

Another Way of Seeing: Environmental Existentialism in Albert Camus' *Nuptials at Tipasa*

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This paper offers a reading of *Nuptials at Tipasa*, a lyrical essay by Albert Camus, via the perspectives of eco-criticism and mid-century existentialism. In particular, German biologist Jakob Johann Von Uexkull and existentialist philosopher Jean-Paul Sartre's ideas inspired this work's critical viewpoint. This kind of multidisciplinary approach aims to explain "environmental existentialism," a distinct ecological viewpoint. This critical perspective not only recognizes the long-standing impact of the existentialist movement on environmental studies, but it also makes the case that existentialist ideas are particularly pertinent to the current ecological context and ought to be used in ecological discourse. This work primarily focuses on three concepts: Albert Camus's emphasis on the physical surroundings, Uexkull's idea of the searching tone, and Sartre's theory of 'Look.' These concepts are examined in concert to suggest that the correlations between the dominant issues of existential threat that the age of the Anthropocene poses, as well as the value of reading texts both old and new through the lens of existential eco-criticism. The Australian-born environmental humanities scholar and ethnographer Deborah Bird Rose describes ecological existentialism as a reaction to 'the two big shifts in Western thought that define our current moment: the shift into uncertainty and the shift into connectivity.' The phrase was first used about ten years ago. However, its emphasis on feeling connected and unknown at the same time has remained relevant as we continue to see the effects of deforestation, global warming, and biodiversity loss, including the most recent outbreak of the zoonotic virus, COVID-19.

Keywords: Nuptials, eco-criticism, existentialism, multidisciplinary, pertinent, ethnographer

A researcher from Australia named Deborah Bird Rose studies ecological existentialism as a response to "the two big shifts in Western thought that define our current moment: the shift into uncertainty and the shift into connectivity" (Rose 42). The idea behind the term "connected uncertainty" has stayed important even though it was created almost ten years ago. We are still seeing the effects of biodiversity loss, deforestation, and global warming, such as the most recent events with the COVID-19 virus. "There is no predetermined essence of humanity, no ultimate goal toward which we are heading," Rose says of existentialism. "And that we experience what appear to be astonishingly open ways of being and becoming human" (43). This term changes the anthropocentric themes of existentialist ideas from the 20th century. It suggests that life in the 21st century still has the same amount of uncertainty and absurdity as existentialist ideas, but the themes of isolation and subject-object dualism don't fit with our more ecocritical views. In the end, Rose says that some parts of classic existentialism can help us understand how things are in the Anthropocene.

Being more aware of and worried about extinction has become one of the most important ideas in ecological nihilism. People usually think of extinction as a single event that happens when the last member of a species dies. However, Thom Van Dooren says that extinction is more of a slow unraveling of closely linked ways of life that starts long before the death of the last individual and keeps going for a long time afterward, attracting living things in many different ways.

People have also linked Albert Camus's writings to the existentialist movement of the 1960s and 1970s, especially the work of the French existentialist Jean-Paul Sartre. Camus' books, plays, and lyrical writings are famous for how well they deal with the wonderfully real and metaphysical questions of being. This writer has not usually been looked at through the lens of ecocriticism, though, since a lot of his work is about people's lives. Still, a lot of Camus's lyrical essays are about the natural world. Most critics agree that nature plays a "symbolic role" in his essays and short stories, but they say that nature doesn't always have a clear meaning. So,

it is very important to read Albert Camus's works through the lens of ecocritical thought. Though nature plays a part in many of Camus' stories, especially his Lyrical pieces, which could be used to show how he treats the environment as a character, are truly remarkable.

Most ecocritical scholarship doesn't agree with Sartre's theory of the "Look," which is based on the idea of subject-object dualism. However, Camus's knowledge of Sartre's philosophy and the strong themes of the Look in both his stories and essays show that he changed Sartre's theory to challenge these dualisms. The "Look" is a concept introduced by Sartre in one of his most famous works, *Being and Nothingness*. It means the phenomenological experience of being seen, of being vulnerable, and finally, of having a body, which makes one feel disconnected from their options in a world they no longer subjectively organize. The narrator goes through all of Sartre's stages of 'Look' as he interacts with his surroundings. The narrator first looks at the physical parts of the surroundings, which turns the feeling of looking into just seeing eyes. Sartre writes, "As soon as I look in the direction of the look, it goes away, and all I see are eyes." The other person turns into a being that I own and that knows I am free at this very moment (Sartre 380). This "possession" of the other person, though, can't last because as soon as nature is seen as an object by the narrator, it is "outside the state of recognizing the narrator's freedom," which is the end goal of the struggle between two people who are viewing each other (9).

After the first attempt to make nature's gaze into an object, the gaze is turned around, and the narrator realizes that someone else is looking at him. His vision changes, and he no longer sees the elements of nature as things in his world; he now knows that he is also being looked at. According to Sartre's theory, the narrator talks about how the figure called "nature's look" makes him feel bad about himself. Not only does the narrator feel more afraid and ashamed, but he also has an unexplainable feeling that nature is looking at him all the time:

How many hours have I spent crushing absinthe leaves, caressing ruins, trying to match my breathing with the world's tumultuous sighs? Deep among wild scents and concerts of somnolent insects, I open my eyes and heart to the unbearable grandeur of this heat-soaked sky. It is not so easy to become what one is, to rediscover one's deepest measure. But watching the solid backbone of the Chenoua, my heart would grow calm with a

strange certainty. I was learning to breathe, I was fitting into things and fulfilling myself.
(67)

The narrator's world changes just by being seen. As Sartre says, "to apprehend myself as seen is, in fact, to apprehend myself as seen in the world and from the standpoint of the world." And when the world comes into the picture, it brings with it alienation, both of the self and of the "world which I organize" (263). As the narrator's meeting with Tipasa goes on, he comes to a turning point where his view changes, and as the beginning of the essay predicted, he becomes one with Tipasa. This change is shown by the way the Look works, in which he feels "the great free love of nature and the sea absorbs him completely" (66).

Camus doesn't end his account of how people engage with nature with this neat duality of self and others. Instead, he combines the man's mind with the that of the surroundings, which was the thing he was looking at before. While some scholars have chosen to see this last event as an example of the fantastic or magical. But Camus's work does more than just turn an anthropocentric reading on its head by changing the way the Sartrean Look is read. We can't read it in a way that gives the character all the power; this is easier to see if we look at the work through Jakob von Uexkull's idea of the searching tone. In *A Foray into the Worlds Animals and Humans*, Uexkull tries to show the basic drives and experiences that make the surroundings of humans and animals different from each other. Uexkull asks a question that sounds a lot like Sartre's: "How does the subject exempt itself as an object in the different environments in which it plays an important role?" This is after talking about how a person's desire can change what and how they view the world, which he calls the "search tone." (Uexkull 126). To help his points, Uexkull uses an oak tree as an example. This tree is "inhabited by many animal subjects and is called upon to play a different role in each environment" (126). In each of these places where people live, the oak "plays an ever-changing role as an object." But these separate parts of the oak "are only parts of subjects of these environments and never knowable for them" (132). This description leads to a similar conclusion to Sartre's, which is that objects can't be perfectly united. But Uexkull's writing shows that how we search for the Other (or any other presence like that in our surroundings) affects how we see them. It's an effect picture (or a certain function) that shows up in our desires and sets the "tone" of our search for that effect.

When comparing Uexkull to Camus, the way the search tone changes is helpful. At first, the narrator's search tone is just one of observation; he walks up to the Tipasa to take a sideways look at it:

In a moment, when I throw myself down among the absinthe plants to bring their scent into my body, I shall know, appearances to the contrary, that I am fulfilling a truth which is the sun's and which will also be my death's in a sense, it is indeed my life that I am staking here, a life that tastes of warm stone, that is full of the sighs of the sea and the rising song of the crickets. The breeze is cool and the sky is blue. I love this life with abandon and wish to speak of it boldly: it makes me proud of my human condition. Yet people have often told me: that there's nothing to be proud of. Yes, there is this sun, this sea, my heart leaping with youth, the salt taste of my body, and this vast landscape in which tenderness and glory merge in blue and yellow. It is to conquer this that I need my strength and my resources. Everything here leaves me intact, I surrender nothing of myself and don no mask: learning patiently and arduously how to live is enough for me, well worth all their arts of living. (69)

But the tone of his search changes to a greater desire to know Tipasa (to know rather than just look), which:

At Tipasa, "I see" equals "I believe," and I am not stubborn enough to deny what my hands can touch and my lips caress. I don't feel the need to make it into a work of art but to describe it, which is different. Tipasa seems to me like a character one describes to give indirect expression to a certain view of the world. Like such characters, Tipasa testifies to something and does it like a man. Tipasa is the personage I'm describing today, and it seems to me that the very act of caressing and describing my delight will ensure that it has no end. There is a time for living and a time for giving expression to life. There is also a time for creating, which is less natural. For me, it is enough to live with my whole body and bear witness with my whole heart. Live Tipasa, manifest its lesson, and the work of art will come later. Herein lies freedom. (71)

When the narrator changes his search tone from "looking" to "knowing," he can interact with the physical world in ways that go beyond Sartre's conflict-based ideas about the Look. As was already said, Camus's work breaks away from Sartre's theory when the narrator merges with nature:

They had a vulgar and ridiculous idea of greatness, measuring the grandeur of their empire by the surface it covered. The miracle is that the ruin of their civilization is the very negation of their ideal. For this skeleton town, seen from high above as evening closes in and white flights of pigeons circle the triumphal arch, engraved no signs of conquest or ambition on the sky. The world always conquers history in the end. The great shout of stone that Djemila hurls between the mountains, the sky, and the silence- well do I know its poetry: lucidity, indifference, the true signs of beauty or despair. The heart tightens at the grandeur we've already left behind. Djemila remains with its sad watery sky, the song of a bird from the other side of the plateau, the sudden, quick scurrying of goats along the mountainside, and, in the calm, resonant dusk, the living face of a horned god on the pediment of an altar. (79)

This change is used by Camus to question one of Sartre's conclusions about the Look: "I can only identify with the other if I "persist in rejecting that I am the other" (*Being and Nothingness* 22). Because the narrator changes, he has to face the fact that he is also the Other. He never talks to anyone else in the essay, so in a way, he is a social outcast in Paris. These changing levels of difference are also shown after the man understands Algiers:

One probably has to live a long time in Algiers to understand how desiccating an excess of nature's blessings can be. There is nothing here for people seeking knowledge, education, or self-improvement. The land contains no lessons. It neither promises nor reveals anything. It is content to give but does so profusely. Everything here can be seen with the naked eye and is known the very moment it is enjoyed. The pleasures have no remedies and their joys remain without hope. (81)

This new way of looking at the dualisms that were popular in existentialism in the middle of the 20th century also makes Camus's contribution more similar to Deborah Bird Rose's theory of ecology existentialism. Rose says that "humanistic existentialism saw humanity alone in the

universe," but modern ecological existentialism has shown that "we are in a world of intersubjectivity—a world in which sentient subjects face each other" (*Rose Wild Dog Dreaming* 49). Since Camus shows the narrator and the environment as "facing each other," his writings are more in line with Rose's ecological existentialism than with the ideas of the mid-20th century dualists:

The heart senses it through a certain taste of the flesh that constitutes its bitterness and greatness. I am learning that there is no superhuman happiness, no eternity outside the curve of the days. These ridiculous and essential assets, these relative truths are the only ones that move me. I do have not enough soul to understand the other, 'ideal' ones. Not that we should behave as beasts, but I can see no point in the happiness of angels. All I know is that this sky will last longer than I shall. And what can I call eternity except what will continue after my death? What I am expressing here is not the creature's complacency about his condition. It is something quite different. It is not always easy to be a man, even less to be a pure man. But to be pure means to rediscover that country of the soul where one's kinship with the world can be felt, where the throbbing of one's blood mingles with the violent pulsations of the afternoon sun. It is a well-known fact that we always recognize our homeland at the moment we are about to lose it. Men whose self-torments are too great are those whom their native land rejects. I have no desire to be crude or to seem to exaggerate. But after all, what denies me in this life is first of all what kills me. Everything that exalts life at the same time increases its absurdity. In the Algerian summer, I learned only one thing is more tragic than suffering, and that is the life of a happy man. But this can also be the path to a greater life since it can teach us not to cheat. (90-91)

When we think about what happens because of the intersubjectivity shown in the *Lyrical Essays*, we need to think about the main emotion that makes the environment appear.

Four different times can be used to understand how Camus dealt with the theme. A lot of what Camus wrote from the start of his work until 1941 was about how sensitive people are to nature and how they feel "one" with it. When Camus was young, *The Wrong Side*, *The Right Side*, and *Nuptials* were his first, awkward attempts to write about his relationship with nature

and the ideas that come from it. This is Camus's first story that he has written. Nature rules over people instead of letting them associate with it freely. People in Oran are the subject of a story called "The Minotaur." The story says that people can choose to live close to nature and be happy, or they can choose to live far away from nature and be bored and unable to have children.

Camus had a big shift in how he thought about the theme of man vs. nature in 1941. This shift is shown in the paper *Les Amandiers*. People are no longer shown to enjoy the beauty of nature; nature is only a sign of "the good." People are pushed away from the nature they love during the second literary time, which lasted the longest and produced the most works. This can be because of something "absurd" (like *Caligula*), bad luck at birth and not having enough money (like *The Misunderstanding*), or a plague (or war) (like *The Plague*). Nature is still a memory or a wish in all of these works. The author of *L'Exile d'Helle* ends this period with a sharp attack on a world that has given up on nature and the good things that come from it. From 1952 to 1953, Camus's writings show a strong desire to return to the natural experiences he had in Algeria and Italy as a child. At this point, he wrote *Return to Tipasa* and *La Mer au plus Pres*, in which he talks about his new relationship with nature. *The Fall* is about how all men are thrown out, and "The Adulterous Wife" is about how people can connect with nature, but only a nature that is dead and sterile.

Camus thinks that Meursault is the most important figure in *The Outsider*. He wants the right thing and the truth and is a "naked man in love with a sun that casts no shadows" (*The Outsider* 119). When he kills an Arab, he is not following the rules of the world. Not because he shot someone, but because he didn't follow the rules like everyone else, he was found guilty. The last thing Meursault knows is that the sexual happiness he had in life is all he will ever have. He knows what he'll miss when he dies. The wonderful, moment-to-moment life of a normal person who is doomed to die for some strange reason. This is his kingdom. The sea is a big part of *L'Etranger*. You can look at them in three different ways: those that show Meursault's life before the murder, those that show the murder scene, and those that show his life in jail by the sea. They are at sea with Marie three times before she dies. The thing he likes most about life is her. Before the murder, Meursault runs away to the sea to stay away from guys.

The Stories of Albert Camus is a book of six short stories that came out in 1957. It is called *Exile and Kingdom*. "The Adulterous Wife" is about a woman who is forty years old and is tired of living with a doll and a husband who doesn't care about her. He took her on a work trip to the Algerian desert. She found the peace and beauty she was looking for there, in the middle of the night and the desert. Her husband is already asleep when she gets back to her hotel. She's ready to move on with her life now that she feels better. A young priest in "The Renegade" or "A Confused Mind" wants to convert a group of pagans who live in a salt city in the Algerian desert, far from everything else. He changes his mind after being caught and abused. He finally agrees with the tribe's religion and way of life after a long time. He thinks that his new people will beat all white people.

The best way to understand nature, society, and philosophy is to read The Essays of Camus. These were written in three books. Summer, the third one, came out in 1954. It has pieces that were written between 1939 and 1953. These eight pieces are written in a beautiful, lyrical way, like the *Noces*. He shows how different the country and the city are in Algeria. The country is lovely, but the city is terrible. Funny, and it tells you a lot about a beautiful place. It has a lot of words that mean "sea." Most likely, the picture of the sun going down over a pretty country sea is the most beautiful sea scene in the whole report. For many, though, the most famous and charming sea reference in this work is the long scene about young Algerian women, especially the girls who lay out in the sun every year on Algerian beaches.

He gets ideas for his work from nature, landscapes, and the environment, though. Camus writes about the sky, the earth, the moon, the sun, the deep blue sea, and the sand on the beach. The Lyrical writings by Camus are mostly about nature, and this paper is about them. He thinks it's just as strange as the ideas of philosophical poets, as artistic and creative as the ideas of Elizabethan poets, and as funny as the ideas of Restoration playwrights. We can tell a lot about a person by how they change our world. He always looks for natural things that can show how people live. This work talks about nature in a lot of different ways. This is not all that Camus is. He does more than just act and think about the things he has seen and felt. Instead, he seems like a Greek sprite that can only speak because it has to and knows it is telling the truth, even though it is clear once it is said.

Camus's works are always about people who are affected by the places they are set. There are a lot of beautiful, exciting, painful, and limiting things about Camus. To put it simply, Camus sees nature through the lens of everything he knew, felt, and saw in the world. In Camus's mind, nature is the only thing that knows about life, death, pain, unfairness, unity, the ghetto, and the garden of delights. It's not possible to use logic and facts to understand who he is, as we have shown. We need to learn more about him as a whole. It's not easy to follow the paths he draws; they lead us to a lake of being.

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INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

CLASSROOM PRACTICE AND LANGUAGE PROFICIENCY

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ABSTRACT

English is the single most important language, a language for employability. Today's English learning is completely different from traditional teaching. In this paper, the focus is on the various classroom practices and activities used to enhance the quality of English among the students. English for employability focuses on communication skills. The language comes with a complete package of learnability along with refined attitudes which carves a path of progress for students.

Keywords: Communication, learnability, employability.

INTRODUCTION

English has become an essential tool for communication. So it is an immediate need for the student to acquire basic communication skills. If they do not know this language then they may need a translator to do the job. Communication skills are vital for professional development. The capacity to convey oneself eloquently in both written and conversational form is critical to their professional development. When students go for a job interview, the most important criterion apart from their technical knowledge is their communication skills. If they have all the skills required for the applied job, but, lack fluency in English, then the chances of being recruited become less. What skills a student has or how talented a student is, nobody knows until and unless one explores that. Language is the best medium through which they can show their hidden talents and skills. In today's modern world English has found its place and without knowing this language employment becomes difficult.

PROBLEMS FACED BY THE LEARNERS

- Lack of vocabulary
- Weak in sentence construction
- Transliterating
- Unwilling to unlearn the old concept
- Syllabus spread
- Giving more importance to technical subjects
- Least interested in undergoing the learning process
- Pronunciation
- First language interference

The need for English cannot be overlooked in any learning process especially when it is focused towards employability. Rapid changes in media and communication have made English the preferred global language, which has led to a positive attitude towards learning English and increasing their employability. The paper focuses on the methods and classroom practices for learning the English language which can be helpful in the present scenario. The students confront various problems during language learning. It has become a challenge for teachers to help them acquire language skills. Our observation and interaction with the students made us aware of the fact that students acquire more when they are learning unconsciously. Initially, the students are put into groups so that they can develop conversational skills and gradually they perform in pairs and then individually. The instructors of NIST have designed an activity-oriented module that has enabled them to gain confidence to reach the corporate level. The strategies include English Reading Revolution (ERR), Movie Review, Critical Thinking, Task-based Learning, Language through Literature (LTL), Small Talk and apart from these developed methods we also focus on traditional methods like Proficiency Tests, Audio-Visual Aids, Pronunciation Practice, Self Evaluation, Peer Feedback, Presentation etc. Through these activities, we enthuse the learners and make them understand that English is not only important as a subject but also as an international medium of communication in Today's world.

The module is designed with utmost care in a step-by-step process so that along with language the learning process is also intelligible. The new students who join the college are a little shy and feel awkward to open up especially when the audience is large. The students feel that they are under constant supervision in the classroom and their anxiety level increases and they are afraid of making mistakes. Stress is minimal when the anxiety level is low. Our motto was first to help them overcome their stage fright. As trainers, we must understand their experiences, perspectives, backgrounds, level of proficiency, interests, and capabilities, and train them according. As trainers, we needed to be motivators too. A module is prepared according to their proficiency which focuses on all four skills i.e. reading, writing, listening, and speaking skills.

ACTIVITIES

- English Reading Revolution (ERR)
- Movie review
- Critical Thinking
- Task-based Learning
- Language through Literature (LTL)
- Small Talk

The idea of English Reading Revolution was started to enhance the vocabulary of the students. The ERR has three parts Newspaper Review, Word Power Review, and Novel Review. It is a part of our English laboratory. The first fifty minutes of our laboratory is devoted to ERR. This is an online test that includes three questions from newspaper, and twenty questions (ten synonyms and ten fill-in-the-blanks) from word power. A time period of twenty-five minutes is given to complete it. It is followed by a novel review in which students picked from the previous class must deliver a presentation on the novel they have read, a procedure that will continue throughout the semester. A movie review is also a part of our English Reading Revolution, every Saturday an English movie is shown to the students in the college auditorium creating a theatre ambiance so that through fun they can learn the language easily.

Critical thinking through some given situations is one of the best methods for students to learn English. Students are divided into groups or in pairs and given some critical situations where they need to think out of the box. Students should be encouraged to think in the English language. Students enjoy a lot doing such activities.

The concept of task has become an important element in syllabus design, classroom teaching, and learner assessment, (David Nunan). Task-based learning is the most enjoyable method to enhance the language skills of students. Through pedagogical tasks, students can learn English unconsciously. Creative activities are given to the students in pairs or groups which has to be fulfilled in a given period. Working in groups helps them to learn new words and when they face difficulty while expressing themselves they are helped by their team members. Hence in such activities, their main focus lies in the activity but in doing so they unknowingly and unconsciously improve their conversational skills and language.

From the observation, we could feel that most of the students are interested in learning literature. So we felt a need for literature for the students as it is not included in the syllabus. We planned to make literature a tool for learning a language. Thus Language through Literature (LTL) has also become a regular part of our module. Literature exposes language learners to the humanitarian aspect of life. Certain words and themes are given to the students and are asked to construct a story or a poem. Excerpts from the plays are also given to them in pairs and they are asked to understand and enact the same.

Small talk is an effective method that helps the students not only to know the language but also to enhance their social skills. Students connect with their friends and classmates to learn as much as possible about them, or they are given a questionnaire and must find the answers by talking with their peers. Not only knowing others but sometimes an understanding of the learner's personal experiences also contributes to the learning process.

The above-mentioned activities foster both creativity and imagination by reducing their stage fright. These activities make students more active in the learning process and help them develop basic interactive skills. All these skills help them to develop the four skills of language: listening, speaking, reading, and writing. When they undergo these activities along with speaking they listen, read and write. Apart from these we also make the students undergo the traditional methods of learning language like ice-breaking games, picture correlation, role-plays, meet the press, group discussions, sentence race, etc.

LSRW SKILLS

Speaking is an important part of second language learning. Good communication skills will help students to express themselves appropriately in each communicative circumstance. The instructor's communication skills also create the classroom atmosphere. Being instructors of English students who try to follow us, they take keen interest in our speaking skills thus it is very important for us to structure our communication skills and avoid first language interference. Real-life situations were taken into the class so that the students get acquainted with the everyday situations that they would face in their work and society. We also brought in authentic activities and meaningful tasks to promote oral language.

Written activities are also given to them to make their writing systematic and follow a pattern, and it is also important that they convey the message effectively through the writing. The written activities go from general writing to specific writing skills. Here too we include pair and group activities in the initial stage and later go to independent writing. It helps them to build their vocabulary. Note-making is an important aspect of writing as they learn to locate the important points from a given paragraph or an article. As all competitive examinations include writing sections the skill of writing has become an important English ability to learn.

Reading is fundamental to function and exist in today's society. It develops the imagination and the creative side of the students. It is an essential skill for finding a good career. Many well-paying jobs demand reading as part of their job duties. There are reports and memos to read and respond to. Poor reading skills necessitate a longer time commitment. Without strong reading and comprehension abilities, a person's potential is limited. Reading helps to increase vocabulary. Seeing how words are used in various settings can provide a more in-depth grasp of word usage and definitions than simply reading a dictionary. They will need to read notices, job advertisements, and many business-related things. They are given comprehension passages which they go through and answer the questions asked at the end. When learners read through the whole text two or three

times, they find that their comprehension of the text improves, and they find how information is presented or arranged in that text.

Videos motivate the learners and increase their pretension of material besides aiding comprehension hence apart from movies we also show them BBC English videos and CDs. We make them aware of the differences between Received Pronunciation and General American English. We also download different videos of Indian English accents and some recorded videos of speeches to help them get acquainted with the language.

OUR ACHIEVEMENT

Our achievement lies with the progress of the students. Gradually we could feel and find the progress in them. Our first achievement is when they can construct sentences. We cannot say that all of them have achieved a hundred percent result but to some extent, they have improved a lot. The best part is that they can evaluate their growth. Their development is seen in LSRW skills, pronunciation is rectified to a large extent and their confidence level is also increased. This remarkable development has given them exposure to real-world communication and they voluntarily come up to speak in front of a large audience. Learning English has also helped them enhance their soft skills, teamwork, and team spirit. At the end of the module, students are quite happy with their progress. Their personality was groomed which has made them confident enough to enter into the corporate arena

CONCLUSION

Language learning means having the ability to communicate in different situations. One can be perfect in the language when one is perfect in all four skills of the particular language i.e. listening, speaking, reading, and writing. Imperfection in any one of the skills will act as a barrier in the process of learning a language. Teaching a second language is not at all an easy task for the instructors. It's a real challenge for the trainers to train the students to inculcate all the skills of English. English language learning should be beyond the prescribed syllabus and texts. Moreover, the Engineering syllabus should spread for the third year, by this the students will remain in touch with English and develop both spoken as well as written skills. They may also feel anxious to perform better keeping an eye the advancing placement proceedings. English Students should be encouraged and a passion should be aroused in their mind to effectively learn the language. It can be done when more and more creative methods are used in laboratories and classrooms. A sense of curiosity and interest must be generated within the students so that they feel the need for language not only within the four walls of the classroom but also beyond it. Thus training should be in such a way that the learners should not be pressured or forced to think that they are undergoing a process of learning and in the end, they themselves should realize and feel that they have learned something from the activities and could evaluate themselves. Learning is stronger when it is done on an unconscious and sub-conscious level than on a conscious level.

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The Sound and the Fury and *As I Lay Dying*: Faulkner's Portrait of the Southern Family

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Abstract

William Faulkner's *The Sound and the Fury* and *As I Lay Dying* depict the southern family as the root and spring of human dilemmas and their historical and existential context. The Southern culture predetermines the individual's reality and shapes his behaviour and outlook on life. The family mediates between the person and his culture, giving its members a fundamental identity with which to project themselves into the world of experience and making it believable and meaningful as a basis for human action in culture. According to Faulkner, the Southern family is caught in the whirling transformations of time and space, eroding its functional vitality. The family in *The Sound and the Fury* shows how its purpose has collapsed and how its members are inadequate. However, *As I Lay Dying* depicts a family that survives its impending fragmentation and maintains its predominance and sense of human unity. In *The Sound and the Fury*, Dilsey's 'absurd' faith ensures a last connection between the family and its members and the outside world. In *As I Lay Dying*, the Bundren family's hideous tragi-comedian faith is enlarged. *As I Lay Dying* is a pre-tragic dramatization of family fate in suspension, while *The Sound and the Fury* is post-tragic.

Keywords: existential, predetermine, transformation, inadequate, fragmentation

William Faulkner's *The Sound and the Fury* and *As I Lay Dying* present a contrastive picture of the Southern family as the source and spring-head of the ambiguities within the human personality and its historical and

existential environment. The individual's reality is predetermined by their cultural background in the South, which also sets the tone for all of that person's behaviours and outlook on life. The family is essential in mediating between the person and his culture. It gives its members a main identity to project into an experience and establishes its credibility and significance as the foundation for human action in culture. However, Faulkner's depiction of the Southern family is caught in the turbulent changes in time and space, which negatively impacts the family's ability to operate. The family in *The Sound and the Fury* dramatizes the resulting weaknesses among its members and the complete breakdown of its function. On the other hand, *As I Lay Dying* depicts a family that retains its dominance and idea of human oneness despite, and perhaps even precisely because of, its threatening dissolution. The 'absurd' faith of Dilsey in *The Sound and the Fury* provides a sense of penultimate connection between the family and its members and the outer world; this faith is developed into the grotesque tragi-comedy of the Bundren family in *As I Lay Dying*. *As I Lay Dying* is a pre-tragic dramatization of family destiny held in suspension, whereas *The Sound and the Fury* is a post-tragic dramatization of family destiny. Faulkner's perspective on how man endures and 'prevails' is shown by contrasting the two stories.

In *The Sound and the Fury*, a gap in human consciousness that underlies the secular predicament, concern, and misery of a contemporary man dedicated to a rationalistic worldview is revealed, yet frequently perplexed by the irrational forces that govern and order existence. The crisis is represented by the House of Compsons collapsing stance. The novel depicts the downfall of the Compsons from the views of four separate characters, all of whom have radically different viewpoints. They are all a part of its terrible past and play a significant role in its sinister future. But when viewed as a whole, their reactions provide a potential alternative that would have averted their fates and collective damnation. The Compson family had gotten too comfortable with the tenuously exclusive legend of the Compson House. The family's children are affected by the tremendous schism initially caused by the mixing of Compson and Bascomb's blood. The fates of their children are the subject of a power battle between Mr. and Mrs. Compson, two patriarchal opposites. The family is an aspect of Time's boundless evil, for time's natural healing flow has been dammed up by the artifice of family immortality. The challenge is to resist the temptation to believe that rehabilitating the person and the family ultimately depends on regaining their temporal dimension—not in terms of nostalgia or memories, but rather perception and experience. This would imply that, for the Compsons, breaking the family code is necessary and unavoidable to restore Man and Time to their natural state of freedom. Time also transforms human experience and redeems human nature as a result of being thus redeemed. However, each of Compson's unique responses to temporal reality reveals the impossibility of such accommodation and, thus, their collective generic doom.

The section on Benjy initially gives the impression of some form of literary prestidigitation due to its narration, shifting of tenses, and nonsensical sequence of events. However, it accurately and convincingly depicts the foolish boy's psychological activity when taken as a whole. Cretinized Benjy, or Benjamin, somehow notices the ominous surroundings without realising his role or how his presence affects the other household members. For him, life's drama is merely a sequence of hazily sensed sensations accumulating, without any relation to chronology, into a sieve-like frame of primordial response because he lacks a reasoning ability that can translate sensations into sense. As a result, even distant events take on a vivid immediacy, and

his stream of consciousness transports the reader to his early years while illuminating the family tensions, the unique characteristics of the mercenary Jason, the valetudinarian Mrs. Compson, the complacent Quentin, and others. We also discover his strong bond with his sister Caddy, how the golfer's cry of 'caddie' triggers him to wail, Caddy's sensual nature, and the real reason behind Quentin and Caddy's argument. However, Benjy's extraordinary mental abilities do not stop him from objecting to disrupting an established order of things. He can only loudly moan, slobber, and wail when he wants to convey annoyance. His attachment to the golf course, which was formerly Benjy's pasture, his mute protests against Caddy's relationships with several men, and his constant sobbing on the day of Miss Quentin's elopement and during Damuddy's funeral are all examples of his highly developed and almost paralysing perceptual abilities. However, his mentality is primarily stimulated by visual stimuli and does not keep track of any chronological units of time.

Quentin's stream of consciousness reflects the abnormal being's frenetic psychological activity. His excessive ratiocinations, which become hallucinations, distort his perception of reality. Because he exclusively uses his thinking ability and practically becomes a slave to his conscience, he is odd. Despite his disparaging remarks about the world or the "loud world," he is sensitive to its emotions, almost to the point of obsession. Caddy's romantic antics scare him due to the potential scandal they may cause. Faulkner describes Quentin as someone who:

... who loved not his sister's body but some concept of Compson honour precariously and (he knew well) only temporarily supported by the minute fragile membrane of her maidenhood ... who loved not the idea of the incest which he would not commit, but some presbyterian concept of its eternal punishment: he, not God, could by that means cast himself and his sister both into hell, where he could guard her for ever and keep her for ever intact amid the eternal fires. (Cowley 374)

Caddy's loss of virginity foretells the collapse of his family's structure and sets off a chain of events that leads to his suicide. The conflict between reality and his vanity stems from his belief in the "inflexible corrupt less judge" and in the irrational ways of women:

... Women are like that they don't acquire a knowledge of people we are for that they are just born with a practical fertility of suspicion... they have an affinity for evil for supplying whatever the evil lacks in itself... fertilising the mind for it until the evil has served its purpose whether it ever existed or not... (Faulkner 70)

He never misses an opportunity to 'protect' her from this perverse influence. When she scornfully asks him if he has ever 'known' any girls, he even forgoes his inherent honesty and boasts that he has engaged in incest with several girls to wean her away from her chosen path of wickedness. He tries to find a meaningful and logical justification for his terrible suffering, but he can't get her to change her ways. He identifies the underlying cause of all his problems in the unrelenting march of time. He mutilates the timepiece in his rage by ripping off its hands and shattering the crystal, but it continues to function. He quickly finds that while he may damage the watch or block time from his consciousness, he cannot take away the memory of the felt event.

Quentin's vision of life is conditioned by Mr. Compson's authoritarian, nihilistic and fatalistic utterings, and by the specious rationalisation of obvious frailties in terms of metaphysical abstractions. While presenting the watch to Quentin, he says:

... I give you the mausoleum of all hope and desire; its rather excruciatingly apt that you will use it to gain the *reductio absurdum* of all human experience which can fit your individual needs no better than it fitted his or his father's. I give it to you not that you may remember time, but that you may forget it now and then for a moment and not spend all your breath trying to conquer it. Because no battle is ever own, he said. They are not even fought. The field only reveals to man his own folly and despair, and victory is an illusion of philosophers and fools. (Faulkner 56)

In contrast to Quentin and Benjy, Jason is a typical egotistical man who is self-centred and has a cruel streak. He introduces himself with the phrase "Once a bitch, always a bitch," and Faulkner calls him "logical, rational, contained, and even a philosopher in the stoic tradition" (750). Jason cares a lot about other people's mistakes but is not fully fixated on them. One sees that his subreptions aren't just driven by his love of money and a nebulous wish to restore the family's prestige to how it was before. Because pragmatism has its practical boundaries and can overreach, which leads to Jason's psychological restrictions, the loss of both of his 'thieving's and savings' ultimately dramatizes, in a sense, the failure of Jason's success.

Despite not receiving a separate section, Caddy takes centre stage in the novel. The pattern of her actions is the product of moral and biological mutations brought about by time, yet none of her brothers acknowledge this. Benjy retaliates by howling when she engages in the childish "necking" with her lovers since his own highly individualised moral code is broken. On the other hand, Quentin dismisses cherished ideals like honour and virginity by attributing her adult actions to the passage of time. Time thus becomes for him both a destructive force and a crushing burden. He seeks to experience a virtual *peripeteia* by attempting to stop time or mentally stopping it. Jason values money, which represents social standing, more highly than time. He believes that Cassy's deeds as a time-bound creature have caused her to forfeit the banking position Herbert Head had promised her. He, therefore, despises Caddy and makes an effort to make amends by cheating on her and abducting her daughter, Quentin.

The final section, devoted to the Negro maid Dilsey, places the Compsons' experiences in a symbolic context. Under caption, 'Dilsey', in the Appendix, Faulkner merely says 'They endured.' The plural 'they' is significant because Faulkner appears to present Dilsey as a symbol for the type of people who can endure or prevail in this world. Despite not being a member of the Compson family, Dilsey is a better 'Compson' than any of them, thanks to her close connection to its varying fortunes. She serves as the prop that supports the collapsing Compson edifice and also bestows on it a sense of security by manifesting these "eternal verities," which have vanished from the warped lives of the Compsons, through her characteristic piety and other regenerative qualities like humility and charity, patience, and compassion. Time is only a continuum in Dilsey's eyes, and interestingly, when she hears a broken clock strike five times, she automatically corrects it to eight o'clock. By refusing to adopt a solely cerebral rationalisation of time as a way of life, Dilsey, the Faulknerian savage, and Caddy, who discovers herself in perfect harmony with nature and natural biological functions, endure the torment of consciousness caused in others by durational time. Being a Compson and a woman of the

white race, Caddy must have experienced suffering, and the understanding of the Manichean realities exercises and atones for her crimes. However, Dilsey is insulated from the suffering of the redeeming experience because of a component of her blood that moves with the ebb and flow of time. The other Compsons are the variables that, via their diverse modes of experience, demonstrate the variety of approximations conceivable in the scenario towards the values symbolised by Dilsey. Dilsey is the constant, expressing the virtues of endurance. The leap of faith is the transcendence of the destructive mechanical time and its identification with the redemptive, natural time. Dilsey emphasises the limitations of reason and shows that only faith may enable one to persevere or triumph. Thus, Faulkner unifies the different activity levels into a single focus by beginning with a syllogistic exposition of the truth of his fictional world. The fact and symbol of time are turned into the myth of time by the artistic discovery of how time affects various personality patterns and levels of consciousness.

As I Lay Dying reverses the theme-form relationship in *The Sound and the Fury*. Time, which serves as a centrifugal force and limits the action in *The Sound and the Fury*, diffuses human energy in three different directions: the individual, the family, and the race. In *The Sound and the Fury*, Faulkner uses aesthetics to create a unified artistic vision out of the temporary patterns of human existence. The spatial components of this piece's aesthetic structure successfully contrast the thematic action's temporal nature. On the other hand, the metaphor of space, which, unlike time, is a centripetal force, controls the thematic activity of *As I Lay Dying*. *As I Lay Dying* is space-oriented, it achieves its aesthetic counterstatement in a temporal structuring of its fictional form. The metaphor of the last journey is a dramatization of the inseparable interaction of time and space in the theme-form relationship of *As I Lay Dying*.

Similar to *The Sound and the Fury*, this novel dramatizes the topic of the family as a close-knit family battle against outside influences that threaten to tear it apart. Darl and Quentin share characteristics like Vardaman and Benjy, Jason and Jewel, Mr. Compson and Anse, and Caddy and Dewey Dell. Nevertheless, Addie Bundren is a more focused and engaging character than Mrs. Compson despite her plebian background. The narrative element revolves round the 'Dying' and the progress of the cortege towards Jefferson in deference to Addie's ironically esoteric wish to be buried in her family churchyard.

The fifty-nine sections of the novel, divided among about fifteen characters and with shifting, halting jumps connected to 'the multiple points of view', complete the fugal cycle. The real reason behind the action is revealed and concealed by each character's stream of consciousness, in turn. As a result, the plot develops in a coiling, serpentine manner with glimmering flashes that stand out in the fable, with the connective links implicit rather than explicit. However, as one advances, through several purposefully placed obstacles and traps, one begins to recognise the tragic tensions present in the family and the humorous causes that give rise to them, turning the Bundren brood into a group of siblings lacking a self-consistent survival plan. The crypto-psychic Darl receives most of the story's attention. He discerns that Jewel is an illegitimate child of his mother's adulterous relationship with the preacher Whitfield, thanks to this amazing clairvoyant ability, and he also sees that Dewey Dell is expecting a child without marriage. Even as his family members declare their commitment to Addie's wish, Darl can see through their thinly veiled plots to further their interests. As a result, at the very beginning of this exaggerated voyage, he breaks out in fits of laughter.

The journey overtly covers a segment of space dominated by a single destination; but, at the point of the destined arrival, the concealed springs of individual and private purpose become unwound, and the journey is broken up into separate wanderings. Some of the covert motivations that drive them to travel with Addie's coffin to Jefferson include Anse's desire to get a set of artificial teeth, Dewey Dell's urgency to reach Jefferson so he can buy pills for abortion, Vardaman's curiosity to see a train, Cash's suppressed desire to become known as a master carpenter, Jewel's mother fixation, which is later transferred to the horse, and his hatred and mistrust of others. Addie, or rather paradoxically, her corpse symbolising her authoritarian flat, is the vital unifying centre in the tension-ridden Bundren family. She attempts to impose herself on other people's consciousness because, as a schoolmarm, she feels cut off from the broader flow of existence. She strongly impacts her husband and children and interferes with their sense of reality more in death than in life. Her desire for a dignified funeral represents the despotic power of a person's dying wish on the living. The matriarchal edict changes into a contradictory curse-cum benediction that challenges and tests the family's survivors' resolve and ability to survive.

Ironically, as she creates a new life in response to the reality of death in her own life, Addie develops a new understanding of herself and human existence in general. She understands that there will always be a gap between life and death, word and deed, fact and value and that all life awaits the last reality of destruction. Most people use this middle ground of neutral experience as a vantage point to justify their financial and psychological resources. However, the sensitive nature of the agonised individual gives no room for cover or deceptions against the erratic nature of existence. They develop a void that needs to be supplied externally. The emergence of a psychosomatic personality causes a lack of pride, fear, and faith. Therefore, Addie's pride is only cerebral in its outward signs and manifestations; its underlying cause is a mysterious void, foreboding sterility, and a stretch of wasteland, patiently awaiting the blessings of grace or the consolation of death. After her passing, Addie's motherly psychological inconsistencies and complexity take on an almost legendary intensity. The mother becomes the Matriarch.

The husband, Anse Bundren, is a kind of picaresque pilgrim, taking shelter under the Christian charity of others, while haughtily spurning their offers of assistance. He is revealed to be a smug humbug by his smug consolation, his thinking about the new set of teeth as soon as Addie passes away, his looking for a new spouse as soon as he buries his dead wife and his famous debate about the linear and vertical properties of mobile and immobile objects in defence of his laziness. Again, whenever someone suggests that Addie be laid to rest in the closest churchyard at New Hope, Miss Dell's feline glare reveals her neurotic concern. She informs Mr. Gillepie about Darl's incendiary behaviour and significantly gets him sent to Jackson because she detests Darl for recognising her plight. But ultimately her private purpose in making the trip to Jefferson is foiled, because when Mosely the druggist indignantly refuses to sell her the required pills, she takes the 'treatment' from a soda jerk who cajoles this all-too-credulous Dewey Dell into the cellar for what amounts to a second seduction. Although Cash first struggles with perfectionism in his work as a carpenter and takes it to its absurd extreme by showing Addie the partially finished pieces of the coffin as she lay dying, he eventually transcends himself and develops the ability to evaluate human character. In the end, when, new Mrs. Bundren brings the playback, he

concludes: “Listening to it, I would think what a shame Darl couldn’t be here to enjoy it too. But it is better so for him. This world is not his world; this life his life” (*As I Lay Dying* 208).

Among the Bundrens, Darl is the only one who is genuinely impelled by filial duty and therefore desires to give Addie Bundren literally a decent burial. But when his efforts are foiled by Jewel, and the various members achieve their personal designs and hand him over to the officers to be led to Jackson, he bursts forth into one of his uncontrollable laughing fits. Darl’s psychic transformation from interested involvement to dispassionate detachment offers the perspective from which one can see the complicated spectacle of life with comedic compassion. Darl is a mysterious guy with conflicted morals. On a narrative level, even though he is portrayed as crazy, he has schizophrenia, and Darl’s final portion strongly illustrates his Janus-like nature. It is brought up in the conversation between Darl, who has gone through the anguish of experience, and Darl, who serves as his conscience-keeper, whether a man should go insane to comprehend himself objectively. The dialogue between the Darl who has undergone the ordeal of experience, and the Darl who acts as his own conscience-keeper, raises the pertinent question whether man should go mad in order to get an objective understanding of himself. Darl’s rage of insanity is the demonstration of an understanding sanity of the capacity of life to prevail over personality.

According to Faulkner, the measure of man’s tragic salvation through passion and suffering is the extent of human consciousness. This is illustrated by the degrees of the human consciousness that occur between the mindless compassion of Dilsey the Negress, and the mindless passion of Benjy the idiot. The boundaries and potential of human selfhood are defined by Benjy’s narcissistic rejection of nature (symbolised by his grasping the flower) and Dilsey’s intuitive affirmation of faith in the face of a collapsing reality system. The human predicament in *The Sound and the Fury* remains an irrevocably marginal situation, for, at the centre of life, there is a pervasive nothingness. On the other hand, in *As I Lay Dying*, although the individuals are thrown back on their peripheral, private selfhood, they are held together by the central familial design which is not shattered completely. The person’s nature derives its nourishment from the family’s perseverance as an unbroken oneness. The contrast between Benjy’s stupidity and Darl’s regression highlights the two families’ divergent paths. The human outposts of their family’s fates are Benjy and Darl, although the former is beyond redemption while the latter is amenable to human pity. There is none waiting for Benjy within the family structure to offer him a gesture of solidarity and reintegration; Dilsey’s compassion for him is an impersonal compassion placed beyond the grasp of human personality, for her self-transcending faith has no focal meaning for the idiot who can’t achieve transcendence, let alone the restoration of his normal human selfhood. In contrast, Cash’s adieu to Darl is at least a meaningful gesture of human brotherhood symptomatic of the family’s redemptive power which is preserved, despite its threatened disruption. Benjy’s survival is so worthless that it would make life pointless and unfulfilling, but Darl, despite being on his way to the mental hospital, does not meet the same fate as an idiot. There is still something in nature that would make an ultimate restoration of his status to individuality within the family structure legitimate and worthwhile.

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INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

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Walker Percy's *The Moviegoer*: A Critical Investigation

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Abstract

The Moviegoer, Walker Percy's first book, is about a boy named Binx Bolling who wants to escape from his everyday life. This article is about how Walker Percy uses films to show that Binx is an unreliable narrator and a hopeless searcher who is stuck because he doesn't realize how much his life is like the films he watches. Binx leaves the world and the people in it because he fears that life's everydayness will be too much for him. Binx's exile means that he doesn't know anything about the world anymore, but he doesn't know how his lack of information makes him sad. He is so sure of his ways to avoid things, like licensing, repetition, and rotation, that they keep him from seeing his absolute hopelessness and inability to do anything in the face of everydayness.

Keywords- escape, unreliable, everydayness, exile, hopelessness

"Why has the South given birth to so many talented writers? When he received the National Book Award for *The Moviegoer*, Walker Percy was questioned. "Because we got beat" (Kazin, *The Secret of The South* 37). However, as Percy's stockbroker hero demonstrated in his quest to find the precise location required by the human mind, that was only half the solution. The Southern writer always understood himself as a part of history with a broad meaning, whether it was America the colossus, the juggernaut, the great melting pot into which he did not want to melt, or the process of "sin and error" (Kazin 37), as Southerners liked to say about slavery and more than slavery; or the simple accumulation of ancestry, history, and race superstition as second nature. The Southern

author believed that a power greater than himself had expressed who he was. His writing had an unintentional depth to it.

When the South finally had its worldliness to satirize, Faulkner lost his impact on Southern novelists. All modern images of the South had been of the poverty, differentness, and resistance with which a writer could identify; suddenly, there was a South of stockbrokers and corporation executives who could make a Walker Percy feel as marginal as a Negro or Jew. The commotion surrounding Walker Percy's *The Moviegoer*, a sardonic, essentially philosophical novel about the spiritual solitude of a young stockbroker in the New Orleans suburb of Gentilly who eventually marries a tragically vulnerable young woman to whom he is distantly related, was in sharp contrast to Percy himself and the award in 1962. Percy's publisher had barely heard of the book. An obscure author from Covington, Louisiana, who was a medicine doctor but had never practiced, published *The Moviegoer* as his debut book. The book was not initially met with high hopes and was only published after four draughts. This charming and ancient region of the South was the target of a lean, sharply written, and subtly dramatic attack on the purely bourgeois way of life and thought. But despite the narrator's light-hearted banter, it turned into a melancholy and somehow heroic examination of the isolation of essential human views rather than only being a parody of the South's break with its traditions.

John Bickerson Boling, the story's narrator and protagonist, carefully boosts his salary each year and maintains a robotic relationship with one of his secretaries after another. However, he has grown fixated on the meaninglessness of everything he is only now starting to realize and on despair, whose unique quality, according to Kierkegaard, is that it is unconscious that it is despair. His father, a doctor, died in the war; as a result, Binx has a strong sense of fatherlessness and traditions that he is expected to uphold but cannot find or justify in the cosier ways of those around him. He is intrigued by the idea of viewing life in the privacy of his thoughts with the same unique, hallucinatory sense of discovery that he gives to the movies, where he spends many evenings. He has developed into a fascinated watcher of the human face and is training himself to maintain a steady gaze on even the most ordinary objects that cross his path. The process of looking, seeing, and discovering has allowed him to see a tiny crack in the wall of his sorrow. In a world where most people can't, he is a man who can see and listen. One could conclude that the excitement of conversion rules his actual existence. His life has a freshness to it. He is a spiritual voyeur who seeks the most intimate yet incomprehensible regions of the human heart. He can listen to Kate, a troubled girl who belittles him and has a solid attraction to death; their love is based on his ability to focus on Kate entirely. He is now the only man in the room who appears only interested in watching and being a spectator in the dark. The soul's physician and diagnostician receive his training in motion pictures. He has learned how to concentrate on the hidden human locations in the screen's magnified, beautifully lit, and concentrated figures.

The Moviegoer, essentially a clever search for faith in a world that seems virtually determined to undermine confidence, was not intended to be very successful. Going to the cinema was not the focus. It was a masterful novel about our cast-off state. However, Binx, the protagonist and narrator, had such a sour and implacable tone that to respond, one had to be sympathetic to the author's point of view rather than irritated with the lack of progress. In actuality, it was a book written by an outsider for outsiders. Due to their origins in the rural, impoverished, outdated, and defeated South, Southerners used to refer to themselves as outsiders in the context of the United States. However, as Binx demonstrates in each section describing his interactions with the affluent upper middle class in New Orleans, it is the South itself that now casts its citizens in the role of outsiders and generates sadness that doesn't recognize it as such.

A strange, unsettling, and uncategorisable kind of book was *The Moviegoer*. It was decorous in the sense of an old-fashioned comedy of manners; it was not quirky and did not overplay tone or event in any contemporary style. However, it was clearly and profoundly the expression of an internal conflict. In some fundamental ways, the author felt outside his society and like he was doing something wrong. New Orleans, the South, had come to symbolize an America in *The Moviegoer* Gentilly where people no longer knew how to look at anything and did not know how or what to look for. Only the faintest hints of their suffering were present in their daily lives. One individual would have gained sight (as if for the first time), but his chances of survival would have been extremely slim. Kate, his future fiancée, knows he cannot help her.

