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ince its inception nine decades ago, St. Teresa's College (Autonomous) Ernakulam, has always been promoting highly-rated undergraduate and postgraduate education in different subjects. St. Teresa's College (Autonomous) had been accredited by the NAAC at the FIVE STAR LEVEL in 1999, reaccredited at A level in 2006, again in 2012, and finally in 2019 reaccredited with A++. The UGC in the mean time had recognized it as 'College with Potential for excellence.' The college was also elevated to an Autonomous College From in 2014 and it fixed its greater focus on research and publication. As part of its added reinforcing research strategy, the college resolved to launch a

journal in Community Research also.

D i r C S

D e S k

The research promotion in this field is the imperative of the time and it is also the requirement to publish papers in the field. Research publication helps the college earn global recognition and fame. The management of our College therefore takes pride in this new launch of the journal.

We all appreciate and laud this attempt of the Home Science Department and Centre for Research considering the contributions made by them till now. Other similar academic institutions and their faculty have offered their unstinting support to our journal. This journal is a double blind, peer reviewed quarterly and we hope it will help to develop research in

this field in India. The Management of the College showers all praises on The Home Science Faculty in this venture.

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he launch of the *Teresian Journal of Community Research* takes St. Teresa's College (Autonomous) to another great milestone in research and journal publication, in the field of home science and community research. The

college promotes research publication in yet another genre, with a plethora of research potentials. Home Science and allied subjects comprise: subjects like Child development, Family



resource management, Family health and nutrition, Clothing and textiles, Home economics, Home management, Human resources development and Home science extension.

Original empirical research papers, theoretical and integrative review articles, and book reviews are expected to keep readers on the latest ideas, designs, and developments and will fill in the pages of this journal up-to-date.

This is another double blind peer reviewed quarterly from our college. The journal has fulfilled all the requirements of an international journal.

As the Principal of this College, I wish the prestigious Home Science Department of our college all success in this new endeavour.

Editorial





he 21st century is the century of resurgence of interest in community-based approach to research.

Dr. Susan Cherian

Community-based approaches ensure that projects are integrated into, and owned by the community. They integrate local knowledge. They use participatory processes throughout the project to facilitate this. Some conventional research projects involve limited interactions with people, while others achieve a high level of participation, without being considered community-based. Participation inevitably stands alongside any work considered 'community-based.' Using participatory research methodology which is being universally acknowledged as a more effective and useful method, more attempts of research may be followed by academicians and researchers.

The journal offers insights to improve community-based approaches. The journal aims to understand the socio-political context of the community, determining the inherent power dynamics that exist.

The journal targets to involve local common people, ensuring that the most vulnerable people are at the centre of project development and ongoing implementation.

The journal fosters active involvement and meaningful co-operation of once vulnerable people within the country through active community support.

The editor submits the first issue of the journal to the readers and welcomes your valuable feedback and suggestions.

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Plastic Pollution and Marine Ecology: A Study on Its Effect on the Fishermen Community



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Marine species of all sizes, from zooplanktons to whales, now eat micro plastics, the bits smaller than one-fifth of an inch across. When marine animals consume these toxic items, it can lead to internal blockage and death. Micro plastic is a form of man-made litter, have been accumulating in the oceans for at least over the last four decades. These originate mainly from land and enter the aquatic ecosystem through land run-off and also when they are discarded by human beings directly into the coastal water. Asian continent, are the main cause of marine plastic pollution mainly, countries like China, Indonesia, Sri Lanka and Philippines. Approximately eight billion kilos plastic waste is dump in the ocean every year. According to UN, at least 800 species worldwide are affected by marine debris and 80 percent of that litter is plastic. Kerala - famous for its pristine beaches, estuaries and wildlife - has a coastline that stretches nearly 600 kilometers. The region, which is one of India's top producers of fish, is home to more than a million people who depend on fisheries for their livelihoods (UN, 2018). Fisheries sector is one among those growing sectors that contributes a decent part of revenue for the state. But, environmental hazards like climate change and plastic pollution are becoming a major source of depletion in the sector. The present study is focused on how the accumulation of plastic debris affects the livelihood patterns of fishermen folk in Kerala.

Keywords: Plastic Pollution, Marine Ecology, Fishermen Community, Livelihood.

arine litter is a problem caused globally, but it is being most felt by coastal communities in developing countries. Plastic pollution is emer-

ging as a top threat to ocean ecosystems. By 2025, there could be 1 ton of plastic for every 3 tons of fish in the ocean. Plastic debris affects nearly 700 species worldwide through entanglement and ingestion, alters natural biological and chemical processes, provides a means for the introduction of toxins into the food web, and costs the U.S. economy millions of dollars annually. The majority of this debris comes from land-based sources (e.g., plastic manufacturers, processors, landfills, sewage overflows and litter). With only 14 percent of plastic packaging and containers recycled in the U.S., 75 percent of leakage is due to uncollected waste (*Bender*, 2018).

In early June, the G7 countries signed an *Ocean Plastics Charter* to emphasize their commitment to significantly reduce plastic pollution by 2030. While the charter is a great start, it leaves a lot to be desired. It did not refer to regulation of fishing equipment, which is believed to be the largest source of ocean plastic. It did not demand reduction of plastic production. And notably missing from the charter were the United States and Japan. *Greenpeace* called the proposals "tepid," saying they were mostly voluntary and "must be met with significant legislative action."

The UN made "Beat Plastic Pollution" its theme for World Environment Day this year. But so far it has only made suggestions that individual countries can choose to follow. Although several countries have announced plans to phase out all single-use plastics over the next decade, banning single-use plastic will not be enough to combat larger sources of pollution.

One of the biggest issues with bioplastics is that their production is not very environmentally friendly. Since they are plant-based, they require lots of land, pesticides, and fertilizer that contribute to greenhouse gas emission and ozone depletion. They also require special composting facilities to break down. A study done by the UK Environmental Agency found that cotton totes must be used over 300 times be as sustainable as a plastic bag, given the amount of resources it takes to make it. Outside of the field of bioplastics, scientists at Colorado State University recently developed a plastic alternative using γ-butyrolactone, a compound that is found in certain cleaning products. It is better than current plastics because it can be made in mild conditions and is easy to reuse and recycle. But it also costs a lot to make. While some of this research is promising and has resulted in fun alternatives like sorghum flour spoons and pasta straws, we have still not found an adequate replacement for plastic that would be biodegradable while not being prohibitively expensive.

Impacts of Marine Debris on Subsistence Fishermen

A study conducted at two beaches close to Jayapura, Irian Jaya province, Indonesia, reported on how marine debris such as plastics affected the livelihood of subsistence fishermen. Motorboat users reported waste being caught in their propellers. The waste involved consisted mainly of plastic bags, pieces of rope or plastic strings. Changing location or not fishing at all if too much waste was seen floating. Fishermen complained about how they had to change location or not fish at all if too much waste was seen floating. This forces them to give up on location which normally generates high yield. Clearing the nets is time-consuming and often compels the fisherman to change location for a variety of reasons. Net repair or replacement can represent a large investment of money and time

to a fisherman, increasing its expenditure at the same time that his income is reduced by having one net out of action, or worse, by having no nets at all.

The oceans cover more than 70 percent of the surface of our planet and play a key role in supporting life on earth. They are the most diverse and important ecosystem, contributing to global and regional elemental cycling, and regulating the climate. The ocean provides natural resources including food, materials, substances, and energy. Marine Protected Areas contribute to poverty reduction by increasing fish catches and income, creating new jobs, improving health, and empowering women. Increasing levels of debris in the world's seas and oceans is having a major and growing economic impact. At the time of writing over 700 different species have been documented to have had some form of negative interaction with marine litter (namely plastics). Ghost gear is likely to be one of the most significant threats in marine ecosystems and over 46 percent of plastics found in the 'floating garbage patches' (or gyres) are made up of this plastic type (Carson, 2013).

A critical challenge faced by policy makers, environmental managers and development practitioners in mainstreaming gender in marine and coastal management is the lack of practical examples to draw upon. The report shares experiences, key lessons and recommendations from a small sample of projects and initiatives available across globe that have focussed on the specific needs of women and other marginalized groups in the use and management of marine and coastal environments. For the last 10 months, fishermen in Kerala, along India's southern coast, have been engaged in a unique exercise. In addition to hauling in fish from their daily trips to sea, they are now also bringing back large

quantities of plastic waste. Kerala – famous for its pristine beaches, estuaries and wildlife – has a coastline that stretches nearly 600 Kilometres. The region, which is one of India's top producers of fish, is home to more than a million people who depend on fisheries for their livelihoods. But with the rising tide of marine pollution, especially plastic pollution, fish output has recently been declining. Last year, Kerala's Fisheries Minister, J. Mercykutty Amma, decided enough was enough. Under her direction, the state government launched a sanitation campaign titled *Suchitwa Sagaram* or Clean Sea (Priya, 2018).

As fish trawlers lay their nets in the sea, they end up scooping out huge amounts of plastic that get entangled in the nets along with the fish. In the past, they would simply release the plastic junk back into the water, but now the fishermen – who have received training through the Suchitwa Sagaram initiative – are bringing that plastic back to shore. Once brought from the sea, the plastic material is collected at the fishing harbour. From there, the waste is fed into a plastic shredding machine, which turns it into material that is then used for road surfacing. We are turning our beautiful Ocean into a plastic soup. About 8 million tonnes of plastic enters the sea every year, and at this rate we face a future with more plastic in the Ocean than fish by 2050. Our plastic addiction and waste mismanagement is condemning countless marine birds and animals to death by entanglement or poisoning, and even leading to chemical contamination of the fish we eat. The vast swirls of plastic rubbish visible on the sea surface – horrifying as they are – represent just the tip of the iceberg. What lies beneath are the masses of micro beads and broken-down particles of plastic that are easily ingested by sea creatures, and impossible to remove. The urgently needed solution calls for a combination

of enhanced awareness, reduced plastic use, and massively improved waste management. The most effective way to have less plastic in the Ocean is to use less plastic in the first place. Marine plastic pollution is the result of a failure in economic markets. Specifically, the price of making and using things made out of plastic does not reflect the full cost of disposing of that plastic. Instead, that cost is passed on to other entities, often coastal municipalities and ocean users (Boucher and Friot, 2017).

Marine plastic pollution is the result of a failure in economic markets. Specifically, the price of making and using things made out of plastic does not reflect the full cost of disposing of that plastic. Instead, that cost is passed on to other entities, often coastal municipalities and ocean users. As we dig into the impacts of marine plastic pollution on different sectors of the Blue Economy, it is important to make it clear that we are really only beginning to understand the costs associated with marine plastic pollution. There is more research on the impacts to coastal communities, tourism, and fisheries than other sectors, but even in these areas, there are still big gaps in our understanding. Plastic fragments can be found in the remotest places, but are usually more abundant close to population centres. Especially areas close to urban centres, river mouths and tourist beaches can be highly polluted. Accumulation patterns moreover depend on global ocean currents. The degree to which countries are affected by marine litter thus depends on their geographic location and level of exposure. However, it also depends on their economy and level of income. National economies that largely depend on coastal tourism or the fishing industry are more vulnerable to the economic consequences of marine plastic pollution. Finally, low-income countries often lack the necessary financial and other resources to set in place effective mitigation measures and efficient waste management and sewage systems. As a consequence, they have difficulties in controlling their own pollution sources.

The costs associated with marine plastic pollution are mostly borne by those who are exposed to the negative impacts rather than those responsible for the problem. With regard to landbased sources of marine litter, which account for about 80 percent of marine plastic debris, possible measures include bans on single-use plastic carrier bags in shops, on non-recoverable plastics such as micro beads (micro plastic particles) in cosmetic products and abrasives, and on singleuse plastic utensils such as stirrers, cups, plates and cutlery. Apart from bans, taxes and other levies on the production or use of these products have proved highly effective. Further regulatory measures include fixed penalties for littering, landfill taxes, extended producer responsibility, mandatory recycling schemes and minimal packaging requirements to disincentives the use of disposable plastics and harmful disposal methods, and incentivise the reuse of products, the design of environmentally less harmful materials and products, the optimisation of product life spans, recycling, etc. We are turning our beautiful Ocean into a plastic soup (Carson, 2013).

About 8 million tonnes of plastic enters the sea every year, and at this rate we face a future with more plastic in the Ocean than fish by 2050. Our plastic addiction and waste mismanagement is condemning countless marine birds and animals to death by entanglement or poisoning, and even leading to chemical contamination of the fish we eat. The vast swirls of plastic rubbish visible on the sea surface – horrifying as they are – represent just the tip of the iceberg. What lies beneath are the masses of micro beads and broken-down particles of plastic that are easily ingested by sea

creatures, and impossible to remove. The urgently needed solution calls for a combination of enhanced awareness, reduced plastic use, and massively improved waste management. The most effective way to have less plastic in the Ocean is to use less plastic in the first place.

Statement of the Problem

Aquatic pollution has become a global concern, but even so, most developing nations are still producing huge pollution loads and the trends are expected to increase. Knowledge of the pollution sources and impacts on ecosystems is important not only for a better understanding on the ecosystem responses to pollutants but also to formulate prevention measures. Many of the sources of aquatic pollutions are generally well known and huge effort has been devoted to the issue. However, new concepts and ideas on environmental pollution are emerging (e.g., biological pollution) with a corresponding need for an update of the knowledge. The present paper attempts to provide an in-depth analysis of how plastic debris affects marine ecology which in turn has a long term impact on the livelihood and sustenance of fishermen community of central Kerala.

Studies have pointed out the changes in marine ecology due to the effect of immense amount of plastic that has been dumped by humankind. Here we could consider the problems faced by the Kerala coastal community, as they have been placed under the marginal sector, having geographically and economically vulnerable background. Kerala's coastline holds a high density population who depend on sea - fishing and fish vending – for their sustenance. Environmental hazards have challenged their livelihood in such a way that their family economy has dropped out drastically impacting them socially

in the domains of education and health. Global warming, natural and man-made calamities, environmental pollution, climate change etc. are the major concerns that affect marine ecology. In this, plastic debris, which is generated by us in our surroundings have lasting detrimental effect on the marine resources, has a major share in this. In this context, it is imperative to examine and address this issue in our way forward to impart sustainable development goals.

Background and Significance of the Study

The coastal regions of Kerala are thickly populated with high density of population of 2362/km² as compared to the average population density of about 860 km² at the state level as per the 2011 Census. A large segment of this population belongs to fishermen communities whose livelihoods are supported by the coastal resources. The natural hazards, including the increasing problems of coastal erosion, high power tides, cyclones, the climate change induced risks, especially, floods, tsunami, sea-wave formations, etc, seriously impact the livelihoods of the coastal communities in the state. Recently, the coastal regions of India, especially in the state of Kerala have experienced the major problems caused by the devastating cyclone called Okhi during 2-4 December 2017, which had resulted in the loss of life of a large number of fishermen, destabilising their families and livelihoods

There is an urgent need to solve this problem as we look into the Kerala context its evident that most of the disasters like flood has affected us deeply. As an initiative to find the solution we have to find out what is happening to make a clear-cut view of the situation to the public. We have to find an alternative or a remedial measure to restore our oceans.

Most of the coastal areas of the world have been reported to be damaged from pollution, significantly affecting commercial coastal and marine fisheries. Therefore, control of aquatic pollution has been identified as an immediate need for sustained management and conservation of the existing fisheries and aquatic resources.

