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Message from the Chancellor

The Symbiosis International (Deemed University) practices and preaches the concept, 'Vasudhaiva Kutumbakam-World is One Family'. It promotes friendship, cooperation and understanding between foreign and Indian students. Symbiosis today is the premiere educational institute of Pune and a brand equity in providing quality management education. The different Institutes that come under the umbrella of Symbiosis International (Deemed University) are the catalysts of change which contribute to the symbiotic growth of the students as well as the University.

Global economy is getting highly integrated and so is the case of uncertainties. Events of International integration are also events of increasing International uncertainties. The deepening integration over the last 30 years has led to situations where individual countries appear to be exposed to common uncertainty shocks which could severely impact the policy makers and the masses alike. The simultaneous estimation of uncertainty and its effects has its own set of advantages & disadvantages. Research gives a better understanding of uncertainties and facilitate in taking proactive precautions.

I would like to congratulate the entire team of SCMS on the launch of their Ninth Issue of the Journal – “Annual Research Journal of SCMS–Pune” on the theme “International Integration and Increasing Uncertainties”. This initiative taken by SCMS will take it forward by leaps on the path of recognition and reputation. I wish them good luck and success in all their endeavours.

Prof. Dr. S.B. Mujumdar
(Awarded Padma Bhushan and Padma
Shri by the President of India)

Founder & President, Symbiosis,
Chancellor, Symbiosis International
(Deemed University)

Profile of the Pro-Chancellor

Dr. Vidya Yeravdekar is the Principal Director of Symbiosis Society, and the Pro Chancellor of Symbiosis International (Deemed University). The Symbiosis International (Deemed University) is a multi-disciplinary, multinational, multi-cultural University that having 45000 students from all States of India and international students from 85 countries. The Symbiosis Society not only has under its ambit the Symbiosis International (Deemed University) but also has K12 Schools, College of Arts and Commerce and Museums- the Afro Asian cultural museum and the Dr.. Ambedkar Museum.

Dr. Vidya holds a Post Graduate Degree in Medicine, a Degree in Law and Ph.D. in 'Internationalisation of Higher Education in India'. Having presented papers at various National & International Conferences, she has numerous research publications to her credit and has also authored several books. Ranked No.14 amongst India's top 25 Powerful Women, Dr. Vidya has been instrumental in bringing in innovative approaches to promote internationalisation of higher education in India.

As a member of University Grants Commission (UGC) for two terms, Central Advisory Board of Education (CABE) under Ministry of Education and Indian Council for Cultural Relations (ICCR) under Ministry of External Affairs, she has been a facilitator of innovative approaches to higher education in India.

Dr. Vidya has been appointed as a member of the expert group on Global Outreach of Higher Education, formulated by UGC to implement the National Education Policy 2020 that was rolled out by the Ministry of Education Govt. of India. Dr. Vidya has been appointed as a member Advisory Group of Analytical and Advisory work (ASA), World Bank.

She is a Chairperson of the FICCI Committee on Higher Education and serving 3rd term. Dr. Vidya has been appointed as Member of India Brand Equity Foundation (IBEF) Trust set up by Ministry of Commerce & Industries, Government of India, to promote the 'Brand India' label in overseas markets. She has elected as Member of the Central Governing Council of Services Export Promotion Council (SEPC) set up by Ministry of Commerce & Industry, Government of India, Member of the General Assembly of the Indian Council for Cultural Relations (ICCR) and Governing Body of Yashwantrao Chavan Academy of Development Administration (YASHADA), Government of Maharashtra.

Dr. Vidya has been appointed as the first Chair of the OBREAL Global India Chapter a for a period of 3 years and has also

She is a member on the Board of several organisations like Rayat Shikshan Sanstha, Research Committee of the Association of Indian Universities (AIU), Public Health Foundation of India, Symbiosis University of Applied Sciences Indore, Symbiosis Skills and Open University, Pune. She is a member of many corporate bodies such as Federation of Indian Chambers of

Commerce & Industry (FICCI), Confederation of India Industry (CII), Maratha Chambers of Commerce and Industries (MCCIA) and Not for profit organisations like HK Firodiya Foundation, India International Centre (IIC), Pune International Centre (PIC) & Pune Citizens Police Foundation (PCPF).

She has also been a member on many other organizations such as Independent Director on the Board of RITES Limited under Ministry of Railways, Government of India, Education Quality Upgradation and Inclusion Programme (EQUIP) Committee, Ministry of Education, Govt. of India, Indian Institute of Corporate Affairs, Yeshwantaro Chavan Maharashtra Open University, State Knowledge Advisory Board of Higher Education, Government of Andhra Pradesh, Sub-Group on Higher & Technical Education and Skill Development of Chief Minister's Advisory Council, Government of Rajasthan.

Dr. Vidya's hard work has won her numerous awards and accolades. Her continuous endeavour to innovate and initiate has helped Symbiosis attain its present respect and admiration. Having accomplished all such feats, Dr. Vidya is now committed to shape the Indian higher education globally through her extensive work in the field of internationalisation of higher education.

Profile of the Vice-Chancellor

Dr. Rajani Gupte is the Vice Chancellor of the Symbiosis International (Deemed University). A distinguished academic, she received her Doctorate degree in Economics from the prestigious Gokhale Institute of Economics and Politics, Pune. She has been actively engaged with higher education for over thirty years, both as a professor and researcher. She has taught at many foreign universities as well, including the Oakland University, Michigan, US, and Bremen University of Applied Sciences, Germany.

She has been a part of the leadership team at Symbiosis for over two decades. She joined Symbiosis as a founding member of the Symbiosis Institute of International Business in 1992. She was the Director of the Institute between 2004 and 2012. Her headship led the Institute to be established as one of the top-ranking business schools in India. A capable institution-builder, Dr. Gupte has also earlier held the positions of Dean- Faculty of Management, Dean-Academics and Pro-Vice Chancellor at the Symbiosis International (Deemed University).

She is an independent Director on the Governing Board of NSDL and L& T Finance Holdings Ltd and some of its subsidiaries. She has been frequently invited on committees of important organizations, such as International Trade Panel - Confederation of Indian Industries (CII), World Trade Organization Committee, Govt. of Maharashtra, and Chemtech World Expo. She has also served on committees appointed by the UGC and on working groups on higher education.

Dr. Gupte is one of the ten women selected from across Asia who have attended the 'Women in University Administration programme' sponsored by the U.S. Department of State.

She was invited to be a part of a committee of eminent economists formed by NITI Aayog to interact with the Honorable Prime Minister on "Economic Policy: The Road Ahead" in January 2018 and has recently been invited by NITI Aayog to be on the Consultation Group of Experts for the Education Vertical.

Dr. Gupte has received several awards for her outstanding contribution to Education-

The Lokmat National Education Leadership Awards 2015, the "Swayamsidha Puraskar 2015" by Lions Club of Pune Elite, the 'Think Pure Award' by the 'Think Pure Social Welfare Foundation' in 2016, For being one of the most influential Vice Chancellors amongst the top 100 Vice Chancellors in India by the World Education Congress award in 2016, "The Iconic Leader Award - Creating a better world for all" at the WOMEN ECONOMIC FORUM 2017 and a "Visionary Eduleader of India" for being an institution builder at the hands of Shri Pranab Mukerjee, Former President of India. "Pune CKP Jeevan Gaurav Award - 2020" for contribution in the field of Economics and Education by Pune CKP Family Public Trust.

Message from the Director

The past year has been devastating and had shown us the impossible. It has shown everyone much that could not have been imagined by the living generations and has given a great opportunity to increase the pace of adoption of technology to learn the unexpected. Uncertainties across the world has increased and as the world is getting increasingly integrated, these uncertainties have only spilled over and has challenged us to be more competitive and watchful.

The Ninth volume of “Annual Research Journal of SCMS”, Pune wishes to address this theme and hence had invited contributions from researchers on the theme ‘International Integration and Increasing Uncertainties’. The Journal is indexed on J gate, ICI (Indian Citation Index) and archived on academia.edu.

This pandemic has really challenged various academic and business practices and most of the activities have found newer and virtual ways of getting done. It has given exponential growth to some business and has truncated others. The ensuing environment has further stressed on the need to continuously evolve over the existing abilities to stay relevant. Virtual existence might look attractive but have their own associated risks.

The deepening of integration of various economies over the last 30 years has led to a situation where the strongest of the countries appear to be more exposed and affected than the weaker ones. The simultaneous estimation of uncertainty and its effects has its own set of advantages & disadvantages over the use of other external factors. It is the inquisitive questioning minds which have been instrumental in bringing out the most of the studies in this field.

The present volume is an attempt to contribute towards building an academic body of knowledge based on the compilation of well researched and peer reviewed articles. The articles are well articulated and substantive and have tried to address the broad theme of the journal. I also extend my gratitude to all authors, editors and reviewers who have provided support at all stages. I also welcome suggestions that would help us improve the quality of our Journal.

Dr Adya Sharma
Director,
Symbiosis Centre for Management Studies,
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From the Editorial Desk

With the increasing integration of the world economies and the resurgence of the corona virus, the strongest of the countries across the world have appeared to falter and are finding it difficult to bring their economies back on what they were during their pre-pandemic times. There has been a lot of uncertainty prevailing and which is only pose to increase over time. These ever increasing uncertainties have their own set of advantages and have newer thinking into handling them.

In order to understand the increasing role of uncertainties and their effects on and by International integration the Journal had invited articles/studies/papers/cases from researchers, academicians, corporate, students, users and the creators of data.

Soumya Vadavi and **Sharmiladevi J. C** in their study addressed the dynamics of gig economies amidst increasing integration and uncertainties.

José G. Vargas-Hernández and **Ignacio Edmundo Valle Ruiz** analyzed the economic-cultural effects that globalization had in all the links of the value chain in the commercialization of coffee across the world. They addressed coffee's influence and contribution to the world economy by analyzing the process from the coffee farmer to the industrialization, uncovering the industrial supply chain to the different distribution channels that reached and delighted the final consumer.

Sejal Murarka, Prarthana Fabyani and **Shweta Bobhate** studied workers' participation in the management in various industries and their impact on Industrial Relations.

Anita Medhekar provided an overview of the Australian and the Indian economy and explored the extensive bilateral trade and investment opportunities at all levels that could be formed between Australia and India for mutual gain from trade and investment, given the dynamic geo-political environment and increasing uncertainties in the Asia-Pacific region. She also presented policy implications, conclusion, and directions for future research.

Deepa V, S. A. Senthil kumar and Prabhakar Nandru found a significant lack of awareness about various health insurance schemes among the unorganized sector workers. Factors like the lack of awareness, lack of willingness, lack of insurance agents, lack of flexibility, lack of reliability, and lack of accessibility were identified as significant difficulties of unorganized sector workers to buy health insurance policies.

G. Vaishnavi from her study found that; quality is found to be more important factor considered by the consumers for purchasing the apparel.

Ishita Dutt, Anusha Goel, Iishika Saxena, Mukta Dhopeswarkar, Shraddha Mahapatra and **Kashvi Pathak** found that India must search at trade complementarities and enforcement costs in negotiating bilateral FTAs with countries. They concluded that though India should opt for capturing key Asian markets with significant support from the West and aim for more global

integrations to boost supply chains for the most pandemic affected industries but the fact cannot be denied that India should adopt a tougher stance in global engagements, considering its withdrawal from RCEP.

Kunj Dhamsaniya, Anjuman Bansal and Anant Jethalia tried to ascertain and elaborate the potential and feasibility of thorium to be used as a useful resource.

Sajeesh Hamsa in his study considered the role of market in fostering long-term market success and business sector trends such as data analytics, wearable technologies and smart manufacturing that played a constructive role in stimulating IT deployment, that lead to a long-term market growth. He found that majority of the submissions were concentrated on developing and deploying specific tools and technologies to improve global standing and output success.

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Gig Economy in the era of increasing Integration and Uncertainties

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Abstract

The aim of this study is to explore the nature and scope of employer engagement in the gig economy. Fast growth of the gig economy in the world has brought with it both hopes and concerns about this new form of digitally-enabled employment. Every work culture has its own risk. Relatively little work has so far looked into the different aspects of gig work. Over the last decade, the term ‘gig economy’ has risen to prominence in public discourse, but, at the same time, missed to attract sustained attention from the point of financial security. With a conceptual approach, this research addresses the recent dynamics of gig economy amidst increasing integration and uncertainties.

Keywords: gig economy, employability, employment engagement, project based work.

Introduction

Employability is a serious issue in an emerging economy like India. Corporate world is witnessing survival challenges in the current pandemic time and it becomes more vulnerable when the economic conditions are unstable. This development has given forth new avenues of business, which needs the modification in outlook of doing business. Globally, firms are hiring gig workers underneath versatile arrangements. This paper is focused on the chance of employment by adopting the culture of the gig economy. The term “gig employee” covers a variety of worker statuses—freelancer, worker, project based work contracts and time bound contract employee - all come under the ambit of the gig economy. Usually, a gig economy is an associate atmosphere wherever organizations contract with freelance staff for short engagements and temporary projects. Instead of ancient full-time positions in an exceedingly specific organization, ‘gig’ staff offer their services for one or additional employers with versatile work arrangements. Historically, ‘gig’ staff, or ‘giggers’ are referred to as freelancers. However, the staff may embrace agency temporary staff, on-call staff, and normal part-time staff. Giggers are found to be a highly favoured work engagement during the current pandemic time with increasing restrictions on physical transport and communications, social distancing, travel restrictions, isolated stay atmosphere and compulsory quarantines.

Gigification is one amongst the varied new ways of operating. Simply put, organisations commission short duration work assignments, project-based positions to freelance staff rather than paying them a conventional pay scale. Both staff and also the firms that rent them as members of the gig economy. Particularly the past five years have shown a big increase of gigification. Millennials present a growing share among giggers. It is also observed that gigs are used as an opportunity to balance monetary uncertainties faced, to overcome health risk, emotional and mental balances and well-being. As gig staff are not in the formal pay-rolls, they escape tax obligations, the number of relief offered for these giggers was unclear at the time of ancient employment work culture. (Bansal & Singh, 2020). Besides the employee, the employer also gets the benefit of gigs, as most of the gigs are working only on a temporary basis (Apouey et al., 2020). The gig economy is also a task-based approach to work that allows bigger flexibility for staff and it is also the same for the corporates participating in gigs. The gig economy is outlined as “a means of working of labour supported individuals having temporary jobs or doing separate items of work, paid on an individual basis.

Professional flexibility is the strongest and significant merit of gig work. In most cases, this professional flexibility is preferred by the employees. Gig work is additional work, which enhances the financial gains of most of the women employees. But at the same time, a majority of freshers’ are depending upon gig work as a stop-gap or test-drive purpose and for few gig workers, it is a replacement career. In the majority of gig jobs, employers are paid on the basis of projects allotted, projects completed or the nature of task involved. The employees have very less control over the nature of the task assigned, time frame/time durations, which makes it more challenging and at the same time demanding.

Literature Review

Gig economy staff will vary from ancient freelance contractors, to freelancers and temporary staffing firm staff who work for elite hours throughout the week at specific time frames. Some of the frequently used platforms for gigs are - Uber, Swiggy, Zomato, Eat sure, Qmin etc. (Brustein, 2019). Gig economy in home-based service which adds extended historical context and highlights continuities and changes in relation to the intermediaries' role. Gig economy also cares about different gig-based work and the normal employment relationship. (Noronha, 2020). Gig work lends to versatile and autonomous work, as the gig employees set their own working time, packages/remunerations, job-roles as well as their own social groups, business associates depending upon their individual cultural and sociological background (Jarrahi et al., 2020)

A Gig Economy is also a system where each employer tries to work in temporary term engagement or as a freelancer instead of a full-time contract and it is not solely the employee who needs such jobs, but, however even the employers additionally hire the employee on a brief lived purpose. The emergence of the digital era additionally helped the roles to travel short-termed; nowadays, it permits variant individuals to figure from their home itself. Gig economy is useful for women as they feel unsafe at intervals in some work settings, as a result of which gigs offer social protection for ladies' staff. In a study conducted on gigs which surveyed women respondents indicated that they are able to earn while staying within the flexible domestic atmosphere and this phenomenon makes their work more comfortable. Employees who are retired from regular employment are also making use of this opportunity as a medium for their earnings (Duggan et al., 2020)). Flexible work can at times be less innovative and original, but, given the time lines, commitment and other restrictions, gigians face challenges between work and leisure (Oyer, n.d.).

Challenges of Gig Economy

Economic downturns place more pressure on the nature and quality of employment of freelancers, like, less work offers, more work with poor packages. With growing uncertainties around, job losses and earning losses are faced by senior gig workers. Such losses lead to long term negative consequences and often they are followed with low packages, poor work culture, erratic timelines. Even though freelancers are less subject to such a kind of extreme losses, at the same time they face salary risk (Kousta et al., 2018). Some gig jobs are one-time and informed on short time frames which often lack clear work descriptions of tasks. Such work sometimes leads to risk and leads to fragile worker-client relations. In addition to the above, gig workers are sometimes placed in precarious and recursive working conditions which restricts their work autonomy and the privilege for better work demands. These phenomenon leads to fewer opportunities for gig workers (Anwar & Graham, 2020)

Individuals with gig work backgrounds may seem less appealing to recruiters of ancient organisations. perennial rejection or a minimum of magnified struggle to secure a placement may lead gig staff to refrain from applying to jobs outside of the gig economy with the same energy they may otherwise use. (Vansteenkiste et al., 2016). Mechanisms of management are widely studied in many ancient organizations, but, amplifying the gig economy differs from ancient organizations in that the role of a personality's supervisor is replaced with digital systems. Thus,

there is reason to suspect that our ancient theories of management won't hold for complete fresh styles adopted in the gig economy.(Flanagan, 2019)

Most freelancers are not protected against the quality risks of an operating life. the shortage of social insurance for self- used is not a replacement development however it's gained additional public attention with the digital economy and crowd working” therefore, the growth of platform work is reproducing gaps at intervals the coverage of social protections for the freelance, that have already been recognised as a growing drawback across employment additional typically.(Pérez et al., 2017). Although the significant merit of gig work is working flexibility, this merit is overlooked in many cases, as the work allocated in short durations with inadequate prior notice. In many occasions the employers prefer faster results, wherein flexibility is challenged.

Besides, as the gigians are working in their own premises, they are denied the opportunity of teamwork, training, opportunities of skill enhancements, on the job and off the job training facilities, knowledge of skills, interpersonal skills. Training helps to boost the abilities to reduce the employment risk and uncertainties at intervals of the task.This phenomenon makes their work sedentary and in due course of time may lead to be less productive and more repetitive. One major downside of the gig economy is the shortage of worker engagement. Gig staff have restricted face-to-face interaction with their supervisors and colleagues compared with the traditional workplace setting, that offers daily interaction with superiors and peers, additionally as a result of the flexibility to make robust relationships.

Reflections

The Gig Economy is currently prospering across the globe, also as a result of the prevailing current pandemic resulting in no or improper mobility, travel risk, social distancing. Growth of information and communication technologies, streaming platforms, online solutions, tele networks have expanded the scope and scale of the gig economy across the globe. This phenomenon has opened immense opportunities to gigians, as the “Work from Home” culture is still prevailing in many parts of the world. Gigs are currently found as a panacea for work especially in regions which are heavily affected by Covid-19 pandemic. Besides that, gigs are considered as an efficient alternative to traditional work, and proves as a replacement paradigm from the ancient pattern of 9 to 5 office work. Although the gig economy is expanding, it is expanding in an unregulated manner. This phenomenon may lead to imbalance growth of work and pay, which may pose a major hurdle in due course of time.

With the growth of technology, new styles of freelancing, contingent work are on the rise, and platform economy is pushing back the traditional form of work and working environment. Changing demographic and economic phenomena are also facilitating the same. (Scully-russ, 2020). Gig staff face a horde of difficulties owing to the unregulated plan of the business, like, pay unsteadiness, absence of acceptable operating conditions, least wages and different government norms.(Kouostas et al., 2018)

Existing academic literature on gigs are in the cradle stage, as most of the aspects are being explored and in the initial stages. The literatures on gigs are yet to touch on aspects like - the different varieties of work related challenges of gigians, employer- employee relations, isolated

work nature of gigians, learning by doing, on the job training opportunities, peer learning and team works. Prevailing literature cares with different gig-based work, timelines of work execution. platforms of gig-based work, etc, rather than emphasizing on quality of employment, job security and stability, job risk and challenges, pay-roll and packages, job satisfaction, skill enhancement and training.

Governance system, long term implications of gig work on the job and on the individuals, team work vs gig work, efficiency of gig work over regular work, multi-faceted development of gigians, HRM functioning and gigs, influence of work space on work output and efficiency, control mechanisms, work enablers, gigs and group dynamics are some of the areas still unexplored in gig economy, which are areas to focus for future research on gig economy.

At the macro level, the economic implications of the gig economy also need to be properly explored, both from the employer side and from the employees' side, which can impact considerably on the dynamics of taxation. At the micro level, studies on job related physical, psychological, emotional aspects of gigs are still unexplored. A comparative study on gig work and traditional work upon individuals will surely help one to understand the relative merit or demerit of one over the other in a more logical and scientific manner.