What occurs in *The Moviegoer*, *The Last Gentleman*, and *Love in the Ruins* is an inclination to view things fundamentally differently. *Love in the Ruins* projects the violence of Southern history—the violence one can feel in Greenville today, where stores advertise "Guns and Ammo" (Kazin 66) and where every truck driver seems to carry a rifle with him—into the future when the entire nation has gone insane with violence. It is not in *The Moviegoer* or *The Last Gentleman*, a far murkier book. But the protagonist of all three books feels as though he is in the grip of a severe disorder and, as a result, practices the art of gazing from a distance. Binx, in *The Moviegoer*, says, "I am more Jewish than the Jews I know. They are more at home than I am. I accept my exile" (Kazin 66). Binx is not actually where he appears to be happy. "What is generally considered to be the best of times is for me the worst of times, and that worst of times was one of the best" (Kazin 66).

The Moviegoer's unique ironic charm comes from the contrast between here and there, between the ordinary American world that cannot comprehend the fear it causes and the self-training to face despair. Binx does perceive things uniquely, similar to how people who at least turn their faces in the appropriate direction experience hallucinations, intense attention, and obsession on a movie screen. The Southern writer's trick is to continue to think the world has moral, historical, and philosophical significance. "I guess," adds Percy, "my main debt to Kierkegaard is the use of his tremendous philosophical and theological insight as a basis to build on" (Dewey, 228). On the other hand, he continues, "I was always put off by Kierkegaard's talk about inwardness, subjectivity, and the absurd—the leap into the absurd" (Dewey 291). These aspects of early nineteenth-century romanticism, which may be primarily responsible for Kierkegaard's rebelliousness and emphasis on the importance of personal experience, are not particularly appealing to Catholic novelists who prefer to deal with men in real situations, which is the fundamental tenet of Percy's novel. Regardless of the depth of Kierkegaard's criticisms of Hegel's attempt to rationalise the world or Kierkegaard's emphasis on the church's assurance of salvation obtained via the administration of consistent liturgy and sacraments, in the most significant early interviews, Percy supports Kierkegaardian interpretations of his work, which restrict and distort his themes. Both Camus and Sartre were interested in real life—courage at living as shown by the person's ability to choose between options without, ironically, the impersonal guarantee of organizations like the church. Of course, Percy promotes choosing between the church and the myriad utopias and other angelistic endeavors that men have created. In addition to this shared existentialist perspective with Sartre and Camus, specifically in *The Moviegoer*, Camus' *The Stranger* is referenced in both the alienation and conversion of Percy's moviegoer and the whims of Binx and Kate's love affair may be influenced by their liaison in *The Age of Reason*.

According to Percy's conception of art, the artist will interact with society rather than relocate to a place of art or an ivory tower. Percy uses the term to refer to the study of man in the broadest sense, to his existence, situation, and proposal, all aspects of anthropology. Art contributes to anthropology in this way. "The function of writers, novelists, and poets is probably the highest in the culture because their job is to make people understand themselves" (Tharpe, *Walker Percy* 9).

The first of Percy's Southerners with a respectable family and outstanding names, Binkerson (Binx) Bolling, writes an episodic first-person account called *The Moviegoer*. Due in part to the narrator's steadfastness in expressing his many viewpoints, the book has a pretentious, edifying discourse feel. He spends much of his time watching films, even the poor ones, because he has no other interests but making money and wooing his secretaries. He is a typical materialistic American businessman, a savvy consumer, and a producer, with a focus on money and sex. But he discovers that he is out of tune. The story occurs during Mardi Gras week, a carnival of life, and concludes on Ash Wednesday, a day of repentance when the mark is applied to the flesh. Christians are enjoying their most opulent week of festivities shortly before the start of Lent. Binx turns 31 this week, the typical hero's age of adversity and adulthood. It is now appropriate for knights to embark on expeditions and experience hazy spiritual stirrings.

Binx begins the story by stating that he gets a note from his aunt, Aunt Emily, with an unexpected invitation to lunch on a Wednesday. Aunt Emily is a stern Southern noblewoman with some insight into what Binx should do with his squandered money and spending. She will want to talk about either his cousin Kate's mental health or his future because she is breaking her habit. The primary concerns of the story and the stated cause for Binx's retelling are Kate's health and his future. The remaining material is an ironic satire against American culture, particularly its emphasis on technology and the fallacy of scientific humanism in a morally

bankrupt society. Although Binx may be trying to portray himself as a genuine and willing product of culture, the story's tone is generally that of a distant sophisticate who despises the materialistic refinements he indulges.

Binx participates in a variation of the call for the hero to be active thanks to his search intuition. He experiences the *Schadenfreude*, the thrill and dread mixed—that frequently permeates Percy's characters. The problems are resolved in the action's epilogue. For better or worse, Binx and Kate have been married for a long time. Binx is currently enrolled in medical school, finally preparing for a career as his friends have urged him to do and training to contribute to society rather than withdraw.

Despite his subliminal awareness of his passive slumber, Binx is a creature that physically blends in with the crowd. Percy says, "Binx enjoys his alienation. He is happy in what Kierkegaard calls the aesthetic mode—he lives in a place like Gentilly to savor its ordinariness" (Tharpe 47). He takes pleasure in both using and criticizing Christianity. As the story progresses through the events of the week, it describes Kate's hazy issues, which were reportedly exacerbated in large part by the abrupt death of her fiancé in a car accident several years prior, as well as by the depression of a poor little affluent girl with nothing to do. Even though she has attempted social work and other good things, she lacks faith even after the action. However, Percy claims his goal was to "depict the rebellion of two young people against the shallowness and tastelessness of current life. The rebellion takes different forms. In Kate, it manifests through psychiatric symptoms: anxiety, suicidal tendencies, and the like. In Binx, it is a 'metaphysical' rebellion—a search for meaning which is the occasion of a rather antic life in a suburb of New Orleans" (Tharpe 48). In other words, he wants to expose the flaws in that cozy humanism, which no longer cares about either Christianity or individualism. According to him, the Southern nobility and other people who rely more on man than God practice the stoic view, which emphasises moral code without a belief in God, and the traditional Roman Catholic ease with morality and religion, on the other hand. And he adds a third theme: "The protagonist is in an existentialist predicament, alienated from both cultures" (Tharpe 48).

Binx suffers from a morbid world-weariness that he variably describes as malaise and everydayness. It is startlingly similar to that of the romantics. The illness is comparable to Baudelaire's ennui, Kierkegaard's sorrow, and whatever Meursault goes through in Camus. For individuals whose environment is so successful at meeting their physical wants that it encourages a man to be a content animal uninterested in either this world or the next, everydayness is the drag of an uneventful, unchallenging life. Malaise is the name of the disease of depression and despair, intensified by the awareness of a moral and metaphysical wasteland in which intellectuals claim to have outgrown the rituals and beliefs of organized religion and "believe in people... tolerance and understanding... the uniqueness and dignity of the individual" (Percy, *The Moviegoer* 109). These are the nonbelievers whom Will includes in his litany for the dead in *The Second Coming*. The disease deprives life of any semblance of adventure and purpose, and the values are mere impracticable abstractions. Precisely, however, individuality is lacking in the styrene society where all experience is packaged and wrapped, as Percy describes it in "The Loss of the Creature" (Tharpe 51), an essay in his collection of philosophical essays called *The Message in the Bottle*.

However, as Binx says, his ailment is a Western man's, or at least a Western intellectual's, incapacity to maintain body and soul together in harmony to the extent that he can function reasonably in the concrete world of objects and other people. He has had the experience of a vertical search, which climaxed when he read in an anonymous hotel room, *Chemistry of Life*, which asks, or answers, the ultimate question of what life is made of. The book, in a sense, poses or provides a response to the fundamental question of what life is comprised of. The world was accounted for, but Binx claims that he was left over as a specific individual man living somewhere after reading these and other works written by the scientific humanism movement. What was he to do with the rest of his life? The issue facing every one of Percy's characters is this: They tend to be in the worst mood around four in the afternoon.

With this experience in mind, Binx then began what he calls his horizontal search. Both terms are derived from Kierkegaard's "The Difference between a Genius and an Apostle" (Dewey 284), which provided Percy with a distinction that he later used to dramatize the significance of the priestly messenger bearing the Good News. The horizontal search is the attempt to live day to day in the real physical world of nature rather than in a world of dreams, utopias, or abstractions, where the challenge of life vanished as physical needs were gradually satisfied. It is the search for the man that combines existentialism and phenomenology. He will try to live each day in the

real world, where a guy is also a physical product of the world, like other men. He will avoid the abstract, the urge to deal with averages, statistics, packaged experience, and from becoming anyone or anywhere. Now, he says, he has begun to live. He searches for his origins and lives "solitary and in wonder" (42), wondering about the mysteries and marvels of the natural universe, fascinated by the diversity of creation and bored by humanistic verities.

In this book, going to the movies serves various purposes, most of which are fruitless. Although he doesn't provide any instances of films, he believes are incorrect, Binx claims that he enjoys even lousy films. Binx has claimed numerous times that he is impersonating a specific movie star, generally to woo Sharon. Generally speaking, watching films is related to ideas that Percy attributes to Kierkegaard in interviews. Binx attends at least four movies during the week—not a normal one for going to the movies—tastes a fifth (with Jane Powell) and watches a television drama with Dick Powell. He connects an idea that presumably lessens his estrangement with the movies, although he never explicitly states this.

The first movie he sees on Wednesday night after the depressing visit with Aunt Emily and Kate is *Panic in the Streets*, with Richard Widmark, one of those typically sensationalist horrors dealing with "cholera bacilli... gotten loose in the city" (63). The title and star are unimportant, as in most movies Binx mentions. But the movie is associated with a phenomenon of moviegoing: seeing the city on film allows the moviegoer "to live, for a time at least, as a person who is Somewhere and not Anywhere" (Percy 63). This is the last critical stage in overcoming alienation. The next film he watches revolves around a similar idea. On his way home to Gentilly on Thursday, Binx stops at a theatre where Jane Powell appears in a musical. He is not interested, but here he takes the trouble to talk about knowing the manager and the cashier and to explain that he tries to get some facts: "Before I see a movie, it is necessary for me to learn something about the theatre or the people who operate it" (Percy 74). "If I did not," he says, "I should be seeing one copy of a film that might show anywhere and at any time" (Percy 75). The notion of certification is partially made reasonable by all the rhetoric of trying to heal oneself. Still, other than the dry details provided in this lengthy paragraph, the subject needs to be further examined in the book. The theme is one of the main themes of the book's novel and its essays.

On Thursday, Binx watches a television movie at home a little later with Dick Powell in one of his serious parts. It is highly similar to an everyday film with a sentimental ending, but he doesn't confront the philosophical weight of it. After reading the item that Mrs Shexnaydre has cut out of Reader's Digest, he probably waits for Kate because he has nothing else to do. Later in the evening, he goes with Kate to see another movie, where he has what he calls "a successful repetition" (Percy 79). He mentions *The Oxbow Incident* and *All Quiet on the Western Front* as being associated with the idea that "All movies smell of a neighborhood and a season" (Percy 79), a phenomenological remark, presumably, that makes no real sense, though he gives examples. However, the purpose of this film is to define recurrence, which the director does in a very unclear manner, even though later allusions in interviews and earlier ones in *The Man on the Train* seem to give the word and notion their conventional meaning. He says, "Repetition is the re-enactment of experience towards the end of isolating the time segment that has lapsed so that it, the lapsed time, can be savored of itself without the usual adulteration of events that clog time like peanuts in brittle" (Percy 79–80).

The trip to the drive-in theatre to see Fort Dobbs with Lonnie, Sharon, and some of the younger kids seems to have been a significant episode. Rotation is defined by Binx in this place. Possibly more to the point, Sharon is the final in a long line of sexual or aesthetic rotations; this is both their first date and their last time seeing a movie together. He claims that this encounter exceeded his expectations. Lonnie is happy, Clint Walker is amazingly Western and lonesome, and he has the ideal linguistic gesture. Sharon is like a girl in a movie who will consent to her boyfriend having sex with her since he is gentle with kids. Only when Binx watched a different movie, not while having sex with Sharon or Linda, did he have a more similar sensation. Nothing about knowing movie theatre owners or cashiers is mentioned here; everything here is meant to describe rotation.

A hint of the meaning of moviegoing appears in the account of the young romantic on the bus who "is a moviegoer, though, of course, he does not go to the movies" (Percy 216). That is to say; it is clear that he is a foolish child who lacks social skills. If he's lucky, he'll act like someone else all the time. If he's unlucky, he'll perpetually act foolish, unsure of what to do next, unable to play a part, and lacking a persona to act as. A

moviegoer's awareness of the cavity beneath him, which develops in large part because he has withdrawn into the abstract, orderly, but undemanding world of scientific humanism, is likely to grow more intense the more frequently he attends movies.

The novel's main issue, which is presented very early in the monologue and addressed only in the epilogue, is almost completely hidden by Binx's inordinate concern with his preconceptions, feelings, and definitions. Only gradually does *The Moviegoer* reveal the contrast between love and sex that occupies Percy throughout his whole body of work in the form of Binx's banal statements about unfulfilled sexual longings. Excessive concern with the sickly and sexless Kate and relatively short exaggerated episodes with Sharon, as well as narrative serenity, conceal or fail to reveal Binx's falling prey to "desire" (Percy 228). Naturally, he describes his history of affairs and discusses his devotion to the flesh. The joy that Tom More has and that Will Barrett laments over is hunted down in his description of the girl on the bus with Prince Val Bangs, who is wrapped in cellophane like a gift from the world. Binx says his desire for Sharon is like a "sorrow in my heart" (Percy 68). He anticipates Sutter's idea that sex is the only mode of re-entry into the concrete world. When Binx's mother says her father liked pretty girls, "Till his dying day," Binx says, "Does it last that long?" (Percy 155).

But once the significance of this topic is understood, Kate's position, which otherwise occupies long, tedious sections of the story and is ambiguous and educational, becomes evident. On one level, Kate resembles a Tennessee Williams character, notably Carol Cutrere from *Battle of the Angels*, as a stressed heroine typical of Southern literature. She presents as a split schizophrenic, sometimes calm and effective and other times so ill that she is almost helpless, even though the characterization is largely meaningless. Her association with the subdued theme of lady and whore foreshadows Kitty in *The Last Gentleman*, who alternates between being naive and brave; Doris in *Love in the Ruins*; and Margot in *Lancelot*. She believes she should indulge with Binx on the train, evidently in large part because she believes he wants to have sex with her. Kate herself may come to something ex nihilo as she chooses marriage, leaps to faith, and accepts "shared consciousness" (Tharpe 58), an ideal in intersubjectivity that Percy discussed in, among other places, the essay, *The Symbolic Structure of Interpersonal Process*.

The subject of *The Moviegoer* is so strongly linked to hopelessness—the hazy desire for emigration or death. Therefore, Binx's marriage is the most important event in the book, not because he commits himself to Kate or because of that experience alone, as he has loved her for a while, but rather because he forgoes sex out of love or at the very least enters into marriage and embraces the obligations of that institution. However, Binx is not hostile because of desire. Percy preaches about sexual morality through alienation. And the book's conclusion is just as important as the conclusions of the other novels. Here is a potential solution to Kate and Binx's desperation: Although Binx may begin his adventure with a variety of hopes, the finish is joyful.

Despite its many flaws, this novel succeeds in the sense that it is almost not a failure. Nevertheless, it was written, regardless of Percy's thoughts on didacticism and art, to illustrate concepts primarily found in the 1956 essay *The Man on the Train*, which addresses the issue of alienation. In *The Man on the Train*, he makes a strong case that repetition and rotation, a primary (and presumably lifelike) method, might help art counteract alienation. He uses Kafka's writing to successfully illustrate how the suffering artist might use communication to end his separation by establishing an intimate, subjective bond between the author and the reader.

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Eco-Toxicological Assessment, Impact And Possible Phycoremediation Of Pulp & Paper Mill Effluent By Cyanobacteria Under Experimental Conditions.

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Highlights:

- The effluent of the Paper mill is highly toxic and showed deadly impact on blue-green algae and contained heavy metals like mercury, cadmium and lead.
- At Maximum Allowable Concentration (MAC) of the effluent, stimulatory effects were observed and at lethal concentrations of the effluent inhibitory effects were noticed.
- Experimental study revealed that these algae could absorb and accumulate significant amount of heavy metals from the effluent mixture in the culture flasks.
- Significant decrease in biomass, total chlorophyll, phaeophytin & carotene content was observed in Paper mill effluent exposed algae compared to their respective control values.
- *Nostoc*, *Oscillatoria* and *Westiellopsis* individually could remove significant amount of heavy metals from the effluent mixture within 20 days of exposure.
- The algal mixture (all the 4 algae in a mixture) could remove maximum amount of heavy metals from the effluent and having highest bioaccumulation factor.

Abstract

Pollution caused by Pulp & Paper mills is a threat to all plant and animal life. The Pulp & Paper Mills discharge huge amount of effluent into water bodies. The effluents contribute heavy metals like mercury, cadmium and lead, polluting nearby water bodies and affecting aquatic flora and fauna. Significant amount of Cd, Hg and Pb was noted in the algal mat collected from the contaminated site, algal scum collected from the crop fields receiving effluent contaminated river water, crop fields and crop field inhabiting organisms. An attempt was made to study the impact of heavy metals like mercury, cadmium and lead present in effluent on BGA / cyanobacterium under laboratory controlled conditions. All the heavy metals (Hg, Cd, Pb) tested showed stimulation and better growth at sub-lethal concentrations (MAC value) but at higher concentrations, the heavy metals were deadly toxic. The alga could remove heavy metals from the effluent of the paper mill either by way of absorption and accumulation or by way of volatilization. The paper mill effluent though highly toxic but showed better behavior at sub-lethal concentrations. From the observed data it is evident that *Oscillatoria*, *Westiellopsis* and *Anabaena* were more tolerant than other cyanobacteria. These algae have potency to grow under stressful conditions and can be safely used for phycoremediation of paper mill effluent after dilution of the effluent. These tested cyanobacteria with other potent aquatic macrophytes in combination can be tried for total biological treatment of paper mill effluent for cent percent removal of heavy metals from the effluent, before discharge into the aquatic environment.

Keywords: Paper mill effluent, heavy metals, cyanobacteria, phycoremediation

Introduction

Environmental pollution is no more a jargon word in the present day. All environmental segments are now polluted by pollutants originating from a variety of sources. Most of the pollutants are either man created or man made in addition to natural additions by different natural mechanisms operating in nature. Human attempt was mostly to understand the underlying mechanism and self regulation of nature and play with nature and natural events. In the process of understanding the nature and natural processes, we came across many more interesting events occurring in nature. We need progress, good health, development and food safety for the human race. We adopted and opted for industrialization using modern technologies developed by man. We produced our desired products of interest from different industries. Industry is such a complex machine mixture which required raw materials that were collected from the environmental segments (air, water and land). The industries use the raw materials and produce the product of interest and many other chemicals as unwanted chemicals. These unwanted chemicals were designated as process waste and released in to the environment depending on their chemical nature and status. The gaseous wastes were discharged in to air, liquid effluent was released in to water bodies and the solid waste was discharged in to the land mass. These wastes after addition in to the environmental segments changed the chemistry of these environmental segments. All the living organisms love to live in a particular environmental condition. The different environmental segments are the habitual place of different types of living organisms and these organisms were adapted to a particular set of conditions. Addition of wastes in to their habitual place changes the nature of the habitual place which influences the life and survivability of living organisms. In the process, if the organisms can resist and tolerate the additions, can survive if not slowly suffer and disappear from the habitual place. The Paper industries play a crucial role to pollute the river water by their treated / untreated effluent waste. One of the most important sources of heavy metal pollution is the industries. Among industries, Paper and Pulp industry plays a significant role to contaminate the fresh water bodies damages the water quality (Kumar *et al.*, 2015 and Singh *et al.*, 2019) & physico-chemical assessment of paper mill effluent and its heavy metal remediation using aquatic macrophytes (Mishra *et al.*, 2013). Pulp and Paper mills are the major players to contribute heavy metals like mercury, cadmium and lead in the environmental segment, polluting nearby water bodies and affecting aquatic flora and fauna. Medhi *et al.*, (2011) reported that the physico-chemical characteristics of a paper mill industry effluent waste were exceedingly high than the stipulated limits.

JK Paper Mills at Jaykaypur subjects the effluent to physical & chemical treatment and discharges its effluent in to the environment. International Paper Mill at Rajmundry discharges its effluent in to a tank containing *Eichhornia*, *Pistia* and *Azolla* but the retention time of the effluent in treatment pond was very low (Dixit *et al.*, 2018) and the so called biologically treated effluent was actually toxic for fish. Dixit *et al.*, (2018) reported presence of heavy metals in the final discharged International Paper mill effluent after biological treatment. The paper mill effluents are discharged from the industry into the aquatic environment (Iqbal *et al.*, 2013) after simple physical and chemical treatments indicating the need of a biological treatment (Tripathy *et al.*, 2021a). Tripathy *et al.* (2021b) reported temperature stress on the impact pulp and paper mill effluent on cyanobacteria and indicated that with the increase in temperature the impact becomes severe. Tripathy and Panigrahi (2022b, 2023) reported the impact of Paper mill effluent and select heavy metals on crop field plants and animals particularly fish inhabiting crop fields during rice cultivation. The authors also reported heavy accumulation of heavy metals in crop plants and non crop plants of the crop fields. Dey *et al.* (2018) reported that in India, more than 55% of the paper mills do not have adequate effluent treatment facilities and also do not adopt modern treatment technologies for the treatment of effluent waste. The effluent of JK Paper mills are discharged into the Nagavalli River direct and the effluent contaminated river water is used for drinking purposes and for irrigation of nearby crop fields by the farmers at the down stream. It was reported by cultivating farmers that the effluent mixed river water was toxic and the production of crop was depleting year by year. The effluent can be treated primarily by physical and chemical treatment and followed by biological treatment using potential & promising microphytes and macrophytes. Most of the industries do not follow these biological treatment methods. JK Paper Mills at Jaykaypur subjects the effluent to chemical treatment and discharges its effluent without any biological treatment. Tripathy *et al.*, (2022a) reported that the effluent of the paper mill severely affected the flora and fauna in and around the effluent canal and impacted the water quality of the river affecting the flora and fauna. The same author also indicated that usage of this contaminated river water to irrigate the crop fields will have far reaching consequences. The Paper Mill effluent contains heavy metals like cadmium, mercury and lead. The protocol of biological treatment of the effluent by the industry was not complete and efficient as this protocol neither benefits the environment nor the dependent plants and animals. Waste generation by any industry and the quality of waste depends on the technology and adopted

treatment protocol of any Pulp and Paper industry. It is not possible to eliminate waste generation by the system (Kaur *et al.*, 2021) but cleaner & environment friendly technology can be used and periodically positive modifications in the technology or alterations in the treatment technology should be adopted.

The present report aims at understanding the impact Paper mill effluent waste on the algae present in the form of a mat at contaminated site and an attempted was made to understand and characterize the potency of cyanobacteria to be used in phycoremediation of paper mill waste.

Materials & Methods

JK Paper Ltd is located at latitude 19.247°N and longitude 83.409 ° E, the ET (effluent treatment) plant is located at latitude 19.248°N and longitude 83.413° E and the effluent canal originating from the industry travels around 825.4mts and joins the River Nagavalli at 19.252°N and longitude 83.420° E. Analysis of physico-chemical parameters were carried out following the procedure illustrated in APHA (1998). In addition the field analysis kit, portable pH meter and minimum-maximum thermometer was also used to measure temperature of water and effluent samples. Pure culture of *Anabaena cylindrica*, Lemm., *Nostoc muscorum*, C. Agardh and *Westiellopsis prolifica*, Janet was grown in the laboratory for the experimental study. Allen and Arnon's (1955) nitrogen free medium with trace elements of Fogg (1949) as modified by Pattnaik (1964) and adopted by Sahu (1987) was most suitable basic culture for the growth of the BGA test organisms. The same medium was amended with nitrogen as the basic culture solution for non nitrogen fixing alga. The pigment contents of the algae were estimated and calculated in control and exposed algal samples following the method described by Vernon (1960) and Davies (1976). Measurement of mercury, cadmium and lead in the samples was carried out by acid digestion in Bethige's apparatus followed the basic principle of Wantorp and Dyfverman (1955) which has undergone substantial modification in the light of later developments. Mercury, cadmium and lead in digested samples were estimated by Atomic Absorption Spectrophotometer. Bioaccumulation factor (BAF): The *in situ* phytoremediation capability of the algae was estimated by calculating the bioaccumulation factor (BAF) as suggested by Yoon *et al.* (2006) by using the formula as described below. $BAF = \text{Metal concentration in alga} / \text{metal concentration in the culture medium containing effluent waste}$

For phytoremediation studies, four types of algae such as- *Oscillatoria sp.*, *Westiellopsis sps.*, *Anabaena sp.* & *Nostoc sps.* pure culture was taken as observed in the algal mat collected from the contaminated site for the experimental purpose. Four selected aquatic microphytes growing in all environmental conditions were chosen as the study material. All these species of microphytes were used for phytoremediation studies individually to observe the individual species potency of the specimen samples for remediation of effluent waste of Pulp and Paper mill. In the next set, all the four microphytes were taken together to test the possible use of these organisms for phytoremediation of effluent by way of removal of heavy metals either by way biosorption or by any other way yet to be confirmed. In case of algal studies the effluent was filtered through a normal filter paper and the filtered supernatant was used for the experiment to avoid clumping of alga to the suspended particles (organic debris) present in the effluent. Experiments were conducted in 150ml conical flasks and all precautions were taken to avoid contamination and the procedure adopted for algal experimental studies was followed. The effluent was UV irradiated before inoculation in to culture flasks. A standard control was maintained in all sets of experiments without effluent. Obtained data were analyzed statistically following standard statistical protocols.

Results

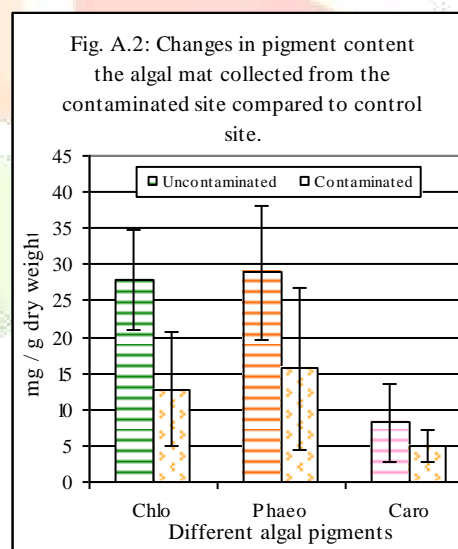
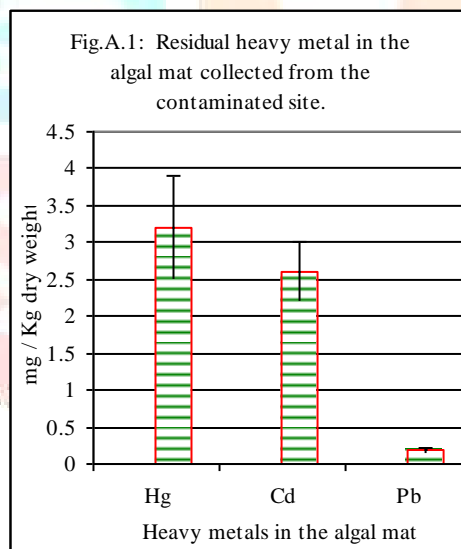
The physico-chemical properties of the effluent changed insignificantly till it reached the river and further the effluent was diluted by river water (Table-1). The pale yellowish brown colour of the effluent changed to light yellow after mixing with river water. The strong pungent smell of the effluent changed to filthy smell after joining river water. The cause of both the parameters change was only due to dilution by river water. Significant amount of mercury and cadmium to the tune of $0.46 \pm 0.07 \text{mg.l}^{-1}$ and $0.32 \pm 0.05 \text{mg.l}^{-1}$ was available in effluent respectively. The concentration of mercury in the effluent discharge decreased to $0.19 \pm 0.03 \text{mg.l}^{-1}$ and $0.08 \pm 0.03 \text{mg.l}^{-1}$ after ½ and 1km distance from the meeting point, respectively. The concentration of cadmium in effluent decreased to $0.15 \pm 0.02 \text{mg.l}^{-1}$ and $0.07 \pm 0.01 \text{mg.l}^{-1}$ at ½ and 1km distance in the river water from the meeting point, respectively. No trace of lead was detected either in the effluent or at any other tested sites in downstream. High conductivity value was noted at all tested sites. The values decreased with the increase in distance from the meeting point. Dissolved oxygen content was significantly low in effluent and with the movement of effluent and dilution by river water, the dissolved oxygen content increased from $2.1 \pm 0.8 \text{mg l}^{-1}$. Interesting changes were noted in BOD and COD content of effluent in the downstream. All the observed changes were due to dilution of the effluent by the river water. The suspended solid load decreased from $819.3 \pm 19.6 \text{mg.l}^{-1}$ to $118.2 \pm 12.4 \text{mg.l}^{-1}$ along with river water flow. Similar result was also seen in case of TDS, chloride content and hardness of the samples. The nutrient enrichment in water and its use in crop fields increased the yield of the crops but accumulation of

heavy metals in the body of the crop plant and algae present in the crop field needs attention. Another significant chemical like fluoride was present in the effluent, which probably got diluted in the river water and presence of fluoride was not detected at the downstream sites. It was observed that parameters like conductivity, TDS, TSS, BOD, COD, dissolved oxygen, chloride, metal ions and few heavy metals like Hg, Cd & Pb etc were present in the effluent and river water much more than the prescribed limit by Pollution Control Boards.

Table-1: The analysis of physico-chemical parameters of the effluent collected from effluent canal at the meeting point near crop fields. Data represent mean of samples \pm standard deviation.

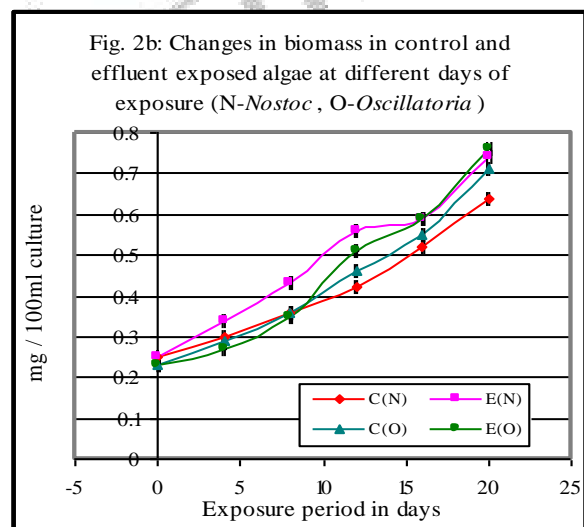
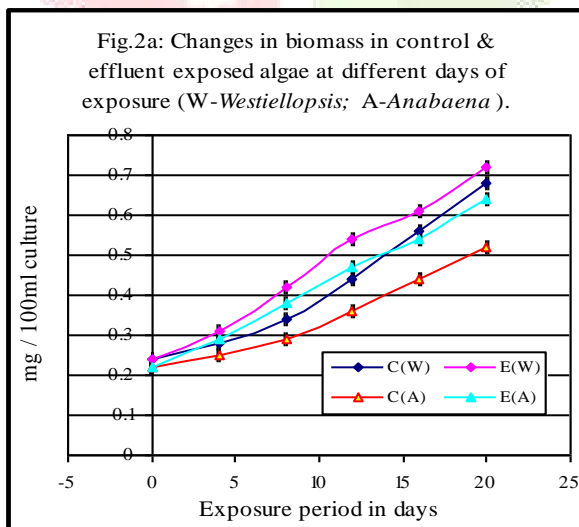
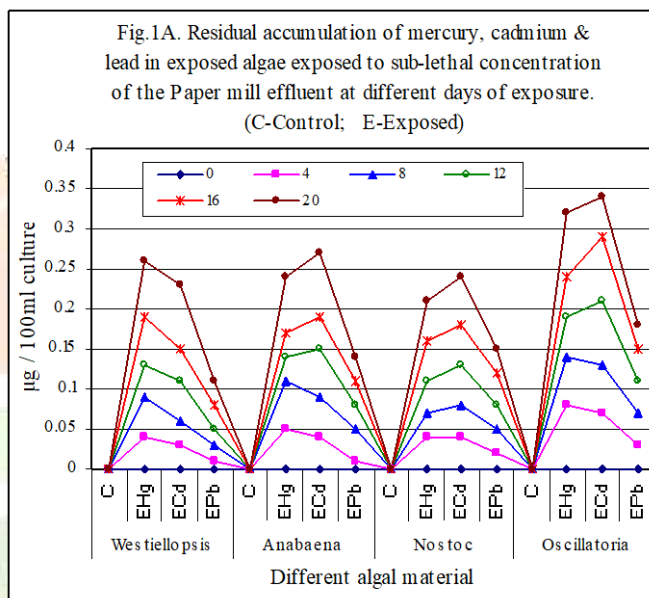
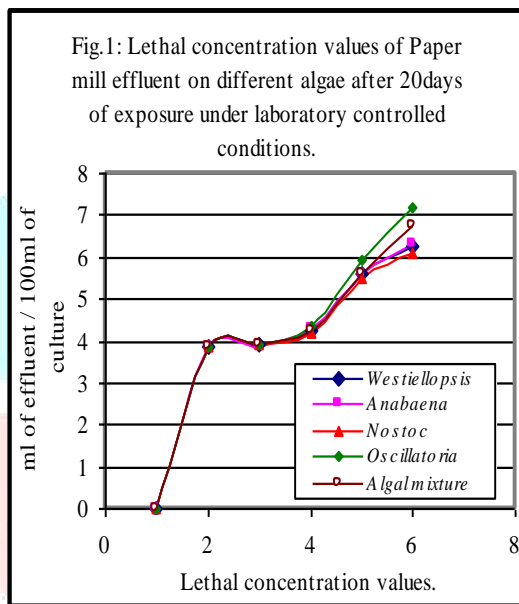
Colour: Pale- yellowish brown; Odour: Pungent with strong H₂S smell; Temperature: 26.8 \pm 2.1°C; pH: 7.8 \pm 0.6; Conductivity: 1694.7 \pm 17.5mho/cm; Dissolved Oxygen: 2.1 \pm 0.8mg.l⁻¹; Biological Oxygen Demand: 108.3 \pm 11.3mg.l⁻¹; Chemical Oxygen Demand: 276.4 \pm 12.5mg.l⁻¹; Total Suspended Solids: 819.3 \pm 19.6mg.l⁻¹; Total Dissolved Solids: 1387.9 \pm 22.7mg.l⁻¹; Chlorides: 311.5 \pm 14.2mg.l⁻¹; Hardness: 514.2 \pm 21.6mg.l⁻¹; Fluoride, (F): 1.89 \pm 0.8 mg.l⁻¹; Total Nitrogen: 2.26 \pm 0.5mg.l⁻¹; Total Phosphates:1.26 \pm 0.3mg.l⁻¹; Total Sulphate: 132.1 \pm 9.8mg.l⁻¹; Sodium: 61.8 \pm 5.2mg.l⁻¹; Potassium:49.5 \pm 3.8mg.l⁻¹; Mercury: 0.46 \pm 0.07mg.l⁻¹; Cadmium:0.32 \pm 0.05mg.l⁻¹; Lead: 0.26 \pm 0.09mg.l⁻¹.

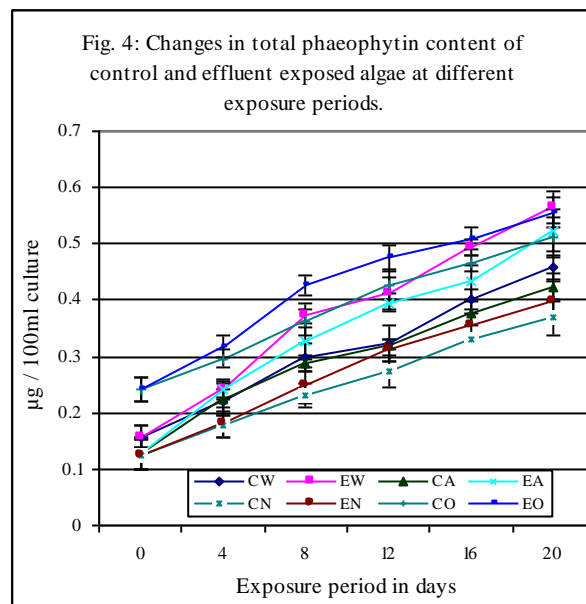
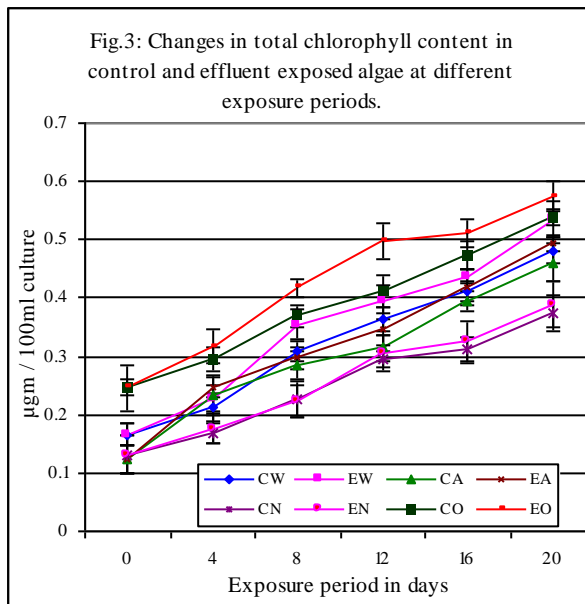
The algal mat collected from the effluent joining river site indicated presence of significant amount of heavy metals. The contaminated algae contained 3.2 \pm 0.7 mg of mercury g⁻¹ dry wt, 2.6 \pm 0.4 mg of cadmium g⁻¹ dry wt and 0.88 \pm 0.05 mg of lead g⁻¹ dry wt absorbed from the effluent. The total chlorophyll content of the algal mat depleted from 27.9 \pm 6.8mg g⁻¹ dry wt to 12.8 \pm 7.8mg g⁻¹ dry wt; the total phaeophytin content depleted from 28.9 \pm 9.2mg g⁻¹ dry wt to 15.6 \pm 11.2mg g⁻¹ dry weight and the total carotene content depleted from 18.2 \pm 5.4mg g⁻¹ dry wt to 10.8 \pm 6.2mg g⁻¹ dry wt indicating 54.1%, 46.02% and 40.7% decrease in pigment content respectively (Fig. A1 & A2). The decrease in pigment content in effluent contaminated mixed algae was significant compared to control algal pigments.



It was observed that these algae even if they were exposed to paper mill effluent were surviving in the contaminated environment due to dilution by the river water. From this data, it is inferred that algae can tolerate, resist and survive the toxic effluent diluted by river water. This mat was only seen at the joining point of effluent to the river water but not in the effluent canal. Algae in the algal scum collected from the crop fields contained *Anabaena* sp., *Nostoc* sp., *Oscillatoria* sp., *Scytonema* sp., *Calothrix* sp., *Spirogyra* sp., *Scenedesmus* sp., *Phormidium* sp. and diatom) showed total heavy metal accumulation to the tune of 0.28 \pm 0.06, 0.17 \pm 0.05 and 0.76 \pm 0.11 μ g/g dry wt in crop field-A and 0.25 \pm 0.05, 0.18 \pm 0.07 and 0.74 \pm 0.09 μ g/g dry wt in crop field-B receiving effluent contaminated river water used for irrigation of the crop fields. The values in indicated the pollution status of the nearby crop fields contaminated with Paper mill effluent mixed with river water. The effluent mixed river water was filtered through filter paper to remove the organic debris and the filtrate was used for the experiments. Basing ion the data indicated above, it was planned to test the possible use of farmer friendly BGA, fixing atmospheric nitrogen increasing the biofertility of the crop fields for the experimental purpose to test the possibility of these algae for phycoremediation of paper mill effluent waste.

Graded series of concentrations of the Paper mill effluent was prepared for toxicity studies with nutrient medium as the diluents. Pure algal cultures were inoculated in to control and exposed flasks in a Laminar air flow to maintain aseptic conditions. The effluent mixed water was initially UV irradiated. After 20days of exposure, the toxicity values were deduced for all the three algae tested. Approximately 3.85% effluent concentration was selected (sub-lethal dose, MAC (Maximum allowable concentration value deduced from toxicity test) for the experimental study purpose. All the four selected algae were inoculated and allowed to grow for 20days and after 20days; the algae were harvested and taken for heavy metal analysis. The culture solution charged with effluent at 0 day of exposure and culture solution after 20days of exposure were also tested for heavy metal availability for calculating the heavy metal removal from the medium. The obtained data from toxicity testing was statistically analyzed and different lethal concentration values were calculated from the regression curve drawn for different algae. The maximum allowable concentration of the effluent in all the four tested algae and the algal mixtures ranged between 3.84 to 3.86ml/100ml culture and 3.85ml/100ml culture solution was taken as the MAC value for the experiments. No significant difference was noted at LC₁₀ and LC₅₀, the values ranged between 3.89-3.91ml/100ml culture and 4.19-4.35ml/100ml culture, respectively. The lethal concentration values indicated significant difference at LC₉₀ and LC₁₀₀ compared to lower lethal concentration values. *Oscillatoria* sp. was more tolerant to the effluent than *Anabaena* sp., *Westiellopsis* sp and *Nostoc* sp in the decreasing order (Fig.1).





The algal mixture showed interesting results, where the toxicity values were probably counterbalanced and most usable concentrations for the effluent can be predicted for the experiments. Fig.2 showed the impact of effluent at sub-lethal concentration on 4 selected algae independently compared to their respective control values. After 20days of exposure the biomass of the effluent exposed algae was more than the control values. *Westiellopsis* sp, *Anabaena* sp., *Nostoc* sp and *Oscillatoria* sp. showed 5.9%, 23.1%, 15.6% and 7.04% increase in dry weight compared to their respective control values after 20days of exposure without showing any signs of toxicity. It can be inferred that all these 4 algae can be used for phycoremediation studies for removal of heavy metals from the Paper Mill effluent.

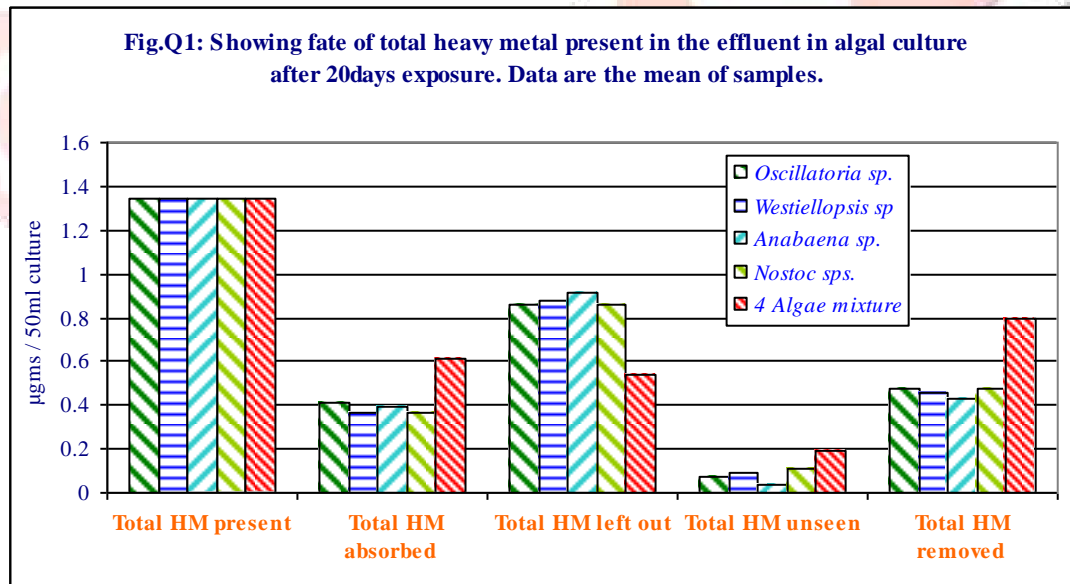
Fig.Q1 and table- Q1 & Q1A showed fate of heavy metal (HM = Hg, Cd, Pb) in the culture flask and impact on 04 types of the exposed algae (*Oscillatoria princeps*, Vaucher ex Gomont., F: Oscillatoriaceae; *Westiellopsis prolifica*, Janet.; F: Cyanophyceae; *Anabaena cylindrica*, Lemm., F: Cyanophyceae and *Nostoc* sps., F: Cyanophyceae) in the culture medium containing effluent at MAC value after 20days of exposure. It was estimated that the culture medium contained 1.34 µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture. After 20days of exposure, *Oscillatoria* sps. could remove 0.48µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture indicating 35.8% heavy metal removal. Out of which 0.41 µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture was absorbed by the alga and the bioaccumulation factor was 0.31 (Fig.Q1 and Q1A). *Westiellopsis* sp. could remove 0.46µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture indicating 34.3% heavy metal removal. Out of which 0.37µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture was absorbed by the alga and the bioaccumulation factor was 0.28 (Fig.Q1 and Q1A). *Anabaena* sp. could remove 0.43µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture indicating 32.1% heavy metal removal. Out of which 0.396µgm of total heavy metals / 50ml culture was absorbed by the alga and the bioaccumulation factor was 0.29 (Fig.Q1 and Q1A). *Nostoc* sps. could remove 0.48µgm of total heavy metals / 50ml culture indicating 35.8% heavy metal removal. Out of which 0.37µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture was absorbed by the alga and the bioaccumulation factor was 0.28 (Fig.Q1).

Table-Q1: Fate of heavy metal (HM = Hg, Cd, Pb) in the culture flask and impact by the exposed algae (*Oscillatoria princeps*, Vaucher ex Gomont., F: Oscillatoriaceae; *Westiellopsis prolifica*, Janet.; F: Cyanophyceae; *Anabaena cylindrica*, Lemm., F: Cyanophyceae and *Nostoc* sps., F: Cyanophyceae) in the culture medium containing effluent at MAC value after 20days of exposure. Data are the mean of three replications.

Organism	Total HM present in the medium on 0day.	Total HM absorbed by the alga.	Total HM left out in the medium	Total HM unseen but removed from the culture	Total HM removed from the culture system.
	µgm / 50ml culture				
Control	00	00	00	00	00
<i>Oscillatoria sp.</i>	1.34	0.41	0.86	0.07	0.48
<i>Westiellopsis sp</i>	1.34	0.37	0.88	0.09	0.46
<i>Anabaena sp.</i>	1.34	0.39	0.91	0.04	0.43
<i>Nostoc</i> sps.	1.34	0.37	0.86	0.11	0.48
Above 4 Algae in a mixture	1.34	0.61	0.54	0.19	0.80

Table-Q1A: Removal of heavy metals (HM=Hg, Cd, Pb) by the exposed algae (*Oscillatoria princeps*, Vaucher ex Gomont., F: Oscillatoriaceae; *Westiellopsis prolifica*, Janet.; F: Cyanophyceae; *Anabaena cylindrica*, Lemm., F: Cyanophyceae and *Nostoc* sps., F: Cyanophyceae) individually and as a mixture from the medium after 20days of exposure. Data are the mean of three replications.

Status / Organism	Total HM present in the medium on 0day. (X)	Total HM absorbed by the alga. (Y)	Percent removal of HM from the medium. (%)	Bioaccumulation factor (BAF)
	µgm / 50ml culture			(Y / X)
<i>Oscillatoria sp.</i>	1.34	0.41	35.8	0.31
<i>Westiellopsis sp</i>	1.34	0.37	34.3	0.28
<i>Anabaena sp.</i>	1.34	0.39	32.1	0.29
<i>Nostoc</i> sps.	1.34	0.37	35.8	0.28
Algae mixture	1.34	0.61	59.7	0.46



For phytoremediation studies, four types of algae such as- *Oscillatoria sp.*, *Westiellopsis sps.*, *Anabaena sp.* & *Nostoc* sps. pure culture was taken as observed in the algal scum collected from the contaminated crop fields for the experimental purpose. All the four algae mixed together and inoculated into culture flask as mixed culture could remove 0.80µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture indicating 59.7% heavy metal removal. Out of which 0.61µgm of total heavy metals (Hg, Cd, Pb) / 50ml culture was absorbed by the alga and the bioaccumulation factor was 0.46. All the obtained values were less than 0.5 bioaccumulation factor. From the data it can be concluded that all the four BG algae can be used in a mixture for effective phytoremediation purposed to treat the effluent by biological treatment. However the use of these algae is not enough for 100% removal of heavy metals from the effluent released by the Paper industry (Fig.Q1 and table-Q1, Q1A). Trial experiments should be conducted to test the role of aquatic macrophytes having potency to remove heavy metals from the contaminated aquatic environments. Second, the microphytes tested in this study can used along with potential macrophytes for

100% removal of heavy metals from the effluent and this protocol could be used for phytoremediation and along with potential bacteria, fungi and other organisms for bioremediation of effluent waste.

