SPARKLES

VOLUME II

Socio-Pedagogy & Techno Methodology

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SPARKLES - VOLUME II – SOCIO-PEDAGOGY & TECHNO METHODOLOGY

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Foreword

Research is creating new knowldege

*- **Neil Armstrong***

Today, as the world has undergone a sea change in all fields, including educational development, it is time to recognize the importance of research and to guide both teachers and students about the fundamental component of various studies laced with societal importance. The educational changes necessitated by computing and communication technologies are profound and this book comprises relevant articles and research papers that are written by students with the support of teachers. In this issue of SPARKLES – Socio Pedagogy and Techno Methodology the readers can get information about myriad perspectives on online teaching & learning, smart phones, covidnomics etc. The first giant step of the transdiscplinary approach through this issue will reach miles to traverse the path of Research and Development.

I wish good luck!

R. Geetha

Principal

Shrimathi Devkunvar Nanalal Bhatt
Vasihnav College for Women, Chromepet.

From the Editorial Board

Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women is the first Women's college in Kanchipuram district, Tamil Nadu. The College has carved a niche in women's education by upgrading its status as a Research Institute in 2012 with 6 Departments viz. History and Tourism, Statistics, Physics, Plant Biology and Plant Biotechnology, Computer Science, Commerce and English in 2020, offering Ph.D. programme. Six Research Departments offer Full-time and Part-time Ph.D. Programme and 3 departments offer Part-time Ph.D. programme. At present, there are 10 Under Graduate courses in the aided structure and 15 Under Graduate courses, 14 Post Graduate courses, 5 M.Phil. Courses in the self-supporting structure and there are 52 research scholars. The College caters to the needs of 6000+ students with high standard of education and discipline through committed staff that makes women students wiser and stronger. Our college has always been ahead in promoting research initiatives.

To promote a healthy research and writing culture, the college takes pride in publishing two International Half-yearly Journals – International Journal of Multidisciplinary Research in Arts, Science and Commerce (IJMRASC) and Svādhyāya - International Journal of Trans-disciplinary Research and Development (SIJTRD). SIJTRD promotes the concept of trans-disciplinary research by collaborating with natural sciences. IJMRASC encourages Innovative Research, Review of the existing research, Comparative research of different approaches and its interpretation, problem solving research, community based and social relevant research.

To encourage the art of writing research articles amongst UG, PG students and faculty members of our college, we have taken an initiative to publish a multidisciplinary research book SPARKLES – Socio Pedagogy and Techno Methodology which comprises conceptual articles, technology based research ideas, research findings, and investigative ideas. This is an opportunity for the students to build their technical writing skills and formulate research spirit. The New Education Policy promotes research initiatives among students at the early stage so as to inculcate the quintessence of research skills among our students we encourage them to explore and expose to various societal concepts.

Commerce students have explored on Artificial Intelligence while the computer science students on Entrepreneurship. Business administration has focused on the impact of Covid-19 on environment. Commerce-Honors students have made an extensive study on the consumer's behavior towards buying a product and on working capital management.

Students of Clinical Nutrition & Diabetics have presented their different and varied prospective reviews, guidelines about health and nutrition through a Ketogenic diet, hydration diet and Nutra replacing pharmaceuticals.

Students have also discussed their views on social topics like "NOTA", climate change and transfer of knowledge from technology to students.

We appreciate the efforts of the young researchers who have made their maiden attempt in writing articles for SPARKLES. Students' efforts in understanding the workable research areas and their ability to observe and write investigative or exploratory articles show their research inclination and involvement to provide a viable solution. Their studies reflect a positive direction in the growing trend of research. We are confident that this issue would stimulate the future contributors.

College e-magazine

Board Members

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POSITIVE AND NEGATIVE IMPACTS OF COVID-19 ON ENVIRONMENT

ASMAA AMATULLAH KHAN

BBA - I Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

The global outbreak of COVID-19 is affecting every part of human life. This study intends to explore the positive and negative environment impacts of COVID-19 pandemic such as reduction in air, water, noise pollution, freshwater, decrease in oil demand being the positive effects while increase in medical waste like injections, masks, gloves, etc., illegal deforestation being the negative effect.

***Key words**: COVID-19, environmental pollution, environmental management, lock down, biomedical waste.*

INTRODUCTION

On 31st December 2019 emerged an infectious disease caused by severe acute respiratory syndrome in Wuhan city of China and was declared as an international public health emergency by WHO in a couple of weeks. The transmission of virus mainly occurred through person to person via direct contact. As of 13th January,2021there have been 90,335,008 confirmed cases including 1,954,336 deaths (WHO).

DISCUSSION

EFFECTS OF COVID -19

The COVID-19 has several effects on environment. The restrictions on movement has lead to the slowdown of social and economical activities. It includes both positive and negative impacts like reduction in oil demand, air pollution, availability of more freshwater and negative impacts like increase in the usage of bio-medical waste, difficulty in managing waste, etc.

POSITIVE IMPACT OF COVID-19 ON ENVIRONMENT

A) Reduction inAir Pollution

The closure of industries, transportation, companies has lead to a sudden drop of green house gases emission . In China ,nearly 50% N2O and CO was reduced due to the shutdown of heavy industries. The level of NO2 and PM2.5 reduced by almost 70% in Delhi, the capital of India. [1]

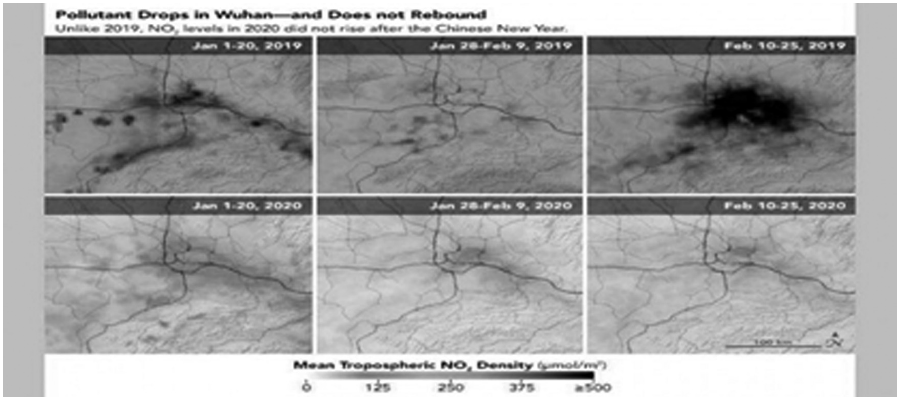


Fig 1: Pollutant Drops in Wuhan

Source: Internet

B) More Fresh Water

There is nearly 20 – 30% of reduction in water consumption of industrial sector due to reduced activities in the majority of industries moreover there has been an exemplified clearness in water equality. [3]

C) Decrease in Demand for Oil

Due to the decrease in fuel demands for factories and travel. There has been a sharp decline by 4,35,000 barrelsa day in the first quarter of pandemic. Combustion of fossil fuel is one of the leading cause of pollution, this decrease is a positive sign for the environment. Oil pollution can cause disrupts in food chain, prevents photosynthesis in plants and can make water unsuitable for irrigation and damage plants.

NEGATIVE IMPACTS OF COVID-19 ON ENVIRONMENT

A) Increase in Bio-medical Waste

Since the outbreak of COVID-19, medical waste generation is increased globally. It is a major threat to environment. According to the data by central pollution control board, India generated over 18000 tons of COVID-19 medical waste between June to September. Wuhan in China produced more than 240 metric tons of medical waste everyday during the time of outbreak. So, waste like needles, bandage, mask, gloves, syringes should be managed properly. [4]

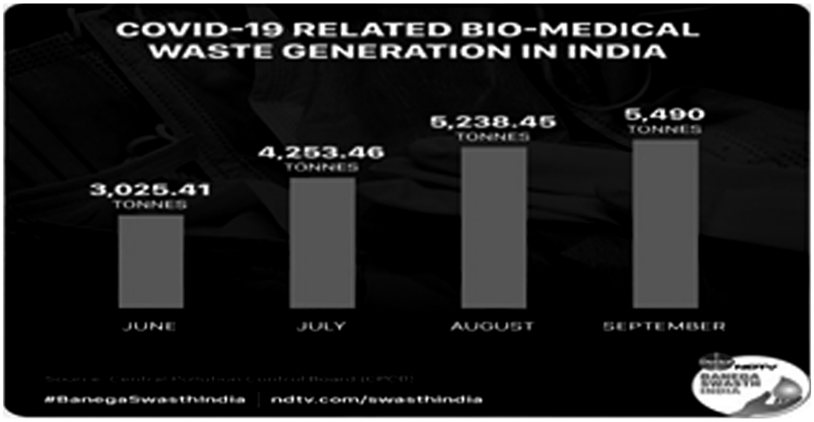


Figure 2: Covid-19 Bio medical waste generation in India

Source: Internet

Threat to Ecosystem

Due to lock down, environmental workers at land ,national parks, conservative zones were asked to stay at their house leaving those area unmonitored. In Namibia, 10 years of conservation work is at risk with animals being poached outside their natural habitats by people in the tourism industry which accounts for 16% of the total employment. [2] [5]

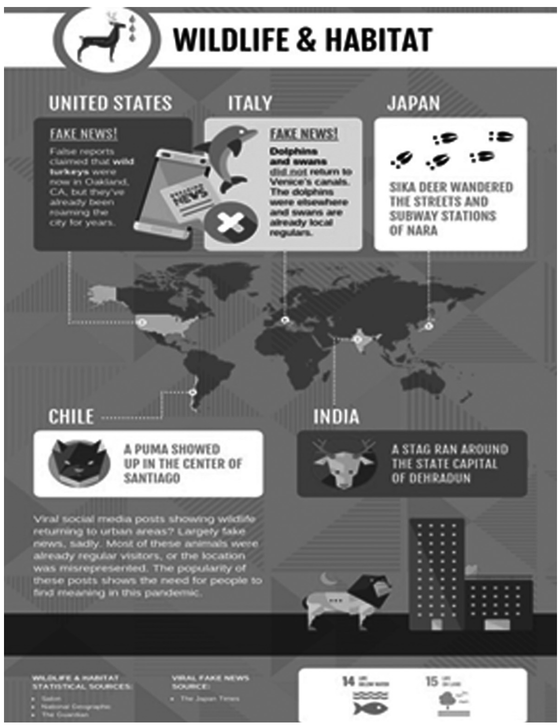


Figure 3: Wildlife and Habitat across world

Source: Internet

CONCLUSION

In conclusion, the takeaway from this is that once nations come to grips with the corona virus, better implementation of the environmental, transport and industry regulations should be considered a priority to ease the detrimental impacts of human activity on the environment.

The international community, as it fights to regain an accepted normal, ought to take into consideration, the enlightening results of this pandemic. The environment, for one, bounced back faster than we thought it could. And it would be downright irresponsible to let that knowledge take a backseat once social distancing and nationwide lock downs are no longer required.

REFERENCES

1. Adams M.D. Air pollution in Ontario, Canada during the COVID-19 state of emergency
2. CPCB , Ministry of Environment , Forest and climate change, Government of India.
3. Clifford.C The water in Venice ,Italy's canals is running clear amid the COVID-19 lock down
4. The times of India, 2020
5. How is COVID impacting the environment around us, Invest India

ARTIFICIAL INTELLIGENCE; ITS TIME TO INNOVATE THE FUTURE

DEVAYANI. K

B.Com - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

Recall how you spend an average day of your life- you get up, then you check your smartphone and You reach your workplace, and then start working over the internet . Can we imagine our life without artificial intelligence or without computers? We humans are lazy species. We would love to live in a world where there is minimal human labour and thus we are able to save plentiful time. Also we are producing huge lumps of data all the time. We as humans need something that processes and handles those data to minimize the strenuous efforts being put into handling it. This processing and handling of data is called data science. Data science in simple words, is the scientific study of data, which stores, records and analyses data for our benefit. Data science and artificial intelligence, are the two most important technologies in the modern world. It makes use of artificial intelligence in its operations. In simple words it is the simulation of human intelligence, which is processed by machines especially computer systems which includes learning information acquisition and rules for using it. When we hear the term artificial intelligence, the first thing that comes to the mind is robots. That's because big-budget films and novels about human-like machines that cause damage on Earth. But nothing could be farther from the truth. As technology progress, previous exemplar that defined artificial intelligence become outdated. For example, machines that calculate basic functions or recognize text through optimal character recognition are no longer considered to include artificial intelligence, since this function is now treated as an inherent computer function. John McCarthy coined the term Artificial Intelligence in 1956 and was defined as the science and engineering of making intelligent machines. Hence AI mainly focuses on developing machines to think and work just like humans. There is no doubt in saying that technology is an essential part of the development and growth. A thin line or mistake leads to disruption or destruction.

Key words: *Artificial intelligence, data science, computer systems, human, machines, science and engineering, innovations.*

INTRODUCTION

Artificial intelligence as known as AI, develops machines, especially computer systems, to perform in a hyper intelligent manner as it includes imitation or cloning of human intelligence. An artificially intelligent system perceives its environment in such a manner that helps its analytical self in maximizing its chances of success. It is programmed to think like humans and mimic their actions through simulation of human intelligence in machines .The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem solving. The ideal feature of artificial intelligence is its potential to rationalize and take actions that have the best chance of achieving a specific goal.

Artificial intelligence is based on the principle that human intelligence can be defined in a way that a machine can easily mimic it and execute tasks, from the most simple to those that are even more complex. The goals of artificial intelligence include learning, reasoning, and perception.AI is continuously evolving to benefit many different industries. Machines are connected using a multi-disciplinary approach based on mathematics, computer science, linguistics, psychology, and more

Artificial intelligence can be divided into two different categories: weak and strong. Weak artificial intelligence embodies a system designed to carry out one particular job. Weak AI systems include video games such as the chess and personal assistants such as Amazon’s Alexa and Apple’s Siri where you ask the assistant a question, it answers it for you.

Strong artificial intelligence systems are systems that carry on the tasks considered to be human-like. These tend to be more complex and complicated systems. They are programmed to handle situations in which they may be required to solve problem without having a person intervene. It helps to carry out multiple tasks on a real time basis. These kinds of systems can be found in applications like self-driving cars or in hospital operating rooms.

OBJECTIVES OF THE STUDY

Main focus of the study is to provide;

- An overview of artificial intelligence.
- An idea about sectors or industry where AI will be applied.
- Brief information about future of artificial intelligence.

METHODOLOGY

Descriptive research design is used for the study.

SOURCES OF DATA COLLECTION

Secondary data was used for the study. Secondary data includes magazines, journal, and newspaper and web resources.

APPLICATIONS OF ARTIFICIAL INTELLIGENCE

The applications for artificial intelligence are never ending. Artificial intelligence today is not just a theory, it has many practical applications. The technology can be applied to many different sectors and industries. A 2016 Gartner research shows that by 2020, at least 30% of companies globally will use AI in at least one fragment of their sales processes. Today business across the world are using artificial intelligence to optimize their process and reap higher revenues and profits.

HEALTH

AI develops significant applications for patient to communicate by creating direct interface between technology and the human mind without using keyboards, mouse and monitors. It enables workflow assistants which help the doctors to free up their schedules and also reduce the time and cost by streamlining processes. AI-powered technology helps pathologists in analysing samples of tissue and helps in accurate diagnosis.

BUSINESS

Main contributions of AI in business is real-time reporting, processing of large volumes of quantitative data, critical decision making etc. With this efficiency and effectiveness of a business, it is quickly able to implement machine learning. The adaptive intelligence, chatbot automation helps to smoothen out the business process. This thus reduces the repetitive tasks that are normally performed by humans. Now-a-days business are able to better serve their customers by including AI in at least one of their domains.

EDUCATION

It must be very tedious for a teacher to grade homework and tests for large lecture courses. A significant amount of time is consumed to interact with students, to prepare for class, or work on professional development. But, this will not be the case anymore. Checking multiple-choice questions, fill-in-the-blank testing and automated grading of students can be done in a moment. It can tell the areas, where there is a need for improvement. A lot of times, it happens that the teachers may not be aware of the gaps that a student might face in the lectures and educational materials. This can leave students confused about certain concepts. With AI, the system alerts the teacher and tell what is wrong. It gives students a customized message which offers hints to the correct answer. This thus helps to fill in the gaps in explanation that might occur in courses. It also ensures that students are building the same conceptual foundation

AUTONOMOUS VEHICLE

Long-range radar, cameras, and LIDAR, a lot of advancement has been made in the autonomous vehicle segment. Some of its usage in autonomous vehicles are:

- Directing the car to the gas station or recharge station when it is running low on fuel.
- Adjusts the trip's directions based on known traffic conditions to find the quickest route.

- Incorporate speech recognition for advanced communication with passengers.
- Natural language interfaces and virtual assistance technologies.

SOCIAL MEDIA

Instagram, Snapchat, Facebook, Twitter, everyone is using these social media apps to stay connected with the virtual world. A majority of our decisions are being influenced by artificial intelligence that is starting from notifications, to up gradations, everything is administered by AI. It considers all the past web searches, behaviours, interactions, and much more. So, while we visit these websites, our data is being stored and analysed and thus we are served with a personalized experience.

TOURISM

Travel around with AI. Right time! Right Price! Competition in the travel and tourism industry is very high because of which prices tend to fluctuate and change often. With predictive analytics driven by artificial intelligence, the price can be predicted. The application is able to predict price patterns and alert travellers when to buy the tickets. So, the cheapest rate can be known before you book the flights to your destination.

HISTORY OF AI

It was 1880's when a great scientist came up with this term and since then a lot of revolutions came in the field which helped the business and the economy to boom. Rome wasn't built in a day, and so is AI. [1]

The seeds of modern AI were planted by classical philosophers who attempted to describe the process of human thinking as the mechanical manipulation of symbols. This work culminated in the invention of the programmable digital computer in the 1940s, a machine based on the abstract essence of mathematical reasoning. This device and the ideas behind it inspired a handful of scientists to begin seriously discussing the possibility of building an electronic brain.

The field of AI research was founded at a workshop held on the campus of Dartmouth College during the summer of 1956. Many of them predicted that a machine as intelligent as a human being would exist in no more than a generation, and they were given millions of dollars to make this vision come true.

Eventually, it became obvious that they had grossly underestimated the difficulty of the project. Hence the U.S. and British Governments stopped funding undirected research into artificial intelligence, and the difficult years that followed would later be known as an "AI winter".

Investment and interest in AI boomed in the first decades of the 21st century when machine learning was successfully applied to many problems in academia and industry due to new methods, the application of powerful computer hardware, and the collection of immense data sets.

1950 John McCarthy who is known as the founder of Artificial Intelligence coined the term 'Artificial Intelligence' in the year 1955. McCarthy along with Alan Turing, Allen Newell, Herbert A. Simon, and Marvin Minsky is known as the founding fathers of AI. Alan suggested the development of machines since humans are always in need of information as well as in search of reasons to solve problems to make decisions.

1974 – With time, they became faster, more affordable and able to store more information.

1980 – The year of AI

In 1980, AI research fired back up with an expansion of funds and algorithmic tools. With deep learning techniques, the computer learned with the user experience.

2000's – Landed to the Landmark

After all the failed attempts, the technology was successfully established but, until it was in the 2000s that the landmark goals were achieved. At that time, AI thrived despite a lack of government funds and public attention.

FUTURE OF ARTIFICIAL INTELLIGENCE

Reinforcement Learning

Reinforcement learning, in simple words, is an algorithm or programming that uses a system of reward and punishment to train algorithms. Reinforcement learning occurs when the machine uses previous data to evolve and learn. We humans as well as animals learn from past data. With the use of state of the reinforcement learning the robots of Boston Dynamics, US, have already learned how to do back flips and jump. [2]

Drastic Change in Employment Sector

Now that many companies are using robotic arms **(like SCARA)** in the routine operational aspects of manufacturing (assembly line operations, etc.), employees can put more focus on the critical aspects of their jobs. Adidas is planning to start Speed factory in Europe. ***Speed factory is an entirely robot-enabled manufacturing plant.*** It aims to reduce errors in manufacturing and shipping time. There will be drastic increase in the unemployment rate in India.