In this backdrop, this paper examines the major livelihood challenges facing the fisher communities in the seaside regions of Kerala. The paper is set in the larger context of the susceptibility facing the marshy regions and tries to discuss the impacts of the coastal problems on the socioeconomic circumstances of the communities and their livelihoods. The need of this research is to know about the sustainable development of the marine ecology. Considering these facts, the study is proposed to find out the impact of plastic pollution on the marine ecology and its effect on fisherman community. We took the fisherman into consideration because they come under the vulnerable and marginalized community.

The study aims to examine and analyse the impact of plastic in marine ecology and its effect on fishermen community.

Review of Literature

Plastic is a synthetic organic polymer made from petroleum with properties ideally suited for a wide variety of applications, including packaging, building and construction, household and sports equipment, vehicles, electronics and agriculture. Plastic is cheap, lightweight, strong and malleable. Over 300 million tons of plastic are produced every year, half of which is used to design single-use items such as shopping bags, cups and straws. At least 8 million tons of plastic end up in our oceans every year. Floating plastic debris are currently the most abundant items of

marine litter. Waste plastic makes up 80 percent of all marine debris from surface waters to deepsea sediments. Plastic has been detected on shorelines of all the continents, with more plastic materials found near popular tourist destinations and densely populated areas (Thevenon, F., Carroll C., Sousa J. (editors), 2014).

Environmental plastic pollution constitutes a significant hazard to marine turtles, human health and well-being. We describe a transdisciplinary approach to draw together findings from diverse disciplines in order to highlight key environ-mental pollution problems and their conse-quences, together with social marketing-based strategies to address the problems. The example of plastic pollution and impacts to marine turtles illustrates the severity of the problem. Wildlife tourism and sustainable tourism activity have not focussed on specific behaviours to change and have had minimal impact on subsequent human behaviour regarding environmental issues, indicating the need for new strategies.

An ecosystem impact analysis demonstrates that there is global evidence of impact with medium to high frequency on all subjects, with a medium to high degree of irreversibility. A novel translation of these ecological impacts into ecosystem service impacts provides evidence that all ecosystem services are impacted to some extent by the presence of marine plastic, with a reduction in provision predicted for all except one. This reduction in ecosystem service provision is evidenced to have implications for human health and wellbeing, linked particularly to fisheries, heritage and charismatic species, and recreation.

More than 320 million tons of plastics are produced globally each year. Thus, the introduction of plastic waste into the marine environment is a global concern, causing direct

and indirect impacts on ecosystems, marine fauna, and local economies. This chapter discusses the marine pollution by plastics (large debris). It starts by presenting an overview of the global distri-bution of marine plastic debris in the world oceans. Then threats from plastic pollution to wildlife and the environment are discussed. At the end of the chapter, global action and initiatives, as well as agreements and measures to prevent and combat plastic debris in the marine environ-ment, are presented.

Marine debris (marine litter) is one of the most pervasive and *solvable* pollution problems plaguing the world's oceans and waterways. Nets, food wrappers, cigarette filters, bottles, resin pellets, and other debris items can have serious impacts on wildlife, habitat, and human safety. Successful management of the problem requires a comprehensive understanding of both marine debris and human behaviour. Knowledge is key for consumers to make appropriate choices when it comes to using and disposing of waste items

The development and use of synthetic polymers, and plastics has conferred widespread benefits on society. One of the most notable properties of these materials is their durability which, combined with their accidental loss, deliberate release and poor waste management has resulted in the ubiquitous presence of plastic in oceans. As most plastics in common use are very resistant to biodegradation, the quantity of plastic in the ocean is increasing, together with the risk of significant physical or chemical impacts on the marine environment.

Methodology

The study utilised explorative cum descriptive research design, having a universe comprises of fishermen community of Fort Kochi. Five indepth qualitative interviews were conducted to understand the impact of plastic accumulation which imbalances marine ecology, which in turn impacts the livelihood and development of the fishermen community. The respondents were fishermen who belonged to the age group 30–50, whose livelihood depends on fishing and whose lives have been affected and impacted by the adversities of oceanic pollution.

Some of the excerpts were:

"I am a fishmonger from my younger age. My family is depending on me. The income I get from this job is low from the past few years because the fish is not getting caught. This may be due to the ocean pollution. The quantity of the fish we get was also would be the same."

"As you can see the situation of the sea is flooded with plastic bags and other dumps, you could also easily spot the high debris of thermocol which has been dumped by the companies nearby. These plastics are affecting as directly as well as indirectly."

"Though there is a growing awareness about the marine litter in coastal and territorial waters, the presence of micro plastic in the guts of staple fishes like sardines and mackerels has become a cause for concern."

"I have been using Chinese fishing net for lot of years plastic affects us a lot at the time of fishing because the number of plastic bags we get in our nets will be more than that of the fishes. When these plastic gets stuck in the nets."

"Pulling the nets out of the water is extra effort, with all this plastic tangled in the net. In the middle of the sea it's not possible to remove the plastics from the net. Regular cleaning of the beaches is done by different students from school and colleges. But it doesn't make any change."

Description

Though there is a growing awareness about the marine litter in coastal and territorial waters, the presence of micro plastics in the guts of staple fishes like sardines and mackerels has become a cause for concern. Protocol for the determination of quantity of micro plastics in fish flesh needs to be standardized. Likewise, the quantity of micro plastics that would be considered as a food hazard also needs to be fixed. There is a need to perform risk analysis to categorize micro plastic as a food hazard in fish meant for human consumption.

The sediment includes both light micro plastic materials such as plastic covers, plastic carry bags and other things. About a tone of 8.04 tonnes/ sq.km and heavy macro plastic items. The discrepancy in the load of light and heavy macro plastic in the sediments may be since most of the light macro plastic litters might have been transported to the sea with the tide. According to existing literature, micro plastics when ingested by fish may translocate across the gastrointestinal tract and gills enters the circulatory system. Through blood circulation, micro plastics reach different organs. Humans consuming these micro plastic has its own impact. A recent study by researchers at the Kerala University of Fisheries and Ocean Studies (KUFOS) on the Vembanad Lake and the coastal belt of Kochi found the presence of heavy macro plastic litter in the bottom sediments. The University has plans to undertake long-term clean-up campaigns at the coastal areas especially in Kochi with the help of the public. Problems were viewed by some as serious enough to cause modifications to their fishing styles (sometimes against their best economic interest) such as avoidance of some fishing areas, and use of different types of gear. Plastic bags are the most common type of debris reported so far.

Discussion

Marine litter is just one of many pressures threatening the alternative income sources of the fishermen folk who rely completely on the marine resources for their livelihood. The indepth interview gave insights into the intriguing facts which depict the alarming imbalance of marine ecology and its impact on the social and economic development of fishermen community. The source of litter is a municipal dumpsite on the coastline in a nearby bay. In that bay lives a small community of traditional fishermen. These fisher folk mainly use gill nets, hook and line, or gather shellfish and molluscs by hand. The respondents described impacts such as propeller entanglements, fouling of gill nets and hooks, damage to the fishing gear, and injuries. These problems were viewed by some as serious enough to cause modifications to their fishing behaviour (sometimes against their best economic interest) such as avoidance of some fishing areas, and use of different types of gear. Plastic bags are the most common type of debris reported by the fishermen. More than half of gill net fishing expeditions had debris fouling the nets.

Plastic is a single word for a multifaceted reality, encompassing a wide variety of polymers and additives with different chemical and physical properties. The end products range from single-use plastic bags, food wraps and plastic bottles, to fishing lines, buoys, and synthetic fibres used in the clothing or fishing industries. As the use of plastic is pervasive, so is plastic pollution. An estimated 10 million tonnes of plastic leaks into the ocean each year, causing an unprecedented environmental crisis. Measuring or forecasting this issue is a complex and challenging task, due to technical limitations and uncoordinated assessment campaigns. Acting to tackle this issue requires adequate metrics to guide and prioritise

action at different levels, ranging from sound product design and efficient regional infrastructure, to adequate policies and enforcement.

Plastic pollution in the ocean physically affects several marine organisms and poisons human food systems. It can also affect larger oceanic processes, speculate a team of researchers. Plastic on the ocean's surface can trap sunlight, making the surface warmer and reducing the amount of light and heat travelling to the depths of the ocean. If plastic litter were to cover the ocean's surface, it can have ripple effects on marine ecosystems and affect the planet's climate system, the scientists warn (Bhanu Sridharan, 2019).

All motorboat users reported waste being caught in their propellers. The waste involved consisted mainly of plastic bags, pieces of rope or plastic strings. Changing location or not fishing at all is the option left for them, if too much waste was seen floating. Secondly, fishermen complained about how they had to change location or not fish at all if too much waste was seen floating. This forces them to give up on location which normally generates high yield. Third, the fishermen are also required to change their fishing gear as waste caught by gill nets included wooden crates, glass bottles, tin cans, cardboard, pieces of netting, plastic bags, bottles and other plastic objects, and food. Plastic bags are also caught by hook and line. Having debris trapped in the fishing net negatively affects the yield of the fishermen as follows: The debris makes the nets detectable by the fish, hence reducing the yield. Clearing the nets is time-consuming and often compels the fisherman to change location for a variety of reasons. Net repair or replacement can represent a large investment of money and time to a fisherman, increasing its expenditure at the same time that his income is reduced by having one net out of action, or worse, by having no nets at all (Nash, 1992; Thompson, Moore, Swan et.al, 2009).

Implications of Professional Social Work Practice

Improved management and participation by men and women fishers in management processes is really important to improve livelihood resilience and the sustainability of fisheries resources. Make people aware about the consequences of plastic pollution in the marine system. Unhygienic attitude of human beings adversely affects the life under water. A lot of studies have proven this fact. The marine animals like fishes feed on the plastic, adversely affected their morphology and by consuming these fishes could indirectly cause illness to the consuming mass. The fisherman who is affected by poverty crises it will affect them socially as well as psychologically. Over large period of time it can lead to more problems. Here we have a scope to intervene with the family like strengthening to meet the challenges.

We have to create awareness and facilitate action on the usage of plastic and support banning. Further scope for research in the topic could be seen. If we take the case of CMFRI which is working on this area, researches are held in different parts like Vembanad and Kochi.

Conclusion

As the words of the oceanographer Jacques Cousteau puts it, "the very survival of the human species depends upon the maintenance of an ocean clean and alive, spreading all around the world. The ocean is our planet's life belt". The effect of environmental factors on human health is a global concern; in order to secure this life belt, ensuring ecological sustainability is the need of the hour. Problems in the marine ecosystem will be a growing concern for the millions of people who depend on sea for their sustenance. Community partnerships, participation, organisation and sustainable development have to be

facilitated to protect and maintain marine biodiversity which in turn will impact the lives of the vulnerable fishermen folk.

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Early Childhood Education: Selected Anganwadi Centres in the Coastal Belt of Kochi



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Early childhood education or Pre-primary education has been a neglected area in the education sector. Pre-school education is a core activity of the Integrated Child Development Services (ICDS). This focuses on the total development of the children from three to six years. The Committee for national policy on education (2016) recognizes that at present ICDS Aanganwadis are not adequately equipped to provide pre-primary education. The study was conducted in Ernakulam district using a sample of 65 AWCs selected through purposive sampling from Pallipuram, Kuzhipilly and Edavanakkad Panchayaths with the help self-designed questionnaire. The data obtained through the questionnaire was consolidated, tabulated and discussed in the form of percentage. The selected AWWs are following theme based education. But, they can't follow it well due to of other works, content or activities are not suitable to the age or attention span of children etc. Fifty percent AWWs said that they cannot perform well due to work load. About 58.46 percent of the selected AWCs had not standardized the ECCE programme. Among the selected 65 AWWs 52.3 percent of them have SSLC as the qualification. Only 6.15 percent AWWs have qualification related to early childhood education. If the inadequacies are addressed appropriately, the scheme has the potential to give satisfactory early childhood education outcomes.

Keywords: Early Childhood Education, Integrated Child Development Service (ICDS) Scheme, Anganwadi Centre (AWC)

hildren are one of the most beautiful creatures on earth – they are full of joy, energy and curiosity. They constantly explore everything around them and in the process learn many things. The process of exploration and learning in early childhood is crucial to the child's development. Research studies show that 50% of the total intellectual development of a child is completed by the time he is four years old. Obviously, much care must be provided to the child during its first few years. It is the responsibility of the parents and the society to provide an enriching environment for children, so as to ensure proper development of their innate talents and skills to the maximum possible extent. Pre-school years are central from the point of view of child development. In early childhood, development is rapid and environment creates a deep impact on individual when his development is at its fastest.

National policy on education (2016) specified that between the ages of 3 and 5, children gain physical confidence, strive for independence by doing things on their own, and experiment with objects in the surrounding environment. They show intense and lively curiosity about what is going on around them, enjoy the company of other children, seek to imitate adults, learn to assert themselves as individuals and begin to acquire self control and discipline. Pre-primary education has been a neglected area in the education sector. Government schools do not provide pre-primary education as schools generally start only from class I. The Integrated Child Development Services (ICDS) program was intended to provide early childhood education but this has not happened in practice.

Without making ECCE an enforceable right, the Constitution specifically articulates the intention

of addressing the needs of children up to the age of six. Under the 86th Constitutional Amendment Act of 2002, Article 45 of the Directive Principles of State Policy states that "the State shall endeavour to provide early childhood care and education for all children until they complete the age of 6 years." The Right to Education (RTE) Act refines this to make ECCE a quasi-legal right from the ages of 4 to 5. Section 11 of the RTE specifies that, "with a view to prepare children above the age of three years for elementary education and to provide ECCE, appropriate Government may make necessary arrangements for providing free pre-school education for such children."

The Committee for national policy on education (2016) recommends that ECCE for children from 4 to 5 years of age should be declared a right, and a programme for pre-school education needs to be implemented without delay. The Committee recognizes that at present ICDS Anganwadis are not adequately equipped to provide pre primary education. SCERTs should conduct intensive training programs for selected Anganwadis workers and new teacher-workers to orient them to deal with the new components of handling preschool children. SCERTs should provide training to the fresh as well as other. State Governments will have to prepare cadres of pre primary teachers, and create necessary facilities for their pre and in service training.

Objectives

- " To conduct a survey to collect opinion of Anganwadi workers (AWW) to understand the changes what they needed in the field of anganwadi education.
- " To make an analysis on the importance of renovation in the field of anganwadi education.

Research Design

A community based descriptive cross sectional study was conducted in selected 65 AWCs in Ernakulam districts, selected through purposive sampling from Pallipuram, Kuzhipilly, and Edavanakkad Panchayaths with the help self-designed questionnaire. The data obtained through the questionnaire was consolidated, tabulated and discussed in the form of percentage.

Abbreviations

AWCs-Anganwadi Centres

AWWs-Anganwadi Workers

ECE-Early Childhood Education

RESULTS

Theme based Education

The study showed that all the AWWs are following theme based education, which was

introduced in 2014. They are using 'Ankanapoomazha'-work book for children and 'Ankanathaimavu'-activity book for AWWs to guide children for early childhood education. But, they suggested the content of the texts should be reduced according to the age level of children. Because, usually children of 3-4 years of age are attending AWCs. After that parents sending these children to KGs. In the opinion of AWWs some songs are too lengthy; activities are difficult according to the age group. Children in this age group need rhymes with 4 or 5 lines and activities through play rather than mere sitting and doing the work. Centre for Early Childhood Education and Development (2012) conducted some studies that have looked at ECE programs around the country reveal a predominance of academic instruction being imparted at this stage, which is clearly indicative of a downward extension of the primary curriculum; this will be unfavourable for children since they are not yet matured enough for this curriculum (CECED, 2012).