Discussion:

The Pulp and Paper industry was considered as one of the best 20 polluting industries of India declared by Department of Environment and Forest, Government of India as reported by Singh *et al* (2016). Most of the industries have Environmental Quality check units to monitor and assess the wastes generated by the industries. They are supposed to be responsible for the quality of the wastes and to maintain the prescribed limits as per stipulation. It was observed that most of the industries do not follow the guidelines and carelessly discharge the wastes in to the abiotic environment contaminating all the environmental segments. The biotic component ultimately becomes the victim of all wastes and suffers. Significant decrease in pigment was observed in the algal mat collected from the contaminated site. The pigment contents like chlorophyll, phaeophytin and carotene significantly depleted in effluent contaminated algal mats. It was also observed that the algae in the algal mats accumulated significant amount of mercury, cadmium and lead in their bodies. It can be inferred from our data that the depletion in pigment content in the exposed algae was due to heavy metals accumulation. This residual accumulation led to depletion in pigment content like chlorophyll and phaeophytin. The decrease in chlorophyll content reduced the photosynthesis rate, ultimately leading to decrease in production. Sahu (2017a) reported stimulation of growth and increase in chlorophyll content and increase in photosynthetic rate at sub-lethal concentrations of the heavy metal exposure. It was observed from phycoremediation studies that these exposed algae exposed to sub-lethal concentration of the effluent could remove these heavy metals from the culture medium by way of absorption and consequent residual accumulation. In addition, some amount of heavy metals was lost from the culture vessel. This loss was probably due to evaporation or volatilization caused by the exposed algae. It was reported by Sahu (2017a, b) and Shaw *et al.*, (1989) that mercury can be volatilized by *Westiellopsis* and *Anabaena* from the culture vessels. In absence of any other possibilities, it can be concluded that these 4 algae in combination and also individually can remove heavy metals from the heavy metal contained effluent and can use the organic debris of the paper mill effluent after decomposition for their growth and development. The depletion in pigment contents at higher concentrations of effluent because of residual Hg, Pb and Cd accumulation warrants attention and future studies should be focused to reduce the contamination of heavy metals by physical, chemical (Kausar *et al.*, 2020 & Rasheed *et al.*, 2020a,b) and by biological treatment (phytoremediation) of the effluent before discharge into water bodies. This residual accumulation led to depletion in pigment content like chlorophyll and phaeophytin. The decrease in chlorophyll content reduces the photosynthesis rate, ultimately leading to decrease in grain production. The depletion in pigment contents because of residual Hg and Cd accumulation warrants attention and future studies should be focused to reduce the contamination of heavy metals by physical, chemical ((Kausar *et al.*, 2020; Rashid *et al.*, 2020a & Rasheed *et al.*, 2020b) and biological treatment (phytoremediation) of the effluent before discharge into water bodies. Muhammad *et al.*, (2015) reported mercury as a highly toxic chemical and mercury reduces seed germination, seedling growth and depletion in growth and biomass yield in case of mung bean (*Vigna radiata*). Mercury induced oxidative stresses in *Suaeda salsa* and also mercury at a concentration of $20\mu\text{g}\cdot\text{l}^{-1}$ disturbed protein degradation and energy metabolism in *Suaeda salsa* (Wu *et al.*, 2012). The mercury uptake produced serious damage to plants by impairment of the chlorophyll synthesis and reduction of photosynthesis as a result of substitution of Mg by Hg (Lavado *et al.*, 2007). Radha *et al.*, (2002) reported significant decrease in pigment contents, photosynthetic rate and respiration rate in rice seedlings exposed to mercury contained solid waste of a chlor-alkali industry and indicated suppression in growth. Interestingly accumulation of lead in plants exposed to effluent of the paper mill was not observed. Plants growing in heavy metal contaminated sites probably developed some degree of tolerance and resistance to metal toxicity in order to survive (Patra *et al.*, 2004). Plants contain at least some metals in their tissues and are capable of completely excluding potentially toxic elements, but simply by restricting their uptake and / or translocation. If the toxic metal ions are overloaded, oxidative stress defense mechanisms are activated in plants (Patra *et al.*, 2004), hence heavy metal exposed plants probably tolerate the metals stress. Lots of literature is available pertaining to the impact of treated effluent of the paper mills on agricultural crops. Li *et al* (2021a) indicated that “high levels of heavy metal stress may cause irreversible damage to microalgal chloroplasts and prevent photosynthesis, thereby leading to cell death” (Yu *et al*, 2019 and Alho *et al.*, 2019). Li *et al.*, (2021b) reported cadmium contamination in crop fields as a serious human health concern because of its extreme toxicity and wide spread pollution. We do agree with their concern basing on our findings. The “high levels of nitrogen and phosphorus support robust growth of many different species of fresh-water microalgae and thereby represent a very effective remediation strategy at the same time” (Mohsenpour *et al.* 2021). Bhatti *et al.* (2021) indicated that “biological treatment methods are

environmentally friendly and cost effective compared to physicochemical methods of treating wastewater. The treatment of pulp & paper mill wastewater effluents and recycling of water from pulp and paper mills by microalgae is particularly interesting from the point of view of environmental sustainability". The same authors also indicated that "treatment of pulp and paper mill wastewater effluents and recycling of water from pulp & paper mills by microalgae was particularly interesting from the point of view of environmental sustainability". "Biodegradation and toxicity reduction of pulp paper mill waste water could be achieved by treating the waste water by inducing isolated laccase producing *Bacillus cereus* AKRC03" (Kumar and Chandra, 2021). The present study related to phytoremediation by aquatic plants, microphytes capable of removing heavy metals from the environment and plants capable of biosorption and retention coupled with the work of Sharma *et al* (2021,2020a,b,c,d), Hu *et al* (2020) and Chandra *et al*, (2018,2021) can be recommended for biological treatment of paper mill effluent with a strategic protocol.

Conclusion

It is high time to think about the reclamation of Pulp and Paper Mill effluent wastes before its discharge into natural environments particularly on fresh water bodies. These fresh water bodies are the life line of most of the villages, towns and cities located in the banks of these rivers. All the farmers depend on this river water for irrigation of crop fields. Heavy metal accumulation in crop fields and in crops warrants attention. Many physical methods of treatments of the effluent wastes are available and they are in use by most of the industries but proper biological treatment was not followed by many industries. The present piece of work can be a probable protocol for phycological treatment and phytoremediation along with the potential reported macrophytes and microflora for 100% biological treatment of the Pulp and Paper Mill effluent waste. If the biological treatment protocols are properly followed, heavy metal free effluent can be discharged in to water bodies which may not cause any danger to human population or plants and animals on which human population is dependent for their survival.

Acknowledgement

Authors wish to thank the Head, Botany Department, Berhampur University for providing the working facilities for the research work.

Declarations

Author contribution statement

Prof. A.K. Panigrahi: Conceptualization, planning and execution of the project, Original draft preparation, supervision, reviewing and editing; Research work conducted by scholars - A. P. Tripathy paper mill effluent collection of samples, analysis and related field work. Supriya Devi- laboratory experimental work, preparation of first draft and editing Both Supriya & Tripathy contributed reagents & glassware for laboratory experiment related work and other expenses.

Funding statement:

The authors declare that no funds, grants, or other support were received during the preparation of this manuscript. This piece of work was totally funded by the scholars.


Competing Interests: The authors have no relevant financial or non-financial interests to disclose.

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ISSN 2277-4157

Central India Journal of
Historical and
Archaeological Research

CIJHAR

A Peer Reviewed And
An International Journal

Vol. XII-XIII

October-December, 2022

No. 40/41

Joint Issue

January-March, 2023

Editor

Dr. Vinay Shrivastava



Impact Factor 5.27

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ISSN-0971-9326

Studies in History and Culture
A Peer Reviewed and Referred Journal

VOLUME 01

ISSUE 01

2023



POST GRADUATE DEPARTMENT OF HISTORY
BERHAMPUR UNIVERSITY, ODISHA, INDIA

Studies in History and Culture
A Peer Reviewed and Referred Journal

Volume-1

Issue-1

2023

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Putnam's Anti-Cartesian Journey

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**Nath, Rajakishore, Sahoo, Suraj Kumar (2023), Putnam's Anti-Cartesian Journey,
Philosophical Tradition of the World, 4(1), 135-151. (Published by Department of
Philosophy, Mumbai University)**

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Abstract

It is challenging to write on a particular philosophical thesis while considering Hilary Putnam's work not so much due to his versatility over wide range topics, but because of several changes in his philosophical positions. For instance, he can march for a moment and see a specific intellectual position, say 'functionalism' in philosophy of mind, but when it comes to his take on 'functionalism', he changes his philosophical position to demonstrate not just his rational confidence, but also the virtue of seeing the greater picture, as it doesn't quite fit in with the more significant commitment to metaphysics and philosophy of language. Thus, Putnam is known to be self-critical. While critiquing his own philosophical ideas, Putnam shows his progressive attitude. His philosophical experiments are profound and thought-provoking. In this paper, we explore his notion of mind that is a kind of anti-Cartesian concept. In the early Putnam as well as in the later Putnam, we find that there is a kind of anti-Cartesian journey in his philosophy of mind. The early Putnam's philosophy of mind emerges against not only materialism and logical behaviorism but also on Cartesian dualism, such as that of René Descartes, according to which minds are made up of a special kind of substance. In the Cartesian scheme of mind, there is no place for functionalism because the thought act is due to subjective thinking things, which is the

self. However, in the later writings of Putnam's philosophy of mind, he is effectively critiquing the Cartesian concept of mind because his idea of externalism in the philosophy of mind aims to show that mental content is wide content and is partly determined by the environment.

Keywords: Hilary Putnam, Functionalism, Cartesian Dualism, Semantic Externalism, Mind.

I. Introduction

Putnam is famous for his 'change of mind'¹, first and foremost, evidence of a powerfully imaginative, philosophical intelligence that is more concerned with the manifest virtues of inquisitiveness, thoughts, and integrity than the questionable virtue of rational determination. This shows that he is an open-minded true philosopher. Thus it is appropriate to say that his philosophy is 'inclusive vision'² of philosophy, that is, a form of fallible democratic experimentalism, to be judged by its fruits on a heuristic basis. His views are democratic because he examines his philosophical thoughts from a holistic perspective. This conception represents Putnam's absorption of the insights of Dewey's approach to epistemology, which sees investigation at its best as characterized by various ethical or political virtues, such as objectivity, openness to criticism, self-criticism, and toleration of a wide range of alternative points of view.

However, in the early Putnam as well as in the later Putnam,³ we found that there is a kind of anti-Cartesian journey in his philosophy of mind. The early Putnam's philosophy of mind emerges against not only on materialism and logical behaviorism, but also on Cartesian dualism. As we have seen in chapter three that functionalism defines mental states as simply functional in nature, and most of the functionalistic theory of mind is familiar with early Putnam's functionalism. It holds that what makes an inner state is not an intrinsic property of the state,

¹ De Caro, M. and Macarthur, D. (2012), p. 2.

² *Ibid.*

³ At this juncture, we would like to clarify that we have mentioned early Putnam in some places and later Putnam in some other places throughout the paper to indicate his philosophical positions. Still, where Putnam's ideas are the same throughout his philosophical journey, we have mentioned only Putnam.

rather its relations to sensory stimulation (input), to other inner states and motor organs (output). Functionalism describes this view about the mind as identifying mental states with their functional roles. This functionalist account of mind associates the roles with the functional organization, the way in which mental states are causally related to each other, to sensory inputs and outputs. According to Putnam, the mental states and events- pains, desires, beliefs, and thoughts are functional states of the brain, and they are defined in terms of "computational parameters plus relations to biologically characterized inputs and outputs."⁴ The nature of mind is independent of the brain, and the autonomy of mental life does not hinge on and has nothing to do with that all too popular, all too old question about matter or soul-stuff. We could be made of Swiss cheese, and it wouldn't matter.⁵

II. Early Putnam on Cartesian Dualism

Early Putnam's functionalism distinguishes from traditional mind-body dualism, such as that of René Descartes, according to which, minds are made of a special kind of substance. In the Cartesian scheme of mind, there is no place for functionalism because the thought act is due to the subjective thinking thing, which is the self. Again, this subjective thinking thing or the self is that which "doubts, understands, affirms, denies, is willing, is unwilling, and also imagines and has sensory perceptions."⁶ The existence of the thinking thing is the same as the existence of the subjective thinking thing because it is the subject who thinks. All these subjective activities are non-computational because subjective activity is not mechanical. The mental processes for Descartes, are intentional and are the free acts of the thinking subject.

Descartes' concept of 'I think' presupposes subjective experience because it is 'I' who experiences the world. Descartes' notion of 'I' negates the notion of computational of the mind. The essence of mind is thought, and the acts of thoughts are identified with acts of consciousness. Therefore, it follows that cognitive acts are conscious acts, but not computational or mechanical acts. Thus for Descartes, one of the most important aspects of cognitive states and processes is their phenomenality because our judgments, understanding, etc. can be defined and explained only about consciousness, not about computability. We can only find

⁴ Putnam, H. (1975), p.7.

⁵*Ibid*, p. 291.

⁶ Descartes, R. (1984), p.19.

computationality in machines, and not in mind, which wills, understands, and judges. Descartes' dictum, "I think, therefore, I am"⁷ not only establishes the existence of the self, which thinks and acts but also its freedom from mechanistic laws which the human body is subjected to. But early Putnam's view of mind is very much critical about accepting Descartes's dualism.

Now, we may ask a question: Does early Putnam's functionalistic theory of mind commit to a kind of dualism? In some sense, yes, because when early Putnam is making a distinction between software and hardware in his multiple realizability thesis, he says that mind is like software and the brain is like hardware in which mind (software) is realized in the brain (hardware machine). In this sense, there is a kind of dualism in early Putnam's functionalism. Multiple realizability thesis (MRT) advocates that mental states can be realized by different physical states or kinds; for example, the mental state 'pain' can be realized either in a human or machines or any other creatures at any time and place. For instance, one software program can be implemented in many systems, and many software programs can be implemented into one system.

This is possible, according to Putnam, because of the fact that we human beings, machines, are creatures who are multiple realizable entities or beings. This thesis states that mental types and physical types are related to each other in one-many, but not one to one. There can be indefinitely many different physical properties, which constitute the realizations of the same functional property. However, "it is also true that the same physical state can realize different functional properties at different times or in different circumstances or in different creatures."⁸ The functional states are 'multiply realizable' in the sense that a functional state cannot be identical to any particular physical realization of it. For example, someone could write a program using two completely different types of computers, which use different sorts of hardware to run the same program. In this sense, the program is said to be 'multiply realizable,' whereby any number of computers may be used to realize the same program. Putnam's functionalism takes states of mind and mental properties to be functional states and properties. Mental properties are realizable by, but not identical to, material properties.

⁷*Ibid.*, p.17.

⁸Shoemaker, S. (1981), p. 97.

For example, the same mental property, the property of being in pain, maybe realized by one property in a human being and to a certain extent, by another property in an invertebrate. For the functionalist, if someone has now a particular pain, then he/she can imagine that this pain is realized through a particular neural state. That neural state has an identifiable material structure, and this may be studied by a lower-level hardware science like neurobiology. For functionalism, what makes the state a realization of pain, is not its material constitution, but its occupying a particular kind of causal role within our nervous system. Therefore, multiple realizability implies that there is a higher-level functional description of physical states in terms of their causal role, which abstracts from their lower-level physical constitution. It is with such functional properties that mental properties can be identified.

The brief history of the notion of realization is entangled with the history of functionalism in the philosophy of mind. The idea that mental states can be multiply realized figures centrally in Hilary Putnam's rejection of type identity thesis.⁹ Putnam denies that pain, or any other mental kind, correlates with only one physical kind, which we know from identity theory. Rather, Putnam argues that there are many ways that pain and other mental kinds can be realized in the physical. That is to say that mental states are not identical to physical states because there are many and diverse physical entities that can give rise to the same mental states. For example, even if the pain in human beings is strictly correlated with the firing of C-fibers, other kinds of physical states likely give rise to pain in some other animals.

Putnam vividly emphasizes the difficulties that confront the identity theorist by doubting that anyone's physical-chemical state correlates with pain in mammals, reptiles, and mollusks. He believes that the psychological properties of human beings are not the physical-chemical properties of human beings, although the physical-chemical properties of human beings can realize them. In Putnam's word: "This means that the physical-chemical state in question must be a possible state of a mammalian brain, a reptilian brain, a mollusk's brain (octopuses are mollusca, and certainly feel pain), etc. At the same time, it must *not* be a possible (physically possible) state of the brain of any physically possible creature that cannot feel pain. Even if such a state can be found, it must be nomologically certain that it will also be a state of the brain of any extraterrestrial life that may be found that will be capable of feeling pain before we can even

⁹ Shoemaker, S. (2007), p.2.

entertain the supposition that it may *be* a pain.”¹⁰ Here, the MRT hypothesis becomes more motivated when we realize that the behaviorisms and mind-body identity thesis are not just saying that *pain* is a brain state. Still, they are concerned to maintain that *every* psychological state is a brain state. That is to say that one psychological predicate which can clearly be applied to both a mammal and an octopus, but the problem is that their physical-chemical ‘correlate’ is different in the two cases, and thus the classical materialism and Cartesian mind are collapsed.¹¹ This is not so in the case of functionalism.

However, Putnam's functionalism is to develop a machine or computational functionalism because the view has practical implications, and gained immediate success. One of the central reasons as to why early Putnam's functionalism garnered so much attention is that functionalism debatably does better as a theory than its rival views, i.e., classical materialism and dualism. Again, another main reason is that computational functionalism is associated with the new science of the mind in contemporary issues in the philosophy of mind, i.e., cognitive science and other allied subjects. It is imperative to mention here that later Putnam changes his mind and becomes a strong critic of his own views on functionalism, and establishes a different theory of mind. In the later writings, Putnam is giving a kind of ‘farewell’ to his early view of mind and trying to keep his philosophy of mind within wide content, semantic externalism, which he calls ‘internal realism.’

III. Does Functionalism Committed to Reductionism?

Putnam has compared mental states to the functional or logical states of a computer or a computer program, which can be realized by any of a number of physically different hardware configurations. The different hardware configurations may have different physical and chemical properties. Putnam believes that the psychological properties of human beings are not the physical and chemical properties of human beings, although they may be realized by the physical and chemical properties of human beings. Therefore, functionalism does not reduce psychological properties to physical propertie.¹²

¹⁰Putnam, H. (1975), p. 436.

¹¹*Ibid.*, p. 436.

¹²Putnam, H. (1975), p. 387

However, now the question is: Is functionalism reductionism? If reductionism is true, then what is the importance of providing a functionalist account of mind? Putnam argues against both behaviorism and identity thesis by claiming that the characterization of mental states must involve other mental states. In contrast, these two (behaviorism and identity thesis) doctrines are failed to do. A functionalist account of mind claims that mental states can only be defined in terms of *other mental states*. For instance, a person desires such and such if she/he would do so and so, if she/he believed doing so and so will get her/him such and such, and if she/he believed doing so and thus would not conflict with other desires.¹³

As we have seen, behaviorism thesis is the view that mental states are dispositional behavior, which was advanced by Gilbert Ryle. This kind of behavioristic reductionism is rejected by Putnam, mainly because the characterization of mental states must involve the other mental states. For example, my pain behavior is not just a result of my being in pain, but also my being in other mental states. For functionalists, pain is identified not just by the relations between stimuli and response, but also by the relations between stimuli, response, and other mental states. This is because of the fact that Putnam has argued on the irreducibility of psychology, saying that the functional character of psychological ascriptions guarantees that they will defy the classical paradigm for theory reduction. Putnam says, “what we are really interested in, as Aristotle saw, is form and not matter. What is our intellectual form? is the question, not what the matter is. And whatever our substance might be, soul- stuff, or matter or Swiss cheese, is not going to place any interesting first order restrictions on the answer to this question.”¹⁴

This yields, as Putnam views the matter, like something more than a merely *de facto* independence of psychology with respect to both its explanatory principles and its methodology. That is to say; it is not only true that in the absence of a fully articulate neurophysiological theory, psychology must go on without it, it is also true that just what those laws uncovered by neurophysiology might be is quite irrelevant to the psychological enterprise. The *de facto* autonomy converts, in Putnam's hands, to a *de jure* autonomy: psychology is, in principle, irreducible to the physical science.¹⁵ This is the main reason that functionalism is against reductionism because functionalism is committed to a conception of the world as containing

¹³ Block, Ned (1996), pp. 22-44.

¹⁴Putnam, H. (1975), p. 302.

distinct and irreducible levels of properties. The higher levels are thought to be 'autonomous' with respect to lower levels. The higher levels are not reducible to, or identifiable with lower levels because higher levels are supervenient on lower levels.

We have also discussed that the brain-state theorist talks about physical-chemical states of the brain and examines the nature of the relation between mind and brain, between the mental states and physiological states of the brain; this thesis also holds that the mental states are identical with the states of the brain and those of the central nervous system. Simply it claims that every mental state is physical state. Putnam also provides us with this as an identity condition, and he says: "Two systems are functionally isomorphic if there is a correspondence between the states of one and the states of the other that preserves functional relations."¹⁶ Two states S1 and S2, would then be of the same functional type if they are correlated in functionally isomorphic systems. The central point is that "two systems can have quite different constitutions and be functionally isomorphic. For example, a computer made of electrical components can be isomorphic to one made of cogs and wheels. In other words, for each state in the first computer, there is a corresponding state in the other, and, as we said before, the sequential relations are the same . . . it doesn't matter at all that the physical realizations of those states are totally different."¹⁷ Someone may say that the brain-state identity theorists are keeping these parallel positions, and are looking at puzzles or contradictions in Putnam's thesis.

On the other hand, Putnam suggests: "Then to identify the state in question with its physical or chemical realization would be quite absurd, given that that realization is in a sense quite accidental from the point of view of psychology."¹⁸ This is unlikely that there should even be any significant correlation between psychological and physiological typing; indeed, the functionalistic theory of mind alone should be enough to dissuade us from thinking there is any substantial hope of type identifications. But when we compound this observation with the observation that different sorts of organisms can be in the same type of psychological state, one-to-one type correspondence between psychology and physiology becomes nothing short of extraordinary. However, reductionism in the classical sense demands that the connections

¹⁵ Richardson, R. C. (1979), p. 540.

¹⁶ Putnam, H. (1975), p. 291.

¹⁷ *Ibid.*, pp. 292-293

¹⁸ *Ibid.*, p. 293.

postulated between levels also be law-like ones: it must not even be possible for there to be an organism of the radically different constitution to instantiate the same psychological type.¹⁹

However, Putnam's radical anti-reductionist argument premised on the claim that psychological type is undetermined by structural type even mutually with boundary and initial conditions. Let us remind Putnam's account of the human functional organization in the form of a Turing machine table. This machine table is to be constructed independently of a psychological theory. Then, the question is: how much psychological theory is fixed by this machine table! If, as Putnam supposes, such a machine table could be gotten independently of psychological theory, then, he tells us, the indeterminacy of translation is equivalent to the indeterminacy of the transition from a functional organization to the psychological description. The main issue is that a machine table does not support configurations psychologically.²⁰ As he deploys it, the indeterminacy of translation rests on the fact that translation, like any psychological explanation, is dependent upon a 'global theory' concerning the individual's beliefs, desires, and intentions. Putnam explains: "certain human abilities-language speaking is the paradigm example-may not be theoretically explicable in isolation; it is almost certainly impossible to 'model' a language speaker without modeling full human functional [that is, presumably, psychological] organization."²¹ In this way, Putnam has given an account of functional organization insofar as this can be achieved apart from psychological considerations; the dependency of psychological types on 'global' considerations ensures we will still have a certain latitude in our selection of a psychological theory. The result is inevitable: even if structural type determines the functional type, the psychological type is indeterminate relative to structural. Putnam's position, however, seems to be yet more radical. Because he does argue that there is a sense in which, even given a fixed psychological and physical theory, the psychological type is indeterminate relative to our idealized theory of functional organization.²²

It is necessary to mention that Functionalism is consistent with the materialist's intuition that every pain event is a physical event, namely, an event with physical properties (say, C-fiber stimulation). And it is also important to mention that it is consistent with non-reductivism, that

¹⁹ Richardson, R. C. (1979), p. 543.

²⁰ Putnam, H. (1975), p. 49.

²¹ *Ibid.*, p. 63.

²² Richardson, R. C. (1979), pp. 542-554.

is, the claim that the mental type of pain is not the physical type, for example, C-fiber stimulation. It welcomes the possibility of multiple realizations of mental properties, namely the claim that different tokens of pain events might be realized in different types of physical events.²³ Putnam states that we know from the case of machines that "any Turing machine that can be physically realized at all can be realized in a host of totally different ways."²⁴ If so, Putnam concludes, "our mental states, e.g., thinking about next summer's vacation, cannot be identified with any physical or chemical states. For it is clear from what we already know about computers, etc., that whatever the program of the brain may be, it must be physically possible, though not necessarily feasible, to produce something with the same program but quite a different physical and chemical constitution."²⁵ We have seen that Putnam believes that minds and their mental states are *multiply realizable*.

²³ See, Shagrir, O. (2014), pp. 147-168.

²⁴ Putnam, H. (1975), p. 418.

²⁵ *Ibid.*, p. 293.

Multiple realizations are the view that every type of mental state could be realized in different ways in the brains or bodies of other biological and even non-biological species. Early Putnam's functionalism as a theory of mind supports the multiple realizability thesis. This multiple realizability thesis asserts that the same mental state or property can be realized by the different physical state or property. At the same time, this theory is an objection to mental-physical identity theory in the philosophy of mind. According to identity theory, mental states are identical with physical states (in particular brain states). Philosophers give a famous example – pain is identical with the stimulation of certain c-fibers in the brain. So the mental-physical identity theory believes that there is a simple one-to-one correspondence between mental states and physical states. The multiple realizability thesis implies that mental states and physical states have correspondence of one-to-many but not one-to-one. Here, the questions of reductionism do not arise in the case of multiple realizability because, in the case of classical materialism or mind-body identity thesis, there is identity between the two and if there is identity between two, multiple realizability thesis will be false. According to Putnam, it is not false, because mental properties are multiple realizable by different physical properties in different species, conspecifics, humans, and even machines at a different time. For example, pain or any mental state has correspondence with only one physical state; rather, he argues that there are many ways that pain and other mental states can be realized in the physical. Therefore, for early Putnam, machine functionalism is not giving any kind of reductive explanation on the mind, but this theory is explaining the mind in terms of the machine without reducing to each other. Rather, it is a different type of explanation on the mind-body problem in the 20th-century philosophy.

IV. Later Putnam on Cartesian Dualism

The later writings of Putnam's philosophy of mind are also critiquing the Cartesian concept of mind because Putnam's externalism in the philosophy of mind aims to show that mental content is wide content and is partly determined by the environment. But, on the other hand, according to Descartes, mental content is independent of the external world. The thought or content for Descartes is doubt free. As we have seen, Descartes is a dualist, rather than a mentalist. Descartes' argument for the mind, which is distinct from the body, needs to be understood as an argument for the logical possibility of their separate existence and not for the

fact that they exist independent of each other. The separability argument is as follows: "First, I know that everything, which clearly and distinctly understands, is capable of being created by God so as to correspond exactly with my understanding of it. Hence, the fact that I can clearly and distinctly understand one thing apart from another is enough to make certain that two things are distinct since they are capable of being separated, at least by God. The question of what kind of power is required to bring about such a separation does not affect the judgment that the two things are distinct. Thus, simply by knowing that I exist and seeing at the same time that absolutely nothing else belongs to my nature or essence except that I am a thinking thing, I can infer correctly that my essence consists solely in the fact that I am a thinking thing. It is true that I may have (or, to anticipate, that I certainly have) a body that is very closely joined to me. But nevertheless, on the one hand, I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing; and on the other hand, I have a distinct idea of body, in so far as this is simply an extended non-thinking thing. Accordingly, it is certain that I am really distinct from my body and can exist without it."²⁶ Thus, the Cartesian theory of mind can be regarded as an important source of internalism.

Descartes has already proved in the *Second Meditation* the existence of a thinking thing that has a clear and distinct perception of mind as a thinking, non-extended thing. This is proof of the non-mechanical mind, which is different from the body subject to mechanical laws. Similarly, in the *Fifth Meditation*, he has shown that he has a clear and distinct idea of a body as extended and a non-thinking substance. This is to suggest that the mechanically existing body is ontologically distinct from the non-computational mind. The human mind has innate ideas, which are embedded as the innate dispositions of the human mind. These ideas are *a priori* in the human mind and are the basic inborn propensities.

As Descartes observes, "My understanding of what a thing is, what truth is, what thought is, seems to derive simply from my own nature. But, my hearing a noise, as I do now, or seeing the sun, or feeling the fire, comes from the thing which is located outside me, or so I have hitherto judged. Lastly, sirens, hippogriffs, and the like are my own invention."²⁷ This observation of Descartes shows that innate ideas are not produced in us by the senses. If the

²⁶*Ibid.*, p.54.

ideas were conveyed to us by the senses like heat, sound, etc., we would not have to refer to anything outside ourselves; they too would be innate. For Descartes, “the ideas of pain, colors, sounds, and the like must be all the more innate if, on the occasion of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity between these ideas and the corporeal motions.”²⁸ Here it follows that there is a distinction between innate and adventitious ideas and that innate ideas are universal ideas, whereas adventitious ideas are particular ideas. As Descartes points out, hearing a noise, seeing the scene, and feeling the fire are all particular ideas.²⁹ Again, it must be noted that the perception of the particular is not possible without universal ideas. Innate universal ideas are a requirement for the cognition of particular objects in the world.

However, the case of Putnam’s externalism in the philosophy of mind contends that the meaning or content of a thought is partly determined by the environment. The view has garnered attention since it denies the traditional assumption that we have seen above in the view of Descartes because Descartes thought content is fixed independently of the external world. Apparently, under this assumption, Descartes also believed that he could know the content of his thoughts while suspending all judgment about his environs. If externalism is correct, this may well be a mistake. As we shall see, externalism can suggest that Descartes is unable to know that his own thought represents, say, elm trees (vs. beech trees) without knowing that it is *elms* (and not beeches) that the thought is connected to, in the world. But, if such worldly knowledge is a prerequisite, then Descartes could not know the content of this thought just ‘from the armchair,’ so to speak. So, there seems to be a conflict between externalism and such armchair knowledge of one’s own thought contents. The question of whether this conflict is real is what drives the contemporary debate on externalism and self-knowledge, which we have seen in the above section.

There is some similarity between Descartes’ hypothesis and Putnam’s hypothesis in relation to skepticism. Descartes’ Evil Genius Hypothesis is an example on skepticism in his *Meditations of First Philosophy* because in this hypothesis, there is not anything about the

²⁷*Ibid.*, p.26.

²⁸ Descartes, R. (1985), p.304.

²⁹ Descartes, R. (1984), p.13.

physical world, and there is a belief that is mistaken about the physical world. On the other hand, Putnam's hypothesis does not bring the metaphysical realist's argument that there is a transcendental way in which we can approach the world in the sense that the world can be seen from the non-human point of view. The Cartesian hypothesis is a kind of view that results in the possibility of the world being lost³⁰ to our conceptual scheme, and therefore being ever beyond our conceptual grasp. This can push us into the impossible situation of being the Brain-in-a-Vat (BIV) in which we are supposedly cut off from the world.³¹ The BIV situation is a threat to our being rational human beings who are in direct contact with the world.

Putnam's BIV argument and Descartes' Evil Genius (EG) argument show the fault lines in the metaphysical realist picture of the world in the sense that those in the BIV or EG world are as much distanced from the world as those in the metaphysical realist picture. The brains in the BIV-world are cut off from the world because of the very nature of their existence, while we in the metaphysical realist picture are removed from any direct contact with the actual world. The BIV situation shows that the brains in the vat are in a massive deception about the world, as they have no connection with the real world, except a supposed 'magical' connection.³² The same kind of magical connection is available in the case of Descartes' EG argument without any physical representation in the world. As Putnam writes, "The very hypothesis of "radical deception" seems to depend on the idea of predetermined, almost magical, the connection between words or thought-signs and external objects that Transcendental Realism depends on."³³The idea that, according to Transcendental Realism, we are only in a magical relationship with the world suggests that our thought and language are connected with the world not in the normal sense but only in the magical sense. Putnam calls it a magical theory of reference³⁴when the words or thought-signs are connected with the objects in a 'predetermined' sense from which all human intervention is ruled out; it is a magical theory for the reason that it is a theory "on which certain mental representations necessarily refer to certain external things and kinds of

³⁰ Rorty, R. (1972), pp. 649-665.

³¹ Putnam, H. (1981), pp. 1-21.

³² Pradhan, R. C. (2015).

³³ Putnam, H. (1990), p. 112.

³⁴ Putnam, H. (1981), pp. 1-21.

things.”³⁵This supposed ‘necessary’ referential connection is based on magical powers ascribed to the words and not on their human use in the context of our real transactions with the world. Putnam's BIV argument not only exposes the impossibility of the BIV and EG situation but also the absurdity of the general skepticism regarding our epistemic access to the world. Putnam drives at the point that the possibility of the BIV world is ruled out because the premises on which such a hypothesis stands are themselves faulty. Human beings can never be in that situation because of the fact that we are directly related to the world, unlike the brains in a vat. As Putnam suggests, “... although the people in that possible world can think and ‘say’ any words we can think and say, they cannot (I claim)*refer* to what we can refer to. In particular, they cannot think or say that they are brains in a vat (*even by thinking’ we are brains in a vat’*).”³⁶

V. Conclusion

Thus, Putnam has concluded that the BIV world is an impossible world. From this, by parity of reasoning, we can say that the metaphysical realist's picture of the world also meets the same fate by being disconnected from the human mind and language and thereby being a ‘ready-made world’ in Putnam's pregnant phrase. The world is presented as it were from God’s Eye point of view, in such a way that all that we call the mental constructs are kept away from the world. This results in a sense, in the disenchantment of the world, which is the predominant view of modern science. The disenchantment of nature consists of the elimination of the mental and intentional properties of the world.³⁷ As we have seen, Putnam also holds the view that mental content must relate to the environment as a matter of logical and semantical rule-following. It is also important to remind us that mind and language are both world-directed. Both have a common stake in the cognition of the world. Whereas the mind is directly at the game of representing the world, language does not seem to be so. In the case of skepticism, BIV and EG arguments accept a common ground to talk about the world, but they differ in case of an innate mind.

As Putnam says, “The Cartesian picture is confused. It exhibits both modern physicalist and medieval “tendency-ist” forms of explanation in an unhappy coexistence. The

³⁵*Ibid.*, p. 15.

³⁶ Putnam, H. (1981), p. 8.

³⁷ See, Putnam, H. (2002), pp. 174-190.

new image of nature—the World Machine—ought to have no place for the classical "tendencies."...To analyze the dispositional idiom, we need an analysis of the phrase “under normal conditions,” or something similar. . . .But the currently most fashionable of these—the notion of “similarity” of possible worlds—only illustrates the distance of counterfactual (and dispositional) talk from the world picture of physics—illustrates it by introducing a metaphysical primitive, which sticks out like a sore thumb.”³⁸ Putnam is right to note that the appeal to so-called tendencies and possible worlds indicates that the mechanistic picture cannot stand on its own foundation. Indeed, idealism slips into the scientific materialists’ picture of the world, because they must defend their view of materialism by giving theoretical reasons why the purposeful organization of matter should exist. But, if Descartes has taught us anything, it is that, once we allow philosophical or scientific explanations about the existence of matter to mediate our pragmatic awareness that we exist as bodies in contact with other bodies, then there is no viable way to bridge the gap between our thoughts about matter and matter itself. Neither God nor Nature, nor Causality, nor Chance, nor Being, can mediate the primary relation of our body with the world.³⁹

³⁸ Putnam, H. (1990), pp. 24–5.

³⁹ Catalano, J.S. (2000).

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Understanding Cluster Perspectives of Entrepreneurial Orientation and its Value Addition: A Visualization Approach

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Abstract

Purpose: Entrepreneurial orientation has immensely increased its importance in present business conditions. Entrepreneurial orientation is a vital factor that undermines the importance of developing long-run business perspectives and focusing on new entrants' strategies. The prime objective of this research study is to do a visualization analysis by synthesizing the literature on entrepreneurial orientation.

Design/Methodology/Approach: The research is conducted by considering 961 articles from 2001 to 2021. The study identifies the journal with the maximum publication, year-wise publication, the most prolific authors, and countries. Various maps describing the citation and co-citation networks, co-authorship patterns, and keyword co-occurrences networks have been provided. The extensive metadata of all the 961 articles was extracted using the SCOPUS database and various network maps constructed using the VOS viewer visualization tool.

Findings: The findings of the research work identified eight influential research pathways as (1) "Entrepreneurial orientation and innovativeness," (2) "Entrepreneurial orientation and learning orientation," (3) "Entrepreneurial orientation and environmental dynamism," (4) "Entrepreneurial orientation and transformational leadership," (5) "Entrepreneurial orientation and marketing capabilities" (6) "Entrepreneurial orientation and technology orientation" (7) "Entrepreneurial orientation and firm performance" (8) "Entrepreneurial orientation and entrepreneurial marketing" and developed 24 future research questions to be carried out in future research work.

Implications: The current study confers a value addition to entrepreneurial orientation by developing a framework for upcoming researchers, which will add substantial value to the existing literature. It is considered a unique work focused on multiple angles from visualization to trend analysis.

Originality/value – This research is one of the limited research studies that proposed a conceptual framework to understand the existing literature and future research areas to be explored by the upcoming researcher. First, through bibliometric visualization, it tried to analyze the present research state of the topic. Second, it gave information on the top journal, top researcher, highest publication in terms of country, and highest occurring keywords. Third, it identified the dry areas that need exploration among future researchers adding value to the field of entrepreneurship.

Keywords: Entrepreneurial orientation, Bibliometric, visualization, Systematic literature review, CiteNet, VOSviewer.

Date of Submission: 05-12-2022

Date of Acceptance: 17-12-2022

I. Introduction

Entrepreneurial orientation is a well-defined concept that identifies the extent to which organizations are proactive, risk-taking, and innovative in their management philosophies and behavior or stated concisely. Entrepreneurial orientation has emerged as one of the most recognized attributes in entrepreneurship research (Wales, 2016). Fadda (2018) discussed the role of entrepreneurial orientation in the tourism sector and signified that proactiveness, risk-taking, and autonomy significantly influence profitability. Cho and Lee (2018) opined that entrepreneurial orientation is positively associated with business performance. Innovative and progressiveness affect a firm's growth and are critical indicators for measuring financial and non-financial performance. Genc et al. (2019) explored the impact of internationalization on innovation where entrepreneurial

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orientation is a mediator between business performance and market factors. Wang et al. (2020) opined that entrepreneurial orientation motivates firms to focus more on value creation with value appropriation.

The entrepreneurial orientation construct has gained substantial interest from researchers over the years, leading to some significant literature studies (Walter, Auer, and Ritter, 2006; Sauka, 2007; Wales, 2016, Covin and Wales, 2012; Wales, Gupta, and Mousa, 2013, Andrade et al., 2018) and meta-analysis (Abebe, 2011). Very few (Andrade et al. 2018; Pei and shan, 2021) studies have offered bibliometric comments on entrepreneurship and a variety of other interrelated topics, such as rural entrepreneurship (Pato and Teixeira, 2016), entrepreneurship, and family firm research (Lopez-Fernandez et al., 2016), social entrepreneurship (Rey-martí et al., 2015; Sauka, 2007), entrepreneurial education (Kakouris and Georgiadis, 2016), global entrepreneurship (Servantie et al., 2016), and small business entrepreneurship (Mazzarol, 2015). Rauch et al. (2009) stated that entrepreneurial orientation had indicated a positive relationship with performance. Entrepreneurial orientation is an essential dimension for organization performance measurement. Entrepreneurial orientation was measured through innovativeness, risk-taking, and proactiveness (Anderson et al., 2014; Kimbua and Tichaawa, 2018). It analyzed the growth perspectives among firms and examined the ability to understand the risk and develop strategies to handle the challenges with the prospective outcome.

On the other hand, one of the significant gaps in the existing literature is that though entrepreneurial orientation domain has been explored. Still, the lack of prominent research work on visualization stimulated researchers to investigate this area. Thus, the researchers were motivated to develop the current study to find noteworthy contributions of the method to business performance and create research streams for prospective researchers. Though extant literature is available in the area of entrepreneurial orientation, the current research work attempts to present a comprehensive view of entrepreneurial orientation from the year 2001 to 2021 by developing the following research questions:

RQ1: What are the well-known journals, and countries, with primary publications on this topic?

RQ2: What are the repeatedly used keywords, articles, clusters, and content analysis on the topic?

RQ3: Who are the well-known authors in the context to co-authorship with other authors?

RQ4: What are the potential trends of entrepreneurial orientation for upcoming researchers?

The discussion above resulted in the formulation of the stated questions, and objectives such as:

- To congregate and re-examine articles on the topic of entrepreneurial orientation.
- To identify the research streams on entrepreneurial orientation.
- To put forward prospective research ways on entrepreneurial orientation.

The consecutive sections of the research paper are organized as follows: section two, discussed the literature review of the study, which enabled to understand the present state of condition, section three intends to address the details of the research methodology; section four encompasses the details about the results and analysis, according to the research questions and objectives mentioned earlier, and section five explained on content analysis, section six presented future research perspectives, and section seven focused on the implications of the study and section eight enumerated on the unique contribution of the research and lastly section nine discussed on conclusion of the study.

II. Literature Review:

Palmer *et al.* (2017) tried to analyze the relationship between inter-organizational learning towards transforming entrepreneurial and market orientation to create a competitive edge. Tajeddini, Martin, and Ali, (2020) provided an insight that a dynamic environment and social and technological resources will enable a constructive relationship between entrepreneurial orientation and organizational performance. Sauka (2007) studied the relationship between majorly three drivers such as risk-taking, innovativeness, and proactiveness. It was witnessed that risk-taking is predominantly considered an attribute that drives a firm towards growth. The more the risk-taker, the performance enhances. Mcgee and Peterson (2017) pointed out that entrepreneurial self-efficacy and entrepreneurial orientation are two antecedents closely associated with the firm account. The founder's efficacy pulls the organizations towards enhancing organizational growth perspectives.

Bernoster (2018) stated that entrepreneurial orientation is closely connected with individual attributes. The positive attitude of individuals is associated with innovativeness and proactiveness. (Basco, Hernández-perlines and Rodríguez-garcía, 2019) research work highlights that the firm's context is influenced to measure firm performance. Anzenbacher and Wagner (2020), in their study attempted to explore the effectiveness of innovation as an essential determinant of entrepreneurial orientation. Ling, López-fernández, and Serrano-bedia (2019) explored that organizational culture dominates entrepreneurial orientation success. Rwehumbiza and Marinov (2020), in their research, tried to identify the significant determinants responsible for solid entrepreneurial orientation in a weak economic system. Chavez et al., (2017) enumerated that entrepreneurial orientation is a mechanism between manufacturing capabilities and market needs. Arzubiaga et al., (2018) tried to list the relationship between how the board of directors of a family encourages growth in entrepreneurial orientation and innovativeness among members. Lastly, the entrepreneurial orientation encourages the managers

to understand risk and innovation. It enables them to handle enormous challenges that can empower them to grow business and develop forward-looking policies.

III. Methodology of the study

Bibliometric analysis is a practical method of analyzing a research field over a given period (Alfonzo, Sakraida, and Hastings-tolsma, 2014). The bibliometric area is primarily concerned with quantitatively studying the available bibliographic material (Science, Carolina, and Hill, 1987). The present research adopted a unique approach that focused on presenting the consolidated work using bibliometric visualization, citation analysis, cluster analysis, and content analysis (Cheng and Bosselman, 2016). The present study chooses to extract the data from the Scopus database, and the reason is the availability of the highest number of publications (Emerald, Taylor and Francis, Wiley, Elsevier, and Springer). Entrepreneurship researchers have often conducted literature reviews and bibliometric analyses by assembling information from this database (Rey-martí, Ribeiro-soriano, and Palacios-marqués, 2015; Hernández-perlines *et al.*, 2019). The broad methodology adopted for searching literature is through digital database—the Scopus database was adopted for extracting the papers relating to entrepreneurial orientation from 2001 to 2021, and it is presented in figure: 1:

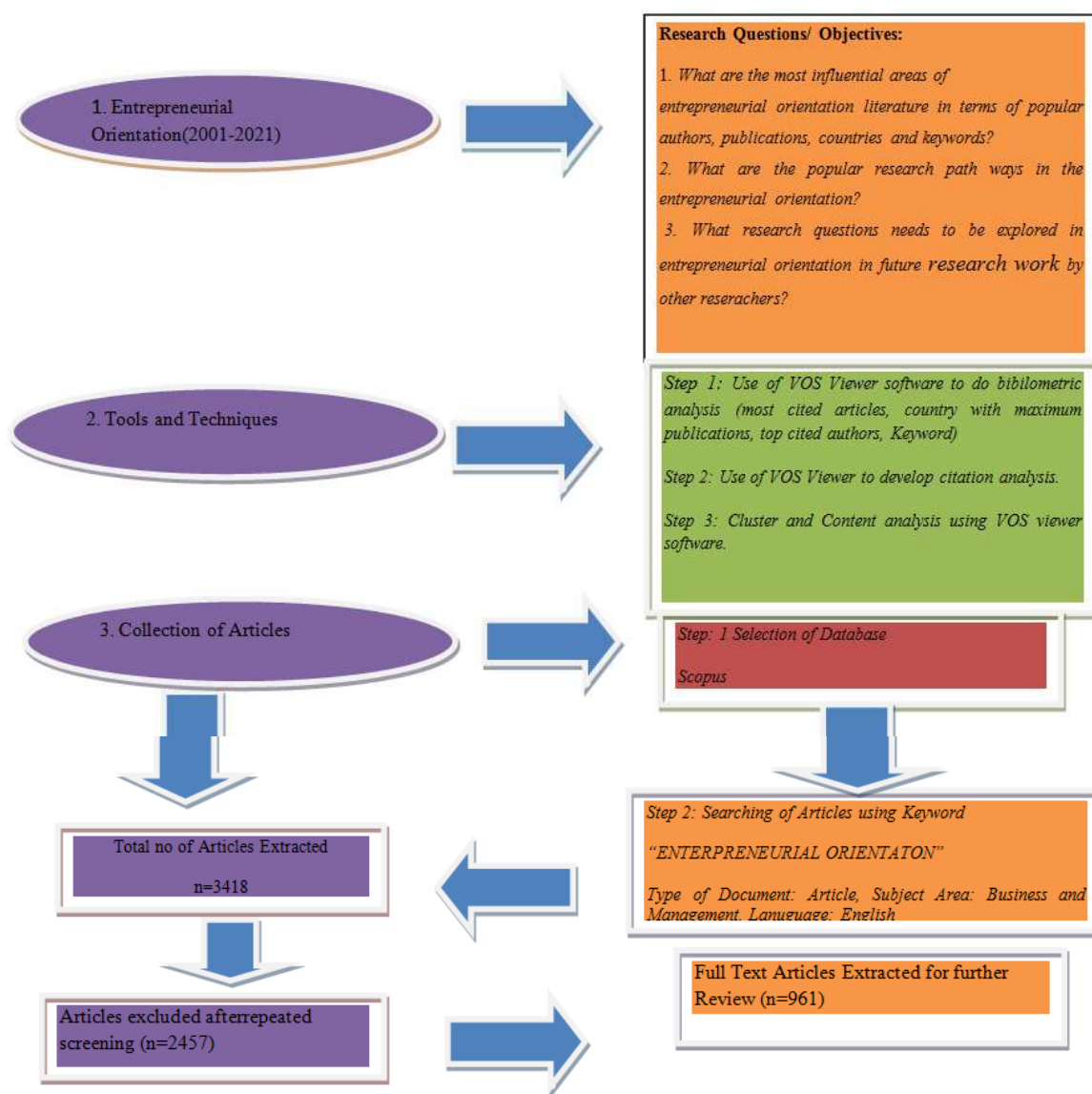


Figure 1: Methodology Framework

IV. Results and Findings

4.1 Highest publications on Entrepreneurial Orientation

The results and findings of the study are discussed in the following sections, which focus on some of the significant attributes, such as segregating the journals with the leading publications yearly basis, well-known authors, countries, exploring entrepreneurial activities orientation—developing network maps based on

authorship and co-authorship, inter-country wise, and keyword occurrences. The primary objective of the research study is to create a plan for future researchers in entrepreneurial orientation.

The total extracted 961 papers in the study were published in 160 journals. Figure 2 analyzes the journals with the highest number of publications on entrepreneurial orientation. The top twenty journals were considered, and the leading journals belong to Elsevier publishers. Four journals come under the flagship of Springer, four belong to Inderscience, and three journals fit into Emerald's publisher. Other belongs to Wiley, Tandfonline, AB academics, Sage, Serial publisher, etc. The most well-known Journal with the maximum number of publications, such as the Journal of Business Research, which published around 48 papers, belongs to Elsevier Publishers. It is evident that the concept of entrepreneurial orientation has expanded its root and entered every area, and the idea has gained prominent attention from researchers from every field.

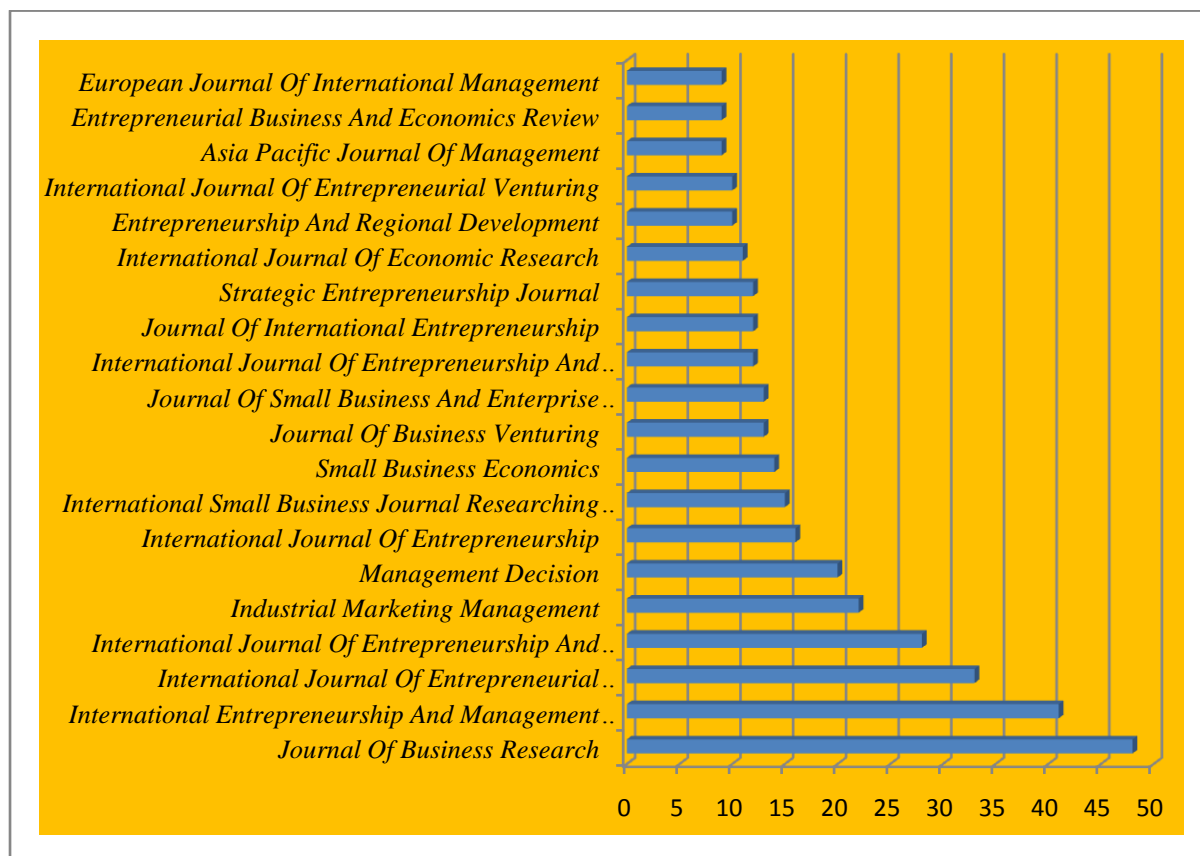


Figure 2: Journal-wise publications

4.2 Yearly-wise publication

Figure 3 depicts yearly publications from the Scopus database's extracted papers published from 2001 to 2021. The extracted graph illustrates that entrepreneurial orientation research has steadily increased since 2009. Analyzing the publication volume was significantly less during 2001 to 2008 whereas, there was a steady progressive trend from 2009 to 2021. The papers increased from 18 to 203, ensuring that researchers understand entrepreneurial orientation in the organizational context and provide the concept for achieving business performance and enhancing organizational excellence.

