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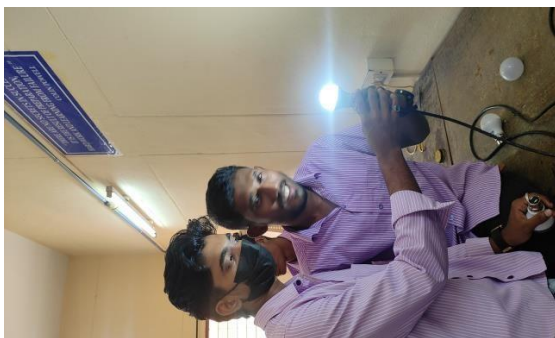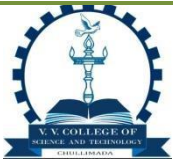
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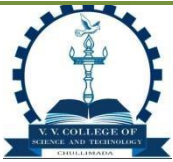
FRUIT PROCESSING

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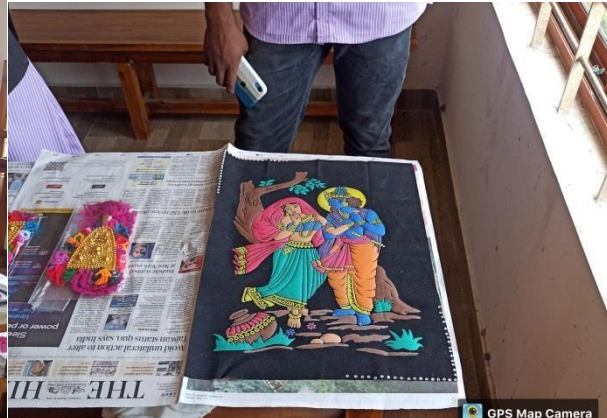## HANDI CRAFT EXHIBITION

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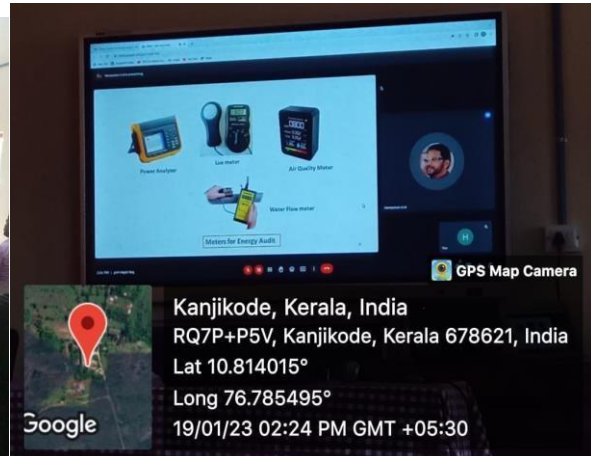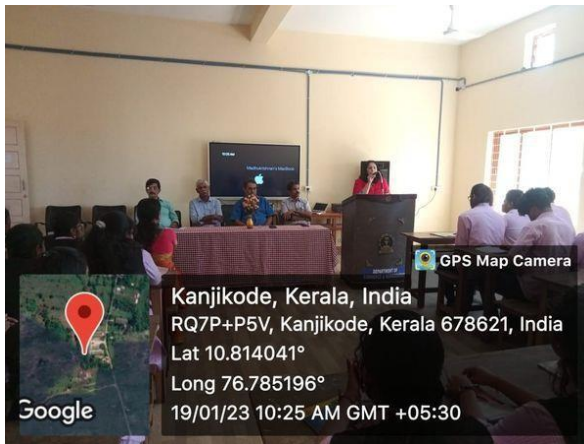
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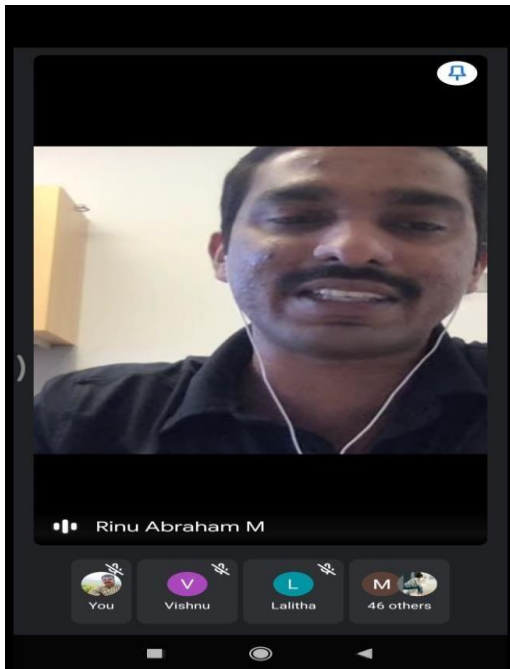
GEO MAPPING OF V V COLLEGE OF SCIENCE AND TECHNOLOGY

PHYSIO-CULTURAL MAP

V V COLLEGE OF SCIENCE AND TECHNOLOGY
Chullimada, Palakkad

LEGEND

Symbol	Description	Symbol	Description
Trees	B Block
Telephone tower	C Block
Contour (1m)	Canteen
Campus Fence	Gends Toilet 1
Path	Gends Toilet 2
Boundary wall	Gends Toilet 3
Space vegetation	Generator
College road	Generator room
Chullimada-Kottamutly road	Gym
Basketball court	Ladies Toilet 1
Volleyball court	Ladies Toilet 2
Cricket pitch	Ladies Toilet 3
Football ground	New Canteen
Running track	Parking area
Play ground	Rainwater Harvest tank
Quarry pond	Tower room
Main Block	

VV

Academic Research & Publication

(VVARP)

ABOUT

VVARP journal is a scholarly annual publication containing articles written by professors and students.

Journals focus on a specific discipline or field of study. It serves the purpose of communication and provides valuable information to the VV community.

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PG DEPARTMENT OF COMMERCE

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AN ARTICLE ON

"MOTIVE BEHIND THE DEVLOPMENT OF A FINANCIAL SYSTEM"

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INTRODUCTION

The general issue the article discusses is that of clarifying the motive behind the development of a financial system. In addition it provides a brief study of the meaning, importance and functions of financial system and the remainder of the paper provide a general overview of Global Financial System and Indian Economy.

OBJECTIVES

- To study the concept "Financial System"
- To determine the key functions of Financial System
- To identify the issues of Global Financial System
- To identify the present status of Indian Economy
- To arrive at a conclusion of the motive of development of financial system

HYPOTHESIS

- Financial developing doesn't explain economic growth well

RESEARCH METHODOLGY

- **RESEARCH DESIGN**
  The Study is based on casual research as it explains various issues that is related to Financial System
- **DATE COLLECTION**
  The study completely depends on secondary data. Secondary data information was collected from various Journals, Books, Internet sites and Reports

GENERAL DISCUSSION

· FINANCIAL SYSTEM

A country's financial system includes its banks, securities markets, pension funds, insurers, market infrastructures, central bank, and regulatory and supervisory authorities. These institutions and markets provide a framework for carrying out economic transactions and monetary policy, and help to efficiently channel savings into investment, thereby supporting economic growth.