Automated Transportation

It has five levels, which basically represents the extent of autonomy achieved.

- **Level 0**, the driver is responsible for performing all tasks to drive the car- from applying brakes to changing gear to control the steering.
- **Level 1** is driver assistance, where the driver assistance systems support the driver but do not take full control. One such feature is the park assist feature.
- **Level 2**, is when the car can drive alone, but the driver has to be present in case the system fails. Tesla's AutoPilot and Nissan's ProPilot, both provide the steering, acceleration and braking systems, but the driver has to be able to intervene in case of a failure
- **Level 3**, the driver can entirely disengage from driving. But, the driver has to be present to handle any unforeseen failures. Audi's A8L can take up full driving responsibility in slow-moving traffic. This was the first car to claim level 3 autonomy.
- **Level 4**, We can activate full self-driving mode at this level in certain conditions only, like cities and states. They can drive independently, but do require a driver. Google's Waymo project is one such car, which has been operating in the US driver free for some time now.

- **Level 5**, is the ultimate level of autonomous transportation, which requires zero human interaction to maneuver. One example of such cars can be a robotic taxi. However, Elon Musk, the CEO of Tesla claims that they will be ready for this level in 2020.

GAN (Generative Adversarial Networks)

GAN stands for Generative Adversarial Networks. Scientists and researchers regard GAN as an extension of reinforcement learning. A Generative Adversarial Network is a network wherein two neural networks compete with one another and have the ability to capture, analyze, and copy the trends and variations within a data set. This technique can prove useful in criminal identification, in which eyewitnesses or policemen can create an avatar of the criminal by choosing from a set of options.

Caring for the Elderly

As AI is growing exponentially, another benefit that the society can derive from it is that of some sort of an attendant for the elderly. Scientists are working on robots that can provide medical care to senior citizens. There will come a day when we will find robots reminding our parents/grandparents to take medicines, or assist them in carrying out tasks involving motor functions.

Defence

AI’s autonomy makes them suited for hostile situations where sending humans may not be feasible.

CONCLUSION

AI is no more a technology of the future. It is now something that we are living alongside. It is as vast as a child’s imagination. As the age-old saying goes, necessity is the mother of all innovations, so is the case with AI. Human beings know what they need and are good at better defining their wants and quickly transforming this into reality. In the near future, things will happen in a quick pace that we will see major changes and innovation. One thing is clear that it is going to be everywhere, and will be as helpful as electricity. However, the exploitation of AI could be quite destructive. Anyway, we can’t predict the future. So let’s relax and wait for it while we extensively use our Alexas and assistants.

REFERENCES

1. Charniak,Eugene.,1985.Introductionto artificial intelligence.india:pearson education, 663
2. Vempati,shashishekhar.,2016. India and artificial intelligence revolution. washington: Carnegie publication,29.

WEBSITES

1. www.wikipedia.com
2. https://data-flair.training/blogs/future-of-ai/
3. www.bmc.com
4. www.britannica.com

ENTREPRENEURSHIP: MYTHS AND MISCONCEPTIONS TO BE DEBUNKED

CHITRA KIRTHANA. S

BBA - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

This world is full of dreams to be achieved, talents to be shown, creativity to be utilised and also some myths and misconception to be debunked. Myths and misconception are in each and every ideology we, the people, have. But when people set out to become entrepreneur, they back step easily through the myths and misconception prevailing in the minds of people. Entrepreneurs are people who explore and explode. Some of them try to explode the myth by becoming entrepreneur. At present, people still think some of myths regarding entrepreneurship are true. Hence, my research would help you know the false belief towards the entrepreneur career. I wish to clear up some myths and misconceptions you might have about entrepreneurship. When you skim this article, you would come across some myths and misconception to be eliminated from your mind and start a career in entrepreneurship. This article contains my thoughts on myths and misconception in entrepreneurship career.

Key words: *Entrepreneurship, myths, misconception, entrepreneur career, start-up barriers.*

INTRODUCTION

You might have dreamt about the business you want to start and envisioned being financially independent and leaving a legacy. You might possess all passion, drive and ideas to start your empire. Entrepreneurship is a popular topic. As more people aspire to become entrepreneurs, it is important to debunk common myths and misconceptions. To understand entrepreneur's ideology, you must first drop a few stereotypes you may be carrying out. There's a lot of conventional wisdom about entrepreneurship that's just plain wrong. There are so many so-called entrepreneurs who start out with impressive dreams, thinking that they are just one step away from enjoying a life of wealth. One thing these people realize quickly is being a real entrepreneur is not glamorous. Its not easy. It's nothing same as yours see in blockbuster film. It takes real ingenuity, inspiration, planning and hard work. Also being an entrepreneur takes commitment.

BACKGROUND

Coming to the myths and misconception of entrepreneurship, there are several misconceptions which people believe as true and these are hurdles to the business success. And if you are an aspiring entrepreneur, such misconceptions could be getting in your way. People who want to become entrepreneurs are discouraged by the rumours and myths they here about entrepreneurship. So, the following which I have listed here provides some common assumptions about entrepreneurs and explains why they shouldn't be believed. [12]

Entrepreneurs are born not made

One of the most common myth regarding entrepreneurship is entrepreneurs are born and not made. You aren't born as entrepreneur. It's not a character you inherit from your parents. And this is the most popular myth that every family members and relatives remind you especially when you are from middle class. It solely depends on how passionate you are towards becoming an entrepreneur. It you put in the time, effort and work you can be a successful entrepreneur. Entrepreneurs may be gregarious or outgoing extroverts or quite introverts; they may be insightful or more focused on the details of executing an idea. The truth is that entrepreneurs, like other people, have a mix of traits. Some positive and some negative. Entrepreneurism is something to be learned, not a natural born ability. So, when people come with such a statement when you are passionate on becoming entrepreneur, just don't take it seriously and don't quit. [1] [2]

Entrepreneurs take lots of risk

People also tend to think entrepreneurship is about taking more risk which presents itself. You could end up bankrupt if you do so. You have probably heard that higher the risk you take higher the reward you win. You often hear stories about a business owner that mortgaged his/her house and was on verge of bankruptcy when they hit it big. These are storying the media loves to focus on, because they are exciting. Entrepreneurs take risk. With that said, they don't unnecessarily take lots of risk or put themselves in high-risk situations all the time. Entrepreneurs learn to take calculated risk. Its all about balancing the risk and reward. Each risk you take, big or small, has to be calculated as often the business reputation, time and investment is at stake. You won't have much luck getting high returns if you are not willing to take risks. Think If there is no risk- everybody would be doing it. Taking smaller risks and hedging against loss helps you stay around for a lot longer and gives you the time to place a lot more calculated bet. Entrepreneurs aren't gamblers. Gambling is something which involves luck and you can't blindly rely on luck to run your business. So yes, entrepreneurs take risk, calculated risk. [2]

Entrepreneurs are their own boss

Some people don't like working for or under someone else. They volunteer into their own business because they'll be their own boss. Technically yes, an entrepreneur is his/her own boss- but that doesn't mean an entrepreneur doesn't have to answer anyone. But as entrepreneur you'll still have to answer other people. For instance, if you take on VC money you have investors to report to. Your clients, your shareholders and your investors or bank will control most of the decisions you have to make. The freedom of being your own boss is often misconstrued. [2]

Entrepreneurs need one good and original idea to be successful

Some people may not attempt to start their business because they don't have idiosyncratic idea. Many people have the misconception that you must have a good and original concept to be thriving entrepreneur. This is clearly a myth. Original concept is not important, you can also modify an existing product in the market and make it superior. Not only original invention but people believe that good idea to enter the market is important. To be Honest it's not completely false but its misleading. There is nothing wrong with picking up an existing idea and making your own business out of it. Even the supreme ideas, ones with the potential to disrupt an entire industry needs a proper execution to become reality. Idea is important but so are planning, talent, leadership, communication and other factors. Thus, make sure you don't give more weightage towards good and new idea alone.

Entrepreneurs are all wealthy

Don't become an entrepreneur if your only goal is to become rich. Some entrepreneurs falsely believe that starting a business will put them on track to earn substantial amount of money-fast. Maybe you will, but it's not sure. Remember, if you are into entrepreneurship merely to get rich, you are under failures list. Real entrepreneurs are those who see weakness in the market, make plans and attack them respectively. We don't chase the money; we build a solution. Approximately 80-90% of start-up businesses fail because they either chase the money before building a business plan or they never had a plan to start with. Happiness isn't solely based on financial success, though. Many entrepreneurs get satisfaction from bringing products and services to life and impacting people in positive manner than financial return. [3]

Entrepreneurs have flexible work hours

One final misconception is the idea that entrepreneurs have flexible schedule. When you establish your business, you know this statement is ridiculous. Its true that you set your work hours that depends on how much success you want to reap. If you are looking for financial success, be prepared for long schedule. The people who believe that entrepreneurs set their own hours, lounging at the beach around the world after few calls are fooling themselves. Having a flexible schedule doesn't mean you have to work only for few hours. But actually, what a flexible schedule means that you are able to work around your responsibilities. Entrepreneurs don't need to follow 9-5 schedule. Instead, they get to work on their business 24/7. This is because entrepreneurs are responsible for their business growth. [4]

CONCLUSION

Now people who read this will come out of these myths and misconception and start seeing reality in entrepreneurship. If you aspire to become an entrepreneur then you should stop believing in these myths and misconceptions. Entrepreneurs like Mark Zuckerberg, Steve jobs, Bill gates, Jeff Bezos, Ratan Tata and many have revolutionized the world. They provided innovative solutions to the problems that so many had and made impressive amount of wealth. Every day, people only think of these highly successful entrepreneurs when the word entrepreneurship is brought in consideration. Due to this, there is lot of misinformation. At present majority of entrepreneurs are struggling and have to work extremely hard for success. To be a victorious entrepreneur, maybe the first step is to let go of everything you accepted to be true about entrepreneurship. I hope I have cleared some of myths and misconceptions and you have a new perspective about entrepreneurship in general.

REFERENCE

1. Krach. k, 2017. 10 most common entrepreneurship myths: medium.com
2. Carman zac, 2017. 6 misconceptions about entrepreneurship: entrepreneur.com
3. Peter economy @buzzwriter, 2017. These 5 dumb myths about entrepreneurship is just aren’t true: inc.com
4. Neil patel. 10 myths about entrepreneurship that you should know before you start your business: nielpatel.com

A STUDY ON WORKING CAPITAL MANAGEMENT OF TATA CONSULTANCY SERVICES

BRINDHA. U

B.Com (Honours)
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

Financial management focuses on ratios, equities and debts. It is useful for portfolio management, distribution of dividend, capital raising, hedging and looking after fluctuations in foreign currency and product cycles. Financial managers are the people who will do research and based on the research, decide what sort of capital to obtain in order to fund the company's assets as well as maximizing the value of the firm for all the stakeholders. It has been defined differently by different experts in the field. The term typically applies to an organization or company's financial strategy, while personal finance or financial life management refers to an individual's management strategy. It includes how to raise the capital and how to allocate capital, i.e. Capital budgeting. Not only for long term budgeting, but also how to allocate the short term resources like current liabilities. It also deals with the dividend policies of the shareholders. Working capital management is a business strategy designed to ensure that a company operates efficiently by monitoring and using its current assets and liabilities to the best effect. The primary purpose of working capital management is to enable the company to maintain sufficient cash flow to meet its short-term operating costs and short-term debt obligations. Working Capital is basically an indicator of the short-term financial position of an organization and is also a measure of its overall efficiency. Working Capital is obtained by subtracting the current liabilities from the current assets. This ratio indicates whether the company possesses sufficient assets to cover its short-term debt. Working Capital indicates the liquidity levels of companies for managing day-to-day expenses and covers inventory, cash, accounts payable, accounts receivable and short-term debt that is due. Working capital is derived from several company operations such as debt and inventory management, supplier payments and collection of revenues.

Key words: *Working capital management, ratio analysis, short term solvency ratios, turnover ratios.*

INTRODUCTION

Working capital is a financial metric which represents operating liquidity available to a business, organisation or other entity, including governmental entities. Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital. Gross working capital is equal to current assets. Working capital is calculated as current assets minus current liabilities. If current assets are less than current liabilities, an entity has a working capital deficiency, also called a working capital deficit. A company can be endowed with assets and profitability but may fall short of liquidity if its assets cannot be readily converted into cash. Positive working capital is required to ensure that a firm is able to continue its operations and that it has sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses.

WORKING CAPITAL MANAGEMENT

Working capital management is a business strategy designed to ensure that a company operates efficiently by monitoring and using its current assets and liabilities to the best effect. The primary purpose of working capital management is to enable the company to maintain sufficient cash flow to meet its short-term operating costs and short-term debt obligations. A company’s working capital is made up of its current assets minus its current liabilities. Current assets include anything that can be easily converted into cash within 12 months. These are the company’s highly liquid assets. Some current assets include cash, accounts receivable, inventory, and short-term investments. Working Capital Management requires monitoring a company’s assets and liabilities to maintain sufficient cash flow. The strategy involves tracking three ratios: the working capital ratio, the collection ratio, and the inventory ratio. Keeping those three ratios at optimal levels ensures efficient working capital management. Working capital management can improve a company’s earnings and profitability through efficient use of its resources. Management of working capital includes inventory management as well as management of accounts receivables and accounts payables. The objectives of working capital management, in addition to ensuring that the company has enough cash to cover its expenses and debt, are minimizing the cost of money spent on working capital, and maximizing the return on asset investments.

REVIEW OF LITERATURE

Prashant Dixit

In the study titled “Working Capital Management in Selected IT Companies” The purpose of this study were to investigate the impact of working capital management on liquidity, profitability and element of risk on the Infosys and TCS Company. To achieve these objectives, data has been collected from secondary sources and for getting results various kind of financial ratios are used. The financial ratios of both companies are analysed with paired T-test. This study will help to both companies in management of their working capital and improving short term solvency position of the companies. Working capital management was very important element to measure the short term solvency position of a firm and for profitability. [4]

Hussain Muhammad, Ashfaq U Rehman, Muhammad Waqas

In the study titled "The Relationship between Working Capital Management and Profitability: A Case Study of Tobacco Industry of Pakistan" The study were to investigate the relationship between working capital management and profitability of Tobacco Industry of Pakistan. This study was based on secondary data collected from financial statements of selected companies of Tobacco Industry of Pakistan for the period of 2005-2014. Correlation analysis is used to check the relationship between the variables, while multiple regression analysis is used to examine the effects of working capital management on profitability of firms. The result reveals that there was a strong negative relationship between variables of working capital management and profitability of Tobacco Industry of Pakistan. [1]

Melita StephanouCharitou, Maria Elfani, Petros Lois

In the study titled "The Effect Of Working Capital Management On Firm's Profitability: Empirical Evidence From An Emerging Market" In this research investigate the effect of working capital management on firm's financial performance in an emerging market. Using multivariate regression analysis, the results support hypothesis. Specifically, results indicate that the cash conversion cycle and all its major components; namely, days in inventory, days in sales outstanding and creditors payment period-are associated with the firm's profitability. [3]

Sonia Banos-Caballero, Pedro J Garcia-Teruel, Pedro Martinez-Solano

In the study titled "Financing of working capital requirement, financial flexibility and SME performance" This research investigates the relation between the financing strategies of working capital requirement and firm performance for the period 1997 to 2012. Using the two-step generalized method of moments estimator, the findings also a suitable financing strategy can help firms improve their performance .This research indicate that the working capital requirement and financing-performance relation changes during a financial crisis. [5]

H Kent Baker, Satish Kumar, Harsh Pratap Singh

In the study titled "Working capital management: evidence from Indian SMEs" This study examines the practices and policies adopted by Indian small and medium-sized enterprises (SMEs) to manage working capital and its various components. A survey of owners/managers of 269 Indian SMEs identified working capital management (WCM) practices. Findings of the study indicate that Indian SMEs typically have an informal approach toward WCM and these firms try to match the maturity of assets and financing sources. These SMEs mainly depend on internal funding from retained earnings and external funding from a line of credit to fund working capital needs. [2]

OBJECTIVES OF THE STUDY

- To study the sources and uses of the working capital
- To study liquidity position through various working capital ratio

- To study the working capital components such as receivables management, cash management, inventory management
- To make suggestions based on the findings of the study

RATIO ANALYSIS

Current Ratio

Current ratio is also called "working capital ratio". It is used to assets the short term financial position of the business concern. It is an indicator of the company's ability to meet its short term obligations. It matches the total current assets of the company against its current liabilities.

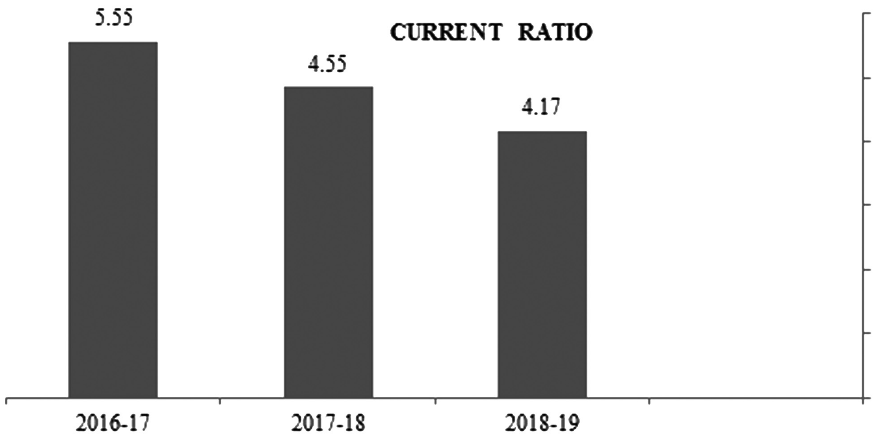


Figure 1: Working capital ratio

Liquid Ratio

Liquid ratio is also known as the "acid test ratio" or "quick ratio" or "the near money ratio". It is only a variation of current ratio. It explains the relationship between liquid assets and current liabilities. Liquid ratio is a better test of financial liquidity because it places more emphasis on immediate conversion of assets into cash than does the current ratio. A liquid ratio of 1:1is usually considered to be good satisfactory.

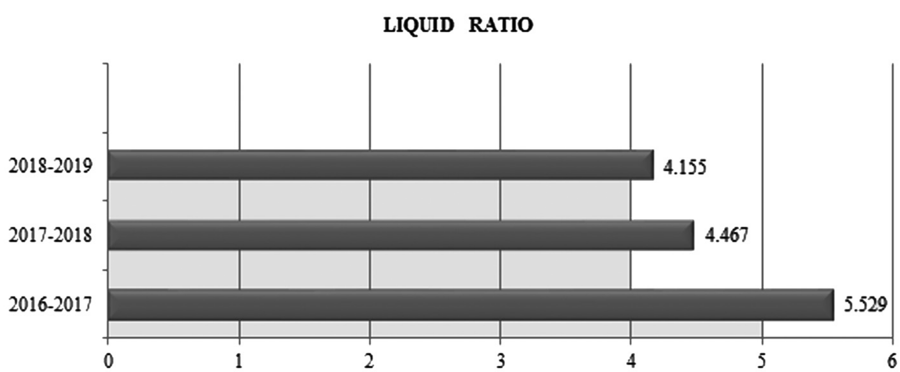


Figure 2: Acid test ratio

Absolute Liquid Ratio

Absolute liquid ratio is also called "cash position ratio" or "super quick ratio". This ratio establishes relationship between absolute liquid assets and current liabilities. Absolute liquidity ratio is the most conservative test of a company's liquidity position. An absolute liquidity ratio of 0.75:1 is considered ideal and satisfactory.