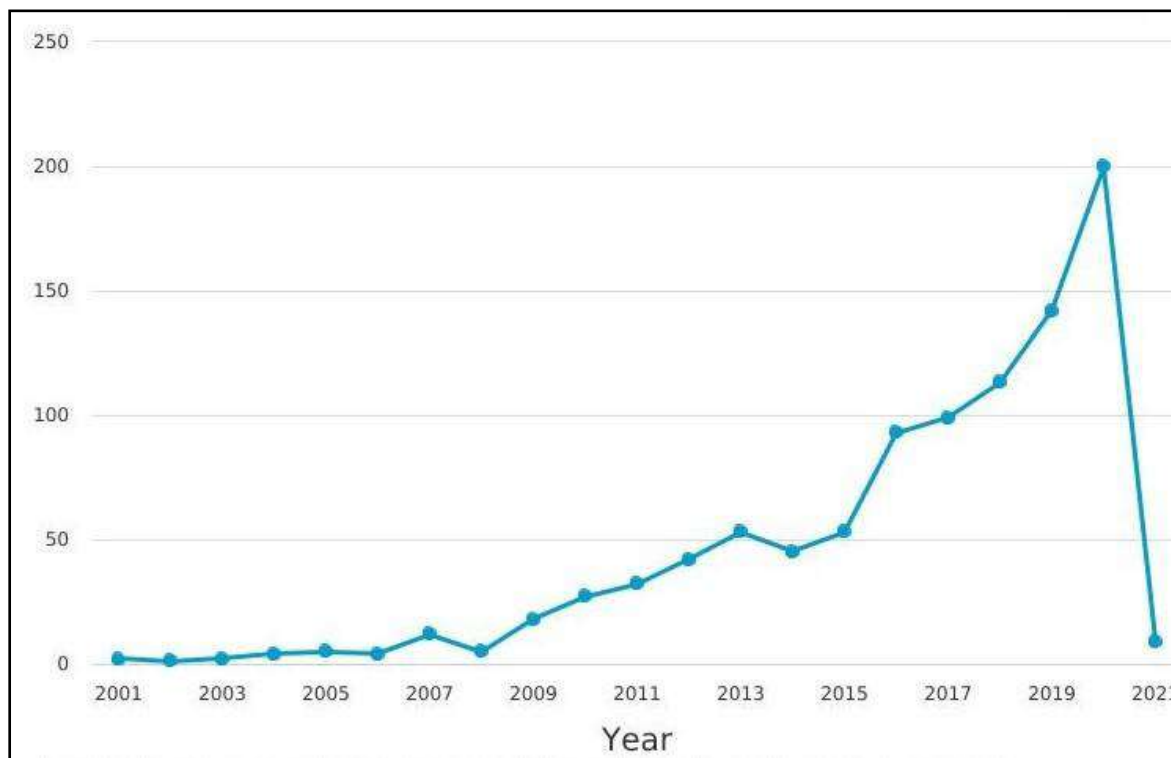


Figure 3:Yearly-wise Publications

4.3 Countries with the maximum publication

Figure 4 demonstrates the top ten countries with leading publications on entrepreneurial orientation. It is identified that the United States of America (USA), with 220 publications, is leading with a very high margin. Then, the United Kingdom stands in second place with 87 articles. Further, Spain, Germany, and China stand in the third, fourth, and fifth positions. Evidently, of 961 pieces included in the study belong to the top five countries' authors. Further, the following five countries, Malaysia, Indonesia, Australia, Sweden, and Finland, have more than forty publications in entrepreneurial orientation. So it is evident that researchers can explore the significant antecedents and variables of entrepreneurial orientation and develop research work adding value to the academic fraternity.

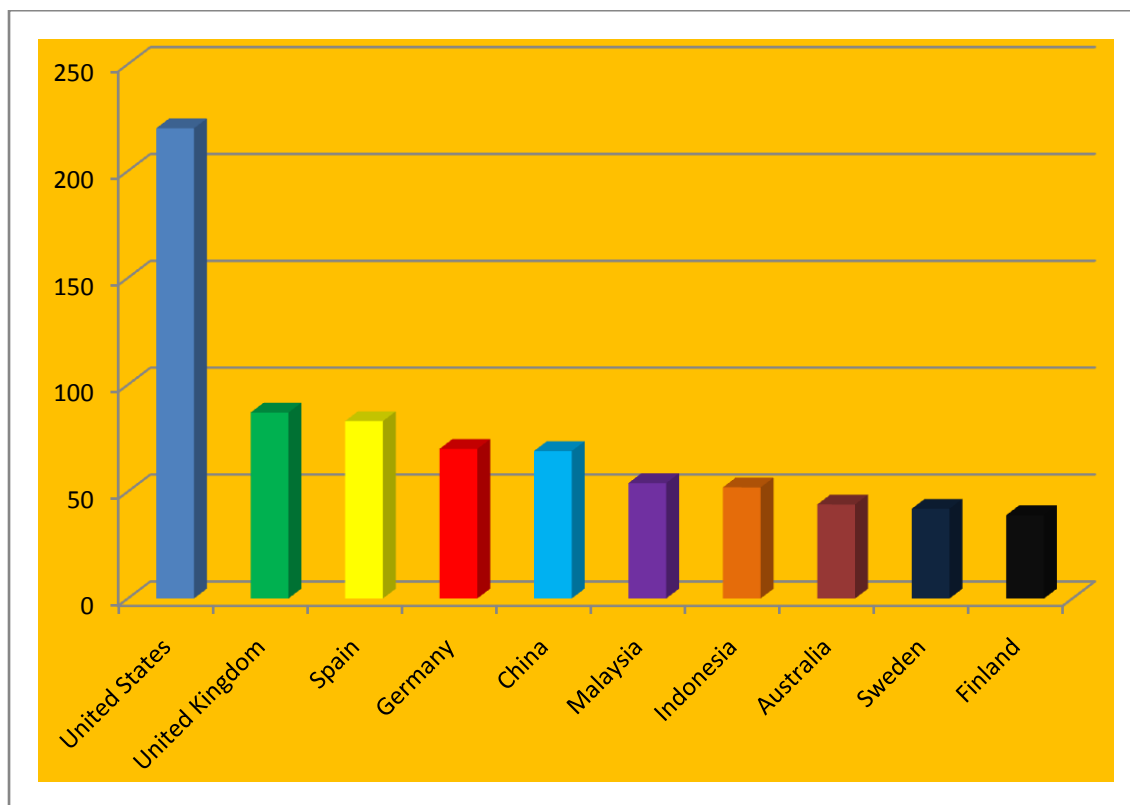


Figure 4: Top ten countries

4.4 Most Significant Authors

Figure 5 displays the twenty authors who have contributed full articles on entrepreneurial orientation. Nine hundred sixty-one papers were extracted, authored by 160 authors—the top Author Sascha Kraus who has written full documents of around nineteen pieces. The author has published a variety of articles on entrepreneurship. Sascha Kraus is a Professor at the ESCE International Business School, France, and a visiting professor at various other universities. His works are primarily focused on entrepreneurship, international management, and strategic entrepreneurship. The second Author, William J. Wales, is a Standish Chair and Associate Professor of Entrepreneurship at Albany, SUNY, United States. The author's research interests lie in Entrepreneurial Orientation, Strategic Behavior & Strategy Formulation, Corporate Entrepreneurship & Renewal, and CEO Attributes and Strategy-making. He holds a pretty impressive profile as a researcher.

Further, Eggers, Fabian, and Gupta, Vishal K. stand in the third and fourth position with ten articles. The author is currently working at Menlo College, Atherton, United States. The interest areas are entrepreneurial orientation, entrepreneurial marketing, and SME decision-making. The fourth author works at the University of Alabama, Tuscaloosa, United States. He has worked in varied areas of management

Chair and Professor of Entrepreneurship at the University of Oklahoma, USA. His research interests primarily focus on entrepreneurial orientation, social entrepreneurship, and family business. Lumpkin is a highly recognized personality with an imposing profile as a researcher. His article titled "Clarifying the entrepreneurial orientation construct and linking it to performance," published in the year 1996, is an exceptionally outstanding contribution to the area of entrepreneurial orientation research. It is frequently cited by almost every other researcher working in entrepreneurial orientation.

Further, the latter authors, M. Brettel, J.G. Covin, A. Engelen, and V.K. Gupta, have eight articles. The authors have varied research interest areas such as strategic management, business management, etc., with entrepreneurship as a common interest.

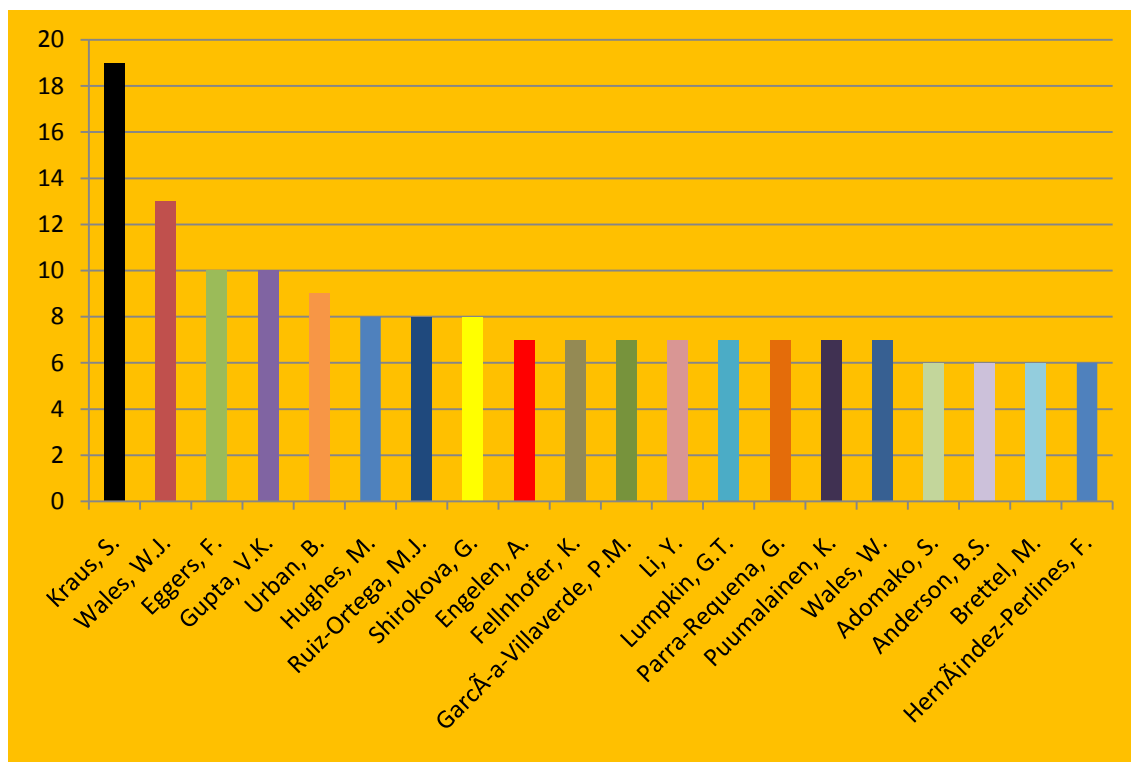


Figure 5: Top twenty authors with the highest publication on Entrepreneurial Orientation

4.5 Co-authorship network map

This section discusses the co-authorship network map using the bibliographic dataset downloaded using the Scopus dataset. The VOSviewer 1.6.11 software has been utilized for conducting this analysis. The software uses the visualization technique for constructing such maps (Eck and Waltman, 2007). The co-authorship network maps among different authors are done in co-authorship network analysis (Eck and Waltman, 2014). The fundamental objective of co-authorship is to identify the authors' patterns and identify the authors who have co-authored maximum times. The dataset used in the study contained a total of 2057 authors. Using VOSviewer, it was found that out of these many authors, the most extensive set of authors, among whom a co-authorship network map could be constructed, was 130 authors.

Figure 6 displays the network map based on co-authorship constructed using VOSviewer. The authors' co-authorship links are denoted by the lines (Eck and Waltman, 2016). It has been visualized that the software places the author into nine clusters. Cluster 1 comprises ten items; cluster 2 comprises 9 items; cluster 3 and 4 contains 8 items; cluster 5 includes seven items, cluster 6 and 7, and 6 items. Lastly, clusters 8 and 9 consist of 3 items. The five top authors who have full articles in co-authorship with other authors in the dataset are Marino, L. D. (22 authors), Kraus, S. (22 authors), Wales, W. J. (14 authors), Gupta, V. K. (13 authors) and Li, Y. (13 authors).

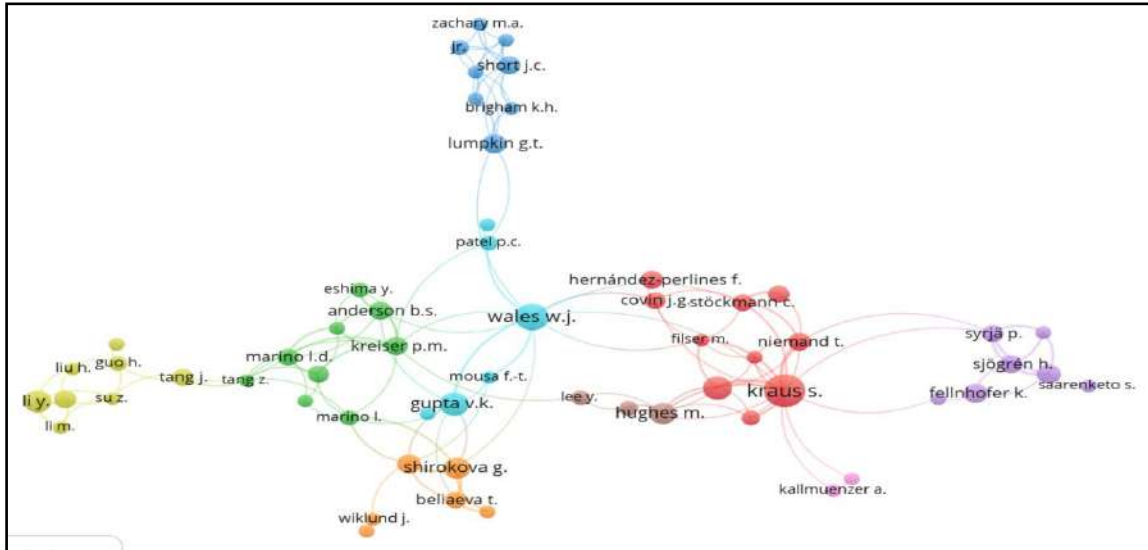


Figure 6: Co-authorship network map

4.6 Inter-country Network Map

The consecutive section provided an idea of the international collaboration patterns among various authors and identified with the help of inter-country analysis through co-authorship using the VOSviewer Software (Lee and Hew, 2017). The inter-country network map based on co-authorship is shown in Figure 7. A total of 85 countries in the dataset were identified using VOSviewer, and it was found that 59 of them were connected in terms of co-authorship. After appropriate analysis of the network map in detail, it was identified that authors from the United States of America (USA), the U.K., and Germany are leading international collaboration articles. It can be seen that the USA is leading, and the maximum number of authors have co-authored with around 36 different countries.

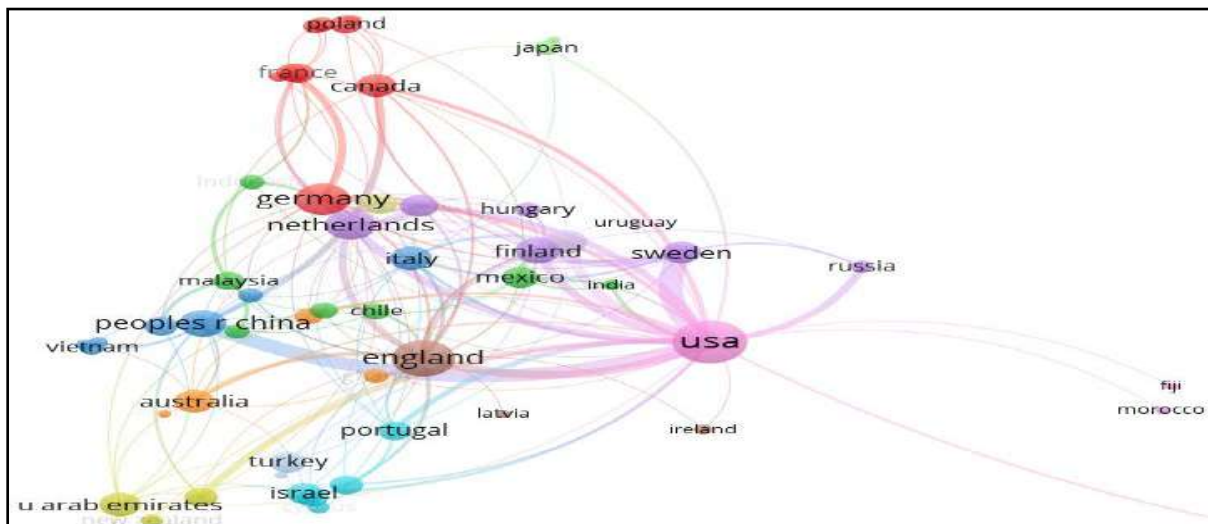


Figure 7: Inter-country network map

4.7 Network analysis based on Key-words

The consecutive section elaborates on the keyword co-occurrences network. The fundamental objective is to identify the keywords which occurred maximum times in the current research works. Figure 8 provides an insight into the developed keyword co-occurrences network map. The map is constructed using all keywords provided in the various articles included in this study. A total of 2502 keywords were present in the dataset. The network map was created by considering only those keywords which occurred in at least five articles; in consideration, 168 keywords were found, that fulfilled this criterion, and were further utilized by the software to construct a network map.

products and trying risky resource commitments in entrepreneurially oriented firms (Lumpkin and Dess, 1996; Hult, Hurley and Knight, 2004; Wales, 2016). Four hundred thirty-six other articles in this study cite the following article (Miller 2011). This article is the first in chronological order to be exceedingly beneficial for the latter entrepreneurial orientation researchers. The prime objective of the research work is to identify the significant determinants of entrepreneurship. This process is followed by organizations for renewing themselves and their relevant markets through innovation, pioneering, and risk-taking. Miller operationally described entrepreneurial orientation as proactiveness, risk-taking, and innovation. The latter researchers, who have contributed exponentially to entrepreneurial orientation development in the subsequent ten to fifteen years, have frequently cited Miller's works (Covin, Jeffrey, and Slevin, Dennis, 1989; Lumpkin and Dess, 1996; Miller, 2011).

Then further observing the figure, another significant publication in the order by and (Covin, Jeffrey, and Slevin, Dennis, 1989) is cited by 427 articles in this study. The authors prepared and validated scales for measuring entrepreneurial orientation, extensively utilized by the latter researchers in their studies (Miller, 2011). Further, Covin and Slevin (1991) presented a theoretical entrepreneurship model. The model depicted the elements of organizational systems related to the entrepreneurial orientation of the larger firms. The model could also be applied to the smaller firms, but with varying degrees.

Further, the article by (Lumpkin and Dess, 1996) is cited by 536 items in this study. Such a high number of citations to this study can be accredited to its vital purpose of clarifying the nature of the Entrepreneurial Orientation (E.O.) construct comprehensively for the first time. The authors also attempted to propose a possible framework to inspect the relationship between Entrepreneurial Orientation and firm performance. The latter researchers have often cited this article while explaining the importance of integrating different performance dimensions in empirical studies related to entrepreneurial Orientation (Hughes and Morgan, 2007; Wiklund, Patzelt and Shepherd, 2009). Further, (Wiklund 1999) examined the sustainability of the relationship between E.O. and performance. The author tried to investigate whether E.O. affects performance in the long run or temporarily for a shorter time. Later on, another important article (Lumpkin and Dess, 1996) focused on E.O.'s two essential dimensions, i.e., proactiveness and competitive aggressiveness. The researchers investigated how these two approaches relate to each other and how their functions are different and how firms display these approaches for making strategies.

(Wiklund and Shepherd, 2003) emphasized that it captures a significant component of how a firm is organized. Their findings suggested a positive relation between information-based resources and firm performance and that entrepreneurial orientation enhances this relationship. Two hundred five articles in this study cite this article. The latter authors have often mentioned this article while stating the strong linkage between entrepreneurial orientation and the various firm-level attributes and outcomes. Further, in the later years, the researchers have conducted significant studies by connecting entrepreneurial orientation with multiple topics such as corporate entrepreneurship (Dess and Lumpkin, 2005), small business performance, (Wiklund and Shepherd, 2005) sales growth rate relationship (Covin et al., 2006), the performance of SMEs (Keh et al., 2007), learning orientation and firm Performance (Wang, 2008), new venture performance (Stam and Elfring, 2008), profitability in small businesses (Baker and Sinkula, 2009), etc.

Later, an important article by Rauch et al. (2009) attempted to re-examine and assess the collaborative research on the existing relationship between entrepreneurial orientation and business performance. Three hundred twenty-six items in this study cite this article. Further, Covin and Lumpkin (2011) focused on several essential matters related to the ongoing development of the theoretical understanding of entrepreneurial orientation research. Wales (2013) provided a comprehensive review on a qualitative basis and assessed EO's empirical literature.

4.9 Network analysis based on Co-citation

Co-citation analysis uses the two particular forms mentioned by the other papers (Small, 1973). Figure 10 shows a co-citation network map of the essential documents cited by the articles in this study. With VOSviewer software's help, it was discovered that there was a total of 23019 cited references for the 961 items included in this study. Developing a map based on the network considers only those documents (concerns) cited by more than 100 out of the total articles included in this study. Only nineteen papers met this threshold. The co-citation network map of these documents was then created.

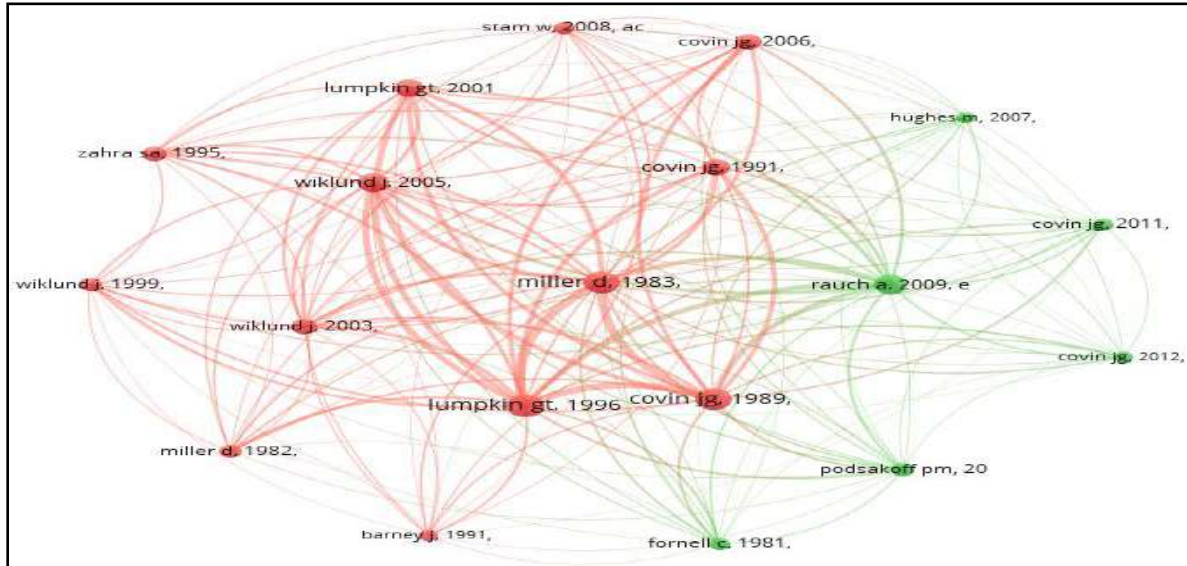


Figure 10: Network map using co-citation of articles

In Figure 10, the documents with a higher co-citation index are connected with thicker lines. It can be seen that the most comprehensive line exists between the articles by (Lumpkin and Dess, 1996) and (Miller 2011) since they have a co-citation index of 382. Among all the items, the highest co-citation index between the two reports (Lumpkin and Dess, 1996) has a remarkable semantic similarity with other essential documents in the references.

4.10 Cluster Analysis

To categorize and segregate leading research areas, the authors conducted cluster analysis on the keywords using VOSviewer software. The study was restricted to five leads of keyword occurrences for visualization, as shown in Figure 12. Researchers identified eight clusters of research flow based on the repetition of keywords. The keywords are clustered into eight colors: yellow (Entrepreneurial orientation and innovativeness), Red (Entrepreneurial orientation and Learning orientation), blue (Entrepreneurial orientation and Environmental dynamism), Green (Entrepreneurial Orientation and transformational leadership), Maroon (Entrepreneurial orientation and marketing capabilities), Orange (Entrepreneurial orientation and technology orientation), purple (Entrepreneurial Orientation and firm performance), and Brown (Entrepreneurial Orientation and Entrepreneurial marketing) that represents the eight main research flow in the literature. Table 7: figures out the clusters with their respective keywords. Thus, the authors conducted a content analysis of the highly cited articles in various areas to identify, clarify and substantiate their linkage among the papers.

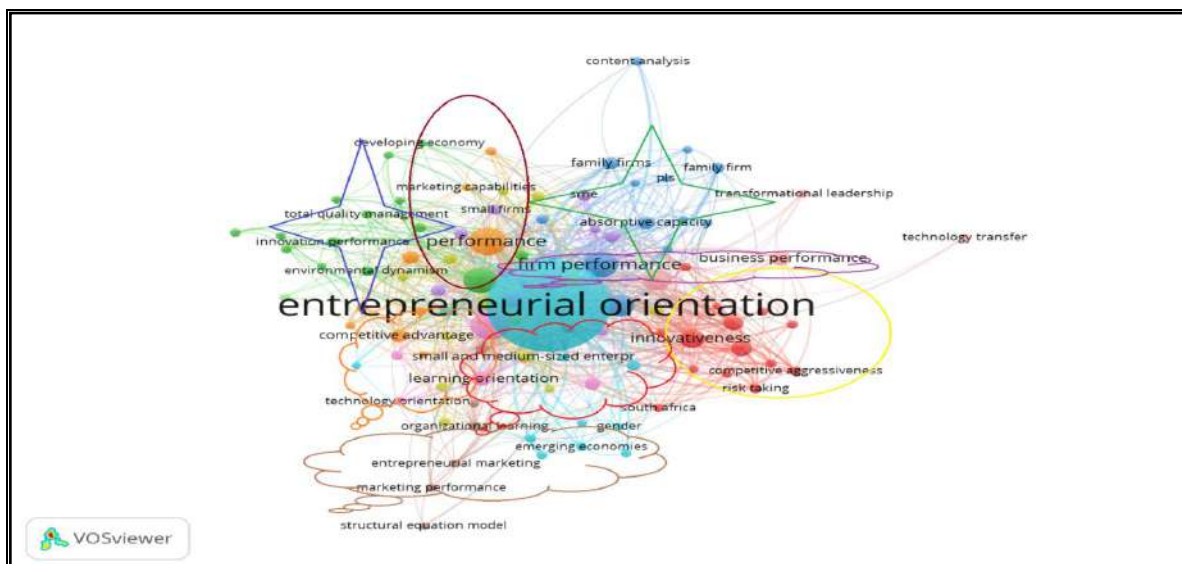


Figure 11: cluster analysis

Table 1: Developing Clusters using Keywords

Sl.no	Cluster	Name of Cluster	keywords
1	Cluster one	“Entrepreneurial Orientation and Innovativeness”	Risk-taking, Social capital, Growth,Aggressiveness, Business Capital, Resources, Firm size,Absorptive capacity.
2	Cluster two	“Entrepreneurial Orientation and Learning Orientation”	Small and Medium Enterprises, Creativity, Networking, Motivation,Organizational Culture,Social capital, Individual entrepreneurship.
3	Cluster three	“Entrepreneurial Orientation and Environmental dynamism”	Competitive advantage, total quality management.
4	Cluster four	“Entrepreneurial Orientation and transformational leadership”	Innovation, Knowledge sharing, human capital, top management team, strategy, intellectual capital
5	Cluster five	“Entrepreneurial Orientation and marketing capabilities”	Innovativeness, Risk-taking, Proactiveness, Autonomy, competitive aggressiveness.
6	Cluster six	“Entrepreneurial orientation and technology orientation”	Technology transfer, learning, corporate entrepreneurs, innovation, new product development, and strategic Orientation.
7	Cluster seven	“Entrepreneurial Orientation and firm performance”	Business performance, Competitive intensity, environmental uncertainty, new venture.
8	Cluster eight	“Entrepreneurial Orientation and Entrepreneurial marketing”	Marketing Capabilities, sustainability, start-ups, social entrepreneurship.

V. Topic mapping

The bibliometric analysis and visualization of keywords and countries highlighted that the USA was at the top with 220 articles. Entrepreneurial orientation was the most occurred keyword, followed by 964 occurrences, respectively. Though entrepreneurial orientation gained prominent attention in other countries to understand its importance, it is still in a growth phase regarding published articles and highly occurred keywords. It requires focusing on recent drives to provide an idea to uncover the current trends. The researchers performed the content analysis of the crucial articles to identify the association among various published articles covering the entrepreneurial orientation journey from history; to recent trends to develop a framework based on the developments. The researcher identified eight research pathways based on cluster analysis, namely, (1) “Entrepreneurial orientation and innovativeness,” (2) “Entrepreneurial orientation and Learning orientation,” (3) “Entrepreneurial orientation and Environmental dynamism,” and (4) “Entrepreneurial orientation and transformational leadership” (5) “Entrepreneurial orientation and marketing capabilities” (6) “Entrepreneurial orientation and technology orientation” (7) “Entrepreneurial orientation and firm performance” (8) “Entrepreneurial orientation and entrepreneurial marketing” using content analysis derived linkage between the identified areas and developed a framework of entrepreneurial orientation for upcoming researchers in this area Figure 13. In the following sections, researchers discussed the research pathways suggested a research agenda for future researchers and proposed a framework for upcoming researchers.

5.1 Entrepreneurial Orientation and Innovativeness

Innovativeness is designated a special place in the concept of entrepreneurial orientation. It is well noted that innovation will encourage new ideas and creativity. The higher the innovation level, the more the company resources can be effectively utilized for optimum results (Hernández-perlines *et al.*, 2019). Innovativeness among managers has impacted the process of entrepreneurial orientation to a great extent. It encourages developing and framing policies by considering differential strategies that focus on attaining high performance (Anwar, 2020). It requires the researchers to explore other dimensions of organizational growth and performance. The present study has extracted four research questions from the above-discussed pathway

5.2 Entrepreneurial Orientation and Learning Orientation

It facilitates managers' and organizations' ability to consistently incorporate learning to adapt and enhance new skills and technology. It analyses an organization's existing resources and transforms them to meet the required

competencies. Considering the need for learning orientation in entrepreneurial orientation, the researchers suggested three research questions from the above research flow.

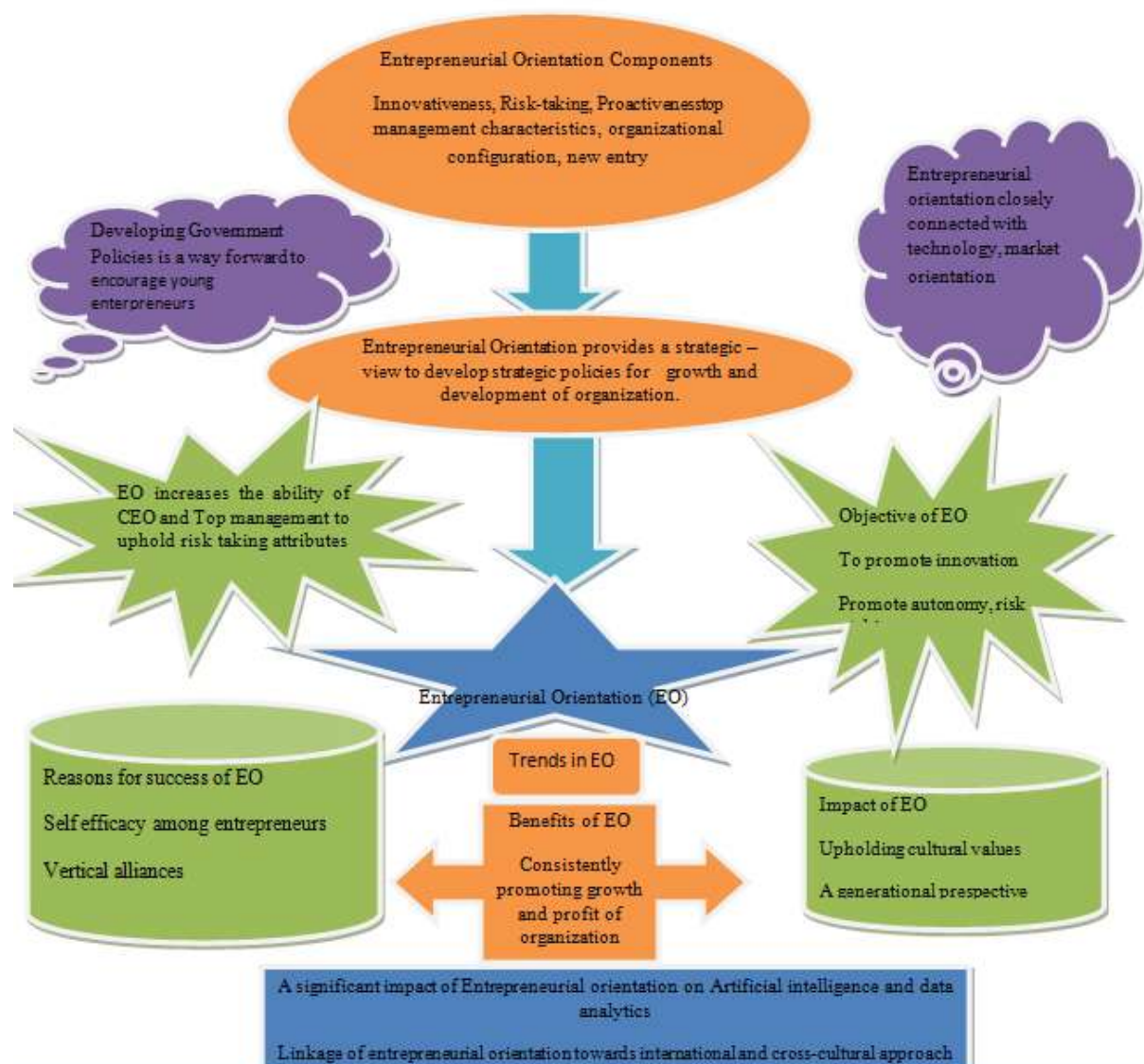


Figure 13: A Conceptual Framework on Entrepreneurial Orientation.

6.3 Entrepreneurial orientation and environmental dynamism

Environmental dynamism consists of two significant aspects, i.e., internal and external. The internal environment discusses enhancing employee skills and competencies to develop technological abilities. The external environment focuses on creating a competitive advantage over competitors. Technical capabilities moderate the bond between entrepreneurial orientation and organizational performance. This study's gravity explores and measures the expanding view to developing a mechanism to undertake proper training to cope with changing requirements. The present study has extracted three research questions from the above-discussed pathway

6.4 Entrepreneurial orientation and transformational leadership

Transformational leadership promotes a leadership style that articulates the vision and develops a leadership behavior that focuses on employees' positivity. It is a mediating agent between the entrepreneurial orientation model and firm performance. Further, transformational leadership's role clarifies how the entrepreneurs should behave and develop a positive attitude to uphold organizational values to meet difficulties and required set objectives. The researcher has opined three research questions from the above research flow in connection to this.

6.5 Entrepreneurial orientation and marketing capabilities

Marketing capabilities as a contingent factor in entrepreneurship investigate enhancing overall profitability. It tries to build the network's ability and understand its requirements, leading to developing strategies to meet the continuous needs. As the literature review (Arunachalam *et al.*, 2018) pointed out, entrepreneurship and marketing are essential business dimensions closely linked with profitability. The researcher developed three research questions that have been extracted from the above flow.

6.6 Entrepreneurial orientation and technology orientation

Identifying the technological advancement and adapting technology transfer will enable exploring new dimensions and achieving a competitive advantage. It will develop the firm with technical exposure, considered a critical success factor for growth and innovation. Technological orientation will provide more autonomy to address the challenges and succeed. The above discussions opined to develop two research questions that future researchers can manage and add to the academic and research fraternity.

6.7 Entrepreneurial orientation and firm performance

Success majorly depends on three components such as innovativeness, risk-taking, and proactiveness. It is imperative to create an environment where employees can understand their competencies with their growth perspective attitude. Firm performance measures profitability and focuses on developing strategic decisions to meet the changing needs and requirements. Thus, the authors suggested three questions to be addressed in future studies.

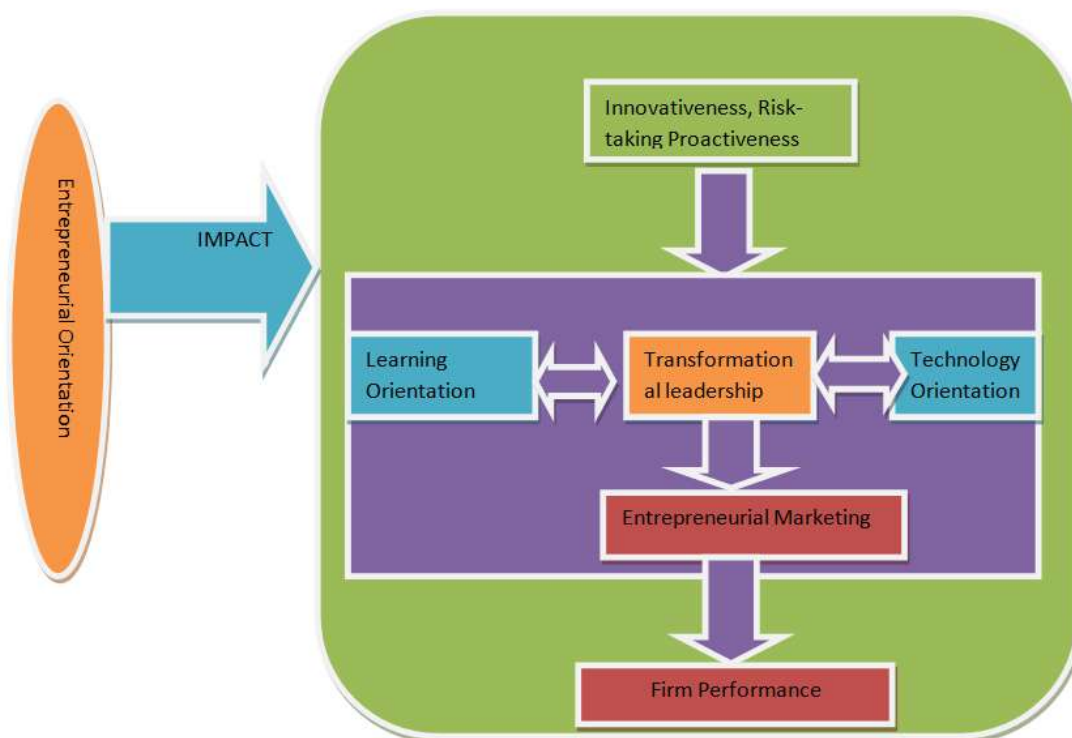


Figure 13: Developed Framework for Future Research Agenda

6.8 Entrepreneurial orientation and entrepreneurial marketing

Entrepreneurial marketing is a component that addresses the passing of business from one generation to another. It focuses on companies owned from age to generation. The level of involvement, risk-taking, and strategic decision-making process are the significant causes of interest for those family-owned businesses to tap the market and create a challenge for new entries. So, entrepreneurial orientation can make them aware of the difficulties and frame policies to face the demand. In consideration, the authors came out with three research questions that underline the issues to be addressed in future studies.

Table 2: Future research questions

Research Pathways	Future Research Questions
<i>“Entrepreneurial Orientation and Innovativeness”</i>	<ol style="list-style-type: none"> 1. What is the role of innovation to make entrepreneurial Orientation effective? 2. How to develop innovative characteristics among young entrepreneurs? 3. What difficulties are faced in implementing entrepreneurial orientation effectively to deal with changing conditions? 4. What should be the strategy to deal with future requirements?
<i>“Entrepreneurial Orientation and Learning Orientation”</i>	<ol style="list-style-type: none"> 1. What is the role of learning orientation to make a firm competitive? 2. What are the challenges to deal with creating a learning-oriented culture? 3. How to measure the benefits of the learning orientation approach towards entrepreneurial orientation?
<i>“Entrepreneurial Orientation and Environmental dynamism”</i>	<ol style="list-style-type: none"> 1. How to deal with environmental dynamism concerning entrepreneurial orientation? 2. What is the role of competitors/competitive advantage for environmental sustainability? 3. What is the impact of a dynamic environment on entrepreneurial orientation?
<i>“Entrepreneurial Orientation and Transformational Leadership”</i>	<ol style="list-style-type: none"> 1. What is the role of a transformational leader in creating a sustainable entrepreneurial orientation? 2. What are the characteristics of a transformational leader? 3. Are leaders able to create change?
<i>“Entrepreneurial Orientation and marketing capabilities”</i>	<ol style="list-style-type: none"> 1. Is marketing capabilities bringing changes in firm policy? 2. What policies should a firm develop to create a differential market environment? 3. What role do customer sentiments and emotions play in tape the market?
<i>“Entrepreneurial orientation and technology orientation”</i>	<ol style="list-style-type: none"> 1. How to create a technology-centric culture? 2. What is the impact of data analytics on developing strategic policies?
<i>“Entrepreneurial Orientation and firm performance”</i>	<ol style="list-style-type: none"> 1. What is the role of firm performance for entrepreneurship success? 2. What should strategies and policies the government frame to encourage young entrepreneurs? 3. Is financial profitability an essential factor to measure growth perspectives?
<i>“Entrepreneurial Orientation and Entrepreneurial marketing”</i>	<ol style="list-style-type: none"> 1. What is the role of entrepreneurial marketing to enhance efficiency and effectiveness? 2. How to deal with new marketing strategies? 3. How to deal with upcoming competitors' challenges?

The interconnection between the eight framed research gateways such as (1) “Entrepreneurial orientation and innovativeness,” (2) “Entrepreneurial orientation and learning orientation,” (3) “Entrepreneurial orientation and environmental dynamism,” (4) “Entrepreneurial orientation and transformational leadership,” (5) “Entrepreneurial orientation and marketing capabilities,” (6) “Entrepreneurial orientation and technology orientation” (7) “Entrepreneurial orientation and firm performance” (8) “Entrepreneurial orientation and entrepreneurial marketing” is shown in figure:13 will provide a broad idea which enabled to develop future

research questions in the above table-2. Future researchers can consider the research questions and analyze their linkage by creating research work and adding value to the existing literature and research fraternity.

Figure: 13 shows that entrepreneurial orientation is the most critical aspect of business and has closely linked with innovation. Entrepreneurial orientation impacts the relationship between entrepreneurial orientation and learning orientation, which results in accepting dynamism and new environmental challenges. This whole system of the research pathways is closely connected.

In the future, researchers need to investigate possible relationships from the developed research framework and contribute to the literature from a new point of view, and help the government, policymakers, and corporate in finding the dry areas to be dealt with to assist the business performance and to encourage entrepreneurs to develop at a rapid pace. Thus, this framework gives opportunities to future researchers to contribute to the future research agenda.

VI. Implications of the study

6.1 Practical implications

The major implication of the present study determined to measure the role of entrepreneurial orientation in business performance. Identifying entrepreneurial orientation behavior will facilitate young entrepreneurs to frame a clear, purposeful plan to help make the organization structured, systematic, and sustainable for the future. This study attempts bibliometric visualization for organizations, policymakers, and researchers to understand functional research conditions. On the other hand, the research study provides a pathway to understanding how proper management can strengthen business performance, and be implemented in business performance and growth. The previous studies suggested entrepreneurial orientation plays an imperative role in business performance. Innovativeness, proactiveness, and risk-taking enable entrepreneurs to measure the risk and frame strategies in business performance. The present research work demonstrated the significance of entrepreneurial orientation and stated that proper management could develop better management practices. Lastly, the entrepreneurial orientation can broaden the scope of encouraging entrepreneurs to increase innovation, risk-taking, and autonomy for business performance.

6.2 Theoretical implications

Entrepreneurial orientation expands its roots in every area with many challenges and changes. Improved and competitive methods can be essential for continued existence and systematic improvement in the current chaotic business conditions. Thus, to understand the role of entrepreneurial orientation in developing competitive techniques to enhance business performance and strategically manage operations by encouraging more entrepreneurs, the present aimed to explore the role of entrepreneurial orientation in business performance from previous studies. The present study performed a bibliometric analysis to measure the relevant contributions made by authors, institutes, and countries in the research field. The present study developed a framework that will enable understanding of the role of entrepreneurial orientation for upcoming business performers and learners and create motivation among entrepreneurs for delivering customized facilities for better organization performance.

VII. Unique contribution of the research study

The unique contribution of the research study is through SLR and bibliometric analysis of the literature on entrepreneurial orientation. Thus, the present research develops network maps on authors, countries, and keyword occurrence through bibliometric visualization using the VOS viewer visualization tool. On the other hand, bibliometric visualization developed the citation and co-citation analysis to determine the productive authors and documents in the entrepreneurial orientation. It also led to the cluster development and content analysis that determines the significant research trends. It developed a framework that enables upcoming researchers to understand the present research condition and to what extent entrepreneurial orientation has explored different functionalities of business performance. Lastly, the study led to the framing of research questions for upcoming researchers in entrepreneurial orientation.

VIII. Conclusion

Over the past twenty-five years, the entrepreneurship research field has enormously attracted entrepreneurship researchers. This research study commenced with several predefined objectives. Based on all these objectives, this study's concise summary, discussion, and limitations are presented in this concluding section. The results and findings indicate that the most significant Journal with the highest publications (48 articles) on entrepreneurial orientation research is *the Journal of Business Research* belonging to the ELSEVIER publishers. The maximum cited article, with 847 citations, is about the linkage between two dimensions of entrepreneurial orientation and firm performance (Lumpkin and Dess 2001). Then, an increasing trend is observed in the count of publications on E.O. research. Much research has been conducted in the last five years,

with complete articles (115) published in 2016. The researchers belonging to the USA, China, and Spain, have carried out the maximum research in this area. The most prominent researchers in this area are Sascha Krauss (France) and William J. Wales (USA). Both of them have published eleven significant articles on this topic.

Further, this study signifies various analyses conducted using the VOSviewer software were provided. Using the co-authorship network analysis, it was found that the Author L.D. Marino has co-authored with the maximum number of other authors in the dataset. Then, it was found that the authors, belonging to the USA, England, and Germany, are leading co-authorship with other countries' authors. Using the Keyword co-occurrence analysis, it was found that apart from the keyword "entrepreneurial orientation," different keywords such as firm Performance, market orientation, SMEs, and Innovation have appeared in the maximum number of articles. Further, in the latter section, the details about the evolution of the entrepreneurial orientations research are provided by analyzing citation relationships and the core articles' chronological appearance, using CiteNet Explorer software.

This study has comprehensively attempted to provide an efficient bibliometric analysis of entrepreneurial orientation, but this study is still not free from limitations. The first limitation is that only the majorly Scopus and Web of Science indexed journals and articles have been considered in this study. Other similar essential databases can also be further utilized to conduct such analysis. Secondly, the study finds articles published only from the year 2001 to 2021. In the future, the time frame can be stretched further. The third limitation is that the dataset is utilized in only full published articles. Other scholarly documents relating to entrepreneurial orientation research, such as Ph.D. theses, unpublished reports, dissertations at the master's and doctoral level, etc., have not been considered in this study.

Further, another limitation of this research is the lack of bibliometric algorithms utilized by the software. Various types of analyses in a bibliometric study highly rely upon the number of citations the particular articles have received. Such a procedure is detrimental to those recently published articles, which significantly impact but still have a lower citation count than the older studies (Kakouris and Georgiadis, 2016). Essential articles published on a far earlier date generally rank higher in citations. Considering all such limitations, it can be assumed that this analysis is not thoroughly holistic in all facets. But, it is still an assertion that this bibliometric study entails many vital articles and various distinguished comments. Thus, as in the final part, it can be stated that this study attempts to add a valued contribution to the entrepreneurial orientation literature. It can also act as a distinct source of information for the scholars intending to carry out future research on this area.

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Year : 2022, Volume : 9, Issue : 4
First page : (264) Last page : (272)
Print ISSN : 2349-6045. Online ISSN : 2583-3561. Published online : 2022 21.
Article DOI : [10.5958/2583-3561.2022.00031.5](https://doi.org/10.5958/2583-3561.2022.00031.5)

Skill Enhancement in Urban Areas through Self help Group: A Case Study of Cuttack City of Odisha

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Online Published on 21 February, 2023.

Received: 19 November, 2022; Accepted: 26 December, 2022.

Article Submission

FREE

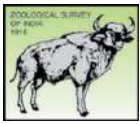
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Abstract

Self-help groups (SHGs) have emerged as a popular method of working with people in recent years. Since SHG based micro finance programmes cover a large number of women, it is expected that such programmes will have an important bearing on women's empowerment. Self-Help Groups (SHGs) have emerged in order to help poor women to secure inputs like credit and other services. Micro finance and SHGs are effective in reducing poverty, empowering women, creating awareness and ensure sustainability of environment which finally results in sustainable development of the nation. Self-help groups have been instrumental in empowerment by enabling women to work together in collective agency. An effort is made in this paper to make a comparative analysis on the quality and performance of the SHGs and the impact of SHGs on women members in urban area. It is observed that due to fast growing SHG-bank linkage programmes in the State, the quality of SHG has come under stress. Some of the factors affecting the quality of SHGs are the target-oriented approach of the government in preparing group, inadequate incentive to NGO s for nurturing their groups etc.