Availability of Time to follow the Syllabus

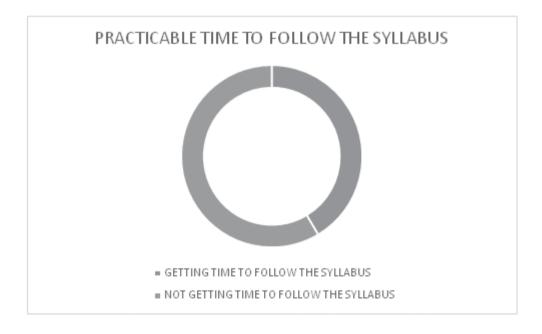


Figure: 1

The figure 1 shows that 59% AWWs did not get enough time to follow the syllabus due to reasons such as other works than an early childhood educator, children's time to adapt to the environment of AWCs, their attention span, age level of children attending the AWCs etc. So that they were not able

to finish the works in the 'ankabapoomazha' and the 'ankanathaimav.' The remaining AWWs (41%) said that they had the time to follow the syllabus. Though, majority of them were giving focus to early childhood education by doing other works after the working hours of AWCs or from house.

Concept about AWC as an early learning centre

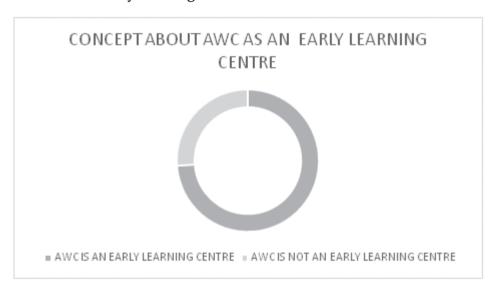


Figure: 2

The figure 2 shows that 74% of the selected centres and remaining AWWs did not think AWWs considered AWCs as early learning

Performance as an early Childhood Educator by AWWs.

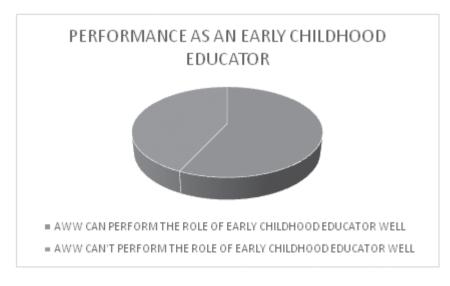


Figure: 3

3 depicts that only 57% AWWs were confident in their 43% AWWs had no confidence about the same.

By noting the result of the figure 2 in mind, the figure performance as early childhood educator. Remaining

Keeping Quality Standards of an ECCE Programme of 3-4 hours Duration

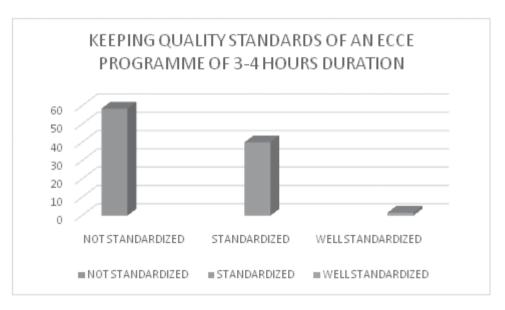


Figure: 4

The figure 4 shows that 58.46% of the selected AWCs were not standardized the ECCE programme as prescribed by the ECCE policy given in the guidebook for planning and organization of

preschool education activities in AWCs published by the National institute of public cooperation and child development. Forty percent of them were standardized and only 1.53% was well standardized.

Details of AWWs

Educational Qualification of AWWs.

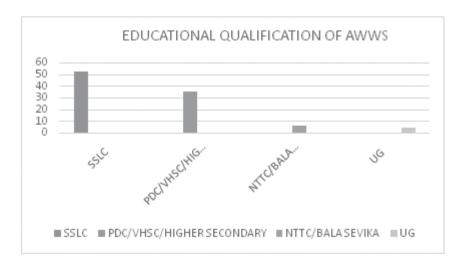


Figure: 5

The study showed that 52.3% of the AWWs had SSLC as the qualification. Around 35% AWWs have PDC/VHSC/Higher Secondary as their qualification. Only 6.15% AWWs have qualification related to early childhood education. With 'play way method' as the background, minimalist training, low expectations, poor opportunities for mobility for ECCE professionals, inadequate research and documentation, lack of clarity in policy and low

funding, the status of the ECCE teacher is abysmally poor, undefined and unsupported. The landscape of early childhood education practices and the preparation of professionals in the field are huge, diverse, largely unorganized and unregulated and interspersed with only a few institutions of excellence. In the ICDS context, the situation is worse where the Anganwadi worker is treated as a volunteer, paid often less than minimum wages.

Details on the Concept of Aspiration as an AWW



Figure: 6

The figure 6 clearly indicates that 59% AWWs had not aspired AWW as their profession. They got into this profession by chance. The remaining 41% had ambition to become AWWs. Because,

they either liked to be with children or as a social service. But, some of them mentioned that they were not aware of other works given to the AWWs.

Details on Training undergone by AWWs before entering to the Profession



Figure: 7

The figure 7 depicts that 80% of the AWWs didn't undergo training before entering to the profession. They directly entered to the profession with their basic qualification. Only 20% of them got training before entering to the profession, though not as a part of ICDS pre-school education. National university of educational planning and administration (2016) conducted a research, which has indicated that the extent of ECCE impact is directly related to quality of provision. It is important to articulate policies for ECCE teacher education,

teacher education curriculum, their qualifications, regulatory mechanisms, remuneration, working conditions, career pathways and so on. Professionals who are confident, adaptive and prepared with knowledge, skills and attitudes that would enable them to choose and adapt the most appropriate approach to meet local conditions, and individual needs of children within any curriculum framework are imperative to improve the overall quality of the sector and meet the demands of the 21st century.

Details on Refresher Training



Figure: 8

The figure 8 shows that 83% AWWs got refresher training. They are undergoing refresher training once in 2 years. Among the remaining AWWs 12% didn't get refresher training either due to they are new in this profession or they delayed

to attend the same due to their personal problems. This strategy was not applicable to the remaining 5% AWWs. Because, they were temporary appointments. They did not have any training. The figure 9 depicts that 71% of the

Details on Special Training for Early Childhood Education



Figure: 9

AWWs undergone special training for early childhood education. Rest of the selected AWWs (29%) said that they did not get special training for it.

Conclusion

The theme based education was followed by all the AWWs and they have good opinion regarding the same. But, they couldn't follow it well due to of other works than an early childhood educator, children's time to adjust to the environment of AWCs, their attention span, age level of children attending the AWCs etc. There has been an impressive expansion of ECCE by ICDS in India in quantitative terms with low or inadequate attention to the content and quality of preschool education. If these inadequacies are addressed appropriately, the Scheme has the potential to give satisfactory early childhood education outcomes.

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Eco Friendly Building Materials - An Overview



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An eco-friendly building material is one that increases the efficiency of energy used and reduces impact on human well-being and the environment. With huge growth in the population and increased consumption of resources, humans are slowly realizing the significance of renewable energy. *Green technology* is slowly garnering attention and there is rapid advancement in this industry. So, it is today's demand to acquire good construction practice and energy efficient material which helps in less production of greenhouse gases and save energy. Therefore, this study was done to know about the trends in eco-friendly building materials, its awareness among common people. The data was collected from professionals working in the field of architecture and interior designing. Hence, this study focuses on green building materials and construction practice and energy efficiency, easily and locally available and maintains environment as well as a healthy ecosystem.

Keywords: Sustainable Building, Construction, Green Building Materials, Energy Efficient, Healthy Ecosystem. n India various environmental problems

are rising in construction industry due to tremendous urbanization. Increase in demand of houses which lead to consuming more energy, resources and raw materials are responsible for the rise in carbon content in air and which are harmful to environment and human health. Nowadays we are facing various environmental hazards due to which we need to build with more sustainable materials which will lead to reduction of impacts on environment. In cities like Pune we are already noticing the change in weather patterns, hotter summers, shorter winters, insufficient monsoons. So taking care of the preservation of the city's ecology and finite energy resources seriously is now more than important. Developers need to find better, more sustainable methods of designing their buildings in order to reduce their negative environmental impact is on demand. Therefore it is need of the hour to use more sustainable materials and locally available materials which are eco-friendly and a lead for better tomorrow. Considering to all these impacts, this paper suggests five green construction materials with their advantages, disadvantages, durability and economical aspects in construction industry which can be an effective alternate material for conventional materials.

Environmentally-friendly building materials are those that provide appropriate service and life span, with minimum maintenance, while minimizing the extraction of raw materials, the pollution from, and energy consumed by manufacturing and use, and that have the maximum potential for reuse or resource recovery. (Rousseau, 2017)

Objectives

1. To understand the preference level of eco friendly building materials among the younger generation from professionals.

- 2. To get an awareness about the various ecofriendly building materials used in modern construction.
- To know the satisfaction level of the customers post construction of the building using ecofriendly materials.

Methodology

The study was conducted in Bangalore city among 50 Professionals from this field. The professionals included Engineers, Architects and Interior Designers.

Results and Discussion

The results of the study on "Eco-Friendly Building Materials – An Overview" are presented below:-

The distribution of the respondents was such that 35 of them were males and 15 were females. The study was conducted among 20 Architects, 20 Interior Designers and 10 Engineers of Bangalore city. 70% of the respondents belonged to the age group of 35 to 45 years and 30% of them fell in the age group of 45 to 55 years.

An overview on the interest of using eco-friendly building materials among the customers was clearly obtained from the professionals. According to them 85% of the people in urban areas are well aware of the eco-friendly building materials. They really look forward in constructing their buildings, both residence and commercial space using these materials as it reduces impact on human well-being and the environment.

The professionals opined that each year, the ecofriendly trend is becoming more and more popular. Most of the customers they deal, opt for durable and non-toxic materials and designs as

part of their building. This is because that if the buildings which are made of toxic materials were to be destroyed or damaged, they can greatly pollute the water, air and soil. They also mentioned that their customers are using superinsulating materials for walls, as well as energy-efficient doors and windows, and they rely on on-site renewable energy sources. These renewable energy sources include solar panels and batteries which can significantly reduce the energy consumption of a building.

There have been a lot of studies that show that if a house or a building is green, the people who live or work in there benefit from it a lot, both mentally and physically. It was clear from the interior designers that majority of their customers demand to utilize natural light as much as possible in interiors to improve the indoor air quality and use eco-friendly materials. This would not only contribute to their health, but it will also raise the inmate's productivity and overall happiness level. They also preferred air purifiers and low or zero VOC paints and materials in order to preserve their health. Additionally, few showed interest in excellent ventilation system to keep the indoor air clean and fresh.

The architects and interior designers also commented in the study that the recent trend in Bangalore city is that 55% of the people whose projects are ongoing have opted for materials like bamboo, roof tiles, stones etc for construction and for interior designing. According to the professionals 80% of the population who are in the process of constructing buildings prefer to use nature friendly materials for interior designing and landscape rather than using for building construction.

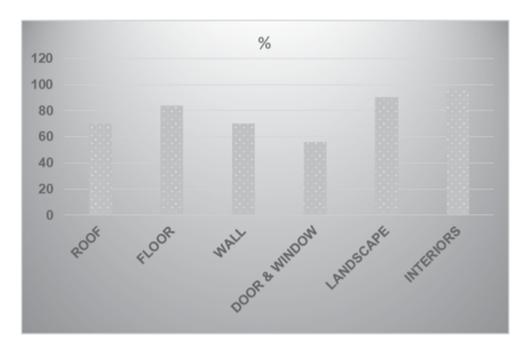


Figure 1: Preference Level of Eco-friendly Building Materials among Clients

The below figure shows the preference level of ecofriendly building materials among the people as to where these eco-friendly materials are to be used. The results of the study showed that among the various eco-friendly building materials available in the market for usage at different areas of the building construction, most of the professionals

opined that among their customers, 96% opted ecofriendly building materials for interiors and 90% opted it for landscape. 84% preferred to use these materials for floorings and 70% preferred for walls and roofs.

The results also showed that use of natural materials for building construction are cost effective which reduce financial burden of the owners. This result was also supported by a study on Sustainable Construction: Analysis of its costs and financial benefits done by Reddy (2016) done at Andhra University. The results of the study was that the use of natural resources and green buildings had financial benefits which included less energy, waste disposal, and water costs, lower environmental and emissions costs, lower

Table: 1 - Eco Friendly Materials Suggested by Professionals

Materials	Profess	sionals	Materials	Professionals	
	No.	%		No.	
Roof:		Wall:			
Clay	20	40	Bamboo	32	64
Hay	21	42	Concrete	46	92
Shingles	25	50	Straw	15	30
Bamboo	32	64	Stones	30	60
Concrete Tiles	35	70	Steel	10	20
Metal	29	58	Bricks	37	74
Green Roof	38	76	Door & Window:		
Floor:			Wood	36	72
Bamboo	15	30	Fibreglass	30	60
Wood	42	84	Bamboo	30	60
Linoluem	26	52	Glass	41	82
Stones	30	60	Aluminium	24	48
Straw	12	24	Landscape:		
Glass Tiles	21	42	Bricks	35	70
Cork	18	36	Stones	40	80
			Grass	46	92
			Pavers	42	84
			Aluminium	36	72
			Mud	34	68

^{*} percent exceeds 100 due to multiple responses.

operations and maintenance costs, and savings from increased productivity and health. (Reddy, 2016)

The table below shows the various eco friendly materials which was suggested by the respondents. The results have given an insight about the common types of natural materials used recently.

The results of the study showed that different eco - friendly materials are used in construction of houses like for roof, floor, wall, doors and windows, landscape and interiors. The respondents also said that their customers were well satisfied with their projects post construction in terms of maintenance, appearance, utility and health and well being.

Summary

The results of the study showed that with the use of eco-friendly building materials rather than convectional building materials and techniques, sustainability can be obtained which is less harmful for the surrounding areas.

Green building reduces the impact on environment and indirectly helps to reduce the global warming effects. Green buildings and the concept of smarter living offers tremendous opportunity for changing an average Indian's lifestyle. As the general public becomes more aware of the benefits of green buildings, developers will get creative and find new ways to brand, market and sell green buildings, hence creating a conductive atmosphere for the sector to grow exponentially. Green construction material reduces side effects on environment to

make efficient sustainable structure as well as will lessens the environmental pollution content, and like greenhouse gas emission, resource depletion, soil pollution, health hazards, ozone depletion etc. Hence there is an urge to use the eco-friendly materials for the better tomorrow and healthy life of coming generation.

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Lifelong Learning for Farmers and Self Help Groups of Women in Rural India



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A b s t r a c t

Lifelong learning for farmers aims to provide knowledge in a sustainable manner for their economic development. It focuses on participatory development with community based interventions. The author aims to discuss lifelong learning interventions for farmers which are based on extension and empowerment services provided by NGOs and government stakeholders to enhance Social Capital by building strong social networks through Self Help Group of women in rural areas. The paper also discusses the role of NGOs in India for building SHGs to address economic distress in rural India by linking with financial agencies like Anik and NABARD. The significance of Village Development Committee in Hingoli District of Maharashtra and its impact on functioning of SHGs is explained by the author. The paper gives recommendations and concludes that lifelong learning programmes for farmers should aim at women empowerment to raise productivity of farmers and consider women as important members in rural development.