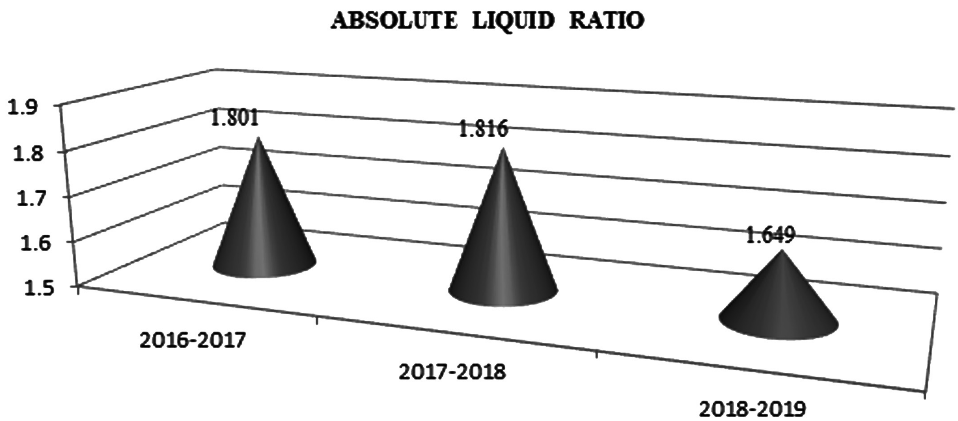


Figure 3: Cash position ratio

Cash Ratio

The cash ratio compares the company most liquid assets to liabilities. If a company's cash ratio is equal to 1, the company has exactly the same amount of current liabilities as it does cash and cash equivalent to pay off those debts. If company's cash ratio is less than 1, there are more current liabilities than cash and cash equivalents. If a company's cash ratio is more than 1, ensures proper payment but this will result in a large balance of cash remaining idle.

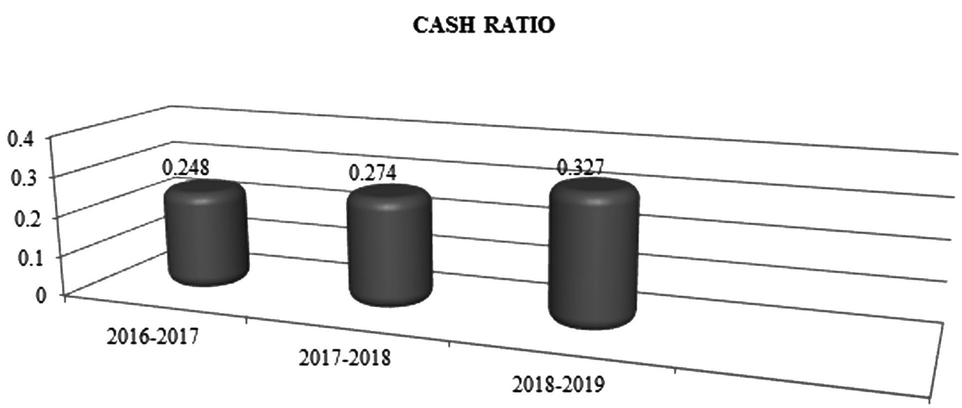


Figure 4: Cash ratio

Inventory Turnover Ratio

Inventory turnover is the number of times a company services and replaces its inventory during a period. Inventory turnover provides insight as to how the company manages costs and how effective their services. The parts and supplies use are direct materials costs. Inventory turnover period indicates how many days the firm needs to turn its inventory service. Decline of inventory turnover days during the year is a positive trend for the company.

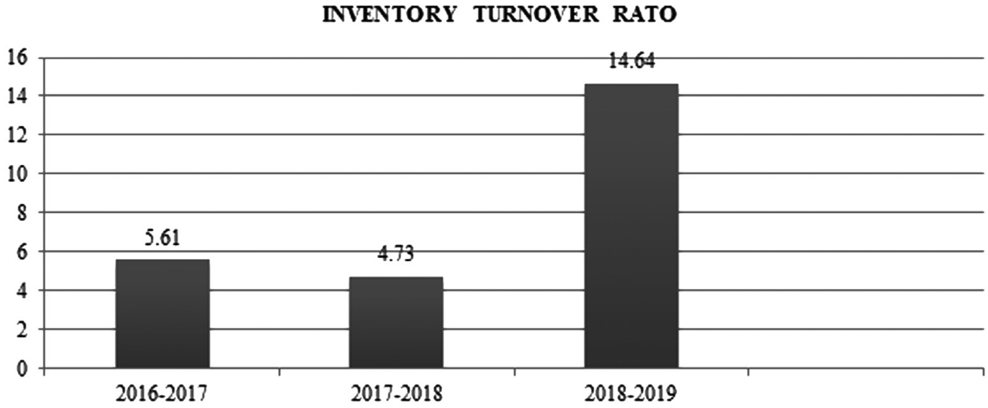


Figure 5: Inventory turn over ratio

Debtors Turnover Ratio

Debtor turnover ratio is also known as "ratio of net sales to gross receivable" or "Debtors velocity" or "receivable turnover". It expresses the relationship between net credit sales and average accounts receivable. It measures the number of times the receivables are rotated in a year in terms of sales.

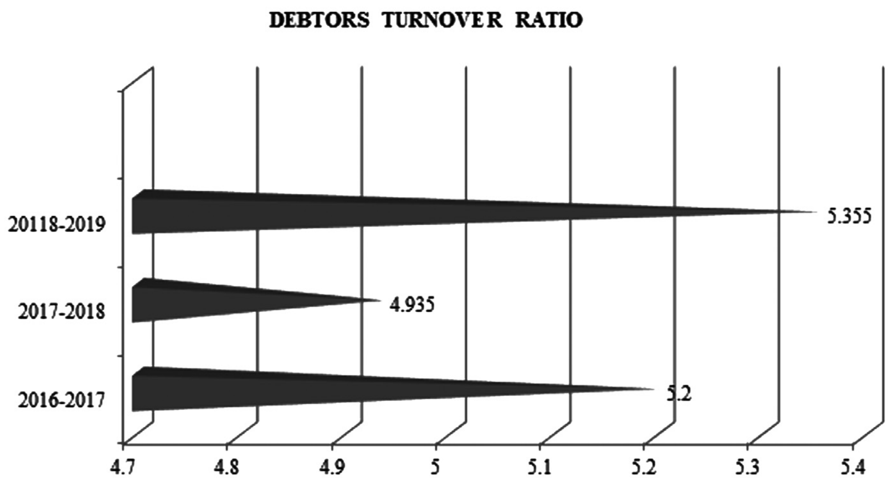


Figure 6: Debtors velocity

Working Capital Turnover Ratio

Working capital means excess of current assets over current liabilities. Working capital is closely related to sales. Working capital turnover ratio indicates number of times the working capital is converted into sales. The higher the ratio, the lower is the investment in working capital and greater are the profits. A very high turnover of working capital is a sign of over trading and may put the concern in financial difficulties. A lower working capital turnover ratio indicates the working capital not being efficiently utilized.

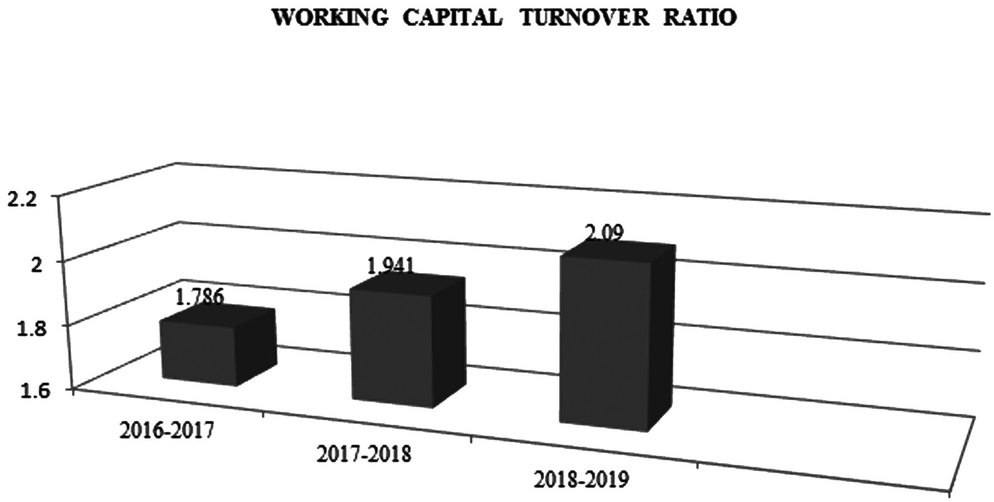


Figure 7: Working capital turnover ratio

FINDINGS

- Current asset turnover ratio was increased from 1.465in the financial year 2016-2017 to 1.589 in the financial year 2018-2019.
- Operating profit ratio was reduced from 27.39% in the year 2016-17 to 25.26% in the year 2018-2019.
- Net profit ratio was increase from 22.34% in the year 2016-2017 to 21.02% in the year 2017-2018.
- Return on investment was increased from 42.47% in the year 2016-2017 to 46.49% in the year 2018-2019.
- Net worth ratio was decrease from 0.839 in the year 2016-2017 to 0.782 in the year 2018-2019.
- Debt equity ratio was reduced from 0.0008 in the financial year 2016-2017 to 0.0004 in the financial year 2018-2019.

SUGGESTIONS

❖ *Short term solvency*

Overall the short term solvency ratios are good .The ability of the concern depends on composition of current assets. In this company current assets have more of stock, debtors, other than cash and bank it may be difficult to meet current obligation. A high ratio does not indicates efficiency since it means less efficient use of funds. Hence company has to maintain ideal short term solvency ratio.

❖ *Turnover ratios*

The company is maintaining good inventory, working capital and current assets turnover ratio which should be continued in future. But the company should focus on fluctuations in debtors turnover ratio.

❖ *Net profit ratio*

The firm should focus on fluctuations in service for better profit ratio.

❖ *Return on investment*

There is efficient utilisation of investment which is favourable to company. It can be maintained throughout the period.

❖ *Net worth ratio*

Even net worth ratio is decreasing it is a good sign for the company because excessive ratio indicates that the firm is vulnerable to solvency problems.

❖ *Debt equity ratio*

The debt to equity ratio has to be improved in order to maintain ideal ratio of 1

❖ *Ratio of current assets to total assets and to proprietor's fund*

Since these ratios was increased, it is good sign for the company which should be maintained.

❖ *Ratio of working capital to sales and to inventory*

Since these ratios was decreased, it should be increased in upcoming period.

CONCLUSION

The study on working capital management was conducted in TATA CONSULTANCY SERVICE to analyse the financial position of the company. The company's financial position is analysed by using the tool of annual reports from 2016-2017 to 2018-2019. The financial status of TCS is good. Overall the short term solvency ratios are good. The inventory turnover ratio has increased, this is good sign for the company. The company's liquidity position is good with regard to the investments in current assets since there are adequate funds invested in it. The firm has a positive working capital which means the short-term receivable of a company is more than its short-term payables. This company's net working capital is good which should be continued throughout the life time of the company.

REFERENCES

1. Hussain Muhammad, Ashfaq U Rehman, Muhammad Waqas (2016) The Relationship between Working Capital Management and Profitability: A Case Study of Tobacco Industry of Pakistan The Journal of Asian Finance, Economics and Business (JAFEB) volume 3 (2016) issue 2
2. Kent Baker, Satish Kumar, Harsh Pratap Singh (2019) Working capital management: evidence from Indian SMEs Journal Small Enterprise Research pages 1-21(2019)
3. MelitaStephanouCharitou, Maria Elfani, PetrosLois The Effect Of Working Capital Management On Firm's Profitability: Empirical Evidence From An Emerging Market Journal of Business & Economics Research (JBER) volume 14(2016) issue 3
4. Prashant dixit (2015) Working Capital Management in Selected IT Companies"
5. Sonia Banos-Caballero, Pedro J Garcia-Teruel, Pedro Martinez-Solano Financing of working capital requirement, financial flexibility and SME performance Journal of Business Research volume 67(2016) issue 3

NUTRACEUTICALS - AN ALTERNATIVE FOR PHARMACEUTICALS

MADHUMITHA. G

Clinical Nutrition and Dietetics - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

Nutraceuticals are products which has nutritional benefits and are also used as a medicine.in recent days, nutraceuticals have been used considerably in high amount due to its nutritional, safety and therapeutic effects. Recent studies have shown promising results of nutraceuticals in various complications. Using herbal nutraceuticals on hard curative disorders which are related to oxidative stress which includes allergy, Alzheimer, cardiovascular, cancer, diabetes, eye and Parkinson's diseases as well as obesity. Recent studies have shown promising results of Nutraceuticals in various pathological complications such as diabetes, Atherosclerosis, cardiovascular diseases, cancer and neurological disorders. These pathological conditions involve many changes in the body. Most of the nutraceuticals have antioxidant activity with the ability to counteract the changes that occur in the body. Hence, they are considered as healthy sources of health promotion, especially for prevention of life-threatening diseases such as diabetes, infection, renal, and gastrointestinal disorders.

Key words: *Nutraceuticals, diseases, food, nutrition and health, nutrients, antioxidants.*

INTRODUCTION

NUTRACEUTICAL is a term which is derived from "nutrition" and "pharmaceutics." This term is applied to products which are isolated from herbal products, dietary supplements (nutrients), specific diets, and processed foods such as cereals, soups, and beverages etc.

The term "nutraceutical" was coined in 1989 by *Stephen De Felice*. He is founder and chairman of the Foundation for Innovation in Medicine, an American organization which encourages medical health research. He defined nutraceutical as a "food, or parts of a food, that provide medical or health benefits, including the prevention and treatment of disease".

Nutraceuticals has been called with different terminologies and definitions in various countries. They are also termed as medical foods, designer foods, phytochemicals, functional foods and nutritional supplements, which includes everyday products as bio-yoghurts and fortified breakfast cereals, as well as vitamins, herbal remedies and even genetically modified foods and supplements.

Nutraceuticals are nutritional supplements which are used for health purposes instead of providing nutrition. Majority of the nutraceuticals provides multiple therapeutic properties. A nutraceutical product may be defined as a substance, which has physiological benefit or provides protection against chronic diseases. [1]

Some Popular Nutraceuticals

- Ginseng
- Echinacea
- Green tea
- Glucosamine
- Omega-3
- Lutein
- Folic acid

Uses of Nutraceuticals

- It improves health
- It delays the aging process
- It prevents us from chronic diseases
- It increases life expectancy
- It majorly supports the structure and function of the body

USAGE OF NUTRACEUTICALS IN DISEASES

1) Cardiovascular Diseases

In recent days the occurrence of cardiovascular disease is high and the research based on this disease are also vast. Cardiovascular disease is a term which is termed for disorders in the heart and blood vessels and also includes coronary heart disease (heart attack), peripheral vascular diseases, stroke, hypertension, heart failure etc. Inclusion of low intake of vegetables and fruits causes high mortality rate in cardiovascular disease. We can actually prevent majority of cardiovascular diseases just by intaking proper diet and following healthy and active lifestyle.

- Intaking nutraceuticals in the form of vitamins, minerals, dietary fibres and omega-3 polyunsaturated fatty acids (n−3 PUFAs) along with physical exercise are advisable for prevention and treatment of Cardiovascular diseases.
- **Flavonoids** are majority present in vegetables, onion, grapefruits, apples, cherries, pomegranate, berries, black grapes, and red wine. Flavonoids plays a major role in prevention and curing the Cardiovascular diseases. Orange juice containing pulp is also rich in flavonoids. Regular consumption of flavonoids in the diet especially for elder people may reduce the risk of cardiac arrest or any other coronary heart problems.

- **Phytosterols** competes with dietary cholesterol and blocks the uptake and facilitates excretion process from the body. Hence, they have the potential to reduce the morbidity and mortality of Cardiovascular disease. Phytosterols can be found in most plant varieties as well as in green and yellow vegetables.
- Ginger has high antioxidant and anti-inflammatory property which prevents us hypertension and palpitation.

2) Diabetes

Diabetes mellitus is the leading cause of death globally (WHO). Indians get diabetes mellitus at a lower body weight and the onset is much earlier than in other countries. More than 90% of diabetics belongs to type 2 diabetics. Type 2 diabetes is also called as non-insulin dependent diabetes. Even though drugs have been introduced to prevent diabetes but the number of affected cases is still increasing. The majority of patients improve with weight loss and diet therapy. In recent years usage herbal dietary supplements and herbal medicines have scientifically proven to benefit type 2 diabetes mellitus. [2]

- **Isoflavones**, are phytoestrogens which are functionally similar to human oestrogen. Consumption of **Soy isoflavones** in the diet as shows considerable change in incidence and mortality rate of type II diabetes, heart disease, osteoporosis and certain cancers.
- **Lipoic acid** is an antioxidant which is used for the treatment of diabetic neuropathy and seems to be effective as a long-term dietary supplement for protection of diabetics from complications.
- Dietary fibres from **psyllium** have been used extensively used for diabetes control and weight reduction.
- Cinnamon and bitter melon have also shown better results in treating diabetes.

3) Cancer

In the fast-moving world cancer has been seen as a public health problem which is common in developing countries in majority. Carotenoids are nothing but a group of phytochemicals which are responsible for providing various colours to the food. Carotenoids have antioxidant properties and are effective on preventing cancer. After knowing the link between carotenoids and its prevention activity in cancer, the importance of including coloured vegetables and fruits in the diet has increased. [2]

- **Lycopene** concentrates in protecting against cancer which occurs in prostate, testes, skin and adrenal. Vegetables and fruits which contains lycopene exert cancer-protective effect which decreases oxidative stress and damage to DNA. Lycopene is exclusively found in tomatoes, guava, pink grapefruit, water melon and papaya.
- Regular consumption of fruits and vegetables containing cysteine, glutathione, selenium, Vitamin E, Vitamin C, lycopene, and other phytochemicals elevates the levels of anti-oxidative capacity.
- **Flavonoids** which are present in citrus fruits can protect against cancer by acting as antioxidants.

- **Soybean** helps in protection against breast, uterine, lung, colorectal, and prostate cancers.
- ***β*-carotene** possess antioxidant activity and prevents cancer and other diseases. *β*-carotene is found in yellow, orange, and green leafy vegetables and fruits such as tomatoes, lettuce, oranges, sweet potatoes, broccoli, carrots, spinach, and winter squash. Fruits has anticancer activity.
- **Saponins** possess antimutagenic and antitumor activities and might lower the risk of human cancers, by preventing cancer cells from growing. Saponins are phytochemicals which can be found in peas, soybeans, tomatoes, potatoes, spinach, and clover.
- The sulphur containing compounds in garlic have been found to boost the immune system and reduce the growth of cancer cells.
- **Sulforaphane** has been reported to reduce the risk of breast cancer and prostate cancer. Broccoli is rich in sulforaphane.
- **Curcumin** is a polyphenol derivative from the plant *Curcuma longa*, commonly called turmeric. Curcumin contains antioxidative, anticarcinogenic, and anti-inflammatory properties.

CONCLUSION

There is only a thin line dividing between pharmaceuticals and nutraceuticals. Pharmaceuticals are medications which are mainly used to treat diseases whereas nutraceuticals are substances which prevents diseases. Both Pharmaceuticals and nutraceuticals can prevent and cure pathological conditions but only pharmaceuticals have government sanction.

Nutraceutical supplements are distinctly different from pharmaceutical supplements. Nutraceutical supplements are made of whole foods and not isolated vitamins or nutrients. They involve intaking of whole food. Examples of nutraceutical include tablets that are derived from vegetables. Nutraceutical supplements are actually made from vegetables and thus it carries all their health benefits. Nutraceutical supplements are the best way to promote health and prevent disease by incorporating vitamins and minerals which can be easily found in natural foods into our diet.

