea further or can I bring it to generalization level?

Never forget to make notes as you read the paper; remember Newton in this respect; he made notes even on the corners of the library book pages (I don't recommend it; always follow the rules of the library). For making notes, use whatever style suits you. During reading of the research paper, you must have had several questions or criticisms; in order that you do not forget them, write them down wherever it suits you. Remember to underline key points made in the paper; Make a note of both the data that is most important as well those that appear questionable. These efforts help even at the first time you read a paper; when you re-read the paper after a gap,



such habit of reading research papers pay big dividends. I recommend to my students to summarize the paper in a small paragraph after the first reading as it helps them in setting up mind when they read the paper next time.

Research papers are of many types; some offer new ideas, others take ideas further, yet another implement ideas. A good research paper attempts to give an answer to a specific question(s) known as research question. After critically reading a paper, you should be able to precisely describe the paper as you have read and understood the question the paper has raised and the answer authors have provided. In the first reading you had summarized the paper in a small paragraph; now read the paper again; deepen your initial paragraph through summarizing some more important sub-themes (three or four) of the main idea. A comparison of the paper with other similar papers and preparation of a comparative statement is of great help. This will help you gauge the scientific merit of the paper in the area as well as the contribution it is actually making. Reflect and judge whether the ideas are really novel, or have they appeared before.

Reflecting/Thinking

Reflecting Reflecting, though similar to thinking, is a deeper term. It is not about mind; in reflection your heart and soul speak. It allows your rational mind to rest and to go into your internal life and allows you to listen your heart. Sometimes, it is quite scary as what we hear from the heart is quite contrary to the rational thought of the mind. Our comprehension capability is limited whereas the messages from heart go far beyond. It requires going beyond thinking; you need to tap into the heart's messages from a higher cognitive level. While thinking is a part and parcel of human life; research requires deeper

thinking. Doctoral students after collecting the data and its analysis, require reflecting as well; qualitative researchers requiring more of it.

Thinking Thinking is the action of using one's mind to produce thoughts. In this activity, consideration of something is done through mind. Reason is the pillar of this process that helps figuring it out. It allows the engagement of the rational and ego-centric mind to make meaning of the issue. Here, the researcher fits his challenges into little boxes which has specific boundary and takes logical decisions though they may not be ideal but are optimum. Be it as it may, without thinking, you remain floating around in a state of indecision all the time. In some cases, we face a challenging situation where the variables are ever changing and cannot be fixed in a box; in that case obviously you have to think out of the box; go beyond logic in the domain of philosophy. No doubt, thinking takes you towards your research goal but not far enough to create new understandings, new theories.

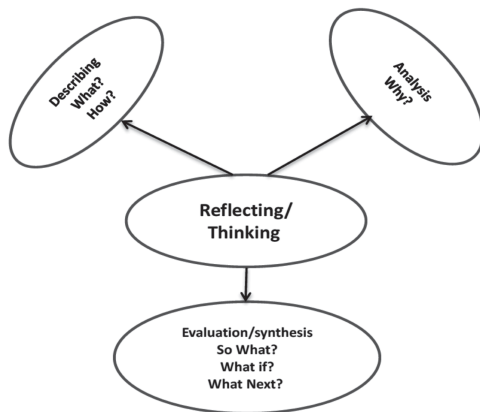
The analysis/synthesis connect with reflecting/ thinking is depicted below.

Your mind or thinking can take you to the logical path but never to the philosophy; it shows the right path for your life within certain constraints. It is the heart that is true to yourself; it provides experience and feeling and emboldens you to go beyond constraints. Doctoral students, who listened to their heart, have always been more successful in bringing new knowledge. They have remained more focussed in the domain and the design. I tell my students, "if you're looking for affirmation at a thinking level not at reflection level, you are tuned to the wrong channel of research." I advise them to spend some time quietly; go into your world within; listen and reflect.



Getting back to thinking, there are two types of thinking – Critical and Reflective. Many authors take Critical and Reflective thinking synonymously. Given below is the distinction between the two.

Critical thinking is connected to cognitive skills or strategies. Probability of a desirable outcome increases through critical thinking which is purposeful, reasoned and goal driven. It solves problems, formulates inferences, calculates likelihoods, and makes decisions as it makes the researcher use skills that are relevant and effective. It makes you connect with the context and the task. Critical thinking and directed thinking are considered synonymous by many as both focus on a desired outcome. (Halpern, 1996). This is more relevant for a research with positivist approach.



Reflective thinking, on the other hand, refers to the processes of making judgments by analysing things about what has happened. It is a part of the thinking process that is active and persistent. Reflective thinking makes careful consideration of the grounds that support the inner thoughts to create knowledge. It helps in development of a belief or supposed form of knowledge that leads to conclusions (Dewey, 1933). Students are well advised to develop the habit of reflective

thinking and attend seminars/workshops on this topic. This makes them assess what they know; what they need to know and how to bridge that gap. Reflective thinking helps all researchers, more so with interpretivist ontology. Reporting/Writing Reporting is a wider term which includes writing. Whether you are reading and reflecting for writing your thesis or a scholarly article, you need to report your research to the academic community by writing the same. The question that has been asked by the doctoral students, "Well Professor, you have asked me to read, I did that, you asked me to reflect/think, I did that but after all this when I send you the draft of my paper you reject it or ask me to rewrite, why?" To answer this question, I always tell them write again and again till you are able to get rid of all shortcomings and ambiguities. I cite them that even Einstein's paper was rejected by 'Physical Review' in which he had claimed that gravitational waves couldn't exist. The reviewer (Howard Percy Robertson) showed that Einstein made a mistake in his calculations and rejected the paper. Here, there was an error of substance but besides error of substance like those of design, methods and calculations, many a times, there may be non-significant errors like grammatical, typographical and the narrative flow of the paper/thesis. In order to eliminate such errors, students will do well to write again and again all the chapters of the paper/thesis; thereafter comes the proper abstract. In this regard I would like to advise the doctoral students in the following paragraphs. In any research paper or the thesis, an abstract, with which the reader interacts initially, is provided. It provides the glimpse of each major aspect of the paper which enables the readers to decide whether the paper should be in inclusion or exclusion category and accordingly; that in turn makes you decide whether to read the full paper. Enough key information like summary results, observations and academic contribution,



therefore, must be included to increase the chances of the paper to be read and cited. As the abstract is written after the paper is ready, a researcher, who reads the paper during literature survey, should get the whole story about your research. All papers start with introduction which includes the background and the purpose of the paper. The readers, through introduction chapter, are led to the specific topic of inquiry. The introduction outlines the context and establishes the scope besides stating the relevance and significance of the research that the author is undertaking. It tells the current understanding (not in detail as required in literature review) and the objective of the work which may be presented in the form of the research problem and possible outcomes of the study but it is not necessary in case of papers working on grounded theory. It should also outline the remaining structure and organization of the paper. The literature review should provide not only the summary of the important information of the source on the subject but it should do the synthesis and re-organization of the information that has been collected from previous studies. You need to group the literature theme wise. The analysis of a literature review is required to give a new interpretation of old material. At times, the authors combine new with old interpretations giving a trail of the intellectual contributions in the field. In doing so, they include major debates and evaluate the sources. The reader is, thus, able to find the most relevant research in the field. The concluding paragraphs must identify where gaps in research exist.

The design and methodology section should describe actions to be taken to investigate the research gaps found from the literature review. Based on this gap, research questions are formed. These questions form the basis for deciding the research design, methodology, methods, tools &

techniques. While selecting tools & techniques, you should be clear that they are to serve your research. Never hide behind tools & techniques to justify your research outcome. Tools & Techniques should be appropriate for your research question; they need to help you analyse the information collected during investigation. In this regard, remember Maslow's words, "If the only tool you have is hammer, you tend to see every problem as nail." This section should be such that no doubts are left in the minds of the readers about validity and reliability of the research work. Questions like how sample was drawn, how data was collected or generated and how the data was processed and analysed are answered by this chapter. As a researcher, you should be direct and precise while writing this chapter which should be written in the past tense. If a new method has been developed or an innovation has been done in the use of an existing method, the methodology should be written in greater detail. This helps other researchers to adopt this new/innovative method. Findings/ Results section of the research calls for reporting the finding of the research in a logical sequence. In case of positivist approach, it should be stated without bias or interpretation while in social constructionist approach, you are allowed your own interpretation. To present results more effectively, the authors must clearly distinguish between raw data or other content and relevant information. Only relevant information should normally be included in a research paper whereas raw data or other content should form part of appendix. To connect between introduction and results, it is always a good strategy to re-read the introduction chapter after writing the results. This ensures that the context is understood by the reader and he looks at the paper with right lenses. The discussion chapter should connect with the previous chapters like literature review, research questions or hypotheses and the results. However, it should be clearly understood that it



is not rearranging the introduction or the literature review or the findings. The purpose of this chapter is to explain how the research has progressed from the understanding of the research problem from the point where previous researchers had left. Discussion provides you an opportunity to bring forth the points of agreement and disagreement with previous findings. You need to explain why you agree or disagree. If any new understanding or insights has come from your research, the same needs to be explained. This chapter allows you to interpret and describe the importance of research findings and provides an opportunity to demonstrate your capability to think critically and reflect on the issue. Finally, you have to do a logical synthesis of the findings and formulate a deeper understanding of the problem undertaken for investigation.

When the findings of the research are brought forward before the peers, the general question asked is, "So What?" It is here that the conclusion chapter gives an opportunity to answer this question. You need to position the study within the context of the newness that your research has

brought in this chapter. You need to clearly bring forward the point that your research is not me, too; it is obviously beyond past researches bringing new knowledge or falsifying old knowledge on the topic. It should be the synthesis of key points, limitations of your research and suggestions for future research. The conclusion should not be too long; in case of a research paper, a paragraph may be good enough while in case of thesis two to four paragraphs may be required.

Reference is an essential part for an article or a thesis though not considered as a part of article or thesis. It is provided at the end of the publication; it includes all published or unpublished source that was consulted and from which information was derived for finding the research gap. The way in which you need to document your sources depends on the manual provided by your University/Institute which may include APA, MLA, Chicago, etc. APA style of referencing is the most widely used; I advise my doctoral students to use this style of referencing.

Dr. A Sahay



An Empirical Study on Household Solid Waste Collection and Management in Balewadi, Pune

A. Abhyankar*, A. Salunkhe**,
K. Sarda**, T. Rahul**

Abstract

The Pune city has been facing crisis and issues related to solid waste management (SWM) and disposal. The reasons can be attributed to increase in population and further urbanization, the growth of Information Technology (IT) sector and automobile industry during last one and half decades. Moreover, agitation from people living in the vicinity of the dumping yards located on the outskirts of the city boundary has resulted in the partial closure of dumping grounds. The situation has also worsened due to the non-functioning of biogas/waste-to-energy (WtE) plant. The laws on SWM were framed in 2000 but the implementation started in January-February 2015 after the earlier mentioned events occurred. This paper discusses the roles and responsibilities of all the stakeholder involved in the SWM and identifies reasons for the failure of the present SWM system. Finally, the paper also discusses the effects of implementation of SWM and handling rules on the efficiency of solid waste collection from the study area, i.e. Balewadi, Pune.

Keywords: Solid Waste Management, Pune Municipal Corporation (PMC), Ward, SWaCH, segregation

Introduction

The city, Pune, fondly addressed as the “Oxford of the East” is the cultural capital of Maharashtra. Apart from being a prominent educational hub of the state, it is now fast emerging as a city of IT prominence and industrial hub (Pune Municipal Corporation, 2015). It is the second largest city of Maharashtra and the eighth largest city in India with the sixth highest per capita income in the country. The entire city is spread across an area of 243.8 sq. kms. It is a plateau city on the western margin of the Deccan Plateau situated at an altitude of 560

m above the mean sea level. The area under the Pune Municipal Corporation (PMC) lies between latitudes 18° 25'N and 18° 37'N and longitudes between 73° 44'E and 73° 57'E. The city is characterized by cool weather during winters, which extends for 5 months and hot and dry weather during summers for 4 months. The maximum temperature of Pune district ranges between 34°C and 41°C during April-May, while the minimum temperature varies between 7°C and 10°C during the months of November to January. The average annual rainfall in the district is 675 mm.

*Associate Professor, Nation Institute of Construction Management and Research

**Post Graduate Student, Nation Institute of Construction Management and Research



The city has been witnessing development like never before. The population is fast increasing due to the opportunities it offers to people from all walks of life. The exponential increase in the population and subsequent urbanization pose different challenges to the administration system of PMC which, if not tackled properly will lead to problems. Solid Waste Management (SWM) is one such hurdle which is being faced by the residents of the city. The dumping yards in the city are being used much beyond their designed capacity and have been a hot topic in daily newspapers. Off late, the biggest challenge the city faces is the issue of waste collection, handling, and disposal. The present situation of direct dumping of waste as seen in Uruli Devachi and Phursungi has deteriorated, as site selection was done using neither any scientific method nor considering its longevity. There are constant agitations and villagers frequently stop trucks containing solid waste leading to garbage problem (Times of India, 2014). The villagers of Uruli Devachi and Phursungi filed an Environment Interest Litigation (EIL) over the issue of garbage mismanagement and non-transparency on authorities involved in the management of solid waste. The issue reached the National Green Tribunal (NGT), western zone in the year 2015 (Sakal Times, 2015).

This is causing a serious impact on the environment in terms of pollution, waste decomposition, etc. resulting in increased health problems like an epidemic of malaria and swine flu. Domestic, industrial, and other wastes, whether they are low or medium level wastes, are causing environmental pollution and have become perennial problems for mankind (Ramasamy, et al., 2002). If this situation is not

handled in a proper manner at the right time, then it will lead to worse consequences as witnessed by the city. Also, unscientific landfill reduces the quality of drinking water and can cause diseases like jaundice, nausea, and asthma (Dhere, et al., 2008). Due to swine flu, 144 deaths were recorded in Pune city during the year of 2009 (https://en.wikipedia.org/wiki/2009_flu_pandemic_in_India#cite_note-pib.nic.in-19).

One of the reasons for this is the lack of scientific approach taken by policymakers in selecting a suitable area and designing the landfill. The increasing population density, public health concerns, and less land available for landfill are making it difficult for PMC to effectively and efficiently collect and dispose of the waste generated by residents, hotels, and other sources situated within corporation limits. The major consideration of this report is to identify the causes of inefficient functioning of the system by understanding the roles and responsibilities of various stakeholders that start from waste generation, nongovernment organizations (NGOs) which are helping PMC in daily collection of waste at source and finally, the PMC which is responsible for keeping the city clean by disposing off the collected waste.

The specific objectives of the paper are as follows:

1. To understand SWM management system in PMC;
2. To identify the various stakeholders and their respective roles and responsibilities; and
3. To study the effects of implementation of SWM and Handling Rules 2000 for Balewadi, Pune as a case study.



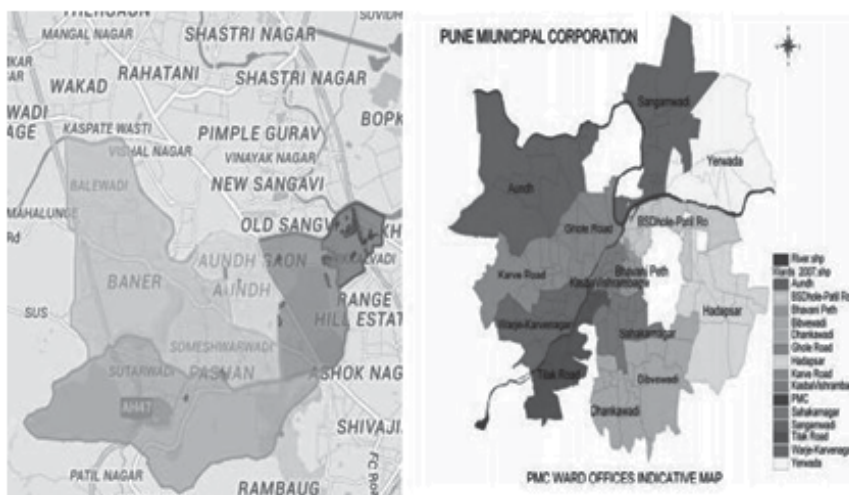
Study Area

Aundh, a suburb located to the north-east of Pune is one of the 16 wards of the PMC. It is one of the posh localities of Pune and has been seen as a residential hub of the city. This is due to its proximity to Hinjewadi which has other software and other multinational companies. Aundh is also close to the famous Bangalore-Mumbai highway. The 2011 census has recorded the population of the ward to be 180,264 having spread across an area of 44.63 sq. kms (Census of India, 2016).. The Balewadi area which comes under the Aundh municipal ward was selected as the study area. The regional office conducts the day-to-day activities of the ward (Map 1).