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Global Trade of Coffee and its Economic Effects in the Value Chain

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Abstract

The purpose of this work is to analyze the economic-cultural effects that globalization has in each link of the value chain in the commercialization of coffee in the world. Starting from the fact that coffee is the second most consumed beverage globally after water, in the same way it is the second most exported product after oil, the economic influence that has due to the fact that it is a grain that can grow simultaneously in the tropical belt around the world and because the coffee farmer tends to be poor. We will address its influence and contribution to the world economy by analyzing the process from the coffee farmer to the industrialization, uncovering the industrial supply chain to the different distribution channels that reach and delight the final consumer.

Key Words: Value chain, commercialization, culture, globalization, chopped coffee segment.

JEL D46, F10, M21

Introduction

The consumption of coffee in a globalized way is through history, an important engine of development for the world economy and of the producing countries. Where in each era, region and with each generation the way and the costumes of preparing it evolves. Causing economic impact and cultural changes, the commercialization of this grain, developed a value chain where a series of businesses are activated around the grain, and starts with the coffee farmer, the merchant who sells to the industrialists, so that these in turn distribute it around the world.

The phenomenon of globalization plus technological development in equipment for the preparation of coffee is undoubtedly a determining factor that currently causes the increase in per capita consumption around the world. However, this increase in grain consumption is not reflected in the coffee farmer's economy, but in the large corporations that are left with the highest profit. The average coffee farmer obtains a minimum amount that is estimated at \$ 300.00 USD per month, the transnationals and the rest of the value chain being the big winners, who keep the producers that give life to such an important industry in poverty (Lora, 2019).

Objective

To point out and list the problems that cause an uneven distribution of wealth in the value chain generated by this industry, because it is very important for subsistence, based on the prices remaining stagnant for many years, as well as problems like plagues. To prevent the continuous switch of coffee regions around the world to other types of more profitable crops and to raise awareness to large corporations dedicated to the coffee trade, which requires a fair payment for their crops based on the final price of each cup, since it makes no sense that the increase in coffee consumption generates an increasingly deep wealth gap and poverty in the value chain that makes it possible for us to finally have a cup of coffee on the table.

Background

The coffee trade represents an important source of income in the world economy and there is a value chain around this industry, made possible by the final consumer, who leaves a trail of benefits, but also a damage because the income of the producer is way below the cost of production. Sometimes below the cost of production. Since its origin, in coffee growing areas that include the Tropic of Cancer to the Tropic of Capricorn around the world, this belt being the most climate-friendly for the development of the plant that gives the grain. This plant of the Rubiaceae families is a family of plants normally called the blonde, white gallium, or coffee family (Sanders and Motz, 2019).

These plants have a worldwide distribution; however, they are much better represented in terms of shapes and number of species in phytogeographical areas of the Neo-Tropic. The coffee plants are native to Abyssinia in Ethiopia and were discovered by a shepherd, legend has it that he discovered them because of his goats' strange behavior after having consumed the leaves and fruit that were similar to the cherries of a certain bush, the goats were jumping around very excited and full of energy. Seeing this, the shepherd consumed them and soon felt full of energy (Mehari, et al. 2016). He decided to take them to the monastery and tell the Abbot the story, he put the branches and cherries in water but the result was a very bitter drink that he immediately threw into the fire. When the cherries fell on the fire, they began to boil, the green beans inside the cherries were roasted producing a delicious aroma that made the Abbot think about making a drink based on the roasted grain and that is how the coffee drink was born.

Method

This paper is methodologically based on documentary research using a theoretical procedure for its structure and development, which allows us to address the issue in a structured way and carrying out its development with a qualitative scientific sense, basing it on mostly indirect sources of information, such as bibliographies, essays, journals and books.

Background

According to the International Coffee Organization (ICO) in the global economy, it is estimated that coffee sales exceed 200,000 million dollars annually. Coffees is the second most commercialized product worldwide after oil and the second one most consumed after water, which would make us believe that coffee producers are in economic abundance enjoying a standard of living well above what they actually are today, the reality of coffee farmers is that they barely receive between 6 and 10% of the profit, which does not allow their families to even send their children to school in some cases, these being the link in the chain that remains submerged in poverty exploitation and underdevelopment with a profit of \$ 300 per month within the thriving business in this lucrative activity.

If we imagine this situation as a line where zero is the point of equilibrium, where you do not win or lose, but that their reality is always to be at a negative extreme point practically in misery, contrasting the situation, on the other end of the imaginary number line with the large multinational companies that their profit has no end, generates in this activity in the value chain a chasm between the actors on the one hand the coffee farmers with a minimum profit that barely allows them subsistence and on the other the multinationals the most economically benefited because they are the ones that keep the biggest slice.

These companies, both US and European multinationals are the ones that generate the highest consumption. They get to sell a cup of coffee at 3 dollars, in Germany, New York and Paris, while the producer is paid at \$ 2.50 dollars on average per kilo and the yield is 60/100 cups per kilo, that's where the huge difference is generated (Figuroa-Hernández, Pérez-Soto & Godínez-Montoya, 2019). A long time ago farm products used to be commercialized directly from the farmers to the consumers, without intermediaries, which was an advantage for the costs to be accessible to the final consumer and when the product got to the market, it used to have a reasonable price, generating a profit for the farmer who was guaranteed a livelihood with access to different kinds of goods and services.

As time went by, merchants would impose an intermediation business, hoarding the production, finding a business opportunity that had very little or no risk and taking over the production, focusing on warehousing, where the production could be stored, speculation starts and the supply and demand concepts control the prices on the market. Gomez, (2019). says that controlling the coffee market was not an easy task, due to the fluctuation in prices and the risks associated with production and transportation, in the 1870's the physical market of coffee collapses in on itself giving laying the foundations that have been historically damaging the producer because in that same year in the City of New York 112 merchants gathered and created the New York coffee bag with the objective of protecting each other through the creation of a market where buyers, distributors, roasters and merchants were protected from price fluctuations, where they created ' ' future contracts ' which is an agreement , where the parties are obliged to buy or sell goods or securities, in this case, coffee on a certain date and with a previously established price (Gómez, 2019).

Adopting the strategy known as " risk transfer ", which consists of foreign creditors who reside in a country experiencing an inability to pay due to lack of money. In the same way they agreed on the development of standards of the types of coffee that would be commercialized, setting prices according to supply and demand. This is how the coffee economy is born as a commodity traded in the stock market. Speculation price of coffee comes from futures contracts on the value that will be determining it, by factors such as calculating dates that countries will release the product to the market and determine the possible price that will have coffee then. In New York, when coffee stock was created in order to give security to investors and attract money to the market, it ends up distributing the benefits more unfairly in the coffee economy, because the speculators in the economy of coffee are the ones who earn the most without having the grain physically. Speculation is precisely where they are willing to take risks high in exchange for an attractive future profit, shedding contracts before the expiration date is met.

This way, they gamble for a huge profit margin without coffee even having passed through their hands. The benefit that these speculators keep, is the first moment in which small

producers have been losing money unfairly until today, given that when international production is high, prices plummet, this uncertainty over the years has caused many coffee farmers to change to other crops, risking the income of hundreds of thousands of families that continue betting on the crop even though pests also limit their yield. We can see that the wealth generated by coffee and its profit in the stock market only benefits a few investors, speculators who play buying and selling while they make a profit on any purchase or sale movement without adding any value to the product. On the contrary, the producer has a production cost of \$ 1.10 USD per pound, losing \$ 0.18 USD since its origin, since the New York Stock Exchange is trading at \$ 1.02 USD, from this perspective we cannot talk about fair trade in coffee.

The costs of production in the labor force in the farms worked by the same family members, must be applied to the final cost of the product so as to measure the situation of economic delay of the producing families and this must reflect in the cost of the grain, being necessary to calculate and apply the costs of the hours of work used in the farms by the family, to obtain the real cost of production of the grain. The traditional consumer of coffee hardly wonders where coffee comes from, but today in the face of globalization and the grain trade is no exception, they have focused on knowing its origin, so the American Starbucks since 1971 to date has been the pioneer in the classification of types of grain, roast and origin. Until then they had high-quality roasted coffee beans and spices emulating European coffee shops. When he joined the sales team in 1984. Howard Schütz as director of operations, they only had 4 stores and on one of his trips around the world he visited Italy, arriving in the city of Milan where he would change his luck by living and discovering an experience of a relationship between coffee retailers in stores with customers, a tradition for coffee known as espresso, convincing members to return to serve latte coffee in 1984. This was one of the factors that gave it a differentiation and a competitive advantage compared to their rivals, who were first in the American Union, allowing its expansion all over the continent and subsequently the rest of the world. Table 1 has the world's main coffee producers, according to information from 2018.

Table 1: The world's main coffee producers

1.- Brazil	6.- Etiopía
2.- Vietnam	7.- India
3.- Colombia	8.- Uganda
4.-Honduras	9.- México
5.- Honduras	10.- Perú

Source: Gómez, 2019.

Figure 1 shows a world map of the most important coffee producers (Gómez, 2019).

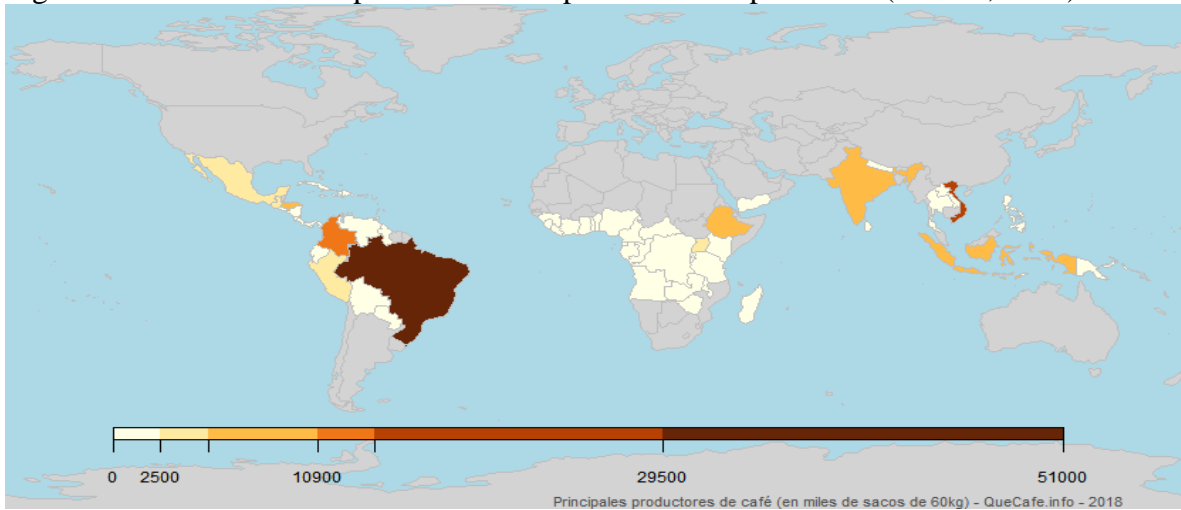


Figure 1: Biggest producers of coffee worldwide.

Source: Gómez, 2019.

Figure 2 shows the per capita consumption of coffee in the first world in the year 2017.

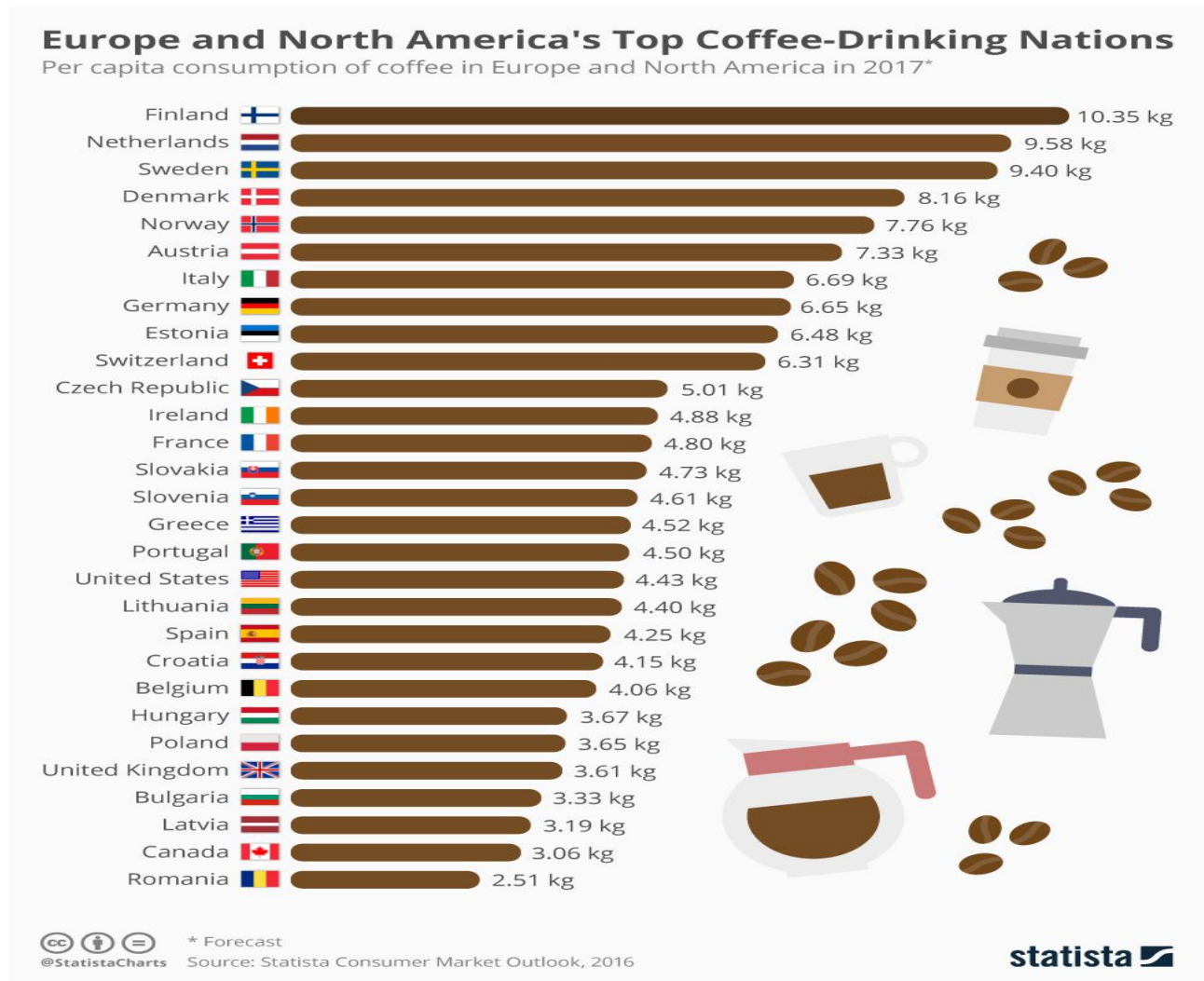


Figure 2: Biggest consumers of coffee worldwide.

Source: *Statista Consumer Market Outlook, 2016.*

At this point it is essential to clarify where the profits obtained from the coffee economy will end, if only 6 to 10% of the field remains with the farmers, we are clear that a pound of good quality, roasted and ground Colombian coffee costs an average of \$ 15 USD per pound and out of that, only \$ 0.92 USD goes to the farmer, the rest goes to the large multinationals.

So far we have focused on what happens in the global economy between the producing countries and the main consuming countries and a small historical review of one of the world's leading coffee brands, but let's see what happens in Mexico where consumption has had a sustained growth over the last two decades, the economic behavior of the coffee trade is interesting, given that internal consumption and its per capita rise, isn't very different from what is happening all over the world, given that there is an existing value chain where the coffee farmer is in poverty.

It should be noted that the culture of consumption has had a change and has caused an evolution in the consumer, where paradigms of yesteryear have been broken, that consumption occurred at home, so much so that the sayings like when they invited you to have some coffee, the answer was "no, I'm not an old man", or when they tried to introduce Frappe coffee machines to the local market, that the client answered "you are crazy, who is going to drink iced coffee?" well, this is how the new way of drinking coffee is propelling innovative technology, a determining factor that invites to consume.

Another factor is the development of coffee-based products such as Frapuchino, hot cappuccino, American coffee on the rocks, among others, changing habits and trends. And so, supply of coffee in different roasts, origin and preparations to go, open a distribution segment that generates growth on bars and coffee houses that we will identify from now on as the cupped coffee segment. In Mexico, there are several national brands among the best known are the Poblana, The Italian Coffees, Punta del Cielo Coffees from Mexico City, the Sonoran Caffenio (formerly known as Café Combate) who bet on the diversification of the sale of coffee in different concepts the markets traditionally exploited through the history of consumption of coffee as restaurants, grocery, convenience stores, etc., where it was creating an environment that transformed habits, creating a culture from which thoughts and changes emanated, and they were adopted for the big companies.

Oxxo commercial chain, seeing the opportunity and making its slogan effective 'Always ready, always there', implemented a coffee bar in its fast food area in alliance with the Sonoran coffee of the Pacific, who at that time was known for its commercial brand in the north of the country as Café Combate, which was a regional brand covering the states of Sinaloa, Sonora, Chihuahua, Baja California and Baja California Sur, making this alliance at one of its worst moments since its foundation in Chihuahua, in the year 1923. Today Caffeine is an important company in the FEMSA group. The success of this alliance since 2000 has been practically a benchmark where a different history begins at the national level in the per capita increase in coffee consumption, because Oxxo stores currently cover approximately 18,000 stores in the whole country, putting a glass or a thermos of coffee in the hand of the consumer managing to increase consumption creating a need.

In the case of the consumption of coffee in Sinaloa historically there were two companies that disputed the market for green bean coffee and coffee roasted with sugar, being the Café El Marino company located in the city of Mazatlán, Sinaloa and Café del Pacífico, from Sonora. They competed through marketing their brands, making their sales strategies with promotions and giveaways to stay in the market, in the same way by relying on the tasting of their products within the self-service stores with the support of a sales promoter, who would

offer a cup of coffee to taste its flavor and practically convinced the customer to take the bottle of soluble or roasted coffee.

There is currently a problem with theft of ideas, brands and intellectual property. Café el Marino was born in a rural community called El Verde, located a few kilometers from the city of Mazatlán, Sinaloa and its main product was green coffee in the presentation of 250gr. Which was known at that time in the small shops as green coffee, to roast it in a traditional way at home in a burner to later add sugar. In those years, the sonoran company Café Combate wasn't yet in the sinaloan market, which also produced and marketed green coffee in the 250 gr presentation; The fact is that upon entering the sinaloan market and realizing that coffee in that presentation is known as green, referencing the origin of the rural community from which the Café El Marino came. Café Combate registered the green trademark, thus remaining with the name original name of the Café El Marino company, where there is no record of this action for being a painful and shameful affront which is commented on in the field as urban legend.

It is such the case as theft of ideas and names between the businesses in order to obtain monetary gain at the cost of the lack of ethics in a globalized business world, where there is no such concept. It is really important to mention that in Sinaloa, particularly in the north of the state in the city of Los Mochis, there have been for several years, three companies dedicated to roasting, development of formulas, packaging and marketing made from coffee, who seek to position themselves in the regional market and are working hard on their strategic planning to enter the national and international market in the future.

These coffee companies are “La sobredosis”, which is owned by Pedro Soberanes, “Piano Negro”, commanded by Bernardo Balderrama, and a family business called “Kaféetane”, whose name is of Yoreme mayo origin and means “I am coffee”, directed by Edmundo Valle. These three companies have a great challenge to get involved in the value chain, first at a national and then to internationalize.

The fact is commercialization of coffee is evolving in consumption, which has developed a culture where the consumer dares to look for the origins of the grain and is willing to pay a greater amount for the final product, this opens a new segment that can be referred to as “cupped coffee segment”. This term has been used internally by the Café del Pacífico company known today as Caffenio, where they don't really pay for the coffee itself, but for the concept that breeds status and a sense of belonging, a new segment that is different to the traditionally known segments of the industry and the entire value chain.

Today the consumer dares to break paradigms and sayings where they leave home with their mug or thermos in their hand, and they fill them at a bar or vending Coffee to go, at Oxxo or

Caffenio, among other businesses. These businesses have established their market since they opened their doors, revolutionizing sales through points of distribution of prepared Coffee, earning this segment in the dynamic Coffee industry. A market with a sustained development, whose value is still incalculable, highly attractive, which is why it is appropriate to add it to the graph of traditional segments of roasted, ground and soluble Coffee. Chart 2 shows the three most important segments for the sale of Coffee.

Table 2: The three segments for coffee and its participation in Mexico

Soluble coffee	Retail, sales of coffee to the public for home consumption in supermarkets and stores.	Participation in the Mexican market. 54.2%
Ground coffee	Food service. Sales to businesses, such as coffee shops, restaurants, bars, etc.	40.5%
Roasted coffee	Institutional. Sales of coffee to formal institutions, including hotels, offices, public and private organizations, etc.	5.3%

Source: Own elaboration with data from Gómez 2019.

The segment of *cupped coffee* already exists in the consumer market for Coffee in different forms, it just has not been detailed in scope and dimension. Its characteristics must include the millennial generation that has been its engine of development, who in the search for identity and as in all the generations that have passed, have left their mark on history causing a change of habits in consumption and culture, marking this step and leaving its seal. It should be noted that INEGI does not have this segment of coffee in a specific line, it has it added in a generic section where there are furs, coffee shops and ice cream shops in a group.

We argue that it should have its own special place because of the economy it generates and what it represents for both the internal and the exports market, and for the generation of foreign revenue. The economic and cultural impact globally is considerable, because the annual value for 2017 was 200,000 million dollars worldwide and in Mexico it is no exception, given that the market value for Coffee was 10,000 million pesos in the same year, with a 20 to 25% annual growth.