While both pharmaceutical and nutraceutical supplements have their own distinctive benefits, but I would say nutraceuticals are better for us. Pharmaceutical supplements contain high concentrations of a single or small group of vitamins and minerals and other drugs, while nutraceuticals contain only the benefits of natural foods.

Our bodies are designed to intake cereals, fruits, vegetables, and other natural foods. Therefore, giving the body pharmaceuticals which contains extremely high dosages of drugs are not effective for our mechanism. Our bodies benefit the most when we intake nutraceuticals because they are much closer to the natural makeup of foods which our bodies are designed to intake normally.

REFERENCES

1. Brower V, 1998. Nutraceuticals: poised for a healthy slice of the healthcare market? Nature biotechnology, 728 - 731
2. Benkouider C, 2005. Functional Foods and Nutraceuticals, 8-11.

WEBSITES

1. https://foodscienceuniverse.com/importance-of-nutraceuticals/

CLIMATE CHANGE

APARNA. B

BBA - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

INTRODUCTION

Climate Change is the defining issue of our time and we are at a defining moment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. All of these changes are emerging as humans continue to add heat-trapping greenhouse gases to the atmosphere.

Greenhouse gases occur naturally and are essential to the survival of humans and millions of other living beings, by keeping some of the sun's warmth from reflecting backinto space and making Earth livable. But after more than a century and a half of industrialization, deforestation, and large scale agriculture, quantities of greenhouse gases in the atmosphere have risen to record levels not seen in three million years. As populations, economies and standards of living grow, so does the cumulative level of greenhouse gas (GHGs) emissions. And as the level of emissions trapped in the Earth's atmosphere continues to rise, so to do global temperatures.

Figure 1: Climate Change

Source: Internet

The planet is warming, from North Pole to South Pole. Since 1906, the global average surface temperature has increased by more than 1.6 degrees Fahrenheit (0.9 degrees Celsius)—even more in sensitive Polar Regions. And the impacts of rising temperatures aren't waiting for some far-flung future, the effects of global warming are appearing right now. The heat is melting glaciers and sea ice, shifting precipitation patterns, and setting animals on the move. Without drastic action today, adapting to these impacts in the future will be more difficult and costly.

Effects of Climate Change

The effects of climate change span the physical environment, ecosystems and human societies. It also includes the economic and social changes which stem from living in a warmer world. Things that we depend upon and value - water, energy, transportation, wildlife, agriculture, ecosystems, and human health are experiencing the effects of a changing climate.

- Ice is melting worldwide, especially at the Earth's poles. This includes mountain glaciers, ice sheets covering West Antarctica, Greenland, and Arctic sea ice. Less freshwater will be available in the future, since glaciers store about three-quarters of the world's freshwater.
- Much of this melting ice contributes to sea-level rise which put coastal areas at greater risk of erosion and storm surge. Global sea levels are expected to rise between 10 and 32 inches (26 and 82 centimeters) or higher by the end of the century.
- Hurricanes and storms are likely to become more intense and frequent. Floods and droughts will become more common. Large parts of the U.S. could face a higher risk of decades-long "mega droughts" by 2100.
- Rising temperatures are affecting wildlife and their habitats. Vanishing ice has challenged species such as the penguins in Antarctica, where some populations on the western peninsula have collapsed by 90 percent or more.
- As temperatures change, many species are on the move. Some butterflies, foxes, and alpine plants have migrated farther north or to higher, cooler areas. Others, such as polar bears, won't be able to adapt and could become extinct.
- Some species including mosquitoes, ticks, jellyfish, and crop pests are thriving. Booming populations of bark beetles that feed on spruce and pine trees, have devastated millions of forested lands worldwide.
- Precipitation (rain and snowfall) has increased across the globe, on an average. Yet some regions are experiencing more severe drought, increasing the risk of wildfires, lost crops, and drinking water shortages.
- Our food supply mainly depends on climate and weather conditions. Although agricultural practices may be adaptable, changes like increased temperatures, water stress, diseases, and weather extremes create challenges for the farmers who put food on our tables.
- Human health is vulnerable to climate change. The changing environment is expected to cause more heat stress, an increase in waterborne diseases, poor air quality, and diseases transmitted by insects and rodents.
- Since oceans are becoming more acidic in nature, Coral reefs are projected to decline by a further 70- 90% at 1.5°C. At a warming of 2°C virtually all coral reefs will be lost. It's not only a tragedy for wildlife, but around half a billion people rely on fish from coral reefs as their main source ofprotein.

Taking Action

Firstly, understanding the difference between climate change and global warming is important for facing the challenges brought on by these processes. One cannot solve the problem of intensifying storms, prolonged droughts, or exceptional flooding without addressing the factors causing global warming at the same time.

And there are many solutions out there! Reducing our dependence on fossil fuels is obviously at the top of the list, along with switching to renewable sources of energy like solar or wind power. We can also put an end to wide-scale deforestation, a major global contributor to CO_2 emissions, and plant as many trees possible instead. In the end, anything that can reduce the amount of greenhouse gases in the atmosphere will help to slow and reverse global warming and thus, help to reduce the impact of climate change.

Best Way Forward

Because of their massive environmental footprints, urban areas can play a huge role in curbing climate change. Energy-gobbling buildings, air-polluting cars, sprawling suburbs, carbon-spewing power plants— cities account for more than 70 percent of global greenhouse gas emissions and two-thirds of the world's energy use. Fortunately, urban centers are also often hubs of adaptation and innovation. And when they get efficiency projects right, as they do more and more these days, they discover powerful solutions that can be adopted all over the world.

Many of the things we do to make our communities safe, healthy, and economically robust are the very same things that can help us adapt to, and curb the effects of climate change. We need to get local decision makers to see that their everyday decisions can be part of the solution. We need more concrete plans, more ambition from businesses and cooperation from countries around the world. We need all financial institutions, public and private, to choose, once and for all, the green economy. Given below are some ways to minimize the impacts of climate change:

1) Cleaner Transportation

Our transport methods must be aligned with environmental requirements and reduce their carbon footprint. It is essential to rethink our transport methods from the design stage towards eco-friendly transportation. Cities nationwide are adopting "mobility on demand" by improving public transportation, encouraging walkability and supporting car/bike-sharing programs that give residents quick, cost-effective ways to get around without having to use personal vehicles. Even cities historically resistant to mass transit are incorporating projects to reduce congestion and solve the problem of getting people from a transportation hub to their home or office.

2) Green Infrastructure

When it comes to handling extreme weather, resiliency isn't only about reacting to disastrous weather events; it's also about prevention. This is where green infrastructure, which absorbs water naturally without overtaxing drainage and sewage systems, comes into play. There should be encouragement for green roofs which capture rainwater and help to cool buildings and streets; initiatives to plant more trees which prevent polluted runoff from entering public water systems.

Waste management is another vital aspect of green infrastructure. The simplest solution to reduce waste is to adapt our production methods to our consumption patterns. The recycling process must also be taken into account in our consumption habits. Usage of the 3R's of circular economy (Reduce, Reuse and Recycle) should be increased to significantly reduce our waste and avoid unnecessary production of new items.

3) Energy Efficiency

City buildings, specifically, are responsible for more than 50 percent of energy consumption. Just as they've been tackling smoking, recycling, and other wasteful or unhealthy behaviors, now many city governments are working to pass regulations for energy efficiency in existing buildings. Residents can play their part by turning off lights, air conditioners, appliances, and computers, which drain energy even in idle or sleep mode. Basically, changing our main energy sources to clean and renewable energy such as Solar, Wind, Geothermal and biomass could be helpful in improving overall energy efficiency.

4) Sea and Ocean preservation

Oceans and seas are the largest storage of greenhouse gases and are an exceptional support system for life on this planet. Limiting overfishing, unsustainable development activities in coastal areas and promoting the consumption of environmentally friendly products is an essential step towards the preservation of our water bodies.

International Climate Agreements

1) United Nations Framework Convention on Climate Change

In 1994, the UN's "Earth Summit" produced the United Nations Framework Convention on Climate Change (UNFCCC) as a first step in addressing the climate change problem. Today, nearly all countries in the world have ratified the Convention are Parties to the Convention. The ultimate aim of the Convention is to prevent "dangerous" human interference with the climate system.

2) Kyoto Protocol

The Kyoto Protocol legally binds developed country parties to emission reduction targets, since developed countries contribute most to the accumulation of greenhouse gases in the atmosphere, and since per-capita emissions are still relatively low in developing countries and emissions of developing countries would grow to meet their development needs.

3) Paris Agreement

At the 21st Conference of the Parties in Paris in 2015, Parties to the UNFCCC reached a landmark agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. The Paris Agreement, for the first time, brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so.

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping the global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5

degrees Celsius. This would require halving carbon emissions by 2030, then reaching near-zero emissions by 2050.

4) 2020 Climate Action Summit

The 2020 Climate Summit was intended to bring world leaders of governments, the private sector and civil society together to support the multilateral process and to increase and accelerate climate action and ambition. The Summit focused on key sectors where action can make the most difference—heavy industry, nature-based solutions, cities, energy, resilience, and climate finance. World leaders reported on what they are doing, and what more they intend to do in the successive years, where commitments will be renewed and increased, if necessary.

CONCLUSION

Policy decisions made in the next few decades will have profound impacts on the global climate, ecosystems and human societies, not just for this century, but for the next millennia, as near-term climate change policies significantly affect long-term climate change impacts. Also, the best policy ideas in the world aren't worth much if we don't have activists, experts, and everyday people fighting for change. We need action!

Curbing the effects of climate change, to a large extent, depends on the efforts taken by individuals across the globe. Thus, we must act responsibly and collectively contribute to minimize global warming and climate change so that we could leave this planet in a much happier and safer state for the upcoming generations to live in.

REFERENCES

1. https://www.un.org/en/global-issues/climate-changes

ADAPTABILITY OF HYDRATION GUIDELINES RDA AS GIVEN BY NIN AMONG COLLEGE GIRLS

GAYATHRI. S & SANGAVI. P

Clinical Nutrition and Dietetics - III Year, Assistant Professor, Clinical Nutrition and Dietetics
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

Water is one of the key elements of nutrition that governs a healthy diet. Despite, the awareness of hydration among people there lies a gap between the amount of water that can be consumed and the consumption of water according to the guidelines. The present study aims to examine the adaptability of hydration guidelines as recommended by NIN. It focuses on the problems and benefits obtained in following it on a routine basis. The study is conducted as a week long descriptive study among 106 college girls between the age 18-22 of various weight categories. The study brings out the problems along with suggestive solutions for effective implementation of hydration guidelines in daily life.

Key words: *Hydration guidelines, Water, NIN, RDA, water per kg body mass, Indian RDA.*

Aim

To study the adaptability of hydration guidelines by NIN among college going girls through a survey

Objectives

- To check the awareness on water consumption.
- To estimate average fluid consumption including water among teenage girls.
- To validate the adaptability of water guidelines by National Institute of Nutrition (NIN).
- To understand the effects on the health by adoption of the guidelines.

INTRODUCTION

Water is defined as an essential nutrient because it is required in amounts that exceed the body's ability to produce it. All biochemical reactions occur with water [1] . Until recently, the exploration of water requirements has been guided by the need to avoid adverse events such as dehydration. The increasing appreciation for the impinging factors that must be considered when attempting to establish recommendations of water intake presents new and challenging questions [2]. This largely varies around a variety of factors and needs which is to be considered during recommendations. The National Institute of Nutrition to establish this effectively has recommended guidelines for Indians according to their body mass and physical activity.

MATERIALS AND METHODOLOGY

The study was performed as a descriptive study among 106 college girls during January 2021(5th – 12th January 2021). The study participants were girls of age 18 – 21 years. The study was conducted using a structured questionnaire wherein data was obtained on the demographic profile and fluid consumption patterns of individuals and provided recommendation of hydration guidelines based on data collected. The population was categorized in terms of weight as 51-60kg, 61-70kg, 71-80kg, 81-90kg, and 91- 100kg and was recommended water consumption between 38 – 42mL per kg body mass and physical activity respectively as per the guidelines . The reviews of the week long process of consumption of respective water measures was collected and analysed for the adaptability based on reviews obtained.

WATER GUIDELINES

The requirement of water was estimated by National Institute of Nutrition based on a factorial approach by utilising the existing literature of the fluid guidelines, with corrections made for body mass and physical activity requirement to suit the Indian context. The water required from beverages for an adult man ranges from 32-58 ml per kg body mass and for a woman, it ranges from 27-52 ml per kg body mass, with sedentary working group at the lower end and the heavy working group at the higher end of the range [3] .

RESULTS AND FINDINGS

The study covered a wide range of weight categories with respect to which the hydration guidelines were estimated. The population covered a weight range of 51-60kg (75%), 61-70kg (17.2%), 71-80kg (5.17%), 81-90kg (1.7%) and 91-100kg (0.8%). It showed the average water intake of the population prior to the study as 1.1-1.5L per day (26.7%) and 1.6-2.0L per day (25.9%).This shows the improper awareness of the population with respect to consuming the ideal water requirements, however, the knowledge on the presence of hydration guidelines as a recommendation seems to be present in the majority population (67.6%) but the right source is still unknown to many. On receiving the recommendation 93.6% population found it possible to follow and 6.4% was unsure about it being practical so, the probability of people adopting the guidelines fully cannot be assured.

The study also showed the choices and the proportion of various other fluids consumed per day. The larger percentage of the population (66.5%) does not consume any other fluid choice. Among the choice of other fluids, the most consumed fluid is one cup of juice a day (44.8%). Among the three major beverages of coffee, tea and milk, one cup of milk per day is consumed highest (39.7%) followed by tea (36.2%) and coffee (29.5%). Milk is also the second most consumed fluid. This is followed by one cup of Kanji per day (19.8%). 16.4% of the population also consumes one cup of milkshake or protein shake per day. One cup of Buttermilk and Soup are consumed by a similar percentage of people; 14.7% and 14.8% respectively. Detox drinks are consumed least at 9.5%.

After a week long process of the study conducted it was observed that 54.7% people were not hydrated properly of which 27.8% were under hydrated and 26.9% were consuming excess water prior to the study. Also, the guidelines could be followed by only 27.8% for the entire span of the seven days while the rest were unable to follow it. 3-5 days (approx. 54%) was the largest span of time the guidelines could be followed which shows a decrease in the attitude of the population towards adopting the guidelines in their daily routine and only 69.8% people are ready to adopt it thereafter too which is in contrast to the initial acceptance before the study proving that the implementation is not fully effective.

There are a wide range of reasons due to which subjects failed to follow the guidelines. This includes weather, sudden increase in water quantity accompanied by physiological changes, the mental perceptions of people associated with the physiological changes, forgetting to drink, travelling, forgetting count and intervals of intake, improper measuring technique, preoccupation with work, studies etc., difficulty to carry water everywhere and laziness. The choice of form of water especially, in terms of temperature also affects the adoption process as 98% prefer normal water which is consumed mostly with hot water in between by 38% of the respondents. Water is mostly measured through water bottles (250 ml, 500ml, 1L is widely used), tumblers and cups through approximation but the exact measure of the equipment is still not known fully to many and the doubts associated with it is causing improper hydration. These together contribute to the chief factors that make the process of practicing hydration guidelines moderately difficult to a greater proportion (54.6%) of the population.

The solution to hydration issues begins with bringing about the awareness of the many physiological changes one may undergo as these may encourage or discourage a person from putting it into effect. The main physiological changes observed were excessive urination (61.1%), high energy levels (34.3%), lightness of the body (21.3%) and weight loss with softer skin (17.6%). The other notable changes (ordered in decreasing order of occurrence) include faster excretion of stools, loss of appetite, stomach pain, increased muscle flexibility, excessive sweating, bloating, headache, farting, nausea and vomiting etc. Changes observed include positive and negative symptoms and the fear associated with negative symptoms needs to be addressed in order to continue the practice.

The thirst mechanism involves signs like dryness of the throat, saliva secretion, excessive sweating etc. and it seems to be ignored by 37% of the respondents and 26% aren’t aware of it and hence, providing insights on symptoms of thirst can prove more beneficial.

As water and food play an equal role in diet, recommendation of hydration timings similar to meal timings also seems an effective implementational technique to about 53.7% respondents.

Other suggested methods for increased hydration practice by the respondents are:

- 21-day practice session in order to make it a habit
- addressing risks associated with over and under consumption of water
- Setting timers on mobile phones
- Using hydration specific applications on mobile phones
- Formulating water consumption charts for public use
- Consumption of watery vegetables and fruits
- Regular awareness programmes on hydration
- Insisting on carrying water bottles everywhere and designing motivational quotes on water bottles.

CONCLUSION

Hydration is an important mechanism in the human body and consuming the right amount can be possible only by following the guidelines however, this remains an issue as a large section of the population is not aware of the right guidelines, right methods of consumption and their implementational techniques. The solution to this can be achieved only through making hydration guidelines a habit.

REFERENCES

1. Australian Government. (2014, 04 09). Nutrient Reference Values for Australia and New Zealand. Retrieved from National Health and Medical Research Council Australia: https://www.nrv.gov.au/nutrients/water#:~:text=Water%20is%20defined%20as%20an,such%20as%20protein%20and%20glycogen
2. ICMR & NIN. (2020). SUMMARY OF RECOMMENDATIONS. Hyderabad: ICMR-National Institute of Nutrition. https://www.google.com/url?sa=t&source=web&rct=j&url=http://www.who.int/water_sanitation_health/dwq/nutrients.pdf&ved=2ahUKEwi_m9eQjIruAhWH4jgGHZvSDTgQFjALegQIMRAB&usg=AOvVaw1rwsWDqGRpCmTRZ4nEYxFH
3. World Health Organization. (2005). NUTRIENTS IN DRINKING WATER. Geneva: World Health Organization. https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.nin.res.in/nutrition2020/RDA_short_report.pdf&ved=2ahUKEwiCu-a3joruAhXWXSsKHY2BBuoQFjAAegQIBRAC&usg=AOvVaw0pGAX1f8z_H5tUlV9V0fao

THE GROWTH OF THE ENVIRONMENTALLY CONSCIOUS SHOPPER

Nirmala. K

Department of B.Com (Computer Application)
Vaishnav College for Women
Chromepet, Chennai - 44

People have grown more conscious of the environmental effect of their buying selections as a result of the Covid-19 Pandemic, and businesses are reacting

ABSTRACT

Companies may play a key role in responding effectively and efficiently to the environmental sustainability problem by implementing relevant strategies and operations, such as green processes and product development. The proportion of agreement relating to other generational cohorts and the rise of the environmentally conscious buyer are shown in this research. The process is based on content analysis of company websites as well as related documents such as environmental and sustainability reports. Consumer goods manufacturers are likewise working to reduce their environmental impact from the start of the product life cycle.

INTRODUCTION

Human-caused environmental deterioration has accelerated in the previous century, beyond the Earth's capacity to support it. Climate change, ocean eutrophication, and biodiversity loss are only a few instances of forces that have gone beyond natural limits (Rockström et al. 2009)[1].

Traditionally, product development (PD) has been focused on meeting quality, cost, and time goals, with environmental factors being addressed only tangentially (Abele 2005)[2]. Given the present socio ecological scenario, however, it is now critical to incorporate sustainability considerations into PD. PD is currently conceived from a sustainable development to solve such issues within the firm's bounds.

Process in which research is carried out by observing and evaluating existing data on a certain issue. There are no actual experiments involved in conceptual research. It has anything to do with abstract notions or ideas.

CONSCIOUS OF THE ENVIRONMENTAL EFFECT

Consumers may have ran out of waste paper or wheat during the COVID-19 epidemic, or may have looked online in vain for an inflatable backyard pool. But there was one thing that many people confined at home had in abundance: time. With more time to think about their daily activities and choices, more individuals began to consider the environmental consequences of their purchases. Consumers have begun to consider sustainability prior to the epidemic. However, half of all worldwide consumers questioned in PwC's June 2021 Global Consumer Insights Pulse Survey think they've grown even more eco-friendly.