As past crises have demonstrated, problems in financial systems can undermine the effectiveness of monetary policy, exacerbate economic downturns, and trigger capital flight or create large fiscal costs related to rescuing troubled financial institutions. Moreover, with increasing financial and trade links between countries, financial shocks in one jurisdiction can rapidly spill over across national borders. Therefore, resilient and well-regulated financial systems are essential for both domestic and international economic and financial stability.

· FUNCTIONS OF FINANCIAL SYSTEM

The primary function of any financial system is to facilitate the allocation and deployment of economic resources, both spatially and temporally, in an uncertain environment.

Funtion1: *Transferring resources across time and space*

A well developed financial system provides a way to transfer economic resources through time and across geographic regions and industries. Loans help move resources from the future to today, and savings products help do the opposite, but the underlying function for these two seemingly different products is the same. Student loans, borrowing to buy a house and saving for retirement are all actions that shift resources from one point in time to another. The financial system also provides mechanisms to shift resources from one place to another.

So, when a person sends money to a family member in a different location, the basic function the movement of resources to him to the recipient.

Function 2: *Managing the Risk*

The financial system provides a way to manage uncertainty and control risk. Through financial securities and through private sector and government intermediaries, the financial system provides risk pooling and risk sharing opportunities, for both households and business firms. For example, suppose you want $100,000 to start a business. You get $70,000 from a private investor in equity capital in exchange for 75% share of the profits of the business, and you get a $30,000 dollar loan from the bank at 6% interest rate per year. Suppose the bank requires that you get other members of your family to guarantee the loan, thereby transferring the risk of default from the bank to your relatives. Thus the bank is now providing you with the money with minimal risk to itself and the risk of the loan is transferred to your relatives. Just as funds are transferred through the financial system, so are risks. For example, Insurance companies are financial intermediaries that offer to transfer the risk from the customers to the investors in exchange for some premium. Many financial contracts transfer risk without transferring the funds, as in the case with most insurance contracts and derivatives.

Function 3: *Clearing and settling payments*

The financial system provides a payments system for the exchange of goods and services. Suppose you live in a country whose government sets a limit on the foreign currency that is accessible. In your country you will be able to pay for your goods and services with the local currency. But if you wish to travel, you will need to use other means of payment. One way of making payments is to barter, exchange goods without making payments, but this would be inconvenient. An important function of the financial system is to provide an efficient way for people and businesses to make payments for the goods and services they wish to buy. Depository financial intermediaries serve this function with wire transfers, checking accounts, and credit/cash cards. Other intermediaries such as money market mutual funds offer transaction-draft accounts and firms whose principal business is not financial, such as General Electric, offer general credit cards. The key elements for managing the costs and risks associated with the process of clearing and settling payments include netting arrangements, efficient use of collateral, delivery-versus payment, immobilization of securities, and extension of credit.

Function 6: *Pooling resources and subdividing shares*

The financial system provides a mechanism for the pooling of funds to undertake large-scale indivisible enterprise or for the subdividing of shares in enterprises to facilitate diversification. Suppose you wish to invest in a business that costs $100,000, but you only have

$10,000 to invest. Since you cannot possibly divide the business to buy a part of it, you will not be able to make this investment. A financial system corrects this problem by bringing together a bunch of investors and distributing shares to them, thereby dividing the $100,000 investment into smaller economic pieces. Any money the business earns from the race will then be distributed among the shareholders.

Function7: *Providing information*

The financial system provides price information that helps coordinate decentralized decision-making in various sectors of the economy. The clear function of financial markets is to allow individuals and businesses to trade financial assets. An additional function of the capital market is to provide information that assists in decision-making. For example Interest rates and

security prices are information that households use in making their consumption-saving decisions.

Function8: *Dealing with Incentive problems*

The financial system provides a way to deal with the asymmetric-information and incentive problems when one party to a financial transaction has information that the other party does not. An efficient financial system reduces these incentive problems. Incentive problems take a variety of forms – moral hazard, adverse selection and principal-agent problems. The financial institutions develop mechanisms to help overcome these problems. For example, they develop ways to take and manage collaterals to address the moral hazard and adverse selection problems.

From the above, it may be said that the primary function of the financial system is the mobilisation of savings, their distribution for industrial investment and stimulating capital formation to accelerate the process of economic growth.

FINANCIAL SYSTEM

SAVINGS   FINANCE   INVESTMENT

CAPITAL FORMATION

ECONOMIC GROWTH
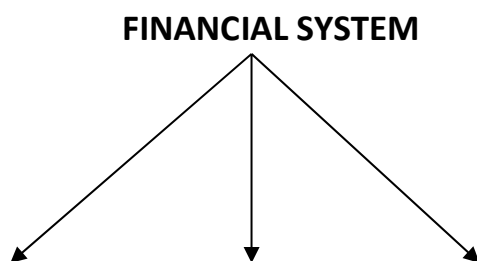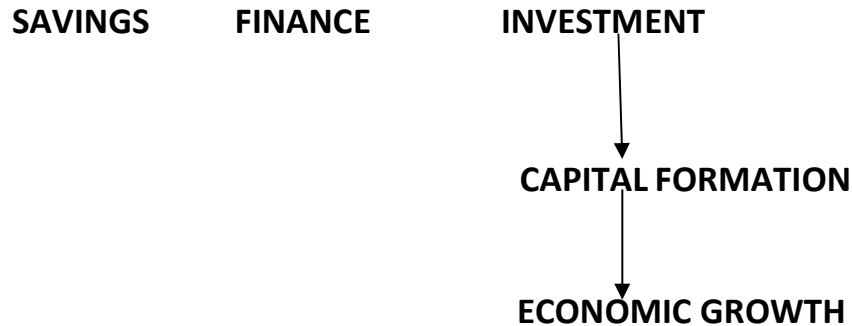
ANALYSIS

OVERVIEW OF GLOBAL FINANCIAL SYSTEM

The revolution caused due to technological progress and globalization has not left any aspect of the world untouched. It has made the world interconnected, interdependent and interlinked where one event in some part of the world is enough to make a difference in the other end of the world.

The reduction in trade barriers with the flow of capital, technology, labor, goods and services has given globalization an economic, financial, political, industrial and technological aspect.

The financial system that has resulted due to globalization is also called the Global Financial System. The financial institutions, markets are interlinked over the huge communications network globally which makes round the clock financial transactions possible.

1. The components of the global financial market are-
2. Regulators - The global financial market is mainly regulated by International Monetary Fund (IMF), World Bank, and World Trade Organization (WTO). Government institutions of various countries help the international bodies to pass laws and regulations.
3. Financial Institutions - Commercial banks, insurance companies, hedge funds companies, investment banks, and mutual fund companies, regional and private players worldwide are part of the global financial system.
4. Financial Markets - The global financial system comprises of strong and weak financial markets. The dominant financial markets include the US Dollar Market, Japanese Yen market, Australian Dollar market, Sterling market and Euro Currency Market.

5. Financial instruments - The instruments in the global financial system help make transactions across currencies easier. Floating rate bonds, Euro bonds, Foreign Bonds, Commercial papers, American Depository Receipts(ADR), Global Depository Receipts (GDR)

Functions of the global financial system can be listed as-

1. Facilitating trade by easing, clearing and settlement of payments.
2. To transfer economic resources across nations and borders.
3. To manage pooling of resources to aggregate resources for capital use by business firms.
4. Managing risk by diversifying, hedging and insuring and providing risk sharing opportunities for businesses worldwide.
5. Providing information that would help trading and development of a multinational market.
6. Help in negotiating trade agreements as there are different currencies involved.
7. Designing and implementing policies for macroeconomic development and preparing to face unprecedented crisis.