In summary, while the Coffee farmers in the field all over the world are characterized by a low price on their yield, in a locked world on their crops, there is a globalized world, paralleled in which the invisible hand of markets and big capital operate a supply and demand law, manipulated so that the gap between poverty and wealth remains abysmal, where profit predominate, and the lack of awareness profiting with the farmer's need and poverty. It is incredible that almost 200 years after the Coffee stock was created in New York, the scope of its empire and its impact continue to prevail in the world, with the same practices seeking profit at the expense of the Coffee farmer's misery.

It is important to mention that Coffee entered the international movement known as fair trade, a movement that was created in the 40's-50's in the United States and from there the idea was shared to different countries of the world such as the Netherlands and then Germany, Switzerland, Austria, France, Sweden, Great Britain and Belgium. This movement fights for the justice of the marketing of products made under fair conditions. Fair trade denounces the outrages, which originate poverty and inequality where political opinions come in, which also seeks an alternative trading system.

Fair trade looks for the rights of the peoples to be protected and that they are part of the economic activity, guaranteeing, among other things, fair treatment, respect for human rights and the environment. In the fair-trade network in the world there are more than 2000 organizations in Africa, Asia and Latin America which contain producers and working people, agreeing on prices and seeking counseling to improve their marketing existing in the world more than 4000 stores specializing in fair trade.

However, in the field of Coffee, fair trade does not conform this scheme even when the grain is within the organization, due to the economic interests that it represents for transnational corporations which speculate on production, prediction, commercialization and the final price paid to the Coffee farmer.

The figure 3 shows the value chain of the green Coffee bean.

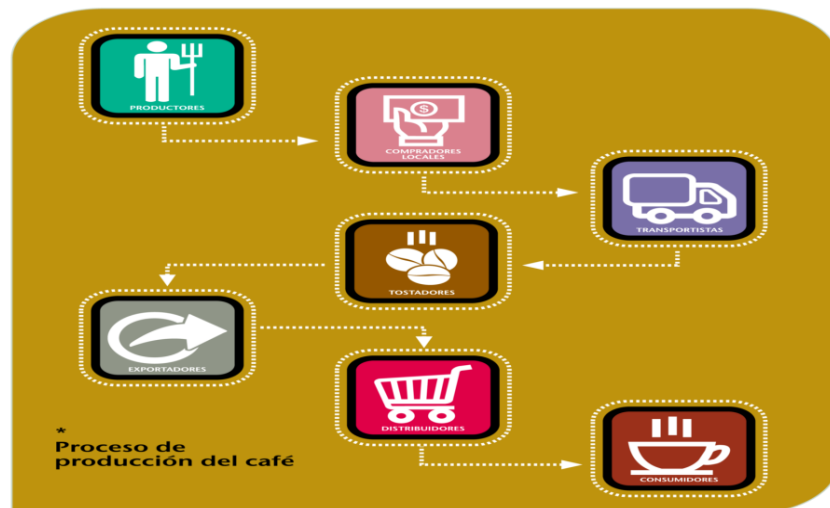


Figure 3: Green coffee bean value chain within the producing country

Source: Gómez, 2019

The coffee value chain starts from the coffee field with the cherry harvest, where the green coffee beans are obtained, this is the beginning with the producer, then it passes to the buyers, carriers, distributors, roasters, exporters, arriving to the industrialist who subjects it to different processes for different presentations and markets, which leads us to this study, that tries to open up a panorama that sensitizes the position of the farmer from the field to the final consumer, generating an industry and an economy, which affects and benefits people inside and outside of the business.

In some countries like Mexico coffee industry provides sufficient foreign exchange to support the economy and has become important generator of revenue to the national economy after oil, money sent by workers abroad and tourism. Therefore, it is important in many countries of the world, which generate foreign exchange and economic support in countries and regions that this industry predominates such as in Vietnam, Colombia, Brazil among other grain producing nations.

This work has the purpose of exposing the importance of coffee consumption in the global economy and pointing out who makes each sip possible, through the different presentations of the type beverages made with coffee, it is clear that in order for global trade of grain happens, many strategic alliances need to happen between governments, industries and producers. The millennial generation has been the fundamental engine because of its high purchasing power, and it has revitalized the industry and new concepts have been created by companies dedicated to the retail of prepared coffee (Gapper, 2018).

It is worth mentioning that over time the old alliances last and are valid, as is the case with the Coffee stock in New York that almost 200 years after its foundation still handles the threads of power to define the price of grain worldwide, that from there with speculation the Coffee farmer loses money generating a gap of inequality in obtaining profit. Figure 4 shows the value chain outside of the country of origin, explaining that out of 15 dollars spent on Coffee, only 92 cents go to the original farmer and most of the rest stays with the big companies and retailers.

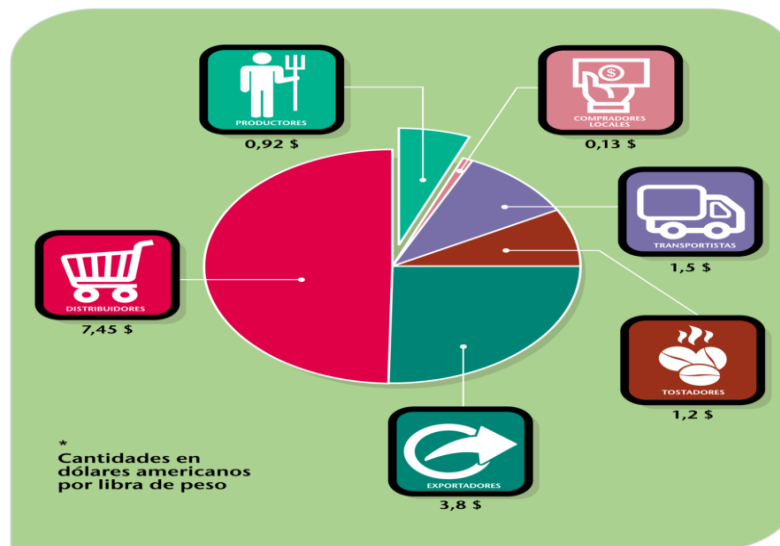


Figure 4: The value chain of Coffee outside the country of origin

Source: Gómez, 2019

Conclusion

Along this paper we have exposed the economic and cultural effects of the Coffee trade for its study and analysis, due to the fact that globalization and trade of products such as Coffee, in this case, which causes social, economic and political situations with both positive and negative results, depending on the approach used.

Coffee is the second most consumed beverage in the world after water, and it generates a percentage of GDP globally generating jobs throughout the value chain and in Mexico is no exception since the market value is 10,000,000 million pesos annually.

The change in habits generated by the consumption of Coffee is an effect that is due to several factors, in which the millennial generation participates, these being the ones that currently have the most purchasing power and the multinationals that bet on infrastructure investment through the creation of new concepts adapting them to the search for a sense of belonging of said generation in a globalized way.

The Coffee trade represents an important source of income in the world economy and there is a value chain developed around this industry. The Coffee trade makes the world smaller because it makes it possible to have access to all the grains of each of the Coffee regions from the geographical point where we find everything thanks to the existing value chain. And this is currently happening since the consumer is specializing in the origin of the product, the same supply is being made by experts since they have entered the grain research, in the history of the chain that is a frequent customer, every day it is more common to meet consumers who question the quality of what they buy because, as usual, consumers are interested in reading what they consume.

The per capita consumption in Mexico is currently 1.3 kg of Coffee where a very promising path is seen in the growth of this market because the largest consumer in the world is Finland with almost 12 kilos per person in that country. This is why a promising future is seen with the growth of Coffee consumption at levels never seen before in a globalized way, so that the world Coffee trade will continue to be a source of foreign revenue for the countries that produce the grain.

In the case of Mexico, the growth in domestic consumption which has increased from .300 gr. to 1.3 kg Per capita is seen as an opportunity as consumption grows every year generating jobs at the points of sale of the Coffee chains that sell it through the segment of cupped Coffee, which are the Oxxo Coffee bar, Caffenio, Coffee Punta del Cielo, The Italian Coffee, and a number of local companies such as Black Piano and Kaféetane.

In Mexico, INEGI does not yet consider to the economic dimension that this industry represents and what it contributes to the GDP since they only focus on the field, in the primary activity and the importance of the internal market of the final consumer, in which currently through the segment of cupped Coffee is where a gradual increase in per capita Coffee, is detected. At this time is vitally important that INEGI will give Coffee market the status in all its dimensions, in traditional and emerging markets such as retail stores, and business concepts that offer prepared Coffee to take away and classify it in such a way that apart from the roasted, ground and soluble Coffee segment, it includes the cupped Coffee segment since

it is the engine that makes growth of consumption in the population possible. (Gómez-Posada, 2019).

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A Study of worker's participation in management practices to deal with uncertainty in industrial relations-A Theoretical Framework

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Abstract

Workers' Participation in Management is a very broad concept which has attained several different meanings over the period. It can be considered as a labor management cooperation wherein non-managerial employees participate in decision making process. It is an essential ingredient of industrial democracy. It helps to strengthen labor-management co-operation and maintain industrial peace and harmony. There is an improvement in worker participation in management in India from time to time. During the pre-independence era, these committees were used for short term goals, and it was not considered necessary to consult with them. After independence, there started setting up work committees and joint management councils. In 1975, three worker's participation in management introduced- worker's committee, joint management councils (JMCs), and worker's directors (public sector) on the board of directors. It ensures that there is minimum industrial conflict to avoid any economic slowdown. Workers' Participation in Management paves way for increased production and productivity through the means of more effective and efficient management, alongside better industrial relations. Participation in Management helps workers realize their self-worth and enables them to express themselves, this in turn compensates any loss of feeling found in material benefits. It helps generate strong emotions among the workers which motivates them. It also acts as a catalyst in improving industrial relations and workers' efficiency. This paper aims to study Workers' Participation in Management in various industries and its impact on Industrial Relations.

Keywords- worker's participation in management, Industrial Relations, Decision-Making, Steel industry

Introduction

1. Industrial Relations

The term 'Industrial Relations' came into being during the late 1910s to early 1920s with its regular usage in Britain and North America. This field of study has always emphasised on the significance of people and their role as 'the most vital asset' (Edwards, 2009). In the very beginning, this broad subject area was referred to by many names, including, labor management, personnel administration, employment management and labor relations. Many of these names disappeared while some of them gained popularity; gradually the meaning and context behind them came to light. All these terms had one common thread, that being their focus on the relation between employers and employees with respect to work and employment. Finally, this entire area of study and practice was expressed by one generic term inclusive of them all, called the industrial relations (Kaufman, 2001).

Industrial Relations has its origins in the industrial revolution that took place during late eighteenth to late nineteenth centuries. It emerged in response to the worker's problems i.e., low wage rate, long and monotonous working hours, harsh and hazardous working conditions and abusive supervisors. These problems in turn led to a great uproar in the face of violent strikes and higher employee turnover (Hayter, 2018). According to Webb and Webb (1897) collective bargaining was the most common approach employed by early trade unions to help resolve conflicts and improve worker's condition.

In the present day, Industry Relations is declining and other subject areas like Organisational behaviour and Human Resource Management are taking its place. But the lesson learned from industrial relations remains intact. Industrial Relations can be defined as the relations in the industry mainly between employees and management along with trade union and government which stem directly or indirectly and contribute to the betterment of the industry and economy (Chand, n.d.). Industrial Relations practices are very relevant in emerging economies like India. One such great practice is Workers' Participation in Management.

2. Covid-19 and uncertainty in industrial relations

Covid-19 Pandemic is a health and humanitarian crisis. Initially with less number of cases the situation was in then hand but with gradual increase of the virus led to closure of the industries due to nationwide lockdown which led to loss of millions of jobs including workers in the industries who faced severe conditions due to lay off because of the economic crisis faced by the industry followed by non-operation of the major industries in the country. This mass lay-off created outrage among the trade unions and the management as in some cases management did not provide monetary compensation for survival in this pandemic as per the general lay-off rules which led to huge uncertainty in industrial relations between all the parties involved in the industrial relations.

3. Worker participation in management

Workers participation means involving workers in the decision-making power in the organization. It gives a feeling of belonging to the workers in the organization. It is coming together – beginning, keeping together- progress, working together- success. This was suggested by Mahatma Gandhi in the year 1920 to bring both the worker and shareholder contribute to the prosperity. There must be cooperation, trust and friendship between the coworkers and the management and to bring harmony and peace in the organization. The origin of worker participation in management is divided into 2 stages before independence and after independence. (Pahuja, H. 2015).

4. Worker participation before independence

Prior to the independence workers were not involved in the management and also the management believed they opinions matters only when there is need to increase the production otherwise it is not necessary to consult with the workers on issues which are defined for the management. They were neither any talk about the worker participation and recognition.

5. Worker participation after independence

The setup of industrial dispute act 1947 enhance the scope of wpm in India. With the recommendations drafted in the model agreement resulted in the formation of joint worker's management council in India.(JMCs).in the 1970s government accepted the workers in the board of directors.in the year 1976 government of India makes amendment I constitution to include wpm as one of the directive principle in India. On May 1990 the government introduced a bill in the parliament. Nearly after 26 years after industrial dispute act 1947 and various amendment acts. In the year 2010 the government of India bought a provision stating that every industry employing 20 or more than 20 workmen is now under the legal obligation to resolve the workers dispute. (Pahuja, H. (2015).

6. Knowledge and worker participation in India

In the country where the population is so large and also people from different cultures and religions, it is very difficult to follow worker's participation in management. It will be only possible when there will be diminishing gap between workers and the management. which can be achieved if the organization provides structural training which facilitate the participative learning between the management and workers

7. Goals and worker's participation management

In India the objective of the wpm is broadly defined into two categories – 1. Goals benefitting to the management and goals mainly benefitting the labors. (Ghosh, P., & Van de Vall, M. (1978).

Mechanics of worker participation in management –

For the meaningful participation of workers in the organization which help the organization in various way is to allow workers in all the decision levels. It will help the workers to feel-

1. A better understanding of their role

2. A sense of belongingness
3. Satisfy the urge
4. Stimulate their interest in higher productivity. (Sethi, K. (1973).

8. Types of Workers' Participation in Management

In (Dickson, 1981) opinion, there are two types of participation:

- a. **Direct participation-** The employees are given the opportunity to directly and individually participate in managerial decisions. There are no middlemen between the employee and the management.
- b. **Indirect participation-** The employees participate through representatives or official bodies. The employees are encouraged to share their issues with the representatives, and it is represented to the management by them.

9. Benefits of workers' participation in management

The involvement of workers in the decision has proven to be beneficial in the following ways: -

- A. Productivity-** Workers' participation in management helps the organisation to add to the productivity of the firm. The employees get the feeling of being salient part of the organisation and sense of belongingness.
- B. Mutual understanding-** It establishes a better way of communication between both the parties. It develops an understanding of work which is expected between workers and the management, it helps to understand each other's work better. It also helps to create peace and democracy in the organization. Both the employees and management help each other and perform their duties with enthusiasm.
- C. Effective communication-** Workers' participation in management welcomes opinion as well as feedback from the employees which might improve the ways of performing work. The problems get solved unanimously. It makes them feel belonging to the firm and they are relieved that if any problem occurs the management would always come forward to help them.
- D. Industrial democracy and peace-** It helps the management to keep its workers happy and fulfilled which in return leads to harmony and peace in industrial relations of the organization. The workers get an opportunity to present their viewpoints thus safeguarding their interests. In addition to that workers' participation in management is basically an effective method to avoid industrial disputes which are less likely to happen if it is implemented and followed successfully (Shodhganga).

Research Objectives

- General objective

The general objective of this research is to study the effect of IR practice, Workers 'Participation in Management on employee-management relationship and workers' motivation and satisfaction with respect to industries in India.

- Specific Objectives

The objectives of the research are mentioned below:

1. To study about the level of motivation of workers by closer involvement.
2. To find how worker's participation helps state their interests; all the while establishing sound relationship between them and management.

Research Questions

Q1. Is workers' participation in management an effective and efficient technique to boost the employee motivation level in the Indian steel industry?

Q2. How does workers' involvement in management in the Indian steel industry help keep a cordial relationship amongst them and management? Are the individual goals and interests of the employees fulfilled?

Scope of the study

The scope of the study is to explore if Workers' Participation in Management helps in avoiding uncertainty in the industrial relations along with impact of it on the employees' performance at the workplace with respect to various industries in India and also putting light on the uncertainty due to the Covid-19 Pandemic.

Significance of the study

This study's main objective is to give an improved perspective of the IR Practice, Workers' Participation in Management with respect to Indian industries. Besides, it also aims to study how workers' involvement helps their motivation level and its following impact on industrial relations.

This research will help the researchers to fill in the gap and provide further literature as an addition to assist them in their future research. This research study will provide the most recent implications in respect to examining the relationship between employees and employers and how workers' closer involvement helps them fulfil their interests. Moreover, this research also aims to give beneficial information to the Indian Steel Industrialists about how WPM increases the employee's motivation level and raises the production capacity. This will also aid the employers to maintain cordial relations with their employees and benefit the working of various industries.

Literature Review

Factors affecting workers' participation in management

The employees need to be encouraged and satisfied with the work they are performing at their workplace. (Vijayashree P, Dr M Chandran, 2008) identified some factors which influence the participation of workers in the management which are mentioned below: -

- a) **Career Development Program-** The Career Development Program is among the factors that contribute to employee satisfaction. Many businesses spend both time and resources in the growth of their workers at the Workplace to develop their career and have an opportunity to develop new skills and abilities at work.
- b) **Salary structure-** Salary is one of the essential aspects of employees as it acts as a driving force because it is the primary reason for which they are working for the organisation. The workers expect a fair and ample amount of salary for the work they perform and if this basic need is fulfilled, they feel secure about their livelihood.
- c) **Diversity in culture-** The diversity in culture has a great impact on the environment of the workplace. Due to various backgrounds and cultures people hailing from, it could help in bringing in different opinions and help in making better decisions.
- d) **Recognition of employees-** Employees are required to be recognized and rewarded for their good performance and positivity as it leads to the fulfilment of their social and self-esteem needs and also helps in motivating them to perform better which is beneficial for both the firm and the employee.

1. Workers' Participation in management and industrial relations in Indian industries

i. Tata Steel Ltd.

Tata steel Ltd. backed by 10 years of glorious success of being among top ten steel companies in India. It was established in 1907, is Asia's first integrated steel plant and now in the Fortune 500 companies. It has more than 30 thousand employees. Back in its initial days, the Tata steel Ltd. had recognized trade unions namely Tata Workers Union (TWU) which was affiliated to Indian National Trade Union Congress (INTUC) in the year 1920. After 36 years. Tata steel emphasized improvement in productivity and maintaining peace, so they introduced a program called 'Closer association of employees with management' on August 4, 1956. It was a three-tier system of joint committees and workers' representatives with joint councils in accordance with the provisions of the Special Collective Agreement (1956). The joint committees met regularly and discussed industrial relation issues. In the period of 1957-82, it the forwarded 28915 suggestions to the management and 70% were implemented. They were not allowed to discuss individual employee or group of employees cases, instead they were encouraged to suggest policies to improve discipline and reduce absenteeism and accidents. In 1980, Tata steel completed '50 years of uninterrupted industrial harmony' (A.V Subbarao,1987).

ii. Steel authority of India limited (SAIL)

The steel authority of India limited is one of the public sector undertakings wherein the workers participation in management has been successful. The company included joint committee the name was changed to national joint consultative committee in June 1979. In these committee the two members are represented – one representing employer and the other two members are of trade union of the employee. The sail joint committee helped to keep a good climate for peaceful industrial relations. Sail has also developed joint machineries at the plant and shop level to ensure the association between the employees in the decision-making process, production, productivity welfare and safety of workers etc. They have made a 4-tier structure – Shop floor committee, the plant level committee, and the national level committee. Through the SAIL is successful in increasing their profits and reducing its costs.

iii. Mahindra & Mahindra (Kandivali Farm Equipment Plant)

Mahindra & Mahindra Limited (M&M Ltd) is the flagship company under the Mahindra group. It is India's main utility vehicle company and the global leader in tractors, utility vehicles and commercial vehicles that are reliable, fuel- efficient as well as environmentally friendly. M&M Ltd. has a single union in each of its five plants. The Kandivali plant's union - the Bharatiya Kamgar Sena Mahindra Tractor Unit, Kandivali in affiliation to Shiva Sena has been in working for the last 41 years. Furthermore, plant-wise collective bargaining has taken place to establish wage/salary rates with respect to the cost of living in the particular branch area (with the bonus remaining same throughout all the plants). A three-year agreement has been signed to adhere to all the demands put forth by unions and the management. Since, 2002 the functioning of the operations has been smooth sailing with a stable increase in wages and salaries (through collective bargaining). This is also because the management now respects the unions and its members and takes the opinions of the same into consideration.

Mahindra & Mahindra Limited's employee participation system is multi-pronged and diverse. In the year 2000, the company launched its famous Total Employee Involvement Programme (TEI) which aims to motivate workers, build trust and help increase engagement. The TEI Programme is based on the following: Group Kaizen, Self-Managed Teams, Total Preventive Management and other forms. Many communication programmes have been established at different levels. established. Communication kiosks have also been set on the shop floor to facilitate communication of any ideas between employees/workers and the CEO of the company. As an outcome, the Kaizen projects have also increased from 4,903 in the year 2005 to 21,294 in the year 2011. Alongside, the amount savings gathered have also increased from ₹82.3 million to ₹182.7 million over the period of 2002-2010. Furthermore, it has helped raise work commitment, knowledge and confidence of the workers. The workers have started putting in more hours and working overtime whenever company requires it. They now associate company's growth to their own and vice versa. This goes to show how significant a role does workers' participation in management plays.