Only 35% of respondents in our Global Consumer Insights Survey said they preferred sustainable items to help safeguard the environment, 37% said they sought for products with ecologically friendly packaging, and 41% said they avoided using plastic wherever possible. In answer to identically phrased questions, PwC's poll results indicate percentages ten to twenty points higher. A study by Visual GPS, a creative research platform, and You Gov, a market research organisation, also found a change during the epidemic. According to the survey, 81 percent of consumers want businesses to be environmentally sensitive in their advertising and marketing, and 69 percent of those asked claimed they were already doing so.

Business executives and experts around the world have been debating which of the pandemic's faster consumer habits will continue and deepen, and which will disappear. The PwC poll, which was performed more than a year after the initial COVID-19 outbreak, indicates that eco-friendly consumption is here to stay.

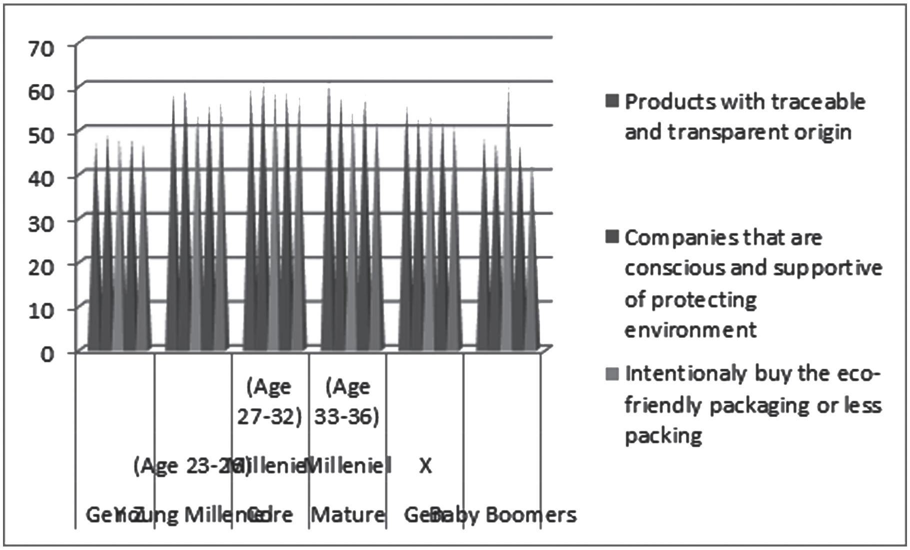
Consumer packaged goods businesses, merchants, and grocers have long been aware of the rising demand for environmentally friendly products among their customers. Some intricacies in PwC's consumer data can help executives map a road forward as firms continue to offer eco-friendly innovations in goods, packaging, and production.

FINDINGS FROM THE SURVEY

According to PwC's poll, Asian-Pacific consumers are more environmentally conscious than the worldwide average, and a huge majority of respondents said they are growing more environmentally conscious. It's 86 percent in Indonesia, and 74 percent in Vietnam and the Philippines. In the Middle East, the tendency is also prominent. In Egypt, 68 percent believe they are more environmentally conscious, while in the United Arab Emirates, 67 percent say they are. This means that messages on sustainability should resonate more strongly in those areas.

Within demographic cohorts, there has also been significant fluctuation (see chart). Millennials were the ones who changed the most. PwC polled 58% of "core" millennials (those aged 27 to 32) and revealed that they've grown more environmentally conscious. Core and "young" millennials (those between the ages of 23 and 26) are also the most likely to say they think about sustainability when buying. Generation Z's commitment to eco-consumerism lags behind that of millennials, which might be due to the notion that shopping responsibly is more expensive or complex (see chart).

Following Chart indicate the proportion of agreement relating to other generational Cohorts.



BASE: Gen Z (1360), Young Milleniel(993)[4], Core Milleniel(1588), Mature Milleniel(919) Gen X (2848) Baby Boomers(975)[5]

NOTE: The greatest generation is not known because the base is too low.

SOURCE: June 2021 Global Consumer insights Pulse Survey.

Those who work from home are also more inclined to shop in a responsible manner. More over half (56%) of those who work from home say they've grown more environmentally conscious, compared to 48% of those who work away from home.

Certain considerations, however, take precedence over sustainability. Consumers are somewhat more worried about health and safety than the environmental effect of their shopping decisions, according to a PwC poll. This is almost certainly a result of the epidemic. Just over half (51%) of worldwide customers believe health and safety concerns outweigh their desire to buy single-use plastics and other disposables (e.g., face masks, paper towels, disinfectant wipes, and gloves).

SKEPTICS OF THE ENVIRONMENT

Despite the fact that eco-consumerism is obviously on the rise, according to PwC's latest poll, some consumer sectors have yet to completely embrace sustainable shopping: Three or more comments about buying responsibly are unpopular with 44 percent of poll respondents, who indicate they have no opinion or disagree with them. These "sustainability sceptics," or customers who are less concerned about the environment, have several traits. They are more likely to work outside the house, to be young, and to purchase based on convenience, and they are less likely to regard themselves as having matured as consumers in other areas.

Skeptics of sustainability cite a variety of grounds for their positions. Fourty-four percent believe sustainable items are overpriced. Other reasons for not picking sustainable items cited by survey respondents include a lack of quality, restricted product availability, and a lack of time to look for them.

ECO-INNOVATIONS ARE AT THE LEAD

Despite the growing green tide's undercurrents, consumers are expected to continue to adopt more sustainable habits, particularly as businesses make sustainable options more inexpensive and accessible, and as they set an example for how to be responsible stewards of the planet's resources.

PwC learnt more about the comprehensive methods that many consumer goods businesses and grocery retailers are employing to decrease the environmental impact of their products while simultaneously cutting costs through a recent cooperation with the Consumer Goods Forum (CGF). The CGF and the industry as a whole have set lofty targets for decreasing or eliminating greenhouse gas emissions. plastic waste reduction or elimination, food waste minimization, and crop sustainability In addition, businesses are taking additional significant initiatives to become more environmentally conscious across their operations.

Colombian food store Grupo Éxito, for example, is paying cattle producers to reforest freshly removed land. Satellite monitoring and audits are used by the corporation to ensure that cattle producers are planting trees and following to other environmental and social justice criteria. According to CEO Carlos Mario Giraldo, those that comply are paid a premium for their meat by consumer firms and receive a "sustainable meat" seal, for which buyers are ready to pay more.

The adoption of new types of farming, such as vertical farming (the process of growing crops in vertical layers) and indoor and AI-assisted farming, is another expression of sustainable sourcing. Kroger has teamed up with 80 Acres Farms in the United States to run four indoor farms with robots that check crops 24 hours a day, seven days a week. According to 80 Acres Farms, their farms produce 300 times more food than traditional farms while using 97% less water and 100% renewable energy.

Companies are also focusing on environmentally friendly packaging. The A.S. Watson Group, a global health and beauty company, has been a pioneer in recycling. In 2014, the firm stopped using microplastics in its cosmetics and personal care goods, and it was the first in Hong Kong to employ recycled plastic in its bottled water business. It also debuted the city's first reverse vending machine to collect old plastic bottles, and this year it will offer 100% reusable and recyclable aluminium bottles. The Alibaba Group is attempting to reduce packaging waste by setting up pickup locations around China where customers may pick up their purchases. Customers are advised to open their packages on the spot and discard the packing, or to drop off unwanted shipping boxes at one of the hundreds of recycling centres. The Coca-Cola Company has a "World Without Waste" campaign that intends to make all of its packaging recyclable by 2025, collect and recycle one bottle or can for every one sold, and utilise 50% recycled material in its bottles by 2030, as well as cans. The answer, according to Coca-Cola CEO James Quincey, is to concentrate on the aspects of the business over which he has the most power and influence as a corporate leader.

CONCLUSION

Companies that manufacture consumer goods are also attempting to lessen their environmental effect from the beginning of the product life cycle. Hundreds of chemists at Procter & Gamble are working on new laundry detergent compositions that will allow clothing to be cleaned in cold water while decreasing wear and tear. Advanced chemistry is being used to solve environmental problems in some cases, such as lowering the water content of detergents and other goods, resulting in cleaner, worry-free products as well as the conversion of additional plastic containers to paper. According to P&G CEO David Taylor, the process of making products more environmentally friendly cannot be tacked on. It has to be built in from the beginning.

BIBILIOGRAPHY

1. 1. https://www.strategy-business.com/article/The-rise-of-the-eco-friendly-
2. consumer
3. 2. https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-63951-2_131-1
4. 3. https://onlinelibrary.wiley.com/doi/10.1002/bse.638
5. 4. https://www.sciencedirect.com/science/article/abs/pii/S0166497297000060?via%3Dihub
6. 5. https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-63951-2_131-1

A STUDY ON CONSUMER BUYING BEHAVIOR TOWARDS MAYBELLINE PRODUCTS WITH SPECIAL REFERENCE TO CHENNAI

NARMADHA. R

B.Com (Honours) - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

Consumer buying behavior strategy supports any firm to manufacture products according to consumer requirement so that consumer will take decision regarding this new product to buy or use services. Any Company's marketing strategy plays vital role for its expansion or profit as well as persuasion of consumer to buy its product. Buyer gets this attraction of goods through company's marketing strategy which fulfils all area of consumer buying behavior. The Maybelline company was created by a 19 years old entrepreneur named Thomas Lyle Williams in 1915 . Maybelline New York is the world's leading cosmetics brand, formulations with on-trend expertise and New York City edge, Maybelline New York's mission is to offer innovative, accessible, and effortless cosmetics for every woman. Maybelline is one of the popular cosmetic brands in India. Compared to other cosmetic brand, it acquired a brand image in the market. It convinced and satisfied more consumers in a short period. Hence this study has been conducted to know the consumer buying behavior towards Maybelline products (cosmetics).

A study has been conducted in both primary and secondary data. Primary data has been collected from the neighbor's and related persons during November 2019 to February 2020 using the structured questionnaire from 112 respondents in Chennai and coded, tabulated and analyzed using the appropriate methods. Secondary data is been collected from journals and websites. Data analysis has been analyzed using Percentage analysis, Weighted average, Friedman rank analysis and Factor analysis has been done with the SPSS software.

By analyzing the data, the consumer buying behaviour is purely based on brand image. The study is found that the Maybelline product is predominantly used for being fashionable purpose. By using weighted average method it was found that the consumer felt the prices of Maybelline products are reasonable. The study revealed that majority of the consumers purchased Colossal kajal among the other product. The study has been *concluded that most of the women now a days prefers Maybelline product because it is a complete beauty brand providing with skin care, people are inclined of its quality, marketability, and brand image*

Key words: *Beauty products (cosmetics), Consumer buying behavior, Maybelline products.*

INTRODUCTION

Company's marketing strategy which fulfils all area of consumer buying behavior. Cosmetics are substances or products used to enhance or alter the appearance of the face or fragrance and texture of the body. Maybelline New York is the number one global cosmetics brand and is available in over 129 countries worldwide. Offering more than 200 products, Maybelline New York combines technologically advanced formulas with on-trend expertise to create accessible cosmetics. In 1913, young Chicago chemist Thomas Williams had a dilemma. His older sister, Maybel, was in love with a man who was in love with someone else. Maybel Williams did her best with what was available she used petroleum jelly on her lashes and brows to enhance them. Her brother decided to help her increase her allure by adding carbon dust to the petroleum jelly, which darkened her lashes and brows more dramatically. The product worked. In 1915, Maybel got her man and Thomas founded what would become the global industry giant, Maybelline, named after the bride and her favourite beauty aid.

LITERATURE REVIEW

Prof. Anute N. Dr. Deshmukh A. Prof. Khandagale A. studied "consumer buying behavior towards cosmetic products". The main aim of study was to study demographic profile of consumers and to find factors affecting consumer purchase decision. They also want to know the purchase pattern for cosmetic products. They found that majority of people use domestic cosmetic brand, television is most effective media to get information of cosmetics; quality of product is considered as most important factor for consumer purchase decision. [4]

Khan I. studied "Men's attitude and motivation towards consumption of grooming products". A comparison of Chinese and Pakistani male consumers. The main aim of study was to explore the concept of masculine identity towards grooming products. 260 Chinese and 210 Pakistani samples were taken to collect data. Descriptive statistics, correlation and regression were used to analyze the data. They found that physical attractiveness is the most important factor for Pakistani males while Lifestyle is the most important factor for Chinese males for selecting grooming products. It will help marketers to consider factors while designing marketing strategy for particular country for grooming products. [2]

SheroogAlhedhaif, Upendra Lele, Belal A. Kaifi in their project titled **"Brand Loyalty and Factors Affecting Cosmetic Buying Behavior of Saudi Female Consumers"** examines the brand preferences of Saudi female consumers for different cosmetic and toiletries like skin care products, make up products, hair care products, perfumes, body care product, nail paints or similar products. It also aims to identify the factors affecting the purchase of cosmetic and the influence of brands on buying behavior . The study covered the female population in Saudi Arabia at the age group of 15 to 50years. Electronic questionnaire was distributed through email and social media such as Facebook and Whatsapp. A total sample was 75 females. Likert scale and hypothesis testing was used as the statistical tool. The study found that factors such as product quality, design or features, brand name, store environment, advertising and promotion, and price has a significant impact on buying behavior of consumers and it also helped to identify the current "most popular" brands in different categories. [5]

Kruti Bhatt and Peenal Sankhla in their research, **"A study on Consumer Buying Behavior towards Cosmetic Products"** aimed to identify the consumers buying behavior during the purchase of cosmetics products. Non-probability convenient sampling method was used with a sample size of 100. Descriptive research design has been used for this research. Both primary and secondary data have been collected. Data has been collected through survey technique with structured questionnaire. The study found that the people consider quality as the most important factor while purchasing cosmetics and also guide the marketers to design their marketing strategy. [3]

Dr. DS. Latha in her project titled, **"A study on factors influencing on consumer behavior towards cosmetic with special reference to Chennai city"** aimed to investigate the various factors that have impact on buying decision by the consumers. A sample size of 120 respondents was selected by convenient sampling method and data was analyzed and interpreted with the SPSS package version 20. The research tool used was likert scale and the statistical tool used was percentage analysis, Chi-square, Analysis of various and factor analysis. The study found that age group of 18-20 years are the major users of cosmetics products among them female respondents are highly active in purchasing cosmetics and majority of the respondents spent below Rs.500 towards purchase of cosmetics. The major factors that influence the consumer behavior are influenced by price, attractive packing, sales promotion, advertisement, ingredients and warehouse storage. [1]

OBJECTIVES

- To study the respondents **awareness** towards Maybelline products.
- To determine the **core factors** that influence customers to buy cosmetics.
- To identify the **purchasing pattern** of the respondents.
- To analyze the **buying behavior** of customers towards Maybelline product.
- To ascertain the **satisfaction level** of customers towards Maybelline product.

RESEARCH METHODOLOGY

Research methodology is a systematic way of solving the research problem. It may be understood as a science of study how research is done scientifically.

Period of Study

The primary data required for the study was collected from **November 2019 – February 2020** from both male and female respondents.

Sample Units

- The **convenient sampling technique** was used for the study.
- The data was collected from 112 respondents by using questionnaire.

Data Collection

- **PRIMARY DATA:** Primary data was collected through questionnaire technique.
- **SECONDARY DATA:** The secondary data was collected from the information published from journals, books, research articles.

Statistical Tools

- Percentage analysis.
- Weighted average.
- Factor analysis.
- Friedman rank analysis.

Limitations of the Study

- Time constraints.
- The study was limited to specific number of 112 respondents.
- It didn't cover the entire population and their opinion.

ANALYSIS

Factor Analysis

- Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors.

TABLE-1: MAJOR PURPOSE OF USING MAYBELLINE PRODUCTS

FACTOR	COMPONENTS
Purpose	0.744
Motivational	0.646

- **Purpose** has the high components **(0.744)** so it strongly influences the respondents to prefer the Maybelline product by using **Factor Analysis.**.

FRIED MAN RANK ANALYSIS

- The fried man test is a non-parametric statistical test used alternative of one-way ANOVA, with repeated measures. It is tested the fair differences between groups when the dependent variable being measured is ordinal.

TABLE-2: MOST PREFERABLE PRODUCTS

PRODUCTS	MEAN RANK	RANK
Compact	3.75	5
Baby lips	4.19	3
Colossal Kajal	**4.63**	**1**
Creamy matte lipstick	4.21	2
Eye shadow	3.54	7
Foundation	3.71	6
Nail enamel	3.96	4

- **Rank 1** is assigned to **" Colossal Kajal"** with mean value of **4.63** by using **Friedman Rank Analysis**.

WEIGHTED AVERAGE

- A weighted mean is a kind of average. Instead of each data point contributing equally to the final mean, some data points contribute more "weights" than others.
- If all the weights are equal, then the weighted mean equals the arithmetic mean (the regular "average" you're used to). Weighted means are very common in statistics, especially when studying populations.

TABLE 3: OPINION AS REGARDS THE REASON FOR CONSUMERS TO CHOOSE MAYBELLINE PRODUCTS

Factor	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Total	Average	Rank
	(*5)	**(*4)**	**(*3)**	**(*2)**	**(*1)**		**(1/15)**	
Cheapest product (or) as good as expensive	**140**	**188**	**96**	**4**	**3**	**431**	**28.73333**	**1**
I spend too much money on cosmetics	45	148	126	36	6	361	24.06667	6
I find the range of products and brand available confusing	105	140	141	14	2	402	26.8	4
The only guarantee of quality is a recognizable brand	170	164	69	26	1	430	28.66667	2
I always use the same brand out of habit	115	188	90	10	7	410	27.33333	3
I love trying new products.	90	128	123	28	7	376	25.06667	5

- Rank 1 is assigned to **“ Cheapest product or as good as expensive”** with average score of **28.7333** by using **Weighted Average method**

OTHER MAJOR FINDINGS OF THE STUDY

- **53.6%** of them know Maybelline products through **Advertisement.**
- **59.8%** of the respondents average monthly expenditure on Maybelline product was **below 500** and **35.7%** of them purchase Maybelline products from **Shopping mall.**
- **33%** of the respondents were motivated by **Branding** of the product.
- **52.7%** of respondents **satisfied** from Maybelline product.
- **53.6%** of them know Maybelline products through **Advertisement.**

SUGGESTIONS

- The manufactures should initiate and encourage a regular monitoring of consumer's reaction towards the product.
- Nowadays most of the women were using cosmetics, so to overcome the competitors Maybelline should come out with the more new ideas to attract the consumers.
- One of the main drawbacks of Maybelline product is its high price.
- Effective advertisement should be made in order to make awareness about Maybelline products.
- Speciality makeup store can be made attractive and have wide varieties so that consumers prefer to buy from it.

CONCLUSION

- A consumer is not someone to argue or match with the needs and satisfaction levels differ from individual and no company can satisfy the needs of all consumers.
- Consumer oriented thinking helps the marketer to define consumer needs from the consumer's point of view.
- The dominance of foreign brands in Indian cosmetics market has been declining and the popularity of Indian brands has been rising.
- Maybelline product occupies a pre-dominant place in Indian cosmetics market. Most women nowadays prefer Maybelline products because it is a complete beauty brand providing color cosmetics and skin care.
- The present study concludes that people are more inclined Maybelline products because of its **quality products, availability, marketability, and brand image.**

REFERENCES

1. **Dr. DS. Latha** (2017) "A study on factors influencing on consumer behavior towards cosmetic with special reference to Chennai city" International Journal of Applied Research Vol. No. 3(6), Page 1038 – 1042.
2. **Khan I.** (2016) "Men's attitude and motivation towards consumption of grooming products" A comparison of Chinese and Pakistani male consumers. Journal cogent business & management, Vol No.4(1)
3. **Kruti Bhatt and Peenal Sankhla** (2017) "A study on Consumer Buying Behavior towards Cosmetic Products" IJETSR: International Journal of Engineering Technology Science and Research, Vol No. 4(12).
4. **Prof. Anute N. Dr. Deshmukh A. Prof. Khandagale A.** (2016) "consumer buying behavior towards cosmetic products". International Journal of Applied Research Vol. No. 4(1).
5. **Sheroog Alhedhaif, Upendra Lele, Belal A. Kaifi** (2016) "Brand Loyalty and Factors Affecting Cosmetic Buying Behavior of Saudi Female Consumers". Journal of Business Studies Quarterly, Vol N. 7(3).