Solid Waste Management in Pune

The PMC is derived from the Bombay Provincial Municipal Corporation's (BPMC) Act of 1949 and came into effect in 1998. Under this Act, the Municipal Commissioner is responsible for the cleanliness of street, removal of dirt under the limits of the corporation in a manner such that public health is not suffered. It specifies the responsibility of the households or the owner of

the premise to deposit the waste in the bins provided by the corporation. PMC could reach out to only 10% of the households for door-to-door collection. There was 86% of the total waste that was collected from such specified bins and only 42% of such bins were emptied daily (Chikarmane, 2014). The corporation used to spend Rs 1,400 per ton for collection and transportation of the waste and the total expenditure so incurred was one-tenth its annual expenditure. Even after 5 years of its incorporation, the PMC was not compliant with the provisions of BMC Act. The PMC, according to the orders given by the court for complying with laws was forced to turn to Kagad Kach Patra Kastakari Panchayat (KKPKP) for help. The KKPKP started in the year 1993 is an association of waste pickers. They used to work for the Municipal Corporation though not directly employed by them in any form and hence were not paid by the Municipal Corporation of Pune. They earn their livelihood by selling the recyclable articles such as metal and plastic picked by them. Later, the KKPKP suggested a model to PMC wherein they would collect the waste from each household



Map 1. Boundaries of Balewadi Area in Aundh Ward

(https://www.google.co.in/search?q=pmc+ward+offices+map&tbm=isch&source=iu&pf=m&ictx=1&fir=YeHeHiN0id6UXM%253A%252Cz5Hd_rOYwZFhZM%252C_&usg=__q_THvsDMopsGsexdeLFBAuzSLSw%3D&sa=X&ved=0ahUKEwi63M_-673XAhUJPo8KHZbJCrIQ9QEIWjAL#imgre=sG91CKRGP5G_sM:)



with the help of its members and deposit it in community bins as provided by PMC and they would charge a nominal fee to each household, which would be their source of income. The KKPKP later successfully argued with the Municipal Corporation for recognizing the efforts of such rag pickers and issue of identity cards. In 2007, KKPKP was renamed as the Solid Waste Collection and Handling (SWaCH) and started its operations in 2008.

Administrative Setup of Pune Municipal Corporation

For ease of administration, the PMC is divided into 16 regional offices and at each regional office, there are ward officers who oversee the day-to-day functions. Policies regarding the collection, transportation, and disposal of SWM are formed by the Deputy Commissioner, who also heads the SWM department in PMC in conjunction with legislators. This completes the executive level of SWM system. In these policies, the grievances of customers along with the future development and management issues are addressed. The Commissioner then delegates the responsibility to ward officers who report daily to the SWM head regarding the day-to-day functioning of the system in their respective wards. The Ward Medical Officer reports to Ward Officer and implements the various policies of PMC regarding sanitation and other important health policies of public health. The ward medical officers are assisted by a divisional sanitary officer for the day-to-day working. Also, the divisional sanitary inspector conducts surprise visits to the ward and reports about unattended waste and other problems to the Ward Officer. The Sanitary Inspector is responsible for the smooth functioning of the regional office regarding vehicle allocation and other such activities and this completes the

operational level of the SWM system. The Sanitary Inspector has mukadams working under him, who visit the areas assigned to them and make sure that the area is cleaned according to the BPMC Act. The laborers are the lowest rank employees in the pyramid who ensure the cleanliness and sanitation of the respectively allocated areas. The waste collected from residents reaches the collection after segregation and is processed further according to the requirement. PMC, along with SWaCH does the door-to-door collection and makes sure that waste is collected from every household once in 24 hrs, i.e. every day. Figure 1 depicts the administrative hierarchy of SWM department in PMC. Figure 1 is output of one to one interaction with Junior Engineer of Solid Waste Management department of PMC.

Administrative Setup of Aundh Regional Office

The regional office is the place where all micro-level activities pertaining to the ward are planned and executed. Each regional office has a Ward Officer in the top position in the organizational structure at the ward level who reports directly to the Deputy Commissioner of SWM. There is one Ward Medical Officer in each ward who ensures that garbage is properly collected and disposed of so that there is no outbreak of diseases in the ward. The Divisional Sanitary Inspector is responsible for making sure that no illegal dumping of waste is being done in the ward and if any such case/s comes to his notice then a warning is issued to the concerned party for not complying with the law. The sanitary inspector who is under the Divisional Sanitary Inspector is responsible for making surprise checks within the ward to check compliance of citizens with the law and also ensure that action is taken in respect to any prior

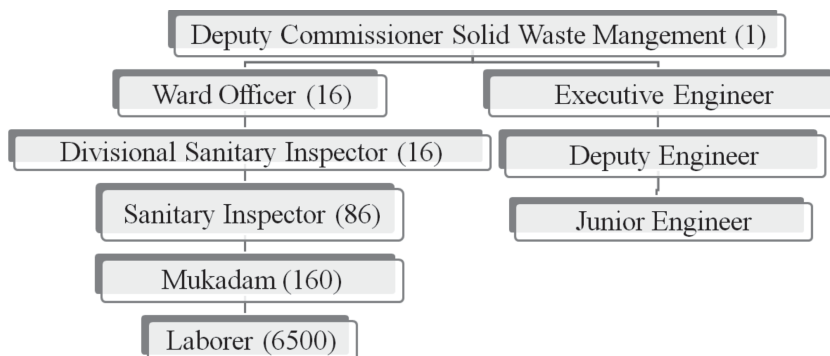


Figure 1. Administrative Hierarchy of SWM Department in PMC

notices served. Mukadam is the head of laborers employed with the PMC. It is on the instructions of the Mukadam, given on the regular basis that the laborers distribute themselves to collect waste and conduct their day-to-day activities. The administrative hierarchy in Aundh ward is given in Figure 2. Figure 2 is output of interaction with Ward officer of Aundh.

Role of Solid Waste Collection and Handling in Pune

Besides improving the standard of living of rag pickers, SWaCH also manages the solid waste in the city. In Pune city, rag pickers, i.e. SWaCH workers visit houses and collect the segregated

solid waste. The waste pickers are ranked lowest in the occupational hierarchy (Narayan and Chikarmane, 2006). Individual solid waste collection and disposal system is practiced in the city. This consists of providing colored bins to residents which in the case of Pune city are coded as green for wet and white for dry waste. Waste is segregated based on its properties, i.e. recyclable and non-recyclable (also called as wet waste and dry waste). SWaCH workers collect such waste from households and deposit it in bins located at street corners at specific intervals (mostly in the mornings). These act as feeder points for PMC from where the ghanta trucks collect waste on a regular basis. There are a total



Figure 2. Administrative Hierarchy in Aundh ward

of 45 SWaCH workers working in the Balewadi area, out of which 30 are males and 15 are females.

Methodology

The present study conducted structured interviews with stakeholders involved in SMW of Pune city. The structured interviews were conducted with the head of the department of SWM in PMC and Ward Officer at the Aundh



Regional Office. The excerpts from the interviews are mentioned next:

The PMC is equipped with ghanta gadis, bulk refuse carriers (BRCs) and other vehicles which are distributed across regional offices in proportion to the population and waste generation. Depending on the routes assigned to each Ghanta gadi the frequency of waste collection varies from two to three times a day from the regional offices. PMC has 160 tipper trucks, 12 compactors, 23 hotel trucks, 10 tractors, 89 dumper placers, and 65 BRCs. With the help of SWaCH cooperatives, PMC provides door-to-door coverage. Also, they have designated trucks for collecting hotel waste and tractors for collecting waste from slums. Compactors are used for reducing the volume of waste, thereby improving intake of landfills and dumpers for transporting the waste from regional offices to processing plants which ensures 100% collection of waste as against waste generated. Segregation means separation of dry waste from wet waste. It is the most time-consuming activity in the entire waste-handling cycle. Segregation of 50 kilos of mixed waste by SWaCH workers needs a minimum of 30 m whereas if the same waste is segregated at source, it saves the additional segregation time required. The ruling of Supreme Court mandates the segregation of waste at the source failing which it attracts a penalty of up to Rs 5,000 only (Sule, 2015). PMC shifted the dumping yard from Kothrud to Urli Kanchan in 2001 because citizens of Kothrud had complained of foul odour. Later, in the year 2010, following the agitation of villagers residing in the vicinity Urli Kanchan the civic body was forced to close the dumping in open, thereby becoming the first civic body in the country to ban open dumping of garbage. Now PMC also strives for 100% scientific treatment of the waste generated. To understand the

functioning of the system at the operational level, an ethnographic study was conducted continuously for 7 days in Balewadi area during January-February 2015. The key points observed are as follows:

- There are a total of 9,000 workers employed with SWaCH out of which 88% of them are females while the rest are males.
- They start their work by 7.00 hours every day and walk for more than 4 to 5 hours gathering waste in pushcarts from individual households.
- After the waste from societies and individual households is collected the workers themselves put the wet waste in the compost pits and take the remaining dry waste with them in pushcarts. This is mostly constituted of dry waste.
- In this process, materials with scrap value are separated and the remaining waste is dumped in the waste bins placed at feeder points by the PMC. This process requires another 5 to 6 hours which brings the total working hours of these workers close to 12 hours a day.
- The handling and collection of garbage is manually done as there is no equipment or tools provided thus exposing them to risks of injuries and respiratory problems.

The challenges faced by them for working in such labor-intensive fields include harassment from police on charges of scrap material theft, irregular and insecure earnings as users do not pay them promptly, no legal protection or social security, unfair practices by traders while selling scrap material, vulnerability to skin, and gastrointestinal and muscular-skeletal ailments. Waste in most cases is not segregated hence the added responsibility.

Data Collection



Data were collected from 93 residents living in 30 societies within the Balewadi area to check the efficiency of solid waste collection. This data was collected during January-February 2015. The residents were asked whether they were segregating waste, bins were emptied daily by SWaCH workers if the society manager or chairman had ever complained to PMC about waste littering, if the answer was "yes" then how much time had it taken to solve their problem. The Society Managers were enquired about the daily routine of SWaCH workers in their society and whether they maintained any record of the same signed by SWaCH workers before and after the implementation of solid waste regulations.

Results and Discussion

A z-pair test was performed and it was based on the responses given by the residents regarding the frequency of waste collection by SWaCH workers before and after the implementation of the law (Table 1). The variable z_1 was defined as:

A number of times in a week the waste was collected by SWaCH workers before PMC made it mandatory to segregate the waste at source; and z_2 was defined as:

Number of times in a week the waste is collected by SWaCH after PMC made it mandatory to segregate the waste at source.

The Null hypothesis is defined as $(z_1) - (z_2) = 0$ and alternate hypothesis as $(z_1) < (z_2)$.

There is also a significant change in the behavior of residents as there is an increase from 9.67% to 84% of the residents segregating the waste at source. Also, 70% of the societies have a working vermicomposting facility for wet waste

disposal in its premises in Balewadi. The response time for complaints lodged by residents with the SWaCH relating to issues of waste collection or disposal was claimed to be 24 hrs. However, the analysis done based on the inputs given by society managers/chairman was found to be 35.57 hrs.

Concluding Remarks

The PMC claims that they provide the necessary boots and other equipment like push carts but do not ensure its maintenance. The workers, therefore, carry buckets either on their shoulders or are forced to drag them. This affects their health and also results in littering the surroundings. The workers are forced to work for more than 10 hrs a day, thereby, causing fatigue which reduces their overall efficiency. The SWaCH workers generally do not report on time for collection of waste and the residents thereby feel cheated even after regularly paying taxes to PMC. The PMC on the other hand, due to the tremendous growth of population has become helpless and seeks support of residents in reducing the garbage. Therefore, they made it mandatory for the residents to dump the wet waste in the pits created in society. Even after making it mandatory for citizens to segregate waste, only 950 tons out of 1,200 tons of waste is segregated according to the daily records maintained by PMC.

The employees of PMC in Aundh regional ward have problems like shortage of vehicles for waste collection, delay in refilling of fuel in the vehicles, acute shortage of drivers, vehicle maintenance is not periodic which results in spilling of waste on roads, lack of basic amenities like water supply to washrooms and toilets, absence of watchmen in their office premises, etc. They also feel morally down because of the inability of higher authorities to impose fine on the residents who do not segregate the waste at source. The SWaCH workers are sometimes



Table 1. z-test

z-Test: Two Sample s for Means		
	z1	z2
Mean	2.72	5.48
Known Variance	0.747	0.97
Observations	93	93
Hypothesized Mean Difference	0	
Z		
P(Z<=z) one-tail	0	
z Critical one-tail	1.645	
P(Z<=z) two-tail	0	
z Critical two-tail	1.96	

Table 1 clearly depicts the p-value less than 0.05, indicating that the overall frequency of household waste collection by SWaCH workers has increased from 2.72 to 5.37 days. So we do not accept the null hypothesis. This indicates improvement in efficiency of SWaCH workers.

unofficially instructed by higher authorities to burn the dry waste which does not get lifted the same day. This burning of waste is reported by citizens but no cognizance is taken by authorities at any level. This results in increased air pollution and airborne diseases. This practice was regularly observed during this study.

The society should have a community bin wherein the residents dump their segregated waste instead of the SWaCH workers going door-to-door for collection. This will significantly reduce the collection time of the workers. The society manager should have a Standard Operating Procedure (SOP) for these workers and therefore can have real-time progress of cleanliness of their society. The PMC should increase the number of employees in their administration in view of increasing population, thereby addressing the issues and concerns of

the residents. The PMC should provide adequate financial resources for timely maintenance of important equipment like push carts, vehicles, etc. and should encourage the system of community bins wherein the residents can dump their waste instead of the individual collection system. PMC should decentralize the helpline to ward level so that response time is reduced. The PMC should encourage the practice of displaying information on bulletin boards at important corners in the locality; Balewadi Phata in this study and display information about the route and time of SWaCH workers, route and time of ghanta gadi, name and phone number of ward officer as well as area in-charge of SWaCH, daily information about waste collected and transported. In this way, the residents would also be informed about the waste collection. PMC should recognize the wards that have worked to reduce waste



generation and reward them in the form of reduced water taxes, reduced municipal taxes, etc. The ward officer should also be given incentives for reducing waste generation in their wards and this should be equally distributed up to last operational level (labor) so that they feel motivated.

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Trade Liberalisation and WTO's Single Undertaking Approach: What's in for the Developing Countries?

Ishupal Singh Kang*

Introduction

The World Trade Organization (WTO), which came into being in 1995, is without any doubt the most complex and extensive international organization in the world today. The multilateral trade regime, under the aegis of WTO, covers a wide array of topics ranging from trade in goods and services to rules on intellectual property and investment etc. This essay is concerned with the following two important questions related to WTO and the multilateral trade regime set up under it. First, the essay analyses the single undertaking approach to negotiations in the WTO. According to the single undertaking approach, the negotiations on different trade topics are to be taken together in totality and all the member countries have to agree to all the agreements concluded as outcome of the negotiations. In this regard, it would be argued that, though the single undertaking approach is generally viewed as a neutral principle which is equally advantageous to all WTO members, in reality the single undertaking approach is not beneficial to majority of the WTO members and has been used as a coercive tool by developed and industrialized countries to maximize their benefits. Second, it would be argued that the policy of granting liberalization in services to gain greater liberalization in agriculture, based

on the idea of comparative advantage, does not properly serve the interests of developing countries. Instead, the focus should be on addressing the substantive inequity in the trade rules by also focussing upon securing intra-sector balance.

Part II of the essay would give a brief introduction to the single undertaking approach. In part III, an attempt of critically analysing the single undertaking approach would be made and possible alternatives to single undertaking would be discussed. Part IV would deal with the question whether developing country members should liberalise trade in services further in return of more liberalisation in agriculture. Part V would be the conclusion.

Single Undertaking Approach

In general terms, the single undertaking approach is known as "nothing is agreed until everything is agreed upon" approach.¹ Accordingly, it means that all countries taking part in the negotiations have to agree to all the different aspects or agreements as a single package.² The single undertaking approach mainly emerged during the Uruguay Round negotiations leading, ultimately, to the creation

¹ Bernard Hoekman, 'Proposals For WTO Reform: A Synthesis And Assessment' (2011) 20 Minn J Int'l L 324, 329

² Mitsuo Matsushita, Thomas Schoenbaum and Petros Mavroidis, *The World Trade Organization: Law, Practice and Policy* (Oxford University Press, 2006) 4-5 (The authors provide a succinct account of the creation of WTO noting the move from the GATT's la carte to the single undertaking of the WTO)

* PHD Student, Sciences Po Law School, University in Paris, France.



of the WTO.³ It was initially perceived to provide a comprehensive and coherent direction to the multilateral trade negotiations as opposed to the flexible and plurilateral approach pursued during the Tokyo Round which preceded the Uruguay Round.⁴

The Doha Development Round, the currently ongoing round of negotiations in the WTO, is also principally based on the single undertaking approach. More specifically, the Doha Ministerial Declaration 2001 clearly provides the following with regard to the single undertaking approach:

With the exception of the improvements and clarifications of the Dispute Settlement Understanding, the conduct, conclusion and entry into force of the outcome of the negotiations shall be treated as parts of a single undertaking. However, agreements reached at an early stage may be implemented on a provisional or a definitive basis. Early agreements shall be taken into account in assessing the overall balance of the negotiations.⁵

Critically Analysing The Single Undertaking Approach

The single undertaking approach is generally viewed as a positive and desirable aspect and considered an integral part of the WTO's institutional structure.⁶ According to Jagdish Bhagwati, the single undertaking approach must be credited for the development of a multilateral trade regime with "common rules and obligations for all members".⁷ John J. Jackson points out the fact that single undertaking approach is one of the seven

mantras, "catchphrases that sound reassuring but are almost never thought through".⁸ In the following analysis, based on the history as well as the institutional issues of multilateral trade negotiations, it would be argued that the single undertaking approach is not beneficial for the interests of a majority of member countries of the WTO.