Workers' Participation in Management practices in India

A) Suggestion scheme

Suggestion scheme is a management tool which encourages the employee to give ideas for the improvement and innovations in the organization. Suggestion schemes are becoming popular day by day in organizations. (Fuller, U., Helbling, C., & Cooley, R. (2002). The involvement of employee suggestion scheme helps the organizations to improve cost related problems. Further employee suggestion schemes also help in improving work related problems but also improve the performance as well as innovate employee creativity. Creative ideas not only reduce the cost but also improve the efficiency in the organization. The factor of success in the organization is working culture, encouragement, leadership and participation of the employee. (Lasrado, F., Gomiseck, B., & Uzbeck, C. (2017). Employment suggestion scheme also further helps in the sustainable development in the organization. For this the employee must have personal interest in the activities, the scheme should be easy to work with. The schemes should be designed in way that everyone in the organization can adapt that. There should be commitment by the managers. (Rapp, C. (2002).

B) Workers representation on board

The worker's representation on board is a successful worker's participation in management practices also works as a corporate power in the organization. As the involvement of workers in boards reflect the recognition of power and role of the organization in the society. (Blumberg, P. I. (1973). The most important extension of the worker's participation in management happened when the government sated to include worker's representatives as the board of directors in public enterprises. In year 1973, there is one worker-director, in the nationalized banks under the banking companies acquisition and transfer of undertaking. Act 1970. In 1983, the central government made a new 3-tier policy. which covers all the central public sector undertakings. (Saini, D. S. (2000.)

C) Works Committee

By the implementation of Industrial Disputes Act, 1947, Works Committee was established for introduction of legislation in the labor management system. These committees include equal number of employers and workers. The state government stated to compulsion of formation of these committee when there are hundred or more number of employees. The main purpose of constitution of these committee of is to maintain peace and harmony between employers and employees and securing the interests of both the parties. (Businessmanagementideas)

D) Joint Council

If an industry has employment of 500 or more number of employees, then they should have a joint council for the whole unit. The main features of this council is the actually engaged people of the

unit should be the members of the council, the council meeting should be scheduled for at least once in a quarter. Every decision of the council should be based on the consensus. The members are supposed to elect a secretary and the chief executive of the unit should be the chairman of the council. (Pradip K. Ghosh and Mark Van de Vall).

E) Quality Circle

Quality circle is a group of employees considerably small in size, employed in a similar line of work or organisation who meet up frequently every week to help determine, examine and finally settle problem arisen at work which would aid in the advancement of productivity, performance and work life as a whole (Crocker, Chiu & Charney, 1986). Quality circles are not task oriented i.e. the members do not split after the issue is resolved but instead are a permanent fixture of the organisation.

Quality Circles is a very advantageous form of workers' participation in management. Through quality circles the workers develop a sense of active participation for the sake of individual as well as well organisational enrichment. It also helps block out any obstacle that may arise or prevent employees to openly exchange ideas. Moreover, as a quality circle is filled with members that share the same line of work, it makes it more specialised. Hence, the members are able to work together better as a team. Quality Circles also help in-still a feeling of belongingness in the employees; the employees feel cherished and are made aware of their importance in the decision making process.

Quality Circles cast the organisation in a positive light filled with employees that have a positive work attitude and are headed towards advancement. This development is not only limited to the employees but to the whole workplace in the form of increased production and productivity which results in growth (Jatt, 2016). Quality Circle has now been successfully implemented by many Indian companies, foremost of them is the example of Bharat Heavy Electricals Limited (BHEL) who in the year 1981 was the first to bring quality circle in India (Srinivasan, 1991).

F) Co-Ownership

Under this scheme of workers' participation in management, commonly known as Employee Stock Ownership Plan (ESOP) the workers are offered shares in the company. There are different plans made available to employees depending on their position. Employee Share Ownership provides a financial incentive to the workers which makes them motivated and committed. Moreover, as the employees now are part owners of the organisation, they begin associating the organisation's success to their own. This renewed work commitment shown from the employees increases the level of productivity which in turn increases profitability.

Employee Share Ownership also reduces employee turnover drastically and saves the organisation from incurring losses. This goes to show co-ownership is a great form of workers' participation in management (Zhu, Hoffmire, Hoffmire & Wang, 2013).

Research Methodology

The study is a qualitative study based on data collected from secondary sources such as Emerald, Scopus, Jstor, and Google Scholar. Information has also been gathered from books, articles that aid the study of sustainable development. Researchers also looked at articles published by companies to understand WPM practices. The researchers have looked at company reports and websites to understand their strategic WPM along with HRM practices.

Findings and Discussion

Uncertainty in today's world is very common in industrial relation. It can be due to the adaptation of new technology change in polices or can be caused due to the pandemic. The three different types of uncertainty usually faced are- Strategic, structural and job-related uncertainty. All of this uncertainty can be reduced by involving participation decision making in the organization. It has been shown that the workers in decision making are positive. If the workers are involved in the decision-making process, they tend to perceive it more beneficial for themselves. Employee involvement in decision making reduces the ambiguity and yields positive results

Workers, who are involved in the decision making or organizational communication are less insecure about their jobs. During the time of changes in the organization such as adaptation of new technology, at the times of pandemic, change in government policies or during the time of recession there should be increase in the participation of workers. It creates a sense of recognition among the employee and reduces the job insecurity.

Limitations

Since the study is based on the secondary data, it was not easy to find a course of reliability and information specifically related to this topic. Also, while connecting the main points to research statements

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Australia and India: Trade and Investment Opportunities in Changing Geo-Political Environment

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Abstract

It has been three decades since the Rao government's 1990-91, New Economic Policy reforms opened the Indian economy and adopted globalisation, privatisation, trade liberalisation, and export promotion strategies. In 2018-19, for Australia, India was the fifth largest export market, and eight largest bilateral trading country, with access to a large and youthful market with approximately 1.3 billion population. International trade contributes 45 percent to Australia GDP creating one in five jobs. India will need to meet its demand for good and service for its growing population and economic growth aspirations, and form strategic bilateral trade, investment, and security relationship with a reliable partner like Australia. In November 2018, the India Economic Strategy – 2035 for economic partnership for trade and investment opportunities between India and Australia was launched by the Australian Department of Foreign Affairs and Trade. This paper will provide an overview of the Australian and the Indian economy and explore the extensive bilateral trade and investment opportunities at all levels that can be formed between Australia and India for mutually gain from trade and investment, given the dynamic geo-political environment and increasing uncertainties in the Asia-Pacific region. The final section presents policy implications, conclusion, and future research directions where Australia can play a significant role as a peace maker and sign a Free Trade Agreement with the SAARC countries together, for their mutual socio-economic advantage and inclusive growth to meet the United Nations 17 Sustainable Development Goals, which will give Australia access to a combined market for trade and investment with a total population of 1.836 Billion. Therefore, economic strategic partnership between India and Australia is paramount for creating opportunities for economic development, progress, prosperity of Indians and Australian citizens and security and peace in the Indo-Pacific region.

Key Words: Australia, India, strategic partnership, trade, investment, economic development

Introduction

In the last two decades there has been growth in bilateral trade relationship between Australia and India. According to Gurry (1993) 'India should rank as one of Australia's most important neighbours' (p.5.10) for bilateral trade and economic relationship. In 2018-19, India was Australia's second largest source of skilled professionals, after the United Kingdom and third largest source of immigrants following UK and New Zealand and fifth largest export market. However Indian position fell from 5th to 8th largest bilateral trading partner with Singapore replacing India (Department of Foreign Affairs and Trade {DFAT}, 2020a). Increasing number of Indian nationals and businesses are choosing Australia as a destination of choice for education, tourism and for doing business (Ahluwalia & Little, 1998; Bhagwati, 1993; Bhosale, 2018). For promoting bilateral trade and export market for Australian goods, services, and investment opportunities, the "India Economic Strategy-2035" was launched by the department of Foreign Affairs and Trade in Australian on 22-November-2018 for mutual economic benefits and gains from trade (Varghese, 2018). This strategic plan on one hand will transform, enhance, and strengthen the Australian economy and its economic partnership with India. On the other hand, this strategic partnership has identified ten (10) priority economic sectors and ten (10) priority Indian States to start with, out of 30 States for trade, investment, and economic development and growth opportunities to realise the aspirations and dreams of millions of Indians and achieve the 17 Sustainable Development Goals (17-SDGs) (United Nations, 2020). In 2014 Modi government came to power and transformed the foreign policy from Look-East to Act-East towards South-East Asia, Japan and Australia to form bilateral trade, investment and defence security ties with the countries (Ganguly, 2017; Hall, 2015; Medhekar & Haq, 2020; Nguyen, 2017; Ranjan, 2016; Tandon, 2016; Wojczewski, 2019).

This paper is structured as follows. The first introductory section introduces the economic significance of gains from bilateral trade and investment opportunities for Australia and India. Literature will review bilateral international trade in context of Australia-India. Section 3 will review the "India Economic Strategy-2035" for economic partnership and opportunities between the two countries. The final section presents policy implications, conclusion, and future research directions to form partnership between India and Australia in the key strategic sectors of the economy for economic development and growth, and to advance the knowledge in the field of bilateral trade and free trade agreement between Australia and India for mutual economic benefits amidst the changing geo-political environment post-COVID-19 in the Indo-Pacific or the Asia-Pacific region.

Australia: Australia is an island continent in the southern hemisphere, with an approximate population of 25.6 million (Worldometers, 2020). Table-1 provides an overview of the key macroeconomic data for the Australian economy for the past five years. It indicates that Gross Domestic Product (GDP) growth rate slowed down from 2.6% in 2016 to 1.8% in 2019, to

negative -0.3 in the first quarter of 2020, to -7% in second quarter and -6.3 in the third quarter of 2020, as the Australian economy contracted, and is technically in recession after 30 years due to COVID-19 trade and travel restrictions, grounded airlines and closed international borders to prevent the spread of coronavirus. This has had a negative impact on inbound international students, foreign tourist arrivals and trade. Unemployed rose from 5.1% in 2018 to 7.5% in 2020, due to job losses in retail, tourism, hospitality, travel, education, and other economic sectors. Further, household consumption dropped with high unemployment and investment activity fell but government expenditure grew providing job-seeker and job-keeper income support schemes in response to COVID-19 driven unemployment shock (RBA, 2020).

Inflation in the second quarter was -0.3% and in the third quarter 0.7% below the target inflation range of 2-3% set by the Reserve Bank of Australia. However, since 2019, due to slowing down of the Chinese economy impacting on Australian mining sector, Reserve Bank of Australia (RBA) adopted an expansionary monetary policy, and cut the official interest rate three times in 2019 by quarter of a percent, and twice in March 2020, to 0.50%, further dropping to 0.1% percent in October which is now historically lowest to complement government's first home buyers and home renovation grant to create employment growth, to overcome negative impact of global pandemic and to increase business and consumer confidence in the economy (RBA, 2020).

Table 1. Australia -Macroeconomic Indicators

Australia Macro-Economic Indicators	2016	2017	2018	2019	2020
GDP (US\$ b)	1,266	1,379	1,330	1,432	1,320
GDP per capita (Aus\$ b)	51,903	55,690	56,228	56,919	54,200
GDP Annual Growth %	2.6%	2.2%	2.3%	1.8%	-7.0%
Current account Aus \$b	-17,961	-10,726	-11,886	-2,900	17,738
Current account balance %GDP	-3.1	-2.5	-3.4	-1.5	-1.50
Inflation % change	1.3	1.9	1.8	1.3	0.7
Unemployment (% labour force)	5.7	5.6	5.2	5.19	7.5
Govt. Debt to GDP ratio %	40.5	41.1	41.5	45.1	---
Govt. Budget (deficit%)	-2.4	-1.9	-0.5	-0.20	---
Official interest rate %	1.5%	1.5%	1.5%	1.0%	0.1%
Imports \$ billion (BOP basis)	350,649	376,552	34,730	35,839	28,108
Imports % of GDP	21.52	20.57	21.38	21.55	---
Exports \$ billion (BOP basis)	336,89	336,67	36,798	41,585	33,737
Exports % of GDP	19.25	21.19	21.18	24.13	---
Coronavirus cases until Nov 2020	277,756 persons				
Coronavirus deaths Nov 2020	907 persons				
Coronavirus recovered Nov 2020	253,28 persons				
Hospital beds (per 1000 people)	3.84 Dec/2016				
Medical Doctors & Nurses (per 1000)	Dr 3.87 & Nurses 12.98 Dec/ 2017				
Hospitals (per 1000 people)	55.89 Dec/2017				

Source: Trading Economics; DFAT, 2018a & 2020a; World Bank, 2020; RBA, 2020

Note 2020: 2nd & 3rd quarter and recessionary impact of Covid-19

Further, Australia current account surplus increased to in the second quarter of 2020 AUD 17.70 billion, as exports of goods surplus increased being largest on record, but imports dropped from February mainly due to supply chain disruption in China due to COVID-19. As some countries and states relaxed COVID-19 lockdowns and an increased global demand, Australian exports of goods and services by 4 percent in 3rd quarter to AUD 33.74 billion in September 2020

India: India is the world largest democracy with second largest world's population of 1.3 billion (Worldometers, 2020). India has a growing middle class, and in 2011 nearly 270 (14.9%) million were living below poverty line, which has been reduced to 84 million (7.0%) in 2017 as per Tendulkar's poverty line, due to high GDP growth rate and governments unemployment programs PM farmers relief program, direct benefit transfers, LPG subsidy amongst others resulting in inclusive growth (Bhalla, Virmani, & Bhasin, 2020). India is one of the world's fastest growing economies with forecast growth, underpinned by structural shift from agriculture to manufacturing and service sectors, increase in employment, business opportunities, 45% of population below 25 years, with 20% of the world's working population with increased consumption and urbanisation (DFAT, 2018). Table-2 provides India's key macroeconomic indicators over the years 2016-18. The economy grew at 7.3% GDP growth in 2018 and GDP contracted to -25.2% with economy sliding into recession. Unemployment rate increased to 7.0% and inflation to 7.6% due to COVID-19 related lock downs, trade restrictions, and supply shocks. Reserve Bank of India (RBI) adopted monetary easing with 4% interest rate, to mitigate the impact of COVID-19 and support economic growth. Government consumption expenditure increased due to COVID-19 related relief measures.

Table 2. India-Macroeconomic Indicators

India Macro-Economic Indicators	2016	2017	2018	2019	2020
GDP (US\$ b)	2294.8	2652.7	2713.1	2874.1	2735.0
GDP per capita (US\$ b)	1875.7	1986.6	2086.5	2169.1	---
Real GDP Growth %	7.1	6.7	7.3	1.2	-25.2
Current account balance %GDP	-0.6	-1.8	-2.10	-0.9	3.9
Inflation % change	4.5	3.6	4.7	7.27	7.61
Unemployment rate	3.5	3.5	3.5	6.7	7.0
Debt to GDP ratio %	68.1	68.9	68.3	69.6	---
Govt. Budget (deficit % of GDP)	-3.49	-3.46	-3.34	-4.59	---
Official Interest rate	6.75	6.50	6.0	4.0	4.0
Imports % of GDP	20.92	21.94	23.55	21.35	11.56
Exports % of GDP	19.15	18.78	19.85	18.66	24.82
Coronavirus cases until Nov 2020	8912907 persons				
Coronavirus deaths until Nov 2020	130993 persons				
Coronavirus recovered Nov 2020	8335109 persons				
Hospital beds per 1000 Dec 2017	0.53 per 1000 persons				

Source: Compiled from: World Bank; Trading Economics; WHO

Further, the current account surplus in 2020 has been historically high due to imports falling and exports rising to 584.38, with record high trade surplus in the 2nd quarter of US\$790 billion

resulting from COVID-19 restrictions, and high trade deficit to US\$8.78 billion in Oct 2020. After USA and Brazil India remains the third worst economy affected by COVID-19.

Literature Review

Bilateral Trade Australia and India

After the 1991 economic crisis, India slowly and cautiously opened and liberalised foreign trade and investment policy given its protectionist instinct. Bilateral agreement is between the two countries such as Australia and India, for trading in goods, services, including tariff rates, investment opportunities, and security arrangement which will mutually benefit both the countries in achieving 17-SDGs and inclusive economic development and growth. Since 1980 and 1990, Australia-India trade relationship and engagement has been neglected as Australia did not consider India to be an important player given the Kashmir issue, tilt of Australia with Pakistan, Australia-US alliance and strong trade relationship with China (Chacko & Davis, 2017; Gurry, 1993; Gurry, 2013). The relationship between Australia- India needs to be fostered and improved to reap the mutual benefits and opportunities from bilateral trade, investment, supply chain integration, block-chain technological innovation, digital, and form strategic maritime partnerships in the Indo-Pacific region for defence and security (Bhowmick, Saha & Basu, 2020; Scott, 2013).

In 2006, Liberal-National Prime Minister of Australia John Howard visited India , followed by Labor Prime Minister Rudd in 2009 and the relationship progressed to level of strategic and bilateral trade, going beyond cricket diplomacy (Bergenwall, 2016; Gurry, 2012; Mayer & Jain, 2010; Mishra, 2012; Ranjan, 2016). Further Prime Minister Abbot and Morrison's coalition government has also recognised to strengthen bilateral trade with India, being the largest source of permanent migration and inbound students to Australia (Asialink, 2019). Furthermore, Prime Minister Malcolm Turnbull, visited India in April 2017 with the aim to strengthen two-way strategic cooperation for economic growth, and knowledge sharing in sports, civil aviation security, digital technology, health and medicine, combating international terrorism and organised crime, protecting the environment and climate change and satellite navigation (Government of India, 2017; Thakur & Sharma, 2018).

In 2018, the President of India visited Australia to strengthen the bilateral relationship and signed five memorandum of understanding: (i) to cooperate to facilitate bilateral investment between India and Austrade, (ii) deliver services to people differently-abled people, (iii) foster scientific collaboration and innovation between Central Mine Planning and Design Institute Ranchi and Commonwealth Scientific and Research Organisation in Canberra, (iv) cooperation between agriculture research and education Acharya- Ranga University, Guntur and University of Western Australia, Perth, and (v) Joint academic collaborations and PhD agreement

Queensland university of Technology , Brisbane and Indraprastha Institute of Information Technology, Delhi (Business Standard, 2018).

In 2017, bilateral trade between Australia and India in goods and services was Aus\$ 13.6 billion. The major Australian exports are coal (\$5.5 billion), education related travel services (\$2.1 billion), gold (\$903 million), agriculture goods such as, chickpeas and lentils (DFAT, 2018). Australia has nearly US\$ 2.7 billion trade surplus in agriculture sector with India (Indian Express, 2018). Major Australian imports from India in 2014-15 were refined petroleum (\$910 million), personal travel/tourism services (\$561 million) and business services (\$481 million). The bilateral trade of goods between countries was valued at Aus\$ 27.4 billion in 2017, with key imports from Australia being coal, pulses, and wheat worth Aus\$15.7 billion; and exports to Australia were refined petroleum, medication and jewellery worth AUS\$ 5.1 billion. Two-way service trade between the countries was valued at Aus\$ 6.6billion, with 300,000 Indian visitors to Australia in 2017 (education and tourism) and Foreign Direct Investment of Australia in India was worth Aus \$ 1.827 billion (DFAT, 2018a).

In 2018-19 Australia's bilateral trade with China was \$235.0 billion and ASEAN countries were \$123.7 Billion. Australia's top 10 bilateral trading partners in 2018-19 see Table-3 were: China, Japan, the United States, the Republic of Korea, Singapore, New Zealand, the United Kingdom, India, Malaysia, and Thailand. India's bilateral trade share is 3.4%, compared to China' 26.4%, given that India has the second largest population, with a growing market demand for goods and services.

Table 3. Australia's Top 10 Bilateral Trading Partners 2018-19

Rank	Trading Partners	Goods	Services	Total	% Share
1	China	213.0	22.0	235.0	26.4
2	Japan	81.4	7.1	88.5	9.9
3	United States	48.7	27.7	76.4	8.6
4	Republic of Korea	38.0	3.4	41.4	4.6
5	Singapore	21.4	11.3	32.7	3.7
6	New Zealand	17.8	12.8	30.6	3.4
7	United Kingdom	15.1	15.2	30.4	3.4
8	India	21.1	9.2	30.3	3.4
9	Malaysia	21.4	3.7	25.1	2.8
10	Thailand	20.7	4.0	24.7	2.8
	Total Trade	498.6	116.4	615.1	69.0

Source: DFAT (2020a)

Australia's key exports by sector in 2018-19 totalled to \$470.2 billion. The percentage of exports by sectors was Mineral fuels (239.3B\$), Services (97.1B\$), Manufactures (54.0B\$),

Rural (47.9B\$) and Gold (19.7B\$) (ABS catalogue, 2020). The top ten Australia's export markets in 2018-19 are shown in Table-4, with China on top and India in the fifth position.