Surveillance of population dynamics and breeding habitat diversity of *Anopheles subpictus* in different areas of Odisha, East Central India

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Abstract

Odisha state is highly endemic for malaria since long. Among different malaria vectors, *Anopheles subpictus* is known to be one of the most prevalent species that breeds in a variety of fresh as well as saline water habitats. The study of the distribution of mosquitoes, both in natural and anthropologically disturbed areas, is of considerable importance due to their role in pathogen transmission. The main objective of the current study was to detect the breeding habitat diversity of *An. subpictus*. Different larval habitats for *Anopheles* mosquitoes were surveyed every month in the year 2016. The anopheline larvae were collected using the standard dipping method. The specimens were identified using morphological keys. The result showed indoor/outdoor breeding ratio was 1.16 for *An. subpictus*. The most productive breeding site for *An. subpictus* was earthen pot and cement tank. The Container Index (CI) was found more in indoor and House Index (HI) was found more in outdoor studies respectively. It was also noticed that the prevalence of *An. subpictus* was more in July to September and January to February, which might be because of variations in rainfall due to low pressure, especially during January and February. The current study provides a better understanding of the characteristics of various aquatic habitats and breeding preferences by mosquitoes which can be useful for improving larval source management operations for the control of mosquito vectors.

Keywords: *Anopheles subpictus*, Breeding Habitat Diversity, Container Index, House Index, Population Dynamics

Introduction

Malaria is one of the major communicable diseases causing high mortality and morbidity in India. In 2018, the National Vector Borne Disease Control Programme (NVBDCP) estimated that approximately 500,000 people suffered from malaria, and less than 100 persons died (NVBDCP, 2018). India is the main contributor to malaria in South-East Asia. In India, *Anopheles fluviatilis* and *Anopheles culicifacies* are two important primary vectors for malaria. *Anopheles subpictus* has been reported as a vector in some parts of India (Paniker *et al.*, 1981; Kulkarni, 1987; Chatterjee and Chandra, 2000). It was also reported as a predominant vector species for malaria in the state of Odisha (Dash *et al.*, 2000). Odisha is a highly malaria-endemic state as it has favourable ecological and geographical conditions and huge areas of forest with tribal settlements (Pradhan *et al.*, 2019).

Nearly 46 million population at risk of Malaria infection in Odisha (Pradhan *et al.*, 2019).

The Indian Council of Medical Research has launched the 'Malaria Elimination Research Alliance (MERA) India', a conglomeration of partners working on malaria control in order to prioritise, plan and scale up research to eliminate the disease from India by 2030.

Several strategies have been implemented for Malaria control. Entomological surveillance was considered a major tool under the Malaria control programme. Mosquito larval habitat ecology is important in determining larval densities, the relative importance of breeding habitats, and species assemblage as well as designing mosquito control programs (Simsek, 2004). The breeding habitat is crucial for mosquito population dynamics (Reuban, 1978). Therefore, the identification of breeding sites appears to be an easier means to check the mosquito population dynamics. Breeding sites and

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containers in and around human habitation are probably the most important factors facilitating the breeding of mosquito vectors. The present study was undertaken to determine the breeding preferences of *An. subpictus* mosquitoes by conducting a larval survey in 6 different localities of the Ganjam district of Odisha state, India. The larval survey was carried out in both outdoor as well as indoor containers and the Breeding Preference Ratio (BPR) was calculated.

Materials and Methods

Selection of Study Site and Sampling

In the present study, the outdoor survey was made from fixed localities across the three selected towns such as Aska (19° 36' 22.0536" N; 84° 40' 20.9604" E), Buguda (19° 48' 33.7716" N; 84° 47' 30.8796" E), Bhanjanagar (19° 56' 10.8924" N; 84° 34' 43.4784" E) and three rural areas like Bhetanai (19° 41' 2.6268" N; 84° 41' 22.5456" E), Ballipadar (19° 44' 11.526" N; 84° 42' 23.1696" E) and Baunsalundi (19° 55' 28.812" N; 84° 34' 15.3048" E) of Ganjam district of Odisha state to understand the types

of breeding sites and breeding preference of certain wild mosquito species (Figure 1).

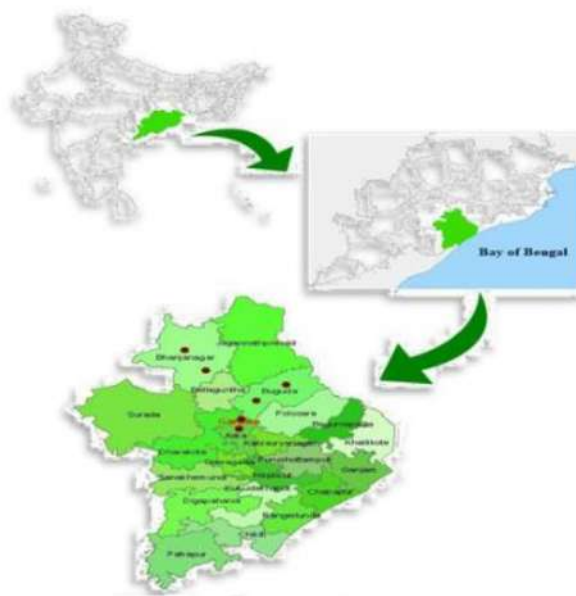


Figure 1. Map showing (circle marks) study areas.

Table 1. Month-wise containers screened for *Anopheles subpictus* in Buguda

Outdoor study							
Sl No	Month	No. of House Visited	No. of Positive case	No. of Container screened	No. of positive container	HI%	CI%
1	January	20	12	200	26	60	13
2	February	20	10	200	24	50	12
3	March	20	11	200	21	55	10.5
4	April	20	04	200	07	20	3.5
5	May	20	05	200	06	25	3.0
6	June	20	09	200	21	45	10.5
7	July	20	13	200	32	65	16
8	August	20	11	200	31	55	15.5
9	September	20	08	200	19	40	9.5
10	October	20	08	200	16	40	8.0
11	November	20	06	200	11	30	5.5
12	December	20	05	200	09	25	4.5
Indoor study							
1	January	20	06	100	11	30	11
2	February	20	11	100	31	55	31
3	March	20	06	100	17	30	17
4	April	20	03	100	05	15	5.0

5	May	20	02	100	06	10	6.0
6	June	20	04	100	06	20	6.0
7	July	20	13	100	14	65	14
8	August	20	09	100	28	45	28
9	September	20	03	100	19	15	19
10	October	20	08	100	27	40	27
11	November	20	06	100	13	30	13
12	December	20	03	100	07	15	7.0

Table 2. Month-wise containers screened for *Anopheles subpictus* in Ballipadar

Outdoor study							
Sl No	Month	No. of House Visited	No. of Positive case	No. of Container screened	No. of positive container	HI%	CI%
1	January	20	03	200	12	15	6.0
2	February	20	09	200	29	45	14.5
3	March	20	08	200	26	40	13
4	April	20	02	200	07	10	3.5
5	May	20	02	200	08	10	4.0
6	June	20	06	200	17	30	8.5
7	July	20	09	200	33	45	16.5
8	August	20	11	200	36	55	18
9	September	20	03	200	13	15	6.5
10	October	20	09	200	19	45	9.5
11	November	20	03	200	05	15	2.5
12	December	20	05	200	08	2.5	4.0
Indoor study							
1	January	20	02	100	06	10	6.0
2	February	20	09	100	24	45	24
3	March	20	07	100	09	35	9.0
4	April	20	03	100	09	15	9.0
5	May	20	02	100	05	10	5.0
6	June	20	07	100	18	35	18
7	July	20	09	100	38	45	38
8	August	20	12	100	40	60	40
9	September	20	04	100	11	20	11
10	October	20	07	100	16	35	16
11	November	20	04	100	13	20	13
12	December	20	03	100	13	15	13

Table 3. Month-wise containers screened for *Anopheles subpictus* in Aska

Outdoor study							
Sl No	Month	No. of House Visited	No. of Positive case	No. of Container screened	No. of positive container	HI%	CI%
1	January	20	07	200	13	35	6.5
2	February	20	08	200	14	40	7.0
3	March	20	06	200	12	30	6.0
4	April	20	05	200	11	25	5.5
5	May	20	02	200	06	10	3.0
6	June	20	11	200	29	55	14.5
7	July	20	13	200	42	65	21.0
8	August	20	12	200	36	60	18.0
9	September	20	11	200	31	55	15.5
10	October	20	06	200	14	30	7.0
11	November	20	03	200	07	15	3.5
12	December	20	03	200	05	15	2.5
Indoor study							
1	January	20	04	100	18	20	18
2	February	20	06	100	12	30	12
3	March	20	03	100	07	15	7.0
4	April	20	03	100	06	15	6.0
5	May	20	06	100	08	30	8.0
6	June	20	09	100	13	45	13
7	July	20	14	100	29	70	29
8	August	20	11	100	27	55	27
9	September	20	09	100	20	45	20
10	October	20	11	100	19	55	19
11	November	20	06	100	11	30	11
12	December	20	04	100	10	20	10

Table 4. Month-wise containers screened for *Anopheles subpictus* in Bhetanai

Outdoor study							
Sl No	Month	No. of House Visited	No. of Positive case	No. of Container screened	No. of positive container	HI%	CI%
1	January	20	03	200	10	15	5.0
2	February	20	06	200	18	30	9.0
3	March	20	05	200	21	25	11.5
4	April	20	03	200	07	15	3.5
5	May	20	02	200	06	10	3.0
6	June	20	09	200	23	45	11.5
7	July	20	13	200	41	65	20.5

8	August	20	12	200	39	60	19.5
9	September	20	09	200	29	45	14.5
10	October	20	05	200	14	25	7.0
11	November	20	05	200	13	25	6.5
12	December	20	03	200	08	15	4.0
Indoor study							
1	January	20	06	100	18	30	18
2	February	20	07	100	21	35	21
3	March	20	04	100	13	20	13
4	April	20	04	100	16	20	16
5	May	20	02	100	06	10	06
6	June	20	11	100	19	55	19
7	July	20	11	100	42	55	42
8	August	20	09	100	28	45	18
9	September	20	05	100	14	25	14
10	October	20	06	100	17	30	17
11	November	20	05	100	14	25	14
12	December	20	02	100	07	10	07

Table 5. Month-wise containers screened for *Anopheles subpictus* in Bhanjanagar

Outdoor study							
Sl No	Month	No. of House Visited	No. of Positive case	No. of Container screened	No. of positive container	HI%	CI%
1	January	20	09	200	24	45	12
2	February	20	06	200	19	30	9.5
3	March	20	04	200	24	20	7.0
4	April	20	04	200	09	20	4.5
5	May	20	03	200	07	15	3.5
6	June	20	07	200	13	35	6.5
7	July	20	12	200	39	60	19.5
8	August	20	11	200	32	55	16
9	September	20	11	200	29	55	14.5
10	October	20	09	200	17	45	8.5
11	November	20	05	200	11	25	5.5
12	December	20	02	200	05	10	2.5
Indoor study							
1	January	20	05	100	12	25	12
2	February	20	08	100	17	40	17
3	March	20	06	100	13	30	13
4	April	20	04	100	12	20	12
5	May	20	03	100	09	15	09
6	June	20	09	100	18	45	18

7	July	20	11	100	26	55	26
8	August	20	10	100	29	50	29
9	September	20	11	100	22	55	22
10	October	20	09	100	19	45	19
11	November	20	05	100	12	25	12
12	December	20	04	100	04	20	04

Table 6. Month-wise containers screened for *Anopheles subpictus* in Baunsalundi

Outdoor study							
Sl No	Month	No. of House Visited	No. of Positive case	No. of Container screened	No. of positive container	HI%	CI%
1	January	20	08	200	23	40	11.5
2	February	20	06	200	18	30	9.0
3	March	20	07	200	13	35	6.5
4	April	20	04	200	07	20	3.5
5	May	20	02	200	04	10	2.0
6	June	20	06	200	12	30	6.0
7	July	20	13	200	42	65	21.0
8	August	20	11	200	26	55	13.0
9	September	20	12	200	27	60	13.5
10	October	20	07	200	21	35	11.5
11	November	20	05	200	11	25	5.5
12	December	20	03	200	10	15	5.0
Indoor study							
1	January	20	05	100	15	25	15
2	February	20	06	100	19	30	19
3	March	20	04	100	11	20	11
4	April	20	04	100	09	20	9.0
5	May	20	03	100	07	15	7.0
6	June	20	08	100	24	40	24
7	July	20	11	100	38	55	38
8	August	20	10	100	26	50	26
9	September	20	12	100	32	60	32
10	October	20	07	100	24	35	24
11	November	20	04	100	11	20	11
12	December	20	04	100	09	20	9.0

Mosquito Collection and Identification

Immature stages of mosquitoes were collected during the year 2016 from different breeding sites of the selected study area at monthly intervals using standard sampling methods (Tables 1-6). After collection, larvae were reared and identified using identification keys. *Anopheles subpictus* was abundantly found in all most all the selected study areas.

Entomological indices

Entomological indices, namely, BPR (Breeding Preference Ratio), CI (Container Index) and HI (House Index) were computed from the recorded data collected during this work. To calculate these indices, the following formulae were used.

$$\text{Container Index (CI)} = \frac{\text{Number of positive containers}}{\text{Number of containers inspected}} \times 100$$

$$\text{House Index (CI)} = \frac{\text{Number of houses infested}}{\text{Number of houses inspected}} \times 100$$

Anopheles Larval Surveillance

All potential breeding habitats were identified in all 6 localities through a preliminary survey conducted for a period of one month prior to the research study and certain fixed and temporary breeding places were identified for the larval survey. Larval collections were made randomly from indoor sites (earthen pot, cement tank, plastic drum, flower pot, and plastic bucket) and outdoor sites (earthen pot, cement tank, old vehicles, discarded tyre, plant axil, coconut shell, bamboo clump, plastic container, metal drum and plant pot). The details of the number and type of habitats surveyed and mosquito species recovered were recorded. The immature stages were collected with the help of a glass dropper and transferred to the laboratory in plastic containers. Larger water containers were sampled as per the protocol (Eshita and Kurihara, 1978; Wongkoon *et al.*, 2005), in brief, by dipping a fish net in the water starting at the top and continuing to the bottom in swirling motion, sampling all edges of the containers.

Results

Assessment of HI and CI of Selected Study Area

Container bioassay was carried out in six selected study areas to understand the breeding preference of *An.*

subpictus. A total 21,600 number of containers were screened both in outdoor and indoor containers, out of which 2,542 (11.7%) containers were found positive for larvae of *An. subpictus* (1,317 out of 14,400 and 1,225 out of 7,200 in outdoor and indoor containers). The HI and CI data of selected areas are presented in Figures 2 and 3.

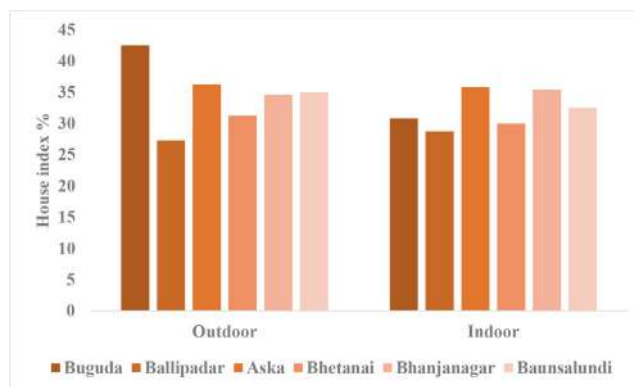


Figure 2. House Index of *Anopheles subpictus* of different localities under study. (Buguda, Ballipadar, Aska, Bhetanai, Bhanjanagar and Baunsalundi).

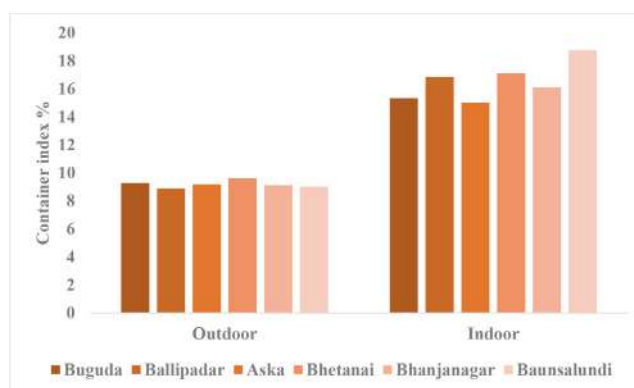


Figure 3. Container Index of *Anopheles subpictus* of different localities under study. (Buguda, Ballipadar, Aska, Bhetanai, Bhanjanagar and Baunsalundi)

Analysis of Breeding Preference Ratio of Selected Study Area

For Breeding Preference Ratio (BPR), 10 varieties of outdoor containers and 5 varieties of indoor containers were selected. The number of containers examined (both outdoor and indoor) was arbitrarily set to 240. Based on the percentage of containers positive for *An. subpictus*,

the X% (calculated by dividing total no. of individual container screened with total no. of containers screened and multiplied by 100), Y% (calculated by dividing total no. of individual container positive cases with total no. of containers screened and multiplied by 100) and BPR

(by dividing Y% with X%) values were calculated. BPR for outdoor containers was found maximum for cement tanks and earthen pots but no larvae were found in the bamboo clump in almost all the study areas. Similarly, the BPR for indoor containers was maximum for earthen

Table 7. The breeding preference for different types of container/sites (indoors and outdoors) in *Anopheles subpictus* mosquitoes at Buguda, Odisha, India

SL NO	Outdoor Container	Examined	X%	+ve Cases	Y%	BPR
				(%)		
1	Earthen pot	240	10	38 (15.83)	17.04	1.70
2	Cement tank	240	10	37 (15.41)	16.59	1.65
3	Old vehicles	240	10	19 (7.91)	8.52	0.85
4	Discarded tyre	240	10	20 (8.33)	8.96	0.89
5	Plant axil	240	10	15 (6.25)	6.72	0.67
6	Coconut shell	240	10	24 (10)	10.76	1.07
7	Bamboo clump	240	10	0	0	0
8	Plastic container	240	10	32 (13.33)	14.34	1.43
9	Metal drum	240	10	29 (12.08)	13	1.3
10	Plant pot	240	10	09 (3.75)	4.03	0.40
	TOTAL	2400		223 (9.29)		
	Indoor Containers					
1	Earthen pot	240	20	33 (13.75)	17.93	0.89
2	Cement tank	240	20	44 (18.33)	23.91	1.19
3	Plastic drum	240	20	43 (17.91)	23.36	1.16
4	Flower pot	240	20	26 (10.83)	14.13	0.70
5	Plastic bucket	240	20	38 (15.83)	20.65	1.03
	TOTAL	1200		184 (15.33)		

Table 8. The breeding preference for different types of container/sites (indoors and outdoors) in *Anopheles subpictus* mosquitoes at Ballipadar, Odisha, India

SI No	Outdoor Container	Examined	X%	+ve Cases	Y%	BPR
				(%)		
1	Earthen pot	240	10	41 (17.08)	19.24	1.92
2	Cement tank	240	10	32 (13.33)	15.02	1.5
3	Old vehicles	240	10	21 (8.75)	9.85	0.98
4	Discarded tyre	240	10	23 (9.58)	10.79	1.07
5	Plant axil	240	10	08 (3.33)	3.75	0.37
6	Coconut shell	240	10	27 (11.25)	12.67	1.26
7	Bamboo clump	240	10	0	0	0
8	Plastic container	240	10	30 (12.5)	14.08	1.4
9	Metal drum	240	10	31 (12.91)	14.55	1.45

10	Plant pot	240	10	0	0	0
	TOTAL	2400		213 (8.87)		
Indoor Containers						
1	Earthen pot	240	20	52 (21.66)	25.74	1.28
2	Cement tank	240	20	44 (18.33)	21.78	1.08
3	Plastic drum	240	20	38 (15.83)	18.81	0.94
4	Flower pot	240	20	21 (8.75)	10.39	0.51
5	Plastic bucket	240	20	47 (19.58)	23.26	1.16
	TOTAL	1200		202 (16.83)		

Table 9. The breeding preference for different types of container/sites (indoors and outdoors) in *Anopheles subpictus* mosquitoes at Aska, Odisha, India

Sl No	Outdoor Container	Examined	X%	+ve Cases	Y%	BPR
				(%)		
1	Earthen pot	240	10	38 (15.83)	17.27	1.72
2	Cement tank	240	10	31 (12.91)	14.09	1.40
3	Old vehicles	240	10	17 (7.08)	7.72	0.77
4	Discarded tyre	240	10	24 (10)	10.90	1.09
5	Plant axil	240	10	19 (7.91)	8.63	0.86
6	Coconut shell	240	10	23 (9.58)	10.45	1.04
7	Bamboo clump	240	10	0	0	0
8	Plastic container	240	10	29 (12.08)	13.18	1.31
9	Metal drum	240	10	26 (10.83)	11.81	1.18
10	Plant pot	240	10	13 (5.41)	5.90	0.59
	TOTAL	2400		220 (9.16)		
Indoor Containers						
1	Earthen pot	240	20	48 (20)	26.66	1.33
2	Cement tank	240	20	39 (16.25)	21.66	1.08
3	Plastic drum	240	20	36 (15)	20	1.0
4	Flower pot	240	20	19 (7.91)	10.55	0.52
5	Plastic bucket	240	20	38 (15.83)	21.11	1.05
	TOTAL	1200		180 (15)		

Table 10. The breeding preference for different types of container/sites (indoors and outdoors) in *Anopheles subpictus* mosquitoes at Bhetanai, Odisha, India

Sl No	Outdoor Container	Examined	X%	+ve Cases	Y%	BPR
				(%)		
1	Earthen pot	240	10	39 (16.25)	17.03	1.70
2	Cement tank	240	10	48 (20)	20.96	2.09
3	Old vehicles	240	10	27 (11.25)	11.79	1.17
4	Discarded tyre	240	10	25 (10.41)	10.91	1.09
5	Plant axil	240	10	15 (6.25)	6.55	0.65

6	Coconut shell	240	10	18 (7.5)	7.86	0.78
7	Bamboo clump	240	10	0	0	0
8	Plastic container	240	10	28 (11.66)	12.22	1.22
9	Metal drum	240	10	13 (5.41)	5.67	0.56
10	Plant pot	240	10	16 (6.66)	6.98	0.69
	TOTAL	2400		229 (9.54)		
	Indoor Containers					
1	Earthen pot	240	20	57 (23.75)	26.51	1.32
2	Cement tank	240	20	52 (21.66)	24.18	1.20
3	Plastic drum	240	20	40 (16.66)	18.60	0.93
4	Flower pot	240	20	28 (11.66)	13.02	0.65
5	Plastic bucket	240	20	38 (15.83)	17.67	0.88
	TOTAL	1200		215 (17.91)		

Table 11. The breeding preference for different types of container/sites (indoors and outdoors) in *Anopheles subpictus* mosquitoes at Bhanjanagar, Odisha, India

Sl No	Outdoor Container	Examined	X%	+ve Cases	Y%	BPR
				(%)		
1	Earthen pot	240	10	28 (11.66)	12.84	1.28
2	Cement tank	240	10	36 (15)	16.51	1.65
3	Old vehicles	240	10	26 (10.83)	11.92	1.19
4	Discarded tyre	240	10	21 (8.75)	9.63	0.96
5	Plant axil	240	10	10 (4.16)	4.58	0.45
6	Coconut shell	240	10	27 (11.25)	12.38	1.23
7	Bamboo clump	240	10	05 (2.08)	2.29	0.22
8	Plastic container	240	10	31 (12.91)	14.22	1.42
9	Metal drum	240	10	26 (10.83)	11.92	1.19
10	Plant pot	240	10	08 (3.33)	3.66	0.36
	TOTAL	2400		218 (9.08)		
	Indoor Containers					
1	Earthen pot	240	20	59 (24.58)	26.94	1.34
2	Cement tank	240	20	49 (20.41)	22.37	1.11
3	Plastic drum	240	20	42 (17.5)	19.17	0.95
4	Flower pot	240	20	25 (10.41)	11.41	0.57
5	Plastic bucket	240	20	44 (18.33)	20.09	1.0
	TOTAL	1200		219 (18.25)		

Table 12. The breeding preference for different types of container/sites in *Anopheles subpictus* mosquitoes at Baunsalundi, Odisha, India

SI No	Outdoor Container	Examined	X%	+ve Cases	Y%	BPR
				(%)		
1	Earthen pot	240	10	20 (8.3)	9.17	0.91
2	Cement tank	240	10	55 (22.9)	25.22	2.52
3	Old vehicles	240	10	34 (14.1)	15.59	1.55
4	Discarded tyre	240	10	22 (9.1)	10.09	1.0
5	Plant axil	240	10	02 (0.8)	0.91	0.09
6	Coconut shell	240	10	18 (7.5)	8.25	0.82
7	Bamboo clump	240	10	0	0	0
8	Plastic container	240	10	37 (15.4)	16.97	1.69
9	Metal drum	240	10	30 (12.5)	13.76	1.37
10	Plant pot	240	10	0	0	0
	TOTAL	2400		218 (9.08)		
	Indoor Containers					
1	Earthen pot	240	20	24 (10)	12.18	0.60
2	Cement tank	240	20	64 (26.6)	32.48	1.62
3	Plastic drum	240	20	53 (22.08)	26.90	1.34
4	Flower pot	240	20	10 (4.1)	5.07	0.25
5	Plastic bucket	240	20	46 (19.1)	23.35	1.16
	TOTAL	1200		197 (16.4)		

pots and minimum for a flower pots. The Breeding Preference Ratio (BPR) for all selected areas are presented in Tables 7-12. It was also noticed that the prevalence of *An. subpictus* was more in July to September and January to February in most of selected areas.

Discussion

Vector-borne infectious diseases are emerging or resurging as a result of changes in public health policy, demographic and societal changes, insecticide and drug resistance, a shift in emphasis from prevention to emergency response, and genetic changes in pathogens. Despite extensive research in the field of vaccine development, till now, no effective vaccine is available for mosquito vector-borne diseases. Therefore, the only way to avoid mosquito vector-borne diseases is to reduce mosquito density and humans-mosquito contact. Adult mosquitoes are difficult to control since they can fly relatively long distances and survive in a wide range of microhabitats. So it is crucial to check mosquito larval populations which

have limited habitat and larval survey is the most widely used method for entomological surveillance. Accurately estimating site-specific mosquito larval abundance is central to vector control strategies. Larval abundance assay provides information related to bio-ecological aspects of mosquito species. This larval abundance assay is helpful to assess the impact of vector control measures, by comparing larval densities and breeding site occupation before and after the implementation of the intervention. For this, several indices have been used to measure the abundance of mosquito vectors for vector-borne disease transmission. Those indices related to measuring the immature populations are the House Index (HI), i.e., the percentage of a house infested with larvae or pupae and the Container Index (CI), i.e., the percentage of water-holding containers infested with larvae or pupae. *Anopheles subpictus* is a prevalent vector of malaria in Asia. It was previously reported in different states of India like Tamil Nadu (Paniker *et al.*, 1984), Madhya Pradesh (Kulkarni, 1983), Rajasthan (Tyagi and Yadav, 2001), Pondicherry (Panicker *et al.*, 1981), West

Bengal (Chatterjee and Chandra, 2000), Delhi (Sharma *et al.*, 1985), Chhattisgarh (Parmanand *et al.*, 2008). This species was also earlier reported in different districts of Odisha state like Angul, Khurda, Cuttack and Puri (Kumari *et al.*, 2013), Malkangiri (Sahu, 1998), Keonjhar (Sahu *et al.*, 2009), Nayagarh, Jagatsinghpur, Dhenkanal, Ganjam (Tripathy *et al.*, 2010). Vectorial capacity of *An. subpictus* was previously reported in different districts of Odisha including Ganjam (Tripathy *et al.*, 2010).

The Breeding Preference Ratio (BPR) was calculated as the ratio between IBS and IAC for each category. The Index of Available Containers (IAC) was estimated as the ratio of containers from each category divided by the total no of containers in houses containing at least one water container. Similarly, the Index of Contribution to Breeding Sites (ICBS) was estimated as the ratio of positive containers from each category divided by the total no. of positive containers in houses with positive containers (Flaibani *et al.*, 2020). The present study was undertaken in 6 different localities of the Ganjam district of Odisha state, India, to determine the breeding preferences of *An. subpictus* mosquitoes by conducting a larval survey in both outdoor as well as indoor containers and the Breeding Preference Ratio (BPR) was calculated. The results of the current study showed that *An. subpictus* preferred mostly cement tanks and earthen pots over other types of indoor as well as outdoor containers for oviposition. Previously many breeding sites for *An. subpictus* have been reported such as wastewater collections, lagoon water collections, and drains in some areas of Srilanka (Gunathilaka *et al.*, 2019), artificial ponds, paddy fields, canals, seepage, pools of the canal, wells, cemented tanks in Dhenkanal district (Panigrahi and Mahapatra, 2013). Further, based on the calculated BPR, it has been observed that *An. subpictus* preferred indoor sites for oviposition to outdoor sites. This could possibly due to the reason that, *An. subpictus* searches for the maximum availability of blood feeding from the inhabitants. The choice of a wide variety of breeding habitats near human dwellings makes this species a dominant vector over other anopheline species. It has been reported that *Aedes* mosquitoes preferred earthen pots both the indoors and outdoors and discarded tyres, plant pots and old vehicles/boats lying outdoors for laying their eggs. Discarded tyres and old vehicles/boats are found to be the best preferred breeding sites as the water remains undisturbed in them (Panigrahi *et al.*, 2013).

Anopheles subpictus was abundant during the monsoon period (Bansal and Singh, 1993) and captured in high numbers from May to July (117/501, 23.3 %), but prevalence continued later including a prominent peak between December and April (334/501, 66.7 %) in Goa (Kumar *et al.*, 2016). During month-wise container screening it was noticed that the prevalence of *An. subpictus* was more in July to September and January to February which might be due to variations in rainfall. Similar kind of results was also recorded by Dash *et al.*, (1998) where they found the peak density of *Culex quinquefasciatus* in January in Khurda district of Orissa. Dixit *et al.*, (2002) in Raipur, Chattisgarh recorded the prevalence of the species in all months of the year with high densities during February and March months and no significant relationship was observed between the variations in density of the vector and the variations in temperature and/or humidity in the study area. Similarly, Dhar *et al.*, (1968) in their study on *Culex quinquefasciatus* in Rajahmundry town of Andhra Pradesh, observed the prevalence of the adults in all months of the year with a definite upward trend in density which started from July-August in the monsoon period and reached the peak in November-December in the post-monsoon period. The prevalence of the indoor-resting population of *An. subpictus* was higher in the rainy season may be due to greater breeding facilities during the rainy season in the paddy fields, shallow ponds and also in temporary water collections (Chatterjee and Chandra, 2000).

Conclusion

The current study provides useful information on the mosquito population dynamics and breeding habitats of *An. subpictus* across urban and rural areas of Ganjam district of Odisha state. The results of the present study provide important information for improving larval source management operations for the control of malaria vectors and help to prevent the outbreak of future malaria epidemics particularly in these studied areas.

Acknowledgements

Authors are thankful to the head, Post Graduate Department of Zoology, Berhampur University, Berhampur, Odisha, for providing necessary facilities and encouragement.

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From Absurd to Revolt: Examining Albert Camus' *The Outsider*

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Abstract

Meursault is distinctive. He won't tell lies. He won't act otherwise. He stays faithful to who he is. As a result, he does not grieve when his mother passes away since he is unaffected. After the funeral, he returns to Algiers and lives his normal life until he is embroiled in a brutal killing. It will not be possible to assess Meursault's guilt or innocence in court based on what he did or did not do. He is accused of being an outsider and strange. Any man who doesn't cry during his mother's funeral could be put to death in our culture. Because he refuses to participate in the game, the book's hero is condemned. He won't tell a lie. He wanders on the periphery of life, alone and sensual, an alien to the civilization in which he lives. And because of this, some readers have been tempted to write him off. Meursault is not interested in making things easier. The moment he acknowledges who he is and doesn't try to disguise his emotions, society perceives a threat. Because Camus Meursault is a poor, naked man who is in love with a sun that casts no shadows, he is not a reject. *The Outsider* is the tale of a guy who, without any pretence of heroism, consents to sacrifice his life for the truth.

Key Words: distinctive, unaffected, periphery

All of Albert Camus's novels and plays are more or less direct dramatizations of his philosophical temperament. Even though we can find direct support for Camus's philosophy in his writings, this doesn't mean that all of the ideas in his writings can be found in his philosophy. Camus, like his talented countrymen Jean-Paul Sartre and Gabriel Marcel, is often misunderstood by people who have only read his books and think they know what he thinks about philosophy from that. This mistake of trying to figure out the whole from the parts has been the downfall of modern French philosophy, but any philosopher who wants to be a literary figure must take this risk. Camus and Sartre are both well-known for their novels, which is how most people know about them. And it seems this public's opinion is mainly based on what they've learned from reading a few plays and novels. So, when we look at Albert Camus' writings, we aim to find examples and support for his philosophical point of view. We shouldn't try to find hidden ideas in these works of literature that would change or shed new light on this philosophy. If there is a 'thesis' to be found in these works, it should be a reflection of his philosophical interests. What's left is the human drama and the sights and sounds of the world. Much has been said about Albert Camus from the point of view of literary criticism and appreciation. It is our job here to clarify the principles and concerns that make up the fixed structure of Camus's thought or philosophy. We have broken up this study of Albert Camus's philosophy into two parts: the early focus on the absurd and the later emphasis on revolt. All of his writings fit into the same category. In this earlier period, there are three works: the novel *The Outsider* and the plays *The Misunderstanding* and *Caligula*. We have literature of the absurd in these works. The focus of our study remains within the boundaries of *The Outsider* only. Meursault's mother has passed away. She had been living in an old people's home not too far from Alger, and Meursault goes there to go to the funeral. During these last years, he didn't see his mother very often. They lived separate lives and didn't have much to talk about. Meursault, tired and confused, sits through the wake and then does what is asked of him during the burial rites. After the funeral, he goes back to Alger right away. The next day, he goes swimming and runs into a little girl (Marie) he used to know. He takes her to a comedy movie and then brings her home with him for the night. The next day, Sunday was boring. When evening came, so did the end of the weekend. On Monday, everything would start up again. The mother's funeral was on Sunday, and work started on Monday. "Really, nothing had changed in my life" (28). Meursault continues to see Marie, his girlfriend. Also, he doesn't care that Raymond, who lives in the same apartment building and is known to be a panderer, wants to be his friend. Meursault agrees to write a note to Raymond so he can carry out a sick plan to get back at her for cheating on him. The project is carried out, the girl is beaten, and the police are involved. Raymond asks Meursault if he will tell the police that Raymond had a good reason to hit the girl. Meursault says 'no problem' and agrees to this as well. Meursault and Marie are asked to go to the beach by Masson. While they are there, they find out that the brother of Raymond's ex-girlfriend, who is an Arab, is waiting near the beach hut. He seems to want to get revenge for his sister. A fight breaks out. Later, Raymond returns to the same spot, but he has a gun with him this time. Raymond tries to start a new battle while Meursault goes with him and is given the weapon. But nothing goes wrong on the way back. Meursault doesn't want to return when it's hot and bright outside. He is pulled back to the big rock where the Arab was. A small spring flows out of the rock and into the sea. Still, the Arab is there. Meursault moves toward the excellent stone, numb from the heat and bright light. The Arab pulls out a knife. Meursault grips the revolver that is still in his pocket. The sun reflects off the Arab's knife. "A shaft of light shot up from

the steel, and it felt like a long, thin blade hit my forehead (59)" Meursault fires four more shots, like four sharp knocks on the door of sadness. Meursault is arrested and charged with murder. After a year in jail, the trial begins. During the trial, the prosecutor called Meursault a hardened, heartless criminal. He said that Meursault had sent his mother to a public home, rarely visited her, didn't cry or want to see her body at the wake or funeral, smoked and drank coffee during the path, and didn't stay at his mother's grave after the burial. Also, the day after his mother died, Meursault went swimming, saw a funny movie, and began a secret relationship. And the fact that Meursault was friends with criminals like Raymond showed that he was a bad guy. Meursault was at the centre of the whole thing. He was the one who wrote the letter, testified for Raymond, and carried the gun to where he knew the Arab's body was. How did Meursault defend himself? He "tried to explain that it was because of the sun" (99), but he couldn't say what he wanted to, and he heard "people tittering" (99) in the courtroom. Meursault was found guilty and sentenced to be beheaded "in the name of the French people" (103). This is the story of the 'stranger,' but there's much more to it. This list of the different things that led to Meursault's death sentence. These innocent and careless things that Meursault did have all of a sudden been put together, interpreted by a prosecutor, and confirmed by a jury. Meursault is now seen as a 'monster' whose death had been ordered by society. He has learned that familiar paths walked at dusk in the summer can lead to prison and peaceful nights of sleep. The rest of the story is about how Meursault adjusts to his fate of dying and how he eventually rebels against it. The most important thing for us to figure out about *The Outsider* is whether or not Meursault is a hero of the absurd, as we have come to understand that term from *The Myth of Sisyphus*. If he is, then *The Outsider* is a complete and dramatic example of the themes and effects of the absurd. It shows those 'absurd types' that were only hinted at in *The Myth of Sisyphus*. Jean-Paul Sartre says in "Explication de *L'Étranger*," which is a critique of both *The Outsider* and *The Myth of Sisyphus* that Camus's novel tries to show how the absurd feel, while *The Myth of Sisyphus* tries to show what the stupid is. Sartre loves not only how original the work is but also how well it was made: ... bit by bit the work organizes itself under the eyes of the reader, it reveals the solid sub-structure which supports it. There is not one useless detail, not one which is not taken up by what follows and thrown into the discussion, and the book closed, we understand that it could not have begun otherwise, that it could not have had another ending. In this world which is presented to us as absurd and whose causality has been carefully weeded out, the smallest incident has weight: there is not one which does not help to lead the hero toward the crime and toward the capital penalty. The Outsider is a classic work, a work of order, written about the absurd and against the absurd. (Sartre 110-111) This is a very high compliment and Sartre's idea that the novel is a direct literary expression of the philosophical ideas of the Absurd backs it up. But even though Sartre thinks Camus' intellectual and literary works are two sides of the same coin, he is bothered by the fact that Meursault doesn't rebel until the book's last pages and is only an absurd hero for a short time (Sartre 109-110). This lack of coordination, which Sartre sees, can't be explained by the fact that Camus missed his mark. Instead, it can be explained by the fact that Camus did not write *The Outsider* with this mark in mind. *The Outsider* and *The Myth of Sisyphus* were both published in 1942, the same year as each other. Sartre thought that *The Myth of Sisyphus* explained and justified *The Outsider*. But this does Albert Camus a little bit of a disservice. *The Outsider* was finished in 1939, a year before *The Myth of Sisyphus*. However, if we look closely at *The Outsider*, we can see that there is a much more significant gap between these two works. This is because *The Outsider* fully reflects a state of mind that was still exploring the ideas beginning to grow in his early essays, *Noces*. So, if we want to understand this first book of Camus in terms of his philosophy, we can't do what Sartre does and try to fit it into a framework that wasn't clear at the time. There's no doubt that the Absurd themes are present here, like absurdity, rebellion, finding freedom, and the way death changes things. However, if you look closely, you'll see that these themes are presented in a way that doesn't fit the ideal pattern that *The Myth of Sisyphus* suggests. Camus's "absurd line of reasoning" has led us to discover that "everything starts with the conscience and ends with it" (*The Myth of Sisyphus* 27). The problem and threat of the absurd don't show up until we realize it, until the 'awakening.' This is what Sartre and other people who have studied *The Outsider* have missed. Even though Camus changed his mind later, Meursault is a paradox because he has complete apathy for the absurd hero from the start. Still, he also doesn't have the ridiculous hero's awareness of the absurdity of his life and the desire to rebel against it. This last stage does show up, but not until the very end. Now that we have a better idea of what *The Outsider* is about, we can see it in its own right. Meursault is a stranger to the world from the first second to the last. This is because he doesn't care about anything. Even though his mother had died, not much had changed in his life. When Marie asks Meursault if he loves her, he says, "That kind of question really didn't mean anything" (38). She asks him to marry her again, and he says, "It didn't really matter, but if it would make her happy, we could get married right away" (38). His boss offers him an appealing job in Paris, but Meursault doesn't care either. He doesn't care that Raymond asks him to write the letter, and he later agrees to be his witness in court. Even after the murder, people still act this way. He doesn't want an attorney and doesn't seem worried before the trial. And finally, after being found guilty, Meursault admits to himself that he didn't care much about what the prosecutor had told him: Of course, I had to own that he was right; I didn't feel much regret for what I'd done. Still, to my mind he overdid it, and I'd have like to have a chance of explaining to him in a quite friendly, almost affectionate way, that I have never been able really to regret anything in all my life. I've always been far too much absorbed in the present moment or the immediate future, to think back. (126-127) These things, including this last promise, happen before Meursault's 'awakening.' Meursault acts as if he were in an absurd world, but he has no idea that he is in a fantasy world or what that means. From the privileged position of seeing the story through Meursault's eyes, we move from one moment to the next with him, constantly feeling like something is off but also understanding and caring about his decisions and actions. Also, Meursault's behaviour doesn't bother anyone else, not Marie, Emanuel, Celeste, Raymond, Masson, and Salamano. Within this drifting, monotonous rhythm of work, love, sun, and sea, they live together with ease and understanding. In this situation, Meursault is no stranger than Marie or Salamano. On this level of his normal, boring life, Meursault is just like any other man. From this point on, society could have judged and condemned any man, not just Meursault. But what has happened is that Meursault's life has led him to do something that forced him to make a decision. Because of his crime, Meursault's life must be judged clearly and honestly. His life must be considered based on an absolute moral standard, and a clear judgment must be made. When this new part, the need to make an ethical decision, comes into the story, it changes the flow of the story quickly.

From now on, the world we liked, whether it was Meursault's, Marie's, or anyone else's, is set against the world of the legalists and ethical absolutists. Meursault stays the way he is because he is caught in the web of the solute judgment. Until now, Meursault hasn't been considered strange, but now he is. His lawyer is shocked and annoyed by how calm his client is after he is arrested. The examining magistrate thinks Meursault is a 'case-hardened' criminal because he is honest about his feelings. During the trial, the prosecutor seems to mean it when they say that the accused person is a heartless monster. And as Meursault listens to the prosecutor and looks at the faces of the people in the courtroom, he realizes that he is a 'stranger' in this world of absolute moral standards: His tone and the look of triumph on his [the prosecutor's] fact, as he glanced at me, were so marked that I felt as I hadn't felt for ages. I had a foolish desire to burst into tears. For the first time I'd realized how all these people loathed me.... One stepping into the box he [the doorkeeper at the old people's home] threw a glance at me, then looked away. Replying to questions, he said that I'd declined to see Mother's body, I'd smoked cigarettes and slept, and *drunk café au lait*. It was then I felt a sort of wave of indignation spreading through the courtroom, and for the first time I understood that I was guilty. (*The Outsider* 112)

The pieces of Meursault's life that made sense on their own were put together under a moral judgment, and Meursault realizes that a life like that under a moral judgment means guilt. He didn't think of himself as a criminal, even though he knew that was what he was. Still, "it was an idea I could never get used to," he said (*The Outsider* 87). To sum up, what we've learned so far, we can say that *The Outsider's* hero is not an example of or an explanation for the ideas that Albert Camus later wrote about in *The Myth of Sisyphus*. Meursault lives with the indifference of an absurd hero, but he doesn't have the awareness and anger of a fantastic hero. This shows that *The Myth of Sisyphus* is not yet philosophically precise. People who have tried to find a direct link between the novel and the philosophical essays that came after it have only managed to mess up the proper structure of this novel, which deals with the absurd in a way that is separate from the essays. Reviewing Meursault's indifference and the moral absolutism that forces him to give up, we can see that the absurdity we are shown is not that of a man facing a senseless and broken nature that is foreign to him as a person. Instead, the absurdity is in society's attempt to apply absolute moral standards to the uncertain and uncharted course of human life. It is not a strange universe that has put fixed moral values into something like human life, which doesn't have any limited moral values. *The Myth of Sisyphus* has shown the split between man, who wants unity, and the world, which is falling apart, both from a philosophical and a personal point of view. *The Outsider* has shown the difference between trying to live honestly in line with the uncertainty of human life and explaining that uncertainty in general moral terms that are always right. The themes in *The Outsider* are more like those in *Noces* than in *The Myth of Sisyphus*. The Arab being killed by Meursault is the main event of this short story. This action is what starts the whole system of moral legalism and creates the strange difference between what we know Meursault to be and what the court says he is. Understand that the trial is not about whether or not Meursault killed the Arab. There is no doubt about that. During the trial, the question will be whether Meursault's life shows that he is a 'case-hardened' criminal. Camus has made it so that Meursault's life shows that he is guilty, which is the perfect absurd situation. It's not the murder that shows he is guilty; it's his whole life. This means that if absolute moral standards are used to judge life, that life is guilty and terrible. We still need to understand clearly that Meursault, even though he killed someone, still has the innocence that has been a part of him from the beginning. In other words, the murder was in line with everything else that Meursault did. Why did Meursault shoot this man he didn't know? The answer is "because of the sun (99)," but there is no way to explain this in a court case where all actions are described as being done on purpose. We are sure that Meursault's eyes are susceptible to bright light. This is something we were told at least fourteen times before the murder. Also, Meursault's own feelings during the beach trip add to this. He had had too much wine at lunch and was a little tipsy. This way of thinking is shown clearly when Meursault and Raymond meet an Arab a few minutes before the final meeting when Meursault is alone with an Arab: The sun glinted on Raymond's revolver as he handed it to me. But nobody made a move yet, it was just as if everything had closed in on us so that we couldn't stir. We could only watch each other, never lowering our eyes; the whole world seemed to come to a standstill on this little strip of sand between the sunlight and the sea, the twofold silence of the reed and stream. And just then it crossed my mind that one might fire, or not fire-and it would come to absolutely the same thing. (72)

Meursault is more aware than ever at this moment of how meaningless and uncertain human life is and how he has nothing in common with this other man. When Meursault comes back to the hut with Raymond, he doesn't want to go inside. Instead, he goes back to the beach to walk in the hot, bright Algerian sun. From this point on, all we can see is the agonizing play of heat and light in Meursault's confused mind and his uncontrollable need to return to that one excellent spot on the beach: the big rock where the spring trickles out. The Arab was still there, but he was "dark and blurry from shaking in the heart" (74). The heat was beginning to scorch my cheeks; beads of sweat were gathering in my eyebrows. It was just the same sort of heat as at my mother's funeral, and I had the same disagreeable sensations- especially in my forehead, where all the veins seemed to be bursting through the skin. I couldn't stand it any longer and took another step forward. I knew it was a fool thing to do; I wouldn't get out of the sun by moving a yard or so. But I took that step, just one step, forward. And then the Arab drew his knife and held it up toward me, athwart the sunlight.... I was conscious only of the cymbals of the sun clashing on my skull, and, less distinctly, of the keen blade of light flashing up from the knife, scarring my eyelashes, and gouging my eyeballs. Then everything began to reel before my eyes, a fiery gust came from the sea, while the sky cracked in two, from end to end, and a great sheet of flame poured down through the rift. Every nerve in my body was a steel spring, and my grip closed on the revolver. The trigger gave, and the closed on the revolver. The trigger gave, and the smooth underbelly of the butt jogged my palm. And so, with that crisp, whipcrack sound, it all began. (75-76) Yes, it all starts with this sound: the unstoppable movement of morality's machinery, which turns a life that is innocent and silly into a guilty and wrong life. This happens not because of bad intentions, criminal tendencies, or hatred of Arabs but because of the sun, which is hard to believe. Yes, and everyone in the courtroom laughed. Meursault is still the same in prison, where he is waiting for the end and has only a tiny chance of being tried again. His only regret is that he no longer has freedom, but he knows that anyone can get used to anything in the long run. This is the same careless Meursault who went to his mother's funeral a few months ago. He still lives and thinks in the present moment, but now he is also thinking about the fact

that he will die. There is no way out, and it doesn't help to say that he'll be in the same situation in thirty years because those thirty years are precious and can't be replaced. Meursault is trying to make his thoughts fit with his fate. By doing this, he is preparing himself to wake up and rebel. The prison chaplain starts his revolt in Meursault. After the prisoner turns down his visits, he shows up at Meursault's cell out of the blue, wanting to talk to him. Meursault says he didn't call the chaplain because he didn't believe in God. The chaplain asks him if he is "really so sure" about what he said. The chaplain talks incessantly. Meursault ignores the priest and waits for him to leave. The priest talks about how Meursault's guilt weighs on his heart. At this point, the prisoner starts to get a little bit curious. He says it wasn't God who condemned him and said he was a sinner, but rather people who found him guilty of a crime. And this was what mattered. The chaplain starts to bother Meursault, but the chaplain is upset. He can't believe Meursault doesn't want to live on after death. Meursault shouts that the only kind of afterlife he would want is one in which he could remember his life on earth. He tells the chaplain to go, but the man keeps talking. He calls him "my son" (114) and tells Meursault, "I'm on your side" (115), but Meursault is too hard-hearted to see this. Meursault's anger reaches its peak, and "something seems to break" (115) inside of him. The 'stranger' finally wakes up and says everything that has been going through his mind. Meursault has finally told the truth about his lack of care and why he doesn't change his mind even when he's dying. This is because death is at the root of this lack of respect. This "dark win" in the future of all lives gives us absolute freedom. This freedom doesn't mean we can do whatever we want, but it does mean that what we do doesn't matter in the end, whether it's good or bad. Meursault has shown that he doesn't believe in the illusion of moral absolutes. He has also reaffirmed his love for the present moments of life that can't be replaced, and he has become aware of how much freedom death gives to the living. The priest has left, and Meursault is calm but tired. He sleeps. "Stars were shining down on my face when he wakes up. He could hear faint sounds from the country, and the cool night air, which smelled of earth and salt, blew on his cheeks. The tremendous peace of the summer night when I couldn't sleep washed over me like a tide (153)." Meursault is at peace now. He thinks about his mother and realizes why she took a fiancé in her old age and tried to start over at home for older people. "With death so close, mother must have felt like she was about to be set free and ready to start over" (154). And I, too, felt ready to start life all over again. It was as if the great rush of anger had washed me clean, emptied me of hope, and, gazing up at the dark sky spangled with its signs and stars, for the first time, the first, I laid my heart open to the benign indifference of the universe. To feel it so like myself, indeed, so brotherly, made me realize that I'd been happy, and that I was happy still. For all to be accomplished, for me to feel less lonely, all that remained to hope was that on the day of my execution there should be a huge crowd of spectators and that they should greet me with howls of execration. (154) Meursault had found peace with the world and unity with his fellow people through the 'dark wind' of death.