Global financial markets have enhanced the horizon to business as they can borrow money as well as reach to customers across borders. The ups and downs in the global economy have shown the need to strengthen the safety nets of the global financial system.

OVERVIEW OF INDIAN ECONOMY

India continues to grow at a rapid pace, although the government recently reduced its annual GDP growth projection from 9% to 8% for the current fiscal year ending March 2012. The slowdown is marked by a sharp drop in investment growth resulting from political uncertainties, a tightening of macroeconomic policies aimed at addressing a high fiscal deficit and high inflation (going well beyond food and fuel prices), and from renewed concerns about the European and US economies. Although the Government was quite successful in cushioning the impact of the global financial crisis on India, it is now clear that a number of MDG targets will only be met under the Twelfth Five Year Plan (2012–17).

A critical problem facing India's economy is the sharp and growing regional variations among India's different states and territories in terms of poverty, availability of infrastructure and socio- economic development. Six low-income states – Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh,

Orissa and Uttar Pradesh – are home to more than one third of India's population. Severe disparities exist among states in terms of income, literacy rates, life expectancy and living conditions

The five-year plans, especially in the pre-liberalisation era, attempted to reduce regional disparities by encouraging industrial development in the interior regions and distributing industries across states, but the results have not been very encouraging since these measures in fact increased inefficiency and hampered effective industrial growth. After liberalisation, the more advanced states have been better placed to benefit from them, with well-developed infrastructure and an educated and skilled workforce, which attract the manufacturing and service sectors. The governments of backward regions are trying to reduce disparities by offering tax holidays and cheap land, and focusing more on sectors like tourism which, although being geographically and historically determined, can become a source of growth and develops faster than other sectors. In fact, the economists fail to realize that ultimately the problem of equitable growth or inclusive growth is intricately related to the problems of good governance and transparency.

In 2011 Engineering Jobs in India have been showing signs of steady growth.

Critics of the neoliberal turn to policymaking in India, and the world in general, since the mid- 1980s have pointed out that the growth process under a neoliberal regime is inherently anti-poor. Most of the dividends of economic growth is cornered by the already well off. In parallel with an inegalitarian growth process, neoliberalism also whittles down whatever welfare State measures might have been in place before its adoption. Inegalitarian growth and erosion of State assisted welfare provisioning increases socio-economic inequality drastically. Drawing on some recent research, this article has provided empirical evidence in support of such a view.

Two comparison groups provide a powerful and disturbing insight into India's growth process. First, there are many countries which have grown at rates very similar to India's but which have managed to register marked declines in socio-economic inequalities. In stark contrast to this, India has witnessed an increase in socio-economic inequality since 1990. Second, in comparison to its close neighbours, with whom India has many geographical, climactic, cultural and social commonalities; India emerges as the worst performer among the South Asian countries.

The growth process currently underway in India is inherently biased against the poor, the marginalized and underprivileged. If economic growth is to lead to substantial improvements in the living standards (measured by indicators of well being like life expectancy, literacy, infant mortality) of the vast majority of the world's population, a radically different socio-economic paradigm must be put in place of the currently dominant neoliberal one.

FINDINGS

From the above studies we arrive into the fact that first we should clear about **the motive of development of financial system**. Each country has its own culture and behavior. Before adopting a development in a financial system we should clear about certain factors.

- Present Growth and Decline
- Social, cultural and Economical equilibrium
- Local Government involvement
- Rural development
- Opportunity to all class of people
- Protection of natural resources
- Protect Agricultural sector
- Respect traditional ethics and values
- International monetary policy and market conditions

It was felt to realize that Economicgrowth aiming at public welfare should be the Motive behind the development of a financial system. Any financial system did not develop its people socially and economically, there is no meaning for the action "Development". Development always starts from the root as well as it has to make one independent.

CONCLUDING REMARKS

We have come a long way since the time when many viewed the financial system simply as a sideshow, or a passive channel that allocated scarce resources to the most efficient uses. Today, almost everyone agrees that the financial system is essential for development. Improving the financial system can lead to higher growth and reduce the likelihood and severity of crises. It is essential in understanding the causes of business cycles and the working of monetary policy. In thinking about financial reform, we need to treat liberalization as a means rather than an end. Instead of pushing for immediate deregulation, we should be trying to understand the important role government plays in financial markets. These steps will not only result in the better and more stable allocation of domestic capital, but also help countries to manage international capital flows.

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AN AWARENESS REGARDING WASTE MANAGEMENT

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ABSTRACT:- Waste management is one of the important obligatory functions of not only urban local bodies but also rural local bodies. Past studies shows that essential service is not officially and properly performed by the local bodies of Kerala resulting in many health and sanitation problems, It is observed that lack of financial resources, institutional weakness, improper selection of technology, and sanitation has made the service unsatisfactory.

The fundamental objective of waste management program is to minimize the pollution of the environment as well as utilizing the waste as a resource. Thus goals should be achieved in a way that is, financially sustainable, that is transportation system and disposal options, public's apathy towards environmental cleanliness using methods that can be afforded by the community over the long term and with minimum risk to the persons involved. Method of solid waste management varies greatly with type of waste and local conditions.

KEY WORDS:-waste, environment, pollution, energy

INTRODUCTION

This chapter gives an overview about the study on waste management practices and its significance, objectives, tools and limitations.Indian cities have a striking similarity when it comes to heaps of garbage, overflowing waste bins and drains. The waste can be managed by the respective municipalities, to collect and transport it to disposal sites. The limited revenues earmarked for the municipalities make them ill-equipped to provide for high costs involved in the collection, storage and proper disposal. As a result a substantial part of waste generated remains uncollected and grows in heaps.

Waste management is one of the important obligatory functions of not only urban local bodies but also rural local bodies. Past studies shows that essential service is not officially and properly performed by the local bodies of Kerala resulting in many health and

sanitation problems, It is observed that lack of financial resources, institutional weakness, improper selection of technology, and sanitation has made the service unsatisfactory.

The fundamental objective of waste management program is to minimize the pollution of the environment as well as utilizing the waste as a resource. Thus goals should be achieved in a way that is, financially sustainable, that is transportation system and disposal options, public's apathy towards environmental cleanliness using methods that can be afforded by the community over the long term and with minimum risk to the persons involved. Method of solid waste management varies greatly with type of waste and local conditions.

OBJECTIVES OF THE STUDY

1. To study the present waste management practices.
2. To study awareness level of people in waste management.
3. To find out the new waste management strategies.

SCOPE OF THE STUDY

This study helps to role in waste management practices. The solid, proper and systematic study using primary and secondary data can reveal the awareness level of people about waste management. The existing literature shows that there is no previous research conducted to investigate the significance of waste management to find out the best solution to overcome the increasing growth rate of waste.

STATEMENT OF THE PROBLEM

In a developing country like India, the growth rate of waste is unimaginable due to poor technological management, increased population and even human mentality. This causes serious health and pollution problems. Hence it is important to know the awareness level of people regarding waste management practice.

RESEARCH METHODOLOGY

RESEARCH DESIGN

A descriptive survey research design was used for the study. This design serves as a programme guide for the entire research study.