1. Is the Single Undertaking Approach generally beneficial to all countries?

The argument is structured in three parts. Firstly, it would be argued that the single undertaking approach was an effective tool used by the demandeur countries in the Uruguay Round negotiations ultimate outcome of which was a heavily skewed framework of rules and standards governing the multilateral trading regime. Secondly, considering the regular use of informal and non-transparent negotiating processes and mechanisms within WTO, the single undertaking approach does not help many developing and least developed countries to participate effectively. Thirdly, the goal of ever-enhancing levels of liberalization supported by the single undertaking approach is a narrow approach and results in neglect of other important issues in the multilateral trade negotiations.

i. It is not neutral and non-political

As already pointed above, the single undertaking approach is considered to be a basic tenet of the institutional functioning of the WTO which is neutral and beneficial to all.⁹ However, a closer look at the history of Uruguay Round negotiations reveal a different picture. Right

³Hoekman (n 1); Robert Wolfe, 'The WTO Single Undertaking as Negotiating Technique and Constitutive Metaphor' (2000) 12 J Int Eco L 835; Surendra Bhandari, 'Doha Round Negotiations: Problems, Potential Outcomes, and Possible Implications' (2012) 4(2) Trade L & Dev 353, 361

⁴Anna Lanoszka, 'The Promises of Multilateralism and the Hazards of 'Single Undertaking': The Breakdown of Decision Making Within The WTO (2008) 16 Mich St J Int'l L 655, 663

⁵World Trade Organization, Ministerial Declaration of 14 November 2001 (Doha Ministerial Declaration), WT/MIN(01)/DEC/1, 41 ILM 746, para. 47

⁶World Trade Organization, 'WTO Public Forum 2007: How can the WTO Help Harness Globalization' <http://www.wto.org/english/res_e/booksp_e/public_forum07_e.pdf> accessed on 9 December 2013, 179; Miguel Rodriguez Mendoza, 'Toward "Plurilateral Plus" Agreements' in Ricardo Meléndez-Ortiz, Christophe Bellmann and Miguel Mendoza (eds), *The Future and the WTO: Confronting the Challenges* (ICTSD, 2012) 28-29

⁷Jagdish Bhagwati, 'Fifty Years: Looking Back, Looking Forward', (Symposium on the World Trading System, Geneva, 1998) 4; Also see Jagdish Bhagwati, 'After Seattle: Free Trade and the WTO' (2001) *International Affairs* 77(1) 15, 27 (In this article the author notes the political use of the single undertaking approach as "bullying tactics", however maintains the fact that it is now irreversible)

⁸John Jackson, 'The WTO Constitution and Proposed Reforms: Seven Mantras Revisited' (2001) *J Int Economic Law* 67, 72



from the beginning, the negotiations were characterized by an undemocratic and coercive element which is quite evident from the initial rejection of the notion of a new trade round by several developing countries resisting pressure from developed and industrialized countries.¹⁰ However, a range of factors including difficult economic conditions, structural adjustments favouring liberalization imposed by the IMF and the World Bank, disillusionment with the unilateral preferential trade policies of the U.S. and EU (then EC), neglect of their interests in the GATT negotiations etc. created an environment where the developing countries eventually agreed to take part in the Uruguay Round on a substantially reciprocal basis.¹¹ The single undertaking approach, as enshrined in the GATT Ministerial Declaration of 20 September 1986 at Punta Del Este, was to guide the negotiations of the new round. At this point, it is extremely important to note that during the initial years of the round, there was no interpretation of the single undertaking approach to the effect that all the countries would have to agree to all the aspects of the negotiations. In fact, the single undertaking was understood, especially by the developing countries, to be an "instrument to ensure that the issue of agriculture in particular was not side-tracked in the negotiations."¹² In this regard, Patel notes that the concept of single undertaking approach was hence in the beginning considered to be representing the globality of trade negotiations and a recognition of the inter-linkage of different trade issues.¹³

However as the negotiations progressed, facing a strong resistance by developing countries especially in the new issues of services and intellectual property¹⁴, the single undertaking

was started to be interpreted as an all or nothing approach.¹⁵ It was in the draft final act (Dunkel Draft) prepared by Arthur Dunkel, the then Director General of the WTO, that the single undertaking was presented as "all-or-nothing".¹⁶ The Dunkel Draft was a compilation of all the progress made during the negotiations, however it was not a "consensus document".¹⁷ This interpretation of the single undertaking approach was a clear signal to the developing countries that for any progress on areas of their interest they necessarily had to agree to the new issues which were of interest to the developed countries.¹⁸ This factor, along with the threat of unilateral trade sanctions by the U.S and the fear of a complete failure of negotiations, provided the final push resulting in the creation of WTO in 1995. Though it may have been a laudable moment in the history of the world trade, the result was far from satisfactory for a majority of the member countries of the newly formed WTO.¹⁹ The single undertaking approach, initially envisaged as neutral and providing parity between the divergent interests of the different countries, was the reason because of which developing and least developing countries took substantial obligations in return of an insufficient token bargain.²⁰

ii. Substantial use of informal and non-transparent processes and mechanisms in WTO negotiations

One of the most important premises for the single undertaking approach to operate in a manner beneficial to all is the relative neutrality of the negotiations agenda as well as the processes involved. This neutrality in agenda setting and subsequent negotiations ensure that interests of all the members are taken into consideration and overall balance of the

¹⁰Bhandari (n 2); Craig VanGrasstek and Pierre Sauvé, "The Consistency of WTO Rules: Can the Single Undertaking be Squared with Variable Geometry?" (2006) 9(4) *Int Economic Law* 837, 839 (the authors note that the single undertaking approach has been "been praised for facilitating the negotiation and implementation of an expanding set of agreements and for ensuring their consistent application")

¹¹Kevin Watkins, *Fixing the Rules: North-South issues in International Trade and the GATT Uruguay Round* (Catholic Institute for International Relations, 1992) 39; Chakravarti Raghavan, *Recolonialization: GATT, the Uruguay Round & the Third World* (Third World Network, 1990) 40

¹²Michael Trebilcock, Robert Howse and Antonia Eliason, *Regulation of International Trade* (Taylor and Francis, 2013) 612



negotiations can be assessed and maintained. Hence, mere participation in the negotiations does not suffice a generally beneficial result.²¹ Instead, there has to be a high degree of transparency which enables countries, especially the one with limited resources, to assess all the domestic implications of the decisions made during negotiations. It is argued that the principles of deliberative democracy, i.e. “good argument and not power be allowed to prevail”,²² are regularly ignored in the negotiations practices in the WTO which ultimately lead to outcomes bound by single undertaking approach to be unbalanced and predominantly in favour of the countries steering the course of the negotiations.

The example of Green Room meetings²³ is probably the most suitable illustration for explaining the point in clearer terms. These informal and selective meetings have seriously impaired coalition building between developing countries and essentially making the negotiation process non-transparent and out of reach for a majority of the countries who end up taking obligations, bound by the single undertaking approach, without the chance of deliberating and discussing the issues discussed in such meetings.²⁴ Despite been at the centre of a big controversy in Seattle Round, where several developing countries represented by a coalition called Like Minded Group severely objected to and demanded reform²⁵ as well as being subject of reform proposals²⁶, informal Green Room meetings are still in practice in negotiations at WTO.²⁷

Therefore, with such informal and non-transparent processes being integral part of the

negotiations, liberalization promoted by the single undertaking approach is not beneficial to most of the member countries of the WTO.

iii. Neglect of existing issues and too much focus of expanding trade liberalization

The third part of the argument against the single undertaking approach is based on the rejection of the view that rapid successive liberalization over broader areas is desirable for the WTO as an institution as well as for the member countries in general.²⁸ Notwithstanding the fact that there is enough evidence that continuous liberalization is not always beneficial across the board, the single undertaking approach by focussing on addition of new trade issues for a broader trade-off leads to a neglect of the existing issues which are also important to multilateral trade regime. For instance, in the recently concluded Ninth WTO Ministerial Conference at Bali in December 2013 (Bali Ministerial), a number of statements from many countries, especially developing and least developed countries focus on pointing out the need of “correcting historical imbalances related to agriculture”²⁹ and missed deadline for implementing export subsidies elimination by 2013.³⁰ These submissions stress upon the need to pay attention to such issues rather than just focussing on going with all negotiations as single package. Furthermore, one of the reason for the prolonged Doha Round can be considered to be the broad agenda for negotiations initially focussed on to be completed as a single package.³¹ According to Hoekman and Kostecki, “much of the research that has been done on the economics of new issue areas suggests there is a strong case to be made for resisting efforts to steadily expand the

²¹Chandrakant Patel, ‘Single Undertaking: A Straitjacket or Variable Geometry?’ (2003) TRADE Working Papers, South Centre, 10.

²²ibid 11 (“In this interpretation of the concept, there was no presumption that each decision and outcome of the GNG would be binding on each and every GATT Contracting Party. Neither was there any expectation of trade-offs between the negotiations on goods on the one hand and negotiations on services on the other hand.”)

²³Kevin P Gallagher, ‘Understanding Developing Country Resistance to the Doha Round’ (2007) Review of International Political Economy 15:1 62, 67-72

²⁴Patel (n 12) 11

²⁵Lanoszka (n 4) 667

²⁶Gardner Patterson and Eliza Patterson, ‘The Road from GATT to MTO’ (1994) 3 Minn J Global Trade 35, 44

²⁷Donatella Allesandrini, Developing Countries and the Multilateral Trade Regime: The Failure and Promise of the WTO’s Development Mission (Hart Publishing, 2012) 106

²⁸Anu Bradford, ‘When The WTO Works, and How it Fails’ (2010) 51 Va J Int’l L 1, 21



ambit of the WTO".³² Hence, the single undertaking approach may not be conducive to capitalize on success achieved on some issues on the negotiations agenda. In fact, the current status of the Doha Round since the adoption of a "tiered approach through the July 2004 Package"³³ and the latest Bali Package in specific, in a sense can be considered as a slight departure from the single undertaking approach.

2. Alternatives to the Single Undertaking Approach

In light of the arguments against the single undertaking approach being beneficial to all, there have been several proposals and suggestions regarding alternative approaches to negotiations in the WTO. The following sections briefly discuss the various options.

I. Critical Mass Approach

According to this approach, rather than making all countries take part in the negotiations with the aim of uniform acceptance of a single package at the conclusion, the focus should be on developing a practice where once a proposal has received support of a "critical mass of countries", other member countries would not oppose or block such a proposal.³⁴ This may be considered a viable alternative in terms of its possibility of actually happening since this approach does not require any major structural change within WTO which can be only done through a consensus of all the member countries.³⁵ But the way "critical mass" is defined, for example, on the basis of some proportion of the total WTO membership or as a certain percentage of the world trade would have an important bearing on its outcome. However, critical mass approach is more relevant for solving the problem of

consensus among WTO members rather than being a strong alternative to the single undertaking approach.

ii. Early Harvests

The basis of this approach is found in the legal provision containing the single undertaking approach itself. For instance, Doha Ministerial Declaration provides for the exception to the single undertaking approach in the sense that "agreements reached at an early stage may be implemented on a provisional or a definitive basis"³⁶ This exception clause can be utilized and can be of critical importance in negotiations rounds, like the Doha Round, which stretch too long. In fact, early implementation of agreements concluded during the round can provide a strong impetus for all countries to continue negotiations.³⁷ Specifically, in case of the ongoing Doha Round, such a step can rebuild the trust in developing countries and may solve the impasse by strong positions taken by developing country coalitions.³⁸

iii. Plurilateral Agreements

Another alternative to the single undertaking approach is to negotiate and conclude agreements on plurilateral basis. The argument for adopting such an approach is based on the fact that many countries have negligible interests in pursuing negotiations in certain trade areas. In such a scenario, it would be more sensible to let "like-minded countries to move ahead in new areas where it is clear that there is no consensus"³⁹ Furthermore, use of plurilateral agreements can also be justified from the fact these plurilateral agreements can provide the groundwork for further negotiations and can

³²ibid

³¹Bernard Hoekman and Michel Kosteci, *The Political Economy of the World Trading System: WTO and Beyond* (Oxford University Press, 2003) 483

³²BS Chimni, 'The World Trade Organization, Democracy and Development: A View From the South' (2006) *Journal of World Trade* 40(1), 5

³³The expression "Green Room meetings" refers to informal closed door meetings, between major negotiations countries and may include selectively chosen developing countries or LDCs, used mainly to push forcefully negotiations on contentious and stalled issues. See, Bernard Hoekman, 'The WTO: Functions and Basic Principles' in Bernard Hoekman, Aaditya Mattoo, and Philip English (eds), *Development, Trade and WTO: A Handbook* (The World Bank, 2002) 48

³⁴Chimni (n 22)15; Debra P. Steger, 'The Future Of The WTO: The Case For Institutional Reform' (2009) *J Int Economic L* 12(4) 803, 811



acquire a multilateral status as more countries adopt such agreements.⁴⁰ In fact, the WTO legal framework provides for the possibility of concluding of plurilateral agreements.⁴¹ Consequently there are two currently existing plurilateral agreements, on government procurement and trade in civil aircraft within the WTO. However, Hoekman and Kosteckicaution against the fragmentation due to the plurilateral approach which can have serious impact on the multilateral trade regime as a whole.⁴²

Should Developing Country Members Liberalise Services Further In Order To Obtain More Liberalisation In Agriculture?

The convention mainstream wisdom, essentially based on the idea of comparative advantage and its later refinement in form of factor endowment theory, prescribes that developing countries should offer substantial liberalization in services in return of liberalization in agricultural trade. This prescription was the fundamental theoretical basis for the stress on reciprocity between developing and developed countries in the Uruguay round negotiations leading to the creation of WTO.⁴³

However, on the basis of following considerations, it would be argued that such a one-dimensional attitude towards trade liberalization is not beneficial for developing countries. Instead, what might better serve the interests of developing countries is a focus on achieving favourable and equitable stand in each area of trade liberalization. Firstly, as the

history of Uruguay round negotiations reveal, mere reliance on reciprocity does not result in balanced outcomes. Though it was portrayed as a “grand bargain” based on trade-off between the trade interests of developing and developed countries, it was actually a “bum deal” with little liberalization in agriculture at expense of substantial commitments in services trade and intellectual property.⁴⁴ Secondly, this unbalanced outcome of Uruguay Round points towards the need for intra-sector balances. For instance, it is too simplistic to assume that trade liberalization in agriculture would benefit all developing countries. It is important to note that many developing and developed member countries of the WTO are actually food importing countries as well as the organization of agricultural activity in most of the developing and least developed countries is done on low output and subsistence level. Such realities make practices like agricultural subsidies and governmental support for food security objectives really important and there is a real need for recognition of these aspects in multilateral trade negotiations.⁴⁵ Similarly, in case of trade in services, several developing countries may actually benefit for liberalization in certain services sectors.⁴⁶ Above this, a balanced approach towards liberalization must take into consideration the costs incurred by developing countries in making structural and regulatory changes.⁴⁷ Thirdly, on a more fundamental basis, the notion of trade-off between trade in services and agricultural trade does not serve the developmental interests of developing countries. Such an approach to trade

⁴⁰Kent Jones, *The Doha Blues: Institutional Crisis and Reform in the WTO* (Oxford University Press, 2009) 40

⁴¹Hoekman and Kosteck, (n 21) 471 (Noting the Schott-Watal Proposal which suggested that the Green Room meetings must be made transparent)

⁴²Final Statement by Bolivia, Cuba, Ecuador, Nicaragua and the Bolivarian Republic of Venezuela at the Ninth WTO Ministerial Conference, 7 December 2013, WT/MIN(13)/30, 1, <https://mc9.wto.org/system/files/documents/30_3.pdf> accessed on 11 December 2013; Kent Jones, ‘Green Room Politics and the WTO’s Crisis of Representation’ (2009) *Progress in Development Studies* 9(4) 349, 356; However also see, Craig VanGrasstek and Pierre Sauv , (n 9) (Authors note a slightly different scenario by stating that “the rising assertiveness of developing countries...has resulted in a significant opening of the Green Room to a wider and more representative membership as the process of consensus building and consultations has become significantly more inclusive”)

⁴³Patel (n 12) 5 (The author argues that the single undertaking approach is usually justified on the basis of the “grand bargains”, between a large number of countries with divergent interests, it can accomplish which itself is considered important to avoid the stalling of the progress of continuous liberalization and to keep the “bicycle” moving without which the entire institutional structure would collapse); Also see, Rorden Wilkinson, ‘Of Butchery and Bicycles: The WTO and the ‘Death’ of the Doha Development Agenda’ (2012) *The Political Quarterly* 83(2) 395, 397

⁴⁴Ministerial Communique, Bali - Indonesia Ministerial Meeting of The Group of Landlocked Developing Countries, Ministerial Conference Ninth Session Bali, 3-6 December 2013, 2, <<https://mc9.wto.org/system/files/documents/26.pdf>> accessed on 11 December 2013

⁴⁵G-33 Ministerial Communique, Ministerial Conference Ninth Session Bali, 3-6 December 2013, 2 <<https://mc9.wto.org/system/files/documents/11.pdf>>, accessed on 11 December 2013



liberalization is based on the idea that developing countries should continue to specialize and focus upon economic activities which are low value, natural resources and labour intensive and the industrialized countries should continue to hold their advantage in high value commercial activities. In principle, such an approach works to limit the opportunities to developing countries to diversify their export interests and develop advantages in high value commercial activities. Therefore, the debate on liberalization should not be just seen from the lens of reciprocity and comparative advantage among countries but it should also take into account the issues of substantial inequity and asymmetrical nature of the global trade regime in a more inclusive manner.

Conclusion

It has been argued that the single undertaking approach and the model of liberalization forwarded by it does not benefit a majority of the member countries of WTO. Furthermore, the policy of inter-sector trade-off, based on the concept of comparative advantage, not only ignores the importance of achieving intra-sector balances but is also disadvantageous for developing countries in pursuing overall economic development.