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ISSN 2277-4157

Central India Journal of
Historical and
Archaeological Research

CIJHAR

A Peer Reviewed And
An International Journal

Vol. XII
Joint Issue

April-June, 2022
July-September, 2022

No. 38/39

Editor
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Impact Factor 5.27

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Year : 2021, Volume : 8, Issue : 4
First page : (344) Last page : (349)
Print ISSN : 2349-6045. Published online : 2021 13.

Sustainable Banking in India: A Paradigm Shift

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Online published on 13 April, 2022.

Received: 17 , 2021; Accepted: 22 , 2022.

Abstract

The climate catastrophes are increasing day by day across the globe. In view of the same the concept of sustainable banking has been adopted giving importance to environmental and socially responsible investing. It has gained a worldwide momentum. Reserve Bank of India (RBI) pursues its core values laid emphasis on Sustainable Development (SD), Corporate Social Responsibility (CSR) and Non-Financial Reporting (NFR) of banks in operation across India. Economic development of any country in relation to its environmental protection and social responsibility is the need of the day. SD in the banking sector basically refers to the upholding of environmental and social systems in quest of economic progress. CSR is the integration of environmental and social concerns of banking companies in their business operations. Therefore, sustainable banking in India is deemed as the sine-qua-non for overall development of the national economy. It is the spin around which the development activities of the bank revolve along with economic development of the nation. This paper analyses and institutes a comparison between five top Indian Banks in Public and Private Sector pertaining in the direction of disclosure of NFR and in pursuance of the findings, necessary suggestions are given to enhance the confidence of the stakeholders that banks are concerned in maintaining sustainable banking practices.

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Keywords

Sustainable banking, Environmental protection, Economic accounting.

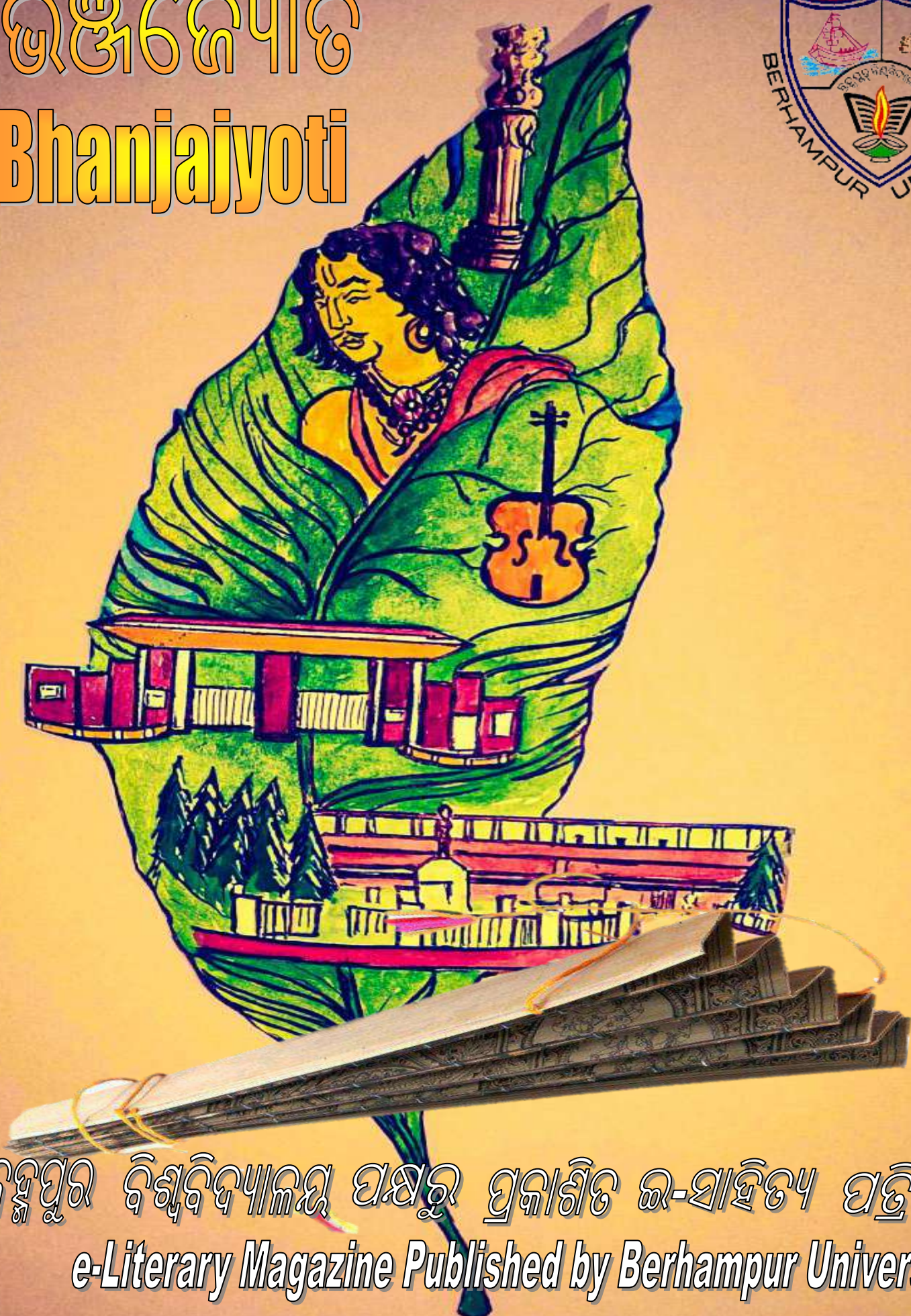
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e-Literary Magazine Published by Berhampur University

Issue 1 | Volume 1 | October, 2021 | Berhampur University

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ବ୍ରହ୍ମପୁର ବିଶ୍ୱବିଦ୍ୟାଳୟ ପକ୍ଷରୁ ପ୍ରକାଶିତ ଇ-ସାହିତ୍ୟ ପତ୍ରିକା

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e-Literary Magazine Published by Berhampur University

Issue 1

| Volume 1

| October, 2021

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A Shower of Pain

Soumya Samanta

Sinking in the world of pain,
Pine I for the tenderness
But get only harshness and retreat my steps in vain.

Dark are the clouds, dull is the wind.
Fake is my smile with all darkness within.
Handling myself in the midst of broken promises and false praises,
Searching I am for true warmth in the world of dubiousness.

Perceiving people to be sincere I move close,
Until I realise it's my illusion.
Cut off from bonds for reasons unknown
I am left with minimalty and confusion.

Writhing in pain,
sit I isolated,
accompanied by deafening tears oozing out
Unseen they flow, uncertain and unwiped.

Raging with emotions my heart
Seeks solace of your balmy words,
Breathing thy name was my happiness and smile,
Soaked in your affection my days passed.



Lecturer,
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**Be honest when in trouble and simple when in wealth.
Be polite when in authority and be silent when in anger. This is called the life management.**



The Creative Launcher

URL: <https://www.thecreativelauncher.com>

ISSN: 2455-6580

Vol. 6 & Issue 4, (October-2021)

Publisher: Perception Publishing

Published on 30th October 2021

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East-West Dichotomy in Orhan Pamuk's *The White Castle*

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DOI: <https://doi.org/10.53032/tcl.2021.6.4.30>

Pages: 198-207

Abstract

Orhan Pamuk's *The White Castle* is a historical novel that is set during the Ottoman reign. The novel presents the metaphysical opposition of East and West, self and the other, intuition and reason, mysticism, science and global and local, and the recurring issues of conflict of civilization, identity crisis, and cultural variations. Orhan Pamuk as a postmodern writer tries to bridge the gap between the East and the West through his writings. Although Turkey is at the backdrop in most of his novels, the treatment of themes is universal. The paper proposes the theory of Orientalism by Edward Said, which represents the encounter and treatment of the "Orient." The concept of identity expressed by Pamuk in his wide range of novels also can be related to the "Orient" and "Occident." The culture of the East has always been portrayed as the binary opposite of Europe in history and fiction. The loss of identity of the East reflected in the works of Pamuk is an outcome of the clash between East and Europe, further leading to chaotic contexts and dilemmatic protagonists. Individuals unable to choose between the traditional self and the fashionable West mourn the lost identity of a country and their self.

Keywords: The East-West clash, The Orient, Culture, Dichotomy, Modernism, Mysticism

The internationally acclaimed Turkish writer Orhan Pamuk has published more than ten novels and non-fictional works to his credit. Translated into more than sixty-three languages and selling over thirteen million books have made him the best seller in Turkey. His novels cover a gamut of subjects ranging from identity loss to imitating the West and East-West tensions to tradition and modernism. The writings of Pamuk were compared with the works of literary stalwarts such as V. S Naipaul, Gabriel Garcia Marquez, and Salman Rushdie. Pamuk received the Nobel Prize in 2006 for his exquisite prose and glorious representations of history. *The New York Times* Book Review asserted, "A new star has risen in the east—Orhan Pamuk." Pamuk began shifting from modernism to postmodernism, experimenting with its techniques with the publication of *The White Castle* in 1990.

Pamuk's works usually deal with the tensions entrenched between East and West and tradition and modernity. The hypothesis of this paper involves tracing the elements of contrast/conflict by establishing the coexistence of factors/subjects representing East and West. It has also been observed that the important component of the implicit discourse--such as the doppelganger theme, the postmodern and postcolonial concepts which the Pamuk perform uses in *The White Castle*- serve to discredit some prevailing hegemonic ideas linked with globalisation: the issues of the modern world and particularly Turkey. In consequence, the postmodern concept of identity vs. otherness, east vs. west is being used as filters in our interpretation. The theme of *The White Castle* has a direct connection with Pamuk's relation with his competitive elder brother, whom he considers as his 'alter ego, the representation of authority.' The theme of impersonation reflected in the novel is compared with the way Turkey grapples with the Western way of life and culture. Pamuk says that,

I realized that this jealousy—the anxiety about being influenced by someone else—resembles Turkey's position when it looks west. You know, aspiring to become Westernized and then being accused of not being authentic enough. Trying to grab the spirit of Europe and then feeling guilty about the imitative drive. The ups and downs of this mood are reminiscent of the relationship between competitive brothers. (*Other Colours* 368)

As Pamuk remarks, the sadomasochistic relation between the two characters of *The White Castle* is based on the author's relationship with his brother.

Esin Akalin, in "The Ottoman Phenomenon and Edward Said's Monolithic Discourse on the Orient," explicates that Said's *Orientalism* attempts to ingratiate the East, undermining the power of the Ottoman Empire, even though the Ottoman Empire was held as the supreme power in the past. Akalin, in addition, disagrees with Said's discourse of generalisation of the East. The context is a bit different here as Turkey has orientalised itself. Esin Akalin further argues that, although Said's generalization of the Orient is questionable; his broad outlines, based on a superficial historical perspective, are deceptive. Said's exaggerated portrayal of the Orient, confirming "its sensuality, tendency to despotism, aberrant mentality, habits of inaccuracy, backwardness" even the straightforward dichotomy of Orient and Occident has

been contested by several current scholars. Daniel Vitkus makes a strong argument against Said's simplistic formulation of Orientalist discourse, stating that it has "theoretical rigidity" and "historical limitations." As said, it would be incorrect to apply Said's dichotomy of patronizing West and humble East to two thousand years of Western civilization, as Western Christians have been subject to Islamic power and affluence since before the 18th century. Thus, Western Christian depictions of Islam must be more sophisticated than those presented by Orientalism.

The problem of identity started with the formation of the new nation-state. Pamuk's works represent a non-stable image/identity keeping Ottoman or Turkish history as the backdrop. The dominant theme is always history, and the characters are usually shown as a symbol of oriental and national at the same time. The characters question their identity that is generally historically imposed, and this is how the narrative proceeds.

Not only does Orhan Pamuk question the meta-narrative of Turkish secular nationalism (Turkism) in its various manifestations, he is thoroughly engaged in the work of interrogating the possibility of national transformations. This is most evident in his representation of Ottoman history, which broadly contains many secular national "taboos," including multiethnicity, multilingualism, cosmopolitanism, religion, and homosexuality, among others. Still, Pamuk is not interested in history with a capital H; he is in the writerly pursuit, rather, of new imaginative spaces. His technique of compounding points of view in a narrative (the very medium through which identity is reified) to destabilize fixed identities has been a characteristic of his work. (Goknar 34)

Orhan Pamuk's works are known to be postmodern and, at the same time, evoking resonances of the vibrant and aesthetically colourful historic period of the Ottoman Empire (1301-1922). The importance of the Ottoman theme to Pamuk is seen by intertwining the 17th century Ottoman Turkey/ Istanbul with the postmodern existential and political issues.

The funeral ceremonies of the former Turkish presidents, Mustafa Kemal Atatürk (1923-38) and Turgut Özal (1989-93), are compared in "*Beloved Istanbul*": *Realism and the Transnational Imaginary in Turkish Popular Culture* by Martin Stokes to highlight the "multi-souled" nature of Turkey. The above contrast exemplifies the different places of burial when the former was buried in Ankara, the newly found capital, and the latter in Istanbul. Stokes refers to two cities as the country's two faces in this text. Istanbul was vilified as the ancient city that the fallen empire inherited, while Ankara came to be known as the newly developed emblem of the secular and contemporary Republic. In this milieu, Stokes asserts the following:

If modernist republican aspirations were clearly focused on Atatürk's capital, Ankara, Istanbul was condemned as an unpromising site for national regeneration; the labyrinthine complexity of the streets, it was largely fed by Persian, Byzantine, and Arab art, ethics, and traditions. (224)

With Ankara becoming the newly arisen capital, the past and the cosmopolite history of Istanbul was ignored, and the modern and old capitals were depicted as opposed. As a

colonizer-imperial state, the Ottomans' Islamic heritage was always a salient feature to glorify. The transition of the Ottoman empire from a heterogeneous to a monolingual, homogenised nation was a discord between the Islamic-rooted civilizations. This incompatibility resulted in a dislocated identity.

The 15-year presidential regime by Ataturk from 1923-1938 brought several reformations under the Westernization-modernization project. These changes initiated by Ataturk were brought at the cost of eliminating the Ottoman past, which is the major reason for the present-day's identity perplexity.

Turkey was obligated to vacillate between two identities, labelled as the true persona and the imposed other. The traditional and cultural heritage of the East, expressed via the use of the Ottoman alphabet and Ottoman clothing – taken over from its sovereign past. The new mask is imposed upon the other, which the emerging nation attempts to wear. The identity latter of the secular West was developed through the use of the Latin alphabet and the French hat. Turkey's newly created identity attempted to assimilate the undesirable partial presence of Ottoman culture, drifting Turkey into cultural exile within the nation. In this way, one might argue that the monarchical, religious body of government and the tradition of the East were masked by the reformulated national secular Turkish and cultural (Westernization-modernization) identities. In reference to the unambiguous contrast established between imperial history and the republican nation-state, Nergis Canefe argues, "the founding narratives of Turkish national history were efficiently institutionalized, popularized and canonized under the aegis of a Turkish nation-state" (137). As a result, it is reasonable to assert that the leaders to bring westernisation, selected a conscious and internalised repudiation of the Ottoman past. Canefe notices this internalised rejection of the past was "an alarming degree of amnesia institutionalized by the Turkish nation-state" (139) which intended for a communal memory loss and "officialised and popularized forgetfulness" (140).

Stuart Hall asserts in "The West and the Rest: Discourse and Power" in *Formations of Modernity* that identity is produced by self-regulated "historical and institutional" (4) processes. Significant changes were allegedly undertaken in the name of westernisation in the case of Turkey. One of the amendments was the switch from the Ottoman to the Latin alphabet in 1928. The interstitial mentality that is trapped in-between is best depicted in the prologue to Faruk Darvinoglu's *The White Castle*:

I found this manuscript in 1982 in that forgotten 'archive' . . . at the bottom of a dusty chest stuffed to overflowing with imperial decrees, title deeds... At first, I didn't know what I would do with the book other than to read it over and over again. My distrust of history then was still strong ... after reading a couple of sentences from the manuscript I kept on one table, I'd go to another table in the other room where I kept my papers and try to narrate in today's idiom the sense of what remained in my mind". (*The White Castle* 9-12)

Darvinoglu tells the reader that he has found the manuscript in an old archive at Gebze and is initially unsure what to do with it. Due to his extreme disdain for history, he

concentrates only on the tale. "rather than the manuscript's scientific, cultural, anthropological, or 'historical' value" (*The White Castle* 9).

Edward Said in *Orientalism* (1978) defines the scope as "Orientalism is a style of thought based on the ontological and epistemological distinction made between 'the Orient' and 'the Occident'" (*Orientalism* 2). It is a model employed by the West to show their authority and overpower the Orient. It is a consequence of Europe's "mainly British and French political forces and activity as well as domination and hegemony over the East" (*Orientalism* 4). Being a political philosophy, it encourages friction between the East and the West. Based on this philosophy, Said displays that Europe is strong, superior, and developing faster, and the Orient is weak, inferior, and underdeveloped. It simultaneously asserts Denys Hay's concept of the West, "the idea of European identity as a superior one over Oriental backwardness" (*Orientalism* 7). Nevertheless, Said's projection is "how this idea about the Orient is part of Western-style for dominating, restructuring, having authority, and maintaining power over the Orient" (*Orientalism* 3).

The shift from a transnational, ethnolinguistic, and multi-continental empire to a nation-state was difficult. The project of Westernization in the newly found state made the pre-1928 history inaccessible to the new generations in Turkey. So we can say that the Turkish situation exemplifies internalised colonialism. The *White Castle* is an excellent illustration of how tightly East and West ideals are interwoven.

The East-West dialectic in the light of the novel's narrative and frame-tale structure delivered by Pamuk is focussed in this paper. So based on the discussion above, it can be argued that the reality was, the Orient was far stronger than the Occident and controlled both the East and the West in the past. Hence, Said's discourse on Orientalism can bring out the complexity between the East and the West.

The methodological background includes Edward Said's *Orientalism*. *The White Castle* is inextricably linked to Orientalism's discourses through the techniques of intertextuality and narrativity. By refusing to (re)produce binary oppositions, the novel takes a stand against Orientalist discourses. Furthermore, by transforming the novel's presumed incongruous binary oppositions into fluid, malleable, and interchangeable ideas, the novel seeks to challenge Orientalist discourse's hegemony: the West is neither superior nor is there a West without the East. Anti-Orientalism, as defined by Jale Parla, is as follows:

The argument propounding that if the Western subject has an unconsciousness that structures its relation with the East, the Easterner is not a passive or an innocent object either and that it, too, possesses an unconscious that constitutes its relationship with the West, is considered an anti-orientalist discourse proposed against orientalist discourses since it implies an optimism regarding the disruption of the binary of East-West which relies on power relations. ("Novel and Identity: *The White Castle*" 93).

Pamuk's work may be described as anti-Orientalist in that it portrays Hoja as an active, rather than passive, subject. On the contrary, he is the novel's most active character, with his zealous goals, intellectual ideas, and daring beliefs, eerily mirroring Westerner

personalities as portrayed in Orientalist discourses. According to Parla, the story shows the Westerner's division into two factions as a result of his desire to control the other.

The White Castle is a well-known historical novel set in the seventeenth during the Ottoman reign bearing the question of national identity and interchangeability. The author use history to raise socio-cultural awareness. The novel presents the opposition of East and West, self and other, mysticism and science, global and local, and the recurring issues of conflict of civilization, identity crisis, and cultural variations. Orhan Pamuk as a postmodern writer tries to bridge the gap between the East and the West through his writings. Although Turkey is at the backdrop in most of his novels, the treatment of themes is universal. The paper focuses on Edward Said's theory of Orientalism which represents the encounter between the "Orient" and the "Occident" and treatment of the "Orient." The concept of identity expressed by Pamuk in his wide range of novels also can be related to the "Orient" and "Occident." The culture of the East has always been portrayed as the binary opposite of Europe in history and fiction. The loss of identity reflected in the works of Pamuk is an outcome of the clash between the traditional East and fashionable Europe, further leading to chaotic contexts and dilemmatic protagonists.

Apart from the East-West conflict, religious, familial, and political conflicts exist in multiple layers in the works of Pamuk. But he plays out these clashes and provides a solution to the world by promoting the intermingling of the best cultures. *The White Castle* is a story about an Ottoman scholar and a Venetian slave captured. The novel is presented as an archive manuscript—a first-person narrative by the abducted Christian—accompanied by a fictional preface by the modern scholar who purportedly 'discovered' the text. The Venetian, who is sold to the Turkish Hoja as a slave, has an incredible physical likeness to him by accident. The novel integrates two characters representing two different identities where the distrust between them later turns into affection and collaboration. At the novel's conclusion, roles shift, creating perplexing circumstances for both reader and characters. The master represents the spirituality and tradition of the East, whereas the slave represents the world of scientific developments and technology. After living together for more than ten years, they develop an incredible weapon. As the weapon fails to serve the purpose, the characters exchange their identities for escaping an imminent death sentence. The characters are unable to preserve their stable positions and personalities, eventually, stage mutant identities that serve as a counterpoint to Orient and Occident. With this Pamuk shows the probability that even though East and West are poles apart, they can still develop compatibility. Even though some of his heroes belong to the West they respect their tradition and Turkish values. Though sometimes Pamuk criticizes the backwardness of the East through the characters such as Dr. Selahattin, in *The Silent House*, the purpose is not dislike but development and betterment of the East. Pamuk does not emphasise blind imitation of the West, but the synthesis of both cultures.

Turkey's craving for Westernization and the search for the identity of the Ottoman Turks after the impact of the West has been highlighted by Pamuk through Hoja's inventions of scientific gadgets. Edward Said has outlined the Orient as likely weaker and the Occident as superior and stronger as the West dominates politically and economically. The Orientalism

has been revisited with a subverted form and style as in reality, and the West is colonised by the Ottoman. Even so, Turkey's self-infliction has led to orientalism of the self as it attempts to efface the grand Ottoman past and replace it with the modernity of the West.

The linkage between Occident and Orient is a matter of power play and hegemony in various ways. It was also believed that the Orient got its identity and intelligibility from the West even though they had a much organised system. Said emphasises that “the other feature of the Orient was that Europe was always in a position of strength. There is no way of putting this euphemistically... the essential relationship, on political, cultural, and even religious grounds was seen in the West which is what concerns us here to be one between a strong and weak partner” (*Orientalism* 48).

Said depicts that the frame constructed by superiors exposed the Orient to “Western learning, Western consciousness, and later, Western empire.” The East is seen as the West's cultural contestant. Said also reasons that the Orient aids Europe to redefine itself as “its contrasting image, idea, personality, and experiences.” The West feels that the East needs attention and support for its development and revival and plays an active role in the mainstream contributing to the economic progress. After the fall of the wounded Ottoman empire and the coming of the new Republic, the reign of Ataturk motivated the Turks to look forward to the West for cultural assistance. But as they were less enlightened in this field, they felt isolated from the Western world. Furthermore, Pamuk emphasises that Europe has been a role model, dream and future, for the natives of Turkey. Europe plays a pivotal role in Pamuk's *The White Castle*, as the locale Turkey is the image of the Other, and hence the novel is an example of self-inflicted orientalism.

The religious encounter between Islam and other religions prevailed in the era of the Ottoman Empire and during the other eras. Istanbul is the locale of Pamuk's *The White Castle*, which connects Europe with Asia through the Bosphorus bridge. The European architecture of 16th century Istanbul, which can be seen in the city's buildings, also resembles the 1940s. Among the ancient monuments is the stadium for the horse race and the church which Hoja visits along with the Sultan. As the narrator says, “They'd gone by carriage to the hippodrome, to the lion-house. The lions, the leopards, and panthers the sultan showed Hoja one by one were chained to the columns of an ancient church” (*TWC*, 43). It helps ascertain the symmetrical and corresponding relationship which Istanbul shared with other cultures and ethnicity. Furthermore, these concrete structures are metaphorical with regard to what Pamuk presents as “an affirmation of the survival of the traces left by Turks, Armenians, Kurds, Jews, and several other ethnic and religious communities...under the Ottoman Empire” (*East-West Entanglements* 224).

The clash of the two hemispheres can be seen in the region of the Mediterranean Sea as it plays a very significant role for the Ottomans, being the trade route between Europe and the East. When the Ottomans faced the inferiority complex and otherness, they envied the West with a desire to take after the West. It is only through the Mediterranean that the war or domination of the West could take place. So here in *The White Castle*, the novel begins with

the capture of the young Venetian by the Turks enroute from Venice to Naples, which shows the antagonism towards the West.

As in Said's *Orientalism* the West is portrayed as civilized and the East as barbaric, the siege of the ships by the Ottomans and the treatment of enslaved Italians are seen as a threat. Apart from a noticeable difference in knowledge and power, a clash of Islam and Christianity is also dramatized. The narrator mentions that "The Muslim slaves, after being set loose from their chains, set about taking vengeance on the Italian sailors who have wiped them... and the other Christians are put to the oars" (*TWC* 15-16). Though the Sultan pressurises the young slave to take up Islam, no religious animosity could be seen between Hoja and the Venetian. Many Italians were captured in the earlier days and had taken up Islam and under duress changed their names, whom the Italian slave meets. This shows that the cultural encounter had existed much before.

For ages, the East-West encounter has fascinated the East as they consider it a measure for their development. As mentioned by Said, "Europe is always seen as superior, powerful, and articulate" and steered Ataturk, the representative of the Turks, who "believe that Europe to be the source of all truth." This change initiated by Ataturk led the Turks to believe that Turkey could be freed from retardation only through Westernization. For Pamuk and "for many people who live on the edge of Europe" "Europe has always figured as a dream, a vision of what is to come; an apparition at times desired and at times feared; a goal to achieve or a danger" (*Other Colours* 190).

Though a slave, he still feels superior to Hoja and feels obligated to direct his master. Said similarly has said that "the relationship between Occident and Orient is a relationship of power and domination and Europe is always in a position of strength" (*Orientalism* 191). As has been narrated by the unnamed, "After Hoja had thoroughly humiliated himself I would make him accept my superiority, or at least my independence, and then derisively demand my freedom" (*TWC* 71). Though Europe is the cultural contestant of the Other, East entices Europe and also helped redefine the West.

Vast developments in science and technology in the West allures the East, resulting from the East-West clash. Modernity is associated with the acceptance of updated technology and developing modern warfare. Similarly, here in *The White Castle*, the Turkish master Hoja and the Sultan are also equally interested in learning new techniques for making modern gadgets for which they engage the slave for building an incredible weapon and the Sultan said, "Let us see this incredible weapon that will ruin our enemies" (*TWC* 111).

Hoja did not favour the overdependence of the sultan and others on astrology and belittled the children's ignorance. Hoja noticed the interest of children more in supernatural things rather than in science. He says that "the students in the primary school were more interested in the angels than in stars" (*TWC* 47) which disheartens him. The dismissal of technology by the younger Turks re-enacts the binary opposition of the underdeveloped East and advanced West. Moreover, the silent rejection of traditional practices of the Turks as quoted by Boyar and Fleet in *Ottoman History* is equated with Hoja's criticism that "largely regarded the Ottomans as uncivilized and trammelled by a religion that was inimical to

progress” (*A Social History of Ottoman İstanbul* 327). Apart from the unbelievable similarity between Hoja and his Venetian slave, they shared a special bond. The likeness and the tension between the two characters and the theme of impersonation run throughout the novel.

As discussed above, in *The White Castle*, Hoja is the alter ego of the Italian slave and is further desperate to acquire all the knowledge of science possessed by the slave. So he asks him to pass on all the knowledge he has, “Everything meant all that I’d learned in primary and secondary school; all the astronomy, medicine, engineering, everything that was taught in my country” (*TWC* 32). Simultaneously the slave also feels higher in rank and superior, as an effect of the stereotype of the Occident prevailing over the Orient. Sometimes the slave wants to take the position of Hoja for the sole reason of the ability of the latter to act.

As explicated by Said “the Orient has helped to define the West as its contrasting image and idea” (2); Hoja has enabled in proving the slave more advanced by expressing his wish to learn everything. The exchange of culture also takes place between them by understanding their customs, languages, and values. Hoja also acquires knowledge about Western culture and customs. As he “ate his food at a table like an infidel instead of sitting down cross-legged” (*TWC* 77). So the complexity of the East-West clash in Pamuk’s *The White Castle* demonstrated above defines how the West is presented as a threat and an attraction to the East. In Said’s *Orientalism*, the binaries between the East and the West are fuelled. In his writings, Pamuk portrays a subverted Orientalism. Europe is Turkey’s cultural dissenter and the icon of the Other as, according to history, it has not been colonised by any developed countries. This is in addition to Pamuk, who “likes Edward Said’s idea of Orientalism, but since Turkey was never a colony, the romanticizing of Turkey was never a problem for Turks” (*Other Colours* 370).

The making of İstanbul is associated with the identification of the West. The construction of Turkey’s identity takes place by competing with Europe. The European phenomenon is a play of power money by misrepresenting and giving less space to the Oriental self-representations. Ultimately it can be said, as quoted by Akalin, that Said’s Orientalism is “to homogenise the East and fails to recognise the Ottoman Empire as a world power in the 16th-17th centuries” (*Ottoman Phenomenon* 112). Thus, Pamuk handles this conflict as an idea that carries geographical, social, and cultural significance but identifies him as an aqueduct between the two societies.

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An International, Open Access, Peer-Reviewed & Refereed Journal in English

Vol. 6 & Issue 4, (October-2021)

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REVIEW OF RESEARCH

ISSN: 2249-894X

IMPACT FACTOR : 5.7631 (UIF)

VOLUME - 10 | ISSUE - 10 | JULY - 2021



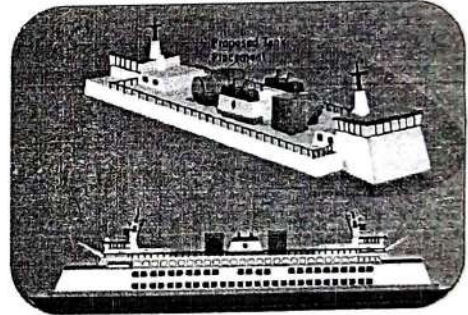
RIVERINE TRANSPORT AND FERRY SYSTEM IN COASTAL ORISSA (CE1866-1905)-A HISTORICAL OVERVIEW

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ABSTRACT

The Coastal Odisha comprised of four undivided districts of cuttack, Puri, Balasore and Ganjam were the worst victims of the Great Orissa famine of 1866. East India Company's government was very callous and apathetic of the development of research. It had no roads, no railways, no navigable canals till the 70's of 19th century. Regarding the deplorable condition of communications, the Famine Commission in 1866 reported "The people were shut up in a narrow province between pathless jungles and an impracticable sea". About one-third population of Orissa perished in this famine. Therefore the people mainly depended on riverine transport and ferry system for their livelihood. This paper highlights how the riverine transport and ferry system helped the common people for the transportation of food grains from other regions.



KEYWORDS : Amazon; Work; boi-bumbá.

INTRODUCTION :

Orissa lagged much behind in matter of transport and communication during the early British period. There was not a single road in the modern sense of the term in existence when the British took possession of Orissa in 1803. G. Tombe writes- "When we took the province in 1803, there was not a road in the modern sense of the word, in existence. What were then called roads were mere fair-weather cart-tracks without bridges and without proper ferry arrangements for crossing the numerous water-courses which they intercepted".¹

A number of causes can be attributed to the backwardness in transport and communication system. Firstly the East India Company's government was very callous and apathetic of the development of research. It had no roads, no railways, no navigable canals till the 70's of 19th century. Regarding the deplorable condition of communications, the Famine Commission in 1866 reported "The people were shut up in a narrow province between pathless jungles and an impracticable sea".²

Secondly the number of roads were very few that was because as A.J.M. Mills reported, "The Rajas were afraid of opening roads as they wanted impenetrable jungles around their residences".³

Throughout the rains, the roads of the Coastal Odisha, were on the whole, impassable for wheel traffic, being muddy and unbridged. In summer also the traffic was very dull dreaded by the out-siders for notorious unhealthy climate, ferocious wild beast and the way side robbers.⁴

Therefore the common people heavily depended on rivers for trade transportation and communication.

RIVERINE TRANSPORT

The rivers in coastal Orissa were used as arteries of transport and communication. All the principal rivers formed the broad waterways during half of the year especially the rainy season.⁵ When the roads of Orissa were impassable and when traffic being muddy and unbridged, the great rivers namely Mahanadi, Brahmani, Baitarani, Budhabalanga, Rushikulya, Bahuda and Bansadhara supplied an easy means of communication for import and export of commodities.⁶

All these rivers were navigable, when the roads of Orissa were impassable for wheel traffic being muddy and unbridged, these rivers supplied an easy means of communication during the rains. River Mahanadi was the chief water route between Cuttack and Sambalpur through the Princely States of Orissa like Athagarh, Athamallik, Banki, Baramba, Baud, Daspalla, Khandapara and Narasingpur. River Brahmani was another highway of communication by water. It was the broad water-ways for the people of Talcher and Dhenkanal for nearly 8 months in a year. River Baitarani was of great use for the people of Keonjhar and Jajpur. In dry season also, it was navigable as far as Anandapur. Navigation through these rivers were conducted by country boats and rafts. Transportation through these water routes was extensive because it was less expensive and there was no fear of way-side robbers and wild animals as in land routes. Therefore, a considerable trade was carried on through these rivers.⁴

The river Mahanadi was the main out-let of trade of the district till the opening of railways.⁷ Boats could ascent the Mahanadi as far as the range of Madhya Pradesh. During floods, boats take five days to reach Cuttack from Sambalpur, while the Journey to Sonepur lasts for one day, and to Binka six hours. But, the duration of the return journey was much longer. In July, it took laden boats 25 days to reach Sambalpur from Cuttack.⁶

River Brahmani was the broad water-way for the people of Deogarh Sub-division of Sambalpur and the Talcher and Dhenkanal state for barely 8 months in a year. River Baitarani was an important artery of communication for the people of Jaipur Sub-Division and Keonjhar state. In dry season also it was navigable by small boats as far as Anadapur. A considerable trade was carried on at this place. During the rainy season bamboo trade was carried on through the river Rushikulya. The timbers from the Sorada forest were transported by this river as far as Ganjamtown. Bamboo's were also transported on the river Bahunda extensively during the rains. The only water-borne trade of Koraput District was the transport of the bamboo of Malkangiri by the Saleru and Saberi rivers to the Godavari river on the Rajahmundry.⁸

The three great rivers of Puri District, the Kushbhaddra, Bhargavi and Daya were navigable throughout for several months of the year. Even in the hot weather, country boats could be seen along their banks for at least ten miles above the point where these rivers enter the Chilika. The boats belonged chiefly to Ganjam Traders, who brought loads of bamboos and other goods and in return carried the surplus rice of the Chilikalake, which was available for boat traffic throughout the year.⁹

River Rushikulya, Bahuda, Badanadi and Ghadahada were the chief rivers used by the people of Ganjam for trade and communication.

The trade on Chilikalake was carried on boats. Ferry services were in existence for transport of passenger and goods in almost all the big rivers of Orissa. The Kendrapada-Marshaghai canal and the Taladanda canal were also used as other arteries of the trade.

Navigation through these rivers were conducted by the country boats and rafts. Regarding the boats Thomas Motte writes, "These boats were light, the plank being only a inch thick and a timbers small in proportion could carry from 600 to 700 mounds. "The largest boat he saw was 40 feet long and four feet wide. But, Hunter has described these boats as flat-bottomed and were able to carry about 25 tons of burden".¹⁰ The boats used in Chilika lake were quite peculiar. They were made of planks without ribs or keels and were quite peculiarly flat-bottomed with perpendicular sides. This for was necessary in the unimproved state of the landing places as the lake in very shallow at the edges, except where a

rocky knoll formed the bank; and in such position goods could not be landed safely from the breaking of the waves. Produce was brought through the Chilikalake to Rambha, Parikud and Malud.¹¹

On the Chilikalake people use boats called *patwa*. There were flat bottomed boats and were specially made for shallow water. On the sea the fishermen use *masulaboats*. The *masulaboats* were large, flabby, flat-bottomed crafts of plants sewn together with cane strips. They were used close to the beach and were not fit for going out to sea.¹² Transportation through these water routes especially during the rains was extensive because it was less expensive and there was no fear of wayside robbers and wild animals as in land routes. But since the opening of railway, the construction of bridges over the rivers and metalled roads, the river-borne trade has greatly diminished.

WATERWAYS

Regarding waterways in Puri district, Mansfield states, "The sea along the coast is fairly deep and vessels can go close to the shore; but there is no place where a vessel, even of small draught, can take refuge in bad weather and during the greater portion of the year there is a heavy surf through which only *masula* or surf boats can pass."¹³

In the interior there is a considerable amount of traffic along the rivers during the rains, but in the hot weather they all cease to be navigable for more than a few miles above their mouths, except the Devi, by which rice finds its way by boat to the Taladanda canal and Cuttack. The Kushbhadra was the first to dry up in its upper reaches, but in its lower reaches it is navigable by small country boats the whole year round. The Daya and the Bhargavi are usually navigable throughout till about the month of January; even in the hot weather country boats may be seen along their banks for at least ten miles above the point where they enter the Chilika. The boats belong chiefly to Ganjam traders, who bring loads of bamboos and other goods and in return carry off the surplus rice of the Southern *paraganas*. They come via the Ganjam canal and the Chilikalake, which is available for boat traffic the whole year round".¹⁴

FERRY SERVICES

Personals of royal houses used horses, elephants and horse-driven carts (chariots) as the means of conveyance. The palanquins being carried by four to six persons were used for conveyance of nobles and rich people of the society. Pack-horses were used extensively for going from one place to another whereas bullocks were used for carrying merchandise. But for the commoners during the rainy seasons ferry services were run on the rivers, nalas and the Chilikalake for the transport of passengers and goods. There were quite a good number of ferries in the coastal Odisha. They mainly transport a few persons and light vehicles only from one bank to the other bank of a river. Mechanised ferries with facilities to ferry across heavy vehicles like truck, buses, etc. were of course absent.¹⁵

Rushikulya is the only major river of the Ganjam district. The course of the river is about 160 km. Besides, there are Ghodahada, a tributary of the Rushikulya, the Bahuda and the Mahendranayariver flowing in the district. None of the rivers are navigable, though during the rains Rushikulya is navigable as far as Asika. Wooden rafts and bamboos are occasionally floated downstream in rainy season. There is little boat traffic on other rivers. However, dugouts are used at a number of points for crossing the rivers.¹⁶

The ports Orissa were not developed and became worst as the rivers had silted up. The canals were also not developed for a long time for navigation. The Colonial Government didn't take much interest for Orissa as it was more concerned with Calcutta, Madras and the other region close to it. Thus, most of the people depended on riverine trade and transport during the period under review. That was the main cause of poverty and backwardness of the people of Orissa.

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INTERPRETING THE INBUILT WATER MANAGEMENT SYSTEM AND METHODS OF CULTIVATION OF THE LANJIA SOURAS OF ORISSA

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Abstract

The Souras or Savara are one of the oldest tribes of India. The name of this amazing tribe is found in the puranas, epics and other scriptures. In Orissa they have been very famous for their connection with the worship of Lord Jeganath, who according to a legendary tradition originated as a Sabara deity in the dense forest and was later brought to Puri under royal patronage. The Scattered housing pattern on hill slopes shifting cultivation and ingeniously prepared stone bounded terrace fields, worship of ancestors and spirits and attractive wall paintings are the main features of the Souras. But their inbuilt water management system and methods of cultivation are very fascinating and peculiar. With pride, they called themselves as Paraja logo (first hill cultivators or forest dwellers). A humble attempt has been made in this paper to exhibit their talent by which they could reclaim rugged mountains, high and undulating terraces with inbuilt water management system for paddy cultivation within a few days.

Keywords: Paraja Logo, Pudo Chasa, Paridi or Benta, Bagada, Dangara, Akhanda Paridhi, Birinda

Introduction

The Souras (also called as Savara, Sora, Sabara) are one of the ancient most and fascinating hill tribes of Eastern India. Souras find mention in the epics, puranas and other religious texts. In Orissa they have been very famous for their connection with the worship of Lord Jeganath, who according to a legendary tradition originated as a Sabara deity in the dense forest and was later brought to Puri under royal patronage¹. No doubt they inhabitant in some forest and hilly regions of Andra Pradesh, Madya Pradesh, Chattisgarh and West Bengal, but mainly concentrated in Rayagata and Gajapati districts of Odisha. Being a laborious highlander, they live in the remote mountains of Eastern India. They are so hardy and enterprising that they can reclaim rugged mountains, picturesque terraces with inbuilt water management system by raising vast orchards for paddy cultivation within a few days. They are mainly divided into two broad classes i.e. The Hill Souras or the Maliah Souras also called as Lanjia Souras, The Low-land Souras or Suddha Souras².

Scattered housing pattern and hill slopes shifting cultivation and ingeniously prepared stone bounded terrace fields, worship of ancestors and spirits and attractive wall paintings are the main features of the Souras.

The Souras are very fond of to live on hill slopes. With pride, they called themselves as Paraja logo (first hill cultivators or forest dwellers). Therefore their villages are situated on the hill slopes or foot hills mostly lie hidden in forest and valley of the mountains. In olden days, hunting animals and trapping birds was the main occupation of the Souras. Hunting system of the Souras are divided in to three categories (1) mass hunting or akhanda paridhi or benta, (2) small group hunting (paridhi), (3) individual hunting or Sikar. They adapted hunting practiced to get meat, for safety of domestic animals and their own community and for amusement³.

But, with the passage of time, due to rapid deforestation, restrictions imposed by the government and the non-availability of sufficient animals for hunting, the Souras converted into a settled agricultural community. After that, agriculture and horticulture became their chief means of livelihood. Since then, Souras practically depended on cultivation as it provides them food⁴.

Land and forest of the life- line for the Souras. They followed two kinds of cultivation i.e., i) the podu cultivation or shifting cultivation (dangara chasa or bagada chasa); ii) wet cultivation through the sowing of seeds in wet lands and through transplantation. But, their main source of livelihood was bagoda chasa. They are traditionally podu cultivators and at the same time have expertise in terrace cultivation. They exhibit a high degree of indigenous skill, ingenuity and technological outfit for preparing the terraces with inbuilt water management system. Mainly they grow rice in terraced fields and a variety of minor millets, cereals, and pulses in the swiddens.⁵

Soura villages had well-defined boundary and its inhabitants carry on shifting cultivation in the hills located within the village boundary. Some hills are close to the village and others at a distance. Traditionally, the hills were distributed on the basis of Birinda or extended families, Members of a particular Birinda used to have swiddens exclusively in a hill and no outsider was allowed



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to share the hill for shifting cultivation⁶. An individual who has been cultivating a particular plot continues to own it as long as he is capable of cultivating it. Thus, individual ownership of swiddens on hereditary basis is in vogue among the Souras. With the increase in population and outmigration there notices some change in the distribution of swiddens in a particular hill. Today cases of outsiders, cultivation of hills belonging to a Birinda other than their own are not unknown.⁷

For shifting cultivation, a hill slope was divided into several plots, demarcated and distributed for cultivation. The farmer who had been cultivating a particular plot of land continues to own it as long as he was capable of cultivating it. When he failed to do so, the plot was allotted to the needier. In no case were the plots left fallow nor was a plot already owned by one capable of cultivating it, allotted to anyone else. Thus, individual ownership of the swidden plots was recognized on hereditary basis⁸.

The Souras are the first terrace cultivators of India. They prepare the terraces right up to the beds of the hill streams and extended many hundreds of feet from the depth of the valleys to the hill slopes and even to the hill tops. The terraces are the works of great engineering skill. The platform of each terrace is flat throughout and the fall of each terrace is packed with stones. The construction of the terraces is so ingeniously and skilfully done that no soil is carried down with the water that flows from the higher terraces to the lower. The terrace fields are privately owned and handed down from father to sons. These are valuable assets to the Souras. But sometimes they mortgage these to local money lender and paddy lenders, which is one of the causes of their poverty.

A variety of crops like kangu, ghanthia, suan, ragi, jana, gangoi, maize, pulses like kandula, jhudunga, pea, bargudi, black-gram, horsegram, greengram; oil seeds like til, castor, mustard; spices like turmeric, ginger, cinnamor, chillies and vegetables like pumpkin, cucumber, kankada, ghiagerda, maragudi, godagai, etc. was grown in the swidden. But turmeric was their most profitable and favourite cash crop.⁹

A variety of crops are grown by them in mixed cultivation process simultaneously and also one after another in this manner they never leave land or plot fallow. One after another crops become ready for harvesting. Normally a bagada plot was cultivated for 3 consecutive years for growing different crops in succession and left fallow for 8-12 years for rejuvenation for sustaining the next cycle. But because of the large scaled destruction of forests the Government discouraged the Souras to adopt shifting cultivation. Hence fourth, the Souras have learnt in a hard way that this age-old mode of subsistence would no longer sustain their growing population. So, they undertook horticulture by the impact of British Government.¹⁰ The economic life of the Souras revolves round both shifting and settled cultivation. The 1981 census revealed that among the Souras as a whole the workers comprised 41.2 per cent and among the working population the cultivators comprised 41.2 per cent, agricultural labourer 49.5 per cent. The remaining 9.3 per cent were engaged in livestock rearing, forestry, fishing and hunting.¹¹

The Souras carry on cultivation in four types of land. These are homestead land around their houses, undulated dry land along the foot of the hills, terraced land and the swiddens in the hill slopes and hill tops. The techniques of cultivation and the types of crops grown in different types of land show variation. In the little garden around the residential houses they grow maize, tobacco, chilly and vegetables like pumpkin, gourd, bean, brinjal, etc. during rainy season. Papaya, banana, lemon and orange plants are also grown in the kitchen garden. Coconut plants which are also found in the area are recently introduced. In and around the village settlements jack-fruit, mango, tamarind, mohua, date-palm and sago-palm trees which are individually owned are seen.

In addition to wet or terraced cultivation the Souras practise shifting cultivation quite extensively. The shifting cultivation is known by the term Bagada Chasa among the Souras and each and every family has a few patches of swiddens either in the hill slopes or at the hill tops yielding mainly minor millets and pulses.¹²

The Souras are one among the few tribes of Orissa who practice shifting cultivation extensively. Being the chief source of their income, it has become a way of life for these people. The Government has imposed restriction on shifting cultivation since it is considered to be the root cause of deforestation, harmful and disadvantageous for environment and society. It is a fact that, due to repeated cutting and burning of forests, not only the forest is affected, but also the productivity of the land has considerably been reduced adversely affecting the economy of the Souras. Even under such circumstances the Souras show a considerable doggedness in sticking to this type of cultivation.

There is acute shortage of water in Souras area. The problem is more acute in the villages located in the hill-slopes and hill-tops than in the villages located in the plains. The innumerable small and big hill streams dry up mostly in February. In the absence of adequate number of drinking water wells the people have to depend upon tiny springs for their requirement. Water in those places get dirty and contaminated by various germs. The Souras have to drink that water and as such they suffer from various diseases.



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DOI: <http://ijmer.in.doi./2021/10.07.179>

Therefore, priority should be given for providing safe drinking water to each and every hamlet and village. If necessary, a ground water survey. There is may be conducted in the whole belt to locate the water level.¹³

Paddy is mainly grown in wetland. Vegetables except brinjal, Plantain and pumpkin, are seldom grown either for own consumption or for cash. Tamarind and Karanja trees are plenty in the area. They collect the fruits of these trees in summer and sell for cash. They grow sagopalm and mahua flower for wine. Souras in general earn more than other neighbouring tribes but lead miserable life due to chronic indebtedness to meet the expenses of innumerable feasts, festivals sacrifice for appeasement of God, ancestors, spirits and for treatment of diseases. Hunting is a popular pastime. They use bows and arrows, and varieties of axes and knives in hunting. But now days after the banning of hunting and killing of wild animals by the Government they face many problems for maintaining their livelihood.¹⁴

Living in an isolated life from the main stream of modern civilization, Lanjia Souras are the most primitive and tradition loving people. Once upon a time, the Souras particularly the Lanjia Souras called themselves as Paraja logo (Hill cultivators or forest dwellers) and hated the Pada Desia (outsiders) which kept them isolated for generations. Though they are very illiterate and backward, but they are the best shifting cultivators and horticultures. They exhibit a high degree of indigenous skill, ingenuity and technological outfit for preparing the terraces with inbuilt water management system. This should be a model for people of other regions India.

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A NOTE ON THE RECENTLY DISCOVERED ILLUSTRATED PALM-LEAF MANUSCRIPTS OF GANJAM DISTRICT

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Abstract: South Orissa in general and Ganjam district in particular is famous for Palm-leaf itching and drawing. Writing or inscribing on palm-leaf was very popular in this region from 2nd half of 15th century to 18th century when the papers were not available. Almost all the literatures i.e. puranas, epics, astrological, ayurvedic works, *sutras*, *mantras* & *Tantras* were written on palm leaves and preserved in the form of books (pothis). Palm-leaf manuscripts of Odisha may be broadly divided into two categories-general books or pothis and illustrated or drawing (painting) pothis. A no of illustrated palm leaf manuscripts were collected and now available in Odisha state museum Bhubaneswar. The theme or pictures of these books were mainly based on mythology or puranas. Recently five such illustrated manuscripts are discovered from a locked room of the house of Sitharam Pusty(Great grandson of Balaram Pusty) village Mundamurai of Sorada block of Ganjam district. The author has personally conducted field study and was eye witness of the manuscript. The pictures of these five books are totally different. A humble attempt has been made in this paper to present the findings of these illustrated Palm leaf manuscripts.