DATA SOURCE

The study makes use of both the primary and secondary data. Primary data collected using questionnaire from public. The secondary data includes websites, and journals.

SAMPLING DESIGN

The sampling method applied for the study is convenient sampling. Samples were taken randomly or conveniently

SAMPLE UNIT

In this research study population is people of PudusserGramapanchayath.

SIZE OF SAMPLE In this research study 55 sample sizes are taken.

REVIEW OF LITERATURE

A major part of the world today has a throwaway culture, producing huge amounts of solid wastes, Advancements in environmental measurement techniques clearly indicate that demand on the earth's resources is not sustainable and should be addressed immediately (York et al., 2004). What should be the correct balance between environmental, economic, technical, social and regulatory factors, when one solid waste system designed and implemented? What must be the right fraction of the waste recycling, composting, reduction and recovery options in the scheme? How much community participation is essential for the success ofa MSWM scheme?

What should be the major criteria for outsourcing bio-medical waste management (BMWM)? What are the major elements that may inhibit or encourage any kind of S WM plan? All these questions need to be answered before the commencement of any solid waste management operation.

Michael Niaounakis (2016)

Olive Processing Waste Management contains a comprehensive review of literature and patent survey concerning olive processing waste. Over 1000 citations are presented. Wastes considered include olive cultivation solid waste, wastes arising from

classical, three-and two phase olive mills and wastes generated during table olive processing.

Charlotte Brown(2016) Depending on their nature and severity, disasters can create large volumes of debris and waste, The waste can overwhelm existing solid waste management facilities and impact on other emergency response and recovery activities. If poorly managed, the waste can have significant environmental and public health impacts 'and can affect the overall recovery process.

Jan Gronow (2017)

Municipal solid waste (MSW) consists of a high proportion of biodegradable matter, which when disposed to landfill decomposes leading to the formation of gas and leachate. Concerns over the environmental impacts of landfill emissions have resulted in efforts to identify alternative management options for MS W.

George Perkoulidis (2017)

Problems in waste management have become more and more complex during recent decades. The increasing volumes of waste produced and social environmental consciousness present prominent drivers for environmental managers towards the achievement of a sustainable waste management scheme. However, in practice, there are many factors and influences often mutually conflicting criteria for finding solutions in real-life applications, This paper presents a review of the literature on multi-criteria decision aiding in waste management problems for all reported waste streams.

Marco Caniato (2018)

Significant differences exist in the management of health-care waste management, globally. This is particularly so between low, middle and high-income countries. A systematic review of scientific literature on global healthcare waste management spanning the period 2000 — current was undertaken, in order to identify key policies, practices, challenges and best practice. The findings were analyzed considering the Gross National Income and the Human Development Index of each country.

Amol Singh (2018) Enormous amount of waste generation is a critical issue across the world. This issue becomes more vital when various types of hazardous waste gets mixed up with general waste. One such hazardous is healthcare waste is generated in hospitals during different healthcare activities such as pathological diagnostic, surgery etc**.**

Maria Menegaki (2019) Construction and demolition activities and natural disasters generate vast quantities of waste materials. Globally, it is estimated that about 35% of the quantities of construction and demolition waste (CDW) produced are directed to landfills, without any further treatment, although efforts to recycle and reuse CDW are increasingly being made. This paper, through a review of recent literature, focuses on the factors, barriers and motivations that influence the generation and management of CDW.

George Zillante (2020) Significant eff01ts have been devoted to assessing construction and demolition waste management (CDWM). However, there is little knowledge to understand the utilization of the developed models for assessing CDWM performance, thus limiting the comparison and generalization of recognized methods and tools. By reviewing the prior published literature, this study assesses the current research methods, in particular, data collection.

Alessio Campitelli (2020)HOW is the performance of waste management systems (WMS) assessed globally? In order to answer this question, 366 peer-reviewed research articles in English, which assessed the WMS of cities or countries focusing on municipal solid waste (MSW), are systematically reviewed to 1) Existing correlations between country income group and different considered issues that indicate possible future trends,

2) Categorize assessment methods concerning the suitability for decision makers and for different country income groups and based on this
3) Determine the evolution of WMS assessment for the different country categories since the 1980es. The considered issues are the used assessment methods, investigated WMS components, assessment aspects, funding support and outcome of the study.

waste management

Waste management or waste disposal is all the activities and actions required to manage waste from its inception to its final disposal. This includes amongst other things collection, transport, treatment and disposal of waste together with monitoring and regulation. It also encompasses the legal and regulatory framework that relates to waste management encompassing guidance on recycling.

History

Throughout most of history, the amount of waste generated by humans was insignificant due to low population density and low societal levels of the exploitation of natural resources Common waste produced during pre-modern times was mainly ashes and human biodegradable waste, and these were released back into the ground locally, with minimum environmental impact. Tools made out of wood or metal were generally reused or passed down through the generations.

Modern Era

Following the onset of industrialization and the sustained urban growth of large population centers in England, the buildup of waste in the cities caused a rapid deterioration in levels of sanitation and the general quality of urban life. The streets became choked with filth due to the lack of waste clearance regulations, Calls for the establishment of a municipal authority with waste removal powers occurred as early as 1751, however, it was not until the mid-19th century, spurred by increasingly devastating cholera outbreaks and the emergence of a public health debate that the first legislation on the issue emerged. Highly influential in this new focus was the report The Sanitary Condition of the Laboring Population in 1842 of the social reformer, Edwin Chadwick, in which he argued for the importance of adequate waste removal and management facilities to improve the health and wellbeing of the city's population.

In the UK, the Nuisance Removal and Disease Prevention Act of 1846 began what was to be a steadily evolving process of the provision of regulated waste management in London. The Metropolitan Board of Works was the first citywide authority that centralized sanitation regulation for the rapidly expanding city and the Public Health Act 1875 made it

compulsory for every household to deposit their weekly waste in moveable receptacles: for disposal- the first concept for a dust-bin.

The dramatic increase in waste for disposal led to the creation of the first incineration plants, or, as they were then called, "destructors". In 1874, the first incinerator was built in Nottingham by Man love, Alliott& Co. Ltd. to the design of Alfred Fryer. However, these were met with opposition on account of the large amounts of ash they produced and which wafted over the neighboring areas.

Similar municipal systems of waste disposal sprung up at the turn of the 20th century in other large cities of Europe and North America. In 1895, New York City became the first U.S. city with public-sector garbage management.

Early garbage removal trucks were simply open bodied dump trucks pulled by a team of horses. They became motorized in the early part of the 20th century and the first closed body trucks to eliminate odors with a dumping lever mechanism were introduced in the 1920s in Britain. These were soon equipped with 'hopper mechanisms' where the scooper was loaded at floor level and then hoisted mechanically to deposit the waste in the truck. The Garwood Load Packer was the first truck in 1938, to incorporate a hydraulic compactor.

HARITHA KARMA SENA: THE GREEN FORCE OFKUDUMASHREE IN ACTION FOR GREEN KERALA MISSION

Haritha karma sena is a professional team consisting of Green Technicians and green supervisors mainly Kudumbhasree Women who will be assigned with the responsibility of collection, transportation, processing, recycling/disposal, and management of waste materials in association with respective LSGs. Haritha karma sena mainly focus on the collection and management of non bio degradable wastes.