Keywords: lifelong learning, farmers, self help group, women, social capital, non governmental organization.

ifelong learning for farmers is conceptualized to assist low socioeconomic rural communities to acquire knowledge in a sustainable manner for economic development. The aim is essentially to eradicate poverty; it also has complementary themes of social, education and health. Developing the rural economy is significant in achievement of the UN Millennium Development Goals as majority of the world's poor reside in rural areas. The United Nations observes 15th October as International Rural Women's Day to signify contribution of rural women to world's economic development. Following footsteps of UN, Government of India in 2017 declared 15 October as Rashtriya Mahila Kisan Diwas. This was significant as in the context of agricultural collapse in the country which has manifested itself through farm suicides and exclusion of women agricultural labourers from the narrative of agricultural reforms in India (Pachauri, 2018).

Agricultural extension services in India fall short of resources and thus fail to reach marginalized sections of the rural community, especially landless women labourers. There is a demonstrable requirement in India for new approaches to knowledge for farmers and other vulnerable population. Lifelong learning for farmers is a community based intervention which focuses on participatory development. Non governmental organization's role is of a facilitator to inculcate contemporary approach for selfsustaining programs in rural areas (Bagnall, 2009). Such a perspective identifies participation of various government and civil society stakeholders to work in collaboration for upliftment of people in rural areas.

The objectives of the paper are as follows:

- 1. To discuss lifelong learning interventions for farmers which are based on extension and empowerment services for women in rural India.
- To understand the role of NGOs for strengthening Self Help Group to address economic distress in rural India by linking it with financial agencies.
- 3. To discuss the significance of Village Development Committee on functioning of SHGs.

Lifelong Learning Intervention for Farmers

The Lifelong learning intervention for farmers is based on the following premises:

1. Extension: It is a facilitation process through which farmers and the rural community are empowered to run agricultural knowledge systems. Social Capital is an important aspect of lifelong learning which is defined as "specific benefits that flow from the trust, reciprocity, information, and cooperation associated with social networks." (Baird, 2009)

Extension takes place in an already established social capital such as cooperatives and self help groups. Farmers and rural community are not mere consumers of information but partner in information management. In lifelong learning, an extension agency transforms social capital into social learning capital and converts generic information into locale specific knowledge. Facilitating self directing learning is an important dimension of lifelong learning. Social capital offers scope for scale advantage in transactions

between primary and secondary stakeholders. The requirement for a social capital, especially a cognitive social capital is a basic premise of lifelong learning. An NGO is identified as a facilitator for lifelong learning for farmers, which focuses on building women's group with a strong sense of identity. Members of the group are motivated to meet regularly and define interventions for women empowerment in rural community. Such a mobilization helps in creating informal network for tacit knowledge. The representatives of organizations and other stakeholders such as banks are organized into a Project Management Group (PMG) which monitors the progress of the group. PMG codifies knowledge emerging from research institutions and from communities. Group meetings and community lunches are often conducted to strengthen social capital. Social capital is measured with indicators like social network, solidarity, collective action, trust, and cooperation. The ability of the group members to come together and work on issues is a significant indicator of a strong social capital (Bruegel, 2005).

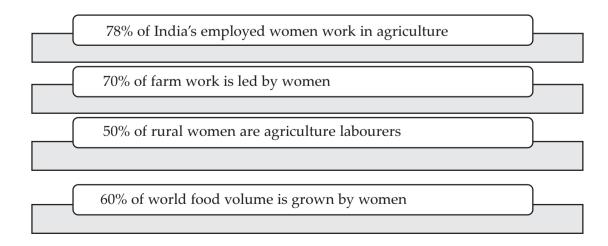
It should be pointed that traditional networks like kinship, ethnicity, and caste contribute to social capital. The social network indicates leadership and membership in social, religious, political, and development institutions (Anderson, et. al. 2008).

The perception and practices on learning are influenced by social capital. Lastly, an effective functioning of women self help group is an important aspect for the success of lifelong learning programs to strengthen rural communities.

2. Empowerment: A report by Organization for Economic Co-operation and development in 2007 argued that feminisation of poverty has become an important issue as women get poorer than men due to short-term consequences of social, economic, and political transformation. Women's socio-economic status is related to lack of economic opportunities and right to self determination, no access to resources which includes land ownership, credit and inheritance, not included in decision making process, social discrimination, and unsafe environment. In agriculture where women predominate credit has historically been directed to male of the household which has led to the detriment of women's status in society and of agriculture sector (OECD, 2009).

As per Food and Agriculture Organization (FAO) of World Health Organization (WHO) and International Assessment of Agriculture Knowledge, Science and Technology for Development (IAASTD, 2017) statistic:

Role of Indian women in agriculture are as follows:



It reveals that farming in India cannot have its productive output without women's participation and thus NGOs focus on women led Self Help Group.

Role of NGOs in Self Help Group of Women

Lifelong learning for farmers is to strengthen and empower rural communities through information and knowledge with an aim to facilitate their development. Women in many parts of rural India are still confined to the four walls of their house and are restrained to carry out domestic work. Due to patriarchal society, women are subjected to violence and their exposure to outer world is limited. NGOs advocating for women empowerment strongly emphasized that economic independence of women is required to address these concerns. Assisting women with an alternative income generation source and not being clutched in the hands of money lenders, NGOs vision focuses on empowering women through micro-finance by forming self help groups (Haring and Muenchhausen, 2012). It is important that agriculture extension services reach out the most vulnerable population in rural areas especially women labourers. A need to execute intervention which assist farmers in building knowledge for their development.

In a Self Help Group (SHG) there are a minimum of 10 and a maximum of 15 to 20 members. The members of the SHG elect a president and a vice president. The president and vice president are responsible to conduct and facilitate all the activities of their SHG. Self Help Groups that are associated with NGOs have monthly meetings wherein they discuss about their financial and issues concerning village people, and plan its intervention as a group. Women of SHG are encouraged to maintain a bank account in which they deposit a monthly sum of Rs.1000/- with

Rs.100 collected from each member of the SHG. The President and the Vice President deposits the amount in the bank and if due to any circumstances they are unable to go and deposit the sum, other members of the group contribute and deposit the required amount in the bank. This is only possible because of capacity building of the members by NGOs (MSRLM, 2014).

SHG women are introduced to the concept of saving, credit, and micro-finance. By giving loan SHG members are motivated to initiate alternative income generation avenues such as animal husbandry, tailoring, set up a grocery shop, making and selling bangles, utensils or any other entrepreneur which helps to uplift theirs and their family's economic status. Other purposes for which loan is provided is for educating children or for farming purpose such as building borwell (Kapur, 2019).

Women in Hingoli district of Maharashtra had to approach money lenders or banks for economic requirement. But after connecting with UGAM Gramin Vikas Sanstha (an NGO), SHG women could obtain loan at an affordable price. Before UGAM, the process of repaying the loan was difficult as interest rates of the money lenders were high, but UGAM through financial agencies like Anik and NABARD provides loan at a lower interest rate (MSRLM, 2014).

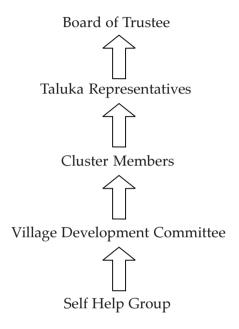
Role of Finance Agency in Hingoli District of Maharashtra- ANIK FINANCIAL SERVICES PVT LIMITED

Anik is a non-banking finance company which is supported by Reserve Bank of India. It acts as an intermediary between RBI and the SHG. Previously the SHG had to depend on banks or trusts in order to apply for loans which were limited to 40,000 rupees. Due to the existence of

Anik, the SHGs can now receive a loan amount ment posed by an SHG, Anik depends on the even up to 1,50,000 rupees at the interest of 1%. For understanding the credibility of a loan require-

assessment of the entire federal structure formed by the SHGs ((Haring and Muenchhausen, 2012).

Anik Federal structure of Self Help Group (Lokhande, 2012)



- A SHG is the basic unit of Anik federal structure.
- Village Development Committee (VDC) consists of Presidents and Vice Presidents of all SHGs in a village.
- Two cluster members are chosen by VDC and they represent the entire village.
- Amongst the cluster members two are further chosen and they represent their cluster at Taluka level.
- One member from each Taluka is selected and they form the Board of Trustees (Lokhande, 2012).

NABARD

National Bank for Agriculture and Rural Development is a financial institution that deals with providing economic support for agriculture and other activities in rural areas. It provided loans at an interest rate of 2%. Anik acts as a surety and a loan-sanctioner when NABARD has to provide loan to the SHGs. The money provided by NABARD is directly credited to the accounts of the SHG members and the interest is paid by the cluster members of SHG (NABARD, 2013).

Thus, NGOs along with finance agencies play a pivotal role in capacity building of women lead SHGs which not only empowers them but assist in development of rural community.

Village Development Committee

Village Development Committee (VDC) is an integration of Presidents and Vice Presidents of all SHGs run by UGAM in Hingoli district of Maharashtra. VDC has six committees that looks into timely repayment of the loan received by the SHGs, and also focuses on how members appropriately use the given loan to earn their livelihood (OECD, 2009).

Following are six committees under VDC:

1. Samajik Jan Jagruti Samiti

The committee was formed in order to focus on social aspects apart from economic upliftment. Committee brings together women of the entire village during festivities and other cultural activities. It tries to develop awareness amongst the villagers regarding social issues surrounding them. It thus enhances social learning capital among women in villages. This committee follows the objective of 'Dhan vyavahar, Mann vyavahar', which implies that members get an opportunity to share their day to day challenges. It helps members build rapport with each other and also work together on improving their socioeconomic status (Goswami, et. al. 2008).

2. Saha Niyantran Samiti

The committee was formed in order to give an overall understanding of book keeping practices of SHGs within a village. It focuses on details related to book keeping which includes entry of savings and interests being paid by members, details of the last meeting, and regularity of entries in the book (Karmakar, 2003).

3. Shifaras Samiti

This committee is the first level which is approached by SHGs when they are in need of loans. The committee decides whether an SHG is eligible for a loan by looking at the records maintained by them (Karmakar, 2003). The record will contain details about loans acquired and repaid by the SHG. Based upon regularity of

repayment the committee takes a decision about their fresh application and if the criteria's are met, the application is passed on to district level.

4. Upajeevika Samiti

There was a need to fill the gap between obtaining a loan and repaying it, which is the livelihood that the members undertake in order to increase their income and repay the loans (Goswami, et. al. 2008). This committee focuses on capacity building of its members by providing need based skill training that assist in their livelihood.

5. Pathpurava Samiti

The committee assesses whether the loan amount sanctioned and received by the members are utilized in developing their livelihood. Also, the committee sees whether capacity building trainings provided by Upajeevika Samiti is helping SGH members to enhance their skills, and accordingly recommends any changes in training module if required Karmakar, 2003).

6. Paratfed Samiti

Every SHG has a specific date in a month on which they are expected to repay their interests. In case an SHG fails to do so, the committee enquires into the reason behind the same. If the reason is found valid, it allows the SHG to repay double the interest in the next month (Goswami, et. al. 2008).

Successful case studies of women led SHGs help us understand that an empowered women not only empowers her family but also community at large. NGOs facilitation along with other stakeholders have over a period of time help Indian rural communities uplift their socioeconomic status with women SHGs being the centre point (Moses, 2011).

Recommendations

- 1. A gender analysis is critical for development programs directed at agriculture and rural development. An urgent requirement for 'inclusive transformative agricultural policy' with gender-specific interventions is needed.
- 2. Government in collaboration with NGOs should ensure access to secure land and property rights to rural women by using SHGs as a medium. A formal access to land for rural women will help increase productivity and ensure household food security and nutrition.
- 3. Project Management Group (PMG) should be empowered to help sustain lifelong learning initiatives for farmers. Provision of credit without collateral under the micro-finance initiative of Anik Financial Services Pvt Limited and NABARD should be encouraged.
- 4. A focus on enhancing Social Capital that can assist in training rural women to adopt modern agricultural techniques in accordance with local conditions which utilizes natural resources in a sustainable manner. Krishi Vigyan Kendras along NGOs in every district can educate and train women farmers about innovative technology along with extension services.
- 5. Women should be made aware to help them secure equal wages and women organizations can play a significant role in availing their rights. International Labor Organisation (ILO) has developed a program called Training for Rural Economic Empowerment (TREE) with an objective of increasing empowerment of rural women in Tamil Nadu and Madhya Pradesh. It is important to have overall women empowerment through education, awareness and challenging gender biases. Such measures in collabora-

tion with various stakeholders can have an impact on development of agriculture in rural India.

Conclusion

With women predominant at all levels of the agricultural value chain from production to pre and post-harvest processing, packaging and marketing; it becomes imperative to adopt gender specific interventions to increase productivity in agriculture in rural India. Lifelong learning programs for farmers 'should aim at gender equity to raise productivity of small farm holdings and integrate women as active agents in rural transformation.

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Adolescents and Internet: Issues Faced Online and the Parental Concern over it



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A b s t r a c

Internet being an open and wider medium among adolescents of the present day, there are several issues that they may face online. The present study was done by conducting a survey among 388 parents and adolescents selected from different schools to find out the level of various issues that adolescents face while using internet and their parents' concern over these issues. The results of the study highlighted a gender differences in many issues reported by the adolescents. But the most common online issues as reported by them are game addiction, negative online experiences / cyberbullying and wasting too much time over internet. The parents were more concerned about the excessive use affecting academics. The study also found that the adolescents are facing much more issues than what their parents are concerned about. While analyzing the demographic correlates of parental concern, it was found that mother's age and education status had a significant positive relation to their concern regarding internet usage of adolescents. Family income was also found to be a significant factor influencing parental concern.

Keywords: Parental Concern, Online Threats, Cyberbullying, Game Addiction.

nternet is a universal medium that connects people across the world and provides opportunities to communicate, educate, entertain and trade anywhere, anytime. Internet poses both positive and negative influence on the lives of adolescents. Social interaction, communication and education are prominent advantages among the many positive influence of internet on the lives of adolescents.

Influence of Internet on Adolescents

Researches on internet and its influences on students especially adolescents have been on the spotlight for a long while. Internet usage among adolescents have augmented to a higher range within last few years. World Internet Project (2013) reported that more than ninety percent of adolescents between the age range of twelve and forteen years are widely using internet all over the world. In addition to that, a study conducted by Rideout, Foehr and Roberts (2010) reported that children were the most common internet users in the world in terms of the amount of time they spent online. Gedam et al. (2017) found the prevalence of internet addiction among Indian adolescents to be 19.85 percent. As adolescence is the time of building selfidentity, opinion, attitude and social responsibility, internet opens up an arena for them to reinforce existing relationship as well as to expand their social circle. Internet, with its quick and widespread nature, can provide any kind of information to students at their fingertips. Thus it promotes their intellectual development, vocational preparation, as well as personal development (Cheng and Fu, 2009).