As conclusion, it can be remarked that despite the stress on centrality of development objectives of developing countries and the rules-based system of governance, the WTO remains largely focussed on the narrow idea of trade liberalization as a wholesale solution and internalizes and allow the power imbalances to affect the final outcomes regarding the nature of the multilateral trade regime.

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³¹Hoekman and Kostecki (n21) 481 ("Perhaps the greatest need pertains to old issues. Barriers to trade in agriculture remain very high in most member countries")

³²ibid 484

³³Sungjoon Cho, 'The Demise of Development in the Doha Round Negotiations' (2010) *Tex Int'l LJ* 45 573, 578

³⁴Jackson (n 8) 74

³⁵Jackson (n 8) 75 (Jackson instead proposes of developing a practice in form of a "peer pressure" encouraging states to refrain from blocking proposals if certain threshold requirements are met.)



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³⁶Doha Ministerial Declaration (n 5), para. 47

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³⁹Hoekman and Kostecki (n 21) 485

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⁴¹Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 33 I.L.M. 1144, Art. II(3) ("The agreements and associated legal instruments included in Annex 4 ("hereinafter referred to as "Plurilateral Trade Agreements") are also part of this Agreement for those Members that have accepted them, and are binding on those Members. The Plurilateral Trade Agreements do not create either obligations or rights for Members that have not accepted them.")



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⁴⁵Carmen G. Gonzalez, 'Institutionalizing Inequality: the WTO Agreement on Agriculture, Food Security, and Developing Countries' (2002) 27 Colum J Envtl L 433, 490 ("It is also imperative to recognize the underlying inequities in the global trading system that create food insecurity and to craft multilateral trading rules that enable developing countries to utilize a wide array of tools to ensure access by all people at all times to sufficient, safe and nutritious food")

⁴⁶However, it is also important to note that most of such sectors of export interest to developing countries fall in Modes 1 and 3 where there is no substantial scope for trade liberalization.

⁴⁷Bernard Hoekman, 'The GATS and Developing Countries' in Joel P Trachtman and Chantal Thomas, Developing Countries in the WTO Legal System (Oxford University Press 2009) 455 ("To address the legitimate worries regarding regulation and regulatory preconditions for liberalization—a distinct feature of the services agenda that differentiates services trade from trade in goods—another type of S&D treatment is arguably needed")



Customer Satisfaction in B2B

Jasmin Veluri*
Veenu Sharma**

B2B markets are different from mass markets where each customer is unique and their requirements which portray a divergent concept of customer satisfaction. Influencing customer decisions in B2B is critical and complicated, specifically amongst the raw material suppliers to favor one to another; and also while breaking into new account, the dilemma in dealing with the touchpoints across the customer journey. This article relates to these typical questions in B2B customer's journey.

The Customer Journey and How Businesses Buy

The annual expenditure and strategic importance are the major factors to categorize the decision making in B2B. Plant and machinery which involve high strategic importance and annual expenditure is a long purchase process (Gattorna, 2003). This article is more related to the products where the customer journey is much more than choosing among branded paperclips.

Fast & Slow Thinking in Business Decisions - Purchase decisions in B2B are quite traditional, irrelevant to sector or industry. Small purchases as those involving low risk and less significant to business are made easily and quickly. This phase is short, whereas any expensive and critical decisions which deal with higher risk and returns are much longer episodes. Expensive decisions are evaluated well in detail, evaluated with more precision and understood to the core before proceeding further, hence to avoid any future uncertainties (Hamel, September 2003).

Complex decisions involve high amount of details which would make them difficult to process and the brand plays a privileged role in synthesizing the existing information about the product and adds a trust factor to the customer's decision. Henceforth, Brands become important in most of the B2B decisions. Brands ease the decision making on which raw material suppliers to be included in the consideration set. Brands role in decision making process highlights the importance of emotions, which are enacted through brands.

* Post Graduate Student, Birla Institute of Management Technology

** Assistant Professor, Birla Institute of Management Technology



Most of the companies claim to be choosing raw material suppliers on the basis of price, quality and availability which are despite the presence of wide choice of companies offering cheaper products, or better availability. Understanding the customer needs in the life-cycle and the drivers involved in potential supplier change helps in winning new business.

Eventually trial orders are placed from a new supplier, where a strong relationship and trust could be developed. Understanding of the life-cycle and customer journey is the quintessential classic of how businesses buy and also highly unaffordable for B2B marketers to ignore (Trout, 2000).

Improving Customer Satisfaction

Multiple touch points for a single customer in an organization could lead to customer dissatisfaction such as Customer service department, Sales team representation, the finance department and so on. A customized Customer Relationship Management (CRM) system for measuring the customer satisfaction is more effective than rectifying existing gaps in the process. Customer satisfaction studies shall be specific to the point, hence to obtain any tangible improvements.

Customer satisfaction scores are a reliable tool to measure the levels of satisfaction. General measure of scale is from 1 to 10. The corridor of satisfaction lies from 7 to 9. The scores cannot be generalized in B2B as each customer is unique and their needs require customized products. The factors leading to the satisfaction could be standardized in the overall process. Steps to improve satisfaction are:

- Identify Satisfaction Levels and Its Drivers
- Establish Workgroups

- Approving the Strategies
- Establish Simple Measures

Customer satisfaction improvement shall be a constant process for the benefits to be huge for a company through increased loyalty and increased profitability.

Beyond Customer Satisfaction

Except for monopoly organizations, no other B2B firms could afford to fail in satisfying the customers. The measured customer satisfaction may not translate exactly into profit over time and customer retention. Apt measures for satisfaction measurement couldn't be defined rather a human factor to be involved along the customer journey to understand the customer needs (B2B International, 2015).

Customers Loyalty

As mentioned earlier, customer satisfaction scores indicate the zones of satisfaction. On a scale from 1 to 10, a Zone of complete satisfaction is represented by scores 9 to 10; scores of 7 to 8 indicate average satisfaction and the rest are dissatisfaction zones. For high loyalty, the organization needs to be maintaining consistently from 9 to 10.

Slightest possible dissatisfaction could lead to disloyalty and customers could easily switch raw material suppliers with tempting offers. Also finding a customer is more expensive than the sacrilege to lose them. Firms with customer retention rates of around 95% enjoy high profits whereas average performing firm's retention rate is at around 80% (Anderson, July 1994).



Loyalty and Inertia

As per the studies on B2B markets, new product raw material suppliers have not been introduced by 40% to 50% of the firms in the last five years. Major proportion of the firms under the study preferred to remain loyal to their raw material suppliers.

The said loyalty or satisfaction could be the laziness or inertia of the buyer, which could change with a series of small failures or if dramatically something goes wrong or even if the competitor has attractively undeniable offers. Customers majorly defect for two reasons: the need for product or service no longer exists, or the product/service have stopped fulfilling their needs. When the B2B offerings have failed to fulfill the customer needs, this leads to let down of customers expectations.

To build strong loyalty among customers, the most important irreplaceable factors are the quality of the product/service being offered. Any compromise on the quality would portray huge risk.

In industries where there is no absolute difference between the qualities of alternative raw material suppliers, the products are made to standard specifications without much scope of improvements. Value addition in these segments is highly differentiating factor through technological advantage, innovations or any other competitive advantage. In cases with high similarities and no differentiators, customer loyalty is built by the relationships between the sales, service teams and customers. Especially the sales and service that solve customer's problems, which are easy to deal with, could get easy hold of it and which respond quickly.

Loyalty Is Stronger In Most B2B Markets

The positioning of the products and services are vital for the B2B buyers to map them in their minds. The other factor which highly impacts loyalty in B2B markets is "relationship". Majority of the products supplied in B2B involve personal contact with the raw material suppliers in the industry. Studies indicate that the customer satisfaction is largely driven by people factors which could be affected through considerable points such as friendly, knowledgeable and attentive staff to make the customer journey a pleasant experience.

The last factor to be discussed on loyalty in B2B markets is inertia. B2B markets involve complex systems which would make it tedious to change the supplier until and unless in exigencies. Supply agreements, payment terms, paperwork and approval procedures are a few to mention which would be a sufficient deterrent to go along with the inertia and not to change the raw material suppliers.

Measuring Loyalty

Loyalty should be robust and durable. Customers responding positively to "Would buy again from ABC limited?" and "Would you recommend ABC limited to your peers?", that proves the robust loyalty which could resist the firms from other raw material suppliers. A supplier's ability to retain the business for longer period of time ensures the durable loyalty. Achieving durable and robust loyalty is to be done with communication and the firm's alignment with customer's requirements and future needs (Ross Brennan).

The approach to analyze customer satisfaction shall be holistic and more perceptive than a traditional questionnaire with a well researched



methodology. The important issues here are the purpose and goal of customer retention. The code here is right understanding of the nature of the relationship and the anticipation of its potential. The dynamics involved could be taken into account only with continuous improvement which positions the business in a better state to reinforce the triangle of satisfaction, robustness and durability, which is a more effective way of cost management and revenue growth (LM, 2008).

Satisfaction which will not lead to retention is of least value to any firm. As the product/ service are no longer enough, relationship management is emerging as a big differentiator and the supply chain leading to durability of customer loyalty. For any product recall, the customer satisfaction concept is an overdue.



Bullying at Work: Correlational Study Between Bullying, Anxiety, Depression and Psychological Capital

Shreya Mishra*

Abstract

The aim of this paper is to examine the correlation between employees' experience of workplace bullying, anxiety, depression, and psychological capital (PsyCap). Workplace bullying has proved to be a serious psychological stressor; however, few studies have explored its effect on employees' mental health consequences like anxiety and depression in Indian organizations. Further scarce are studies on psychological coping mechanisms used against such negative behavior. A convenience sample of 42 employees was collected from a public sector company and correlation analysis was used to test the hypothesis. Standardized questionnaires were used to measure workplace bullying, anxiety, depression, and PsyCap. It was observed that there is a significant positive relationship between the workplace bullying and anxiety but the insignificant relation ship between workplace bullying and depression. No significant relationship was established between overall PsyCap and anxiety and depression. It is a correlational study with a small sample size. Hence, validity and causal relation cannot be established between the variables.

Keywords: *Workplace Bullying, Negative Behavior, Mental Disorders, Anxiety, Depression, Psychological Capital*

Introduction

Workplace bullying is gaining the attention of researchers and organizations globally due to its negative consequences. Since its initiation in the 1990s (Leymann, 1990) workplace bullying has proved to be prevalent across countries (Cobb, 2012) and has resulted in negative consequences for the victims, witnesses (Samnani & Singh, 2012), family of the victims, and the society at large (Rayner & Hoel, 1997) along with significant losses to organizations and economies (Dollard & Neser, 2013; Dollard et al., 2007; Giga, 2008). Researchers' have claimed that experience to workplace bullying increases the

chances of a victim to suffer from mental disorders like anxiety and depression (Einarsen et al., 1998; Hansen, et al., 2006; Hoel et al., 2011; Quine, 2001). A study also shows that cases of mental health disorders have increased in the India (Lakhan & Ekundayò, 2015). However, the study on workplace bullying is sparse in India. Nonetheless, limited studies done on the prevalence of workplace bullying in India have shown that India is no exception to it (Ciby & Raya, 2014; D'Cruz, 2014; Makkar & Sanjeev, 2013). Considering the limited knowledge of workplace bullying in India, it won't be wrong to say that, interventions specific to workplace

*Research Fellow, Birla Institute of Management Technology



bullying may not be in the agenda of most of the organizations across India (D'Cruz & Noronha, 2011).

Nevertheless, people have their own psychological coping mechanism which they use to face difficult and uncontrollable situations (Brown et al., 2005; Seymour, 1992; Showers & Ruben, 1990). One such mechanism is psychological capital (PsyCap) (Luthans & Church, 2002). Owing to its origin from positive psychology and positive organizational behavior, PsyCap consist of four constructs which include the following: (1) Efficacy, (2) Hope, (3) Resilience, and (4) Optimism (Luthans et al, 2007b). It has been found that these constructs, individually and together reduce negative emotions like anxiety and depression, making it easier for a person to face unfavorable situations which would relatively reduce the consequences of such incidences on a person's psyche (Luthans et al, 2004). Considering the negative and positive impact of workplace bullying and PsyCap respectively on mental disorders like anxiety and depression, it would be interesting to study the correlation between the stated variables, among the employees in the Indian context.

Review of Literature

Workplace Bullying and Its Consequences

The study on consequences of workplace bullying has been well-documented since the advent of research in this area. It has been argued that workplace bullying not only affects the targets but also the organization and society as a whole (Einarsen et al, 2011; Samnani & Singh, 2012). Hence, bullying at the workplace has increasingly attracted the attention of researchers across the globe.

Bullying at work means harassing, offending, socially excluding someone or negatively affecting someone's work tasks. In order for the

label bullying (or mobbing) to be applied to a particular activity, interaction or process it has to occur repeatedly and regularly (e.g. weekly) and over a period of time (e.g. about six months). Bullying is an escalated process in the course of which the person confronted ends up in an inferior position and becomes the target of systematic negative social acts (Einarsen et al, 2003).

Bullying is known to have a negative impact on the employees' psychological and physiological health (Cooper et al, 2004) to an extent that employees have admitted having suicidal thoughts (Leymann, 1990; Rayner et al, 2002). Prolonged exposure to bullying has also resulted in employees suffering from sleep disorders (Neidhammar et al, 2009), headaches (Namie, 2003), low self-esteem (Vartia, 1996) and also post-traumatic stress disorder (PTSD) (Tehrani, 2004). Reknes et al. (2014) argue that workplace bullying is a vicious circle of stressor-strain and strain-stressor relation, where bullying plays the role of a stressor resulting in the cognitive reaction in the form of worrying and persistent contact further resulting in physiological strain effect. This further increases the chances of being bullied causing a strain-stressor relationship to evolve making it very difficult for the target to get out the process. Hence, the literature mentioned above clearly indicates that workplace bullying has been explicitly associated with its deleterious effects.

Psychological Capital and its Effects on Employees

Positive organizational behavior (POB), on the other hand, is a recent field of study which explores the positive side of human psychology that helps them to be better employees using their psychological strengths and capacities (Luthans & Church, 2002). From the concept of POB, four specific strengths or psychological resources have been drawn that can be



measured, developed, and managed to enhance employee performance in work settings and other spheres of life. These resources, namely, (1) confidence, (2) hope, (3) optimism, and (4) resilience, are called psychological capital (PsyCap) (Luthans et al., 2004). The said constructs are individually and compositely “higher-order” core construct (Luthans et al., 2007b) but when combined together they represent a “second-order” core construct which is PsyCap (Luthans et al, 2008). They are considered to be the intrapersonal psychological resources that help cope with difficult and challenging situations and motivates a person to perform his best. Though many constructs have been identified that can act as human strengths, but confidence, hope, optimism, and resilience are best known to be able to justify the concept of positive organizational behavior (Manuti, 2014).

PsyCap is defined as follows:

[A]n individual’s positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success. Luthans et al, 2007a)

The elements of PsyCap are positively related to the desirable employee performance, behavior, attitude (Avey et al, 2011), and well being (Avey et al, 2010), and has a negative relation with stress (Avey et al, 2009), absenteeism (Avey et al, 2006), low job satisfaction (Luthans et al., 2007b).

Anxiety and Depression

Anxiety and depression are commonly seen mental disorders in working population

(Andrea et al., 2004). Costa (1985) defines anxiety as “subjective negative emotional” state and Barlow (2002) explains anxiety as “future-oriented mood state in which one is ready or prepared to attempt to cope with upcoming negative events.” According to Marcus et al (2012):

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration.

Employees suffering from anxiety and depression show signs of headache, nausea, reduced energy (Haslam et al, 2004), work performance deterioration and functional disability (Jenkins, 1993; Ormel, et al., 1994). It has been noted that anxiety and depression among workers escalate due to occupational variables like psychological demands of the job, lack of social support, conflict with manager and co-worker, and job insecurity (Andrea et al, 2009). The said disorders have been found prevalent among 350 million people across the world (Marcus et al., 2012). A study conducted to find out the causes of anxiety and depression at the workplace have claimed that, psychosocial work characteristics are commonly seen as the root cause of these mental disorders in working population (Andrea et al., 2009). These include job insecurity, emotional demands, interpersonal conflicts, low social support, psychological job demands, and decision latitude (Bültmann et al, 2002). While another study indicates that major root causes of anxiety and depression among employees are deadlines, interpersonal relations, staff management, and dealing with issues/problems that arise (Anxiety and Depression Association of America, 2006). Further, a similar survey done in Great Britain, by Health and Safety Executive (2014), a public



body of the government of United Kingdom, revealed that interpersonal relations are scored the second highest among the causes of anxiety and depression at work. India is of no exception when it comes to psychological illness among working population (Reddy et al, 2013), specifically anxiety and depression (Srivastava, 2011) which are caused due to interpersonal conflicts at work settings (Bhardwaj & Srivastava, 2008). Hence, it can be stated that interpersonal issues are a major source of anxiety and depression among employees.

Current Study

The literature shows that workplace bullying increases mental health problems like anxiety and depression, while PsyCap is known to reduce anxiety and depression among people. Hence this study is done to see if there is any correlation between the incidence of bullying at workplace, anxiety, depression, and PsyCap among the sample. The finding established through this study would only focus on the correlational aspect of the relationship among the four variables, namely, workplace bullying, anxiety, depression, and PsyCap

The following hypotheses are established for testing:

- H1: There will be a direct correlation between workplace bullying and anxiety.
- H2: There will be a direct correlation between workplace bullying and depression.
- H3: There will be an inverse correlation between PsyCap and anxiety.
- H4: There will be an inverse correlation between PsyCap and depression.
- H5: There will be an inverse correlation between workplace bullying and PsyCap.