Table 4. Australia's Top 10 Export Markets 2018-19

Rank	Top 10 markets	Goods	Services	Total	% Share
1	China	134.7	18.5	153.2	32.6
2	Japan	59.1	2.6	61.7	13.1
3	Republic of Korea	25.6	2.2	27.8	5.9
4	United States	14.7	10.0	24.7	5.3
5	India	16.2	6.6	22.8	4.9
6	New Zealand	10.0	6.0	16.0	3.4
7	Singapore	10.6	5.4	16.0	3.4
8	Taiwan	12.4	1.5	13.9	2.9
9	United Kingdom	7.9	5.6	13.5	2.9
10	Malaysia	8.9	2.6	11.5	2.5
	Total 10 Markets	300.1	61.1	361.1	76.8

Source: DFAT (2020a)

To enhance Australian service sectors export competitiveness, in November 2019, the government introduced an Action Plan to simplify export regulations in Australia, and remove barriers faced by Australian exporters overseas. Australian services exports in 2018-19, increased to Aus \$97.1 billion. International education and tourism accounts for 60 percent of Australia's total services export followed by mining related equipment and technology services. China and India constitute the largest sources of international students to Australia, given the strong demand from foreign students seeking high quality of higher education. According to the Australian Department of Education and Training in 2019, a total of 758,154 international students visited Australia for study purposes (DET, 2020). In 2019, the top10 country of origin of international students to Australia were: China (212,264), India (115,607), Nepal (53,723), Brazil (273,66), Vietnam (26,050), Malaysia (24,361), Republic of Korea (21,175), Columbia (20,718), Indonesia (18,091), Thailand (17,491) and (221,301) from all other countries (DET, 2020).

Further, Australian governments tourism campaigns to attract international visitors as tourist, students, and businesspersons was very successful. However, since March 2020, due to COVID-19 travel and trade restriction, and closing of Australian international borders to prevent the spread of virus, travel and tourism sector is very badly impacted, having a devastating impact on Australian higher education, tourism and hospitality sectors, with millions of job losses. In case of Australia's source of imports in Table- 5, and India does not fall in this list of top ten source countries for Australian imports.

Table 5. Australia's Top 10 Import Source in 2018-19

Rank	Top 10 markets	Goods	Services	Total	% Share
1	China	78.3	3.5	81.8	19.4
2	United States	34.0	17.6	31.6	12.3
3	Japan	22.3	4.5	26.8	6.4
4	Germany	15.1	3.8	18.9	4.5
5	Thailand	14.6	2.7	17.3	4.1
6	United Kingdom	7.2	9.6	16.9	4.0
7	Singapore	10.9	5.9	16.7	4.0
8	New Zealand	7.9	6.7	14.6	3.5
9	Republic of Korea	12.4	1.2	13.6	3.2
10	Malaysia	12.4	1.1	13.6	3.2
	Total import source	215.1	56.8	271.8	64.5

Source: DFAT (2020b)

However, Table -6 shows the key merchandise good imported by Australia from India and vice-versa from 2015-18, five years import, and export growth percentage and the percentage trend forecast. In 2015-16, Australia's merchandise trade with India was Aus\$ 9,708,059 million increasing to Aus\$ 15,158,186 in 2016-17, and Aus\$16,325,643 in 2017-18, with a 2-year percentage growth of 7.7 percent. Further, Australia's total merchandise imports from India in 2015-16 was Aus\$ 4,756,123 million, increasing to Aus\$ 44,67,670 in 2016-17 and Aus\$ 5,542,235 in 2017-18, with a 2-year percentage growth of 24.1 percent.

Table 6: Australia's merchandise trade with India (Aus\$ '000)

Rank	Top Exports to India	2015-16	2016-17	2017-18	2016-18 Growth%	5-year Trend %
1	coal	5,010,019	8,730,850	9,907,331	13.5	16.3
2	copper ores & concentrate	511,071	682,071	852,330	25.0	-7.5
3	gold	685,504	409,597	731,927	78.7	-15.0
4	vegetables	744,370	1,428,741	727,539	-49.1	32.2
5	Iron ores & concentrate	6,315	5,250	299,273	0.6
6	wool & animal hair	215,275	222,831	246,357	10.6	9.0
7	non-ferrous waste & scrap	127,846	122,514	185,772	51.6	26.5
8	fruit & nuts	122,410	145,676	153,795	5.6	13.5
9	ferrous waste & scrap	96,493	86,902	145,868	67.9	-0.2
10	lead	110,800	116,907	127,646	9.2	7.0
11	cotton	62,813	394,002	122,942	-68.8	53.3
12	pigment, paint, and varnish	62,810	83,958	117,530	40.0	18.5
13	crude petroleum	41,607	23,752	108,770	357.9
14	aluminium	48,296	79,730	60,643	-23.9	20.3
15	silver & platinum	78,978	3	50,012
16	paper & paperboard	19,546	74,485	46,769	-37.2	9.2
17	zinc	20,211	20,354	36,275	78.2	18.5
18	other ores & concentrate	123,521	44,001	29,837	-32.2	-33.5
19	pulp & wastepaper	22,107	44,001	24,901	68.4	28.6
20	Confidential trade item	1,051,985	1,340,600	1,883,757
Rank	Top Imports from India	2015-16	2016-17	2017-18	2016-18 Growth%	5-year Trend %
1	refined petroleum	1,573,010	1,081,048	1,642,595	51.9	97.5
2	medicaments & veterinary	320,971	343,270	353,633	3.0	16.0
3	railway vehicle, hovertrains	33,330	123,560	338,912	174.3	138.1
4	pearls & gems	271,661	268,054	280,080	4.5	9.2
5	jewellery	175,455	172,273	179,620	4.3	4.8
6	made-up textile articles	165,543	176,356	176,169	-0.1	10.1
7	passenger motor vehicles	85,134	63,979	104,708	63.7	-18.8
8	women's clothing excl. knit	88,484	95,077	97,472	2.5	21.0
9	floor covering	91,001	88,560	89,062	0.6	13.9
10	textile clothing	73,362	79,929	85,604	7.1	20.6
11	manufactured base metals	52,442	56,041	81,945	46.2	12.0
12	travel goods, bags, containers	60,485	63,169	70,485	11.6	19.0
13	inorganic compounds	79,509	120,282	69,471	-42.2	0.6
14	rice	54,004	51,262	60,553	18.1	11.5
15	electrical distributing equip.	16,269	18,983	60,220	217.2	34.9
16	furniture, mattress, cushion	58,871	58,039	54,448	-6.2	15.8
17	electrical circuits equipt.	45,902	46,908	53,296	13.6	4.6
18	rubber tyres & tubes	33,380	35,871	45,043	25.6	4.9
19	electric machinery & parts	15,249	20,135	44,291	120.0	25.7
20	crude vegetable matter	40,190	39,073	43,540	11.4	-0.4
21	Confidential items of trade	27,215	33,830	34,483

Source: DFAT (2018b)

Economic Opportunities: An Indian Economic Strategy - 2035

The India Economic Strategy – 2035, is the first of a comprehensive detail document which was launched on 22-November-2018 in Australia by a report commissioned by the Australian

Department of Foreign Affairs and Trade (Varghese, 2018). The aim of the plan is to form strategic economic partnership between India and Australia, to mutually benefit from bilateral trade and investment in ten sectors of the economy giving an overview of macroeconomics and investment story, with a chapter devoted to each of the ten (10) economic sector outlining the partnership opportunities, constraints and challenges along with focus areas and recommendations. For example, (1) Education, (2) Resource and Mining Equipment, Technology and Services, (3) Agribusiness (4) Health, (5) Tourism, (6) Energy, (7) Health, (8) Infrastructure- Urban Development and Transport, (9) Financial Services, (10) Sports, (11) Science and Innovation, (12) Defence and Security, and Financial services, (13) A collection of states (14) Understanding the Business Environment, (14) Trade Policy setting (15) bilateral architecture, and (16) The role of the Diaspora (Varghese, 2018).

Discussion and Policy Implications

Australia-India joint Free Trade Agreement (FTA) feasibility study was conducted in 2008, to build and mutually benefit from stronger economic and trade relationship (Australian Government, 2010). However, this FTA is still not signed. Further, Australia and India negotiated a Comprehensive Economic Cooperation Agreement in 2011, to improve trade and foreign investment relationship, with nine rounds of negotiation until September 2015, which is still on the table for signing (CECA, 2020). This was followed by an independent vision for India Economic Strategy – 2035. To implement the recommendations and bring to its full potential, requires strong political leadership, the partnership between the governments of the two countries including State governments to be committed to put this plan into action, with the aim to meet United Nations 17-SDGs and foster three levels of diplomacy Government-to-Government, Business-to-Business, and People-to-People to improve trade and investment opportunities in all the sectors of the economy. Nearly 100,000 Australian-Indian diaspora and some 50, 000 Indian students can play a role in building this strong partnership, for enhancing entrepreneurial opportunities, innovation, job creation, economic development, growth, and resilience of the Indian and Australian businesses, who have suffered during the COVID-19 global pandemic crisis. Further, post Covid-19 Australia needs to diversify its exports of goods and services, particularly raw and minimally processed agricultural and mineral exports to India, creating value and being competitive and responding to Indian consumers taste and preferences (Chatterjee, Rae, & Ray, 2006).

The world's largest free trade agreement the Regional Comprehensive Economic Partnership (RCEP) was launched in 2012 and finally was signed on 15- November-2020 by 10 ASEAN countries and China, South Korea, Japan, New Zealand, and Australia (DFAT, 2020c). India has withdrawn from this partnership, indicating it has several issues, which could be related to easy access to Chinese goods, weakening Indian goods competitiveness and widening trade deficits for India. However, Indian economy cannot operate in isolation. It needs a strong

leadership on the global platform to firstly bring peace in the South Asian region and make South Asian Association of Regional Cooperation (SAARC) functional and operative (Medhekar & Haq, 2019).

India is the second largest source country for international students and fifth largest export market for Australia and 8th largest country for bi-lateral trade. Despite this, Australia-India CECA negotiations and Free Trade Agreement between Australia and India which is still on the table for discussion. Further, given the various strengths of the Australia's economy and the Indian- Australian diaspora, Australia can play a significant leading role as a peace maker between India and Pakistan, and bring together first the eight SAARC countries such as Afghanistan, Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka, highlighting the mutual socio-economic benefits it can bring to the eighth SAARC countries, in terms of inclusive development, economic growth, trade, investment, defence security in the Indian ocean region with peace, progress and prosperity, finally aiming for single Monetary Union like European Union. This will give Australia access to a large SAARC countries combined market for trade and investment in key sectors of the economy with a total population of 1.836 Billion in 2019 of the total world 7.672 billion (World Bank, 2020), which is nearly a quarter of world's population that resides in South Asia.

Furthermore, China had launched on 19-11-2018 anti-dumping and countervailing investigation on Australia for barley exported between 1-10-2017 and 20-9-2018 and on 19-5-2020 china imposed 80.5% tariff on Australian barley with 73.6% anti-dumping duty and 6.9% countervailing duty, means Australian barley exports, revenue and production will fall and it needs to find alternative markets. on 18-August-2020, China launched anti-dumping investigation on Australian bottled wine exported between 1-Jan-2019 and 31-Dec-2019, along with tariffs (ABARES, 2020). Compared to other countries Australia has lowest level (1%) of agricultural subsidies. Further to mitigate China's increasing maritime and strategic power in the Indian Ocean SAARC nations bordering India, via one-belt- road initiative (Philips, 2013; Wagner, 2016), Australia can form public-private-partnerships and provide its resources and technical expertise under FTA with India and the SAARC nations for mining exploration, and to build infrastructure such as road, rail, seaport, and airport. Australia could explore other markets such as India and SAARC nations for its exports of raw agricultural goods and other minerals.

Conclusion

Australia and India both are ex colonies of United Kingdom and member of the British Commonwealth. There is a lot in common in terms of democracy, official English language, and the judiciary. Further both the countries are members of World Trade Organization (WTO), responsible for trade dispute settlements and digital economy related e-commerce opportunities, where Australia is leading in addressing trade distorting agriculture non-tariff barriers such as subsidies by initiating the global agricultural reforms. India and Australia are

also members of two forums, Group of Twenty (G20) and Asia-Pacific Economic Cooperation (APEC) for international cooperation in trade and investment for the prosperity of the region. There are close people to people ties, alumni relationships, given that large number of Indian students study in Australia, Indian universities have sister relationships with Australian counterparts, with exchange of scholars between the two countries. Future research should focus on the 10 sectors of the Indian economy as recommended and identified in the “Indian Economic Strategy–2035 report. In the post-COVID-19 environment, Australian needs to explore alternative markets like India for its exports, given the antidumping allegations and high import duty on Australian agriculture goods. Governments of both the countries need to be committed to play a role through promoting entrepreneurship, innovation, business friendly market access, and pro-competitive reforms for creative value supply chains. Australia can work together with India to explore opportunities for sharing its expertise in various sectors of the Indian economy to meet the United Nations 17-SDGs at the same time mutually benefitting from gains from trade, inclusive socio-economic development, growth, peace, progress, prosperity for the citizens of the two countries.

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Examine the buying difficulties of the health insurance policy: An empirical evidence from the unorganized sector

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Abstract

The purchase of a health insurance policy is essential for the consumers' financial decision-making in recent times. It has been recognized as a health-supporting tool that enables individuals, especially unorganized sector workers, to overcome their health-related difficulties in emerging nations like India. The health insurance companies can design affordable health insurance schemes. Therefore, low-income groups can buy those health insurance schemes to protect themselves against future financial shocks. The study primarily examines the health insurance policy's awareness level and buying difficulties from an unorganized sector worker's perspective. The primary data are collected in the union territory of Puducherry, India, with 267 sample respondents. The descriptive statistics and factor analysis are employed in the present study. The survey results reveal that awareness levels about various health insurance schemes are significantly less among the unorganized sector workers. Factors viz. lack of awareness, lack of willingness, lack of insurance agents, lack of flexibility, lack of reliability, and lack of accessibility are identified as the significant difficulties of unorganized sector workers to buy the health insurance policy. Finally, the study also provides some policy implications.

Keywords: Health Insurance, awareness, accessibility, affordable, financial shocks, unorganized sector, India

JEL Code: G2 & G22.

Introduction

India's economic reforms have led to significant development in the sectors viz., information technology, manufacturing, and financial services, particularly in the insurance sector. Primarily, health insurance is a growing sector in emerging economies. In India, it has been evidenced that the total per capita government spends on health care has nearly doubled from Rs. 1,008 per person in the year 2014-2015 to Rs. 1,944 in the 2019-2020 financial year. India's total health care spending (out-of-pocket and public), nearly 3.6 percent in GDP, which is least among BRICS nations. For instance, Brazil spends the most (9.2 percent), followed by South Africa (8.1 percent), Russia (5.3 percent), China (5 percent). Other developed nations such as the US (16.9 percent), Germany (11.2 percent), France (11.2 percent), and Japan (10.9 percent). The government of India (GoI) intervention in health care is directed to solve two fundamental health insurance penetration problems. First, the pricing of health insurance products and, the second, reasons for the increasing number of uninsured people. Therefore, the government ensures broad reforms to solve the above problems. Thus, the policymakers have a priority plan for health insurance growth by making innovative health insurance products to cover society's entire settlement. In many emerging countries, it has always been challenging to provide funds to health expenditures in particular unorganized sectors. Even health insurance products are priced at an affordable cost. Most of society's segments are still not included in health insurance; there are both supplies and demand-side bottlenecks, resulting in a "missing market." The Insurance Regulatory and Development Authority of India (IRDAI) describes, "Health insurance business means contracts which provide sickness benefits whether in-patient or out-patient, on an indemnity, reimbursement, service, prepaid, hospital or other plans basis, including assured benefits and long term care."

Despite of, health insurance is the fastest growing as an essential tool to fund poor people's health care requirements. The insurance is a crucial requirement, which plays a vital role in pooling risk or uncertainties of unpredicted expenses of every individual's health, falling ill, and need of hospitalization facilities by charging a premium of the same. Present scenario, the annual expenditure on health in India nearly 72 percent of people in rural areas and 79 percent of residents in urban areas per person. The private sector's significant health policies are provided then the public sector to attract uninsured people. With attractive systems, improved technology, the rapid spread of advertisements, and an affordable premium help to the growing demand for better health services. The private sector's foundation of health insurance with the authority of the Insurance Regulatory Development Authority (IRDA) Act 2000 has given ways to utilize the industry and the public to use health care facilities that are available. Overall, there has not been much development in health insurance coverage among the population in the country. It is assessed that about two-fifths of India's GDP originates from the informal sector, and almost 90 percent of families depend on this sector for their livelihood. Based on statistics, primarily enormous quantities of workers are involved in the unorganized sector in urban and rural areas. Most of them are poor, uneducated, helpless, and weak in health

conditions. Their environment, such as workplaces and living places, is not hygienic, leading to many infections and various chronic diseases. Unorganized sector workers family is pushed into debt to meet their daily expenses due to their poverty and low income. Despite that, many of their health expenditure is spent out of their pocket expenses. The poor and other disadvantaged sections, such as the unorganized sector, are mandatory to pay a higher proportion of their health care income. Therefore, they have to borrow money at a higher interest rate to meet medical expenditure and other household requirements. Further, it leads to pushing their families into an area of long-lasting poverty.

In light of the above, the researchers address the following three research questions.

- (1) What are the various sources of awareness that are available for health Insurance?
- (2) What is the level of awareness of health insurance among unorganized sector workers?
- (3) What are the difficulties faced by unorganized sector people to purchase a health insurance policy?

The structure of the article as follows: The first section provides the introduction. Section second presents a review of the literature. The third section offers the research gap and study objectives. The fourth section explains the research methodology. Section five stipulates the data analysis and results. Section six provides conclusion and policy implications.

Review of Literature

Many prior researchers (Ahmed et al., 2016; Bawa and Ruchita, 2011; Dror and Firth, 2014; Jebamalar and Kumar, 2019; Karan et al., 2017; Panda et al., 2015; Panda and Rout, 2018; Reshmi et al., 2007; Savitha and Kiran, 2012; Yellaiah and Ramakrishna, 2012) have examined the health insurance products awareness among the unorganized sector. For instance, Ahmed et al. (2016) evaluated the willingness-to-pay (WTP) for community-based health insurance (CBHI). They explored the determinants among informal workers viz., rickshaw-pullers, shopkeepers, and restaurant workers. The multiple regression analysis was used to determinants of WTP. Informal workers are willing to pay for CBHI, and a difference among socio-economic determinants explains the amount of WTP in urban areas. A study by Bawa and Ruchita (2011) examined the four aspects. First, who are aware of or not aware of health insurance and different sources of awareness? Second, do the respondents have subscribed to it or not? Third, if not subscribed, what are the reasons for unsubscribing? Finally, are they willing to join and pay for health insurance? The study results show that level of awareness is found to be low and influencing various barriers for the subscription of health insurance. Dror and Firth (2014) studied the requirements of the demand for health insurance schemes concerning an informal group of people in low- and middle-income countries (LMICs). The study's findings reveal that the government and policymakers frame financial literacy policy for the effective demand for health insurance among the informal group of people in LMIC. Another study by Jebamalar and Kumar (2019) analyzed the awareness level and usage of

health insurance and examined healthcare costs for non-communicable diseases. The study's findings reveal that around 77 percent of the respondents are aware of health insurance. The main source of information about health insurance is from local government officials and hospitals. The study also found a significant relationship between the loss of wages and total health expenses. Karan et al. (2017) observed that the national health insurance scheme RSBY not having affected the out-of-pocket expenditure among in-patient. The likelihood of incurring any out-of-pocket expenditure among in-patient has been increased by 30 percent because of RSBY, which is statistically significant. Even though out-of-pocket expenditure among in-patient has not changed. RSBY has been ineffectual in decreasing the healthcare burden from out-of-pocket expenditure on poor people. Panda et al. (2015) studied health insurance awareness campaigns before launching community-based health insurance (CBHI) schemes in rural India. The study tried to find an answer to the three basic questions. First, whether the awareness campaign was successful or not? Second, which types of awareness tools are useful among the participants? Finally, does the awareness campaign has resulted in higher enrolment? There is a real difference between understanding insurance principles and understanding CBHI schemes. The study found that the awareness campaign is an important tool for various insurance schemes like CBHI schemes among the rural population is very attractive. Panda and Rout (2018) investigated healthcare expenditure and national health insurance schemes, i.e., Rashtriya Swasthya Bima Yojana and Biju Krushak Kalyan Yojana in Odisha State. The study focused on creating awareness among the population with the help of direct personal interviews. The study found increased friendly behavior of healthcare providers, a clear response by the front desk, increased sum assured amount, and the detailed receipt of hospital expenditure. Reshmi et al. (2007) studied health insurance awareness among the urban population in South India. They employed a cross-sectional to analyze the level of awareness of health insurance. The study found that nearly 64 percent of respondents are aware of health insurance products. It was observed that low socio-economic groups of respondents are also willing to buy health insurance with low premium amount annually, especially government-based health insurance schemes. Savitha and Kiran (2012) examined the awareness and knowledge about Sampoorana Suraksha Programme (SSP) insurance scheme, which is a micro-insurance program initiated by SKDRDP (Sri Kshetra Dharmasthala Rural Development Project) in Karnataka, India. The study found that the level of knowledge and awareness about SSP is more predominant among the insured members than the newly insured SSP members. Yellaiah and Ramakrishna (2012) investigated the socio-economic determinants of demand for health insurance in Hyderabad, India. The study used a logistic regression model to analyze the individual household's choice between purchasing and not purchasing health insurance. The study found that demographic characteristics such as occupation, income, health expenditure are significantly determining the purchase of health insurance schemes.