Keywords: *mathadhisas, chitrakararas, lipikaras,Pothis, Dasavathara, Gita Govinda ,Kachi-Kavery, Navagunjara*

INTRODUCTION:

Writing or inscribing on palm-leaf was very popular in Odisha from the 2nd half of 15th century to 18th century when the papers were not available. Almost all the literatures i.e. purans, epics, astrological, ayurvedic works, *sutras*, *mantras* & *Tantras* were written on palm leaves and preserved in the form of books (pothis).Although handmade and machine made papers of different texture were available from the fag-ends of the 19th century, the palm –leaf and tradition was continued to be a living art among the artists of Ganjam, Puri and Cuttack district. Several causes can be attributed for the popularity of Palm-leaf manuscripts. Firstly South Orissa like Andhra Pradesh is famous for huge and immense size of Palm trees. This is provided ample opportunities to utilize leaves of this tree for Palm leaf itching and Palm leaf drawing. Second reason which encouraged the practise of drawing on palm leaves was the patronage Rajas and Maharajas, *mathadhisas* (*chief of Hindu monasteries*) and other munificent persons. Any artist who could draw pictorial art on palm-leaf and present it to them was destined to receive suitable presentations and money. As a result there arose a class of artists drawing art on palm-leaves at various places of the region known as *chitrakararas* or *lipikaras*. There was a special street in the capital town of every Raja and Maharaja of South Orissa known as *Chitrakar Sahi*. They were the native painters. These artists could retain that art in family level through generations. It was found not only a hobby but also a source of livelihood for them.¹

Another reason which made this art so popular was the literary background of south Odisha. The famous poets of Odia literature, like Kabisamrat Upendra Bhanja, Kabisurya Baladeva Ratha, Gopalakrushna Patnaik, Tripati Gayaka Ratna, Hanumana Rayaguru, Bhakta Ramadas, Kabuli Narusu, Padmanava Narayan Dev(King of Paralakhemundi), Banamali Patnaik, Kabichandra Raghunath Parichha, Kishora Chandra Rajendra (King of Chikiti), Goswami Krishna Chandra Das, Raghunath Singh Deo, Krishna Singh(King of Dharakote), Kishore Chandra Harichandan Jagadev(King of Surangi), Rama Chandra Sur Deo(King of Tarala), Srinivas Rajamani(King of Manjusha), Krishnamohan Patnaik, Mohan Goswami, Vikram Deo Varma(King of Jeypore), Dinabandhu Harichandan, Chandra Chudamani Harichandan of Surangi; Tarini Charan Patra of Kabisuryanagar and Bharat Choudhry of Brahmanachhai; Kesaba Das of Tentupada; Kanhu Das of Mangalapur; Narasingha Matha of Karakhandi; Pitambar Das of Tanhara(Pitala) were born in this region of Odisha who created a renaissance in the history of *Odissi Champu, Chhanda,Purana* and folk songs of Odisha .The fourth factor which made the illustrated Palm leaf manuscripts popular is the

spiritual faith of the people. South Odisha was famous of many cults, creeds and hindu monasteries. It has the largest number of Jagannath temples and *Mathas* of Odisha and given birth to many *Sadhus* and *Santhas* like Arakhita Das, Ram Das, Keshava Das, Pitambar Das, Raja Lakshmi Narayana Dev, Raja Krushna Singh, Narasingha Matha and Kanhu Das. They composed many works which were inscribed by the shrives. This was the main reason why palm-leaf manuscripts are found in Odisha and Andhra in large quantity.² Its counterpart in North India is *Bhurjapatra*. Today these leaves are still useful for many other purposes. These are the main material for roofing or thatching of houses by the poor people in every village. These palm leaves are also used for preparing horoscopes and marriage invitation cards.

PREPARATION OF PALM-LEAF MANUSCRIPTS:

The technique of preparing the palm leaves for manuscripts is simple. The green palm leaves are first cut from the trees, cut into required sizes and dried carefully. After this preliminary work is over the semi-dried leaves buried under mud and kept in this condition for about a week, so that the leaves are seasoned. Wet leaves are to be dried in the shade to avoid sunrays. The seasoned leaves are then strained and sides neatly cut and smoothened. Then etching of letters of the required manuscripts is done by means of an iron stylus. "Great concentration and planning is required before as no alternation is possible on account of the very nature of the materials. After the etching is complete the leaf is rubbed with a paste made of bean leaves, charcoal made of burnt coconut shells, till oil and turmeric. The leaves are then wiped with a piece of cloth to clean the paste deposited in the etched portion of the palm leaves to reveals the engraved design prominently. For painting the palm leaves, vegetables and mineral colours are used". Palm-leaf manuscripts of Odisha may be broadly divided into two categories-general books or pothis and illustrated or drawing (painting) pothis. The second category includes picture drawing or etching. This form comprises different designs of temples, mountains, war scenes, marriage process, picture of different palaces of the Rajas and Maharajas, travelling of pilgrims from village to puri either in foot or cart.

A number of in pothis with black and White etchings and colour paintings are available in Orissa State Museum. It has the largest collection of Pothis in the whole of India – the more celebrated are the various versions of Jayadev's Gita Govinda, Ramayana, Mahabharata. The themes are suitably illustrated first by plain etchings and then, when the artist wanted it, by application of appropriate paint. Generally the script writers were also the illustrators. Most of this museum prepared by the celebrated Raghunath Prusti of Dharakote whose work is of high order. Many scribes often wrote out the celebrated Works of important authors and their role was mostly limited to scribing or illustrating and not the creative writing. The pothis of very early periods seem to have been lost. What is available now are the works from 17th century onwards.³

The artist has used a permanent colour which has very slightly faded in spite of the worn out condition of the manuscripts. *Dasavatara* (Ten incarnations of Lord Vishnu) paintings on palm-leave are special feature of this art. *Gita Govinda* illustrated palm-leaf manuscript is another brilliant specimen. The two manuscripts depicting marriage scene of Lord Siva and Parvati, attended by Brahma and Vishnu makes Siva as a great god. The palm-leaf drawing took the same trend as was manifested in mural painting. In some of the palm-manuscripts, the building of *setu-bandha* by Lord Rama for fighting with Ravana, the worship of Rama's *Paduka* (Sandals) by Bharata, and Biswamitra taking Rama and Lakshmana for the purpose of killing *Tadaka* are depicted marvellously.⁴ The palm-leaf manuscripts depicting *Krishnaleela*, with *Kaliadalana* are abundantly found in different villages of south Odisha. The figures of *Navagunjara* and the scene of Rathyara. The influence of Odia literature on the palm-leaf artists is evinced from the fact that, the artist has taken materials from the Odia literature like *Bhagabat Gita* of Jagannath Das, *Vaidehisha Bilasa*, *Labanyabati* and *Rasika Harabali* of Upendra Bhanja, *Sarbanga Sundari* of Lokanath Das, *Ushvilash* of Sisu Sankar Das, and legends and episodes like *Ta-poi*, *Kanchi-Kaberi* etc. Besides, *Ramaleela*, *Krishnalila* and *Prahallad Nataka* were depicted as these were much popular among the masses. Perhaps that is the reason why illustrated manuscripts are found in large quantity.⁵

But, the five illustrated palm leaf manuscripts discovered recently are of different. These are not related to any puranas and epics. These were prepared by a single lipikar (artist) Balaram Pusty during the reign of DivyasinghDev- the raja of Puri, who is considered as *Adya sevaka* (1st worshipper) lord Jeganath. In the first page of the first book (Lavanyavathi). It is written (In the 29th anka of Maharaja Sri Divyasimha Deva, on the 7th day of the bright fortnight of Karttika, on Friday, Lavanyavathi painting is completed. Oh wise men, I speak, falling at your feet. Please find no fault with the scribe Balarama Pusty, belonging to the caste of baladiya teli (oil-man using bullocks), from the market town of Mundamarai.⁶)

It is clearly revealed that Balarama Prusty was both scribe and artist for all five works and that his pictures reflect the traditional and changing life of rural Orissa in the late 19th century.

SUBJECT MATTER OF THE DISCOVERED MANUSCRIPTS:

1. The Lavanyavati is an Oriya kavya by the renowned eighteenth-century poet, Upendra Bhanja. This so-called Prince of poets, a member of the royal family of Ghumusar (a small princely state in western Ganjam District). This illustrated manuscript depicts the love and romance scene of Lavanyavati, a princess from Ceylon and Chandrabhanu, a prince from Karnataka⁷ Some idea of the poetic style is conveyed by the lines depicted in plate 3.24, part of a subplot in which a magician performs love songs before Lavanyavati in order to arouse her love. This profusely illustrated manuscript found in Mundamarai village is very lively and vibrant.
2. The Kripasindhu Janana is an Oriya poem of eighteenth century writer Dinakrisna Dasa. Afflicted with leprosy, he is supposed to have recited this work daily in the Puri temple before Lord Jaganath and it conveys his own suffering in the guise devotion to various incarnations of Visnu.⁸ It depicts the different scenes of the Jeganath temple like Bhga mandap, Nata mandap(dancing hall),Rosaghara (largest kitchen of the world),Snana mandap and the world famous Car Festival of Lord Jeganath.
3. The third book we find the figures of *Navagunjara*. Here we find various plants and trees with the peacock, deer and cow are playing. The cow boys are happily moving in the midst of them.
4. In the fourth book the human figures on the day today life i.e. former ploughing the land harvesting the paddy crops by bullocks, vegetables eaten by monkeys, Elephants threatening the wood cutters, fighting between two tigers in the dense forest are depicted majestically. Landing a life-like gesture. Depiction of birds and beasts with a background of excellent natural scenery shows the high quality of Odisha palm-leaf art. Love scenes are graphically depicted. The marriage ceremonies, with its social background, throw much light on the social life of the-than Odisha.⁹
5. In the fifth book there are profuse illustrations of sea voyages (which reminds the glorious maritime trade of Odisha with the countries of South East Asia), and the scene of Taa-poi, the Kanchi-Kavery tradition scenes from tribal people with forest life, etc.¹⁰

The Pictures found in these five illustrated Palm leaf manuscripts are very artistic lively and vibrant in comparable to the similar type of works reserved in museum and libraries of Orissa. The subject matter of the locality was taken of in this works. For instance Upendra Bhanja the author of the Lavanyavathi was a member of the Royal house of Ghumsar. Since Dharakote and Mundamuari villages are situated near the dense forests, different scenes of forests ,birds, wild animals, i.e. Tigers fighting with tigers and tigers devouring cows, bullocks, goats from villages and scenes from rural life i.e. Coming of bride groom procession party and going of the bride to her in-laws house in Palanquin are depicted. These colour pictures of said manuscripts are not only very heart touching but also provides source materials for study of folk life and culture of Orissa.

From the findings of above mentioned five illustrated Pam leaf manuscript its inferred that Balaram Pusty, the painter (*lipikar* or artist) maybe the great grandson or relative of the celebrated Ragunath Pusty, who was the painter of large number of illustrated palm leaf manuscripts preserved in Odisha state museum. Beacuse the village of Balaram Pusty and birth place of Ragunath Pusty are very near to each other. Therefore the traditions are continued. The owner of these five books under study is said to be the survival of Balaram Pusty.

Thus, the art of drawing and sketching on palm leaf in Orissa reached its perfection second half of the 80th century. These palm leaf illustration of south Orissa maybe compared with the Mural paintings found in some of the temple of Odisha and sculptural art of the age Konark.¹¹ But it is astonished to note that, the no erotic scenes or nude figure are not found in the palm leaf illustration of south Orissa.

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Perception of Indian banking professionals on E-Banking contribution towards Operational Performance

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Abstract

Improvement of economic background of a country depends upon improvement of smooth and advance banking amenities. Indian banking professionals should well aware and well equipped with updated banking practice with updated technology. The banking performance will enhance after well operational banking practice in terms of technology and service. Present study deals about the perception of Indian banking professionals on E-Banking contribution towards operational performance. 41 statements are identified and clubbed under nine factors, namely, E-banking on Work Pressure of Employees, E-banking on Employees Relation and personal Development, E-banking on Behavioral Factors, E-banking on Employee's Perception on Core Banking Solution, E-banking on Employee's Perception on Electronic Data Interchange, E-banking on Employee's Perception on NEFT and Real Time Gross Settlement and analyse the perception of Indian banking professionals on E-Banking contribution towards operational performance for each 41 statements. The study concludes that due to advancement of banking technology the financial inclusion problem has been eradicated to an extent. And the banking facilities are reaches to last corner.

Introduction

In the beginning of 90's, there were so many deficiencies were prevailing in the Indian economy, particularly in the financial sector in general and in the banking sector in particular. The financial system has to play a crucial role in the mobilization of funds and their allocation to the most productive use to fulfill its role in economic growth. The financial service industry needs to operate by operational flexibility and functional autonomy to enhance efficiency, productivity, and profitability. Despite the impressive quantitative achievements, several distortions have crept into Indian financial system in respect of allocation of resources, productivity and profitability have suffered, and portfolio has deteriorated, work technology is outdated, and transaction costs have mounted.

Review of literature

The research about "the influence of electronic banking on bank performance; a study of first bank of Nigeria. The application relating e-banking has enhanced the profitability through operating profit, profit before tax and other profit after tax of banks. The study also recommends that there is high need for banks to improve and upgrade their information based communication technology infrastructural

facilities, total cost of installing a full sound ICT should be reduced or get influenced by the government (Kamesam .2006).

Evaluated that the relationship of banker-customer was improved by sort of mobile phone and internet banking. The authors establish that through new technology it has made the banks very economical and commercial and also internet has played a vital role in it. Opinion of bank employees and customer satisfaction regarding the use of internet was surveyed. They pin pointed out once consumer usage of remote bank were delivered channels got increased; relationship with management will also become more important feature. Further, the combo mixture of its traditional and new deliverable channels, if as followed, can help to progress their productivity and profitability (Durkin, M. G.2003. et al).

Studied to gather information about bank employee's opinions of the potential benefits and associated risk factors with usage of electronic banking in Pakistan. The study vitally shows that public bank employees who have obtained professional degrees were consider minimizing transaction costs and decline in HR requirements as one of the most and the least important benefits of electronic banking respectively. Masters or bachelor degrees were recruited as private bank employees, with a less than 10 years' experience, for the use of time saving and also minimizing inconvenience was the major benefits of establishing electronic banking. The bankers in Pakistan perceive electronic banking as one of its tool for minimizing inconvenience empirical analysis was suggests, also in reducing transaction costs and saving time (Kaleem, A.2009. et al).

Research on Bahrain customer's perception and satisfaction towards new term e-banking. They sorted out that most of the Islamic bank customers were satisfied with particular Islamic banks' services. The factor affecting were based on the customers dissatisfaction, found that the high cost of the services has been charged by the Islamic banks. The religion were considered as the most influential factor in the selection of these Islamic banking system, but not the return on their investment. Most of the customers have no basic knowledge about the complex influenced on Islamic financial system in the e-banking services of Islamic banks (Metawa and Almosawi 2010).

Studied the User's adoption through e-banking services: the impact and perspective of Malaysian point of view with regards to Internet banking on it monetary and credit policies. As long as the delivery of banking services and facilitator depends on internet and its use for normal payment transactions, it might not cause impact monetary policy. However, when its assumption are staged where private sector initiative produces electronic substitution of change like e-cheque, account reliable credit based cards and digitalize coins, its likely may not have impact on monetary system. Even in some developed countries where i-banking has been quite established, its impact relating to monetary policy has not been that significant. In India, as the Internet banking is still in its developing stage such concern, for the present is not widely addressed (Poon, W.C. 2005).

Provided a specific focus that helped to identify the impact by demographics which influencing Indian Internet users detail in the consumption of different services added through online. The survey was conducted to 570 internet users in Bangalore. The study generally reveals that age and occupation had high significant impact on consumption of different categories within services through online. The study also showed the significance of specific demographics influence that relates in online consumption of

services in the growing Indian market. There are wide ranges of opportunities applicable for online marketers to tap the potential of rapidly increasing through online market space in India (Sakkthivel A. M,2017).

Reported on one particular thought to user's adoption in e-banking services. The result of this study had shown that perceived usefulness, perceived ease of use, consumer awareness and perceived risk are the prime factors that determine an online banking adoption. Study also suggested that usefulness, ease of use of the system awareness with regards to online banking and risks related are the main perusing that causing factors to accept online based banking system (Poon, W.C.2008). "Evaluated consumer point of observations on quality aspect related e-services and Internet banking based adoption in Malaysia. The data was almost collected from 150 retail based banking customers of the Klang Valley area surroundings. Results showed that through Internet banking users and non-users have diverse expectations with related to e-service quality. Not all of the dimensions were preferable by its respondents. The study also have discussed on implications and its recommendations to improve the Internet banking service quality in Malaysia (Qureshi, T.M.2008. et al).

Research Methodology

To examine the impact of E-banking on operational performance of Indian bank. A total of 41 statements are considered that explaining itself about the extent of impact on bank's operational performance. These statements are answered by 500 bank employees based on impact and effectiveness view point. The analysis begins with the estimation of weighted average score (WAS) then ranked the variables based on WAS, which leads to find out the most impacted variables with respect to the corresponding factors. Again to examine the demography specific analysis the ANOVA and t-statistics has been used for all the variables.

The 41 statements are classified under six factors, namely, work pressure of employees, employees relation and personal development, employees behavioral factors, Core Banking solutions, Electronic Data Interchange and Real time Gross Settlement. Categorically, all the factors are segregated by two broad factors i.e. operational performance (work pressure of employee, employee relation and personal development and behavioral factors) and E-banking services (Core Banking solutions, Electronic Data Interchange and Real time Gross Settlement)

Demography wise distribution of sample

The sample has been segregated based on demography, namely, age, gender, bank type, designation, work experience and educational profile and provide simple summaries about the sample and the measures. Together with a simple graphics analysis, they form the basis of virtually every quantitative analysis of data. It depicts about the insights about the employee's perception with regard to contributions of the customers on the technology deployment in Indian banking sector. This is to concentrate light on different corners and working dimensions of banks in the technology era.

Analysis and interpretation

Age Profile

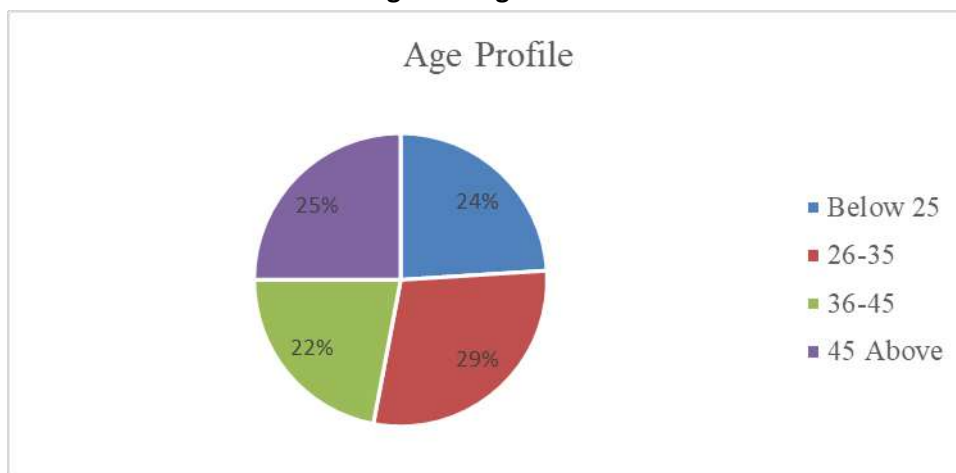
From table 1 it concludes that majority of respondents 29 (29%) are between 26-35 years old, 25 (25 %) of respondents are above 45 years, 24 (24%) of respondents are below 25 years old, 22 (22 %) of

respondents are 36-45 years. Therefore, the majority of respondents are in the age group are between 26-35 years.

Table 1. Age Profile of Bank Employees

Age		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 25	24	24.0	24.0	24.0
	26-35	29	29.0	29.0	53.0
	36-45	22	22.0	22.0	75.0
	45 Above	25	25.0	25.0	100.0
	Total	100	100.0	100.0	

Figure 1. Age Profile



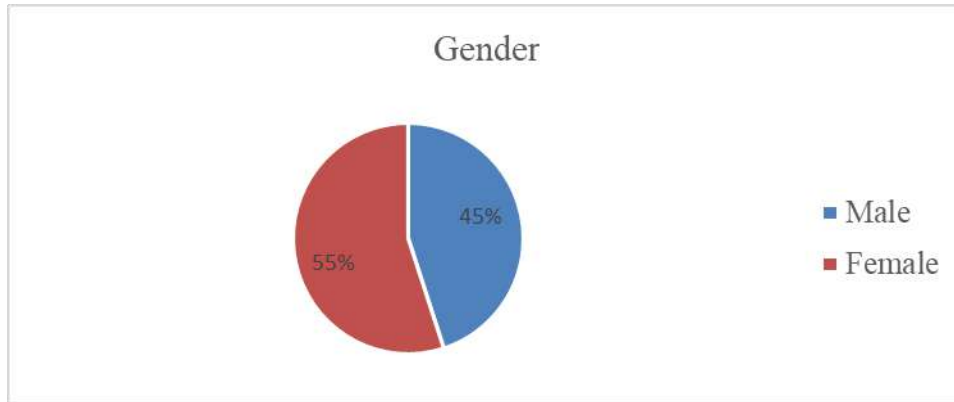
Gender Profile

From table 2 it concludes that majority of respondents are Female as 55 (55%) and Male is 45 (45%). Therefore, the majority of respondents are Female.

Table 2. Gender Profile

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	45	45.0	45.0	45.0
	Female	55	55.0	55.0	100.0
	Total	100	100.0	100.0	

Figure 2. Gender Profile



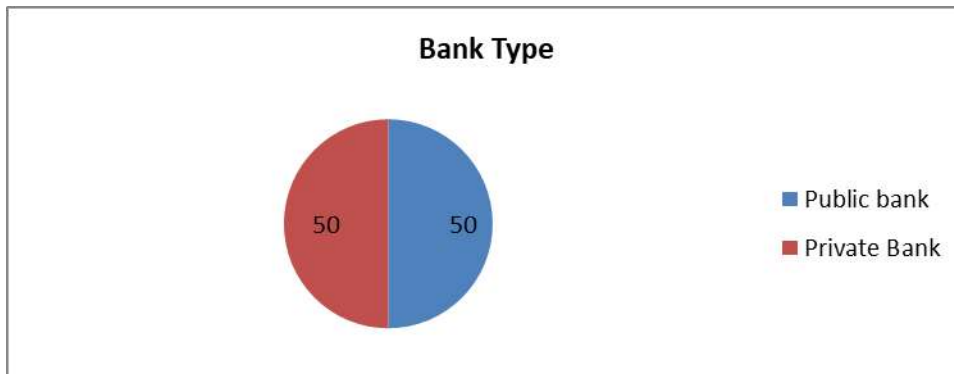
Bank Type

From table 3 it is concluded that the respondents are 50 (50%) from public banks and 50 (50%) from private banks. **Therefore the majority of banks are private and public banks.**

Table 3. Private and Public Bank employees

Bank Type				
	Frequency	Percent	Valid Percent	Cumulative Percent
Public bank	50	50.0	50.0	50.0
Private Bank	50	50.0	50.0	100.0
Total	100	100.0	100.0	

Figure 4: Bank Type



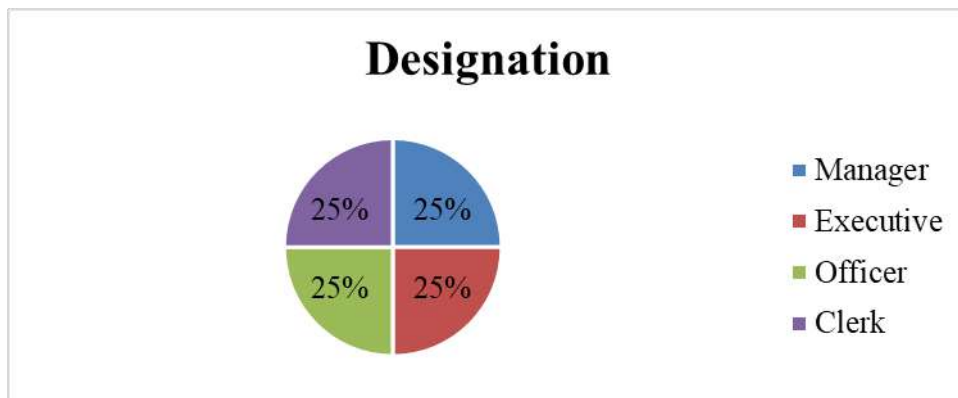
Designation of Employee

From table 4 it concludes that the Designation of the employee. To know the operational performance of Banks equal numbers of employees from a different category of the department.

Table 4. Designation of employee

Designation		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manager	25	25.0	25.0	25.0
	Executive	25	25.0	25.0	50.0
	Officer	25	25.0	25.0	75.0
	Clerk	25	25.0	25.0	100.0
	Total	100	100.0	100.0	

Figure 4. Designation of Employee



Work Experience of Employees

From table 5 it concludes that majority of respondents 36 (36%) having 4-6 years of experience, 27 respondents (27%) have experience of above 6 years, 20 respondents (20%) having experience of 2 to 4 years, 17 respondents (17%) having an experience of less than 2 years. Therefore, the majority of respondents are having experience of 4 to 6 years.

Table 5. Work Experience

Work Experience		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 2 years	17	17.0	17.0	17.0
	2 to 4 years	20	20.0	20.0	37.0
	4 to 6 years	36	36.0	36.0	73.0
	Above 6 years	27	27.0	27.0	100.0
	Total	100	100.0	100.0	

Figure 5: Work Experience



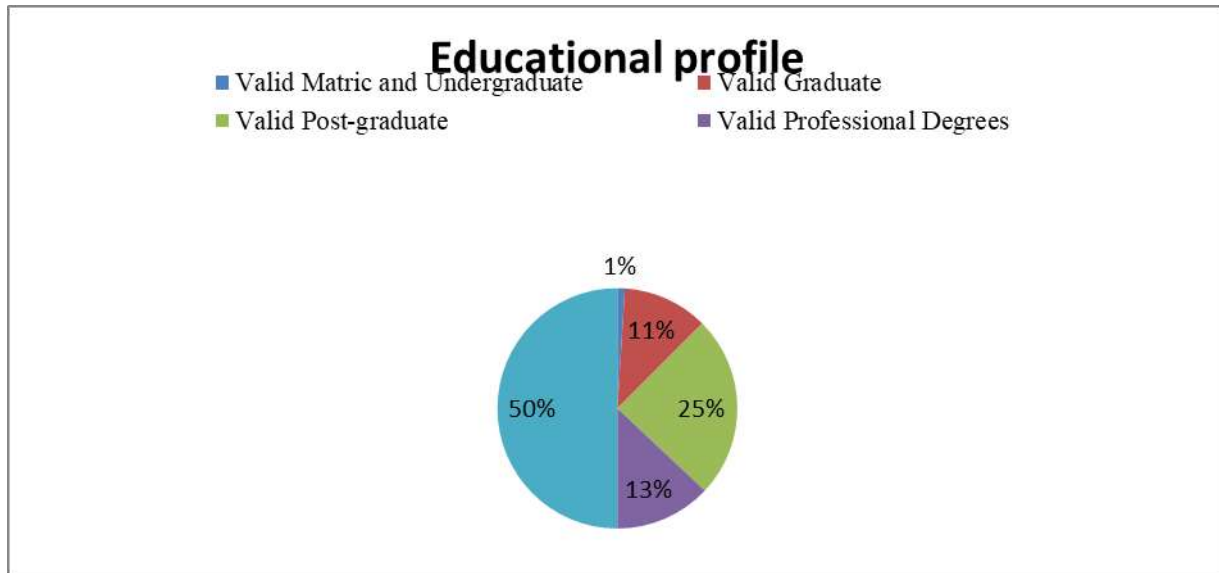
Educational profile

From table 6 , it concludes that the majority of -employees i.e 49% are Post-Graduate, 26% of them have Professional degrees, 23% are Graduate while 2% are either Matriculate or Under-Graduate. An analysis of the table reveals that maximum of employees belong to Post-Graduate category.

Table 6. Educational profile

Educational profile		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Metric and Undergraduate	2	2	2	2
	Graduate	23	23	23	25
	Post-graduate	49	49	49	74
	Professional Degrees	26	26	26	100
	Total	100	100	100	100

Figure 6. Educational profile



The above facts and figures of Indian banking employees clearly indicate the active participation of bank employees diversified by several demography, namely, age, gender, bank type, designation, work experience and educational profile. Further, the responses of bank employees on 39 statements have been analysed through weighted average score to form the rank of the statements with corresponding to the factors.

Estimation of Weighted Average Score

An attempt has been made in the study to find out the key factors influenced in impacting the e-banking on operational performance of bank branches by assigning different ranks through Weighted Average Scores (WAS) among the statements included in different parameters which were used for analysing the operational performance of banks from the scores obtained from the employees of the banks. This is based on the response data collected from the selected bank employees. Weighted Average Scores (WAS) are calculated for different statements and presented in the following tables. Based on the WAS statements were ranked by 1 to 5 ranks which are ranging from highest to lowest. First rank indicates the statements mostly responded by the respondents. The statements are arranged in descending order of their agreeableness from lowest to highest and ranked accordingly from 1 to 5.

Table 7: Impact of E-banking on Work Pressure of Employees

	Degree of Agreement		

Statements	Very Large Extent	Large Extent	Not At All	Little Extent	Very Little Extent	WAS	Rank
	Increase in number of Hours	4	2	19	53		
Increase in Decision making Process	9	59	27	2	3	2.31	3
Division of Work	24	43	20	10	3	2.25	5
Increase in Productivity	35	44	10	4	7	1.84	8
Increase in Knowledge	31	55	9	3	2	1.90	7
Reduction in Processing Time	28	39	29	3	1	2.10	6
Team Performance	18	45	23	12	2	2.27	4
Minimization of Cost	4	18	20	39	19	3.51	1

Table no 7 shows the impact of e-banking on work pressure of employees and their performance and productivity. To know the impact of e-banking both positive and negative statements are taken into consideration. It was observed that a large number of employees are of opinion that E-banking with quick decision making process, separation of work along with well defined objectives improving in knowledge of employee has resulted in productivity of the banks with minimal cost. However employees are not satisfied with the increase in their working hours. There is a very little increase in working hours of their job. Further it has seen that it has minimized the transaction processing time as minimum employ of manual work for entering and processing of data is required. Moreover, the decision making capacity of employee has also increased to a large extent. So, as far as the work pressure of employee is concerned, it has been minimized by division of work and quick processing time.

Table no 8: Impact of E-banking on Employees Relation and personal Development

Statements	Degree of Agreement					WAS	Rank
	Excellent	Very Good	Good	Fair	Poor		
Human Resource Policies of Bank	24	34	25	14	3	3.62	4
Environment after adoption of E-banking	29	36	29	4	2	3.86	1
Training aspects to the employee	22	29	41	6	2	3.63	3
Upgraded knowledge of employee	24	27	32	16	1	3.57	6
Relationship between Employee and Customer	20	35	33	9	3	3.60	5
Relationship between Employee and Employee	19	43	26	6	6	3.63	3

Advise to Customer	17	39	31	9	4	3.56	7
Quickness in Rendering Service	35	28	22	12	3	3.80	2

Table no 8 reveals the impact of E-banking on the operational performance of employee with relation to personal development and relations. It also depicts that there is a transformation in personal development and relations after adoption of E-banking. Majority of employee expressed that the environment they are working has improved after adoption of E-banking with a Weighted Average Score of 3.86. Similarly, it has assisted to provide quick service (3.80) to the customers. Further, employees are efficient in working environment due to proper training (3.63) and they are also satisfied with the HR policies of the bank (3.62). No doubt, personal interaction with customer has reduced, but due to quick responses to their queries the relation with them has increased. The employees' knowledge about E-banking environment has been upgraded continuously. Therefore the study found that personal development of employees has been improved and with the customer is good due to quick mode of banking.

Table no 9: Impact of E-banking on Behavioral Factors

Statements	Degree of Agreement					WAS	Rank
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
Helped in reducing work stress	29	39	27	2	3	3.89	2
Helped in reducing chaos and confusions	30	25	20	13	12	3.48	5
Helped to do routine work more efficiently	29	24	19	15	13	3.41	6
Increased interest in work	31	25	19	14	11	3.51	4
Increased level of motivation	37	42	13	7	1	4.07	1
Increased level of job satisfaction	17	44	25	11	3	3.61	3

Table no 9 describes the impact of E-banking on behavioral factors of employees. Majority of employees are of opinion that E-banking has increased the level of their motivation in the work (4.07). Again due to E-banking the work stress of employees has been reduced to a large extent (3.89). As such employees are less burdened and satisfied with their job (3.61). Further employees are motivated with working environment under E-banking; they are more interested in their work (3.51). Similarly it also eliminates the chaos and confusions among the employees while performing their work (3.48). Since E-banking is a systematically designed banking tool, it has helped employees to do their routine work more efficiently.

Table no 10: Impact of E-banking on Employee's Perception on Core Banking Solution

Statements	Degree of Agreement					WAS	Rank
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
Facilitate Centralized Data Base	32	23	30	5	10	3.62	5
Online Real Time Data Availability	27	33	27	27	6	4.08	1
Any Branch Banking	32	35	27	2	4	3.89	3
Facilitative in Lunch of New Product	36	41	16	3	4	4.02	2
Shifting of Time Consuming Activities to Data Centre	35	34	14	7	10	3.77	4
High Pressure on Concentrated Branches	23	38	21	9	9	3.57	6

Table 10 reveals employees’ perception about impact of E-banking on operational performance of banks with relation to Core Banking Solution. From the above data, it is very clear that large number of employee is of opinion that due to E-banking, new products and services of banks can be easily lunched, the reason being majority of customers access different modes of E-banking and fulfill their needs relating to online shopping, online ticketing, share trading, mutual fund transactions etc. the latest and updated information regarding all these can be easily available through E-banking. In Core Banking Solution system of banking, customer can transit online fund transfer at any branch of bank. It was also found from the table that implementation of Core Banking Solution enables the bank to keep reliable centralized data reposition. Moreover, E-banking has facilitated new technology like data warehousing, data mining for their business analysis and growth. However, Core Banking Solution has put a high work load on the branches settled in industrial areas. From the above table, it can be concluded that employees are of opinion that Core Banking Solution connected all branches of bank with each other by providing safety and reliable services all the time.

Table no 11: Impact of E-banking on Employee’s Perception on Electronic Data Interchange

Statements	Degree of Agreement					WAS	Rank
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
Reduces cash holding	30	44	16	6	4	3.90	1
Less mailing cost	24	42	25	2	7	3.74	3
Automatic reconciliation of remittance	24	39	28	7	2	3.76	2

Less reliance on human interpretation	27	37	22	12	1	3.74	3
Enables paperless transaction	28	43	14	7	8	3.76	2

Table 11 shows the impact of Electronic Data Interchange on working culture of the banks. From the above table it can be said that Electronic Data Interchange helped in exchanging computerised based data with minimal use of manual work in it. Large numbers of employees have agreed that Electronic Data Interchange has reduced inventory holding (3.90) as the data of customer is warehoused in soft copy form. So no physical record is required to be kept. Employees also have statement that adoption of E-banking eliminates larger amount of human interpretation (3.74). It also reduced the cost providing information relating to banking products and services to the customers by mailing those (3.74). It also reduced the use of larger amount of paper work (3.76). no papers and files are required for record keeping as almost all information regarding the customer are stored in system in form of PDF, excel and word files.

Table 12: Impact of E-banking on Employee’s Perception on NEFT and Real Time Gross Settlement

Statements	Degree of Agreement					WAS	Rank
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree		
Processing and Settlement on Real Time	32	39	20	5	4	3.90	2
Payments are Settled transaction by transaction	27	31	33	7	2	3.74	4
Reduced settlement Risk	29	29	30	8	4	3.71	5
Immediate finality of transaction	27	37	26	7	3	3.78	3
Settlement on FIFO Basis and Priority Wise	23	24	33	11	9	3.41	6
Immediate Credit and Transparent pricing	27	37	38	6	10	4.19	1

Table 12 explains employees’ perception about E-banking on their operational performance with regard to Real Time Gross Settlement system. The RTGS system is primarily for online real times inter-bank payment and settlement of heavy funds. Majority of employees agreed that adoption of E-banking helps in quickly transfer of funds (4.19). In this system (RTGS) processing time is on real time basis (3.90). Further, employees are agreed that funds are quickly transferred (3.78) without any security risk. Moreover, employees also agreed that payments are settled transaction by transaction (3.74) and also eliminated the settlement risk (3.71). The study also found that while making settlement, FIFO basis and priority wise both are considered in a secured manner.

From the above analysis, i.e. ranking of weighted average score the variables of corresponding factors have been ranked based on most impacted variables to least impacted. The rank have been estimated on the basis overall perception of bank employees. Again, to analyse demography specific perception of bank employees on two broad categories i.e. operational performance and E-banking services, one-way ANOVA and t-test respectively have been used. To achieve the effective purposive result the broad factor, i.e. operational performance have been analysed through designation demography and the E-banking service have been analysed through t-test. To test the hypothesis H₀₁ one-way ANOVA and to test the hypothesis H₀₂ t-test have been used as follows.

H₀₁: there is no significant difference of perception for operative performance with respect to designation of Indian banking employees

H₀₂: there is no significant difference of perception for E-banking services with respect to employees of private sector and public sector bank.

Demography wise perception analysis

As discussed earlier the demography specific perception of bank employees on two broad categories i.e. operational performance and E-banking services, one-way ANOVA and t-test respectively have been used. And to achieve the effective purposive result the broad factor, i.e. operational performance have been analysed through designation demography and the E-banking service have been analysed through t-test. The factors under the two broad category have also been briefly analysed as follows.

Perception analysis of operative performance

The broad factor operative performance further segregated as three sub-factors with corresponding variables, namely, work pressure of employee (8 variables), employees relation and personal development (8 variables) and behavioural factor (6 variables). The desired descriptive statistics and ANOVA have been explained briefly as follows for further analysis.

Employee Designation and Operative performance for E-Banking on work pressure of employees

Table 13 depicts the descriptive statistics for Operative performance for E-Banking on work pressure of employees indicating mean and standard deviation for each variable of sub-factors work pressure of employees.

Table 13. Descriptive for Employee Designation and Operative performance for E-Banking on work pressure of employees

		N	Mean	Std. Deviation
Increase in number of Hours	Manager	25	3.22	1.414
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.76	1.464
Increase in Decision making Process	Manager	25	3.16	1.375
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201

	Total	100	2.75	1.452
Division of Work	Manager	25	3.16	1.434
	Executive	25	3.08	1.441
	Officer	25	2.52	1.610
	Clerk	25	2.12	1.201
	Total	100	2.72	1.471
Increase in Productivity	Manager	25	3.12	1.364
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.74	1.447
Increase in Knowledge	Manager	25	3.16	1.375
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.75	1.452
Reduction in Processing Time	Manager	25	3.04	1.428
	Executive	25	3.20	1.472
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.75	1.473
Team Performance	Manager	25	3.20	1.414
	Executive	25	3.20	1.472
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.79	1.479
Minimization of Cost	Manager	25	3.08	1.382
	Executive	25	3.20	1.472
	Officer	25	2.64	1.604
	Clerk	25	2.10	1.201
	Total	100	2.76	1.464

Table 13 depicts the variables and descriptive statistics, i.e. mean and standard deviation for the factor work pressure of employees with designation (Manager, Executive, Officer, Clerk) as demography. The mean ranges from 3.22 to 2.10 for Increase in number of Hours (Manager) and Minimization of Cost (Clerk) respectively.

Table 14 ANOVA for Designation and operative performance for E-Banking on work pressure of employees

		Sum of Squares	df	Mean Square	F	Sig.
Increase in number of Hours	Between Groups	18.000	3	6.000	2.965	.036

	Within Groups	194.240	96	2.023		
	Total	212.240	99			
Increase in Decision making Process	Between Groups	17.150	3	5.717	2.864	.041
	Within Groups	191.600	96	1.996		
	Total	208.750	99			
Division of Work	Between Groups	18.080	3	6.027	2.951	.037
	Within Groups	196.080	96	2.043		
	Total	214.160	99			
Increase in Productivity	Between Groups	16.360	3	5.453	2.743	.053
	Within Groups	190.880	96	1.988		
	Total	207.240	99			
Increase in Knowledge	Between Groups	17.150	3	5.717	2.846	.055
	Within Groups	191.600	96	1.996		
	Total	208.750	99			
Reduction in Processing Time	Between Groups	17.390	3	5.797	2.820	.057
	Within Groups	197.360	96	2.056		
	Total	214.750	99			
Team Performance	Between Groups	20.190	3	6.730	3.290	.024
	Within Groups	196.400	96	2.046		
	Total	216.590	99			
Minimization of Cost	Between Groups	18.000	3	6.000	2.965	.036
	Within Groups	194.240	96	2.023		
	Total	212.240	99			

1. There was a statistically significant difference between groups for Increase in number of Hours as determined by one-way ANOVA ($F(3, 96) = 2.965, p = 0.036$) with the p-value less than 0.05 so, the null hypothesis has been rejected. It indicates that eventually E-banking service will reduce the traditional labor and decrease the number of working hours.
2. There was a statistically significant difference between groups for Increase in Decision making Process as determined by one-way ANOVA ($F(3, 96) = 2.864, p = 0.041$) with the p-value is less than 0.05 so, the null hypothesis has been rejected. It indicates eventually that E-banking reduces the decision making process and quick decision can be easily possible.
3. There was a statistically significant difference between groups for Division of Work as determined by one-way ANOVA ($F(3, 96) = 2.951, p = 0.037$) with the p-value is less than 0.05 so, the null hypothesis has been rejected. It indicates that due to E-banking service the work will be centralized and the top level work will be increased, as the clerical work will done by computer automation system.
4. There was no statistically significant difference between groups for Increase in Productivity as determined by one-way ANOVA ($F(3,96) = 2.743, p = 0.053$) then the p-value is more than 0.05 so, the null hypothesis has been accepted. It indicates eventually that E-banking helps in increase the productivity of bank with lesser time.

5. There was no statistically significant difference between groups for Increase in Knowledge as determined by one-way ANOVA ($F(3, 96) = 2.846, p = 0.055$) then the p-value is more than 0.05 so, the null hypothesis has been accepted. Due to E-banking, the information with regards to internal and external banking practice are conveniently available to the bank employees.
6. There was no statistically significant difference between groups for Reduction in Processing Time as determined by one-way ANOVA ($F(3, 96) = 2.820, p = 0.057$) then the p-value is more than 0.05 so, the null hypothesis has been accepted. Cheque truncation system, online banking, mobile banking, queue management system, direct benefit transfer (DBT) are the fundamental benefits of E-banking that reduce processing time.
7. There was a statistically significant difference between groups for Team Performance as determined by one-way ANOVA ($F(3, 96) = 3.290, p = 0.024$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. Due to advent of banking technology customers perform their banking practice themselves. So it reduces work pressure on bank employees. Thus interdependence of employees will be reduced.
8. There was a statistically significant difference between groups for Minimization of Cost as determined by one-way ANOVA ($F(3, 96) = 2.965, p = 0.036$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. For E-banking heavy investment required for technical support, software development, training to employees and maintenance. So E-banking is an expensive operation.

Table 15. Descriptive for Employee Destination and Operative performance for E-Banking on Employees Relation and personal Development

		N	Mean	Std. Deviation
Human Resource Policies of Bank	Manager			
	Executive	25	3.20	1.472
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.78	1.467
Environment after adoption of E-banking	Manager	25	3.24	1.363
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.77	1.455
Training aspects to the employee	Manager	25	3.20	1.414
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.16	1.214
	Total	100	2.77	1.462
Upgraded knowledge of employee	Manager	25	3.08	1.382
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604

	Clerk	25	2.04	1.207
	Total	100	2.71	1.458
Relationship between Employee and Customer	Manager	25	3.20	1.414
	Executive	25	3.20	1.472
	Officer	25	2.64	1.604
	Clerk	25	2.08	1.201
	Total	100	2.79	1.479
Relationship between Employee and Employee	Manager	25	3.20	1.414
	Executive	25	3.08	1.441
	Officer	25	2.52	1.610
	Clerk	25	2.12	1.201
	Total	100	2.73	1.469
Advise to Customer	Manager	25	3.20	1.414
	Executive	25	3.00	1.500
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.74	1.474
Quickness in Rendering Service	Manager	25	3.20	1.414
	Executive	25	3.08	1.441
	Officer	25	2.56	1.583
	Clerk	25	2.12	1.201
	Total	100	2.74	1.461

Table 15 depicts the variables and descriptive statistics, i.e. mean and standard deviation for the factor Employees Relation and personal Development with designation (Manager, Executive, Officer, and Clerk) as demography. The mean ranges from 3.24 to 2.08 for Environment after adoption of E-banking (Manager) and Relationship between Employee and Customer (Clerk) respectively.

Table 16 ANOVA for Designation and Operative performance

		Sum of Squares	df	Mean Square	F	Sig.
Human Resource Policies of Bank	Between Groups	19.400	3	6.467	3.204	.027
	Within Groups	193.760	96	2.018		
	Total	213.160	99			
Environment after adoption of E-banking	Between Groups	18.910	3	6.303	3.171	.028
	Within Groups	190.800	96	1.988		
	Total	209.710	99			
Training aspects to the employee	Between Groups	16.750	3	5.583	2.749	.047
	Within Groups	194.960	96	2.031		
	Total	211.710	99			
Upgraded knowledge of employee	Between Groups	18.190	3	6.063	3.025	.033
	Within Groups	192.400	96	2.004		

	Total	210.590	99			
Relationship between Employee and Customer	Between Groups	20.190	3	6.730	3.290	.024
	Within Groups	196.400	96	2.046		
	Total	216.590	99			
Relationship between Employee and Employee	Between Groups	18.990	3	6.330	3.121	.030
	Within Groups	194.720	96	2.028		
	Total	213.710	99			
Advise to Customer	Between Groups	16.840	3	5.613	2.716	.056
	Within Groups	198.400	96	2.067		
	Total	215.240	99			
Quickness in Rendering Service	Between Groups	18.600	3	6.200	3.090	.058
	Within Groups	192.640	96	2.007		
	Total	211.240	99			

1. There was a statistically significant difference between groups for Human Resource Policies of Bank as determined by one-way ANOVA ($F(3, 96) = 3.204, p = 0.027$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. The HR policy in bank is strong enough as like other corporate. It was observed from questionnaire and personal interview the banking employees are facing more labor intensive work and found less human resource worthiness in banking industry.
2. There was a statistically significant difference between groups for Environment after adoption of E-banking as determined by one-way ANOVA ($F(3, 96) = 3.171, p = 0.028$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. As old bank employees are not well equipped the knowledge of banking technology and rigid to acquaint E-banking interruption.
3. There was a statistically significant difference between groups for Training aspects to the employee as determined by one-way ANOVA ($F(3, 96) = 2.749, p = 0.047$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. It was observed from questionnaire and personal interview that Institute of Banking Personnel Selection (IBPS) recruits employees and placement them with inadequate training with high responsibility.
4. There was a statistically significant difference between groups Upgraded knowledge of employee as determined by one-way ANOVA ($F(3, 96) = 3.025, p = 0.033$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. As bank technology are frequently upgraded employees are not trained the technology in real time.
5. There was a statistically significant difference between groups for Relationship between Employee and Customer as determined by one-way ANOVA ($F(3, 96) = 3.920, p = 0.024$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. E-banking creates distance between employee and customer through automation process.
6. There was a statistically significant difference between groups for Relationship between Employee and Employee as determined by one-way ANOVA ($F(3, 96) = 3.121, p = 0.030$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. E-banking creates distance between employee and customer through automation process

7. There was a statistically significant difference between groups for Advise to Customer as determined by one-way ANOVA ($F(3, 96) = 2.716, p = 0.056$) then the p-value is more than 0.05 so, the null hypothesis has been accepted. E-banking protects customers interest and resource through enhancing cyber security, disclaimer notice, one time password (OTP) as digital advise to the customer.
8. There was a statistically significant difference between groups for Quickness in Rendering Service as determined by one-way ANOVA ($F(3, 96) = 3.090, p = 0.031$) then the p-value is less than 0.05 so, the null hypothesis has been accepted. Due to enhancement of technology advancement it is quite obvious quick services can be rendered.

Table 17. Descriptive for Employee Destination and Operative performance for E-Banking on Behavioral Factors

		N	Mean	Std. Deviation
Helped in reducing work stress	Manager	25	3.20	1.414
	Executive	25	3.12	1.394
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.77	1.455
Helped in reducing chaos and confusions	Manager	25	3.18	1.414
	Executive	25	3.08	1.441
	Officer	25	2.68	1.651
	Clerk	25	2.12	1.201
	Total	100	2.77	1.476
Helped to do routine work more efficiently	Manager	25	3.16	1.414
	Executive	25	3.16	1.491
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.78	1.481
Increased interest in work	Manager	25	3.18	1.414
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.76	1.464
Increased level of motivation	Manager	25	3.16	1.414
	Executive	25	3.08	1.441

	Officer	25	2.68	1.574
	Clerk	25	2.08	1.201
	Total	100	2.77	1.455
Increased level of job satisfaction	Manager	25	3.16	1.434
	Executive	25	3.08	1.441
	Officer	25	2.64	1.604
	Clerk	25	2.12	1.201
	Total	100	2.75	1.466

Table 17 depicts the variables and descriptive statistics, i.e. mean and standard deviation for the factor Behavioral Factors with designation (Manager, Executive, Officer, and Clerk) as demography. The mean ranges from 3.20 to 2.08 for Helped in reducing work stress (Manager) and increased level of motivation (Clerk) respectively.

Table 18 ANOVA for Designation and Operative performance

		Sum of Squares	df	Mean Square	F	Sig.
Helped in reducing work stress	Between Groups	18.670	3	6.223	3.127	.029
	Within Groups	191.040	96	1.990		
	Total	209.710	99			
Helped in reducing chaos and confusions	Between Groups	17.790	3	5.930	2.876	.053
	Within Groups	197.920	96	2.062		
	Total	215.710	99			
Helped to do routine work more efficiently	Between Groups	19.400	3	6.467	3.139	.059
	Within Groups	197.760	96	2.060		
	Total	217.160	99			
Increased interest in work	Between Groups	18.000	3	6.000	2.965	.056
	Within Groups	194.240	96	2.023		
	Total	212.240	99			
Increased level of motivation	Between Groups	17.790	3	5.930	2.966	.054
	Within Groups	191.920	96	1.999		
	Total	209.710	99			
Increased level of job satisfaction	Between Groups	17.150	3	5.717	2.806	.052
	Within Groups	195.600	96	2.038		
	Total	212.750	99			

1. There was a statistically significant difference between groups for Helped in reducing work stress as determined by one-way ANOVA ($F(3, 96) = 3.127, p = 0.029$) then the p-value is less than 0.05 so, the null hypothesis has been rejected. E-banking facilities increase the work stress within managerial level as banking protocols are quiet rigid in term of reporting and technical issue .

2. There was not statistically significant difference between groups as for Helped in reducing chaos and confusions determined by one-way ANOVA ($F(3, 96) = 2.876, p = 0.053$) then the p-value is less than 0.05 so, the null hypothesis has been accepted. As E-banking simplifies the banking practice and help in reducing chaos and confusions.
3. There was not statistically significant difference between groups for Helped to do routine work more efficiently as determined by one-way ANOVA ($F(3, 96) = 3.139, p = 0.059$) then the p-value is less than 0.05 so, the null hypothesis has been accepted. Banking helps in day-to-day banking practice.
4. There was not statistically significant difference between groups as Increased interest in work determined by one-way ANOVA ($F(3, 96) = 2.965, p = 0.056$) then the p-value is less than 0.05 so, the null hypothesis has been accepted. Ease of doing work enhanced the level of interest in work environment.
5. There was a statistically significant difference between groups for Increased level of motivation as determined by one-way ANOVA ($F(3, 96) = 2.966, p = 0.054$) then the p-value is less than 0.05 so, the null hypothesis has been accepted. Easy and convenient operation of E-banking increases the level of motivation.
6. There was a statistically significant difference between groups for Increased level of job satisfaction as determined by one-way ANOVA ($F(3, 96) = 2.806, p = 0.052$) then the p-value is less than 0.05 so, we reject the null hypothesis. Easy and convenient operation of E-banking increases the level of job satisfaction.