KETOGENIC DIET- A MINI REVIEW

SRIVARSHA. J

Clinical Nutrition and Dietetics - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

The main aim or the objective of the article is to let the people know and understand more about the concept of the Keto or Ketogenic diet. Even after continuous advances in the medical world, obesity tends to remain as a major worldwide health hazard with adult mortality as high as 2.8 million per year. Many chronic diseases like diabetes, hypertension, and heart disease are largely related to obesity which is a product of unhealthy lifestyle and also a sign of poor dietary habits .One kind of diet that has proven to be very effective for rapid weight loss is a very-low-carbohydrate and high-fat ketogenic diet. The ketogenic or "keto" diet is a low-carbohydrate, fat-rich eating plan that has been in practice for centuries now to treat specific types of medical conditions. During the 19th century, the ketogenic diet was commonly used to help control diabetes. In 1920 this type of diet was used as an effective treatment for the treatment of epilepsy in children for whom the prescribed medication was ineffective. Recently many modifications to the original diet, such as the Atkins diet and a low- glycaemic index diet, have been developed. The availability of these types of diets mentioned above suggests that the keto diet could be prescribed earlier in the treatment of epilepsy. Also these types of diets may not be as effective as the keto diet, they also play an important role on cases of inborn errors of metabolism, and it is the treatment of choice by patients who suffer from pyruvate dehydrogenase complex deficiency.

Key words: *Bweight loss, low carbohydrate diet, food, metabolic changes, high fat diets.*

INTRODUCTION

It's a common belief that the high-fat diets might lead or cause obesity in the patients and several other major life-threatening diseases such as coronary heart disease, diabetes cancer etc. Studies that were carried out on animals that were fed high-fat diets did not show a specific connection between dietary fat and obesity. On the contrary diets such as the ketogenic diet have proven to be beneficial in terms of weight loss. This diet plan has undergone trials and has been used in the treatment of cancer, diabetes, and even for Alzheimer's disease. Also when looked into in depth for a patient to lose weight is that if you deduct the intake of glucose which is the main source of energy for all cells in the body, obtained from carbohydrate foods.

When a patient does fasting or when the intake of food has less amount of carbohydrate then the body first starts to use the glucose which is stored in the liver and muscle break down takes place which helps in the release of glucose. If this process carry forwards for 3-4 days then the glucose content present in the body gets completely depleted, also there will be a decrease in the insulin level, and the body tends to use fat as its primary fuel. The liver which produces the ketone bodies from fat, is used by the body when there is a decrease or absence of glucose. It also deducts the intake of protein to less than 1g/lb body weight, unless an individual indulges in heavy exercise the need for protein intake gets increased to 1.5g/lb body weight. This is to prevent the endogenous production of glucose in the body via gluconeogenesis. People who follow this in the beginning of the diet plan the individual initially experience a rapid weight loss up wherein that person loses up to 10 lbs in just a matter of 2 weeks or less. This diet has shown that it has a diuretic effect, and when an individual experiences some early weight loss it is due to the reason of water weight loss which is followed by a fat loss. With this diet plan, lean body muscle is largely spared and this decreases the total carbohydrate intake to less than 50 grams per day and can be as low as 20 grams a day. Generally, keto resources suggest an average of 70-80% fat from total daily calories, 5-10% carbohydrate, and 10-20% protein. For a 2000-calorie diet, this translates to about 165 grams fat, 40 grams carbohydrate, and 75 grams protein. The protein quantity that is given in the ketogenic diet is kept at a moderate level in comparison with other low-carb high-protein diets, because eating too much protein can prevent ketosis. The amino acids which are present in the protein can be converted to glucose, so a ketogenic diet specifies enough protein to preserve lean body mass including muscle, but that will still cause ketosis.

When looked further deep into we can understand that in this type of diet there is no one "standard" ketogenic diet with a specific ratio of macronutrients, many versions of ketogenic diets exist, but all ban carb-rich foods. Some of these foods may be obvious: starches from both refined and whole grains like breads, cereals, pasta, rice, and cookies; potatoes, corn, and other starchy vegetables; and fruit juices. Most ketogenic plans has foods which are high in saturated fat, as well as sources of unsaturated fats, such as nuts, seeds, and oily fish.

The ketogenic diet can be followed for a minimum of 2 to 3 weeks up to 6 to 12 months depending on the prescribed and the needed. Close monitoring of renal functions while on a ketogenic diet is imperative, and when the transition from a ketogenic diet to a standard diet the individual should do it gradually and in a well controlled manner. Even when done in a short run the results of the ketogenic diet as a rapid weight loss formula has shown to be quite effective.

DISCUSSION

Just like everything, this diet too has it is own merits and demerits. The ketogenic diet has been shown to produce beneficial metabolic changes in the short-term. Along with weight loss, certain health parameters such as insulin resistance, high blood pressure, and elevated cholesterol level have improved. There is also growing interest in the use of low-carbohydrate diets, including the ketogenic diet, for type 2 diabetes. Several theories exist as to why the ketogenic diet promotes weight loss, though they have not been consistently shown in research.

Keeping aside the fact that it has merits, the demerits of it are that the side effects of a long-term ketogenic diet have been suggested, including increased risk of kidney stones and osteoporosis, and increased blood levels of uric acid .There may also be possible nutrient deficiencies which may arise if a variety of recommended foods are not included in the prescribed diet. It is important to not solely focus on eating high-fat foods alone, but also to include a daily variety of the allowed meats, fish, vegetables, fruits, nuts, and seeds to ensure adequate intakes of fiber, B vitamins which are found in foods like whole grains that are restricted from the diet. Because whole food groups are excluded, assistance from a registered dietitian may be beneficial in creating a ketogenic diet that minimizes nutrient deficiencies.

A NOTE

In the UNIVERSITY OF CHICAGO MEDICINE INGALLS MEMORIAL, a doctor named Rachel Kleinman, RDN, LDN, Clinical dietitian said someone new to the keto diet can also experience what's called the "keto flu" with symptoms like upset stomach, dizziness, decreased energy, and mood swings caused by your body adapting to ketosis. Another wise, clear sighted person called Mary Condon, RN, LDN, said the keto diet may result in weight loss and lower blood sugars, but it's a quick fix. "More often than not, it's not sustainable. Oftentimes weight gain may come back, and you'll gain more than what you lost," also both Condon and Kleinman said they wouldn't recommend the keto diet to their patients because it is ultimately not realistic or sustainable. The diet restricts fresh fruits and vegetables, whole grains and low fat dairy that can help with long term weight loss and overall health.

CONCLUSION

So, the bottom line is that a ketogenic diet may be an option for some people who have had difficulty losing weight with other methods. The exact ratio of fat, carbohydrate, and protein that is needed to achieve health benefits will vary among individuals due to their genetic makeup and body composition. Therefore, when one chooses to get on a ketogenic diet, it is highly recommended that the individual consults with one's physician and a dietitian to closely monitor any merits or demerits that may follow the diet, and also to create a meal plan that is suitable to one's health conditions and to prevent nutritional deficiencies or any other life threatening health complications.

A dietitian may also provide guidance on the reintroduction of carbohydrates once the weight loss is achieved. It is very important to remember that diets that lead to rapid weight loss fluctuation are associated with increased mortality. So instead of engaging into another complicated high-end popular diet that would work on terms of a short run then the individual must try to embrace a change of diet plan or their lifestyle pattern that is sustainable over the long term. A balanced, unprocessed diet, rich in very colorful fruits and vegetables, lean meats, fish, whole grains, nuts, seeds, olive oil, and lots of water seems to have the best evidence for a long, healthier, vibrant life.

So, people have to very wise in what type of diet they tend to choose for altering their lifestyle, health patterns, eating patterns etc., hence one has to set down a lifestyle and a healthy eating plan that you think they can adhere to for the rest of their life, because these things only work while one is very devoted in setting aside the time and everything that is required to achieve it.

"EAT A HEALTHY MEAL TO HELP YOUR BODY HEAL"

REFERENCES

1. https://www.ncbi.nlm.nih.gov/books/NBK499830/
2. https://www.sciencedirect.com/topics/neuroscience/ketogenic-diet

QUALITY IN CUSTOMER FOCUSSED OPERATIONS: IKEA CASE STUDY

TASLEEM I.K

BBA - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

This paper highlights the operational issues of IKEA. The operational process followed by this company has been discussed in this paper. In addition, the paper has also critically analysed the role of quality management practices in meeting the expectation level of the customers. Based on this discussion, it has been found that IKEA has effectively followed the quality management practices to increase its operational efficiency.

INTRODUCTION

IKEA is regarded as the largest furniture retailer in the world as per the records of 2008. It is a Swedish company, which is registered in the Netherlands and sells appliances, customized furniture and home accessories. The company was founded by a 17 years old boy, Ingvar Kamprad, who now happens to be the richest person in the world, in the year 2013. The company is well-known because of architectural designs that they provide their customers for all kinds of furniture and appliances. They also provide interior design work, which is attached with eco-friendly simplicity. Its cost control techniques, details of operational process and incessant product development, along with the corporate attributes, have aided the company to maintain a lower price for customers. During the period of global expansion, it has lowered the price of products by an average of 2%-3%. As of January 2014, the company owns around 349 stores across 43 countries. It has been recorded that the company had sold products, amounting to $23.1 billion, in 2010. It is identified that sales of the company has increased by 7.7% from the previous year. The company website displays over 12,000 products to customers, along with clear pictures of IKEA range of products, in order for the latter to gain interest in the company products. The number of visitors, who visit IKEA's website every day, has been recorded to about 470 million in 2013. It has been identified that in 2013, IKEA has been the largest user of wood, as the company has been noted to use about 1% of the total wood available on the earth. IKEA concentrates on selling a wide range of products. The company sells nearly everything, which are required for furnishing a home, including furniture, plants, toys, kitchens and many more.

The products, which are provided by them, have unique styles and the function of good quality and style is complimenting products to become most attractive and satisfy customers' needs. The company accepts the challenge of producing products at a lower price. Any company can make higher quality products at a high price, but IKEA provides its customers with the best quality, along with the lowest price possible, on the product. To provide high quality products at low prices, the company has undertaken cost effective and innovative techniques, which have made them strong enough to rule the retail market with confidence. The whole production process has been reviewed by designers, which has brought in new packing methods and such, thereby reducing cost of manufacturing.

Main Customers

The main customers of the company are the households and businesses. However, the company has tried its best to transform the whole mass into their customers. Customers of the company are offered the lowest price that is prevalent in the industry. Order Qualifiers and order winners The companies are operating in highly demanding market places and are competing against each other to retain their respective customers. They are also interested in increasing their client base by attracting customers of their rival brands. Thus, companies invest a lot of effort to understand their unique position in the market, where they are operating in. They also spend a lot of time in creating new customer value, so that an increasing number of customers are attracted to their products and services and remain loyal to the brand. The business uses the understanding for aligning processes, actions and resources, in accordance with strategies taken by the companies. Thus, these company strategies include the impact of the order qualifier and order winner and also, ways to manage the process design, human resources, supply chain, capacity, quality and innovation (Heung and Ngai, 2008). The order winner is the specific attribute that helps a company to attract more customers for their products and services. They are also regarded as a competitive advantage of the company. The order winners actually concentrate on strategic initiatives, which relates to quality, delivery, speed and reliability of the delivery. The order winners of IKEA can be elaborated as the following: 1) Quality 2) Lowest price 3) Product packaging 4) Brand name Order qualifiers are identified as those competitive attributes, which a firm foregrounds to remain competitive in the marketplace. The following are order qualifiers of IKEA: 1) Service level 2) Delay in the services 3) Flexibility Operational processes IKEA have concentrated on their operation management for success. The company understands its customer and the market as a whole. The way of controlling the network of operation and delivery of products are very important for the company, so that they can rightly position their product in the market, at the right time. The operations of IKEA consider the following activities: [1]

1) The stores' layout is arranged in such a way that it can manage smooth and efficient flow of customers, which is also known as the process design
2) The company stresses on designing their products in a stylish way, so that customers are attracted by the packaging. This is known as product design.
3) The company ensures that all employees contribute equally to the success of the company. This is known as job design.
4) The company locates its stores in places close to their target market in order to easily supply their goods to suppliers as well as customers. This is otherwise known as supply network design.

5) The company focuses on the delivery of products to their stores and this is also known as the supply chain management.
6) The company emphasises on the fluctuations of demand. The method is known as capacity management.
7) The company also focuses on safety of storage and cleanliness of the area, where it is operating. The process is known as capacity management.
8) The company monitors and enhances the quality of services that are provided to the customer. These are quality management (Gentile, Spiller and Noci, 2007)
9) The company avoids the chance of running out of products and thus, maintains a particular level of inventory. This is known as inventory management. The activity forms a small part of the total operation of the management of IKEA and also foregrounds the way in which the operation process contributes to the business success.

Input to the Processes

The set of inputs in the process is called transformed resources. The resources are, hence, treated and transformed in the process. These are basically the combination of the following:

1) **Materials:** They undergo transformation in their physical properties. Many other transformations are related to the change in location, like, retail operations.
2) **Information:** The process transforms information and changes their properties in order to access those.
3) **Customers:** In this case, the transformation is related to the human being and the process changes the look of the same.

Output Products/Services

The products and services are different from the output, which is obtained after the transformational process. The reason behind this is that the output obtained goes through a series of processes, where the same is packed properly. Thus, the outputs, only after undergoing transformational changes, are termed to be products. The services and products are different in the form. The products are tangible in nature, whereas services are intangible. The products can be stored for a long period of time and the life of service is much shorter, in the sense that it gets exhausted after its application.

Process Hierarchy

The operation consists of a number of processes, which are interacting with each other to form a network. Each of the processes takes into account a smaller version of the entire process, in which it is just a part. Within the processes, mechanisms are set in such a way that it facilitates inputs to get transformed into outputs. Therefore, a process can be defined as an arrangement of resources that creates a mixture of services and products. They become the building blocks for operations and form an internal network within the same. The processes are the internal suppliers and customers for the same set of processes. The concept of internal customer gives rise to a model, which analyses internal activities of the operation. The main issue is that, by considering an internal customer in the same manner as external ones, effectiveness of the operation is improvised. The processes consist of networks of individual units of resources, like, individual items and individual people. The transformed resources flow between the units of transforming resources. Thus, it can be inferred from the above discussion that any process is built up with a number of networks of resources. Any operation can be seen as a part of the greater network of operations. The operations supply with the needed products and services and unless the process is dealt with rightly, end customers will not be satisfied. An operation can have a number of suppliers as well as customers and these may lead to competition with companies which employ the same operations and produce the same services or products. Therefore, it is known as the supply network.

Analysis of the levels of the supply network is an examination of the network which flows between processes. This carries the output to different destinations of the process and helps in assembling of the product. Analysis of the levels of operation includes the network of processes that flows between transformational processes. The analysis of process levels indicates a network of resources that flows within the system.

CONCLUSION

It can be concluded that the operation process of IKEA is strong enough to bring high revenues, as has been the case over the years. The years of success is not only governed by a successful operation system, but also by best quality products that are served to customers of the company. The process of operation that comprises the input, transformation and output is powerful enough for the company to produce high quality products. Though the products are of high quality, they are sold at quite low prices. The prices are set in order to compete in the given competitive market. The quality of products is quite high and thus, it creates a differentiation among the products, which are sold in the same market.

REFERENCES

1. Gentile, C., Spiller, N. and Noci, G., 2007. How to Sustain the Customer Experience
2. Journal of Quality Assurance in Hospitality & Tourism, 9(2), pp. 85–107.

STUDY ON WOMEN ENTREPRENEURSHIP

BHAVANA. S. U[1]

B.Sc Computer Science - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

Email: bhavana19cs006@gmail.com

ABSTRACT

India is a developing country which has to tackle and solve all diverse problem to become a developed nation. The biggest developmental challenge in almost every country in the world is youth unemployment. There are more than 1 billion young men and women in the world today, the majority of whom live in developing countries. Youth unemployment 300 to 400% higher than non-youth unemployment. Government efforts to mitigate the unemployment problem by creating job opportunities through plant programmes both in private and public sectors have not touched even the tip of the Iceberg. Present education system producers' jobseekers only but not job creators and income generator. "Women Entrepreneurship" is the need of the hour in the current century. It is the only way to turn the job seekers into job providers; to find out an ever-lasting solution to ever-growing youth unemployment and underemployment epidemic; to promote 'entrepreneurship led growth' which is the most suitable strategy for a developing country; to create an economy of entrepreneurs which is the real economy; and to raise a developing country to the rank of a developed country. Entrepreneurs or not necessarily born the capacity to start and run a business is not hereditary or limited to those castes or communities who are traditionally in business

Key words: *Women Entrepreneurship, job-seeker, opportunities, unemployment.*

INTRODUCTION

According to Jawahar Lal Nehru, *"when a woman moves forward, the family moves, the village moves and the nation moves"*.

The word "entrepreneur" is derived from the French verb 'entreprendre', which means "to undertake". Thus, undertaking an enterprise, especially a commercial one, is entrepreneurship and one who undertakes it, i.e., one who combines capital and labour for the purpose of production and takes effort for the sale of products produced, is an entrepreneur. [1]

WOMEN ENTREPRENEURSHIP - A STATE OF MIND

Women entrepreneurs can play powerful role in confidence building and creating awareness in other women to promote self-reliance. There is a saying that, when women bring life into this world; it contributes to the society. When a women entrepreneur creates an enterprise, it generates employment opportunity which ultimately creates wealth. Hence the contributions of women entrepreneurs are a prerequisite for nation building.

As the concept has never been gender-biased, the same may be extended equally well to women entrepreneurs. [6]

Women who intend to create something new, organise production and undertake risk and handle economic uncertainties to adjust their personality needs, family life, social life and economic independence

The entry of women into the field of entrepreneurship is a recent phenomenon. Yet one can visibly notice that gradually there becomes a growing tendency among women occupying this field, both in terms of their numbers and in assuming the much harder risks . A woman entrepreneur like a man entrepreneur may be an agricultural entrepreneur, an industrial entrepreneur, a trading entrepreneur, a retail entrepreneur, a service entrepreneur, or a combination of two or more of these.

Women entrepreneurship is one of the key elements of growth in any economy. They initiate, organize and operate in a dynamic business environment. Government of India has defined women entrepreneurs as an enterprise owned and controlled by a woman having a minimum financial interest of 51% of the capital and giving at least 51% of employment generated in the enterprise to women. Naina Lal Kidwai, Anita Raddick and Indra Nooyi are well-known and successful woman entrepreneurs. Their successes and the success of other woman entrepreneurs have changed perceptions and brought about paradigm shifts, calling upon the women of the nation to cherish the spirit of entrepreneurship. [2]

There are four motivating factors which influence a woman entrepreneur, which includes recognition, influence, internal, profit.

GOVERNMENT PROGRAMS AND GROUP FORMATION AND TRAINING FOR THE DEVELOPMENT OF WOMEN ENTREPRENEURSHIP

In India, many B-schools are offering programmes exclusively for women entrepreneurs. Indian Institute of Management, Ahmedabad, Indian Institute of Management, Bangalore, Indian School of usiness, Hyderabad, Narsee Monjee Institute of Management Studies, Mumbai is few of them. There are some specialized training centres which provide training exclusive to the women entrepreneurs. [4]

Association of Women Entrepreneurs of Karnataka (AWAKE)

"Empowering women through Entrepreneurship Development to improve their economic condition". [3] The focus of the association is on empowerment of women and youth from rural and urban areas, irrespective of their academic, social and economic background.