In spite of the numerous privileges, the unmonitored and uncontrolled nature of

internet makes students to fall prey to access offensive materials online. This compels parents to mediate the internet usage of their children (Livingstone, 2008). Limitless access to information and limited censorship in addition to the digital divide between parents and children have led these students to fall prey to many issues including cyber grooming, rapes, pornography (Living stone and Bober, 2005, Cheryl 2007), cyber bullying (Strom and Strom, 2005; Walden and Beran, 2010), addiction, or sexual solicitation (Guan and Subrahmanyam, 2009). Excessive internet use especially social networking sites can affect family relations leading to parent-child conflict (Subrahmanyam and Greenfield, 2008) and loss of quality family time (Lee, 2009). Internet addiction is another severe issue that affects adolescents, the symptoms which are analogous to substance abuse and gambling disorders (Aboujaoude, 2010). In Argentina, children are bothered most by hurtful messages, discrimination or even popup messages and advertising (Ravalli and Paoloni 2016).

Gender Differences in Issues Faced online

Several studies have come up with gender differences in pattern of internet usage among adolescents with respect to time spent online and purpose of internet usage. (Subrahmanyam Greenfield, Kraut, and Gross, 2001, Jupiter Communications, 2000; Subrahmanyam et al., 2001). Several other studies have sought to find out gender differences in the issues faced by adolescents while using internet. A study from South Africa says that boys, rather than girls were more vulnerable to exposure of sexual images and sexual violence both online and offline (Artz et.al, 2016). The present study also aims to find out the gender differences in various online issues faced by the adolescents.

Parental Concern over Internet Usage of Adolescents

Liau (2008) says that parents are often unaware of the risky behaviour children encounter online and the inappropriate websites they access. Parents' improper awareness of what their children do over internet can be attributed to a fact that there exists a digital divide between the adolescents and their parents. Adolescents of the present day belong to a generation of 'Digital Natives' while their parents belong to the generation of 'Digital Immigrants.' (Prensky 2001). In a recent study by Helsper and Eynon (2013) it is proven that breadth of use, experience and educational levels are also important factors than generational differences. This suggests that the parents can also become digital natives by acquiring skills and experience in interacting with these technological devices.

From the extensive review of the literature, it is understood that there are several studies conducted to find out the online issues faced by adolescents. But very few studies have been conducted to find out the various concerns of parents over the internet usage of their children. There are several factors that influence the parental concern over internet usage of adolescents. Sorbring (2012) in her study reported that age and gender of the child as well as the online experience of parents are factors that influence the concern of parents regarding the internet usage of their adolescents. The present study aims to analyze the relation of various demographic factors to the parental concern including parents' age, education, employment and family income as well as age and gender of adolescents in Kerala, a state in India.

Materials and Methods

Sampling

The sample for the study was selected using Stratified Random Sampling. From the total number of schools in Ernakulam District approximately three percent of schools were selected from each stratum (Government Schools, Aided Schools and Private Schools) which made a total of 8 schools. Sample for the study consisted of four hundred adolescent students studying in grade 8–12 and their parents. That is, fifty students and their parents were randomly selected from each school. Out of the four hundred adolescents and parents, three hundred and eighty eight responded to the study.

Development of the Tool

The questionnaire used for the survey was Parental Concern Questionnaire prepared by the investigator. In addition to a demographic profile, the questionnaire contained a Parental Concern Scale, a nine- item scale, that assessed concern of parents on issues related to internet usage on a five-point Likert scale (1=never to 5=always). The questionnaire was validated by six experts in the field. A pilot study was conducted to test the reliability of the questionnaire. There were two sets of questionnaires prepared for the study; one for students which intended to find the various online issues faced by them and the other questionnaire for the parent which intended to find out their level of parental concern.

Conduct of the Study

The study was conducted through a Survey. After receiving permission from the concerned authorities, a questionnaire was distributed among randomly selected fifty students from grade eight to grade twelve in each school. Each

student received two sets of questionnaires, one to be filled by themselves at school, to ensure honest and accurate data and to avoid unnecessary influence from home, and the other to be filled by their parents.

Analyses

The data collected from the survey were compiled and analyzed using statistical software such as R statistical analysis software and SPSS Statistics twenty. First, descriptive analyses of the items were examined. Parametric tests including Pearson's correlations, t-test and ANOVA were used to assess the relation between Parental Concern and the influence of various demographic factors on it. The study has also analyzed the gender differences in the online issues faced by adolescents as well as gender

differences in the parental concern over these issues.

Results and Discussion

Demographic Data

Demographic data of the study reveals that sixty eight percent of the students who participated in the study were girls and thirty two percent were boys. Majority of the students were in the ages forteen years (twenty five percent) thirteen years (twenty two percent) and sixteen years (twenty one percent). On the whole nearly ninety percent of the respondent fathers were in the age between forty–fifty five years. And eighty nine percent of the respondent mothers were constituted in the ages between thirty six–fifty years. The data also revealed that fifty three percent of the fathers

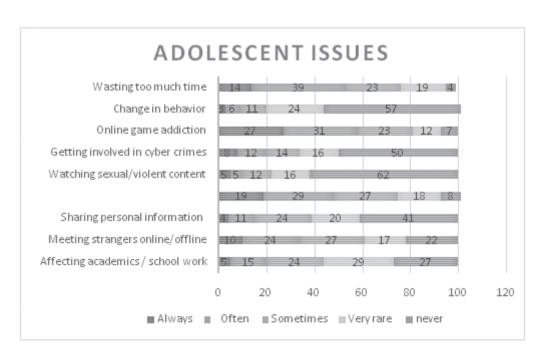


Figure: 1

were qualified with a college degree, while forty seven percent had only school education. Fifty six percent of the respondent received college education while forty percent completed school education. Ninety seven percent of the fathers and fifty two percent of the mothers among the respondents were employed. Forty four percent of the respondents received annual family income between one and five lakhs while thirty four percent received below one lakh and twenty two percent received above five Lakhs of annual family income.

Online Issues Faced by Adolescents

From Figure 1, it can be inferred that the major internet issues reported by the adolescents were wasting too much time, online game addiction and negative online threats. The least reported issues were watching sexual/violent content on the internet and change in behaviour sixty two

percent and fifty seven percent of adolescents respectively reported it as 'never' experienced. A study by Livingstone et al. (2013) to find out what bothers children online revealed that pornography (twenty two percent) and watching violent content (eighteen percent) were the most common issues reported by them. Meanwhile on analyzing the online issues as reported by adolescents in Kerala through the present study; it was found that these issues were among the least reported ones. At the same time, the result of the present study highlighted two

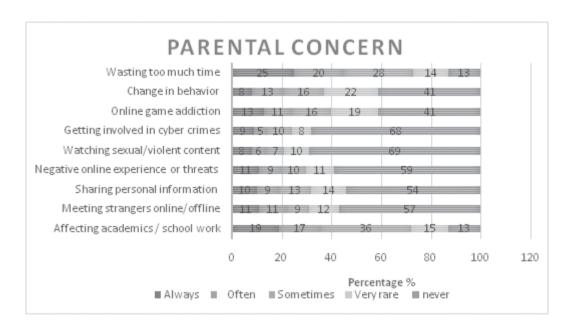


Figure: 2

major issues that require immediate and serious attention, i.e. online game addiction and cyberbullying or online negative experiences. Several news reports in the recent past also support the findings of the study.

Parental Concern over Adolescent Internet Usage

From Figure 2, it can be inferred that the major concern of most of the parents regarding the internet usage of adolescents included excessive usage affecting academics and causing wastage of time. The issues that parents were least concerned about were getting involved in cybercrimes (sixty nine percent) and watching sexual or violent content online (sixty eight percent). Fifty nine percent and forty one percent of the parents respectively reported 'never' when asked about their concern regarding negative online experiences and online game addiction which adolescents reported as a concerned issue.

On comparing the results of the adolescent issues on internet and the parental concern it can be concluded that there is a wide difference in what parents are concerned about regarding the online issues faced by their children and what the adolescents reported they actually face while using internet. Parents believe that excessive internet usage is a major factor leading to poor academic performance of the adolescents. Singh and Barmola (2015) have found detrimental effect on the academic performance of students who were in the severe and profound groups of internet addiction than students who were moderately addicted to internet. But from the present study it can be concluded that adolescents

are either not aware or not ready to accept the fact that their excessive internet usage is severely affecting their academics.

Influence of Demographic factors on Parental Concern

With regard to the parental concern and the influence of various demographic factors, as shown in Table 1, there exists a statistically significant correlation between parental concern and the mother's age (r = 0.04, p = 0.03). Older mothers were more concerned over the internet

Table 1: Influence of various Demographic factors on the Parental Concern

Demographic	Grouping Variables	Mean	Standard	Parental
Factors	(N)		Deviation	Concern
				(p value)
Father' age	-	47.59	4.57	0.65
Mother's age	-	42.08	42.08	0.03**
Father's	School Education (159)	1.26	0.18	0.61
education	College Education (229)	1.27	0.19	
Mother's	School Education (130)	1.23	0.180	0.04**
education	College Education (258)	1.29	0.185	
Mother's	Employed (183)	1.26	0.17	0.26
employment	Unemployed (205)	1.29	0.19	
Family	Below 1 Lakh (133)	1.21	0.17	0.00**
Income	1 – 5 Lakhs (170)	1,30	0.18	
Level	Above 5 Lakhs (85)	1.30	0.18	
Gender of the	Male (125)	1.27	0.17	0.908
student	Female(263)	1.27	0.19	
Type of School	Government	1.20	0.16	0.000**
the Adolescent	Aided	1.23	0.19	
goes to	Private	1.30	0.17	

^{**} Significant at 0.05 level

usage. This may be because of their lack of technological knowledge. While father's age had no significant correlation. Considering the education of father and mother, it has been revealed from the Independent t-test that there was a statistically significant difference in the scores for mothers with college education (M= 1.3, SD= 1.85) who were more concerned than mothers with school education (M= 1.23, SD= 0.180). It was also found that father's education has no significant relation.

Pew Internet and American Life Project (2005) reported that parents with considerable online experience had less concern regarding the internet usage of their children. Young mothers and educated mothers are more exposed to and well – versed with new media especially internet. In the present study the paternal factors show no effect on the level of concern.

Finally, the Independent t-test found no significant relationship between concerns of employed and unemployed mothers. Considering the

family income as a factor influencing the parental concern, the one–way ANOVA score reveals that parents with medium level of income (M = 1.30, SD = 0.185) and high income level (M = 1.30, SD = 0.183) are more concerned about the internet usage of adolescents than parents with low income level (M = 1.21, SD = 0.171).

There was a difference in the level of concern among parents in different economic strata. This may be because of the difference in the usage of internet by adolescents in different strata. As usage increases, concern also increases. Moreover parents in higher socio–economic status are aware of the various things available through internet.

While considering the demographic factors related to adolescents, one—way ANOVA score reveals that the parents of adolescents studying in private schools (M = 1.30, SD = 0.17) are more concerned about the internet usage than parents of adolescents studying in aided schools (M = 1.30) and M = 1.30.

Table 2: Gender Differences in Adolescent issues and Parental Concern

Online	Gender	Adolescent Issues		Parental Co	ncern
Issues	Male (125)	Mean	Sig (2 –	Mean	Sig (2-
	Female (263)	(SD)	tailed)	(SD)	taile
Affecting acade-	Male	2.45 (1.28)	0.98	3.23 (1.21)	0.35
mics / school work	Female	2.44 (1.14)		3.11 (1.27)	
Meeting strangers	Male	2.57 (1.29)	0.007**	1.87 (1.35)	0.09
online/offline	Female	2.95 (1.27)		2.13 (1.46)	
Sharing personal	Male	2.06 (1.19)	0.196	1. 96 (1.35)	0.36
information	Female	2.22 (1.19)		2.10 (1.39)	
Negative online	Male	3.27 (1.18)	0.37	1.87 (1.36)	0.204
experience or threats	Female	3.54 (3.28)		2.06 (1.44)	

Watching sexual/	Male	1.92 (1.23)	0.48	1.71 (1.30)	0.712
violent content	Female	1.67 (1.09)		1.76 (1.29)	
Getting involved	Male	3.45 (1.24)	0.00**	1.68 (1.28)	0.20
in cyber crimes	Female	1.48 (0.82)		1.86 (1.36)	
Online game	Male	3.71 (1.23)	0.154	2.47 (1.42)	0.31
addiction	Female	3.52 (1.19)		2.32 (1.42)	
Change in	Male	1.54 (0.91)	0.010**	2.27 (1.36)	0.78
behaviour	Female	1.84 (1.09)		2.23 (1.30)	
Wasting too	Male	3.54 (1.0)	0.048**	3.49 (1.25)	0.03**
much time	Female	3.32 (1.11)		3.19 (1.36)	

1.23, SD = 0.19) and government schools (M = 1.21, SD = 0.17). It was also found that the gender of the adolescent has no significant influence on the parents' concern regarding the issues adolescents face online.

Gender Differences in Adolescent issues and Parental Concern

On analyzing the gender differences in the online issues reported by the adolescents, as shown in Table 2, it was found that there were few important issues which had significant differences.

Among the adolescent sample number of girls (M=2.95, SD=1.27) who reported the issue of meeting strangers online / offline outnumbered boys (M=2.59, SD=1.29). While more of boys (M=3.45, SD=1.24) than girls (M=1.48, SD=0.82) reported that they get involved in cybercrimes. Girls (M=1.54, SD=0.91) increasingly reported change in behaviour after using internet than boys (M=3.54, SD=1.0). Meanwhile boys (M=3.32,

SD=1.11) were higher in number to report wasting of time through online activities than girls.

This is in line with the findings of Lakshmana. et.al (2017) who concluded in his study that boys were more risk-taking than girls while using internet.

On the other hand while analyzing the gender differences in parental concern it should be noted that the only issue that showed gender difference was wasting too much time for online activities. Parents were concerned about boys (M=3.49, SD=1.25) wasting a lot of time being online than girls (M=3.19, SD=1.36). In all the other issues parents have assumed similar level of risk for both boys and girls.

Conclusion

The influence of Internet on adolescents is increasing day by day with the advent of newer and smarter technology. The issues that they face online need to be considered seriously and they

^{**}Significant at 0.05 level.

should be provided services to help them prevent and overcome those issues. The study also highlights the fact that providing awareness to parents regarding the pattern of internet use of their children, online issues faced by them, and the technological advances to prevent these issues. Parental Support services may be initiated across Kerala to help parents deal with the internet related issue faced by their children.

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Consumer Perception and Market Evaluation of Ready To Eat Foods in Chennai



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Food has always been an integral part of the society. With the changing style of food consumption and the benefits availed through the use of Ready-to-Eat (RTE) food has resulted in a subsequent rise in the RTE market. The research focused on the consumer perception and market evaluation of RTE foods in Chennai. Random sampling method was used to collect data from respondents. Various factors such as demographic information, consumption pattern, purchase behaviour, brand preference were analysed among consumers and market segmentation, market preference and market sales were analysed among retailers. Findings suggest that taste and quality were the main reason for purchasing RTE foods. Most of the products were purchased in the local markets. Market evaluation revealed that branding policies were followed by the market retailers. Majority of the market retailers strongly agreed with support restocking as a favourable branding policy offered by the brands. Advertising and store atmosphere were commonly used as major tools for the communication of brand. Therefore there is a good scope for the entry of new brands with ready to eat products into the market.

Keywords: ReadyTo Eat, Consumer, Retailer, Brand.

R

TE foods can be directly consumed, mainly include beverages, biscuits, chips, jams, pickles, chocolates, flavoured milk, juices and so on.