Haritha karma sena members collect segregated clean waste in weekly once from houses and shops and they keep them at MCF after final level segregation. Clean Kerala Company or similar institutions take this waste to RRF and manage it properly with the assistance of LSGI. Waste plastics are shredding machine kept at block or panchayath level RRF by Clean Kerala Company. These shredded plastics are using for road tarring purpose. Clean Kerala Company sells them to PWD and similar institution and acquires their profit. Thus the process completes. Kudumbasree is also trying to develop green eco

friendly enterprises all over Kerala to assist Haritha Karma Sena members getting additional income as well as to reduce the quantity of non -bio degradable waste . Panchayath also trying to conduct campaign for our youngsters to reduce the use of plastic and encouraging them to recycle the used goods. So, waste management play a vital role in our community.

Principles of Waste Management

1.Waste hierarchy

The waste hierarchy refers to the '13 Rs" reduce, reuse and recycle, which classifies waste management strategies according to their desirability in terms of waste minimization. The waste hierarchy is the corner stone of most waste minimization strategies. The aim of the waste hierarchy is to extract the maximum practical benefits from products and to generate the minimum amount of end waste. The waste hierarchy is represented as a pyramid because the basic premise is that policies should promote measures to prevent the generation of waste.

2.Life-cycle of a product

The life-cycle begins with design, and then proceeds through manufacture, distribution, and primary use and then follows through the waste hierarchy's stages of reduce, reuse and recycle. Each stage in the life-cycle offers opportunities for policy intervention, to rethink the need for the product, to redesign to minimize waste potential, to extend its use. Product life-cycle analysis is a way to optimize the use of the world's limited resources by avoiding the unnecessary generation of waste.

3. Resource efficiency

It reflects the understanding that global economic growth and development cannot be sustained at current production and consumption patterns. Globally, humanity extracts more resources to produce goods than the planet can replenish, Resource efficiency is the reduction of the environmental impact from the production and consumption of these goods, from final raw material extraction to lust use and disposal. This process of resource efficiency can address sustainability.

4.Polluter-pays principle

It mandates that the polluting party pays for the impact on the environment. With respect to waste management, this generally refers to the requirement for a waste generator to pay for appropriate disposal of the unrecoverable material,

3.5 Types Of Waste Management

Waste management is mainly classified into 5 categories such as

- ✤ Liquid Waste
- ✤ Solid Rubbish
- ✤ Organic Waste
- ✤ Recyclable Rubbish
- ✤ Hazardous Waste

1 Liquid Waste

Liquid waste is commonly found both in households as well as in industries. This waste includes dirty water, organic liquids, wash water, waste detergents and even Rainwater. The liquid waste can be classified into point and non-point source waste. All manufactured liquid waste is classified as point source waste. The natural liquid waste is classified as non-point source waste. There are 4 Waste Removals to dispose of liquid waste properly.

2 Solid Rubbish

Solid rubbish can include a variety of items found in your household along with commercial and industrial locations. Solid rubbish is commonly broken down into the following types: Plastic waste this consists of bags, containers, jars, bottles and many other products that can be found in your household. Plastic is not biodegradable, but many types of plastic can be recycled. Plastic should not be mix in with your regular waste, it should be sorted and placed in your recycling bin. Paper/card waste - This includes packaging materials, newspapers, cardboards and other products. Paper can easily be recycled and reused so make sure to place them in your recycling bin or take them to your closest Brisbane recycling depot. Tins and metals - This y be found in various forms throughout your home. Most metals can be recycled. Consider taking these items to a scrap yard or your closest Brisbane recycling depot to dispose of this waste type properly. Ceramics and glass. These items can easily be

recycled. Look for special glass recycling bins and bottle banks to dispose them correctly.

3 Organic Waste

Organic waste is another common household. All food waste, garden waste, manure and rotten meat are classified as organic waste. Over time, organic waste is turned into manure by microorganisms. However, this does not mean that you can dispose them anywhere. Organic waste in landfills causes the production of methane, so it must never be simply discarded with general waste. Instead, look to get a green bin from the Brisbane council, or hire a green skin bin or garden bag for proper waste disposal.

4 Recyclable Rubbish

Recyclable rubbish includes all waste items that can be converted into products that can be used again. Solid items such as paper, metals, furniture and organic waste can all be recycled. Instead of throwing these items in with regular waste, which then ends up in landfills, place them in your yellow recycling bin or take them to your local Brisbane recycling depot.

5 Hazardous Waste

Hazardous waste includes all types of rubbish that are flammable, toxic, corrosive and reactive. These items can harm you as the environment and must be disposed of correctly

<u>MAJOR FINDINGS</u>

- 95% of the respondents had knowledge about waste management.
- 69% of the respondents are getting education on proper waste management.
- Plastic is mainly comes out from 51% of the respondents house.
- The respondents having in a hole in own compound.
- Respondents says that no one comes to collect waste during corona period.
- Using waste basket for collecting waste.
- 47% of the respondents empty waste for once in a day.
- 71% of the respondents not having public bin near their house.
- 91% of the respondents having the knowledge about the importance of recycling.
- 89% of the respondents noticed the waste in road land or public.
- 87% of the respondents noticed waste during in their area.
- Mosquitoes and cockroaches presence in public waste bin or dumbing land.

❖ Respondents separate different types of waste in their home.

❖ Respondents have awareness about the health problems due to waste.

❖ Respondents says that the reason for pollution abnormality in the quality of water is due to dumping garbage.

❖ 56% of the respondents have participation in public awareness programmes.

❖ 53% of the respondents dispose waste through Kudumbhasree.**Suggestions**

The major suggestions and recommendations of the research are summarized as follows:

❖ Creating awareness about waste management programs and schemes

❖ To provide awareness class among the public on their responsibilities towards waste management.

❖The municipality should adopt adequate waste treatment facility.

❖To reduce the mixing of waste.

❖ The people should follow proper waste collection period according to the requirements of respondents.

❖ The public should up to date in latest waste management schemes and Programmes introduced by Government.

Conclusion

The scenario of waste management practices are continuously increasing. The general public's are willing to adopt waste management programs and schemes introduced by Government and Municipality from time to time. The basic objective of the study was to analyse the awareness level among respondents for waste management programs and schemes and their attitude towards waste management practices. Waste management practices are considered to be a barometer of social, economic and cultural development.

Waste management practices are useful to prevent the increasing waste and to clean the society etc. From the respondents point of view that it should provide better waste management practices.

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CUSTOMER PERCEPTION TOWARDS GST WITH SPECIAL REFERENCE TO PALAKKAD TOWN

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Abstract: A tax is a mandatory financial charge or some other type of levy imposed upon a taxpayer by a governmental organization in order to fund various public expenditures. A failure to pay, or evasion of or resistance to taxation, is punishable by law. Taxation system of India had a long history starting from introduction of Jizya by Aurengazeb to new born GST. Introduction of the Value Added Tax (VAT) at the Central and the State level has been considered a major step in the globe of indirect tax reforms in India. GST is one of the biggest tax reforms in the country post- independence which will integrate all the state economies and boost overall growth. GST would introduce a uniform taxation law across states and different sectors in respect to indirect taxes, which would make supply of goods and services, hassle free throughout the country. This study is unique because it seeks to study the consumer perception towards goods and services tax based on the economic variables like disposable income and spending ability instead of their satisfaction towards goods and services tax.