Women Entrepreneurs Association of Tamil Nadu (WEAT)

It has been established to focus on the economic empowerment of women. It is a prerequisite for overall empowerment and hence a separate association called WEAT has been created and given to the women to manage various EDP, Skill Training, Management Development Programmes etc. It conducts various training to women entrepreneurs on coir, fashion designing, garment making, sewing operator training with stipend and placement, food processing and preservation etc.

1. The Trade Related Entrepreneurship Assistance and Development (TREAD): The Trade Related Entrepreneurship Assistance and Development (TREAD) scheme for women envisages economic empowerment of women through development of their entrepreneurial skills in non-farm activities. The government's grants up-to 30 per cent of the total project cost is provided to the Non-Governmental Organizations (NGOs) for promoting entrepreneurship among women
2. Mahila Coir Yojana (MCY): Mahila Coir Yojana is a woman-oriented self-employment scheme in the coir industry, which provides self-employment opportunities to the rural work artisans in regions producing coir fibre. [7]

NATIONAL PERSPECTIVE PLAN FOR WOMEN (NPPW)

It is a report of the core group set up by the Department of Women and Child Development, Ministry of Human Resource Development, Government of India in 1988. It was initiated to improve women's and girls access to education, women's security and the institutions that serve women, women's leadership development in both the public and private sectors, women's access to formal and informal justice mechanisms and enforce existing laws and the Constitutional guarantee of equality it was also initiated to support and expand economic development opportunities for women and increase women's political empowerment and participation.

Developing Women as Entrepreneurs

1. Access to savings and credit.
2. Awareness and education about policy and programmes amongst women.
3. Complete family support.
4. Thorough involvement of all promotional agencies in providing support in the areas of infrastructure, finance, raw materials, marketing etc.
5. Well equipped training and resource centres to meet the needs of women entrepreneurs.

SUGGESTIONS FOR DEVELOPMENT OF WOMEN ENTREPRENEURS

Following are the few suggestions for the development of women entrepreneurs:

1. Adequate training programme has to be conducted for the woman entrepreneur.
2. To encourage more passive women entrepreneurs the Women training programme should be organised that taught to recognize psychological needs and express them. [8]

   One woman, seven roles: Indian women are playing seven roles. They are:

   1. She's a Home Manager.
   2. She's a Finance Manager.
   3. She's a Relationship Manager.
   4. She's a Well-being Manager.
   5. She's the Next-Gen Manager.
   6. She's a PR Manager
   7. She's a Self-manager

CONCLUSION

Today, in fact, female entrepreneurs are a growing force to be reckoned with. Each year, more and more women take the initiative and start thi: own business ventures at twice the rate of men. Women continue to r' shape the business world with innovative models, both large and small. They are coming forward in increasing numbers and gradually capturing not only jobs and services, but also taking up the challenge of entrepreneurship. [5]

Entrepreneurs are not necessarily born; The capacity to start and run a business is not hereditary or limited to those castes or communities who are traditionally in business; Business background is not a precondition of being a successful entrepreneur nor being rich is a sufficient condition for business success; The ability to make money and become rich is not in born,or hereditary or confined to a few. It can be developed and acquired; No one starts life with any of the necessary qualities, skills, knowledge and characteristics fully developed in order to be successful; The entrepreneurs do not have to be highly educated; Studies indicate that more than half of successful entrepreneurs are not even matriculates; Studies indicate that many entrepreneurs who were post graduates have failed.

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REFERENCES

1. Entrepreneurship Development Institute of India, Ahmedabad, “A Handbook for New Entrepreneurs.”
2. Bright, P.S., “Bright’s How to be an Entrepreneur, M/s Bright Careers Institute, Delhi
3. Khanka, S.S., “Entrepreneurial Development, M/s S. Chand & Co. Ltd., New Delhi. 6. Sahay, A. and Sharma, V., “Entrepreneurship and New Venture Creation”, M/s Excel Books, New Delhi.
4. Gupta, C.B. and Srinivasan, N.P., “Entrepreneurship Development in India”, Mis Sultan Chand and Sons, New Delhi..
5. Badi, R.V. and Badi, N.V., “Entrepreneurship”, M/s Vrinda Publications (P) Ltd., Delhi. 10. Aswathappa, K.. “Essentials of Business Environment, M/s Himalaya Publishing House, Mumbai.
6. Saibaba, Rudra, “Fundamentals of Entrepreneurship”. M/s Kalyani Publishers, New Delhi.
7. Desai, Vasant, “Small-scale Industries and Entrepreneurship”. M/s Himalaya Publishing House, Mumbai.
8. Wickham, Philip, “Strategic Entrepreneurship”, M/s Pitman Publishing.

TECHNOLOGY TO STUDENT

M. REVATHI

B.Sc (Computer Science) III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

Email: revathi.20cs033@gmail.com

ABSTRACT

This paper tries to analyze the technology to student that digital platforms are the basics need to climb student during covid situation. Technology is a gift of god. After the gift it is perhaps the greatest of god's gifts. It is the mother of civilizations both arts and science. Technology has certainly changed the way we live. In today modern world, the higher education is key to modernization and development for future generation. technology plays important role in higher education especially in covid situation. Nowdays LKG to higher education students attending online class through digital platform like zoom, google meet, google classroom, etc... for better learning students are used sources like e-book, digital journal, learning code and technology through apps like google, chrome and youtube. Mainly digital technology approaches student to additional training and support to learning level of power. Apart from normal education system, students also using digital devices like smartboards, smart tables, presentation, laptops, phones and digital textbook for easy getting concept of subject. As a result of technology to student spend less time on basic learning tasks than student who use a more traditional method. Digital technology offers a way to individual to achieve their goals and potential in short time. Mainly digital platform help the higher education student allows to more information, courses without money and save the time, only connection and smart phones are enough to get the features. Increased implementation of technology will increase student of content development of skills in such areas as problem solving, information evaluation and create thinking. Using anytime and anywhere student able to success in life through digital technology.

Key words: *Higher education, digital platform, covid situation, apps, online classess, learning, digital devices, development skills.*

INTRODUCTION

Nothing is permanent, only the change is constant. We know everything will be changed and has been changing with time. The credit to the advancement of the world goes to technology. Technology has been changing the face of the globe at a rapid pace and its effect can be seen in the education system as well. The system of education has been improved in various ways and today, it becomes tough to even make a similarity with the traditional aspect of education. Technology provides students with easy-to-access information, accelerated learning, and fun opportunities to practice what they learn. It enables students to explore new subjects. Technology can help students by making learning more engaging and collaborative. Rather than memorizing facts, students learn by doing and through critical thinking. This could be as simple as taking an interactive quiz in class or participating in tech-enabled group discussions. BYPBS LearningMedia research found that 74 percent of teachers found that classroom technology helped them to motivate their students to learn and the learning materials. About 73 percent also said that it helped them better engage students with different learning styles. The introduction of technology to the world of education has made it easier to students. Teachers can teach in many innovative ways and they can connect to students more easily and fastly than before. ... Virtual classrooms and online classes have replaced the traditional classroom method of teaching. Virtual classrooms, video, augmented reality (AR), robots, and other technology tools can not only make class more lively, they can also create more inclusive learning environments that foster collaboration and inquisitiveness and enable teachers to collect data on student performance.

Still, it's important to note that technology is a tool used in education and not an end in itself. The promise of educational technology lies in what educators do with it and how it is used to best support their students' needs. followed by a synthesis of how each type of technology influences student engagement. Finally, we will discuss areas for future research and make recommendations for practice through technology.

OBJECTIVES

- To study used of technology.
- To analyze technology to student.

INFLUENCE OF TECHNOLOGY ON STUDENT EDUCATION

One of the biggest challenges in education is taking care of each student in the classroom. It is not an easy task, especially in classes with a large number of students where each of them has their own unique talents, and needs. With education technology, students can access online information more easily, while learning itself is more reliant on multimedia than ever before. Indeed, there are many ways technology can help students have a great learning experience.

Teachers want to improve student performance, and technology can help them accomplish this aim. To mitigate the challenges, administrators should help teachers gain the competencies needed to enhance learning for students through technology. Additionally, technology in the classroom should make teachers' jobs easier without adding extra time to their day. Leaders and administrators should take stock of where their faculty are in terms of their understanding of online spaces. From lessons learned during this disruptive time, they can implement solutions now for the future. For example, administrators could give teachers a week or two to think carefully about how to teach courses not previously online. In addition to an exploration of solutions, flexibility during these trying times is of paramount importance.

In addition to e-books and websites, podcasts, photo archives, infographics, videos, and even video games can be very useful. All these educational formats are available online, but also in traditional classrooms thanks to teachers who use technology to considerably improve their lectures.

It is now possible to give an illustrative and specific answer to every question, which facilitates learning for all students. In turn, students spend less time searching for information, and more time studying it which increases student activity in class, and positively impacts learning and test scores.

THE IMPACT OF TECHNOLOGY ON ACADEMIC SUCCESS

Incorporating the use of several technological applications allows for students to participate in higher-order thinking, enhance communication, engage in collaborative problem-solving activities and discussions, critically reflect on content and expand digital competencies. LMS helps to student to developed the skills. Studies have compared differences in academic achievement between students who have been taught with technological enhancement (i.e. lecture recordings and podcasts) and those who been taught without it. The results demonstrated that students who learned academic content in the technology enhanced classroom outperformed those who learned the content without technology (Carle, Jaffee & Miller, 2009). [3] Performance was greater in the intervention group in all objectively graded assessments which include papers, midterm/final exam scores and individual assignments. Other research has demonstrated that implementing technology into the classroom enhances student motivation to understand and complete tasks (Mistler-Jackson & Songer, 2000). [1]

FREQUENCY DISTRIBUTION OF THE DATA

TABLE 1: FREQUENCY DISTRIBUTION OF GENDER

GENDER	FREQUENCY	PERCENTAGE
Male	**15**	15.0
Female	**30**	30.0
others	**0**	0.0
TOTAL	**45**	45.0

Table 1 Explains the distribution of gender list of the Respondence. The highest frequency is 30% at the female gender and the lower frequency is of 15% of male gender.

TABLE 2: FREQUENCY DISTRIBUTION OF EMAIL ID

EMAIL ID	FREQUENCY	PERCENTAGE
Male	15	15.0
Female	30	30.0
Total	45	45.0

Table 2 Explains the distribution of Email ID list of the Respondence. The highest frequency is 30% at the female and the lower frequency is of 15% of male.

TABLE 3: FREQUENCY DISTRIBUTION OF CLASS OF STUDENT

CLASS OF STUDENT	FREQUENCY	PERCENTAGE
Collage Student	35	35.0
Higher Secondary	6	6.0
10th	4	4.0
Total	45	45.0

Table 3 Explains the distribution of student class of the Respondence. The highest frequency is 35% by the collage student and the lower frequency is of 4% of 10th standard students. Where this survey clear all types of students mindset about the technology to student.

TABLE 4: FREQUENCY DISTRIBUTION OF HOBBIES

HOBBIES	FREQUENCY	PERCENTAGE
Music	20	20.0
Dance	10	10.0
Gaming	15	15.0
TOTAL	45	45.0

Table 4 Explains the distribution of list of hobbies of the Respondence. The highest frequency is 20% are loving to hear and singing a song and the lower frequency is of 10% of people like to dance in free time for healthy lifestyle.

TABLE 5: FREQUENCY DISTRIBUTION OF MOST USED DIGITAL APPS

DIGITAL APP	FREQUENCY	PERCENTAGE
Chrome	5	5.0
Google	25	25.0
Youtube	15	15.0
TOTAL	45	45.0

Table 5 Explains the distribution of most used digital apps list of the Respondence. The highest frequency is 25% using google for education purpose and the lower frequency is of 5% of students using chrome for digital books and information.

TABLE 6: FREQUENCY DISTRIBUTION OF REASON BEHIND DIGITAL PLATFORMS

DIGITAL PLATFORMS	FREQUENCY	PERCENTAGE
Using any time and everywhere	14	14.0
Adding of course For Future	15	15.0
Many features	5	5.0
Free	11	11.0
Total	45	45.0

Table 6 Explains the distribution of reason behind using digital platforms list of the Respondence. The highest frequency is 15% at the adding of course for future like backup battery to life and the lower frequency is of 5% of people used for many features available in digital platforms.

TABLE 7: FREQUENCY DISTRIBUTION OF MOST PREFER WORK

MOST PRFER WORK	FREQUENCY	PERCENTAGE
Smart boards	15	15.0
Presentation	15	15.0
Microsoft office	10	10.0
TOTAL	45	45.0

Table 7 Explains the distribution of most prefer work area of the Respondence. The highest frequency is 15% both smart phone and presentation in covid situation and the lower frequency is of 10% for Microsoft office because they used only for assessment works.

TABLE 8: FREQUENCY DISTRIBUTION OF ONLINE CLASSESS APP

ONLINE CLASS	FREQUENCY	PERCENTAGE
Googlemeet	17	17.0
Zoom	20	20.0
Google classroom	3	3.0
Collage own website	5	05.0
TOTAL	45	45.0

Table 8 Explains the distribution of online class using app of the Respondence. The highest frequency is 20% student used the zoom platforms for online classess and the lower frequency is of 5% of student only used collage own website for attending the classess.

TABLE: 9 FREQUENCY DISTRIBUTION OF TECHNOLOGY HELPING IN SUCCESS

HELPING IN SUCCESS	FREQUENCY	PERCENTAGE
Yes	40	40
No	5	5.0
TOTAL	45	45.0

Table 9 Explains the distribution of technology helping in success in life of the Respondence. The highest frequency is 40% at the list used the technology in right way helping to achieve in the life and the lower frequency is of 5% of student think technology is not helping in study and improve in the life.

Analize

ABBREVIATIONS

LMS: Learning Management System

CONCLUSION

The findings of this study show that there are many positive and negative aspects of technology. Although looking through survey results, teachers did share more positive impacts of technology than negative. The researchers believe that there needs to be more research completed to determine the effects technology has in the classroom. There were areas that teachers felt like they could use more support, but that they felt that student motivation and engagement were higher with the use of technology in the classroom. Moving forward, The timing has never been better for using technology to enable and improve learning at all levels, in all places, and for people of all backgrounds. Educators, policy makers, administrators, and teacher preparation and professional development programs now should embed these tools and resources into their practices. Working in collaboration with families, researchers, cultural institutions, and all people using technology for developing the market and business .Although the presence of technology does not ensure equity and accessibility in learning, improved practice so that the vision is owned by all and dedicated to helping every individual in the system improve learning for students. It is a time of great possibility and progress for the use of technology to support learning for student development.

Results: Educators also felt that students need more training with the provided technology to help promote more independence. The researchers believe that there needs to be more research completed to determine the effects technology .

REFERENCE

1. Mazer, J. P. (2013). Associations among teacher communication behaviors, student interest, and engagement: A validity test. *Communication Education, 62(1)*, 86-96.
2. Mignone, J., & Henley, H. (2009). Impact of information and communication technology on social capital in aboriginal communities in Canada. *Journal of Information, Information and Organizations*, 4, 127-145
3. Miller, J. P., Milholland, E. S., & Gould, S. M. (2012). Determining the attitudes of students toward the use of a classroom response in hospitality courses. *Journal of Hospitality & Tourism Education*, 24(2-3), 73-79.
4. Anderson, M., & Horrigan, J. B. (2016). *Smartphones help those without broadband get online, but don't necessary bridge the digital divide*. Washington, D.C.: Pew Research Center Retrieved from http://www.pewresearch.org/fact-tank/2016/10/03/smartphones-help-those-without-broadband-get-online-but-dont-necessarily-bridge-the-digital-divide/.

5. Amirault, R. J. (2012). Distance learning in the 21st century university. *Quarterly Review of Distance Education, 13*(4), 253–265.
6. Wang, Z., Chen, L., & Anderson, T. (2014). A framework for interaction and cognitive engagement in connectivist learning contexts. *The International Review of Research in Open and Distributed Learning, 15(2)*. *Technology, and Organizations, 4*, 127-145.
7. Yunkul, E., & Cankaya, S. (2017). Student's attitudes towards Edmodo, a social learning network: A scale development study. *Turkish Online Journal of Distance Education(TOJDE), 18(2)*.
8. Purcell, K., Buchanan, J., & Friedrich, L. (2013, July 16). The Impact of Digital Tools on Student Writing and How Writing is Taught in Schools (Rep.). Retrieved September 2, 2020, from Pew Research Center website: http://www.pewinternet.org/files/old- media/Files/Reports/2013/PIP_NWP%20Writing%20and%20Tech.pdf.
9. Rashid, T., & Asghar, H. M. (2016). Full length article: Technology use, self-directed learning, student engagement and academic performance: Examining the interrelations. Computers in Human Behavior, 63604-612.doi:1016/j.chb.2016.05.084.
10. Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*(4), 297–308.
11. Bakker, A. B., Vergel, A. I. S., & Kuntze, J. (2015). Student engagement and performance: A weekly diary study on the role of openness. *Motivation and Emotion, 39*(1), 49–62. doi:10.1007/s11031-014-9422-5.

DOES "NOTA" OPTION IN ELECTIONS REALLY MAKE SENSE?

NIVETHITHAA. G

B.Com - III Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

ABSTRACT

NOTA option to voters would lead to systemic change in polls and political parties will be forced to project clean candidates. There can only be one interpretation of NOTA that it reflects the will of the people. In a voting system, the voter should be allowed to indicate disapproval of all of the candidates. The very purpose of introducing this option is to empower the voter to reject all candidates if they do not like any and all the candidates listed in the EVM. The bigger picture is safeguarding the democracy and spirit of the Indian Constitution. NOTA may be an effective tool to increase political participation, and can attenuate the electoral impact of compulsory voting. NOTA was idealised as a powerful tool to exercise the right to reject. While the top Court included NOTA as a working option, it simultaneously made NOTA vote incompetent. The article signals that overall, voters seem to be using NOTA not just to show their disapproval of the candidates in the fray but to express their protest against many things they perceive wrong in the political system.

Key words: NOTA, Government, Effect, Election, Voter.

INTRODUCTION

However chaotic, elections in India have managed to retain some sense of democracy. From panchayat polls to Lok Sabha elections, all equally complex, driven by enthusiasm, rhetoric and dynamic display of power and discrimination. No matter the faultiness, elections are imperative, and so is voting. For once, the governed are allowed to practice their right to vote and choose. But what if you choose to reject? It often happens that a voter does not support any of the candidates in the election, but they have no choice but to select a candidate. On 27 September 2013, the Supreme court of India ruled that the right to register a "none of the above" vote in elections should apply, while ordering the Election Commission of India (ECI) to provide a button for the same in the electronic voting machines. NOTA stands for "None of The Above ". This article tries to discuss the issues with NOTA's efficacy, describing how it makes sense in the democratic country.

What does NOTA exactly mean?

The NOTA button in the Electronic Voting Machines (EVMs) will give you the ‘right to reject’ all candidates or parties listed. However, NOTA in India does not provide for a ‘right to reject’. The candidate with the maximum votes wins the election irrespective of the number of NOTA votes polled. The former Chief Election Commissioner, S Y Quraishi said that, “Even if there are 99 NOTA votes out of a total of 100, and candidate X gets just one vote, X is the winner, having obtained the only valid vote. The rest will be treated as invalid or ‘no votes’,”. He then made it clear that NOTA may not affect election results; the option would “ensure secrecy of the voter wanting to make a choice that amounts to abstention, and also to ensure that nobody casts a bogus vote in his place.”