People who are migrating to urban areas for job and education find that RTE food products are comfortable to eat rather than depending on restaurants. Most of the dual income families want to spend less time on cooking because of less availability of time. These factors are creating the need for RTE food products. Earlier times, joint families were common and foods were prepared in large quantities. With passing time families started disappearing, the emerging nuclear families started preferring RTE foods in order to save time and energy (Deval Patel *et al.*, 2017). Consumer purchases are likely to be influenced by physiological, psychological, cultural and sociological factors.

Major growth drivers for the segment are attributed to changing lifestyle, growing

urbanization, increase in nuclear families and rise in disposable income. Other factors which have contributed to its growth include product innovations, strong marketing initiatives and low cost pricing strategies, making products more affordable for consumers.

Consumer buying decision is very complex and purchase behaviour is an important key for consumer during procuring certain products (Kellar, 2011). Ghosh (1990) stated, purchase intention is an effective tool use in purchase process. However, purchase intention might be altered with change in price, quality and value perception (Zeithsml, 1988) and (Grewal et al. 1998). In addition, consumers will be interrupted by internal impulse and external environment during purchasing process. Their behaviour will be driven by the physiological motivation that stimulates their response which brings them to the retail store to fulfil their need (Kim et al. 2001). Thus, all the above factors play a role in consumer perception of RTE foods in the market.

CONSUMER PERCEPTION SURVEY

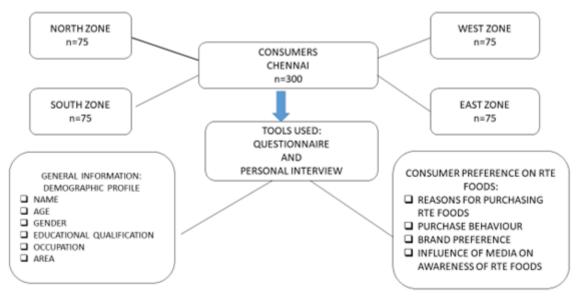


Figure-1

Methodology

The research "Consumer Perception and Market Evaluation of Ready To Eat Foods in Chennai" focused on finding the reasons for purchase of RTE foods with change in socio-economic conditions and thus emphasises on the consumer perception towards RTE foods and the impact of factors on purchase intention.

Objectives

To analyse and ascertain the consumer perception of RTE foods and to evaluate the current scenario of Ready to Eat market in Chennai.

MARKET SURVEY



Figure-2

List of the Brands Identified

Table 1: Identification of Brands

RTE	Brands Identified
Food Products	
Chocolates	Cadbury, Nestle, Ferrero India, Toblerone, Mars, Amul luv it
Biscuits	ITC, Sunfeast, Parle, Britannia, Patanjali, Oreo, Horlicks
Chips	Lays, Cheetos, Haldirams, A2B, ITC, Kettle studio, Cornitos
Juices	Dabur real, Tropicana, Minute maid, Tang, ITC B-Natural, Paper boat, Delmonte
Readymade Mixes	ITC, Mother's recipe, Fun food, Haldirams, MTR, Nestle, Aachi
Breads and Cakes	ITC, Wonder, Modern, Monginis, Nestle, Britannia, Aachi
Jams and Pickles	Kissan, Nutella, Mother's Recipe, Hershey's, Ruchie, Aachi, Haldirams
Flavoured Milk	Hutsun, Amul, Cavins Hershey's, Nestle, Jersey, Heritage.

Statistical Evaluation

Descriptive statistics (percentage, cross tabulation and graphs) was used to measure the

purchase intention and consumer attitude towards the RTE foods. The statistical evaluation was analysed using SPSS software.

Results and Discussion

I Consumer Perception

Demographic Information of the Respondents

Table 2: Demographic Information of the Respon

Particulars	Categories	No. of Respondents (300)	Percentage(%)
Age (in years)	18 – 25	100	33.33
	25-35	100	33.33
	Above 35	100	33.33
Gender	Male	133	44.33
	Female	167	55.66
Educational	Illiterate	27	9
Qualification	High School	27	9
	Under Graduate	155	51.66
	Post Graduate	91	30.33
Occupation	Student	100	33.33
	Employed	152	50.66
	Unemployed	48	16
Marital Status	Married	176	58.66
	Unmarried	124	41.33
Area	North zone	75	25
	South zone	75	25
	East zone	75	25
	West zone	75	25

Consumption Pattern of RTE Food Product

Reasons for Purchasing RTE Food Products

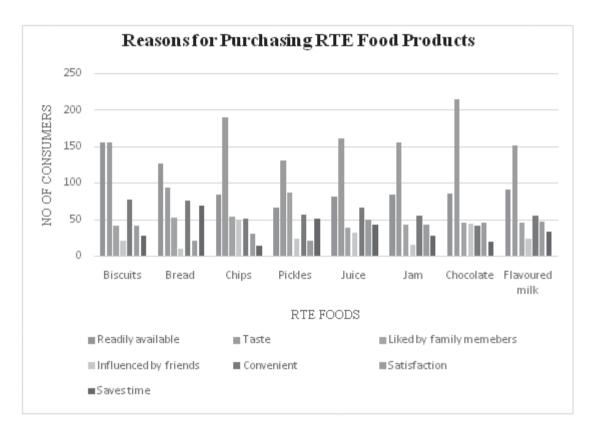


Figure-3

"Readily available" was an important factor for purchasing bread with 42 percent of respondents. Taste was the main criteria for purchasing chips,

pickles, juice, jam, chocolates, flavoured milk with 63.33 percent, 43.66 percent, 53.66 percent, 51.66 percent, 71.33 percent and 50.33 percent respectively.

Table 3: Reasons for purchasing RTE Food Products

RTE Foods	Readily available (n=300)	Taste (n=300)	Liked by family members (n=300)	Influenced by friends (n=300)	Convenient (n=300)	Satisfaction (n=300)	Saves time (n=300)
Biscuits	155	155	41	20	77	41	27
	(51.66)	(51.66)	(13.66)	(6.66)	(25.66)	(13.66)	(9)
Bread	126	94	52	10	75	20	68
	(42)	(31.33)	(17.33)	(3.33)	(25)	(6.66)	(22.66)

Chips	84	190	54	49	51	30	14
	(28)	(63.33)	(18)	(16.33)	(17)	(10)	(4.6)
Pickles	66	131	87	23	57	21	51
	(22)	(43.66)	(29)	(7.66)	(19)	(7)	(17)
Juice	81	161	38	32	66	49	42
	(27)	(53.66)	(12.66)	(10.66)	66(22)	(16.33)	(14)
Jam	84	155	42	15	55	43	28
	(28)	(51.66)	(14)	(5)	(18.33)	(14.33)	(9.33)
Chocolate	85	214	45	44	41	46	19
	(28.33)	(71.33)	(15)	(14.66)	(13.66)	(15.33)	(6.33)
Flavoured	91	151	45	23	55	47	33
Milk	(30.33)	(50.33)	(15)	(7.66)	(18.33)	(15.66)	(11)

Purchase Behaviour of Consumer

Frequency of Purchase

Table 4: Frequency of Purchase

RTE Foods	Daily (n=300)	Once a week (n=300)	Twice a week (n=300)	Monthly (n=300)	Occasionally (n=300)
Biscuits	100(33.33)	72(24)	46(15.33)	53(17.66)	29(9.66)
Bread	30(10)	114(38)	46(15.33)	55(18.33)	55(18.33)
Chips	65(21.66)	83(27.66)	55(18.33)	49(16.33)	48(16)
Pickles	16(5.33)	22(7.33)	33(11)	134(44.66)	95(31.66)
Juice	46(15.33)	83(27.66)	43(14.33)	54(18)	74(24.66)
Jam	14(4.66)	27(9)	35(11.66)	123(41)	101(33.66)
Chocolate	143(47.66)	62(20.66)	27(9)	27(9)	41(13.66)
Flavoured Milk	68(21.66)	26(8.66)	22(7.33)	30(10)	154(51.33)

RTE food products purchased daily were biscuits and chocolates with 33.33 percent and 47.66 percent respectively. Pickles were purchased monthly with 44.66 percent. Juices were also

purchased once in a week by majority (67.66) percent. In case of jam (33.66 percent) and flavoured milk (51.33) percent they were purchased occasionally.

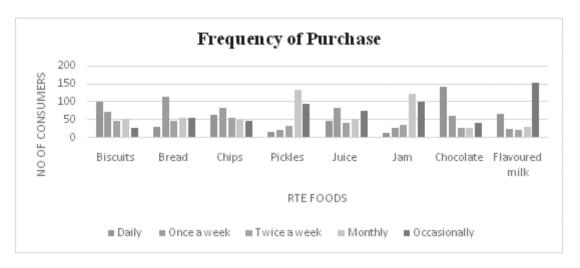


Figure-4

Nature of Purchase Decision

Table 5: Nature of Purchase Decision

RTE Foods	Impulsive Buying(n=300)	Planned Purchase(n=300)
Bread	118(39.33)	182(60.66)
Chips	211(70.33)	89(29.66)
Pickles	114(38)	186(62)
Juice	182(60.66)	118(39.33)
Jam	119(39.66)	181(60.33)
Chocolate	193(64.33)	107(35.66)
Flavoured Milk	173(58.33)	127(42.33)

It was seen that majority of consumers purchased food items such as biscuits, chips, juice, chocolate and flavoured milk on impulsive buying while food items like bread, pickle and jam were planned purchase for majority.

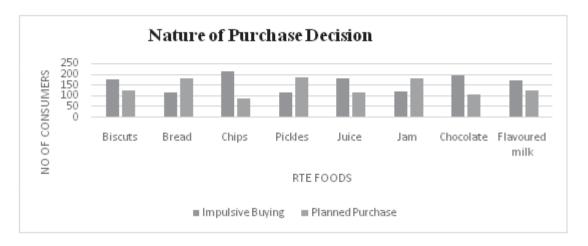


Figure-5

Source of Purchase

Table 6: Source of Purchase

Name of the Outlet	No. of Respondents	Percentage (n=300)
Reliance	34	11.33
Nuts and spices	27	9
Nilgiri's	44	14.66
More	14	4.66
Retail outlet	60	20
Local market	81	27
Big bazaar	36	12
Government Cooperative Outlet	4	1.3

The major purchase of RTE foods were from the local market (27 percent) followed by the retail outlets (20 percent) while purchase from supermarkets such as More Supermarket (4.66 percent) were comparatively lesser whereas the purchase from government cooperative outlets were found to be the least with 1.3 percent.

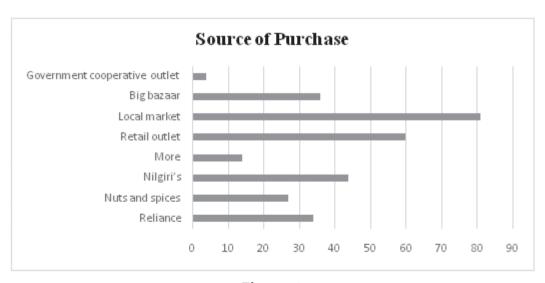


Figure -6

Factors Influencing Brand Preference

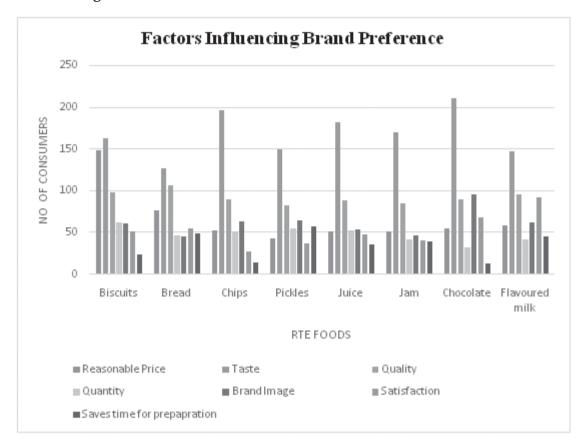


Figure-7

The most common reason for preferring brands for purchase of RTE foods was taste, viz., showing biscuits (47.66 percent), bread (42.33 percent), chips (65.33 percent), pickles (52 percent), juice (60.66 percent), jam (56.66 percent), chocolates

(70.33 percent), and flavoured milk (49 percent). However brand preference for purchasing biscuits was mainly due to reasonable price. Brand preference for jams was mainly due to its taste and brand image.

Table 7: Factors Influencing Brand Preference

RTE	Reasonable				Brand		Saves time for
Foods	Price	Taste	Quality	Quantity	Image	Satisfaction	Preparation
Biscuits	148	163	98	62	61	52	24
	(49.33)	(47.66)	(32.66)	(20.66)	(20.33)	(17.33)	(8)
Bread	77	127	107	47	45	55	49
	(25.66)	(42.33)	(35.66)	(15.66)	(15)	(18.33)	(16.33)
Chips	53	196	90	51	63	28	14
	(17.66)	(65.33)	(30)	(17)	(21)	(9.33)	(4.66)

Pickles 43 150 82 55 65 37 57 (14.33)(52)(27.33)(12.33)(19)(18.33)(21.66)Juice 52 182 89 53 54 48 36 (17.33)(60.66)(29.66)(17.66)(18)(16)(12)51 47 39 Jam 170 85 42 41 (17)(56.66)(28.33)(14)(56.66)(13.66)(13)Chocolate 55 211 90 32 96 68 13 (18.33)(22.66)(70.33)(30)(10.66)(32)(4.33)92 **Flavoured** 59 96 42 62 147 45 Milk (19.66)(49)(32)(14)(20.66)(30.66)(15)

Rating RTE Products Based on Brand Preference

Table 8: Brand Preference of Chocolates (n=300)

Chocolates	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)
Nestle	49(16.33)	10(3.33)
Cadbury	179(59.66)	13(4.33)
Ferrero India	22(7.33)	31(10.33)
Toblerone	28(9.33)	25(8.33)
Mars	10(3.33)	33(11)
Amul	8(2.66)	15(5)
Luv it	5(1.66)	49(16.33)
Others	3(1%)	61(20.33)

Evaluation of rating brand preference for whereas the 'others,' comprising of locally chocolates revealed that Cadbury (59.66 percent) was rated to be the most preferred (rank 1),

available brands (20.33 percent) was observed to be least preferred (rank 5) among consumers.

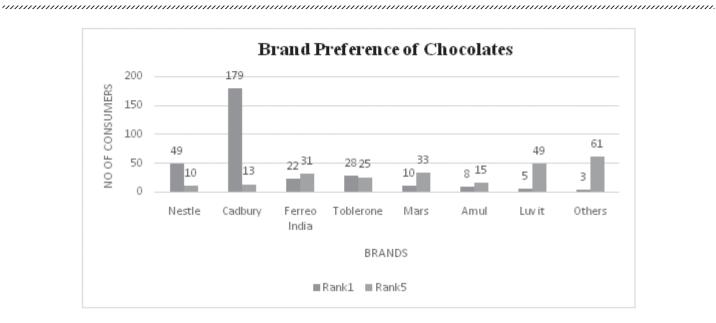


Figure-8

Table 9: Brand Preference of Biscuits (n=300)

Biscuits	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)
ITC	45(15)	30(10)
Sun feast	42(14)	17(5.66)
Parle	29(9.66)	45(15)
Britannia	125(41.66)	17(5.66)
Patanjali	12(4)	15(5)
Oreo	35(11.66)	44(14.66)
Horlicks	8(2.66)	24(8)
Others (locally available biscuits)	3(1)	60(20)

Evaluation of rating brand preference for biscuits revealed that Britannia (41.66 percent) was rated to be mostly preferred (rank 1), whereas the

"others" i.e. locally available biscuits (20 percent) was observed to be least preferred (rank 5) among consumers.