A common notion that anxiety precedes depression may not be true in all the cases (Moffitt et al., 2007); however, for this study we would consider that anxiety generally precedes depression, as employees suffering from workplace bullying have shown initial symptoms of anxiety followed by depression due to prolonged exposure to bullying (Reknes et al., 2014).

Design

To test the earlier mentioned hypotheses, a non-experimental survey design was used. This design was chosen to understand the relationship between the variables under study, namely, workplace bullying, anxiety, depression, and PsyCap. Since the study included sensitive subject where respondents may be reluctant to answer with honesty, hence convenience sampling method was chosen for the study.

Sample

Fulltime on-roll employees of a public sector fertilizer company in Gujarat were contacted through electronic mails and telephone and their consent was taken for the study. There were 42 responses received for this study, which included 32 males (76.2%) and 10 female (23.8%) employees. Participants' age ranged from 24 to 57 with a mean of 33.93 and standard deviation 9.87. There were 32 post graduates (76.19%), 9 graduates (21.43%), and 1 undergraduate (2.38%). Experience varied from 0 to 32 years with a mean 9.55 and standard deviation 10.09. Table 1 shows descriptive statistics of demographic variables.

Measurements and Tools

The measures used for this study were standardized assessment tools shown to have acceptable psychometric properties. For the present study, Cronbach's alpha reliabilities scored between 0.76 and 0.96 which are within acceptable limits.



Experience to workplace bullying was measured using Work Harassment Scale (WHS) with a set

Table 1. Descriptive Statistics of Demographic Variables

	Mean	SD
Age	33.93	9.87
Experience	9.55	10.09
	N	%
Gender		
Male	32	76.19
Female	10	23.81
Qualification		
Undergraduate	1	2.38
Graduate	9	21.43
Post Graduate	32	76.19
Management Level		
Lower Middle	13	30.95
Middle	29	69.05
Marital Status		
Single	21	50
Married	20	47.62
Divorced	1	2.38

of 24 questions that covered frequency of the negative behavior in the workplace during the last 6 months (Bjorkqvist & Osterman, 1992). The questions covered focus on the behavioral aspect of bullying and not subjective (D'Cruz,

2014). Hence, this questionnaire explores the continuity of bullying among victims in their own definition. This important aspect makes WHS appropriate for the study. The questions were measured on a four-point scale starting



from 1=never to 4= very often with a mean=0.69 and standard deviation of = 0.95. The Cronbach's alpha for the internal consistency was 0.96, which shows a strong internal consistency and reliability of the scale.

For the prevalence of anxiety and depression, Hospital Anxiety and Depression Scale (HADS)(Zigmond & Snaith, 1983) was used. It is 14 questions scale out of which 7 questions address the level of anxiety and 7 address depression. The internal consistency for the study was with acceptable limits and scored to 0.76. Since the scale addresses both the elements, i.e. anxiety and depression under one questionnaire hence it was chosen for this study. PsyCap was measured using PsyCap Questionnaire (PCQ), which included 24 questions (Luthans et al., 2007a). The four factors of PsyCap, namely, efficacy (questions 1 to 6), hope (questions 7 to 12), resilience (questions 13 to 18), and optimism (questions 19 to 24) were measured on a Likert Scale ranging from 1 = strongly disagree to 6 = strongly agree. The internal consistency of the scale scored 0.856 which was under acceptable limits.

Data Analysis

Statistical Package for the Social Sciences (version 16.0) was used for data analysis. Spearman's Correlation Analysis was used on subvariables (workplace bullying, anxiety, depression, efficacy, hope, resilience, and optimism), and main variables(workplace bullying, anxiety, depression and total PsyCap). The non-parametric correlation was used since the data was not normally distributed and the sample was small. A frequency test was also applied to see the frequency and severity of harassment at work.

Results and Findings

Table 2 gives a descriptive statistics of the variables while tables 3 and 4 represent a correlation analysis between the subvariables and main variables, respectively. Figure 1 signifies the frequency of bullying behavior among the percentage of employees, Figure 2 represents the severity of bullying among the percentage of employees and figures 3 and 4 display the level of anxiety and depression. Reliability measures were under acceptable range resulting in an internal consistency. The mean of workplace harassment scale (16.56) explains that majority of the employee experienced minor bullying (0 = No Bullying, 1 to 24 = Minor, 24 to 48 = Moderate, 47 to 72 = High and 73 to 96 = Very High) and the standard deviation was 16.41. For anxiety, the mean score was touching the borderline (7.11) (0 to 7 = Normal, 8 to 10 =Borderline Abnormality and 11 to 21 = Abnormal)while the standard deviation was 3.32. In case of depression the mean was under the normal range(5.07) (0 to 7 = Normal, 8 to 10 =Borderline Abnormality and 11 to 21 = Abnormal) and the standard deviation was 3.32. As far as PsyCap subvariables are concerned the lowest seemed to be optimism (mean = 24.97) compared to other three constructs.

Based on the frequency to the exposure of workplace bullying, it can be seen that 76% of employees had experienced at least one form of bullying behavior and 14% of the sample was very often exposed to bullying behavior.

Only 24% of employees have reported no experience of bullying behavior as far as severity is concerned. There were 60% of employees who have experienced minor bullying behavior which explains the mean falling under the minor



Table 4. Correlations among Main Variables

	1	2	3	4
Workplace Bullying				
Total Anxiety	0.420*			
Total Depression	0.261	0.923*		
		*		
Total PsyCap	0.082	-0.16	-0.13	
		9	8	

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

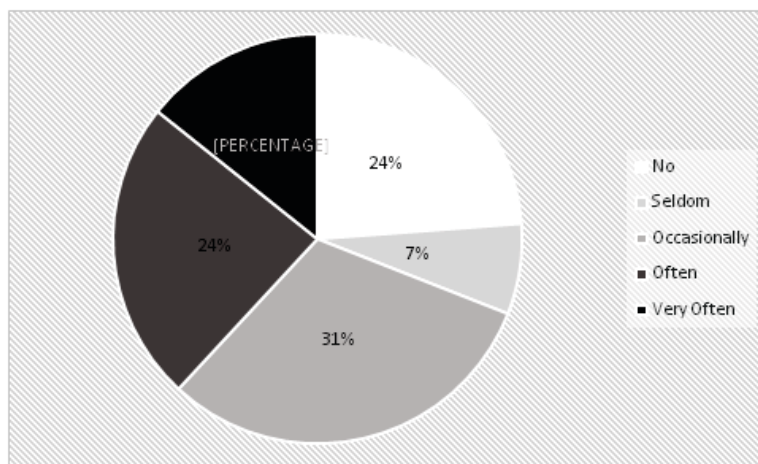


Figure 1. Frequency of Bullying Experience

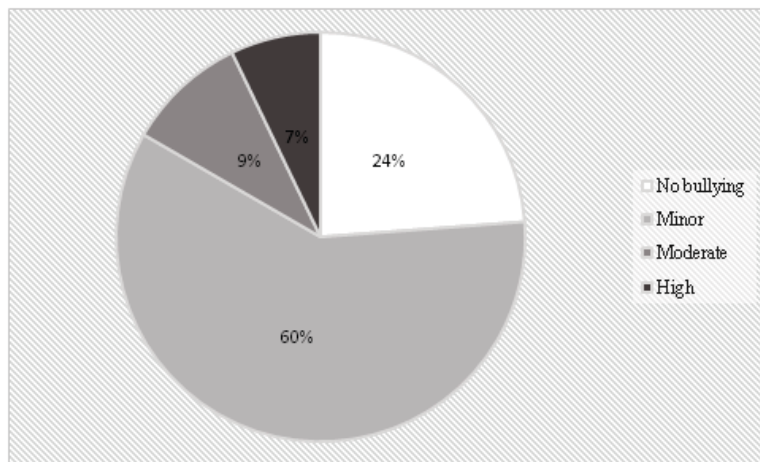


Figure 2. Severity of Bullying Among Employees

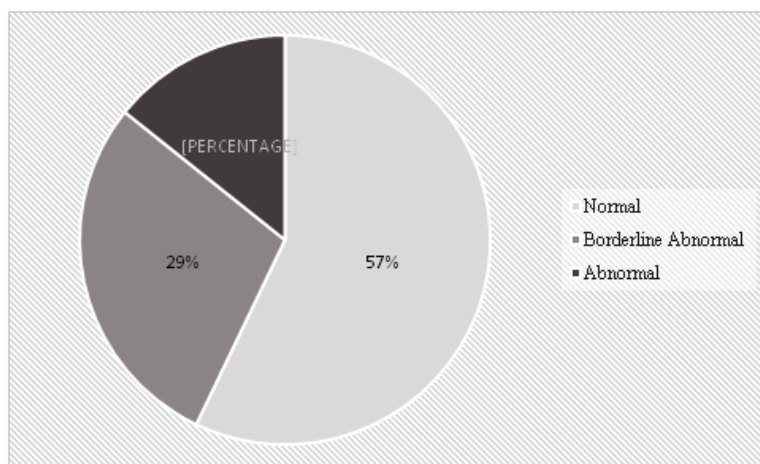


Figure 3. Level of Anxiety

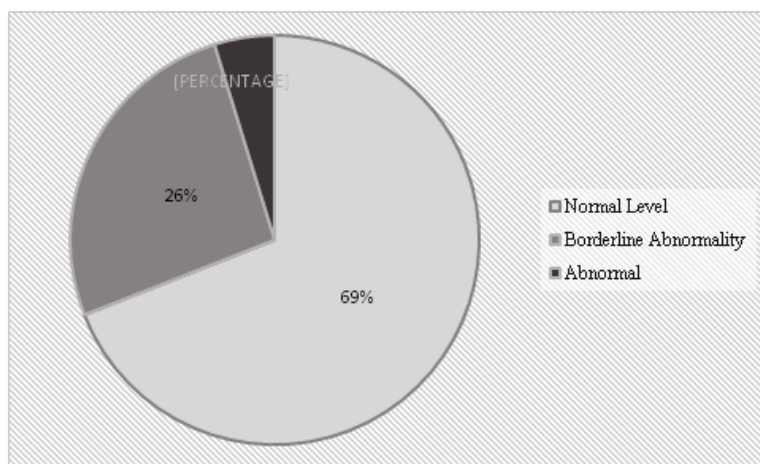


Figure 4. Level of Depression



level of bullying. However, 9% and 7% of employees have experienced moderate and high levels of bullying behavior respectively.

Maximum percentage of employees, i.e. 57% fall under the normal range of anxiety level; however, 26% are at borderline and 14% have crossed the borderline to fall under abnormal levels of anxiety.

For the level of depression, employees falling under the normal level are 69%, while 26% are under borderline abnormality and only 5% fall in the abnormal levels of depression, which explains the mean falling under the normal levels.

The correlation between the variables show that there is significantly high correlation between anxiety and depression (0.923, $p < 0.05$) but when both are individually correlated to bullying we can see moderately significant direct correlation between workplace bullying and anxiety (0.420, $p < 0.01$), while direct but insignificant correlation between workplace bullying and depression (0.216), which might explain why more employees are suffering from anxiety and not depression. Hence, we can accept the first alternate hypothesis of the study that there would be a direct correlation between workplace bullying and anxiety. But our second null hypothesis cannot be rejected due to the insignificance of the relation. This also explains that among the victims of bullying, anxiety is experienced prior to depression until the severity of bullying is low, which in this case is minor among 60% sample.

For individual PsyCap constructs, the moderately significant inverse correlation between hope and depression (-0.328 , $p < 0.05$) was established, but not with efficacy, resilience, and optimism.

While there is no significant correlation between anxiety and efficacy, hope, resilience, and optimism. Although a positive relationship was seen between resilience and workplace bullying (0.117) and optimism and anxiety (0.067), which seem to be of concern.

When total PsyCap was correlated with workplace bullying, anxiety and depression, we saw that insignificant but inverse relationship was established between PsyCap and anxiety (-0.169) and depression (-0.138). However, there was an insignificant but positive directional relationship established between PsyCap and workplace bullying (0.082). Hence, the study could not reject the null hypothesis for the alternate hypothesis 3, 4, and 5.

Discussion

The present study aimed at finding the correlation between workplace bullying, anxiety, depression, and PsyCap. The current study tested five hypotheses out of which only one was accepted and a significantly strong relationship between workplace bullying and anxiety was established although it was only moderately strong. The rest of the claims were not accepted since the results were not significant which may raise a question whether PsyCap is a dominant coping construct against negative workplace behavior like bullying?

If not, then, what other intrinsic protective tools can be used to face negative behavior at work, in the absence of organizational interventions. However, we can see a positive relationship between workplace bullying and depression and a negative relation between PsyCap and anxiety and depression, which can further add to the researches that have claimed a negative relation between PsyCap and anxiety (Avey et al., 2011) and depression (Krasikova et al, 2015).



However, the non-significant but positive relation between PsyCap and workplace bullying is of concern.

Although it has been suggested that PsyCap, as an overall variable, is a better predictor of behaviors and attitudes at the workplace (Luthans et al., 2007b), the findings of this study give a different picture, suggesting that individual assessment of PsyCap can portray a broader picture of its effects. Interestingly it was found that resilience showed a positive relationship with anxiety, while optimism showed a positive relationship with workplace bullying, although the correlation was insignificant, but the direction of the relationship is questionable and needs further study.

Limitations of the Study

The study was done on a small sample of 42 full time employees. Hence, the validity of the paper cannot be proved. Second, this is only a correlational study, thus causal relationship has not been established between the variables. Since this is a sensitive topic the convenience sample tool was adopted for data collection hence the randomness test does not apply to this data, which could hamper the reliability of the data.

Conclusions and Future Study

The current study raises many questions like, whether or not PsyCap works as a dominant coping mechanism against workplace bullying, etc? Further, positive relationship between resilience and anxiety and a similar positive relationship between optimism and workplace bullying seem to be against the effects of PsyCap. However, since the sample is small, the results might be dubious. Also, exploring a causal relationship between the variables may bring out better insights on the impact of PsyCap

on anxiety and depression among the victims of workplace bullying and also the impact of PsyCap on workplace bullying and vice versa. Thus, further study is required in this respect.

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System Innovation for Sustainability Entrepreneurship and Triple Bottom Line: A Systematic Review

Surbhi Cheema*

Introduction

The concern about the over-consumption of resources leading to environmental degradation and social inequality has grown tremendously and is the wake-up call for transitioning towards a society and economy which is based on the concept of sustainability (Adams, Jeanrenaud, Bessant, Denyer, & Overy, 2016). The genesis of sustainability can be derived from the first book called *Our Plundered Planet* by Fairfield Osborne's (1948). The book was based on environmental degradation caused by humanity. It was well accepted by the masses. To cater to this new wave of problems, many institutional initiatives were taken which led to the formation of "The International Union for the Conservation of Nature and Natural resources" (IUCN) which was founded in 1956, The United Nations Environment Programme (UNEP) which was founded in 1972. It also led to the beginning of World Conservation Strategy in 1980 as a collaboration between the IUCN, UNEP, and the World Wildlife Fund (WWF). With these institutional initiatives in place, a clear message regarding compatibility between the economic development and conservation was delivered to the world. This was followed by the Brundtland report (Brundtland 1987) from the World Commission on Environment and Development that defined the concept of

sustainable developmental (SD) "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." However, the triple concepts based on economical, social, and environmental factors were not received well by the fraternity of businessmen, politicians, and even the researchers were not convinced until the next Earth Summit of 1992 (Venkatraman & Nayak, 2015). This led to the more popularized concept of Triple Bottom Line (TBL) which was coined by Elkington (1997). TBL urged the businesses for adopting a more responsible approach by giving equal importance to economic, social, and environmental factors while taking business decisions (Adams et al., 2016).

The inclination towards SD and TBL has resulted in a new form of entrepreneurship which the research fraternity has termed as "sustainable entrepreneurship." Many authors have defined the inter-relation between SD and entrepreneurship through variations like ecopreneurship, social entrepreneurship, etc (Rajasekaran, 2013). According to Gibbs (2006), sustainability entrepreneurship (SE) can be defined as "utilizing creative destruction so that it becomes the driving force for the establishment of a holistic and sustainable

*Research Fellow, Birla Institute of Management Technology



economic–environmental–social system.” Sustainable entrepreneurs are moving towards a more intensive approach for answering the big question through innovations and adopting “eco-advantage.” It is very much evident from the existing literature which has shown a drift from general environmental issues towards a more centric approach to “eco-innovation” (Oxborrow & Brindley, 2013). Small and medium enterprises (SMEs) are more inclined towards adopting eco-innovation and eco-advantage to tap on the market opportunities since there is an increased pressure socially and legally for compliance (Soto-Acosta, Cismaru, Vătămănescu, & Ciochină, 2016).

This paper aims to conduct a critical investigation of the discipline of SE and eco-innovation. As a researcher, the focus of this paper is from the viewpoint of both SMEs and the developing economies like India. This perspective will in turn help in assessing the level of understanding of the concept of SE and SD with respect to values and needs of these two groups. This paper is structured in a way that makes readers aware of the SD concept first in order to appreciate its comprehensive and contested nature. A systematic review of the literature on SD/SE, TBL, and eco-innovation is conducted to show the relation between the SE and SMEs since they play an important role in the economy. These SMEs represent an above-average level of variety, suppleness, entrepreneurial action, and innovation.