NOTA’S Debut in India

NOTA button saw its debut in the 2013 Assembly elections held in four States — Chhattisgarh, Mizoram, Rajasthan and Madhya Pradesh and the Union Territory, Delhi. In these States and Delhi, NOTA constituted 1.85% of the total votes polled. The average NOTA vote share dropped to 0.95% in the 2014 Assembly elections held in eight States — Haryana, Jharkhand, Andhra Pradesh, Sikkim, Odisha, Arunachal Pradesh, Jammu & Kashmir and Maharashtra. It increased to 2.02% in the 2015 Assembly elections held in Delhi and Bihar. While Delhi polled a mere 0.40%, Bihar saw 2.49% of NOTA votes, which remains the highest NOTA votes polled so far in any State in Assembly elections. In the 2016 Assembly elections held in Assam, West Bengal, Kerala, Puducherry and Tamil Nadu, NOTA vote share dropped again to 1.6%. In the 2014 Lok Sabha polls, NOTA constituted 1.1% of the total votes. Across the elections, the number of NOTA votes polled was larger than the winning margin in 261 Assembly constituencies which went to the polls since 2013, and in 24 constituencies in the Lok Sabha elections. One can argue that in these constituencies the NOTA votes did make a difference to the election results assuming that in the absence of this option a majority of NOTA voters would have preferred one or the other candidate in the fray.

Does NOTA make sense?

The common misunderstanding in India is that if the NOTA option receives the greatest number of votes in an election, the winning candidate is not dismissed. Therefore, the NOTA acts only as a system of negative feedback and cannot be used to justify re-election. It is for this very reason that NOTA came into strong criticism and it is solely this reason that prevented citizens from using the option of registering a negative vote. The Supreme Court said negative voting would even encourage people who are not satisfied with any of the candidates to turn up to express their opinion and reject all contestants. Negative voting will lead to a systemic change in polls and political parties will be forced to project clean candidates. If the right to vote is a statutory right, then the right to reject a candidate is a fundamental right of speech and expression under the Constitution. The reason for the ineffectiveness of NOTA so far is because it has no power with it. Despite 99% of the voters disagreeing to the candidate, the government will be formed by him/her. This shows how powerless NOTA is. Voters do not go with NOTA because of this very reason, it is powerless. In its current powerless format, NOTA does not make any sense. But in the future if a provision is made which mandates that a certain percentage of NOTA votes will lead to cancellation of the elections will really make NOTA an effective and viable option for the voters. *The Election Commission should frame rules to the effect that if NOTA gets majority, the election held in the particular constituency shall be declared null and void and fresh election shall be conducted to the constituency. In those circumstances, the Election Commission may also frame rules stating that the candidates who fought in the earlier fray should not be allowed to contest or they should be at least debarred from contesting for at least some period of time, as can be decided by the Election Commission*.

Impact of NOTA

The effect of NOTA on elections has been inconclusive so far. NOTA votes account for approximately 1-2% votes in various Assembly/Lok Sabha elections. This share is too low to actually make any difference in our elections. Various parties have expressed their concerns over NOTA stealing their share of votes, but these allegations can be dispensed with as they were made by losing parties. In some cases, %age of NOTA votes has been greater than the difference between the winning and losing party votes. But these figures are yet to be conclusive.

Review of Literature

Overestimating NOTA's potential, the Supreme Court in its NOTA judgment became too short-sighted. From my point of view, voters should be able to reject candidates based on their credentials or past work. Even if more than 50% of the voters choose to opt for negative voting, it will not affect the election result or prevent a particular candidate from winning. It is for this very reason that NOTA came into strong criticism and it is solely this reason that prevented citizens from using the option of registering a negative vote. The reason for the ineffectiveness of NOTA so far is because it has no power with it. In counterfactual simulations, I think that NOTA would have a sizeable impact on election outcomes under compulsory voting. Demanding more power for NOTA voters, the former Chief Election Commissioner T.S Krishnamurthy encouraged re-elections when more than 5.5 lakh voters had voted for NOTA in the Gujarat Assembly elections, 2017. He said,

"In my opinion, NOTA is very good; we should say if NOTA crosses a certain percentage of votes; for example, if the difference between the winner and the loser is less than the NOTA votes, you can say we should have the second round of elections."

The early trends of NOTA need to be explored further with more elaborate statistical and ethnographic analysis. So far, a small number of Indian voters have come to see NOTA as an instrument of protest. NOTA is quite literally a protest option. In Kerala, a group of women activists hit the road urging people not to elect any candidate if no woman was present in the fray. In Tamil Nadu, a youth group campaigned for NOTA as a protest vote against corruption. This electoral option will become a meaningful means of negative voting only if it becomes a 'right to reject' rather than being a symbolic instrument to express resentment as it is now.

CONCLUSION

Introducing NOTA in the electronic voting machines is no doubt a major step in introducing electoral reforms, bringing it closer to the end democracy seeks to achieve, however its true effect and purpose can be realized only when it is allowed to be used in its complete and free sense i.e., not only the right to register a negative vote but also the right to reject. NOTA can prove to be a lot more beneficial than it is today. No doubt, a learned elected candidate would represent their constituencies more effectively and efficiently. Therefore, there's no point in having something that only offers the right to reject but continues to be toothless in implementing it. Election Commissions and Lawmakers should sincerely focus on improving the current status of NOTA. In the present scenario, it doesn't have any significance at all. For now, NOTA is just used by voters to show dissatisfaction for candidates or not to vote any. Right provisions and laws on NOTA can bring a revolutionary change in the elections.

REFERENCES

1. https://www.lawctopus.com/academike/nota-votes-india/
2. https://www.quora.com/Does-pressing-NOTA-make-any-sense
3. https://thehybridshelf.com/does-the-nota-option-in-elections-really-make-sense/
4. https://www.researchgate.net/publication/317046398_NOTA_and_the_Indian_voter
5. https://economictimes.indiatimes.com/news/elections/lok-sabha/india/what-is-nota/articleshow/68724703.cms?from=mdr
6. http://www.ijhssi.org/papers/v3(6)/Version-1/B03610507.pdf

AN ANALYSIS OF COST OF ILLNESS ESTIMATES OF DIABETES MELLITUS AT THE MICRO-ECONOMIC LEVEL IN INDIA

LALITHA. H

PG Department of Accounting and Finance - I Year
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women
Chromepet, Chennai - 44

Email: lalithahari.2k@gmail.com

ABSTRACT

Diabetes is one of the world's most common diseases, its treatment and other costs skyrocketing to $966 billion worldwide. This study analyses the Cost Of Illness of diabetes in India at a micro-economic level, using secondary data and calculated estimates.

Keywords: *Diabetes Mellitus, Cost Of Illness, Diabetes in India, Micro-Economic Level.*

INTRODUCTION

"Health is like money; we never have a true idea of its value until we lose it."

– Josh Billings

Disease is one of the most financially and economically draining expenditures for governments as well as individuals, the catastrophic effects it has on one's physique and psyche notwithstanding. Diabetes is one of those diseases that leave a life-long and ever-lasting negative impact on every aspect of the lives of those afflicted. It is expensive in its treatment and exerts additional pressure on an already fickle and burdened economy like that of India's.

REVIEW OF LITERATURE

1. **"Annual cost incurred for the management of type 2 diabetes mellitus—a community-based study from coastal Karnataka" by Eshwari, K., Kamath, V. G., Rao, C. R., & Kamath, A.** estimated the annual cost and proportion of family income spent on T_2DM in a Medical college in coastal Karnataka using primary data collected from 1239 respondents. [2]

2. **"Economic menace of diabetes in India: a systematic review" by Oberoi, S., & Kansra, P.** analysed the cost of diabetes in India using 32 studies (literature review method) made across India. [1]
3. **"International Diabetes Federation Diabetes Atlas – 10th Edition"** gave an estimate of the cost of diabetes in India for 2021 International/Geary-Khamis Dollars (Int'l$ or G-K$) as well as in US Dollars.

RESEARCH METHODOLOGY

- This study is **descriptive** in nature.
- **Trend analysis** was conducted using **secondary data.**
- The population & sample unit of this study is **definite** and includes all those persons affected by diabetes in India.

OBJECTIVE

- To analyse the Cost Of Illness (COI) estimates of Diabetes Mellitus at the micro-economic level in India.

DIABETES MELLITUS

Diabetes mellitus (DM or simply Diabetes) refers to a group of metabolic diseases arising due to defects in insulin secretion, causing hyperglycaemia (increase in blood sugar levels). Being the world's leading non-communicable, chronic disease, it increases mortality risk and reduces lifespan. It is projected to become one of the world's main disablers and killers within the next 25 years (Kamath, Rao et.al. – 2019). As of 2020, this disease has affected around 463 million people in the world. This number is estimated to grow to around 700 million by 2045 (International Diabetes Federation). The 16-year period from 2000 to 2016 saw a 5% increase in premature mortality from diabetes. An estimated 1.5 million deaths were directly caused by diabetes in 2019. In 2021 alone, diabetes has been responsible for *6.7 million deaths* - 1 every 5 seconds. The concerning part here is that around 50% more people are undiagnosed.

TYPES OF DIABETES

There are two main types of diabetes namely:

1. **T_1DM**—Type 1 diabetes is caused by impairment in insulin secretion by the beta cells of the pancreas. It is called Juvenile diabetes or early-onset diabetes as it usually affects people before they reach the age of 40. It is treated via insulin injections and is increasing at a rate of 3% Y-O-Y, particularly among children. In 2015, the number of children worldwide with T_1DM exceeded half a million for the first time. India alone has more than 70,000 children with this condition, only second to the USA. T_1DM used to be referred to as IDDM (Insulin Dependent Diabetes Mellitus).

2. **T_2DM**—Type 2 diabetes is caused by impairment in insulin action (insulin resistance) due to lifestyle choices (sedentary lifestyle, poor diet, obesity), genetic factors (some genetic pools have higher risk of insulin resistance), age etc. it is also called adult-onset diabetes and is usually treated via oral medications such as metformin (combined with insulin in rare cases). The number of people diagnosed with T_2DM is increasing by 80% in low and middle-income countries such as India, Bangladesh, Bhutan, Pakistan, Sri Lanka, The Philippines and Indonesia. More than 95% of all people diagnosed with diabetes suffer from T_2DM. T_2DM used to be referred to as NIDDM (Non-Insulin Dependent Diabetes Mellitus)

One also needs to know about **Gestational diabetes**, the form of diabetes affecting women during pregnancy due to hormonal-changes, resulting in reduced levels of insulin receptors and consequent high blood-sugar levels. This leads to complications in pregnancy and delivery, with the mother and child facing an increased risk of onset of T_2DM. Currently, this form of diabetes affects 17.77 million live births all over the world.

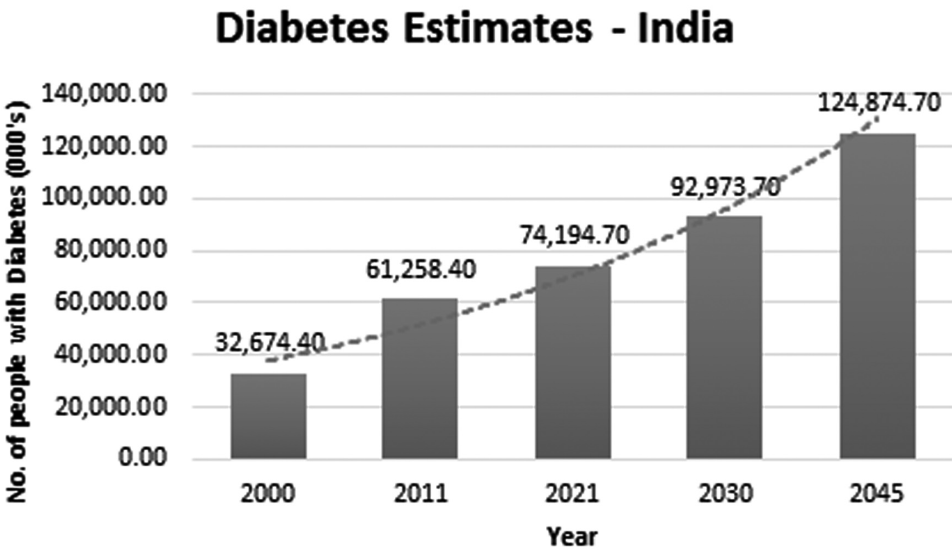
COVID-19 AND DIABETES—TWO TO TANGO

People diagnosed with diabetes are more likely to have serious complications and are less likely to survive, if they contact COVID-19 (American Diabetes Association). Pal, Yadav et.al (2021) found that 90% of people diagnosed with diabetes are unable to keep up with their fitness regimen due to the pandemic, thus resulting in an increased risk of severe complications arising from uncontrolled diabetes, from renal failure to amputation. 32% of all cases admitted to the COVID-19 ICU wards in the US were diabetics.

DIABETES AND INDIA—THE INFINITE RUSSIAN ROULETTE

India, known as **"The Diabetes Capital of the World"**, is home to 77 million diabetics (2020) and is expected to have around 135 million in 2045. In the metropolitan cities of India, the lifetime risk of developing diabetes among 20-year-old women and men was 64.6% and 55.5%, respectively, the risk percentage increasing with age. (Luhar, Shammi et.al. – 2021). A study by the Ministry of Health and Family Welfare, Government of India, found that 9.3% of senior citizens living in rural areas have diabetes and that more than three quarters of Indians above the age of 45 were undergoing treatment for diabetes. Awareness among people on the so-called '*sugar disease*' is low, especially considering the dire impact it has had on the society. Some reasons as to why diabetes has affected India at this level are:

1. Physiological and genetic differences
2. Indifferent perception and lack of awareness
3. Changes in agricultural methods such as unwarranted use of chemicals
4. Food habits and preferences
5. Social stress and other psychological phenomena
6. Early onset of adiposity and higher BMI
7. Rapid urbanization and its ill-effects



Source: IDF Diabetes Atlas 10th Edition (2021)

COST OF ILLNESS (COI) STUDY

A COI study refers to the analysis of the direct and indirect costs incurred at the micro and/or macro level with respect to an ailment. It is a way to measure the medical and other costs of an illness. It can quantify a disease's total monetary effect. It is also known as a BOD (Burden Of Disease) study or Economic Impact Analysis. As Jefferson et al. (2000) explained, *"the aim of COI studies is descriptive: to itemize, value, and sum the costs of a particular problem with the aim of giving an idea of its economic burden."* It can be done using primary as well as secondary data. There are two methods used in COI namely:

1. **The prevalence method** (static nature), which calculates COI for a specified timeframe (usually per annum) regardless of specific year of occurrence of disease **(used in this study)**
2. **The incidence method** (dynamic nature), which calculates COI for a lifetime based on the year of occurrence of disease, and analyses the cost of prevention using sophisticated additional data.

COI study involves classification of cost into two major categories:

1. **Direct costs** (comprising of medical and non-medical costs) such as:
   - Consultation fees
   - Medication expenses
   - Hospitalization charges
   - Laboratory and diagnostic fees
   - Transportation costs

2. **Indirect costs** such as:
    - Job-absenteeism
    - Productivity losses
    - Foregone leisure time

Some studies also tend to include a third category—intangible costs, which is more subjective and psychological in nature, hence the name. It includes reduced participation in societal activities, depression, anxiety, stigma and mental stress caused due to disease etc.

MICRO-ECONOMIC LEVEL

Microeconomics refers to specific or non-aggregate economic evaluation at the smallest levels/units of an economy and usually covers the economic ramifications of individual(s), household(s), firm(s), particular industry/industries etc. It is individualistic in approach and deals with estimation and control of costs, prices etc.

FINANCIAL IMPLICATIONS OF DIABETES

In India, on an average, 17% of family income is spent on healthcare. Diabetes alone exhausts 5 to 25% share of an average Indian household earning. Mathew G et.al (2016) found that almost one-fourth of family income was spent in diabetes care. Diabetes is a progressive disease, the cost of therapy increasing lineally with the duration of diabetes, as more medications are required to optimize glycaemic control. The medical costs incurred by a person with diabetes are two to five folds higher than those incurred by people without diabetes are. For a low-income Indian family with an adult with diabetes, as much as 20% of family income is devoted to diabetes care — this increases to 35% in case of a child with diabetes. 85-95% of all health care costs are borne by individuals and their families from household income. The government provides for just 20% of diabetes care in India, with private healthcare players being the predominant provider by pitching in with more than 70%. Cavanagh et al. found that India was the most expensive country for a patient with complicated foot ulcer resulting from diabetes, where income of 68.8 months was required to pay for treatment. Yesudian et al. inferred that the cost on drugs constituted 50% of the total direct costs. Singla, Bindra et.al. (2019) found that expenditures incurred on diabetes care was largely out-of-pocket (OOP) expense and contributed to catastrophic health expenditure in 45% of patients. 23% met such expenditures via distress financing (borrowing from banks and moneylenders). A large proportion of such amount is spent on hospitalization (35%), investigations/check-ups (22%), consultations (12%), and other drugs (11%). Mathew, Geethu et.al. found that 50% of diabetics postponed their treatment due to financial constraints, further worsening their situation. In addition, indirect costs corresponding to man-days lost and the loss of personal as well as family income contribute to even larger burden that affects national growth.

DATA ANALYSIS

COI ESTIMATES OF DIABETES MELLITUS IN INDIA

YEAR	SOURCE	COST OF ILLNESS (□)			PERCENTAGE OF INCREASE OR DECREASE (%)		
		DIRECT COST	INDIRECT COST	TOTAL COST	DIRECT COST	INDIRECT COST	TOTAL COST
2019	Eshwari et.al.	8185	508	8693	100	100	100
2020	Kansra & Oberoi	9996	5237	15233	122.13[a]	930.91[a]	175.12[a]
2021	IDF Diabetes Atlas and estimates[#]	21111 (estimated)	11060 (estimated)	32171[##]	111.53[b]	111.19[b]	211.19[b]

Source: Secondary Data

Chain based index was used to estimate:

i) ## G-K$432.00 * □74.47/- (value as on 15-11-2021)

ii) [(a)] % of increase from 2019 to 2020 [(difference between 2019 & 2020 amounts) / (2019 amount)] * 100

i) [(b)] % of increase from 2020 to 2021 [(difference between 2020 & 2021 amounts) / (2020 amount)] * 100

ii) # direct and indirect costs for the year 2021 (estimated based on the same for 2020 using the formula:

(Direct/Indirect cost for the year 2020/Total COI for the year 2020)*Total COI for the year 2021

CONCLUSION

Diabetes can rightly and grimly be attributed the moniker *'silent killer'*.

The personal, social and economic costs of diabetes are huge and will adversely affect India's economic development over the next couple of decades. Urgent steps must be taken with immediate effect to thwart this burgeoning epidemic; otherwise more and more young and middle-aged Indians, the supposed backbone of the working force of an already struggling country, will fall prey to diabetes in the prime of their lives. This will effectively incapacitate them and render them ineffective to contribute to themselves, their families, their society and our country.

REFERENCES

Articles

1. Oberoi, S. and Kansra, P., 2020. Economic menace of diabetes in India: a systematic review. International Journal of Diabetes in Developing Countries, 40(4), pp.464-475.
2. Kamath, V.G., Rao, C.R. and Kamath, A., 2019. Annual cost incurred for the management of type 2 diabetes mellitus—a community-based study from coastal Karnataka. International Journal of Diabetes in Developing Countries, 39(3), pp.590-595.
3. Jo, C., 2014. Cost-of-illness studies: concepts, scopes, and methods. Clinical and molecular hepatology, 20(4), p.327.
4. Hodgson, T.A. and Meiners, M.R., 1982. Cost-of-illness methodology: a guide to current practices and procedures. The Milbank Memorial Fund Quarterly. Health and Society, pp.429-462.

Websites

1. https://idf.org/
2. https://www.diabetes.org/
3. https://www.who.int/
4. https://diabetesatlas.org/data/en/country/93/in.html
5. bhttps://www.cdc.gov/dhdsp/programs/spha/economic_evaluation/docs/podcast_ii.pdf