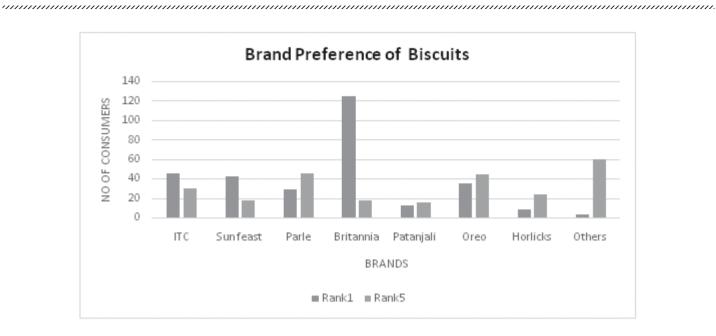


Figure-9

Table 10: Brand Preference of Chips (N=300)

Chips	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)	
Lays	108(36)	22(7.33)	
Cheetos	36(12)	28(9.33)	
A2b	67(22.33)	12(4)	
Haldirams	31(10.33)	31(10.33)	
ITC	38(12.66)	47(15.66)	
Kettle studio	2(0.66)	15(5)	
Cornitos	9(3)	31(10.33)	
Others(locally available chips)	7(2.33)	78(26)	

revealed that Lays (36 percent) was rated to be mostly

Evaluation of rating brand preference for chips preferred (rank 1), whereas "others" locally available chips (26 percent) was observed to be least preferred (rank 5).

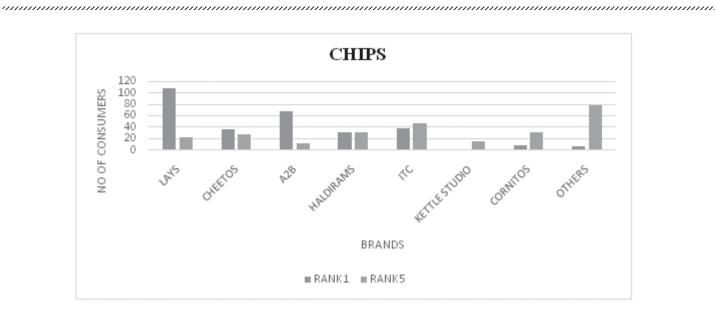


Figure-10

Table 11: Brand Preference of Juices (N=300)

Juices	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)
Dabur real	11(3.66)	47(15.66)
Tropicana	69(23)	20(6.66)
Minute maid	34(11.33)	26(8.66)
Tang	113(37.66)	19(6.33)
ITC B natural	30(10)	51(17)
Paper boat	11(3.66)	53(17.66)
Del monte	8(2.66)	13(4.33)
Others	13(4.33)	26(.8.66)

revealed that Tang (37.66 percent) was rated to be

Evaluation of rating brand preference for Juices mostly preferred (rank 1), whereas Paper boat (17.66 percent) was observed to be least preferred (rank 5).

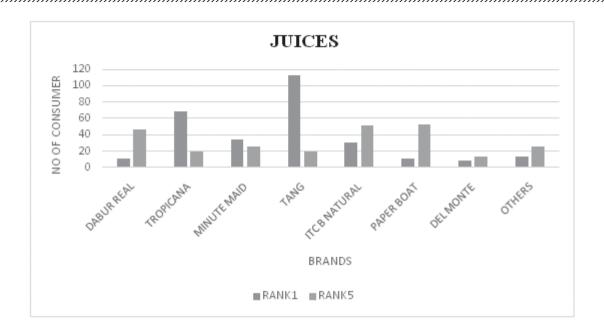


Figure 11

Table 12: Brand Preference of Readymade Mixes (n=300)

Readymade Mixes	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)
ITC	41(13.66)	21(7)
Mother's recipe	40(13.33)	45(15)
Fun food	16(5.33)	16(5.33)
Haldirams	25(8.33)	33(11)
MTR	79(26.33)	20(6.66)
Nestle	25(8.33)	30(10)
Aachi	52(17.33)	32(10.66)
Others	5(1.66)	63(21)

Evaluation of rating brand preference for Readymade be mostly preferred (rank 1), whereas "others" (21

mixes revealed that MTR (26.33 percent) was rated to percent) was observed to be least preferred (rank 5).

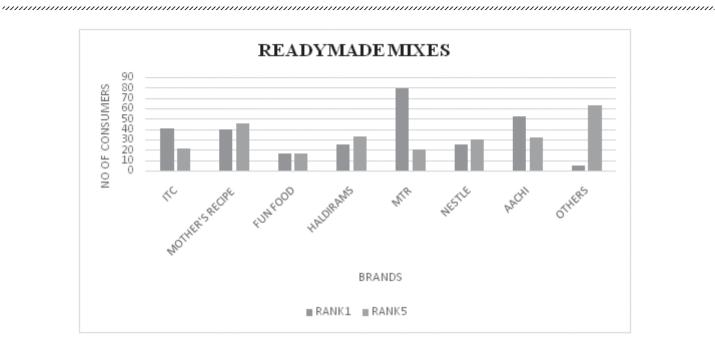


Figure 12

Table 13: Brand Preference of Breads and Cakes (N=300)

Breads And Cakes	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)
ITC	21(7)	42(14)
Wonder	51(17)	29(9.66)
Modern	103(34.33)	18(6)
Monginis	6(2)	8(2.66)
Nestle	31(10.33)	24(8)
Britannia	67(22.33)	30(10)
Aachi	12(4)	26(8.66)
Others	6(2)	69(23)

cakes revealed that modern (34.33 percent) was rated

Evaluation of rating brand preference for Bread and to be mostly preferred (rank 1), whereas "others" (23 percent) was observed to be least preferred (rank 5).

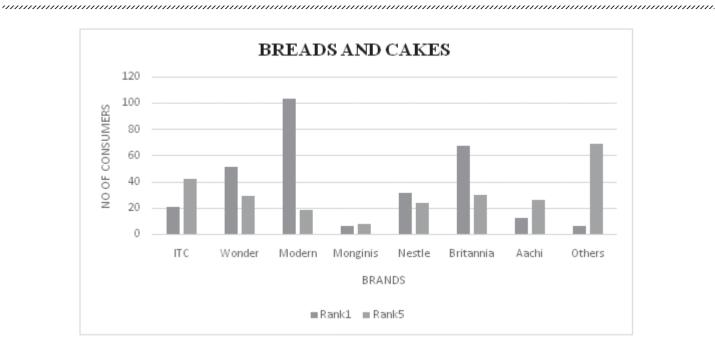


Figure 13

Table 14: Brand Preference of Jams and Pickles (N=300)

Jams And Pickles	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)
Kissan	116(38.66)	23(7.66)
Nutella	50(16.66)	30(10)
Mother's Recipe	8(2.66)	50(16.66)
Hershey's	33(11)	23(7.66)
Ruchie	30(10)	37(12.33)
Aachi	45(15)	29(9.66)
Haldirams	8(2.66)	26(8.66)
Others	6(2)	61(20.33)

Evaluation of rating brand preference for Jams and to be mostly preferred (rank 1), whereas "others" (20.33 pickles revealed that kissan (38.66 percent) was rated

percent) was observed to be least preferred (rank 5).

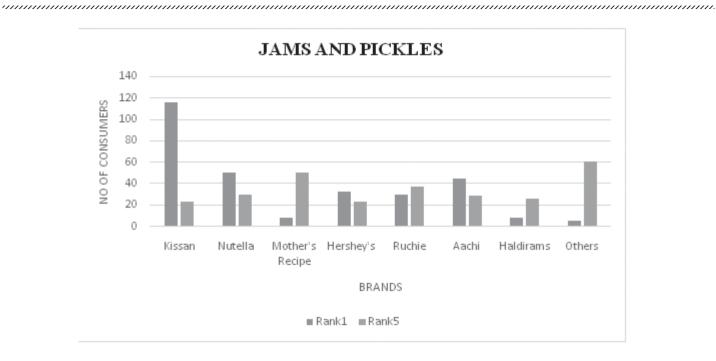


Figure 14

Table 15: Brand Preference of Flavoured Milk (N=300)

Flavoured Milk	Rank 1 (Most Preferred)	Rank 5 (Least Preferred)
Hutsun	31(10.33)	36(12)
Amul	76(25.33)	14(4.66)
Cavins	115(38.33)	13(4.33)
Hershey's	26(8.66)	29(9.66)
Nestle	13(4.33)	17(5.66)
Jersey	6(2)	28(9.33)
Herritage	13(4.33)	35(11.66)
Others	5(1.66)	50(16.66)

Evaluation of rating brand preference for 1), whereas "others" (16.66 percent) was flavoured milk revealed that Cavins (38.33 percent) was rated to be mostly preferred (rank

observed to be least preferred (rank 5) among consumers.

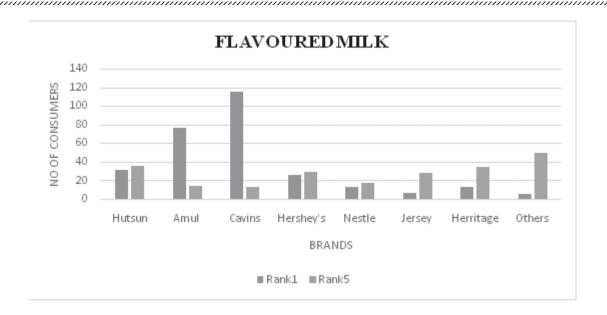


Figure 15

Influence of Media on Awareness of RTE Food Products

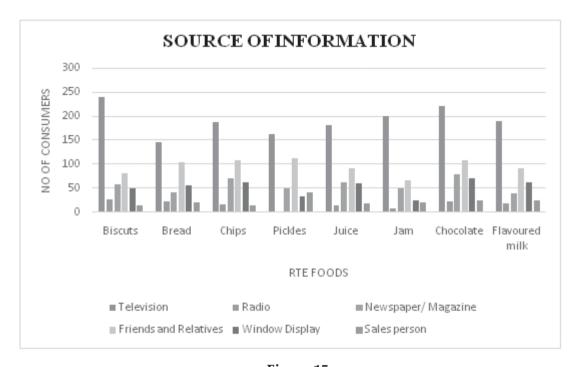


Figure 15

Television plays a pivotal role in creating awareness about RTE foods among consumers with a maximum percentage of 79.6 percent, 48.66 percent, 62.66 percent, 162 percent, 181 percent, 201 percent, 221 percent, and 190 percent for biscuits, breads,

chips, pickles, juice, jam, chocolates, flavoured milk respectively. Other sources such as radio, newspaper and magazine, friends and relatives, window display and sales person also contributes in creating awareness among consumers. Table 16: Influence of Media on Awareness of RTE Food Products (n=300)

RTE	Television	Radio	Newspaper/	Friends and	Window	Sales
Foods			Magazine	Relatives	Display	Person
Biscuits	239(79.6)	27(9)	58(19.33)	82(27.33)	51(17)	14(4.66)
Bread	146(48.66)	22(7.33)	42(14)	104(34.66)	57(19)	20(6.66)
Chips	188(62.66)	16(5.33)	71(23.66)	108(36)	62(20.66)	15(5)
Pickles	162(54)	3(1)	50(16.66)	112(37.33)	33(11)	41(13.66)
Juice	181(60.33)	14(4.66)	63(21)	91(30.33)	60(20)	18(6)
Jam	201(67)	9(3)	51(17)	67(22.33)	26(8.66)	21(7)
Chocolate	221(73.66)	22(7.33)	79(26.33)	109(36.33)	71(23.66)	24(8)
Flavoured Milk	190(63.33)	18(6)	40(13.33)	91(30.33)	62(20.66)	25(8.33)

II Market Evaluation - Market Segmentation

Table 17: Market Segmentation

Type of Retail Outlet	No. of Stores
Super Market	5
Departmental Store	5
Hyper Market	5
Local Provisional Store	5

The market evaluation was carried out in 20 retail store, hyper market and local provisional stores. Under outlets categorised into super market, departmental each category 5 outlets were selected for evaluation.

Major Buyers of RTE Food Products

Table 18: Major Buyers of RTE Food Products (n=20)

RTE Foods	School	Teenagers	Working	House wives	Elderly
	going children		people		people
Biscuits	8(40)	7(35)	4(20)	5(25)	8(40)
Bread	5(25)	5(25)	5(25)	5(25)	10(50)
Chips	15(75)	5(25)	10(50)	12(60)	5(25)
Pickles	2(10)	2(10)	15(75)	20(100)	5(25)
Juice	10(50)	12(60)	18(90)	14(70)	12(60)
Jam	16(80)	10(50)	9(45)	5(25)	5(25)
Chocolates	20(100)	18(90)	9(45)	5(25)	3(15)
Flavoured Milk	11(55)	12(60)	15(75)	8(40)	5(25)

Biscuits were bought equally by school going children and elderly people (40 percent). Bread was highly purchased by the elderly people (50 percent). Chips were

majorly bought by school going children (75 percent). Jam was bought by the school going children. Flavoured milk was bought highly by the working people.

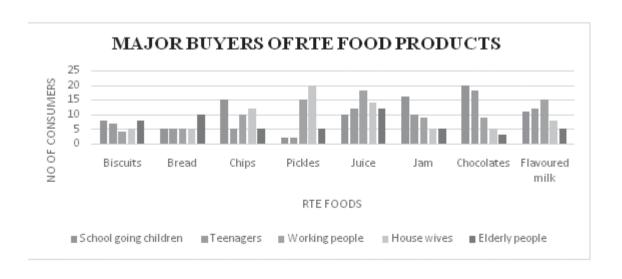


Figure 17: Major Buyers of RTE Food Products

Market Preference on RTE Food Products : Leading Brands in the Store

Chocolates

The evaluation of market research revealed that was found to be Cadbury (50 percent) and the least the leading brand in chocolates in the market stores preferred was the locally available brands (1 percent).

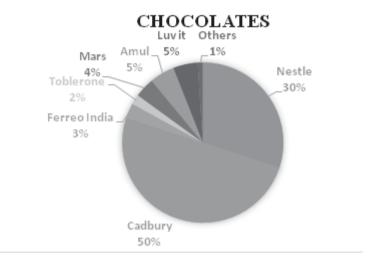


Figure 18

Biscuits

The evaluation of market research revealed that the leading brand in biscuits in the market stores was preferred was the locally available brands (1 percent).

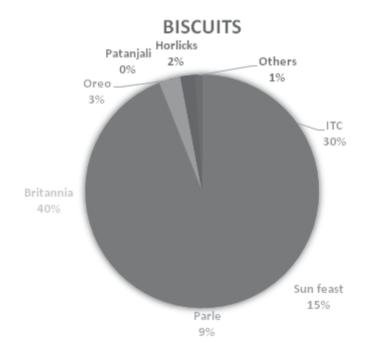


Figure 19

Chips

The evaluation of market research revealed that found to be Lays (35 percent) and the least the leading brand in chips in the market stores was preferred were Haldirams and Cornitos (5 percent).

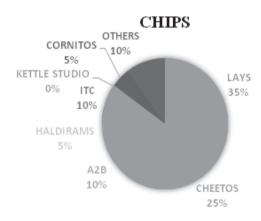


Figure 20

Juice

The research revealed that the leading brand in Tropicana (40 percent) and the least preferred juice in the market stores was found to be were Dabur real and paper boat (5 percent).