Systematic Literature Review

The systematic review of the topic “System Innovation for Sustainability Entrepreneurship and Triple Bottom Line: A Systematic Review” recognized 13 peer-reviewed journal articles and 2 books from 2006 to 2017 on innovation and sustainability. All the retrieved publications are

presented in Appendix I. The following sections will give an overview of the journals and the data in a descriptive format.

Out of 15 articles and books, 35 authors are identified who have published their work. This indicates that the area of sustainability and entrepreneurship has been researched quite often in order to evaluate the impact on the three cornerstones of business, society, and environment. All the reviewed papers are published in good journals which showcase the current importance of this field. Greener Management International and International Council for Small Business (ICSB) have published the work on sustainable entrepreneurship and innovation twice which signifies the magnitude of this area.

The different modes of environmental transformations which may lead to a gradual shift towards ecological modernization can be critically analyzed through ecopreneurial (Gibbs, 2006). There are numerous literatures on social, environmental, and SE which focuses on transitions hinged on the socio-economical aspects of the business and thus has helped in identifying the most important role of entrepreneurship. However, this literature focuses mainly on the drivers and the processes involved in the entrepreneurial activity. The earlier literature aims to understand these motivating drivers and the choices which are value-driven and made by the entrepreneurs which form the basis in transitioning towards more sustainable systems and thus improve upon having a more insightful venture towards entrepreneurship which is sustainability-driven in order to understand the course of such transitions and its occurrences (Parrish & Foxon, 2006). The concept of SE/SD provides a plethora of ideas to the business owners and their



managers for rethinking their holistic strategy for their business. It provides the much-needed push to not only using sustainability as their backbone or core value to their business but at the same to implement a sustainability-driven business strategy to their business. This research presents a review of the current academic literature on SE ventures and performance measurement and also a comprehensive framework for developing measures of SE ventures performance is proposed (Lane, 2010). The concept of SD can be strategically used to define the conditions which are sufficient and necessary in nature for the creation of sustainability-driven society through a more holistic sustainable approach in product development (Thompson, 2012). It is important to include the socio-cognitive, institutional and spatial dynamics understood at the local and regional level in the transitions and sustainability-oriented innovation systems debate. Interactions exist between various levels of socio-cognitive thinking (international, national, regional, and local), which in turn has an effect on localized technological regimes (which may either service local or international markets or both) (van Heyningen & Brent, 2012). This conceptual paper helps in understanding the concept of TBL and SE. It helps in formulating the definition of a venture which can be called as a sustainability-driven enterprise. It states that the enterprises which are eager to combine their business opportunities and their intentions for the creation of economic, social, and ecological value can be termed as the one. There are many studies in support of the concept of SE having a major focus on a single dimension of dealing with the protection of the environment and ignoring the rest two, namely, social and economic. Therefore, the TBL will only make sense when these three pillars of economic, social, and environmental dimensions are dealt

with equal importance in an enterprise. Therefore, to be called as sustainable entrepreneurs, they should be able to balance their business strategy in order to contribute to these three areas through which wealth can be generated (Rajasekaran, 2013). There is a huge requirement for providing empirical evidence that the implementation of these sustainability-driven approaches to the business is making a difference by creating environmental and economical achievements through the lens of stakeholders (Oxborrow & Brindley, 2013). Most of the TBL studies which are conducted worldwide have their focus on the assessment of the response of large organizations towards business practices which are responsible and sustainability-driven. This paper focuses majorly on the SMEs. Also, economic, social, and environmental issues are explored by organizations individually, while this study investigates their inter-connections. Through the empirical study, this paper provides recommendations and proposes a roadmap with four-steps focusing on the participation of quality circles that would facilitate in integrating social responsibility and environmental protection practices as well into the core business operations paving the way towards the achievement of the corporate sustainability (Venkatraman & Nayak, 2015). With a focus on environmental (ecological) sustainability, critical sustainability issues related to opportunities and threats in the business environment and with respect to company capabilities (strengths and weaknesses) are drawn from the scholarly literature and current studies of practice. Identification of these issues provides an essential starting knowledge base for SMEs that have never before engaged in sustainability discussions and addresses an urgency for heightened awareness (Shields & Shelleman, 2015). It helps in creating the understanding of the ways in which the organizations can begin



their journey towards becoming sustainable by the use of pragmatically oriented Sustainability oriented innovation related research and thus has the increased potential to influence the organizational behavior in a positive manner (Adams et al., 2016). This research suggests that in order to have the chance to endorse and consolidate the sustainable models in their strategy, SMEs must base their business model on value co-creation at not only the individual level but at the same time they should focus on group and community levels as well. This founding vision can inspire and motivate the stakeholders like employees and consumers and thus lead in triggering the increase in market share as well as the business sectors (Soto-Acosta et al., 2016). It also helps in highlighting the risks for those companies which are not proactive in taking on the sustainability-driven innovation as their core strategy for conducting their business because if these companies are late in adopting these innovations they will lose on the competitive advantage which is highly dependent on environmentally sustainable practices (Metz, Burek, Hultgren, Kogan, & Schwartz, 2016). This paper helps in the identification of the research agenda which will be useful for scholars as well as the practitioners

in providing the balance between the societal gains and economic remuneration as well as the environmental protection by making them the key drivers in the research which is sustainability oriented in approach (Greco & Jong, 2017).

Search Strategy

The methodology applied in collection of literature was focused on the topic's definition and generation of keywords. The initial phase focused on defining the scope of the search and therefore, the search was limited to sustainability and SE-based articles and books. Subsequently, this scope was adapted to include keywords like innovation, eco-innovation, ecopreneurship, and TBL.

Identification of Resources

The next step involved evaluating all the online databases available like Google, Google Scholar, Proquest, and EBSCO and further identifying the best way of selecting the international scientific literature dating 2006 onwards. The set of keywords which were based on the topic were searched in the databases and those with the highest hits were included in the process. Figure 1 depicts the total number of articles (15) downloaded from different sources.

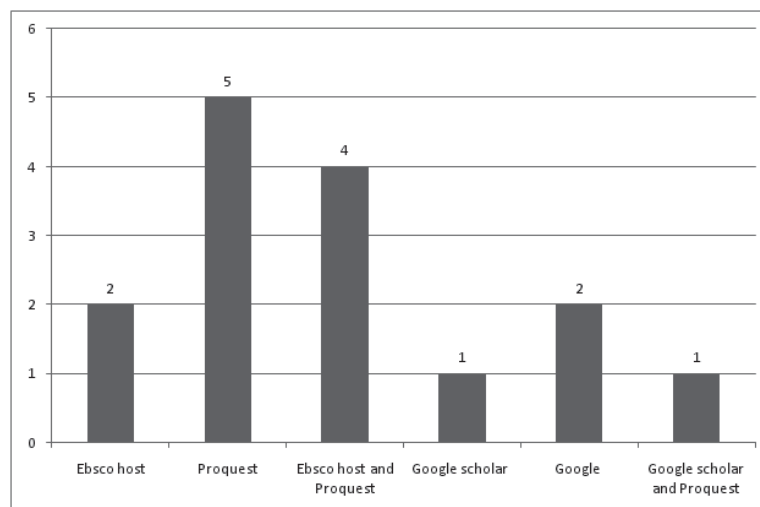


Figure 1 Articles by Database



Additional Elements

The main disadvantage of using the conventional method of keyword search strategy is a large number of irrelevant references which are generated. To overcome this problem, a time frame of 2006-2017 was set as a benchmark. From the total of 30,906 full text and peer-reviewed articles, 55 abstracts based on

keywords (sustainable entrepreneurship, TBL, ecopreneurship, and innovation) as well as the 2 books were selected which were read through carefully. This led to the final selection of 13 peer-reviewed journal articles and 2 books from 2006 to 2017 on innovation and sustainability (Table 1).

Table 1 Database Search Strategy

Database	Keyword	Time-frame	Full-text	Peer-reviewed
EBSCO	Sustainable entrepreneurship	2000-2017	109	48
	TBL	1998-2017	503	192
	Ecopreneurship	2002-2015	8	6
	Sustainable entrepreneurship and TBL	2013-2013	2	2
	Sustainable entrepreneurship and innovation	2006-2017	37	15
Proquest	Sustainable entrepreneurship	1964-2017	42,706	13,629
	TBL	1960-2017	76,067	6,505
	Ecopreneurship	2014-2017	2	1
	Sustainable entrepreneurship and TBL	1998-2017	47	30
	Sustainable entrepreneurship and innovation	1964-2017	29,599	10,478



Publication Activity

It is evident from Figure 1, which clearly depicts a normal curve since the number of articles

reviewed (15 articles) is quite small. Otherwise, there has been a clear growth trend since

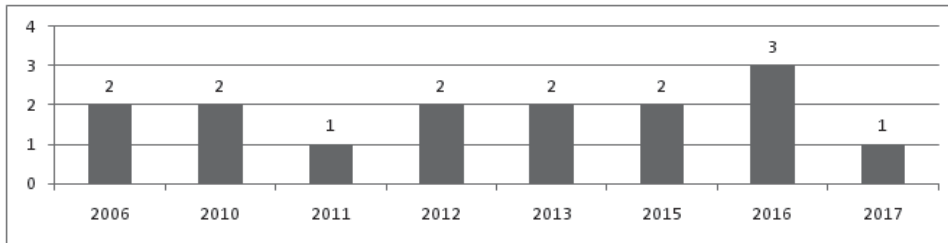


Figure 2 Articles by Year

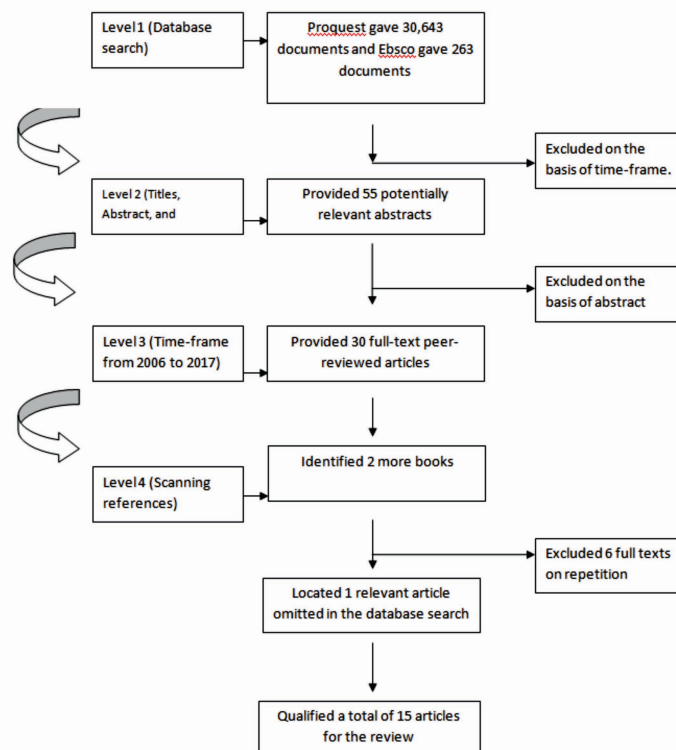
The 15 journals and books that were finally selected have been published in important journals of this area which is clearly evident from Appendix II. Graphically the same is depicted in Figure 2.

Inclusion/Exclusion Criteria

The following criteria were kept in place for the selection of the 15 relevant articles and books:

1. The research articles and book should be centered on the concept of SE, eco-innovation, and TBL.
2. The timeframe is from 2006 to 2017.
3. Their articles should be full-text and peer-reviewed and only in English.
4. No repetition in different databases.

Figure 4 Summary of Systematic Review Process





10*10*10*10 Rubric

The following hurdle of 10*10*10*10 was dealt with during the selection of the articles for the

purpose of systematic literature review (Table 2).

10*10*10*10 Rubric

Table 2. 10*10*10*10 hurdle

Research papers	Books	Web sites and data bases	Key words
9 Conceptual papers	1 Book	Ebsco host	Sustainability
6 Research papers	1 Book on working paper series	Proquest	Sustainability entrepreneurship
		Google scholar	Innovation
		Google	Eco-innovation
			Ecopreneurship
			Triple bottom line

Analysis and Findings

The analysis is as follows:

Type of Papers

The articles under the purview were divided into two categories:

1. Conceptual papers which either proposed a new theory or were giving new meaning to existing literature.

2. Research papers which used research methods for the collection of data and used it to validate a hypothesis.

Figure 5 depicts clearly that this area is still quite new where conceptual understandings are still evolving. A less empirical approach has been found in this area of SE and TBL.

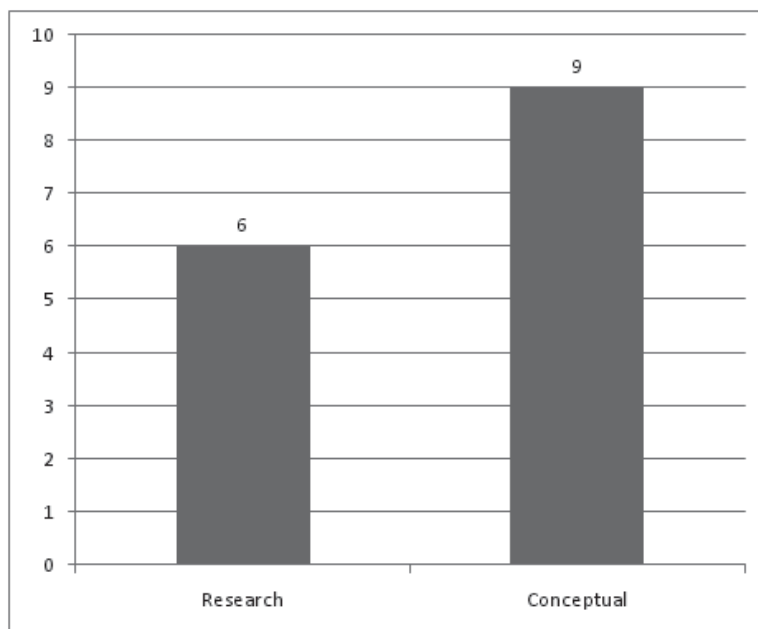


Figure 5 Articles by Type of Paper



Research Methodology

Out of 15 research articles and books reviewed, there is a clear trend regarding the type of research methodology employed. Most of the

articles fall under the qualitative research methodology and only 2 out of the 15 literature reviewed are using quantitative methodologies (Figure 6).

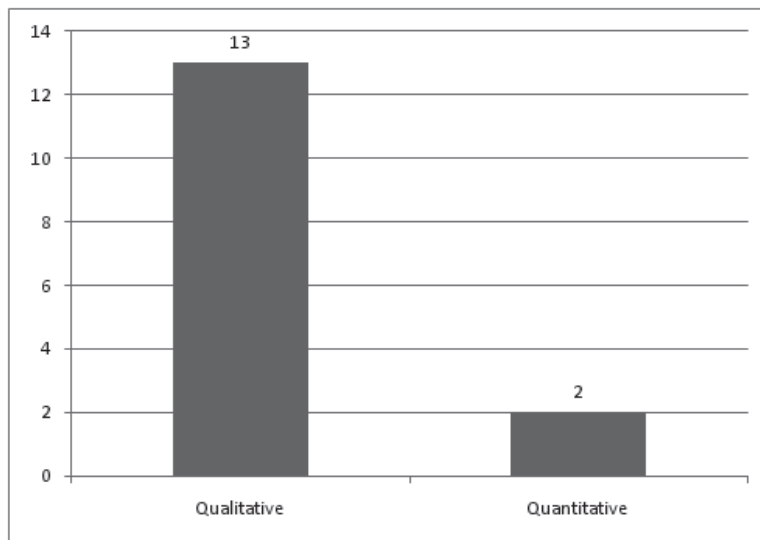


Figure 6 Article by Methodology

Geographical Classification

The research articles are majorly from the developed nations like USA and the UK. Developing nations like India have also shown research in the field of SE, eco-innovation, and TBL. Additionally, analysis of the country of origin for the writers has been made in order to

understand the contribution and understanding of the country in the aspect of the core terms, namely, innovation and sustainable entrepreneurship. Figure 7 clearly shows that the UK and USA have done a lot of work in this field while other countries are also contributing to the area.

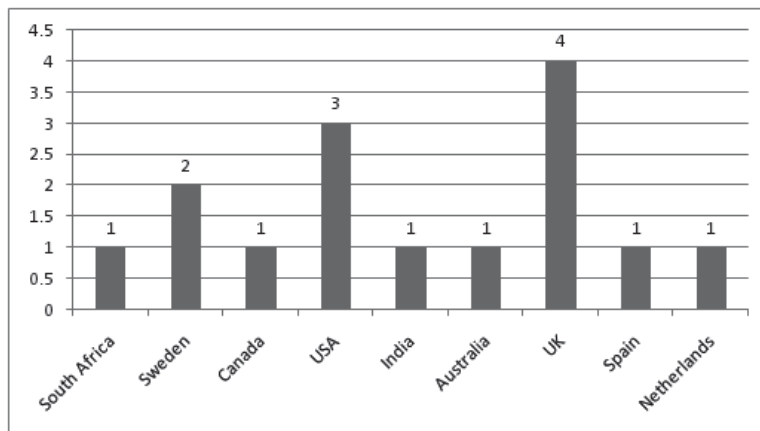


Figure 7 Article by Country



Limitations

With the systematic review of the 15 documents, it is evident only qualitative methods were employed in the study in the area of sustainable entrepreneurship. Even the conceptual papers focused on the definitions and constructs. These gaps can be further researched to give more empirical evidence of the relation between the SMEs and sustainability.