Research Gap and Study Objectives

Many prior studies have examined various aspects of health insurance, but the little concentration in the field of health insurance buying difficulties of the unorganized sector. Therefore, the present study attempts to fill this research gap by exploring the various buying difficulties of health insurance policy viz., lack of awareness, lack of willingness, lack of insurance agents, lack of flexibility, lack of reliability, and lack of accessibility. Based on this research gap, the present study is directed to achieve the following objectives.

- (1) To know the various sources of awareness tools related to health insurance.
- (2) to evaluate the awareness level of health insurance among unorganized sector workers.
- (3) to explore the difficulties faced by the unorganized sector workers to purchase a health insurance policy.

Research Methodology

The current research is used both primary data as well as secondary data. The primary data collection is done by employing purposive and convenience sampling techniques for selecting 267 sample respondents in the union territory of Puducherry, India. The present study is used in both descriptive statistics and factor analysis. Initially, a pilot study is undertaken with a sample of 30 respondents, which is helped to phrasings the items and revised appropriately based on the respondents' feedback. Finally, an interview schedule is conducted for the collection of the final sample. The Statistical Package of Social Sciences (SPSS version, 22) is used for the data analysis.

Data Analysis and Results

Demographic Characteristics of the Respondents

The demographic characteristics of unorganized sector workers viz., gender, marital status, age, education level, occupation, members in a family, and family annual income level are presented in Table 1.

Table 1: Demographic Characteristics

Demographic Characteristics	Frequency	Percentage
Gender		
Male	180	67.4
Female	87	32.6
Age (in years)		
Less than 25	35	13.1
26-35	112	41.9
36-45	78	29.2
46-55	32	12.0
56-65	9	3.4

Above 55	1	0.4
Marital Status		
Married	209	78.3
Unmarried	43	16.1
Widow	15	5.6
Education level		
Illiterate	98	36.7
Primary school	97	36.3
Higher secondary	45	16.9
Diploma	13	14.3
Graduate	14	4.9
Occupation		
Building construction workers	69	25.8
Agricultural Laborers	72	27.0
Loading and Unloading workers	38	14.2
Fishermen	45	16.9
Auto drivers	43	16.1
Family Annual Income (in INR)		
Below 50,000	104	39.0
50,001-100,000	78	29.2
100,001-1,50000	55	20.6
1,50001-200,000	17	6.4
Above 200,000	13	4.9
Members in Family		
Below 3 members	66	24.7
3-5 members	171	64.0
Above 5 members	30	11.2

Source: Author's compilation based on primary data

The respondent's demographic profile comprises 180 (67.4 percent) male, 84 (32.6 percent) are female respondents. The majority of the respondents are in the age group of 26-35 years (41.9 percent). The majority of the respondents have no formal education, 980(36.7 percent), and primary education 97(36.3 percent). Furthermore, most of the respondents belonged to agricultural laborers 72(27 percent) and followed by building construction workers and fishermen are 25.8 percent, 16.9 percent, respectively. The concern with annual income, the majority of the respondents 104 (39 percent) had income less than Rs.50 000.

Level of Health Insurance Awareness and Subscription

Table 2 shows the health insurance awareness level and subscription rate. The results reveal that nearly 74 percent of the respondents are not aware of or exposed to any health insurance policy. Around 10 percent only were aware or exposed and subscribed to health insurance products, and finally, 15 percent of respondents were aware or exposed and unsubscribed to any health insurance product.

Table 2: Level of health insurance awareness and subscription

Level of Awareness	Frequency	Percentage
Not Aware or not exposed to any health Insurance products	198	74.2
Aware or exposed and subscribed to health insurance products	29	10.8
Aware or exposed and unsubscribed to any health insurance products.	40	15.0
Total	267	100

Sources of Health Insurance Awareness

There are various sources of creating awareness regarding health insurance. Understanding health insurance helps the unorganized sector purchase the policy, and it will help in overcoming health expenditures. Table 3 shows the sources of health insurance awareness.

Table 3: Sources of health insurance awareness

S. No	Sources of Information	Percentage
1	Government	24
2	Friends & Relatives	10
3	Insurance Agents	2
4	Radio or transistor	7
5	Television	20
6	Newspaper	15
7	Internet	4
8	Self Help Groups (SHGs) leader	9
9	Banners/Hoardings	6
10	Grama Panchayat employees	5

Source: Author's compilation based on primary data

Table 3 presents the various source of health insurance awareness. Health insurance from government sources is received (24 percent). Television (20 percent), a new paper (15 percent),

and friends and relatives (10 percent) also sources of health insurance awareness. Only 2 percent reported receiving health insurance policy information from insurance agents.

Exploratory Factor Analysis (EFA)

The exploratory factor analysis (principal component analysis) is a data reduction technique, which uses a large number of variables into a few related dimensions. Factor analysis attains parsimony by explaining the maximum extent of common discrepancy in a correlation matrix using the smallest explanatory contracts. It reduces a large set of data to a smaller subset of measurement variables (Field, 2009).

Reliability of the Measurement Scale Items

Reliability is the technique to which the observed variable measures are "accurate," It ensures more reliable events that may tend to responses are consistent (Hair et al., 1998). The most commonly used measure for identifying the reliability of the whole scale is Cronbach's α . Before application to factor analysis, the scale's reliability was checked with the help of Cronbach's α to assess the internal consistency of the full scale (Malhotra et al., 2006). The standard acceptable lower limit value for Cronbach's α is 0.70, though it may require a reduction of up to 0.60 in empirical research (Hair et al., 1998). The overall Cronbach's α for the six variables of the study is obtained highest value 0.744 and lowest value 0.679; these values are regarded as acceptable, keeping in view the exploratory nature of the research.

The relevance of factor analysis is tested using two essential measures. The first measure is The Kaiser-Meyer-Olkin measures for sampling adequacy (KMO). The value of Kaiser-Meyer-Olkin values between 0.5 and 0.7 is mediocre (Kaiser, 1974). The KMO value in this study is 0.698. The value lies within the acceptable range.

It implies that the measurement is right. The other measure is Bartlett's test of sphericity, and approximate χ^2 statistics is 332.676, with 28 degrees of freedom, which is significant at 1 per level (p-value is 0.000). It indicates a highly significant correlation among the measurement items of the constructs in the research. The study is used factor analysis with 16 measurement items to identify the factors toward the difficulties of purchase health insurance products. Based on the principal component analysis, the rotation method exhibits six factors. Table 4 presents the results of the factor analysis.

Table 4: Results of factor analysis

Factors and measurement items	Eigenvalue	Factor loading	% Variance	Cronbach's alpha value
Lack of Awareness	2.354		15.589	0.744

I don't know the benefits offered by the health insurance policy		0.854		
I don't know about the health insurance policy offered by insurance companies.		0.745		
I don't know how to get a health insurance policy.		0.633		
Lack of Willingness	2.252		12.926	0.723
I don't have the interest to buy a health insurance policy		0.831		
I prefer to invest my money in other investment avenues.		0.615		
Lack of Accessibility	1.089		7.808	0.679
Linked hospitals are not easily accessible		0.694		
Difficulty in availing services in hospitals		0.663		
Lack of Insurance Agents	1.710		11.686	0.740
Inadequacy of knowledge of the insurance agents		0.826		
The behavior of insurance agents is not satisfactory.		0.672		
Difficulty in approaching insurance agents		0.691		
Lack of Flexibility	1.580		10.775	0.714
Lack of sufficient regular income		0.778		
Non-availability of funds		0.762		
The health insurance policy does not cover all of my health problems.		0.601		
Lack of Reliability	1.173		8.332	0.691
The more hidden cost involved, which increases the cost of insurance		0.745		
Too much paper-work is involved.		0.668		
Saving in some other areas to meet health care needs		0.660		

Note: Extraction Method: Principal Component Analysis; Rotation method: Varimax with Kaiser Normalization

Conclusion and Policy Implications

The research paper examines the awareness level of health insurance and buying difficulties in purchasing health insurance in unorganized sector workers. The study results reveal that awareness levels about various health insurance schemes are found to be significantly less among the unorganized sector workers. Factors viz. lack of awareness, lack of willingness, lack of insurance agents, lack of flexibility, lack of reliability and lack of accessibility were identified as unorganized sector workers' difficulties in buying a health insurance policy. The various sources of awareness tools are available in which the uninsured unorganized sector people are mostly aware of the help of televisions, newspapers, and friends and relatives. The results found that nearly 74 percent of the respondents were uninsured and unaware of unorganized sector people. The result found that only 10 percent of respondents subscribed to the health insurance policy. The study's findings provide strategic direction to policymakers to improve the health insurance penetration among the unorganized sector.

The health insurance policy has emerged nowadays; still, workers in the unorganized sector were unaware of a health insurance policy. There are many sources for creating awareness about health insurance. Primarily, television, newspapers, advertisements, and insurance agents. But from these sources, the understanding of health insurance policies was not reached to unorganized sector people at a satisfactory level. Therefore, government and policymakers may design a particular literacy campaign strategy specifically to reach these segment people. The government can also direct the health insurance companies, both public and private, to ensure an innovative literacy strategy to reach the unorganized sector workers.

Despite this, the insurance companies may design demand for health insurance policies specifically for unorganized sector workers in the light of low premium and broad coverage health issues. Consequently, various innovative and attractive health insurance schemes can be developed in the view of unorganized sector workers by considering their interest and priority. Ensure that, which are easily accessible and affordable premium. This results in reducing their unnecessary out-of-pocket expenses for the health issues and leads to better utilization of healthcare services by corporate hospitals.

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Factors affecting Purchase of Apparels among Working & College Going Women – A Consumer Behavior Perspective

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Abstract

Consumers are the king in the markets and without consumers no business can sustain in the market. Studying about consumer behavior has become an essential element in the current scenario. Customer behavior is based on consumer attitude, perception, and personality and so on. Business focuses on consumers and they expect consumers to get satisfied at the maximum. Studying about consumer behavior is essential for all businesses. Purchase behavior is also a significant factor which strongly determines the consumer behavior. Textile and apparel industry is a huge sector which serves almost every individual. Purchase behavior of consumers in apparel is dynamic in nature and thus it paves way for the research. Compared to men, women are more shopaholic and tend to adapt the changes & trends frequently. Thereby, there is an essential to study the women purchase behavior in apparel products.

Based on the literature review and the gaps identified, price, quality, location and promotional factors are identified as a set of factors, to analyze and study the consumer behavior. The purpose and objective of the current research study is to analyze about the selected factors influencing the purchase of apparels among working and college-going women and to compare the purchase behavior of working women and college-going women on apparel purchase. This descriptive research study used simple random sampling method to collect the data from working and college-going women in Chennai city. 236 responses were used for the further analysis. The study used Mann-Whitney Test and Friedman Test to identify the significant factors and the difference between purchases of apparel among two different groups of women. It is found from the study that; quality is found to be more important factor considered by the consumers for purchasing the apparel.

Keywords: Consumer Behavior, Apparel, Location, Price, Quality

Introduction

Marketing is a tool used by almost all the companies for exchange of information/products with its customers. “Marketing is a social & managerial sequence by which individuals & groups obtain what they need & want through creating and exchanging products & services and value with other people” (Kotler, 2000). Modern marketing techniques wholly depend on consumer behavior to assess about the product performances. Companies strive hard and put in their maximum efforts to study the consumer behavior to predict the future sales & profit. Consumer behavior depends on the individual consumers buying attitude and decision. As defined by Kotler and Keller (2006), “consumer behavior is the study of how individuals, groups and organizations select, buy, use and dispose of goods, services, ideas, or experiences to satisfy their needs and wants”. Exploring about the consumer behavior pertains to the study of consumers mainly based on their demographic and behavioral factors. To be a market leader and yield more profit, analyzing on the consumer behavior for any product is essential in the recent times.

From the early times, women are more attached to the apparels in India. Women love to wear new dresses and they are very particular in the selection of apparels. In any segment of women either working or college-going women prefer apparel as most important and desirable product purchase for any occasions. There are varieties of apparels for women such as sarees, salwars, kurtis, cholis, suits, jeans & tops, etc. Women do consider and narrow down their purchase according to the quality, offers, price, past experience, word of mouth communications, royalty, etc.

This paper attempts to study about the purchase of apparels among working and college-going women in Chennai city with pertaining to some selected factors.

Review of literature

Customers are attracted through marketing strategies. The quality of marketing strategies depends on knowing, serving, and influencing the customers. The success of a business depends on achieving the organizational objectives efficiently. Knowledge and information about consumers is vital for developing flourishing marketing strategies, as it challenges the marketers to think & analyze the relationship among customers & marketers.

Consumer behavior as a discipline emerged in the 1960s and is characterized by two paradigms, they are, positivist and a non-positivist (Pachauri, 2001). The study of consumer behavior is essential to the marketers because it enables them to understand and predict purchase behavior of consumers in the market. Consumer Behavior is one of the most important in business element, because the goal of business is to satisfy the customers and earn more profit.

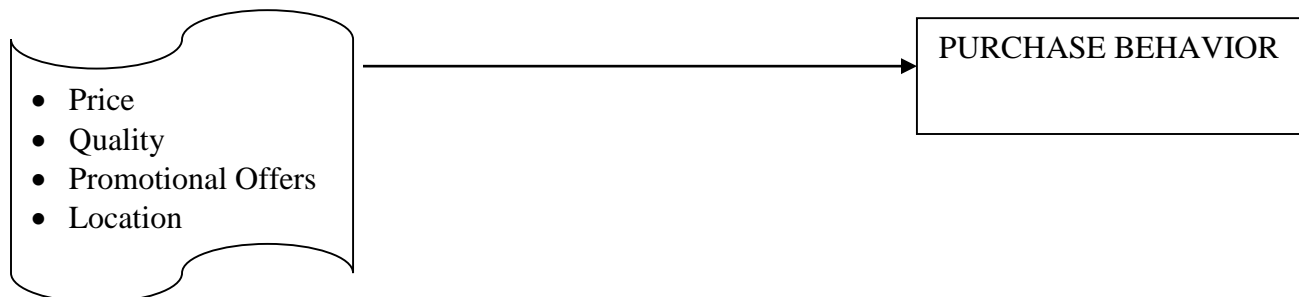
Apparel industry is a vast and big retail industry, where is a large scope for studying about the consumer purchase behavior. Asif and Kaushik (2017) found that there is a significant relationship

exists between age of the consumers and location of buying apparels. Meanwhile, Maran, Badrinarayanan and Kumar (2018) identified the buyer's behaviors and their perceived value towards branded readymade garments in Chennai city. Previously, Gurunathan and Krishnakumar (2013) also studied about the apparel buying behavior of Indian buyers through 5 variables, such as, quality, reference, store properties, advancement and item characteristics. Authors found that store quality advancement and reference groups are the significant factors of apparel buying behavior.

Though there are many studies which have focused on purchase behavior and apparel purchase, there is a vast gap to study about the purchase of apparels among working and college-going women in Chennai city with reference to specific factors. That paved way for the current research.

Research Gap

There is more competition in the sale of apparels and the sellers are not much aware of the factors which dominantly influence the consumers on their purchase of the same. From the literature it is found that, many research studies have focused on the areas of retail sales but the current study very specifically analyses about the certain selected factors which influence the purchase behavior of apparels among working and college-going women in Chennai city.



Purpose & Objective of the Research

The basic purpose of this research is to identify the selected factors which strongly influence the purchase behavior of apparels among working & college-going women. The study also attempts to compare the purchase behavior of apparels among working & college-going women in Chennai

The objective of this study is to analyze about the selected factors influencing the purchase of apparels among working and college-going women and to compare the purchase behavior of working women and college-going women on apparel purchase.

Research Methodology

As it was easy and less expensive to collect the data from the sample respondents, this descriptive research used simple random sampling method to collect the data from the samples. Working and college-going women in Chennai city were shortlisted as the sample for the study. 350 survey instruments were circulated based on the pilot study and 236 responses were statistically fit for the further analysis.

The purchase of apparels among 2 different groups of women was analyzed through SPSS 14. As per the objective framed for this research, the analysis was carried down to find comparatively, which factor (price, quality, location and offers) strongly influenced the purchase behavior of apparels among working & college-going women. Mann-Whitney Test and Friedman Test were used to identify the significant factors and the difference between purchases of apparel among two different groups of women

Analysis and Discussion

Table 1: Showing Mann-Whitney Test: Purchase Behavior and working & college-going women

Dependent Variable	Category	Mean Rank	Z-value	Sig
Purchase Behavior	Working Women	123.5	-0.35	0.72
	College-going Women	118.0		

Since, the p value is greater than 0.05, the null hypothesis is accepted at 95% of significance level. Thus, there is no significant difference between working women & college-going women on their purchase behavior of apparels. All women explicit the same purchase behavior when it comes to apparels.

Table 2: showing the mean rank (Friedman Test) of the purchase behavior related factors

Factors	Mean Rank	Chi-square	Sig
Apparel sale Location	2.50	69.30	0.000
Price of the Apparel	2.11		
Quality of the Apparel	2.89		
Promotional offers for the Apparel	2.51		

This study results portrayed that, quality of the apparel is the most important factor considered by the respondents and it also possess 2.89 as the mean rank. Comparatively, promotional offers and

location is also considered as nearly important while both categories of women making their purchase of apparels. Though price is also a significant factor while making purchase of apparel, working & college-going women consider comparatively less important (mean score of 2.11).

Recommendations

Women tend to purchase more but their purchase behavior is diversified. The scope for sale of apparel is more as the consumers' needs and wants are always at its high on demand. Drafting of attractive sales promotion strategies to consumers will fetch more profits. Eye catchy offers and gifts will pull the customers into the shops and it would increase the sales volume. Customers always look forward for a better-quality of apparels during their purchase decision process. Rendering of superior quality of apparels at a reasonable price will retain the customers for a longer period of time and it will also enhance them to be a loyal customer.

Conclusion and Limitations of the Research

It can be concluded from the results of the current study that, both the working and college-going women determine their purchase of apparels based on price, quality and gift offers provided for the apparels. It is also found that both the categories of woman are not particular with location of the shop for the purchase of apparels. Consumers feel very happy even to travel more distance and buy what they like and love. Distance does not matter in consumer purchase decision process. But, consumers are very particular about the price, quality and the sales promotion offers which are provided to them while making a purchase decision.

The present study also faced some of the limitations in the process of the research. As the sample size is less, the result may not be exact and may not be generalized to other locations. Moreover, it was even very challenging to collect data in a very short span of time. Personal bias among the respondents was also an uncontrollable factor.

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Abstract

Consumers are the king in the markets and without consumers no business can sustain in the market. Studying about consumer behavior has become an essential element in the current scenario. Customer behavior is based on consumer attitude, perception, and personality and so on. Business focuses on consumers and they expect consumers to get satisfied at the maximum. Studying about consumer behavior is essential for all businesses. Purchase behavior is also a significant factor which strongly determines the consumer behavior. Textile and apparel industry is a huge sector which serves almost every individual. Purchase behavior of consumers in apparel is dynamic in nature and thus it paves way for the research. Compared to men, women are more shopaholic and tend to adapt the changes & trends frequently. Thereby, there is an essential to study the women purchase behavior in apparel products.

Based on the literature review and the gaps identified, price, quality, location and promotional factors are identified as a set of factors, to analyze and study the consumer behavior. The purpose and objective of the current research study is to analyze about the selected factors influencing the purchase of apparels among working and college-going women and to compare the purchase behavior of working women and college-going women on apparel purchase. This descriptive research study used simple random sampling method to collect the data from working and college-going women in Chennai city. 236 responses were used for the further analysis. The study used Mann-Whitney Test and Friedman Test to identify the significant factors and the difference between purchases of apparel among two different groups of women. It is found from the study that; quality is found to be more important factor considered by the consumers for purchasing the apparel.

Keywords: Consumer Behavior, Apparel, Location, Price, Quality

Introduction

Marketing is a tool used by almost all the companies for exchange of information/products with its customers. “Marketing is a social & managerial sequence by which individuals & groups obtain what they need & want through creating and exchanging products & services and value with other people” (Kotler, 2000). Modern marketing techniques wholly depend on consumer behavior to assess about the product performances. Companies strive hard and put in their maximum efforts to study the consumer behavior to predict the future sales & profit. Consumer behavior depends on the individual consumers buying attitude and decision. As defined by Kotler and Keller (2006), “consumer behavior is the study of how individuals, groups and organizations select, buy, use and dispose of goods, services, ideas, or experiences to satisfy their needs and wants”. Exploring about the consumer behavior pertains to the study of consumers mainly based on their demographic and behavioral factors. To be a market leader and yield more profit, analyzing on the consumer behavior for any product is essential in the recent times.

From the early times, women are more attached to the apparels in India. Women love to wear new dresses and they are very particular in the selection of apparels. In any segment of women either working or college-going women prefer apparel as most important and desirable product purchase for any occasions. There are varieties of apparels for women such as sarees, salwars, kurtis, cholis, suits, jeans & tops, etc. Women do consider and narrow down their purchase according to the quality, offers, price, past experience, word of mouth communications, royalty, etc.

This paper attempts to study about the purchase of apparels among working and college-going women in Chennai city with pertaining to some selected factors.

Review of literature

Customers are attracted through marketing strategies. The quality of marketing strategies depends on knowing, serving, and influencing the customers. The success of a business depends on achieving the organizational objectives efficiently. Knowledge and information about consumers is vital for developing flourishing marketing strategies, as it challenges the marketers to think & analyze the relationship among customers & marketers.