Perception analysis of E-banking Services

The broad factor E-banking services further segregated as three sub-factors with corresponding variables, namely, Core Banking Solution (6 variables), Electronic Data Interchange (5 variables) and Real Time Gross Settlement (6 variables). The desired descriptive statistics and Independent sample t-test have been explained briefly as follows for further analysis.

Bank type and E-banking services on Core Banking Solution

Table 5.19 depicts the descriptive statistics of perception for E-banking services on Core Banking Solution indicating mean and standard deviation for each variable of sub-factors Core Banking Solution.

Table 19. Descriptive for Bank type and E-banking services on Core Banking Solution

		N	Mean	Std. Deviation
Facilitate Centralized Data Base	Public bank	50	2.56	1.296
	Private bank	50	3.28	1.386
Online Real Time Data Availability	Public bank	50	2.60	1.340
	Private bank	50	3.24	1.422
Any Branch Banking	Public bank	50	2.56	1.296
	Private bank	50	3.20	1.457
Facilitative in Lunch of New Product	Public bank	50	2.62	1.338
	Private bank	50	3.26	1.397
Shifting of Time Consuming Activities to Data Centre	Public bank	50	2.54	1.313
	Private bank	50	3.26	1.386
High Pressure on Concentrated Branches	Public bank	50	2.56	1.296
	Private bank	50	3.24	1.422

Table 19 depicts the variables and descriptive statistics i.e. mean and standard deviation for the factor Core Banking Solution with bank type (public bank and private bank) as demography. The mean ranges from 3.28 to 2.54 for Facilitate Centralized Data Base (private bank) and Shifting of Time Consuming Activities to Data Centre (public bank) respectively.

Table 5.20 Independent t-test Bank type and E-banking services on Core Banking Solution

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Facilitate Centralized data base	Equal variances assumed	.459	.500	-2.683	98	.059
	Equal variances not assumed			-2.683	97.566	.059
Online real- time data availability	Equal variances assumed	.381	.538	-2.316	98	.053
	Equal variances not assumed			-2.316	97.655	.053
Any branch banking	Equal variances assumed	1.401	.239	-2.321	98	.052
	Equal variances not assumed			-2.321	96.691	.052
Facilitative launch of new products	Equal variances assumed	.276	.601	-2.339	98	.056
	Equal variances not assumed			-2.339	97.821	.056
Shifting of time consuming activities to data center	Equal variances assumed	.286	.594	-2.742	98	.058
	Equal variances not assumed			-2.742	97.714	.058
High pressure on concentrated branches	Equal variances assumed	.866	.354	-2.499	98	.051
	Equal variances not assumed			-2.499	97.167	.051

Table 20 depicts from one sample t-test that all the variables with regard to E-banking services on Core Banking Solution, namely, Facilitate Centralized data base, Facilitate Centralized data base Any branch banking, Facilitative launch of new products, Shifting of time consuming activities to data center and High pressure on concentrated branches have been accepted the hypothesis H₀2. It indicate that there is no difference in perception between private and public bank employees with regards to these variables as the significance level is more than 0.05 at 95% significance level.

Bank type and E-banking services on Electronic Data Interchange

Table 21 depicts the descriptive statistics of perception for E-banking services on **Electronic Data Interchange** indicating mean and standard deviation for each variable of sub-factors Real Time Gross Settlement.

Table 21. Descriptive for Bank type and E-banking services on Electronic Data Interchange

		N	Mean	Std. Deviation
Reduces cash holding	Public bank	50	2.56	1.296
	Private bank	50	3.20	1.414
Less mailing cost	Public bank	50	2.54	1.296
	Private bank	50	3.18	1.438
Automatic reconciliation of remittance	Public bank	50	3.38	1.227

	Private bank	50	2.76	1.302
Less reliance on human interpretation	Public bank	50	2.58	1.295
	Private bank	50	3.18	1.410
Enables paperless transaction	Public bank	50	2.58	1.295
	Private bank	50	3.18	1.410

Table 21 depicts the variables and descriptive statistics i.e. mean and standard deviation for the factor Employees Relation and personal Development with bank type (public bank and private bank) as demography. The mean ranges from 3.38 to 2.54 for Automatic reconciliation of remittance (public bank) and Less mailing cost (public bank) respectively.

Table 22 Independent t-test Bank type and E-banking services on Electronic Data Interchange

Independent Samples Test						
		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Reduces Cash holdings	Equal variances assumed	.811	.370	-2.359	98	.051
	Equal variances not assumed			-2.359	97.265	.051
Less mailing cost	Equal variances assumed	1.035	.311	-2.264	98	.056
	Equal variances not assumed			-2.264	96.956	.056
Automatic reconciliation of remittance	Equal variances assumed	.802	.373	2.450	98	.064
	Equal variances not assumed			2.450	97.654	.064
Less reliance on human interpretation	Equal variances assumed	.630	.429	-2.216	98	.062
	Equal variances not assumed			-2.216	97.303	.062
Enables paperless transaction	Equal variances assumed	.630	.429	-2.316	98	.057
	Equal variances not assumed			2.316	97.303	.057

Table 22 depicts from one sample t-test that all the variables with regard to E-banking services on Electronic Data Interchange, namely, Reduces Cash holdings, Less mailing cost, Automatic reconciliation of remittance, Less reliance on human interpretation, Enables paperless transaction have been accepted the hypothesis H₀2. It indicate that there is no difference in perception between private and public bank employees with regards to these variables as the significance level is more than 0.05 at 95% significance level.

Bank type and E-banking services on Real Time Gross Settlement

Table 23 depicts the descriptive statistics of perception for E-banking services on Real Time Gross Settlement indicating mean and standard deviation for each variable of sub-factors Real Time Gross Settlement.

Table 23. Descriptive for Bank type and E-banking services on Real Time Gross Settlement

		N	Mean	Std. Deviation
Processing and Settlement on Real Time	Public bank	50	2.58	1.295
	Private bank	50	3.20	1.385

Payments are Settled transaction by transaction	Public bank	50	2.58	1.295
	Private bank	50	3.18	1.410
Reduced settlement Risk	Public bank	50	2.58	1.295
	Private bank	50	3.10	1.418
Immediate finality of transaction	Public bank	50	2.58	1.295
	Private bank	50	3.26	1.397
Settlement on FIFO Basis and Priority Wise	Public bank	50	2.54	1.313
	Private bank	50	3.24	1.397
Immediate Credit and Transparent pricing	Public bank	50	2.58	1.295
	Private bank	50	3.22	1.433

Table 23 depicts the variables and descriptive statistics i.e. mean and standard deviation for the factor Real Time Gross Settlement with bank type (public bank and private bank) as demography. The mean ranges from 3.26 to 2.54 for Immediate finality of transaction (private bank) and Settlement on FIFO Basis and Priority Wise (public bank) respectively.

Table 24 Independent t-test Bank type and E-banking services on Real Time Gross Settlement

Independent Samples Test							
		Levene's Test for Equality of Variances	t-test for Equality of Means				
			F	Sig.	t	df	Sig. (2-tailed)
Processing and settlement on real time.	Equal variances assumed	.465	.497	-2.312	98	.061	
	Equal variances not assumed			-2.312	97.561	.061	
Payment are settled transaction by transaction	Equal variances assumed	.630	.429	-2.216	98	.058	
	Equal variances not assumed			-2.216	97.303	.058	
Eliminated settlement risk	Equal variances assumed	.509	.477	-1.915	98	.060	
	Equal variances not assumed			-1.915	97.207	.060	
Immediate finality of transaction	Equal variances assumed	.689	.408	-2.524	98	.058	
	Equal variances not assumed			-2.524	97.443	.0158	
Settlement on FIFO basis and priority wise	Equal variances assumed	.449	.504	-2.656	98	.063	
	Equal variances not assumed			-2.656	97.622	.063	
Immediate credit and transparent pricing	Equal variances assumed	1.178	.280	-2.343	98	.069	
	Equal variances not assumed			-2.343	97.017	.069	

Table 24 depicts from one sample t-test that all the variables with regard to E-banking services on Real Time Gross Settlement, namely, Processing and settlement on real time, Payment are settled

transaction by transaction, Eliminated settlement risk, Immediate finality of transaction, Settlement on FIFO basis and priority wise, Immediate credit and transparent pricing have been accepted the hypothesis H_0 . It indicate that there is no difference in perception between private and public bank employees with regards to these variables as the significance level is more than 0.05 at 95% significance level.

Conclusion

In the era of digitization Indian banking industry have been disrupted in the way of advancement in term of technology. Advanced technology minimises working hour, convenient operations, and flexibility in implementing new product, expectation and development at large. The analysis begins with the estimation of weighted average score (WAS) then ranked the variables based on WAS, which leads to find out the most impacted variables with respect to the corresponding factors. For the factor work pressure of employees, the variable reduce processing time of transaction; for the second factor employees relation and personal development, the variable post E-banking environment; for the third factor behavioral factor, the variable increased level of motivation; for the fourth factor core banking solution, the variable lunch of new product; for the fifth factor electronic data interchange the variable reduced cash holding secured as first rank. E-banking service will reduce the traditional labor and decrease the number of working hours. E-banking reduces the decision making process and quick decision can be easily possible. E-banking service the work will be centralized and the top level work will be increased, as the clerical work will done by computer automation system. E-banking helps in increase the productivity of bank with lesser time. E-banking, the information with regards to internal and external banking practice are conveniently available to the bank employees. Cheque truncation system, online banking, mobile banking, queue management system, direct benefit transfer (DBT) are the fundamental benefits of E-banking that reduce processing time. So it reduces work pressure on bank employees. Thus interdependence of employees will be reduced. For E-banking heavy investment required for technical support, software development, training to employees and maintenance. So E-banking is an expensive operation. Private Banks implement E-banking service more quickly as compared to public banks.

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Sudam Sahu, Kamala Kant Das, (Dr.) Lalit Mohan Pattnayak

Abstract

The present study undertaken to assess the determinants factors that enhances the utility of e-banking service based on service quality dimensions in eastern-Odisha region. To know the extent of utility of e-banking service, the service quality dimensions are tested through the demography profile of the response based on primary study. The study concludes e-banking is maintain efficiently the crunch of banking needs and it is responsive by customer but still there is a question mark for reliability, accuracy. Traditional habituated banking practice and illiteracy is also questioning for convenience and tangibility. Assurance and security threat is always a obstacle for e-banking service. However, , customer services provides by e-banking service attract the customers and creates a barrier free mindset to accept the e-banking services widely with precaution and awareness of threats.



How to Cite

Sudam Sahu, Kamala Kant Das, (Dr.) Lalit Mohan Pattnayak. (2020). Determinants to improve the quality of E-banking services- Special focus to Eastern-Odisha region. *International Journal of Advanced Science and Technology*, 29(11s), 2648-2665. Retrieved from <http://sersc.org/journals/index.php/IJAST/article/view/22684>

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[Vol. 29 No. 11s \(2020\)](#)

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Identity Crisis in Pamuk's the Black Book

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Received: 20 May 2020

Revised: 24 June 2020

Accepted: 27 July 2020

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ABSTRACT

Individual and Cultural identity is one of the main themes in the works of Orhan Pamuk. Pamuk has dealt with the characters who find themselves at the crossroads of East-West conflict. The Black Book deals with the themes of identity crisis and love. It is usually found that people try to imitate someone else's self and forget their own. People try to become someone else that they are not. The main characters in the novel show their dissatisfactions with their existing identities and try to switch into others. They fall into an identity crisis after losing the present one, and search for new identity probably an idealistic one. Question of identity is a prominent theme in the post-modern literature. As a postmodern novelist, Pamuk skillfully handles the identity issue in his novels. The technique of imitation is used to create cultural and religious identity.

Keywords: The Black Book, Identity Crisis, Imitation, Postmodern.

INTRODUCTION

Quest of Identity in the Black Book

Everyone wants to become someone else whom they think can be ideal. Everyone chases for a new identity and adopt it but they fail. The Black Book also deals with themes of identity crisis and love which was published in 1990. The main contention is whether people are happy with their existing self-identities. It is a general truth found among people that they try to imitate someone else's self and forget their own. In other words, people try to become someone else that they are not. The reasons may be different for this mindset as depicted in the novel The Black Book. The characters show their dissatisfactions with their existing identities. Galip, Ruya and Celal are the main characters who try to switch their identities with others. The three characters are close cousins in relation. Ruya, Galip's wife and also his cousin one day disappears from the home and the latter starts a journey in the city to find out her. He doubts that she must be living with her step-brother, Celal who is also a famous columnist writing for Milliyet. The novel delineates man's search for new identity and missing the present one. When people lose their



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identities, they fall into an identity crisis or confusion. This results in search of a new identity probably an idealistic one.

Galip's Search for New Identity

Galip is the central character in Orhan Pamuk's novel *The Black Book*. The novel mainly deals with the theme of identity crises in the lives of major characters Galip, Ruya, Celal, and other minor characters. Galip Bey, a lawyer by profession one day returns home and finds his wife leaving the home with little information behind. He embarks on a search of his beloved wife, Ruya. While searching his wife, he falls into the self-identity crisis and struggles to find his own identity. He doubts his wife living with her step-brother, Celal Bey who is a successful columnist. It is obvious that he is not happy with his existing identity as a lawyer. He tries to forget his own identity and hold Celal's. He desires to occupy Celal's identity because of his successful career as a writer and Ruya's longing for him. In his own words: 'how much better it hold world be if he could live this world behind forever and live in Celal's world instead (Pamuk, BB, 95). Galip represents those people in the society who complain on their existing being and try to imitate others. He deliberately wants to lose his own identity and hold Celal's, because he thinks the latter's life more successful and full of joys comparing to his own monotonous world. Galip hurt by his wife's leaving him and suspiciously living with Celal makes him doubt his own ability and status in the society. When a person thinks others better than him, he tries to become like the other one. Galip too wants to bear Celal's identity to live a happy life forever.

Galip, obsessed by Celal's self and also missing of his wife Ruya, wanders on the streets, in the coffeehouses, on the bridges and all other places in the Istanbul city. He wants to discover Celal who is also missing, because he believes that Celal and Ruya must be living together. His search is not only for Ruya and Celal, but he is in quest of his own identity which seems shattered due to his wife's disappearance. He looks into the faces of people passing on the streets to read them. He sees the people coming out of a movie theatre had forgotten their own sadness by immersing their 'selves' in the movie story. Galip too longs to watch the movie to lose him in the same story and become someone else, so that he can forget his present mental tortures. He wants to forget his past identity and run away from the harsh realities of life. Galip desires to be someone else so that he can find newness of life. This someone else that he wants to become is Celal, his cousin. Galip is suspicious that Ruya and Celal are hidden in the attic flat of City-of-Hearts Apartment which is also their ancestral house. He somehow gets the keys, cheating the janitor and his wife and enters the attic flat with his heart beats increased. He expects that Ruya and Celal must be there in the flat. But when he opens the doors, finds no presence of them. It is here that Galip spends some of the days and nights holding the identity of Celal Bey, the columnist. He completely loses his own self and bears the identity of Celal. Galip occupies Celal's flat in his absence and becomes Celal for some days. As soon as he enters the house, he hears the phone ringing so many times. Finally, he takes the phone call and talks to the person at other end.

Galip speaks to the caller person pretending to be Celal Bey. He talks to some reader of Celal Bey's column who seems to have read most of the columns written by Celal. The reader wants Celal's address to meet him. Galip in disguise of Celal pretends to have forgotten the past events and suffering from memory loss. Galip wears Celal's clothes, tries to behave like him to assume his identity. He goes through the old columns written by Celal, so that he can act accordingly. After going through several past columns written by Celal, Galip decides to write columns on the name of Celal Bey. He begins his first column with the words which show his excitement to become Celal: "I gazed into the mirror and read my face. I dreamed that I had at last become the person I've always longed to become" (Pamuk, BB, 326). Galip writes a column and signs it with Celal's signature. Finally, Galip sheds his identity as a lawyer and takes the identity of Celal Bey who he always wanted to become like. Galip visits to the pudding shop where Celal often takes his breakfast. He orders what Celal likes to eat in the breakfast. He sees the city Istanbul from a different sight of Celal, not his own. Galip is completely changed into Celal and tries to do everything like him. Nobody except Galip knows that he has become Celal and lost his own self in the process. He observes the city from the self of other's i.e. Celal's. This is the sign of loss of one's identity and looking at the world from a different sight.



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At Celal's flat, Galip regularly answers phone calls from one of the Celal's readers who wants Celal's address. Galip talks to the person and seeks every detail of the past columns of the writer. He collects the information given by the caller which he uses to play the role of Celal Bey. Galip in disguise of Celal's identity answers to the caller. He also answers to the phone call of woman who calls herself Celal's beloved twenty years back. While being Celal, Galip has dissemblance to have forgotten his past.

Ruya's Identity Crisis in The Black Book

Loving Ruya the beautiful wife of Galip struggles with her existing identity and wants to become someone else. The readers know about her through Galip's descriptions and memories. It is her second marriage with Galip since her first one failed. She has got a habit of reading detective novels during night while smoking in chain and she sleeps during the day. It may be reasoned that she too is not happy with her existing identity, and being Galip's wife. She lives a life of neurotic, reading only detective novels perhaps in search of a new identity in the novels. One day, she disappears leaving her husband's home leaving no particular clues behind. She lives with her step-brother Celal, a famous columnist, in his new apartment unknown to anyone. She is found dead in Alaadin's shop a day after Celal's murder. It is clear that she too was shot and tried to save her life going into the shop but ignorant of this, the shopkeeper shut the doors only to find her dead the next day. Ruya is a vast reader of novels in which she searches her longing identity. She shows dislike of her existing identity and tries to discover a new one either by reading the novels or leaving her husband's home abruptly.

Celal's Search for a New Identity

Celal Bey, a famous columnist who writes for Milliyet makes his presence in the novel through his columns and through the description of Galip as what he thinks of him. Celal is struggling with insomnia and loss of memory. Through his columns, the readers come to know that he too suffers from identity crisis and confusion. In one of the columns, The Eye which is the tenth chapter of the novel The Black Book, he feels the presence of an eye on him. In fact this eye is the creation of Celal himself. It follows him whenever he goes. The eye and Celal are one, but no doubles. He transfers himself into that eyes and watches himself from outside. He comes to know that it was his habit since a long time.

In other words his hope was that one day he might become someone other than himself- become the other self. Celal watches himself from outside and he watches his self from inside, but finally gets surprised to see that his person is none other than his self. This shows the crisis of identity within his mind. He struggles to know his own self i.e. self-identity, but finally comes to know that the person he wants to become is none but his self itself. Here, the novelist obviously focuses on the crisis of individual identity, people sometimes are not happy with their existing state of identity, so they long to become someone else or at least they try to make imitation of those they want to become like. In Celal's case, he tries to become like other or his imaginary ideal self, but finally comes to know that it is his self which he has been searching for. Celal represents those people who try to become better and better in their identity. He has his identity as a columnist which well is set in the Turkish society, but apart from this, he quests for a new one.

Belkis' Identity Crisis in The Black Book

Belkis is a childhood companion of Galip and Ruya whom Galip accidentally meets. She reminds their childhood memories to Galip who hardly remembers her. She informs him that she always tried to become Ruya, forgetting her own identity, because she wanted to win Galip's love. She used to imagine herself in Ruya's place even after their marriage. She followed Ruya and Galip everywhere at the theatre, in the shop on the streets, in restaurants. She imagined that she was taking Ruya's place at his side. She tells Galip how she tried to forget her 'self' and become Ruya's self. She even saw Galip in her husband, Nihat. In Belkis' opinion, it is very hard for a person to become himself. She wanted to become other person and began a new life. She can't understand why a person wants to live someone else's life and not his own. She discloses that she always wanted to bear Ruya's identity. Her life was not



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real but an imitation of Ruya's in which she deliberately forgot her 'self'. She tried at her best to be faithful with her true self-identity and live her own life accordingly but she failed. She was haunted by Ruya's self and couldn't get rid of it. She used to spend hours after hours thinking only on how to become like Ruya and win Galip's heart. Belkis thought it to be an illness to desire for other's identity but after her husband's death, she got used to this habit. She finally accepts that no one in this world can ever hope to be himself or herself. People spend their most of the life time to become other's self or to imitate other people whom they feel to be their dream. In this quest of a new identity, they completely lose their true identity. Finally, the time comes when they live the life of no world, without any self-identity. As Belkis puts her thoughts in the words: "I had not been myself during the first half of my life because I wanted to be someone else, and now I was going to spend the second half of my life being someone else who regretted all those year's she had spent not being herself" (Pamuk, BB, 204).

The novelist obviously shows that every person in the world has craving for another identity. In other words, people are not happy with their inborn self and search for yet another of some other person's. A person throughout his life tries to bear other better person's identity, and forget to be his self. The people are haunted day and night by the ghosts of the 'true selves' they long to become. In short, through Belkis chapter it can be said that no one is living with his/her own true self identity. The person endlessly strives to become someone else who according to him is better one. In this identity crisis, he loses original inborn self-identity and lives with a fake identity; unfortunately he never comes to know.

CONCLUSION

Question of identity is a prominent theme in the post-modern literature. Being a postmodern novelist, Pamuk dexterously handles identity issue in his novels. Identity is studied from individual, collective or national points of view. The issue of female identity is much discussed by the feminists from the sexual point of view. Female as a gender has sexual identity in the human society in general and Turkish society in particular. The female identity is discussed from a different angle in Pamukan novels. The female is more identified from the sexual point of view.

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Volume 24 - Issue 4

STATUS OF WOMEN TO GENDER INEQUALITY Dr. Tanushree Pradhan**Abstract**

The status of Women is how the society perceives a woman and not what it should be. Gender equality includes protection from sexual harassment and right to work with dignity, which is a universally recognized basic human right. Empowerment of women is highly accelerated by the closing gender gap in education. Women represent half of the world's population, and gender inequality exists in every nation on the planet. Denying women and girls equality and fairness not only hurts them, but also hinders the rest of the society. Unless societies, governments and non-governmental organisations around the world come together and make a concentrated effort to empower and grant equality to women. Until and unless, women's economic security is strengthened, one will not be able to eliminate poverty, achieve gender equality, or realize any genuine progress.

Paper Details**Volume:** Volume 24**Issues:** Issue 4**Keywords:** Women, Gender Inequality, Gender gap, Women Empowerment.**Year:** 2020**Month:** April**DOI:** 10.37200/IJPR/V24I4/PR20201273 (<https://doi.org/10.37200/IJPR/V24I4/PR20201273>)**Pages:** 10802-10808[Login / Register \(/register-login\)](#)

For authors

ISSN-0974-8482

The

ORISSA JOURNAL OF COMMERCE

U.G.C. CARE Listed, Group- I, A Peer Reviewed and Referred Journal

VOLUME - XXXXI

October-December 2020

ISSUE No. - IV

A Publication of



Orissa Commerce Association

Journal's website: www.ojcoca.org

E-mail id: malay@ojcoca.org

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Role of Micro Finance for the Promotiom of Women Entrepreneurship in Odisha: A Study with Special Reference to Himjlicut Block of Gnajam District

Dr. Yayati Nayak and Ms . Subhadarshini Pradhan

ABSTRACT

Micro finance is regarded as one of the most important tools for the promotion of women entrepreneurship in Odisha. In Ganjam district the number of women entrepreneurs are increasing day-by-day. Entrepreneurial activities of women entrepreneurs are also increasing in the same direction. They are making different home made products in their own home. Researchers find that women of Ganjam are very intelligent. They have the ability to apply their own skill and knowledge into various home made products and services. However, in spite of all these abilities they have been struggling in order to survive. Availing credit facility is one of the most important problems for them. It is the need of the hour to help them, support them and motivate them. Therefore, the present study is an attempt made by the researchers to analyse the perception of women entrepreneurs on the contribution of micro finance towards women entrepreneurship in Hinjilicut block of Ganjam district. This study also aims to examine the relationship between annual income and financial credit of women entrepreneurs. The present study is mainly based on primary data. However, secondary data has also been collected from various published as well as unpublished sources. Chi-square test has been applied for the analysis of data. The paper finds that there is improvement in the annual income of women entrepreneurs after taking loan from the micro finance institutions. The paper concludes with a suggestion that since micro finance has been playing a pivotal role for the empowerment of women in the study area it can also be used as a tool for the survival and growth of women entrepreneurship in rural areas.

Keywords: *Women Empowerment, Entrepreneurship, Micro Finance, SHGs, Problems*

Introduction

The economic development of a country depends on its industrial development. It is The entrepreneurs who stand at the centre of the industrial activity and play an important role for the economic prosperity of a nation. MSMEs play a significant role in the contribution of GDP of a country. Again, this sector is widely recognised as a valuable foundation in fostering economic growth. Therefore, entrepreneurship has its own advantage. Any strategy aimed at economic development without involving women is meaningless. Women entrepreneurship has gained momentum with the increase in the number

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of women enterprises and their substantive contribution to economic growth. In the dynamic world, women entrepreneurs are likely to become an important part of the global quest for sustained economic development and social progress. There has been a rapid increase in the efforts to encourage women entrepreneurship in developing countries. The role of women entrepreneurs is undergoing changes in the wake of technological innovations which have brought many opportunities.

However, in India, though women have played a key role in the society, the entrepreneurial ability of women has not been properly developed due to the poor status of women in the society. The development of women entrepreneurship has become an important aspect. Several policies and programmes have been implemented for the development of women entrepreneurship in India. It is an accepted fact that the role of women in the productive activities in India has been increasing over the last few years. For the emergence and development of women entrepreneurship, effective management and promotion is highly essential for a developing country like India. Therefore, women entrepreneurship should be nurtured with much care by the Government, its agencies, financial institutions, the society and the individuals. Good efforts should be made to encourage women to start their own enterprises and become entrepreneurs.

Micro finance is also called as micro credit. It is pioneered by Prof. Muhammad Yunus, the Nobel Prize winner. It is one of the most important ways which provide access to finance for the promotion of entrepreneurship. Micro entrepreneurs who do not have access to traditional sources of finance depend on micro finance. Micro finance helps them by providing necessary funds to start a business. Collateral free loan is one of the most important advantages of micro finance which attracts a large number of micro entrepreneurs towards it. It is noteworthy to mention that the contribution of micro finance for the growth and development of entrepreneurship is increasing day-by-day.

Review of Literature

Nkomo et al. (2016) have used phenomenological approach with the intention of deeply understanding entrepreneurship as a driver of job creation based on the experiences of the respondents. The study reveals that most unemployed youths venture into entrepreneurship only because of job scarcity and unemployment. The findings also pointed out that entrepreneurship is psychologically developing youths because running a business develops one's critical thinking as well as the decision making skills. The study recommends that both the government and private agencies should come forward to support youths in their businesses. At the same time awareness campaigns about agencies that are assisting youth entrepreneurs should be communicated to youth entrepreneurs for their better results. **Françoise et al. (2016)** have made an attempt to determine the effect of PPPMER II project on SME growth in Rwanda. The study finds that training, financial access, and access to market information significantly and positively correlated to SMEs growth. The study concludes with the recommendations that training offered to the entrepreneurs should meet the needs of the SMEs growth and should be tailor-made. The interest rate and collateral requirements by the banks should be made friendly to the SMEs operators to encourage them to borrow loans to advance their businesses. **Odhiambo et al. (2016)** have made an attempt to investigate the influence of entrepreneurial skills on the level of innovation performance in youth enterprises in Kenya. The result of the study indicates that entrepreneurial skills play a key role in determining the levels of innovation in the enterprises. Limited entrepreneurial skills existed because very little attention is given to train the youths before they are funded. The study recommends more

training programmes for youths on communication skills, decision making and other relevant skills. The study also recommends for more exposure of youths globally to widen the scope of innovation for greater benefits to both the youths as well as the government in terms of employment creation.

Ali MS and Cook Kevin (2020) have studied on the role of micro finance for the empowerment of rural women. They have concluded that empowerment of rural women is a good sign for the family, community, society and the nation as a whole. The study suggests that we should pay close attention for this.

Alshami Samer Ali et al. (2019) have conducted a study on the women borrowers who have availed loan from AmanahIkhtiar Malaysia (AIM) in Selangor. The study has been conducted through semi interviews of 22 women borrowers. Findings of the study show that majority of women who have availed loan from AmanahIkhtiar Malaysia (AIM) have been successfully running their enterprises. However, a few of them are struggling to survive due to lack of product diversity and repayment of loan. The paper concludes with a suggestion that there is a need for renovation of AIM products.

BoseBoney (2018) has studied on the practice of micro finance and its impact on dairy sector in Kerala. He has also tried to identify the constraints of the producer farmers in production and marketing of the dairy products. Findings of the study mention that the role of microfinance has a strong relationship with income, education, and business progress of dairy sector.

VR Haripriya and Thenmozhi R. (2017) have evaluated on the merits and demerits of microfinance programmes. For the purpose of this study data have been collected from various secondary sources. The study concludes that MFI provides assistance to the women entrepreneur through MFI- bank linkage programme. The main focus of micro finance industry is to empower woman. MFI provides more loan to woman on easy terms. Hence, it is a good indicator for women entrepreneurs.

Kulshreshtha and Jai (2018) have examined the importance of start-up and its benefit for new entrepreneurs. They have also examined the problems and tried to find out the solutions for this. Simple random sampling method has been used for this study. A structured questionnaire has been used for the collection of primary data from 40 respondents. The study finds that start-up do not solve the major problems of women entrepreneurs. **Kani&Helan (2019)** have conducted a study to identify the position of rural and urban entrepreneurs in the district of Tirunelveli. They have investigated the problems of both rural and urban entrepreneurs. The study finds that rural entrepreneurs face more problems as compared to urban entrepreneurs. The recommendations of the study may be helpful for designing need based policies **Sivagami&Maran (2019)** have evaluated the role of agriculture for the promotion of rural entrepreneurship. They suggest that rural people should actively involve in agriculture. Rural development is possible through a healthy growth in Agriculture. It will not only create employment opportunities but it also helps in eradicating rural poverty. The study also finds that the mind-set of the rural people and the inefficiency of the government create hindrance for the development of rural entrepreneurship. **Sebastian & Karunakaran (2020)** have discussed on the schemes and incentives available for the promotion of women entrepreneurship. They have also examined the factors motivating women for entrepreneurship. The study finds that majority of the women entrepreneurs are not completely aware about the schemes designed for the promotion of women entrepreneurship.

Research Gap

After going through the above mentioned literature, it is found that many general aspects of micro finance and entrepreneurship have been covered by the researchers. They have mainly covered the importance of micro finance for the promotion of entrepreneurship. However, in the context of Ganjam district and Hinjilicut block studies relating to micro finance and women entrepreneurship is found to be very less. There is very less number of studies on the perception of women entrepreneurs on the role of micro finance for the promotion of women entrepreneurship in Hinjilicut block. To bridge the existing gap, the present study has been conducted by the researchers.

Objectives of the Study

The present study has the following objectives.

1. To analyse the perception of women entrepreneurs on the role of micro finance in Hinjilicut Block of Ganjam district.
2. To study the relationship between annual income of the respondents before and after availing loan from banks.

Hypothesis

The null hypothesis of this study is as follows.

H₀: There is no significant improvement in the annual income of the respondents after availing loan from banks.

Research Methodology

Sources of Data: The present study is mainly based on Primary data. However, secondary data has also been used for the purpose of this study. The primary data for this paper has been collected through pre-tested interview schedule. The interview Schedule was designed to gather the data keeping in view the objectives of this study. Secondary data has also been collected from various articles, websites and from the office of the DIC, Ganjam.

Sample Size: Five self-help groups have been identified from Hinjilicut Block of Ganjam District for the purpose of this study. Out of which only 100 respondents have been selected for interview by applying simple random sampling method.

Period of Study: The study has been conducted during the period 2018-19.

Methods of Data Analysis: After collecting data from the respondents, the researchers have analysed the same by using chi-square test. Tables have been used to present the required data.

Table No-1
Profile of the Respondents

Particulars	SHG Group-I	SHG Group-II	SHG Group-III	SHG Group-IV	SHG Group-V
Name	Maa Gayatri Sangha	Maa Mangala Sangha	Maa shyamalai Swayan Sahayak Gosti	Maa Gayatri Mahila Sangha	Maa Anrnapurna Swayan Sahayak Gosti
District	Ganjam	Ganjam	Ganjam	Ganjam	Ganjam
Location	Hinjilicut Block	Hinjilicut Block	Hinjilicut Block	Hinjilicut Block	Hinjilicut Block
Year of Starting	2014	2014	2014	2014	2014
Members for study	20	20	20	20	20

Source: Primary Data

In this study five SHG groups of Hinjilicut Block in Ganjam District have been selected. They have all started in the year 2014. The name of the SHG groups are Maa Gayatri Sangha, Maa Mangala Sangha, Maa shyamalai Swayan Sahayak Gosti, Maa Gayatri Mahila Sangha, Maa Anrnapurna Swayan Sahayak Gosti. Only twenty respondents from each group have been selected for this study.

Table No.2
Perception of Women Entrepreneur on Micro Finance

Particulars	No of Respondents	Percentage
Amount of Loan		
Rs (3,000-10,000)	45	45
Rs(10,001-22,000)	55	55
Period of Loan		
10-15 months	65	65
16-40 months	35	35
Loan Processing Time		
Less than 1 month	30	30
1 to 12 month	70	70
Amount of subsidy		
No subsidy	25	25
Rs 3000 -7000	15	15
7000-10000	60	60
Source of Repayment		
From own income	70	70
Husbands' income	20	20
Borrow from others	10	10
Loan Purpose		
Business	100	100
Monthly Saving in		
Rs (40-50)	20	20
Rs (60-100)	80	80

Intrepretation

- From the above table it is found that the amount of loan taken by the respondents fromRs. 3,000-10,000 consists of 45 percent and Rs.10, 001-20,000 consists of 55 percent.
- 10 -15 months as Period of loan taken by the 65 per cent women entrepreneurs whereas 35 per cent of women entrepreneur's period of loan consists of 16-40 months.
- 30 per cent respondents said that processing time of Loan is less than 1 month whereas 70 per cent respondents said it takes 1- 12 months.
- 60 per cent of respondents have received a subsidy of Rs 7000 to Rs 10000 as compared to subsidy of Rs 3,000 -7,000 and no subsidy of 15 per cent and 25 per cent of respondents respectively.
- Majority of the respondents have repaid their loan from their own business which consists of 70 per cent.
- Every member of the SHGs group must have to deposits very small amount of savings in their bank account in order to avail credit. In Hinjilicut Block Rs 40-50 has been deposited by 20 per cent respondents in every month.
- The abovetable alsoshows that the main purpose of availing a micro loan is to finance their enterprise.80 per cent respondents havemonthly saving ofRs 60-100.

Table No.3

Relationship Between Annual Income of the Respondents before and after taking Loan

ANNUAL INCOME (IN RUPEES)	NO. OF RESPONDENTS		TOTAL
	YES	NO	
20,000-30,000	05	02	07
30,001-40,000	05	03	08
40,001-50,000	30	08	38
ABOVE 50,000	40	07	47
TOTAL	80	20	100

Source:Primary Data

Calculutions of Chi-Squire Test

O	E	(O-E)	(O-E) ²	(O-E) ² /E
5	5.6	-0.6	0.36	0.064286
2	6.4	-4.4	19.36	3.025
5	30.4	-25.4	645.16	21.22237
3	37.6	-34.6	1197.16	31.83936
30	1.4	28.6	817.96	584.2571
8	1.6	6.4	40.96	25.6
40	7.6	32.4	1049.76	138.1263
7	9.4	-2.4	5.76	0.612766
100			3776.48	804.7472

$$Df = (r-1)(c-1), (4-1)(2-1) = 3*1 = 3$$

The above Table shows that the calculated value 804.7472 is greater than the table value (3 d.o.f at 5 % level of significance. Tabulated $\chi^2 = (7.81)$. So, the null hypothesis is rejected. There is significant relationship between annual income of the respondents before and after availing loan.

Findings

- From the above analysis it is found that the main purpose of taking loan by women entrepreneurs of Hinjilicut is business.
- The women entrepreneurs of Hinjilicut Block invest the loan amount in their business in order to maximise their annual income.
- With the help of bank loan, they can expand and diversify their business.
- Since there is significant relationship between annual income of the respondents before and after availing loan from banks it can be said that bank loan is a blessing for the women entrepreneurs of Hinjilicut.
- Women entrepreneurs of Hinjilicut contribute towards the economic prosperity of the block and district as well.
- The role of micro finance is very significant in the promotion of women entrepreneurship in Hinjilicut Block.

Conclusion

From the above discussions it may be concluded that micro finance plays a very important role for the promotion of women entrepreneurship in Ganjam. Most of the respondents feel that their respect in the family and society have grown up after the participation in SHGs. They have availed financial support from the micro finance institutions. After availing credit facilities, it is observed that the annual income of the respondents is increasing. Women entrepreneurs of Hinjilicut block are becoming more

Convergence of Exponential Penalty Function Method for Variational Problems

Anurag Jayswal¹ · Sarita Choudhury^{1,2}

Received: 6 February 2015 / Revised: 29 September 2017 / Accepted: 18 January 2018
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Abstract In this paper, we propose an exponential penalty function method in order to solve a constrained variational problem by transforming it into a sequence of unconstrained ones. Further, we analyze the relationship between the optimal solutions of the sequence of exponential penalized variational problems and that of the original constrained variational problem. The convergence of this exponential penalty method is also examined for variational problems. Numerical examples are provided to verify the obtained results and validate the efficient use of exponential penalty method for solving constrained variational problems.

Keywords Exponential penalty function method · Variational problem · Convergence

Mathematics Subject Classification 90C25 · 90C30

1 Introduction

The calculus of variations has strengthened its roots in various disciplines, such as science, engineering, pure and applied mathematics, decision making and economic

problems. The problem of finding a function which minimizes a given functional is called variational problem. These problems arise naturally in engineering and science, where minimization of functionals, such as, Lagrangian, strain, potential and total energy, etc. give the laws governing the behavior of a system.

Optimization problems are frequently encountered in modelling of complex real-world systems for a very broad range of applications including industrial and systems engineering, management science, operations research, mathematical economics, seismic optimization, production planning and scheduling, transportation and logistics, and many other applied areas of science and engineering (see for example, [1–4]).

Hanson [5] explored and extended the relationship between mathematical programming problem (optimization problem) and classical calculus of variation as it provides a powerful technique for the solutions of various problems appearing in dynamics of rigid bodies, optimization of orbits, structural optimization, inverse and parameter estimation problems, contact and friction problems, problems in image reconstruction and others.

Optimality conditions and duality theorems for variational problems have been the subject of numerous investigations during the last few decades, and, consequently, have accumulated a fairly large amount of literature. However, the main difficulties in solving variational problems arise due to the presence of equality or inequality type constraints. In this paper, we apply the exponential penalty function method to transform a constrained variational problem into a sequence of unconstrained ones, which can be solved easily by various well-known methods for solving unconstrained optimization problems.

The penalty function method is one of the important methods to solve general nonlinear constrained

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Volume 8, Issue 6(2), June 2019
**International Journal of Multidisciplinary
Educational Research**

Published by
Sucharitha Publications
48-12-3/7, Flat No: 302, Alekya Residency
Srinagar, Visakhapatnam - 530 016
Andhra Pradesh - India
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Typeset and Printed in India
www.ijmer.in

IJMER, Journal of Multidisciplinary Educational Research, concentrates on critical and creative research in multidisciplinary traditions. This journal seeks to promote original research and cultivate a fruitful dialogue between old and new thought.

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Issue 6(2)

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UNDERSTANDING ASTA SAMBHU UPASANA IN MAHURI ZAMINDARY ESTATE

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Abstract

Mahuri was one of the oldest zamindari estates of Ganjam district. It roughly corresponds to the present Berhampur Municipal Corporation. The Royal families of Ganjam especially the Mahuri Zamindari estate patronized all the eight forms of Siva. They established 8 Siva temples in their estate in 8 different names and popularised the Asta Sambhu Upasana. The Asta Sambhu temples symbolize the worship of 8 forms of Lord Siva.

In the different zamindari estates of Ganjam district the Asta Sambhu temples were constructed by the Royal families. The Rajas of Mahuri took the first initiative in establishing Asta Sambhu temples of Lord Siva and installed the Siva Lingas in 8 names. These Asta Sambhu temples symbolize the worship of 8 forms of Lord Siva in Ganjam district. The Royal family of Mahuri constructed 8 Siva temples in 8 directions of their estate. These 8 temples were known as Asta Sambhu temples.

Location of the Asta Sambhu Temples:

The Asta Sambhu temples which were built by the Royal family of Mahuri are situated in and around the Berhampur town. The Mahuri Raja (King of Mahuri) had chosen Golanthara, Ralaba, Gounju, Kolathigaon, Sindurpur, Bhabinipur, Sukunda and Lathi where he had established Eight Siva lingas.¹

Golanthara village is situated at a distance of 10 kms towards south from Berhampur. It is located by the side of National Highway. The Siva temple of Golanthara is known as Eshaneswara temple. After Randha village and before we reach Golanthara we witness the temple of Eshaneswara.

The Sandheswara temple is located at Ralaba village. We will have to proceed about 7 km from Berhampur in south direction on National Highway to reach the Tehsil head quarters at Konisi hata. From Konisi hat again we will have to proceed towards left about 8 km to Ralaba village. There we can see the Sandheswara temple.

The Syameswara Siva temple is situated in the Gounju village. To reach Gounju we will have to proceed at least 8 km towards south from Berhampur on



National Highway to reach Gounju village. Syameswara Siva temple is the presiding deity of Gounju village.

In Sundarpur village we can witness Sundareswara Siva temple. Sundarpur village is located towards western side of the famous Taratarini temple. From Berhampur we will have to proceed about 22 km north on the 217 National Highway to reach Sundarpur village. On the southern side of Sundarpur village the Sundareswara temple is situated.

Kholeswar Siva temple is located in the village Kolathigaon. Kolathigaon is at a distance of 4 km from Konisi hat which is about 7 km from Berhampur. Kholeswar temple is located at the northern side of village Kolathigaon.

Bhabinipur village is famous for Sankaleswar Siva temple. It is situated at a distance of 4 km from Berhampur-Lochapada Road leading towards Taratarini temple.

Gokarneswara temple which is one among the Asta Sambhu temples of Ganjam district is situated at Sukunda village. Sukunda village is at about 2 km on the western side of Berhampur town. The famous Mahuri Kalua temple is very near to the Gokarneswara temple.

The last but not the least temple among the Asta Sambhu temples is Brahmeswar Siva temple which is located at village Lathi. Lathi village is situated at 2 km distance from Old Berhampur on Tankia-Tamana Road. On the western side of the Lathi village the Brahmeswar Siva temple is located.²

In this manner all the Asta Sambhu temples are situated in and around Berhampur city which was the headquarter of the Raja of Mohuri. People are having unflinching faith and belief on these Asta Sambhu temples. The Darshan of these Asta Sambhu temples in one day either on Sivaratri or on the every Sunday of Kartika or any day in the month of Sravana. It is believed that this special Darshan brings immense virtue for the person. So every devotee has decided to make Darshan of Asta Sambhu in a day. People are also having belief that in comparison to other Siva temples, Darshan of Asta Sambhu is more valuable from religious point of view. There is a belief that people suffering from any diseases will be cured if they visits these Asta Sambhu Siva temples in one day. Thus Asta Sambhu worship is very popular in the Ganjam district and is of great importance in the religious life of the people.³

Sevakas of Asta Sambhu

The role of people and their participation in the day to day worship of the deities and in successful celebration of different rituals, mela, etc. People's effective participation enhances the supremacy and divinity of the established deities.

It may not be out of place to mention that the role of priests in conducting the day to day worship of the deities is pivotal. They play a vital role in spreading



the local folktales and the traditional messages about the deities/temples established in respective areas. Since the priests are the professional worshippers they are in a better position to propagate the supremacy of the particular deity among the common mass. It is a matter of curiosity that in Asta Sambhu temples there are no Brahmin priests. The priests belong to Raula/Mali caste. In Kholeswar temple of Kalathigaon village, Sandheswar temple of Ralaba village, Syameswar temple of Gaunju village and Sundareswar temple of Sindurpur village the priests engaged hail from mali caste, whereas in Eshaneswar temple of Golanthara village, Sankaleswar of Bhabinipur village, Gokarneswar temple of Sukunda village and Brahmeswar temple of Lathi village the priests engaged mali from Raula family. They are hereditary priests and the erstwhile Raja of Mahuri had engaged their ancestors as priests in aforesaid temples.

In most of the Siva temples Brahmins have not been engaged as priests. The priests almost belong to Raula or Mali community. In order to clarify the reason for non-engagement of Brahmin priests in Siva temples Late Sri Narayan Kara Sharma in his famous book “Narayan Kalpataru” has mentioned that Rudra (one of the names of Siva) should always be worshipped by Sudra i.e. a non Brahmin. Prior to Aryans who came to India the non Aryans or the so called demons were worshipping Siva. Though in the subsequent years the Brahmins worshipped Lord Siva yet a separate community accepted the tradition of worshipping Siva as their customary profession. The community was called as Raula and Mali. Accordingly erstwhile Raja of Mahuri had engaged Mali priests in four temples and Raula priests in other four temples since establishment of the temples. It had become their hereditary and traditional duty to perform day to day worship in said temples.

The erstwhile Raja of Mahuri had donated uniformly 72 acres of land to each of the Asta Sambhu temples. As it is seen that for the time being the entire extent of donated land is not under the ownership of the deities but the land is under occupation of the priests except in the case of Kholeswar temple of Kolathigaon village. The other seven temples are either managed by the village committee or by the committee of the priests.

Sivaratri Rituals

Devotees of Lord Siva observe the Sivaratri festival by following the prescribed rituals with sincerity and devotion. All through the day, devotees abstain from eating food and break their fast only the next morning, after the nightlong worship. Rituals baths of Sivalinga in the numerous Siva temples by Siva worshipper, mainly women, is another significant feature of Sivaratri customs and traditions. Devotees strongly believe that ritual worship of Lord Siva on the auspicious day of Sivaratri absolves them of past sins and they are blessed with Moksha.



Rituals Observed on a Sivaratri Morning:

As a tradition, devotees wake up early in the morning of the Mahasivaratri day and take a ritual sunrise bath, preferably in the holy waters of rivers. They also offer prayers to the Sun God, Vishnu and Siva as a part of a purification rite observed for all important Hindu festivals. After wearing new clothes devotees visit the nearest Siva Temple to give the customary bath to the Sivalinga.

On a Sivaratri day, these 8 Siva temples are thronged by devotees, mainly women, who come to perform the traditional Sivalinga Puja and seek blessings from the god. At times there is so much rush in the temples that devotees have to wait for hours together to have the Darshan of Lord Siva. At their turn for worship, devotees circumambulate the Sivalinga, three or seven times and then pour water over it. Some also pour milk or water of the tender coconut, sounds of bell and shouts of ‘Bholanath ki Jai’ or ‘Harahara Mahadev’.

Rituals Bath of Sivalinga:

Following the rituals prescribed in the Siva Purana, every three hours, Sivalingam is given a special bath with milk, yoghurt, honey, sandalwood paste and rose water and water of the tender coconut Puja, meditation and chanting of ‘Om Namah Sivaya’ accompanying the ritual bath. Following the bath, vermilion paste is applied on the linga. Traditionally, leaves of Bilwa tree are offered and installed on Sivalinga.⁴

Significance of Puja Items:

- According to the Siva Purana, there is special significance of the six essential puja items used in the Siva worship.
- Bathing of Sivalinga with water, milk and honey and wood apple or bel leaves added to it, represents purification of the soul.
- The vermilion paste applied on the linga after the ritual bath represents virtue.
- Offering of fruits symbolizes longevity and gratification of desires.
- Burning of incense sticks yields wealth.
- The lighting of the lamp symbolizes attainment of knowledge.
- Offering of betel leaves marks satisfaction with worldly pleasures.

Lightening of Mahadeepa:

Worship of Lord Siva continues all through the night on Sivaratri festival. Devotees spend sleepless nights in these Siva temples. Signing of hymns and verses in praise and devotion of Lord Siva besides the intense chanting of ‘Om Namah Sivaya’ the mantra that is said free people from all their sins, continued throughout the night on Sivaratri.



Sivaratri Puja:

Sivaratri puja has been given tremendous significance in Hindu mythology. It is said that ritual worship of Lord Siva on a Sivaratri day pleases Lord Siva the most. Devotees further believe that by pleasing Lord Shankara on the auspicious Sivaratri day, a person is absolved of past sins and is blessed with Moksha or salvation. According to Siva Purana, sincere worship of Lord Siva yields merits including spiritual growth for the devotees.

Siva Purana further says that performing Rudraabhisheka for Siva Linga with six different dravyas including milk, yoghurt, honey, ghee, sugar and water and by chanting Sri Rudram and Om Namashivaya pleases Lord Siva the most. According to the mythology, each of these dravya used in the abhisheka becomes a unique quality.

- Milk is for the blessing of purity and pioussness
- Yoghurt is for prosperity and progeny
- Honey is for sweet speech
- Ghee is for victory
- Sugar is for happiness
- Water is for purity⁵

Besides, worship of Lord Siva on Sivaratri is also considered to be extremely beneficial for women. While, married women pray to Siva for the well being of their husbands and sons, unmarried women pray for a husband like Siva, who is considered to be the ideal husband.

Sivaratri Celebrations:

Sivaratri celebrations in these Asta Sambhu temples, India are marked with devotion and religious fervour. Many worshippers also participate in the jagaran or the night vigil organized in these Asta Sambhu temples. Devotees believe that sincere observance of Sivaratri puja and all night worship of Lord Siva will absolve them of all their sins and liberate them from the cycle of birth and death.

Tradition of Drinking Thandai:

Since Lord Siva is regarded as an ascetic god, Maha Sivaratri is very popular with ascetics. Thandai, a drink made with bhanga (cannabis), almonds and milk is essentially drunk by the devotees.⁶

Thus, Asta Sambhu Upasana is of great significance in Orissa in general and the estate of Mohuri in particular. It not only establishes peace and harmony in the town but also stands as a symbol of social harmony.



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