Discussion and Conclusions

There were limitations to the systematic review as it only incorporated a small number of peer-reviewed journals due to time constraint. Therefore, the research might have ignored additional knowledge. The interpretations are purely document-driven and given on the basis of grounded analysis to ease out some bias.

Avenues for Future Research

The concept of TBL and entrepreneurship is an area where a lot of research can still happen. It is also productive to explore the contribution of these “new” bottom lines and Corporate social responsibility approaches to SE/SD.

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Appendix I Grid for Literature

S no	Title	Author(s)	Year	Method	Theory	Journal	Country	Database	Method
1	Assessing the Emergence of Sustainability-oriented Innovation Systems and the Transition towards sustainability in Syria, Austria	J. Pieter van Heyningen and Alan Brent	2012	content analysis	Conceptual	XXIII ISPIM Conference – Action for Innovation: Innovating from Experience ISPIM members	South Africa	Ebsco host	Qualitative
2	Beyond “shades of green” - opportunities for a renewed conceptualisation of entrepreneurial sustainability in SMEs: a literature review	Duncan S. Levinsohn and Ethel Brandin	2011	theoretical research model with extensive survey of literature	Conceptual	ICSB	Sweden	google scholar and proquest	Qualitative
3	Engaging small- and medium-sized businesses in sustainability	Elizabeth Shuttlefield Loucks, Martin L. Martens and Charles H. Cho	2010	theoretical research model with extensive survey of literature	Conceptual	Sustainability Accounting Management and Policy Journal	Canada	proquest	Qualitative
4	INTEGRATING A STRATEGIC SUSTAINABLE DEVELOPMENT PERSPECTIVE IN PRODUCT SERVICE SYSTEM INNOVATION	Anthony W. Thompson	2012	action research variety and qualitative	Conceptual	Book ISSN 1623-2090 ISSN 978-91-7295-244-7	Sweden	google	Qualitative
5	INTEGRATING SUSTAINABILITY INTO SME STRATEGY	Jeff Shields Joyce M. Shelleson	2015	SWOT	Conceptual	Journ of Small Business Strategy	USA	Ebsco host	Qualitative
6	Nexus Between SE and TBL	Dr B Rajasekaran	2013	Literature review	Conceptual	Journ of Indian Management	India	proquest	Qualitative
7	Corporate sustainability: An IS approach for integrating triple bottom line elements	Srinakshmi Venkatraman Raveendranath Rao Nayak	2015	Factor Analysis Survey	Research	SOCIAL RESPONSIBILITY JOURNAL	Australia	proquest	Quantitative
8	Sustainability Entrepreneurs, Ecopreneurs and the Development of a Sustainable Economy	David Gibbs	2006	Literature review and Case study	Conceptual	Greener Management International	UK	Ebsco host and proquest	Qualitative
9	Sustainability entrepreneurship and equitable transitions to a low-carbon economy	Bradley D. Parrish Timothy J. Foxon	2006	Case study	Research	Greener Management International	UK	Ebsco host and proquest	Qualitative
10	SUSTAINABILITY ORIENTED INNOVATION: A SYSTEMATIC REVIEW	Richard Adams Sally Jeanrenaud John Besant David Denyer Patrick Ostry	2016	Literature review	Conceptual	International Journal of Management Reviews	UK	Ebsco host and proquest	Qualitative
11	Sustainable Entrepreneurship in SMEs: A Business Performance Perspective	Pedro Soto-Acosta Diana-Maria Ciarnaru Elena-Madalina Vasilescu Raluca Silvia Codrin	2016	Survey	Research	Sustainability	Spain	google	Quantitative
12	Sustainable entrepreneurship: definitions, themes and research gaps	ANGELA GRECO GIALTEJONG	2017	Literature review	Conceptual	Working paper series 1706-CSE	Netherlands	google scholar	Qualitative
13	Adoption of “eco-advantage” by SMEs: emerging opportunities and constraints	Lynn Orsbomov Clare Brindley	2013	Case study	Research	European Journal of Innovation Management	UK	proquest	Qualitative
14	The Path to Sustainability-Driven Innovation Environmental	Phil Mez Susan Bursik Tawnya R. Halgren Sam Kogan Lawrence Schwartz	2016	Case study	Research	Research Technology Management	USA	Ebsco host and proquest	Qualitative
15	The Triple Bottom Line: Performance Measures in Social Entrepreneurship Research	Michelle D. Lane	2010	Literature review and framework development	Research	ICSB	USA	proquest	Qualitative



Appendix II Journals by Year

Journals	Year of Publishing							
	2006	2010	2011	2012	2013	2015	2016	2017
XXIII ISPIM Conference – <i>Action for Innovation: Innovating from Experience ISPIM Members</i>				1				
<i>ICSB</i>		1	1					
<i>Sustainability Accounting Management and Policy Journal</i>		1						
Book ISSN 1653 -2090 ISBN 978-91-7295-244-7				1				
<i>Journal of Small Business Strategy</i>						1		
<i>Journal of Indian Management</i>					1			
<i>Social Responsibility Journal</i>						1		
<i>Greener Management International</i>	2							
<i>International Journal of Management Reviews</i>							1	
<i>Sustainability</i>							1	
Working paper series 1706-CSE								1
<i>European Journal of Innovation Management</i>					1			
<i>Research-Technology Management</i>							1	



Determinants of Export Performance of Selected Cash Agri-Products: Pre- and Post-Trade Liberalization in Tanzania

John Kingu*

Keywords: *Agricultural Products, Determinants of Export Performance, Export Performance, Trade Liberalization*

Introduction

This article investigates the determinants of export performance of selected cash agri-products pre- and post-trade liberalization in Tanzania over the period spanning from 1970 to 2012. This study employs secondary data collected from various sources like Food and Agriculture Organization (FAO), World Economic Indicators, Bank of Tanzania, The Economic Survey 2012, and Ivan Kushner's Research Center.

To examine the determinants of export performance this study utilizes both parametric and non-parametric techniques. Under parametric technique the current study employs econometrics methods; this study follows the econometrics research methodology so as to measure the study's objective. The study objective is to identify the determinants of export performance on selected cash crops in Tanzania. Under this research objective, econometrics is a suitable research method in investigating the determinants of export growth.

Econometrics simply implies economic measurement as a method which facilitates measurements of economic variables under study. In this connection, econometrics is concerned about the role of economics, in which it deals with the application of mathematical statistics to economic data, which are manipulated so as to provide the empirical support to the models constructed in the study by the researchers, in order to obtain the numerical results (empirical results). Measurements in empirical research are vital as they are able to point out the magnitudes of the variables and even directions.

First, the research use Augmented Dickey-Fuller (ADF) test in testing for a unit root. Second, the study test for cointegration using three main techniques which are cointegrating regression Durbin-Watson (CRDW) test, Engle-Granger residuals cointegration test, and Johansen cointegration test. Third, the present study test for multicollinearity using tolerance and variance inflation factor (VIF). VIF and tolerance

*Ph.D from Mohanlal Sukhadiya University through BIMTECH



(TOL) are the most utilized techniques in detecting multicollinearity due to its simplicity to use and provides the degree of correlation among independent variables as such it becomes easy to know which variables are more collinear. The closer TOL is to 0 (zero), it means that there are problems of collinearity among independent variables, whereas closer tolerance to 1 (one) implies that independent variables are not collinear to each other. Again, VIF detects multicollinearity. VIF values exceeding 10 signifies that variables are collinear, but if it is less than 10, then there is no problem of multicollinearity amongst the independent variables and diagnostics test this study employ Bruesch-Godfrey, Bruesch-Pagan-Godfrey and Jarque-Bera, and probability statistic.

Furthermore, multiple regression analysis was employed to estimate long-run and short-run coefficients. This study uses co integration and error correction model (ECM) on every selected cash crop. Thereafter, the study employs trend analysis to examine the trends or patterns of export performance of the selected cash crops if it is improving over time or not. The study investigates the trend analysis of each cash crop export earnings (export values). In order to capture the intended goal, the study formulates linear trend analysis model in which the research regress each cash crop export values (X_t) in natural logarithms on time. Models are known as "linear trend" whereas time variable (t) is called "trend variable." Also, the study employs structural break to examine the stability of coefficients.

Moreover, the research uses panel data analysis so as to ascertain time series analysis results. In order to ascertain the time series results, it is imperative to have the pooled regression analysis. Merits of panel technique against time

series analysis are that the latter has the power to manage individual heterogeneity, and also has the ability iron out and measure the impact which is not easily seen in pure cross-section or pure time series data. The technique further enables to form and examine complex models as compared to the time series.

In nonparametric statistic, MacNemar test is used to examine the effect of changes before and after trade liberalization in selected cash crops in Tanzania. This test is one of the nonparametric tests which are made to measure the effect of change before and after the occurrence of the phenomenon. Broadly speaking, MacNemar test has been developed to evaluate the significance of the effect of the change. Similar to other nonparametric tests like sign and signed rank tests, MacNemar test has been proposed for use in specific cases where the data or measurement are either nominal or ordinal scale.

Generally, MacNemar test's approach or method suggests that it may be used as the tools or instruments that are available for the study of the comparative method of analysis in research activity. McNemar test has been developed basically for application to cases where the states of affairs before and after the introduction of change are to be analyzed. The aim of MacNemar test is to determine the effect of change in the initial condition or state. In that matter, the comparison is made between the states before the change and after the change of the phenomenon. Thus, MacNemar test facilitates the evaluation of the effect of change (before the change and after the change).

Generally speaking, under time series analysis Augmented Dickey-Fuller tests reveal that all variables are no stationary at the level and stationary at first difference. Again, all co



integration tests support that all variables that have long-run relationships as such are co integrated. All models pass the diagnostics test. On the other hand, the determinants of export performance of selected cash crops show that some cash crops are mostly determined by internal factors while other cash crops are determined by an external factor.

On top of that, the study reveals that other cash crops are determined both by internal and external factors. Selected cash crops determined by internal and external factors are tea and cotton. The main determinants of tea are world prices and production quantities while cotton is determined by world prices and a dummy variable (trade policy). On the other hand, cashew is determined by internal factors only that are production quantities and real exchange rates of the previous years. Selected cash crops that are determined by external factor are coffee and cloves. The main determinant is world prices.

Furthermore, trend analysis suggests that export values of all selected cash crops are improving over time since their trend coefficients have positive signs and statistically significant at 5% level. Again, structural break results reveal that four selected cash crops have stable contributions in an export performance that are coffee, tea, cashews, and cotton whereas cloves have unstable contributions in export performance. Under nonparametric statistic via MacNemar test, this study fails to reject null hypothesis of no significant changes before and after trade liberalization for all selected cash

crops as such the study conclude that there are no significant changes before and after trade liberalization similar to dummy variables results obtained in the parametric statistic in some cash crops.

As a matter of comparison, panel data regression results support the theory and find the expected signs that are positive and all variables are statistically significant at 5% level. In this perspective, panel regression results are in line with time series analysis results in some cash crops. Panel regression findings reveal that some selected cash crops are determined both by internal and external determinants similar to time series results. However, the present study did not expect to get the same results under different techniques but the interest is to see if there is any divergence or convergence of the findings using different techniques. The results suggest that there are convergences of the findings among two different approaches. Therefore, this study concludes that world prices, real exchange rates, and production quantities are main determinants of export performance of selected cash agri-products in Tanzania notwithstanding in time series have got mixed results. Thus, in this light the Tanzanian government should make all necessary factors to boost the internal determinants that are under control and improve the qualities and add values on exported agricultural products from Tanzania not only in selected cash crops but also in other cash crops like sisal, tobacco, etc which are not included in this study.



Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty

BOOK REVIEW

Satender Rana*

Details of the book:

Abhijit V. Banerjee & Esther Duflo

New York: Public Affairs, 2011, 303

ISBN 978-1-58648-798-0

Background

All economies face different types of socio-economic challenges. The problems include inefficient education and healthcare, poor sanitation, and so on. Most prominent and despicable among all is poverty because it can be attributed as a reason for all other evils. According to a report released by the World Bank in 2010, there is remarkable decline in the poverty rates in the last decade. The number of people living in extreme poverty has been declined to more than 700 million. However, the total number of people still entrenched in destitution nearly equals the total population of India, i.e. 1.2 billion. The reduction in poverty is more than half for the middle and high income countries since 1981. For less income countries the extreme poverty fell by less than a third. The subsistence earnings allow the poor as much to keep their body and soul intact. Most of the world poor lives in Third World nations. Abolition of poverty and protection of marginalized has always grabbed attention of governments, policymakers, development

workers, international agencies, etc. The primary agenda for almost all the governments in developing countries has always been poverty elimination. Various international agencies, local organizations, and governments have made individual and collective actions to end poverty. However, poverty has always been able to triumph over all measures. Poverty eradication is definitely the biggest humanitarian challenge. The “invisible hand” has largely failed to serve everyone in the society. The reasons of failure are mostly attributed to institutional and market failures. However, the role of beneficiaries in the success and failure of a particular measure mostly remained ambiguous and probably hard to answer. A comprehensive understanding of lives of poor is absolutely necessary to devise effective and efficient solutions to deal with the problem of poverty.

Poor economics tries to find out how best to realize the goals of eliminating poverty; what works and what doesn't? Poor Economics: A

* Programme Manager-CSCSR, Birla Institute of Management Technology.



Radical Rethinking of the Way to Fight Global Poverty provides fascinating details of the lives and thought process of the poor. The authors claim that the anti-poverty approaches followed by the governments as well as by the local, national, and international development and aid agencies primarily propagate their ideologies by imposing quixotic policies; apathy and unawareness further worsen the situation. This explains why even good-intentioned policies fail. Through various Randomized Controlled Trials (RCTs) in 18 countries data set Professor Banerjee and Professor Duflo explain causes of poverty and solutions to combat it. Whether people live in poverty traps and need help and aid to get out, or, if they are not in poverty traps, why they remain poor. The book covers eight major development related issues including food, health, education, family planning, microfinance, saving, and entrepreneurship. Each of these issues is contextualized with anecdotes of the realities of lives of the poor, with evidence presented to support or dismiss particular policy proposal.

Think Again, Again

Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty opens up by illuminating the debate over development aid. At one end of the debate is aid "optimist" Professor Jeffrey Sachs who believes in existence of a poverty trap and favors the governmental intervention to fight poverty by infusing large amount of money into the existing system. At another end, Professor William Easterly criticize the idea of aid arguing that it does more bad than good and promote dependency culture. The aid pessimists believe that people can find a way through free markets provided that the incentives are right. The authors express doubt over which idea should be believed? They say that debate about the rights and wrongs of aid

often obscure what really matters. However, no one in the debate overlook the moral imperative to save lives of those who are not known to anyone. The author's gives three I's, viz., ideology, ignorance, and inertia as reason why policies fail and why aid does not impact as it should and favors step-by-step approach to fight poverty.

Hunger Flight to Quality!

The authors revoke the common notion that poor people go to bed hungry every night. They also dismiss that people in destitution put every available penny into buying more food. It is quite surprising that neither of the two assumptions is true. The poor do not spend extra money on buying extra calories instead they spend it on purchasing better-tasting and expensive food. Like in China when the price of basic staple was largely subsidized the poor started spending their savings on buying shrimp and meat. This suggests that poor people also make rational decisions to allocate their income. Instead of ragging against their destiny poor people have made things bearable by reducing their standards but not necessarily by cutting out luxuries. This indulgence is not because of impulsive purchase but is well thought out, and reflects strong compulsion.

Nutrition Based Poverty Trap

The childhood malnutrition affects the ability of adults to function successfully in the world. Nutrition experts conclude that "Under nutrition is associated with lower income status in adulthood." The social returns of directly investing in children and pregnant women nutrition are therefore tremendous. The food policies therefore need to be reformed especially considering the rights and welfare of vulnerable.



Health: Low Hanging Fruits for Marginalized Mango Man

There are a large number of cheap remedies that can be adopted by the poor to improve their work efficiency and living, for example chlorinated water, deworming pills, bed nets, and so on. Even though these preventable and treatable remedies are easily available most of the poor don't use them. There are three reasons why these low hanging fruits are mostly left unused.

- Poor public healthcare provided by the medical professionals;
- Money is spent on curative healthcare rather than cheaper preventive alternatives; and
- People perceive free or cheap services as worthless.

The belief system also plays a crucial role in healthcare. When there is not much conviction behind a belief and is only held for convenience and comfort it is easy to bribe people to do right thing. In such cases rewards or incentives frequently work. It is evident from the successful immunization camp organized by Seva Mandir to provide reliable immunization services to rural children in Udaipur between January, 2002 and August, 2003.

The government should improve quality of both the preventive and curative healthcare. Stricter regulations should be enforced to maintain discipline in public healthcare system. The preventive healthcare should be readily available and affordable. The government can further set some rewards for participation in immunization projects.

Education: Top of the Class

The world over, education systems are under stress. Enrolment has gone up faster however the impact created in child learning is negligible. Pratham, one of the largest non-government organizations (NGOs) in the world committed towards providing quality education to the underprivileged children in India conducts an annual survey known as the Annual Status of Education Report (ASER). The objective of this survey is to know the education standard in the schools of India. The survey suggests that more than 41% students of grade fifth are unable to read text of grade second and fail to solve simple arithmetic like division. Based on these facts the authors rightly argues that if the children are not learning anything and the education system is unable to bring any change in their lives there is no point in sending children to school. Through various randomized controlled trials (RCTs) they try to explain the reasons why schools fail? Why education system in developing countries does not fulfil its objective? Why there is high level of absenteeism of teachers in school? And what can be done to improve the education system?