Keywords: Taxation Reforms, GST, customer perception

INTRODUCTION

GST stands for "Goods and Services Tax", and is proposed to be a comprehensive indirect tax levy on manufacture, sale and consumption of goods as well as services at the national level. Goods and Service was introduced in India on 1 July 2017. Its main objective is to consolidates all indirect tax levies into a single tax, except customs replacing multiple tax levies, overcoming the limitations of existing indirect tax structure, and creating efficiencies in tax administration. The GST shall have two components: one levied by the Centre (referred to as Central GST), and the other levied by the States (referred to as State GST). Rates for Central GST and State GST would be approved appropriately, reflecting revenue considerations and acceptability. This new tax structure will help in removing economic distortions, promote exports and bring about development of a common national market which in turn would definitely give a boost to India's tax-to-gross domestic product ratio and

thus help in promoting economic efficiency and sustainable long term economic growth. Whatever reforms are implemented, they are increasing the tax burden of public. The manufacturers and retailers are getting profit. Hence a detailed study has to be conducted in order to check the awareness level of public towards GST. In this study the attempt is to find answers to certain questions they are:

- What is the level of awareness about GST among public?
- Does the public face any issues by the implementation of GST?

REVIEW OF LITERATURE

A literature review is a "critical analysis of a segment of a published body of knowledge through summary, classification, and comparison of prior research studies, reviews of literature, and theoretical articles". A literature review is an evaluative report of information found in the literature related to the selected area of study.

S Dani (2016) GST also known as the Goods and Services Tax is deined as the giant indirect tax structure designed to support and enhance the economic growth of a country. More than 150 countries have implemented GST so far. However, the idea of GST in India was mooted by Vajpayee government in 2000 and the constitutional amendment for the same was passed by the Loksabha on 6th May 2015 but is yet to be ratiied by the Rajyasabha. However, there is a huge hue and cry against its implementation. It would be interesting to understand why this proposed GST regime may hamper the growth and development of the country

Keshab R. Bhattarai (2007) multi sectoral dynamic uses general equilibrium tax model with and without announcement effects for open and closed capital markets to evaluate efficiency gains and transitional effects from equal-yield tax reforms for seven different taxes in the UK economy. Impacts of an unanticipated tax reform on investment capital accumulation, output and employment are compared to those of anticipated tax reforms. Households, producers, traders, investors and the government are found to be more capable of adjusting their economic behavior when tax announcements are made in advance.

Edward Sandoyan and et al (2006) present the preconditions of Armenian capital market development. A few hypotheses were proposed concerning correlation between direct taxes (in particular, profit tax and income tax) and financial sector development mediated with shadow economy. On the basis of studied theories and their empiric research(regression analysis of key indicators), their hypotheses were proven. So for the further development of

Armenian capital market, they consider it necessary to depart from profit tax, concurrently reducing income tax and social security tax rates.

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Benjamin Russo (2005) says that, with few exceptions, state and local general sales and use taxes are levied primarily on tangible goods. Secular trends in production and consumption of goods and services, as well as legislated exemptions and exclusions, have eroded sales tax bases. A number of reforms designed to reduce base erosion have been proposed, including base broadening, conversion to a consumption tax, and wholesale replacement of sales taxes with income taxes. The study reports on a computer analysis of efficiency effects. The results suggest that (i) base broadening can increase economic efficiency, (ii) converting to a consumption tax base dominates base broadening, (iii) replacing sales taxes with higher income taxes could produce large efficiency losses (iv) base broadening could generate efficiency gains even if untaxed remote sales become a "sizable" fraction of total sales, and (v) even partial base broadening could produce sizable efficiency improvements.

 Kaplanoglou G. and Newbery D.M. (2004) assess the distributional impact of indirect taxes among Greek households between1988 and 2002, a period that coincides with the introduction of significant are forms in the tax system due to EU membership. The highly differentiated indirect tax structure prevailing at the beginning of the period had distributional benefits over the more simplified 2002 tax structure. The overall inequality of the after-tax welfare distribution has increased by 6 -12.5 percent and changes in the indirect tax system seem to explain about half of this increase. The researchers also apply a recent method of measuring the distributional impact of relative price changes caused by changes in tax rates of commodities and establishes that indirect tax reforms introduced since 1988 had an adverse impact on the distribution of purchasing power, which nevertheless seems to be very small.

OBEJECTIVE OF THE STUDY

1. To analyse the public awareness on GST.
2. To examine the issues public have faced after the implementation of GST.
3. To understand the perception & their views on new implemented taxation system.

RESEARCH METHODOLOGY

The study mainly seeks to measure public awareness about GST. A questionnaire is designed to explore the level of awareness and issues on implementation of GST. 109 samples were selected from Palakkad town. Convenience sampling technique has been employed for selecting the sample unit. The data collection is based on mainly through Questionnaire. Primary data has collected from 109 respondents from Palakkad Town. Secondary data has collected from various research papers and various books and reports.

AREA OF STUDY

The study covered Palakkad Town in Kerala, India.

ANALYSIS AND INTERPRETATION

4.1. Table showing the gender of respondents

Table 1

Particulars	No of respondents	Percentage %
Male	55	50%
Female	54	50%
Total	109	100

Source: Primary data

Interpretation From the 109 respondents 55 respondents are males and 54 respondents are females.

4.2. Table showing the classification of respondent

Table 2

Particulars	No of response	Percentage
Student	27	25
Employed	24	22
Professional	10	9
Business persons	25	23
House wife	12	11
Others	11	10
Total	109	100

Source: Primary data

Interpretation From the above table it was shown that 25% of respondents are students

4.3. Compared to VAT the Goods & Service Tax system is better way for the government to collect to manage the Economy?

Table 10

Particulars	No of respondents	Percentage
Strongly agree	37	34
Agree	36	33
Neutral	15	14
Disagree	10	9
Strongly disagree	11	10
Total	109	100

Source: Primary data

Interpretation

From the table 10, it is observed that analysis of compared to VAT the Goods & service Tax system is better way for the government to collect to manage the Economy. out of selected 109 respondents, 37 respondents (34%) are strongly agreed, 10 respondents (9%) are disagreed, and 11 respondents (10%) are strongly agreed. Finally, it is concluded from the

table that most of the respondents are strongly agreed to Goods & service Tax system is better way for the government to collect to manage the Economy.

4.4. Ranking the Benefits of GST

Table 20

Sl. No	BENEFITS	R₁ (5)	R₂ (4)	R₃ (3)	R₄ (2)	R₅ (1)	Mean	Ranking
1	Cascading effect reduction	30	25	20	15	19	40.08	3
2	Input Tax credit	20	18	14	35	22	27.5	1
3	Dematerialisation	28	15	30	16	20	36.25	2
4	Single Tax system	35	12	10	30	22	42.47	4
5	User friendly supply chain system	32	28	25	13	11	43.11	5

Source: Primary data

Interpretation

From the table 20, It is observed that analysis the benefits by the implementation of GST as per the Government perspective, the respondents are opinioned that Input Tax credit system is the essential benefits, so the rank is placed in first (1).