Consumer behavior as a discipline emerged in the 1960s and is characterized by two paradigms, they are, positivist and a non-positivist (Pachauri, 2001). The study of consumer behavior is essential to the marketers because it enables them to understand and predict purchase behavior of consumers in the market. Consumer Behavior is one of the most important in business element, because the goal of business is to satisfy the customers and earn more profit.

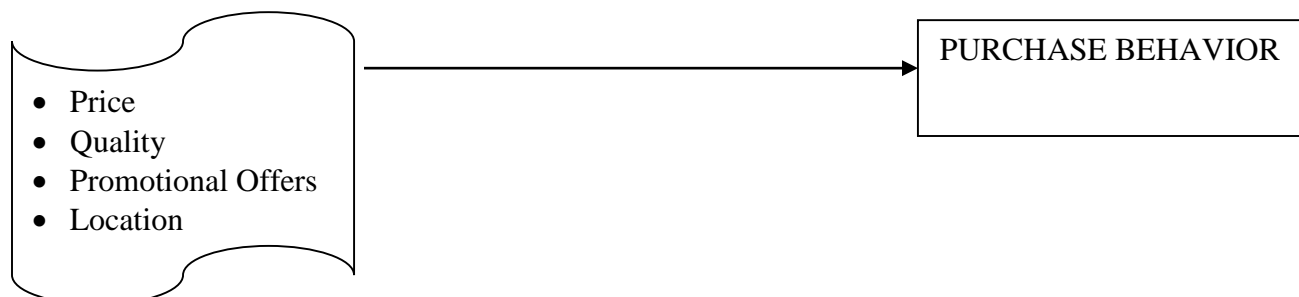
Apparel industry is a vast and big retail industry, where is a large scope for studying about the consumer purchase behavior. Asif and Kaushik (2017) found that there is a significant relationship

exists between age of the consumers and location of buying apparels. Meanwhile, Maran, Badrinarayanan and Kumar (2018) identified the buyer's behaviors and their perceived value towards branded readymade garments in Chennai city. Previously, Gurunathan and Krishnakumar (2013) also studied about the apparel buying behavior of Indian buyers through 5 variables, such as, quality, reference, store properties, advancement and item characteristics. Authors found that store quality advancement and reference groups are the significant factors of apparel buying behavior.

Though there are many studies which have focused on purchase behavior and apparel purchase, there is a vast gap to study about the purchase of apparels among working and college-going women in Chennai city with reference to specific factors. That paved way for the current research.

Research Gap

There is more competition in the sale of apparels and the sellers are not much aware of the factors which dominantly influence the consumers on their purchase of the same. From the literature it is found that, many research studies have focused on the areas of retail sales but the current study very specifically analyses about the certain selected factors which influence the purchase behavior of apparels among working and college-going women in Chennai city.



Purpose & Objective of the Research

The basic purpose of this research is to identify the selected factors which strongly influence the purchase behavior of apparels among working & college-going women. The study also attempts to compare the purchase behavior of apparels among working & college-going women in Chennai

The objective of this study is to analyze about the selected factors influencing the purchase of apparels among working and college-going women and to compare the purchase behavior of working women and college-going women on apparel purchase.

Research Methodology

As it was easy and less expensive to collect the data from the sample respondents, this descriptive research used simple random sampling method to collect the data from the samples. Working and college-going women in Chennai city were shortlisted as the sample for the study. 350 survey instruments were circulated based on the pilot study and 236 responses were statistically fit for the further analysis.

The purchase of apparels among 2 different groups of women was analyzed through SPSS 14. As per the objective framed for this research, the analysis was carried down to find comparatively, which factor (price, quality, location and offers) strongly influenced the purchase behavior of apparels among working & college-going women. Mann-Whitney Test and Friedman Test were used to identify the significant factors and the difference between purchases of apparel among two different groups of women

Analysis and Discussion

Table 1: Showing Mann-Whitney Test: Purchase Behavior and working & college-going women

Dependent Variable	Category	Mean Rank	Z-value	Sig
Purchase Behavior	Working Women	123.5	-0.35	0.72
	College-going Women	118.0		

Since, the p value is greater than 0.05, the null hypothesis is accepted at 95% of significance level. Thus, there is no significant difference between working women & college-going women on their purchase behavior of apparels. All women explicit the same purchase behavior when it comes to apparels.

Table 2: showing the mean rank (Friedman Test) of the purchase behavior related factors

Factors	Mean Rank	Chi-square	Sig
Apparel sale Location	2.50	69.30	0.000
Price of the Apparel	2.11		
Quality of the Apparel	2.89		
Promotional offers for the Apparel	2.51		

This study results portrayed that, quality of the apparel is the most important factor considered by the respondents and it also possess 2.89 as the mean rank. Comparatively, promotional offers and

location is also considered as nearly important while both categories of women making their purchase of apparels. Though price is also a significant factor while making purchase of apparel, working & college-going women consider comparatively less important (mean score of 2.11).

Recommendations

Women tend to purchase more but their purchase behavior is diversified. The scope for sale of apparel is more as the consumers' needs and wants are always at its high on demand. Drafting of attractive sales promotion strategies to consumers will fetch more profits. Eye catchy offers and gifts will pull the customers into the shops and it would increase the sales volume. Customers always look forward for a better-quality of apparels during their purchase decision process. Rendering of superior quality of apparels at a reasonable price will retain the customers for a longer period of time and it will also enhance them to be a loyal customer.

Conclusion and Limitations of the Research

It can be concluded from the results of the current study that, both the working and college-going women determine their purchase of apparels based on price, quality and gift offers provided for the apparels. It is also found that both the categories of woman are not particular with location of the shop for the purchase of apparels. Consumers feel very happy even to travel more distance and buy what they like and love. Distance does not matter in consumer purchase decision process. But, consumers are very particular about the price, quality and the sales promotion offers which are provided to them while making a purchase decision.

The present study also faced some of the limitations in the process of the research. As the sample size is less, the result may not be exact and may not be generalized to other locations. Moreover, it was even very challenging to collect data in a very short span of time. Personal bias among the respondents was also an uncontrollable factor.

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Thorium: The Fuel of the Future

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Abstract

The overall purpose to write this research paper was to ascertain and elaborate the potential and feasibility of thorium to be used as a useful resource. Literature review in the research paper focuses on compiling useful information and conclusions from other sources about the use of thorium and also the comparison of thorium with uranium. The research methodology briefly describes the way in which the research was conducted by the team, and various tools that were used. Further, a section of the research focused on explaining in depth the consequences of Thorium on global climate change and environment. Moving forward, the section ‘trends & prospects of Thorium’ touched upon the current scenario of Thorium and several nations actively researching about Thorium and also the future prospects of Thorium based on the current progress. In the next part, a different angle is analyzed; Thorium and its role in nuclear proliferation and terrorism. It is compared with its widely used counterpart, Uranium, as well. Additionally, a comprehensive SWOT analysis is also conducted and represented in a comparative form.

Keywords: Thorium, Green Energy, Nuclear Energy, Sustainability, Nuclear weapon

INTRODUCTION

Nuclear power is generated by using nuclear reactions that generate heat by releasing nuclear energy, then steam turbine receives this nuclear energy and this is how the electricity is produced in a nuclear power plant. As of now, the nuclear fission reaction in uranium and plutonium is the most used method. While decay and fusion remains less used method in order to generate energy at this point in time.

(Rising, 2020) In 2018 electricity generated by nuclear energy contributed 2563 terawatt long stretches of regular citizen power which is 10% of worldwide power age which makes it the second biggest low carbon power source after hydroelectricity.

(Ritchie, 2020) The fatalities rate per unit of energy created of nuclear power is most minimal in contrast with any remaining fuel sources like coal, petrol, petroleum gas and hydroelectricity which have caused more fatalities via air contamination and mishaps. Since its commercialization during the 1970s, nuclear sources have forestalled about more than a million air related infections and the discharge of around sixty four billion tons of co2 identical that would have in any case come about because of the usage of non-renewable energy sources.

Coal, oil, petroleum gas and hydroelectricity each have caused more fatalities per unit of energy because of air contamination and mishaps. Mishaps in nuke energy stations, the Chernobyl catastrophe for the Soviet Union in 1986, the Fukushima Daiichi atomic debacle in Japan in 2011, and the more contained the 1979 mishap of Three Mile Island in United States. There have likewise been some atomic submarine mishaps.

There is contention about nuclear power. Safeguards, for instance, the World Atomic Association and Environmentalists for thermal power, fight that nuclear power is a protected, reasonable fuel source (also thermal power was proposed as maintainable sustainable power) that lessens carbon releases. Anti-nuclear bodies, for instance, Greenpeace and NIRS, battle that nuclear power presents various risks to people and nature.

(Katusa, The Thing About Thorium: Why The Better Nuclear Fuel May Not Get A Chance, 2012) The normal nuclear cycle starts with refined uranium metal, which is fundamentally U238 yet contains 3% to 5% U235. Most normally happening uranium is U238, however, this typical isotope doesn't go through parting – that is the cycle where the core breaks (parts) and deliveries gigantic measures of energy. Conversely, the less-common U235 is fissile. In that capacity, to acquire the reactor fuel we need to burn through an extensive measure of effort to improve the nature of the yellowcake, to help its extent of U235.

When the cycle begins in the reactor, U235 starts parting and delivering high-energy neutrons. The U238 doesn't simply sit relaxed by, in any case; it changes into other fissile components. At the point when a molecule of U238 retains a neutron, it changes into fleeting U239, which rapidly rots into neptunium-239 and ultimately into plutonium-239 (PU239), which is the weaponizable side-effect of the interaction.

At the point when just 0.3% is left subsequent to consumption, the fuel is spent, yet it contains americium, technetium, and iodine, just as plutonium which are some radioactive isotopes. This fuel that is a waste is exceptionally radioactive and the lowlifes – these high-mass isotopes – have half-existences of a long time. Thusly, the waste must be amassed as long as 10,000 years, segregated from the climate and from any individual who should get at the plutonium for loathsome reasons.

Thorium ends up being more advantageous from the earliest starting point at the mining and decontaminating stage as the vast majority of the normally discovered thorium is Th232, which is the isotope practical in atomic reactors. That is path better than the uranium which is gotten in 3% to 5% just in the structure we need.

Furthermore, another benefit of thorium responses on the security side. Thorium isn't fissile normal for U235. This means it has no effect on the number of thorium cores you pack together; they won't begin parting separated and detonating all alone. It's straightforward and simple to make thorium cores split separated: you simply need to begin tossing the neutrons at them and they will begin responding. At the point when you need to stop the response, simply turn off the wellspring of neutrons and the whole cycle closes down.

RESEARCH OBJECTIVES

- To ascertain how thorium based energy and fuel can potentially be an immensely sustainable source of green energy in the future.
- To know the impact of Thorium on global climate change and environment.
- To evaluate the trends and prospects of Thorium.
- To signify on the fact that whether Thorium could be used as a weapon for Nuclear Proliferation and Terrorism.
- To come across the strengths, weaknesses, opportunities and threats related with Thorium.

Literature Review

(Kazuo Furukawa, 2012) in his study said that in the next century, the "fission breeder" thought will not be practical to deal with the overall imperativeness issues, including common and North-South issues. As another measure, a direct prudent Th fluid salt raising fuel cycle system, named "Thorium Molten-Salt Nuclear Energy Synergetic [THORIMS-NES]", which made out of essential power stations and fissile producers, is proposed. This is reasonable to set up the crucial improvement in issues of resources, prosperity, power-size versatility, antagonistic to nuclear increase and dread based abuse, radio waste, economy, etc ensuring about the fundamental action, uphold, compound getting ready, and objective replicating fuel cycle.

(MichelLung, 1998) claims that the thorium could be utilized essentially in a current reactor. These activities have been essentially brought to a stop for different reasons, besides in India, which has proceeded with its thorium exercises. As of late notwithstanding, new contemplations have resuscitated interest in thorium. An outline of the specificities of the thorium fuel cycle was done and the most fascinating undertakings dispatched during the 1960s are reviewed. The new ideas are examined momentarily and a few lines of thought for what's to come are proposed.

(TuranÜnak, 2000) inscribes that the worldwide appropriations of thorium and uranium saves obviously show that overall some developed nations like the USA, Canada, Australia have significant uranium saves and oppositely just some agricultural nations, for example, Brazil, Turkey, India, Egypt have extensive thorium saves as being absolutely around 70 % of the worldwide save. All specialized boundaries got from the examinations on thorium fuel cycle during the most recent 50 years demonstrate that thorium fuel cycle can be utilized in the majority of reactor types previously worked. Also, sped-up driven mixture frameworks guarantee to utilize the thorium-based atomic energizes. Thus, thorium will likely be an atomic material substantially more important than uranium later on. Hence, all non-industrial nations having thorium stores should center their mechanical considerations to the assessment of their public thorium assets like on account of India. In this paper, a short story on the investigations of thorium and its possible use later on energy creation innovation has been summed up.

(Rubbia, 2013) in this study discovers the groundbreaking advantages of thorium; especially if one ponders that a comparable proportion of electric energy may be made from 3 million tons of coal, from U-235 isolated from around 200 tons of normal uranium, or from just one ton of the hugely bountiful common thorium. Used in a stimulating specialist driven structure, thorium opens options for a safe atomic force, with an amazingly worked on fuel cycle, fundamentally limited creation of seemingly perpetual atomic waste, just as the chance of annihilating existing atomic waste and stores of military plutonium.

(Maiorino & Carluccio, 2004) in the paper wanted to gather these enhancements, with an emphasis in the Th/U twofold layers fuel cycle using ADS. Brazil has one of the best trademark stores of thorium, assessed in 1.2 an enormous number of colossal measures of ThO_2 , as will be kept an eye on the present moment, hence R&D undertakings would be of intentionally public interest. In fact, in the past there was a couple of dares to utilize Thorium in Reactors, as the "Instinto/Toruna" Project, in a joint effort with France, to utilize Thorium in Pressurized Heavy Water Reactor, in the mid of sixties to mid of seventies, and the thorium use in PWR, in investment with German, from 1979-1988.

(Advantage environment, 2012) in this particular article points at several interesting points like even if thorium might not be a renewable resource per se, it is estimated to be at least 3-4 times more common than uranium. Moreover, there is limited radioactive debris when thorium is used as a nuclear fuel. Additionally, it is much more difficult to weaponries the thorium-based nuclear reactors, which is a benefiting factor for the world.

(Lowery, 2014) in this particular research paper illustrates Thorium's potential as a nuclear fuel to alter the future of the world's energy resources. It suggests that with additional full-scale research and development combined with our capability of constructing such a device as a Liquid Fluoride Thorium Reactor, Thorium energy could supply the entire world with enough energy for thousands of years.

(Hubbert, 1956) in this report endeavors to acquire an inexact thought of the world circumstance as for the prerequisites and supply of petroleum products just as whether thermal power from uranium and thorium will actually want to give an option in contrast to the non-renewable energy sources as the last methodology their inescapable weariness. The underlying stock of petroleum derivatives, decreased to a typical unit of energy, comprised of around 70% coal, 14% oil and flammable gas, and around 16% oil shale and tar sands. Is it achievable to in any case rely upon petroleum derivatives for the energy.

(Lenzen, 2008) in this paper depends on optional information gathered through extensive writing survey of energy and ozone harming substance outflows in the atomic fuel cycle. As the direness identified with environmental change has started reestablished interest in the thermal power choice. Considerable stream of examination on ozone depleting substance outflows and encapsulated energy related with atomic produced power. While conventional fossil fuelled power plants cause outpourings just from the plant site, the greater part of ozone exhausting substance radiations in the nuclear fuel cycle are caused in planning stages upstream and downstream from the plant.

(Schaffer, 2013) concludes that the significant contentions that were brought up in the examination for Thorium reactor over its Uranium partner were: Thorium is extensively more plentiful than

Uranium, Thorium reactors can limit squander capacity issues and Thorium reactors are more averse to be utilized for weapons grade materials.

All things considered, Thorium can be an appealing fuel in 3 forty years for created nations.

(Oleg, 2015) in this paper spots the clarification of the impacts which were discovered before in mathematical recreation of boundaries of open thorium-plutonium atomic fuel cycle has been advertised. Logical and specialized arrangements permit thinking about incorporating thorium-232 in the fuel of atomic reactors, which depend on existing plan arrangements, and starting to plan of new age materials: another age of fuel bars and fuel gatherings, where the isotope uranium-238 will be totally supplanted with thorium-232.

(Ault, 2017) in this article represents the advancement of exploration on Thorium fuel over the most recent eighty years of a few nations around the planet. The critical discoveries from this exploration were that over the most recent 10 years, Thorium research has developed. Also, in the 21st century, distribution levels on Thorium fuel has expanded from the top in 1970s, and the idea of these distributions and their fundamental tasks have changed, with public labs, long specialized reports, and trial just as exhibit considers ruling the 1960s–1970s period, while colleges, diary articles, and frameworks examinations have ruled ongoing occasions.

(Jordan, 2015) in this exploration gives a financial appraisal of Thorium accessibility, by utilizing a few factual devices. These apparatuses give two points of view on the financial matters accessibility of Thorium. In the long haul, actual amounts of Thorium probably won't be an obstacle to the advancement of a thorium fuel cycle. Nonetheless, in the medium term, Thorium supply might be restricted by limits related with its creation as a side-effect of uncommon earth components and weighty mineral sands. Natural concerns, social issues, guideline, and innovation likewise present issues for the medium and long haul supply of thorium.

(Stephen, 2012) in this paper endeavors to zero in on whether thorium being a miracle fuel could be utilized as a weapon for expansion or not. It additionally implied on the way that thorium fuel has a few dangers and dangers. The most well-known corrosive media procedure utilizes manganese dioxide to hasten the protactinium as protactinium oxide⁴. Any radiotoxic uranium results are broken up in corrosive and eliminated during the precipitation. This technique was utilized during the 1960s by scientists at Oak Ridge National Laboratory in Tennessee to remove 1 g of ²³³Pa from 200 g of an illuminated thorium compound³.

(NEA, 2015) in this specific article brings up that for us to procure the benefits of Thorium, we will require a lot of uranium-233, which is at present just accessible by the utilization of thorium blended in with 'customary' uranium/plutonium fills. That being said, on the off chance that we figure out how to do this, we will receive a ton of rewards like:

1. Potential for a bigger segment of the fuel being utilized to support the atomic chain response, and in this way less waste delivered for a similar measure of energy created;
2. Higher softening temperatures of thorium-based energizes, which can be critical on account of a mishap;
3. Lower creation of plutonium;
4. Good "neutronic" properties, specifically the number and energy of the neutrons delivered by the splitting responses.

Statement of problem

Through the research we conducted, we were able to gain an in-depth understanding of the prospects and current scenario of Thorium. Moreover, we were able to ascertain the realistic viability of using Thorium to replace its counterpart Uranium. All in all, we feel that our research succeeded in adding additional inputs to the existing research that has been conducted. The main focus of our research is to determine whether usage of thorium as a source of energy can be more feasible and sustainable in compare to any other or all other energy sources of renewable and non-renewable energy.

Research Methodology

Literature review has been directed to gather information from different sources (secondary). This incorporates diary articles, meetings, and report records. Auxiliary Data sources have been gotten from various exploration distributing stages, ecological sites, news sites, business sites, and magazines which were considered during the work area audit. Respectable diaries, books, various articles, gatherings' records, magazines, papers, sites, and different sources were considered on the thermal power.

Discussion and Findings

- **Impacts of Thorium on global climate change and environment**

Climate change is one of the most significant problem wandering around our heads and as the awareness about the topic increases it leads to increase in demand for clean and green energy. Solar, hydro, wind, tidal, biofuels and geothermal energy are a definitely a part of the clean energy equation and help us take advantage of more natural energy but many people in spite of a few disasters argue that nuclear energy is the best option to complete this equation and to reduce the current carbon emission at a considerable rate to avoid catastrophic climate change. But nuclear

energy has other side to it that is radioactive waste, meltdown risks and weapons proliferations and that's when Thorium comes into the play. Thorium based energy does not generate much radioactive waste and even the radioactivity of waste is significantly low as well as it also does not generate plutonium 239 which is used in nuclear weapons.

Indeed, even recognized environment researchers like James Hansen guarantee we can't maintain a strategic distance from atomic on the off chance that we need to decrease ozone harming substance outflows. A previous NASA researcher, many other researcher from different universities composed an open letter a year ago expressing, "the opportunity has arrived for the individuals who treat the danger of an unnatural weather change appropriately to accept the turn of events and organization of more secure atomic force frameworks."

Also, to make thermal power more secure one thought is to utilize thorium rather than uranium. Thorium is more plentifully accessible than uranium and not at all like uranium, it's not fissile but rather ripe; that is, it can't be isolated to make an atomic chain response, so it should be reproduced through atomic reactors to create fissile uranium. As referenced Thorium-fuelled reactors produces less waste. Some minor components in squander uranium stays radioactive for millennia, while levels of radioactivity in spent thorium energizes drop off a lot quicker.

Also, to manage the emergency hazard nations like China and Canada are chipping away at different various plans that incorporates thorium alongside reused uranium fuel and with the correct sort of results the emergency dangers can be diminished or killed. A portion of the reactors that right now use uranium including substantial water reactors can likewise representative Thorium and new advancements like liquid salt reactors and fluid fluoride reactors can be a lot more secure and proficient than momentum regular reactors, as indicated by the specialists.

• Trends & Prospects of Thorium

Thorium, a radioactive component, has been around the world perceived as an intriguing and profoundly planned asset in the world. The worldwide thorium market has been supported by the consistently rising applications in the creation of atomic fuel.