Professors Banerjee and Duflo reason that a combination of unrealistic goals, unnecessarily pessimistic expectations, and the wrong incentives for teachers contributes to ensure that education systems in developing countries fail their two main tasks of giving everyone a sound basic set of skills, and identifying talent. Other reasons of failure includes the curriculum and the teaching which are designed for the elite, growth in the high-tech sectors is a reason for shortage of teachers; parents perceive education primarily as a way for their children to acquire considerable wealth, the constraints imposed by the official pedagogy, and the particular focus on covering the syllabus are attributed as barrier.



Education is a form of investment. People invest in education to make money in the form of increased earnings in the future. But the problem with investing in education is that parents invest and children reap the benefits. Many factors matter in educating a child, hopes about the future, expectations, and generosity. Building schools and hiring teachers is the first step to lower the cost of sending a child to school, but it may not be enough. Compulsory education cannot be enforced due to limited capacity of state. One way to encourage parents to send their children to school is financial incentives like conditional cash transfer programs like PROGRESA (Programa de Educación, Salud, y Alimentación), an integrated approach implemented by the government of Mexico in 1997 to alleviate poverty through the development of human capital.

The authors suggest many solutions to improve the education system. These include focus on basic skills, commitment to the idea that every child can learn and master, no excuse attitude, curriculum should be simplified, and children should be allowed to learn at their own pace, by repeating if necessary.

However, lack of motivation in most of the cases is not because of low remuneration but because of weak external enforcement. The lack of motivation and accountability among school teachers has degraded the education system. High absenteeism and poor performance of students is proof of teachers' irresponsible attitude. The simple solution to this problem is the privatization of public schools, contractual agreements, continuous evaluation and performance based benefits, rewards, and contract renewal. This will make the teachers accountable and the fear of being laid off in case

of poor performance will motivate them to put real efforts.

Large Families

One of the most common characteristics of poor families is their large size. Why is it so? Is the poor not aware of benefits of a small family? Or they are unable to plan a family by controlling their fertility? The authors reason that the poor families are large not because they are unable to control their own fertility but for them it is a choice. When family size increases, there is nothing left for savings and on the other side if the family size decreases, the precautionary savings goes up. But these savings are not for the children rather are provident measures for the old age or emergency such as healthcare related issues etc. So it does not make any difference to the health and education of a child in a poor family whether the family is small or large. This is one reason why family planning programs fail because they are actually not wanted by the poor. Furthermore, HIV/AIDS or compulsory sex education is not a solution to teenage pregnancies or sexually transmitted disease. The RCTs shows that even small rewards like distribution of school uniform for girls work and keep them off the streets. Such initiatives are more effective in preventing teenage pregnancies.

Insurance

Poor live their lives at the face of risk. Why the formal insurance is not available to the poor? The book sites numerous explanations like fear of moral hazard, adverse selection, fraud, government subsidies, why formal institutes do not provide security to poor, etc. And in many cases poor do not understand the concept of insurance or doubt the credibility of insurance product. There is so much risk in the everyday



lives of poor that the event perceived to be cataclysmic in rich countries often seems to barely register with them. Poor always live circled by various livelihood risks. To bear this risk poor people diversify their livelihood options. At one hand diversification of livelihood activities strengthens them to face risk and at the other it takes away the benefits of specialization. The diversification includes part-time work at a construction sites, small plots in different parts of the village, and different crop types. The authors suggest governmental intervention to develop insurance market by providing subsidies.

Borrowing

Poor generate their working capital through borrowing. The money is generally borrowed from friends, relatives, money lenders, and family. Poor people repay the borrowed amount with exorbitant rates of interest. These can be as high as 5% per day. Poor people borrow at such higher rates from informal sources because formal financial institutes impose stringent rules and takes time to lend money. Only about 5% are able to borrow through financial channels. According to financial institutions they are reluctant to lend money to poor because information and monitoring costs of lending to poor people are high. This was how the concept of microfinance, a small amount of finance provided to low-income individuals or groups who otherwise have no other access to financial services, came into being. Professor Muhammad Yunus who is hailed as the father of modern microfinance has done extensive work improving lives of thousands of marginalized. But there are also many case studies like of Spandana in Hyderabad which suggests that microfinance work but not remarkably.

Savings

Largest problem to saving is procrastination. It is very hard for poor people to save money because they always have preference for present rather than future consumption. Another reason is formal banking system is less interested in dealing with small accounts. One way to overcome the problem of saving is by providing short-term fixed deposits so that after a certain period of time poor people can save considerable sum of money.

Natural Entrepreneurs!

The authors thus disapprove the idea that poor are “natural entrepreneurs.” In an RCT when 52 people were randomly provided microfinance after sometime it was observed that very few people started new ventures. Most of these businesses run by the poor were tiny. Maximum of these have no paid staff and generate very little profits. They do not sustain for long. These businesses are reluctant to invest more to achieve further growth. Even if somebody wanted to it is hard for them to save or borrow money to overcome the financial barrier. The reason why most poor pursue to start their own venture is to supplement their meager income. There is no spirit of entrepreneurship per se. Another major problem is that many poor countries are unable to provide job opportunities due to which poor people have to opt for something on their own.

Limitations of “Poor Economics”

- The RCTs are criticized by many development experts arguing that the results cannot be generalized and only sometimes replicable. It is not possible to test every permutation and combination through RCTs. Like Professor William Easterly argues that RCTs are infeasible for many of the big questions in development, like the



economy-wide effects of good institutions or good macroeconomic policies.

- The ambiguity still persists because the book does not clearly explain which pro-poor policies are most effective and which should be discarded? What should be done to uplift the poor? What are the policy implications? What should be the trajectory to achieve the goal of social inclusiveness?
- Climate change is endangering development successes. Poor and marginalized are often affected the most. No effort has been made to study the adverse impact of climate change in the lives of bottom billion.
- The book does not summarize the chapters to discuss the future perspective.

Despite a few of its limitation, *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty* provides a large number of anecdotes and experiments to build mind boggling facts, challenges key assumptions provoking thoughts.

Discussion, Conclusion, and Suggestions

It is evident that socio-cultural barriers and religious belief prevent radical social reforms to take place. Certain social stigma and taboo restraint people to participate in life transforming policy initiatives. Another major problem is gender bias. Gender rights play a crucial role in socio-economic well-being of a society. Gender inequality suppresses the talents of billions of women worldwide who are capable of becoming business leaders, great politicians, researcher, and so on. There is a lot of waste of human capital. The gender bias restricts women to become economic agent in the society resulting in gender specific poverty trap. Domestic violence and sexual harassment

is significant contributor to it. A report released by World Health Organization (WHO) in 2014 shows that about 700 million women are victim of sexual or domestic violence. According to this report, 35% women are victim to violence during their lives, mostly at the hands of their husbands or partners and at a huge personal and economic loss. The report suggests that the productivity loss due to domestic violence is in the range of 1.5% to 2% of the gross domestic product (GDP) equivalent to the total spending on primary education by most of the developing countries. Major gender reforms are needed to uplift the women. One such measure is increased rights over resources so that the women can be included in the decision-making processes.

Professor Easterly maintains that countries like China and India have achieved success through market-based approaches. According to him market-based approaches provide efficient solution to the problems and lead countries to the path of development. To extend his view one such promising idea to address the social challenges is through social business/social enterprise. The system is self-sustainable because of its market-led business model and continuously provides supply of goods and services to poor at competitive price. The social business directly addresses the social problems and the investors seek Return on Investment (ROI) in terms of positive social impact. There are many success stories like Grameen Danone, Arvind Eye Care and so on which has created positive impact in society. Social problems can also be effectively addressed through public private partnership (PPP) models. PPP models have achieved great success in wider areas including health, education, sanitation, clean water supply, etc. PPP is especially helpful when the public sector lacks resources and technological and professional expertise.



Corruption and lack of accountability result in the failure of political and economic institutions. In such cases marginalized suffer the most. Like Professor Banerjee and Professor Duflo maintains the formal financial institutions like banks and insurance companies have been unable to provide effective strategies and financial policies to help the poor. These institutions have largely failed to realize the goal of society. Many development economists like Professor Easterly believe that the development objectives cannot be realized unless the institutions are corruption free and not deter from the duty. However, some like Professor Sachs favors strengthening of civil society and poverty elimination through bottom-up approach. However, the responsibility has to be shared between both the institutions and the civil society.

The lesson learned from the book is that it does not make any difference how well pro-poor policies are designed? How carefully aid is planned? Or how efficient markets are? If these policies and plans are based on whims and hunches they are most likely to fail. Development and anti-poverty policies should be formed on scientific evidences and the approach should be need based. The comprehensive understanding of ethnography is necessary to find innovative solutions to tackle key social challenges and foster development. This is possible through 3Cs, i.e. co-creation, collaboration, and co-operation. Like both Professor Sachs and Easterly agree that there should be a balance between motivation and constraints. Even good-intentioned, ideological policies can fail if the approach is not bottom-up. Therefore, before we devise any development or pro-poor policy we need to “Think Again, Again.”

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Research Workshop Series

A Report on Predictive Analytics with R Workshop

Centre for Research Studies
Birla Institute of Management Technology
September 2 and 3, 2017

Arpitha Reddy P*
Aditi Mudgal*

The Center for Research Studies (CRS), Birla Institute of Management Technology (BIMTECH) organized a workshop on “Predictive Analytics with R” from 2 to 3 September, 2017 at the Greater Noida campus. The workshop was an attempt to empower the budding researchers, academicians and faculty with the “R programming language.” This is a user-friendly and open source language, which has become a vehicle of choice for researchers to conduct data analysis. It is widely used among researchers for statistical analysis (linear and nonlinear modeling, classical statistical tests, time-series analysis, classification, and clustering) and graphical techniques. It is used for data mining and text mining as well. The strengths of “R” are as follows:

It’s very well-designed publishing quality with mathematical symbols, formulae, organized documentation, high-quality plots, designs, and graphics.

The workshop was an initiative by the CRS to facilitate the dissemination of knowledge R for faculty and research scholars in their journey to conduct high-quality research.

The workshop was conducted by two facilitators, Amarnath Bose and Amrendra Pandey, both being faculty members of the institute. The introduction of “R” and Structure Equation Modeling was moderated by

Amarnath Bose, who is an alumnus of Indian Statistical Institute (ISI) Kolkata and a faculty in Decision Sciences at BIMTECH. His research interests lie in the areas of Statistical Modeling, Operations Research, and Artificial Intelligence (AI) techniques including genetic algorithms and neural network. The Text Mining session was moderated by Amrendra Pandey, Fellow of BIMTECH and faculty in the area of Economics. His research interest lies in Macroeconomics, Financial Risk, Retail Economics, and Text Mining techniques.

The workshop attracted a mixture of participants from academia and industry. There were eighteen participants in total, out of which four were from the industry, fourteen from academics including four research scholars. The proceedings on day one started with a welcome address from A Sahay, Dean Research, BIMTECH whose support was instrumental in making this workshop possible. In his address, he extended a hearty welcome to all and delivered an insightful speech highlighting the importance of “R,” its functionality and relevance in the research ecosystem. Thereafter, the first two sessions covered the background of “R,” a quick brief on the importance of “R” and factors that distinguish it from other software such as Python. Post-lunch sessions covered Text Mining, extraction of data from Facebook, and cleaning of data.

*Research Fellow, Birla Institute of Management Technology.



On day two, morning sessions continued with Text Mining using Twitter as a data source and the approach to Modeling. In the second half of the day, the sessions covered Structured Equation Modeling. The valedictory session commenced with participants expressing overwhelming praise for the experience during the workshop. This was followed by the presentation of certificates and concluded with a vote of thanks from AV Shukla, Chairperson, Center for Research Studies. The chairperson also expressed the Center's desire to organize more workshops for facilitating researchers with the necessary knowledge to conduct their research. He invited suggestions on probable topics/themes for future workshops.

The workshop received very positive feedback from participants. Some of the views expressed were as follows:

It was a completely hands-on workshop, which facilitated a better understanding of "R." This workshop facilitated performing data analysis and ignited participant's interest in using "R" in their research. It helped the participants to gain confidence and overcome the fear of programming from their minds. The unique features of this workshop were the ease and warm openness of facilitators with each participant, which made learning fun and fruitful. The participants were extremely happy to be a part of the workshop (92%) and 33% of them have requested the Center to conduct these kinds of workshops in future frequently. There were 60% of the participants who felt that the duration of the workshop should be extended, as it has massive practical application and usage in research for analysis purposes.



Participants with Panelists of Research Workshop Series - A Report on Predictive Analytics with 'R' Workshop

September 2-3, 2017

Research Workshop Series

CONTENT ANALYSIS WORKSHOP

Organised by - CENTRE FOR RESEARCH STUDIES, BIMTECH

January 27-28, 2018 (Saturday & Sunday)

Venue: BIMTECH, Greater Noida



About Centre for Research Studies (CRS)

Line with BIMTECH's vision and mission, the Centre for Research Studies is engaged in knowledge creation and dissemination. No doubt, there is a big pool of knowledge existing in the field of management but the process of globalization, privatization and liberalization has put a big challenge for new knowledge creation and its dissemination. The centre works to this objective through running doctoral programmes and updating the knowledge of the faculty through the conferences, seminars and workshops. The doctoral programs helps in equipping the new minds to assimilate continually improving research methodology, to initiate research in the knowledge gap areas as well as taking up challenging research topic that is relevant to business management in continuously changing environment. BIMTECH also engages itself in upgrading the knowledge of existing teachers and executives through executive fellow programme which enables business executives to assimilate new knowledge and bring their industrial experience to the management institute while upgrading the knowledge of existing faculty. In order to disseminate knowledge better, BIMTECH continuously undertakes programme to update knowledge of faculty in various fields as also deliberates various method to disseminate knowledge in the class room to make the learning of the students more relevant, vibrant and dynamic.

About the Workshop

The two days' workshop will be spread across 8 sessions. Along with the other existing qualitative techniques, there are other techniques which are coming into existence and one of them is Content Analysis which is being widely accepted and is being adopted slowly and gradually worldwide. This Content Analysis Workshop will be making the participants aware of 'what and how' of the Content Analysis in the qualitative research area. The qualitative research can also throw light on the variety of issues pertaining to common passions of the people in general and their political interests. The workshop aims to opens the doorways to a qualitative research tool called Content Analysis, which will help the participants to learn ways in which the complex texts can be analyzed using the DICTION software.

Objective of the Workshop

Qualitative data is extremely varied in nature. It includes virtually any information that can be captured that is not numerical in nature. The categories of qualitative data include In-depth Interviews, Direct Observation and Written Documents. Usually written documents are analysed with some form of Content Analysis.



Srinath Jagannathan

Professor, IIM Indore

Workshop Facilitator Profile

Srinath Jagannathan completed his Fellow Program in Management from Indian Institute of Management Ahmedabad in 2011. He worked on workers' experiences of insecurity for his doctoral dissertation. His doctoral work spanned qualitative inquiries from a post structural frame with informal economy workers, refugees, temporary workers and workers with formal employment contracts. He worked in the Centre for Labour Studies in Tata Institute of Social Sciences, Mumbai for more than three years before joining IIM Indore. He also holds a Bachelor's degree in Electronics and Telecommunication Engineering and a Master's Degree in History from the University of Mumbai.

Currently working as Professor of Organizational Behaviour & HRM department in IIM Indore.

Registration Fee: Rs. 5,000/- (including GST) for both Research Scholars and Faculty, which includes welcome kit and food. Limited seats are available for accommodation for both days on first come first serve basis.

Payment Mode: Online Payment Gateway Link - <http://bimtech.ac.in/event/index2.php>

Last Date of Registration: December 31, 2017

Certificate: On Successful Completion of Course, Certificate will be provide.

For Enquiries Contact :

Content Analysis Workshop Committee

Ph: 0120-2323001-10 (Ext: 394), M: 09599381937

Email: crs.workshop@bimtech.ac.in



BUSINESS PERSPECTIVES

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**Production-Inventory Model For Noninstantaneous
Deteriorating Inventory Items With Stock Dependent,
Price Decreasing Demand, and Fully Backlogged
Under Inflation**

Shiv Kumar

**An Empirical Investigation of Role of Decision
Environment in Business Intelligence Process**

Rekha Mishra & A. K. Saini

**Integration: Linear or Nonlinear: An Empirical Study
Between Indian Stock Markets and Other Developed
and Developing Countries of the World**

Samiran Jana

Be a Person, Who is Remembered For Helpful Nature

Prakash Iyer

**Transcript of a Panel Discussion on Goods and
Services Tax – A Game Changer**

*H Chaturvedi, M K Venu, Mukesh Butani &
K K Krishnan*

**Catering Service: Transformations and Inevitable
Contributions in the Food Industry**

R.N. Balamurugan, M. Sathish & V. Nandhini

“When you take charge of your own narrative, it gives you a handle on it.”

- **Liz Murray**



BIMTECH
BIRLA INSTITUTE
OF MANAGEMENT TECHNOLOGY

Plot No. 5, Knowledge Park-II, Greater Noida (NCR)
Uttar Pradesh – 201 306, India
Tel.: +91-120-2323001 – 10
Fax: +91-120-2323022/25
www.bimtech.ac.in