FINDINGS

- From the 109 respondents 58 respondents are males & 51 respondents are females.
- The result show that 25% of respondents are students
- The result shows that analysis of GST is very difficult to understand, out of selected 109 respondents, 74 respondents (68%) are suggested it is not difficult to understand. Finally, it is concluded from the table that majority of the respondents are not difficult to understand GST.
- The result show that, It is observed that analysis of GST will cause an increase in the cost of living .out of selected 109 respondents,49 respondents (45%) are suggested it

will cause an increase in the cost of living and 60 respondents (55%) are suggested it will not cause an increase in the cost of living. Finally, it is concluded from the table that majority of the respondents are suggested GST will cause an increase in the cost of living.

• The result show that, it is observed that GST will increase the inflation in the country; out of selected 109 respondents, 41 respondents (38%) are agreed that GST will increase the Inflation in the country. Finally, it is concluded from the table that GST will cause for Increase the Inflation in the country.

SUGGESTIONS

➢ Government should create more awareness among the public about GST and it advantages.

➢ Processes must be reduced so that business can operate efficiently in the best interest of the people and for economic growth.

➢ Relief must be given to small scale operators and particularly reduced processes should be applicable to them.

➢ Special focus on awareness and training of all officers, professionals assesses , should be given on GST.

CONCLUSION

Goods and Service Tax (GST) will be the most revolutionary structural transformation of the indirect tax system in India since independence. It is a comprehensive indirect tax reform in our country. All sectors of the economy will have to bear the impact of GST. All sections of the economy viz. big.medium, small scale units, intermediaries, importers, exporters, traders, professionals and consumers shall be directly affected by GST.GST is all set to integrate state economies and boost overall growth. It is presumed by experts that GST is likely to improve tax collections and boost India's economic growth through uniform tax rate. The taxation burden will be divided equitably between manufacturing and services through a lower tax rate by increasing the tax base and minimising exemption.

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A STUDY ON CUSTOMER SATISFACTION OF LIC WITH SPECIAL REFERENCE TO PALAKKAD TOWN

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The Life Insurance Corporation of India (LIC) came into existence on July 1, 1956 and the LIC began to function on September 1, 1956. The LIC gets a large amount of insurance premium and has been investing in almost all sectors of the economy, public sector, private sector, co- operative sector, joint sector and now it is one of the biggest term lending institutions in the country. LIC was established to spread the message of Life Insurance in the country and mobilize people's savings for nation-building activities. Know days most of the people are having insurance policies in this current world LIC plays a major roll so I choose this public.

Life Insurance in its modern form came to India from England in the year 1818. Oriental Life Insurance Company started by Europeans in Calcutta was the first life insurance company on Indian soil. All the insurance companies established during that period were brought up with the purpose of looking after the needs of European community and Indian natives were not being insuring by these companies. However, later with the efforts of eminent people like Babu Muttylal Seal, the foreign life insurance companies started insuring Indian lives. But Indian lives were being treated as sub-standard lives and heavy extra premiums were being charged on them. Bombay Mutual Life Assurance Society heraled the birth of first Indian life insurance company in the year 1870, and covered Indian lives at normal rates. Starting as Indian enterprise with highly patriotic motives, insurance companies came into existence to carry the message of insurance and social security through insurance to various sectors of society. Bharat insurance company (1896) was also one of such companies inspired by nationalism.

LIC continues to be the dominant life insurer even in the liberalized scenario of Indian insurance and is moving fast on a new growth trajectory surpassing its own past records. LIC has issued over one crore policies during the current year. LIC has crossed many milestones and has set unprecedented performance records in various aspects of life insurance business. The same motives which inspired our forefathers to bring insurance into existence in this country inspire us at LIC to take this message of

protection to light the lamp of security in as many homes as possible and to help the people in proving security to their families.

STATEMENT OF PROBLEM

The study is focus on the role of LIC in the current world. The study helps to understand the investment pattern of people in LIC on India. Therefore, it is quite relevant to examine whether the peoples in Palakkad town are actively involved in the savings in LIC.

OBJECTIVES OF STUDY

✓ To known the satisfaction level of customers.

✓ To identity the present customers for new services.

✓ To understand the organization and working of LIC

NEED OF THE STUDY

❖ The success of the organization depends on markets.

❖ The study was mainly undertaken to identify the market through insurance.

❖ If the market Insurance are identified it would possible for the management to take the necessary steps to improve the sales of the product.

❖ Since markets are considered as improvements for the company market will lend to the success of the company in the long run.

❖ The need for the study can be recognized when the result of study required suggestions & recommendations to the similar solutions.

SCOPE OF THE STUDY

❖ The study is to define the customer needs, preference and full fill their expectations

❖ It will be helpful for the management to identify the market potential.

❖ Since the study is general one, it can be adopted by similar organizations.

❖ The recommendations and suggestions of the study can be applied to similar project or similar situation.

RESEARCH METHODOLOGY

The research design is descriptive in nature. Descriptive research is the process of finding solution for a problem after a tough study and analysis of situational factors. It tries to solve a complex and complicated problems through uses of various tools and techniques. These tools and techniques try to bring out a logical accurate and scientific solution for a given problem

RESEARCH DESIGN

Research design is defined as a framework of methods and techniques chosen by a researcher to combine various components of research in a reasonably logical manner so that the research problem is efficiently handled. It provides insights about "how" to conduct research using a particular methodology. Every researcher has a list of research questions which need to be assessed this can be done with research design.

SAMPLE DESIGN

Sample design is a define plan for obtaining sample from a given population. It refers to the technique or procedure the researcher would adopt in selecting items for sample. Convenience sampling is used for the study.

SAMPLING FRAME

A sample of 120 respondents was selected from Palakkad locality by using convenience sampling technique.

SAMPLE TECHNIQUES

Convenience sampling techniques is used in this study.The respondents are randomly approaches for the study from different area.

POPULATION

Population refers to the total set of observations that can be made in the study, the samples collected from the Palakkad town.

SAMPLE TECHNIQUES

Convenience sampling techniques is used in this study.The respondents are randomly approaches for the study from different area.

POPULATION

Population refers to the total set of observations that can be made in the study, the samples collected from the Palakkad town.

SOURCE OF DATA

❖ **Primary Data**

Primary data is data that is collected by a researcher from first hand sources. It is collected with the reach project in mind directly from primary sources. Here data is collected through Questionnaire.

❖ **Secondary Data**

Secondary data is data gathered from studies, survey or experiments that have been run by other people or for other research. Several secondary data are also collected through journals, magazines and websites

DATA ANALYSIS AND INTERPRETATION

TABLE NO: 4.1

TABLE SHOWING SATISFACTION OF OVERALL PERFORMANCE OF THE LIC PLANS

PERFORMANCE	NUMBER OF RESPONDENTS	PERCENTAGE (%)
SATISFIED	99	82.5

DISATISFIED	21	17.5
TOTAL	**120**	**100**

Source: Primary data

INTERPERTATION:

From the above chart it has been interpreted that the satisfaction of overall performance of the LIC plans is 82.5% satisfied and 17.5 in dissatisfied.

TABLE NO: 4.2

TABLE SHOWING EXPECTATIONS ON INVESTMENT ALTERNATIVES

INVESTMENTS	NUMBER OF RESPONDS	PERCENTAGE (%)
CAPITAL GROWTH	22	18.33
TAX BENEFIT	17	14.16
RETURNS	32	26.67
SAFETY	26	21.67
LIQUIDITY	23	19.17
TOTAL	**120**	**100**

Source: Primary data

INTERPERTATION:

It has been interpreted that the 26.67% of the respondent are invested on the expectation on returns on investments, 21.67% of the respondents are invested on the expectation on safety.