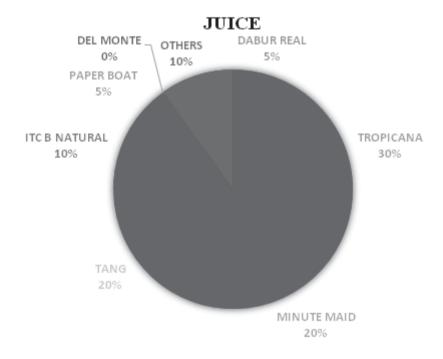


Figure 21

Readymade Mixes

The leading brand in Readymade mixes in the and the least preferred were Nestle and market stores was found to be MTR (40 percent) Haldirams (2 percent).

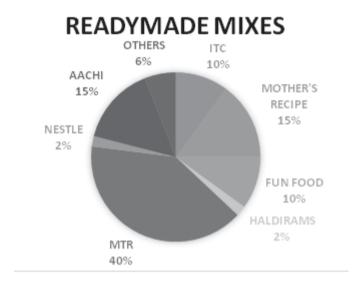


Figure 22

Breads and Cakes

The leading brand in Breads and cakes in the market least preferred were ITC and others (5 percent). stores was found to be Modern (45 percent) and the Monginis and Aachi were not on the leading list.

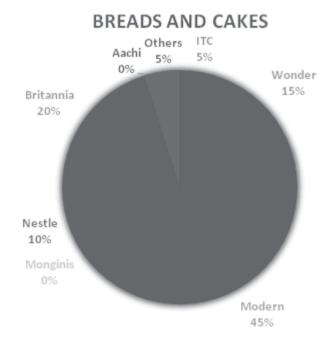


Figure 23

Jams and Pickles

The leading brand in Jams and pickles and in percent) and the least preferred was hershey's the market stores was found to be kissan (40 (2 percent).

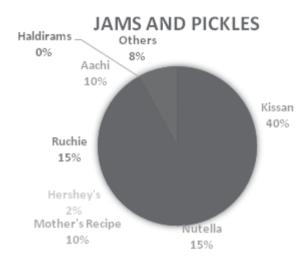


Figure 24

Flavoured Milk

The evaluation of market research revealed that the leading brand in Flavoured milk in the market stores preferred were Hutsun, Jersey and heritage (5 percent).

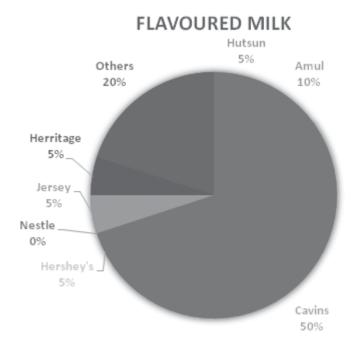


Figure 25

Favourite Branding Policies Offered by the Brands

Table 19: Branding Policies (n=20)

Branding	Strongly		Neither agree		Strongly
Policies	Disagree	Disagree	nor Disagree	Agree	Agree
Support					
Restocking				5(25)	15(75)
Profit				12(60)	8
Flexibility				10(50)	10(50)
Providing Service				9(45)	11(55)
Sales Co-operative				7(35)	13(65)
Product Quality				15(75)	5(25)

Market evaluation revealed that the branding policies are followed by the market retailers. 75 percent of the market retailer strongly agreed with the support restocking as a favourable branding policies offered by the brands. Other favourite branding policies were strongly agreed upon were

the service provided by the brands (55 percent) and the cooperatives who comes for the distribution of their brands in the market (65 percent). The other branding policies like profit, flexibility and product quality and also relatively favoured branding policies which are agreed by the retailer.

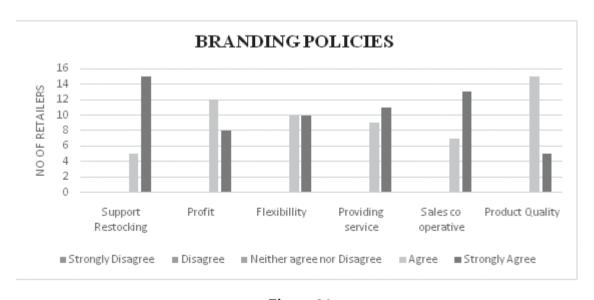


Figure 26

Market Sales: Objectives of the Retail Firm

Table 20: Objectives of the Retail Firm

Objectives	Strongly	Disagree	Neither agree	Agree	Strongly
	Disagree		nor Disagree		Agree
High walk in's					20(100)
Improve Profitability			5(25)	8(40)	7(35)
Increase Consumer Loyalty				5(25)	15(75)
Satisfy the Demands of Consumer			5(25)	7(35)	8(40)

100 percent of the market retailer strongly agreed that the consumers' walk ins are high in the retail store because of the RTE products. 35 percent of market retailer strongly agrees that RTE foods

improve profitability. 75 percent of the market retailer strongly agreed that the consumer loyalty towards the retail store was the main reason for increasing sale of RTE foods.

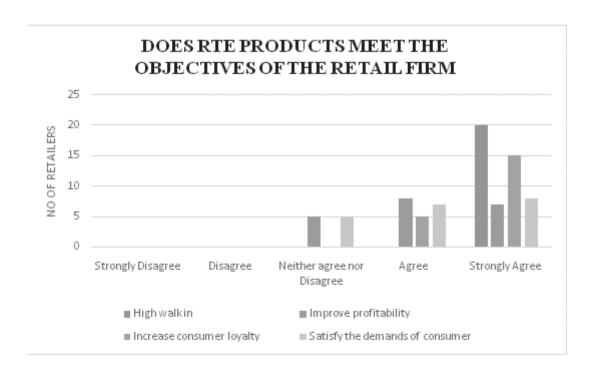


Figure 27

Tools Used For Communication

Table 21: Tools Used For Communication

Tools used for	Never	Rarely	Occasionally	Frequently	Always
Communication	used	used	used	used	used
Advertising		5(25)	5(25)		10(50)
Sales Promotion	10(50)		5(25)		5(25)
Store Atmosphere			5(25)	10(50)	5(25)
Publicity	8(40)	3(15)	9(45)		
Personal Selling		5(25)	10(50)	5(25)	

The major tools used for communication for brand promotion are advertising, sales promotion, store atmosphere, publicity and personal selling. Advertising (50 percent) and store atmosphere (50 percent) were always used as major tools for the communication of brand, whereas publicity (40 percent) and sales promotion (50 percent) were not commonly used

sales promotion. Majority of the store occasionally used the publicity (45 percent), personal selling (50 percent), advertising (25 percent), sales promotion (25 percent) and stores atmosphere (25 percent) for communicating the brands of RTE foods. However advertising and personal selling where the most commonly used tools for communicating the brand for RTE food products.

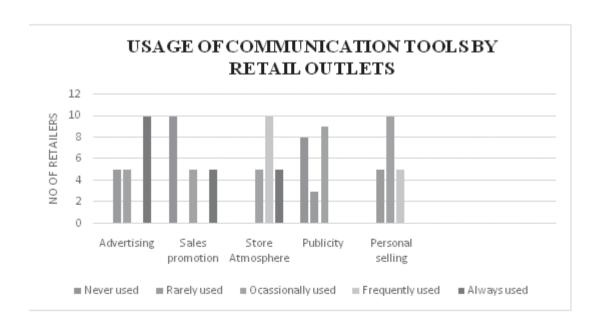


Figure 28

Reasons for Selling RTE Food Products by Retailers

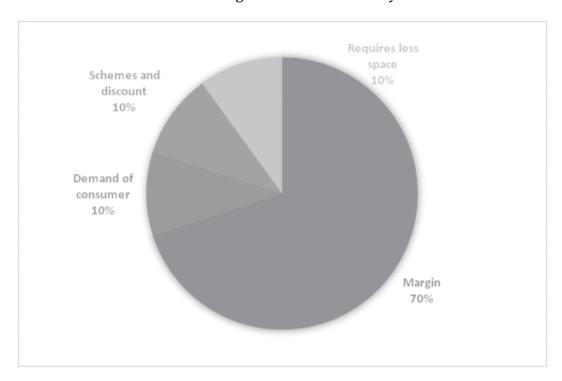


Figure 29

From the above chart it is concluded that margin (70 percent) was the main reason for selling RTE food products and the other reasons such as

demand of the consumers, schemes and discounts and less space requirement share the equal percentage of 10 in selling RTE foods in market.

Pricing Strategy Adopted by the Retailer

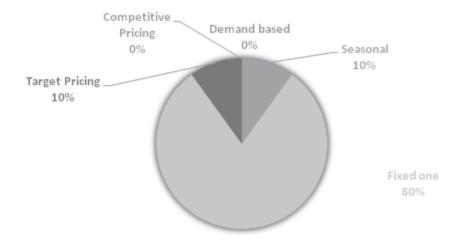
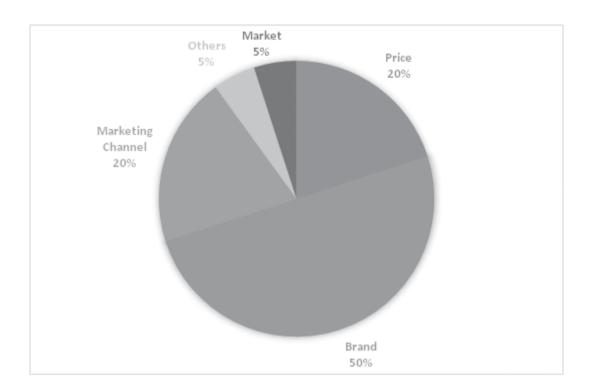


Figure 30

From figure 30 it is determined that 80 percent retailer adopt target pricing and season pricing RTE products are fixed one and some of the (10 percent) as their pricing strategy.

Important Determinants for selling RTE Food Products



Brand (50 percent) of the RTE product had been a key determinant for sale. Price (20 percent) and marketing channel (20 percent) also contributes for selling RTE food products. Market value (5 percent) and others (5 percent) contribute as determinants for the sale of RTE food products.

Conclusion

Hence the study "Consumer Perception and Market Evaluation of READY TO EAT Foods in Chennai" revealed a positive outlook towards the Ready to eat food products. It can be concluded that there are good integer of brands recognised in the Indian market, and these companies are slowly increasing their operations and introducing new tastes and flavours to the consumers. The rate of growth of major firms in the ready to eat food category is showing an astonishing trend.

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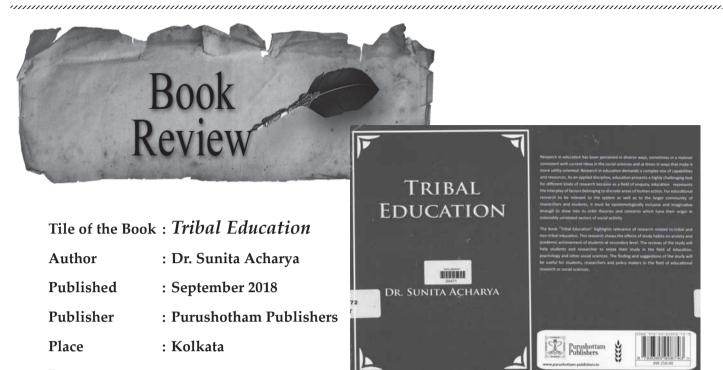
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Chapters : 05

Price : INR 250/-

Book Reviewer: Dr. Boban Joseph

he book draws about a comparison on effects of study habits on anxiety levels and academic achievement of tribal versus non-tribal students at secondary level. Study habits may help students to be on track for learning various subjects. Eustress/mild anxiety is considered as good for students to pay attention in studies. Though, high levels of anxiety may cause trouble instead of benefits. Preface of the book is written neatly by the author by explaining the objectives of the research and how study habits of children studying at secondary schools linked to anxiety levels and subsequently reflect upon academic achievements.

The book is hardcoverd and well priced with INR=250/- also, written on 155 pages and 5

chapters of which, consists of introduction, review of literature, method and procedures, analysis, major findings and eucational implications. This book aimed readers from students, social work professionals and policy makers and those who are working to bring improvements in the concerned populations. The evidences showcased in the book are from an original research conducted by the author of the book.

The book is prepared on the basis of chronological as well as analytical grounds. The author of the book wanted to denote the components such as community, study habits, sex, anxiety levels and a amalgamation of any of the factors afore-mentioned determines academic achievement. An alarming finding expressed by the author of this book is that gender has considerable negative impact on the academic achievement of girls than boys representing students from tribes.

The contributing factors to lower attendance of girls in schools because of parents not sending their girl children to the school, inadequate safety measures, absence of her restrooms, poor drinking water facility and transport issues. Among children from tribes and non tribes, boys have better performance in studies than girls is attributing to the Odishas cultre were families give more importance to education of boys than girls. Girls are directed to do household chores compare to boys also contributing to less time for studies than boys.

The field investigations by the author attempted to highlight that study habits have a significant role in academic achievement. Eventhough, a student with superior study habits shall undergo higher levels of anxiety. Students coming from tribal areas found to have bummers and with low level of study habits compare to students of other socio-economic backgrounds.

The book reminds teachers and parents need to be heedful in creating conducive environment to reduce the levels of anxiety of children coming from tribes. The author attempts to study and explain an area with variables of heterogenous and intervening nature where study habits cannot be ascertained only with study habits and levels of anxiety. The factors such as intelligence (sahin, 2016), motivational factors (Gbollie, 2017), interest in subjects, the atmosphere (home and school), oblivious nature of the student at the school, the effectiveness of teaching learning process, incompetence in the language for learning, unable to concentrate on studies for longer period also could have been contributing to poor study habits among children from tribes. Another important aspect is that children needs to develop good study habits at a very young age than after reaching high school (Greene, 2001).

The methodology of the study decribed in the book is skillfully constructed. Tools used in the study for collecting the data also vigorous with a kappa score of .81 for the study habit inventory and kappa score of .85 for anxiety scale indicated the high reliablity, validity and cultural competence.

The study has used 'sex' instead of 'gender' as the variable name. It should be gender other than sex because it is socially constructed barrier of female students in comparison with male students for completing their education. The conceived background research of the book does not mention the ethical guidelines involved in dealing with human subjects.

The discussion section also could have been improved with necessary evidences of references on agreeing, disagreeing grounds. The Sample of the study has been collected with probability sampling but the sampling frame and sample size esatimation details were missed out to denote in the book.

The analysis of the data were done by applying Analysis of Variance [ANOVA] that helped to accept or reject the put forth hypotheses of the research. Additionally c orrelational statitics used to comapre the two groups of children repre-senting tribal and non tribal areas.

The message that the book shares is above average however, the references used in the study is mediocre in terms of keeping in the appropriate recent ones.

The author preferred reference was in APA style which is not found authentic in the book for instance; a definition by Manhatten College Counseling Centre (MCCC), 2000 is provided with a URL of http://www.mancol.edulstntlife/centre/articles/addicti/caff.html is unable to be traced by any reader of the book.

The purpose of the book is to compare the children studying secondary school from tribes with children with the non tribal background. Education among tribals are essential because that gives confidence in dealing with the general population on equal terms. The constitution of India envisages through article 46 to provide special provisons for the education of children from the tribes (CDAC, 2017). The results and suggestions of this book can be guide for policy makers and teachers for improving teaching learning environments of chidren from tribes especially girl children of Odisha, India.

Overall, the book gives relevant chunks of information for the readers as well as social work researchers. The upliftment of students representing tribal communities through education and empowerment are one among the several important concerns of our country. Father of our nation also dreamed it decades ago.

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