As for the current situation of Thorium as a nuclear fuel, countries like China and India with high Thorium reserves have always been actively attempting to work on the Thorium nuclear fuel reactors. Other nations like the USA, UK, Canada, Germany, Japan and Israel also have active research programs.

(MIT, 2011) Thorium proceeds to continually stand out, particularly since examination into this may permit nations like India, with 61,000 tons in Uranium saves contrasted with 225,000 tons of Thorium holds, to acquire critical energy freedom. Additionally, China has likewise declared that

its scientists will prevail with regards to delivering a completely utilitarian thorium atomic reactor inside the following 10 years.

Norway is at present amidst a four-year trial of utilizing thorium fuel bars in existing atomic reactors. Also, specialists at the Nuclear Research and Consulting Group, a Dutch atomic examination foundation, figured out how to fabricate a liquid salt reactor fueled by Thorium, which is an incredible turn of events.

All in all, in spite of some current drawbacks, recent progress and development shows that Thorium nuclear fuel reactors might become a reality sooner than we can anticipate.

- **Thorium: as a weapon for Nuclear Proliferation and Terrorism**

Nuclear Proliferation is alluded to the spread of atomic weapons, atomic weapons' innovation, or fissile material to regions that don't as of now have them. It can likewise be named as the conceivable obtaining of atomic weapons by psychological militant association or other furnished gatherings. When contrasted with U-Pu cycles, thorium could be for the most part acknowledged as expansion safe. The compound partition of plutonium from the waste makes it effectively fit to be utilized in bombs. Whenever dealt with cautiously, even the reactor-grade plutonium can be utilized as a hazardous. Shirking of plutonium through and through makes thorium cycles prevalent in such manner.

Due to U-232, Thorium can protect itself from the hard gamma rays emitted and thus stealing of thorium based fuels become more challenging. The weapon fabrication gets difficult because of the heat from these gammas. Also, the decay chain of U-232 is responsible for the occurrence of these gammas. After the chemical separation of the contaminants, it becomes easier to work with the material obtained. The gammas take long time to come back.

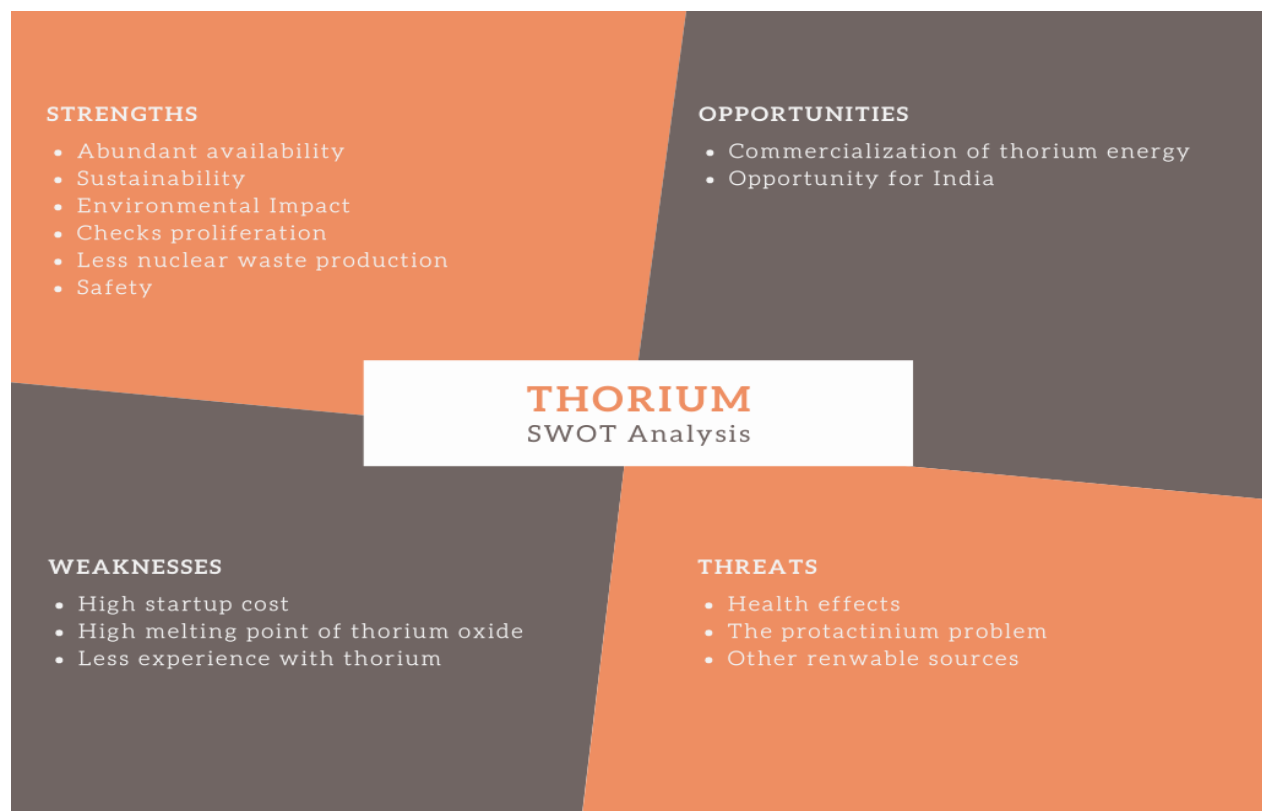
The chemical separation of Protactinium after its production and removal from the neutron flux possesses a hypothetical but possible proliferation concern with thorium fuel. Due to this, it will perish to pure U-233. Also, U-235 is less dangerous to handle than U-233 which makes it more difficult while crafting a nuclear weapon. Uranium is a chemically less stable fuel than thorium. However, there is still an underlying potential for danger after the performance of early nuclear tests utilizing thorium.

- **Cost benefit analysis of Thorium**

The expense of fuel to produce thorium energy is fundamentally lower than a strong fuel reactor. The price of salts and thorium is about 150 dollars and 30 dollars respectively.

The mainstream thorium gets the lower the expense gets as thorium is broadly accessible anyplace in the world's covering. Verifiably, in the uncommon earth metal mining thorium used to get thrown out as a side-effect. With extraction, we can get thorium that could control LFTRs for millennia. Since LFTRs use thorium in its characteristic state, and no costly filtration cycles or strong fuel poles are required, which means the fuel costs are altogether lower than a similar strong fuel reactor. That is for a 1 GW office, around \$5 million will be the material expense., The post synthetic reprocessing would permit a LFTR to productively burn-through virtually the entirety of its fuel, leaving minimal waste or result dissimilar to a regular reactor, in an in a perfect world working reactor.

SWOT Analysis



“Figure I – SWOT analysis of Thorium”

Strengths:-

- **Abundant Availability:** (whatisnuclear.com, 2007)Thorium is more bountiful in Earth's Crust, at centralization of 0.0006% VS 0.00018% for Uranium. Additionally, it is discovered

that there is considerable Uranium broken down in ocean water while there is 86,000X less Thorium in there.

- **Sustainability:** one can create undeniably additional time energy and cash with thorium as it produces much more energy per ton.
- **Environmental Impacts:** The significant impediment of coal is its negative effect on the climate. Coal-consuming energy plants are a significant wellspring of air contamination and ozone harming substance outflows. Notwithstanding carbon monoxide and hefty metals like mercury, the utilization of coal discharges sulfur dioxide, a hurtful substance connected to corrosive downpour. While thorium energy doesn't produce carbon.
- **Checks Proliferation:** Multiplication is immeasurably abridged by thorium-based force reactor fuel as it is a helpless hotspot for fissile material. Presence of U-232 in Thorium prompts the development of a solid gamma radiation field that upgrades the recognizability and capacity to shield the material.
- **Less Nuclear Waste Production:** When contrasted with other atomic powers, less measures of waste are delivered by thorium atomic force reactors and the radioactivity levels of thorium squander are found to fall in a lot more limited period.
- **Safety:** Mining thorium is more secure and more proficient when contrasted with mining of Uranium or coal. Additionally, there are critical measures of thorium in thorium's metal monazite, hence making the component's extraction financially savvy absent a lot of effect on the climate.

Weakness:-

- **High Start-Up Costs:** Thorium atomic force reactor requires a critical measure of testing, examination, and permitting work and subsequently, tremendous ventures are required. Additionally, the profits on the ventures of such reactor are unsure. Other than speculation costs, the reactors include high fuel creation and reprocessing costs.
- **High Melting Point of Thorium Oxide:** When contrasted with uranium oxide, the dissolving point of thorium oxide is a lot higher (500 degrees Celsius higher) because of which high temperatures are expected to make high thickness ThO₂ and ThO₂-based blended oxide fills.
- **Less Experience with Thorium:** The nuclear experts are lacking operational experience with thorium due to which the nuclear industry is quite conservative about it.

Opportunities:-

- **Commercialization of thorium energy:** There is a huge scope of advancement if we commercialize thorium because one thorium plant is more sustainable than one coal plant or an uranium plant.

- **Opportunity for India:** India arguably has the world's largest thorium reserve and if India successfully is able to convert it into an energy source then it will become one of the super powers in the world.

Threats:-

- **Health Effects:** It is critical to arrange thorium as indicated by the appropriate methodology close to dangerous waste destinations as individuals living close to these locales may get presented to uncontrolled a lot of thorium than expected as they take in wind-blown residue. Unordinary openness to thorium may expand the odds of improvement of lung and pancreas malignant growth and lung infection. Thorium is radioactive and in this way can even reason bone disease.
- **The Protactinium Problem:** Pa 233 is shaped as a transitional during the transformation chain of Th-232 to U-233, which has a more drawn out half-life in the uranium fuel cycle. To finish the rot of Pa-233 to U-233 and maintain a strategic distance from loss of any U-233 fissile material, the cooling season of in any event a year preceding reprocessing is important. If not dealt with cautiously, there could be a drawn out radiological effect due to the development of Pa-231.
- **Other renewable sources:** Solar energy is quite popular and widely used when it comes to renewable energy. It's more accessible and is not dependent on any fuel.

Conclusion

The main objective of to write these paper was to show a clear comparison between Thorium energy and other sources of energy and show the impact of adapting thorium energy in different perspectives like environmental perspective, economical perspective, future trends and nuclear proliferation. And to make the comparison more clearly we have also include SWOT analysis (strengths, weakness, opportunities and threats). After collecting all the data and analyzing it we have found that thorium is proven to more cost effective. Its waste can't be converted in nuclear weapon and less radioactive. It's also sustainable and consumes less land space as compared to solar and wind. It doesn't harm the environment as thermal and has potential to replace thermal energy.

On the bases of our research we strongly recommend thorium to be considered as a potential alternative to uranium and all other energy sources in general. As it is safer in compare to uranium, more economically viable as it is abundantly available and unlike solar energy it consumes way lesser land, it is environment friendly and has no risk of its left over being used for the destructive weapons. But we also understand that due to lack of research and not many experiments with thorium we can't come to any conclusion. We strongly suggest that more studies and experiments

should take place and should be supported by the concerned authorities as it shows very strong possibilities of becoming the fuel of the future before coming to any conclusions.

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Business to Business strategies bringing technologies and Consumer experiences together

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Abstract:

The aim of this research is to consider the role of market in fostering long-term market success. Business sector trends such as data analytics, the Wearable technology, and the smart manufacturing play a constructive role in stimulating IT deployment, that leads to long-term market growth. Furthermore, the productive interaction between business and IT execution is bolstered by organizational policies and procedures. The inputs represent a wide range of latest projects in business-to-business public relations. Although the majority of the submissions in this recent section concentrate on developing and deploying specific tools and technologies to improve global standing and output success, there are a few exceptions.

Keywords: Business to Business consumer experience, Technology and B to B, Integration of technology and B to B, Iot and business

Introduction

Business transactions are usually more specific than B2C encounters, the purchaser's trip with B2B is much more critical than B2C's. Sometimes, transactions require meetings and communication with members and sales staff rather than, say, simply adding items to the cart in a grocery store. B2B buyers considered it was considerably easier to communicate with sales agent is superior than to depend on information under their own. It should also through the integration of a sales representative with IT. This pattern can lead vendors to look for ways to increase the value of their good or service by engaging more from a live person on transactions - Laura Patterson of Vision Edge. Companies expect a closed-loop mechanism in which each role cares about providing a good service, and senior executive guarantees that the deal holds all minute expectations in line and therefore connected to the end result. Method, consisting of three forms of customer tracking: historical trends, existing trends and likely patterns (Meyer & Schwager, 2007). Basically any company can be seen as a set of operations that, taken collectively, lead to market demands by developing, manufacturing, distributing and billing for services and products. A typical great achievement of this kind puts a knowledgeable program in the hands of a single individual who can then execute several stages of a procedure for a single vendor or transaction rather than having many employees in multiple departments managing the same event, reducing waiting time drastically (Hamscher, 1994).

The company's investment decision is driven by the policy-maker's expectations with the vendor relationship, the contract-level perception and the experiences between both the client and the contract-level variables (Bolton and et al, 2008). Business sector depends on the development of manufacturing processes and on the growth of scales to reduce the cost of product. Supporting branding of goods and creating a value system will further improve the industry (Theodorou, 2011). Knowing the mechanisms for the effect of the Internet is important for informing decisions affecting social, commercial and national policy. Consumers need better knowledge to know if rationing their time online or determining growing Internet users are in their long-term needs (Kraut and et al, 2002). Market insights into experiences — such as the way experiences can be recalled, how positively and negatively memories can coexist, knowing to perceive experiential qualities and making reasonable interactions. Experience marketing exploration based on brand experience can lead to customer satisfaction (Schmitt, 2011).

Trade practices also apply to the overall business framework — for particular, long-term partnerships or agreements versus day-to-day transactions without continued commitment (Calvin, 2001). Some main success factors were established, including establishing a relationship dependent on informal patterns of activity, higher rates of knowledge combined with a strong understanding of the potential dangers that change over time in the market climate, and regional investment through competitive landscape transition (Dimitras and et al, 1999). Business model design includes a new value-added approach to define value-added IT by performing ongoing

evaluation and learning in a short period of time, and that business plan to fit in with the market conditions and slowly move on to the market goal.

It's challenging to think of a strategy and understand the marketing strategies and techniques that will better deliver established goals. Particularly considering the task includes such as advertising, matching targets / KPIs, integrating technologies, strengthening analysis, operating closer to sales and much more.

1. Digital and consumer experience

Experiences using emerging technologies allow systems like digital twins and interactive communication activity, such as virtual assistants and support machines. Digital technologies do not automatically override face-to-face interactions, but can work closely, contributing to dynamic service networks. It is important to consider and incorporate consumer interactions around the three worlds - digital, physical, and social 'spaces' to promote better interactions for and with their customers, thus avoiding possible pitfalls. (Bolton and et al, 2018). Experiences are changing as customers are involved actively in the co-creation of new perceptions and technology is constantly resolving experience. For instance in tourism industry, exploring technology as a medium of creativity to improved experience at destinations (Neuhofer and et al, 2012).

Business can identify each of its desired customer segments' preferences and expectations, distribute the information within the organization, and then customizing all marketing relations appropriately. Business activities also can determine that procedures, competencies and activities are customized to each decision point (Meyer & Schwager, 2007). Companies were constantly providing communication programs to promote corporate-consumer experiences or client relations, with the primary objective of cultivating emotional and social relations between consumers and the business (Gill and et al, 2017). The increased competition within the industry, as well as the change in customer engagement and purchasing habits, are primarily attributed to technological advances. Global developments such as social media and smartphones have ushered in a disruption that has culminated in a decrease in conventional "brick and mortar" sales volumes, resulting in the unfortunate loss of long-established entrepreneurs that once dominated the market. Through incorporating emerging technology into the online value system, the convergence of the online and physical environments can concentrate on fostering the experience - based advantages that the in-store experience offers. (Moorhouse and et al, 2018). Branding from a relational viewpoint is gradually being blamed for its flaws, and more holistic, alliance marketing strategies are being promoted. This make a case for implementing a consumer participation approach, that would lead to a better service quality (Calder and et al, 2018)

2.1 Integration of Consumer dynamics and intelligent devices

Shoppers' growing utilization of smart technologies is prompting professionals to recognize their effect on consumer product offerings. Incorporating creative applications of smart technology in a shopping landscape, consumer trends and customer engagement play a key role. It also leads to better understanding of the factors that influence consumer dynamics and satisfaction while using modern technology (Foroudi and et al, 2018). Mostly during search for data and knowledge on support service platforms, there is a need for internet - based services, unlike prior reports that highlighted time distortion as a component of the ideal user satisfaction. The results are that consumers are time aware during a practical journey, with the estimated duration wasted on the website affecting the business performance because of customer experience. Clients that need online presence for the service quality have been recognized. This have important operational effect on financial development in organizations and digital marketing service providers, providing insight into the need for online tech support as well as insight into consumers' time-conscious nature in relation to the relationship with customers (McLean & Wilson, 2016). Companies are increasingly confronted with a crisis of suddenness and also face to satisfy customers' demand for real-time information, knowledge, and customized approaches when shopping. Modern emerging technology, such as teleconferencing, area based mobile applications, and virtual reality, enable a truly customized and interactive atmosphere that facilitates for interactive content and dynamic data sharing in between customers and the brand. The interactive expert and the digital assistant are the two key innovation frameworks that companies are implementing to meet clients' necessities (Parise and et al, 2016)

2.2 Business Intelligence in the Supply Chain

Supply lines are complex networks of many data silos that are hard to incorporate and analyses. Business analytics is the most powerful measure to assess these various processes. Effective utilization of BI is interpreted as the ability to make the process the right thing at the right period in tandem with right suppliers. Key BI developments and innovations that will affect future systems include a common proper inventory management system that is based mostly on process proposed framework with some cutting-edge techniques such as system architecture (SOA), business activity monitoring (BAM), software platforms, and machine learning (Stefanovic N and Stefanovic D, 2009). The convergence of digital supply chains is more and more complex. Exposure to consumer demand must be easily shared, and customer experience transactions must be monitored to provide inventory management. Project management integration depends on specifications and model frameworks to provide end-to-end product integration. Chain management businesses develop system and technology connectivity by specialist intermediary enterprises, for whom the job is to build coordination by interpreting and combining industry data with different entities and processes. It has often resulted in high implementation costs and poor migration. Cloud adoption is supposed to be a premium business model for online distribution networks that are fully compatible. The use of block chain technologies to integrate

digital value chain and infrastructure will result in a transformative shift (Korpela and et al, 2017). Mostly with emergence of startups, e-commerce is expanding and will continue to expand in the coming years. Procurement has been greatly affected by the vast number of businesses that engage in E-commerce. Prospective technology such as the Internet of Things, Deep Learning, and Big Data could be used to improve E-commerce operations in the next generation on a device, organizational, and decision-making basis that is real-time and smart (Yu, Y, 2017). Operations and logistics providers will see which predictive techniques are available for various implementation fields, as well as the shortcomings and potential analysis requirements for decision support approaches in sustainable supply chain environments. (Ivanov and et al, 2017)

2.3 Integration of Iot technology in the industry

Despite the fact that corporate IoT is still a fairly new phenomenon, most businesses in their sector have included smart Iot programmes in their tactical guidebooks, such as those relating to optimizing service operations, growing insight into activities, allowing new markets, and developing new customer value proposition. Such tools have the ability to change the manufacturer's market model, in terms of reducing overhead expenses for its consumers (Chui and et al, 2017). Apart from big companies' technology-driven consumer journeys, small firms' special customer loyalty is focused on human contact with consumers. This knowledge has been shown to be dependent on two facets of customer loyalty: mutual relationships and consumer needs. Company trust is enhanced by contact and individual customer support care, and interpersonal networks promote loyalty. All methods result in happier clients. (Gilboa and et al, 2019). The concept of a Web of Things (IoT), in which nearly all smart devices are wired to the web, holds immense socioeconomic significance. The Internet of Things has the power to change whole markets, prompting corporations to revisit their existing operations. In terms of such difficulties, business strategy development analysis will provide useful information (Bilgeri & Wortmann, 2017). Resources can be built as a value network in today's dynamic, and integrated market world. Developers need to know both a closed environment where the organization uses and reinforces their necessary component of business, and an open environment where parallel businesses have services like expertise resources, engineering resource, and delivery resource on the Open & Closed Conceptual Framework (Uchihira and et al, 2016).

By partnership promotional activities, the use of creative IoT technologies has a significant effect on the development of building strong and stable associations. Issues related to data protection, on the other hand, differ by industry and customer relationships foundations like confidence, engagement, and durability, which may minimize uncertainty. The Internet of Things and communication networking, Consequently, further display that even a mixture of certain two aspects will help to create better communications campaigns, and also potential company ramifications. (Lo and & Campos, 2018)

Conclusion

Owing to a shortage of capital and other industry challenges, technology implementation is often a daunting challenge for Small and Medium Sized businesses. Many technological problems have a negative impact on Firms' long-term market success. On the other hand, will help address a number of technical problems. Objective is to deliver a high degree of organizational efficiency. The obstacles and industry hurdles that the technology must conquer in order to get through the buzz process, demonstrate its economic feasibility, and eventually gain mass adoption. This paper presents a thorough examination of the basic concepts that drive block chain systems, such as communication protocols and smart contracts protocols. Then, after closely studying the data and recent use scenarios, we concentrate on block chain applications for the global economy, informing the state-of-the-art. Customers' decision in greater business-to-business new projects that is more effective than direct leads in further business performance based on the learning, progressive, and current and nature of the situation.

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