TABLE NO: 4.3

TABLE SHOWING RESPONDANTS RESPONSE TO THE SERVICE AND THE OFFICE ATMOSPHERE OF LIC

ATMOSPHERE NEAT & CLEAN & SERVICING IS PROMPT & COURTIOUS	NUMBER OF RESPONDENTS	PERCENTAGE (%)

YES	104	86.66
NO	16	13.33
TOTAL	**120**	**100**

Source: Primary data

INTERPERTATION:

From the above chart it has been interpreted that the 87% are of yes and 135 are of no. Service provided by the LIC is good and it's of office atmosphere is also go

TABLE NO: 4.4

TABLE SHOWING THE SATISFACTION LEVEL OF GRIEVANCE REDRESSAL MECHANISM OF LIC OF INDIA

OPINION	NUMBER OF RESPONDENTS	PERCENTAGE (%)
HIGHLY SATISFIED	40	33.34
SATISFIED	30	25
NEUTRAL	8	6.67
DISSATISFIED	23	19.16
HIGHLY DISSATISFIED	20	16.67
TOTAL	**120**	**100**

Source: Primary data

INTERPERTATION:

From the above chart it has been interpreted that 34.34% of respondent say that they are highly satisfied with the grievance redressal mechanism of LIC, 6.67% are partially satisfied on this mechanism & 24.16% are satisfied of the grievance redressal mechanism of LIC. Most people are satisfied with the grievance redressal mechanism of LIC.

FINDINGS

➢ 82.2% of the respondents satisfied with the overall performance of LIC of India.

➢ 71% of Service after insurance provide by LIC is really good.

➢ Majority respondents say 26.67% are invested on the expectation on return and least investment 14.16% for tax benefits.

➢ Majority of the respondent says 47% that they are getting proper communication on various aspects of policies in LIC Agents and23.33 % of relatives.

➢ About 34.34% of respondent say that they are highly satisfied with the grievance redressal mechanism of LIC. Most people are satisfied with the grievance redressal mechanism of LIC.

SUGGESTIONS

❖ LIC of India should strive hard to create awareness of the policies.

❖ LIC thinks that long- term investment earns maximum profit by which the customers also satisfy by maximum bonus.

❖ The bonus should increase for new emerging schemes.

❖ Eg: - Jeevan Anand, new schemes, Endowment etc…

❖ Majority of the customer are not aware of the new policies, Life Insurance Corporation should awareness through advertisement.

The result of this study indicated that the life insurance industry has great potential among the people. The only reason behind this is they conveyed the message of protection to light the lamps of security in as many homes as possible and to help the people in proving security to their families as possible. Understanding the customers purchasing behaviour and level of satisfaction on life insurance products and services, customer perception on the brand image and brand loyalty are of great

utility in this sense. From the study it is clear that the customers are moreover loyal to Life Insurance Corporation of India. And they are moreover satisfied with what they have which is provided by LIC. And regarding buying a policy such as too much of formalities, lack of sufficient information etc.

AN EXPLORATION IN TO THE INTELLIGENCE OF EMOTIONAL INTELLIGENCE

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Abstract

Emotional intelligence measures vary widely in both their content and in their method of assessment. In particular, emotional intelligence measures tend to use either a self-report personality-based approach, an informant approach, or an ability-based assessment procedure. The current paper explores the emotional intelligence, concept defined by Daniel Goleman, and some conclusions and suggestions for future research on emotional intelligence measures are provided.

Introduction: Emotional intelligence describes ability, capacity, skill, or self-perceived ability to identify, assess, and manage the emotions of one's self, of others, and of groups. The theory is enjoying considerable support in the literature and has had successful applications in many domains.

With regard to emotional intelligence, Daniel Goldman was not the first to articulate the concept. However, in the double role of psychologist and journalist, Goleman made the elements of emotional intelligence accessible to broad segments of society. His best-selling books — beginning with "Emotional Intelligence"(1995) — have already changed how some businesses interact with clients and some managers recruit employees. His impact has been even more profound on education.educators now recognize that emotional intelligence is every bit as important to learning as intellectual prowess or IQ. As a result, tens of thousands of schools throughout the world currently incorporate "social and emotional learning" in their curricula. In some schools, courses geared toward developing emotional intelligence are mandatory.

The Model

Individuals have different personalities, wants, needs, and ways of showing their emotions. Navigating through this requires tact and shrewdness—especially if one hopes to succeed in life. This is where emotional intelligence theory helps. In the most generic framework, five domains of emotional intelligence cover together personal (self-awareness , self-regulation , and self-motivation) and social (social awareness and social skills) competences

Goleman's five components of emotional intelligence: Goleman broadened Mayer's and Salovey's four-branch system to incorporate five essential elements of emotional intelligence — or EQ, the shorthand he sometimes uses:

1. Emotional self-awareness — knowing what one is feeling at any given time and understanding the impact those moods have on others
2. Self-regulation — controlling or redirecting one's emotions; anticipating consequences before acting on impulse
3. Motivation — utilizing emotional factors to achieve goals, enjoy the learning process and persevere in the face of obstacles
4. Empathy — sensing the emotions of others
5. Social skills — managing relationships, inspiring others and inducing desired responses from them

Building emotional intelligence: Four key skills

The skills that make up emotional intelligence can be learned at any time. However, it's important to remember that there is a difference between simply learning about EQ and applying that knowledge to one's life.

The key skills for building your EQ and improving your ability to manage emotions and connect with others are:

Self-management

Emotions are important pieces of information that tell about oneself and others, but in the face of stress that takes us out of our comfort zone, one can become overwhelmed and lose control of ourselves. With the ability to manage stress and stay emotionally present, one can learn to receive upsetting information without letting it override the thoughts and self-control. People be able to make choices that allow them to control impulsive feelings and behaviors, manage the emotions in healthy ways, take initiative, follow through on commitments, and adapt to changing circumstances.

Self-awareness

Managing stress is just the first step to building emotional intelligence. The science of attachment indicates that the current emotional experience is likely a reflection of his/her early life experience.

The ability to manage core feelings such as anger, sadness, fear, and joy often depends on the quality and consistency of the early life emotional experiences.

Social awareness-To build social awareness, one need to recognize the importance of mindfulness in the social process. After all, people can't pick up on subtle nonverbal cues, thinking about other things, or simply zoning out on the phone. Social awareness requires the presence in the moment. While many of us pride ourselves on an ability to multitask, this means that one'll miss the subtle emotional shifts taking place in other people that help to fully understand them.

Relationship management

Working well with others is a process that begins with emotional awareness and the ability to recognize and understand what other people are experiencing. Once emotional awareness is in play, one can effectively develop additional social/emotional skills that will make the relationships more effective, fruitful, and fulfilling.

The skills that make up emotional intelligence can be learned at any time. However, it's important to remember that there is a difference between simply learning about EQ and applying that knowledge to your life. Just because you know you should do something doesn't mean you will—especially when you become overwhelmed by stress, which can override your best intentions. In order to permanently change behavior in ways that stand up under pressure, you need to learn how to overcome stress in the moment, and in your relationships, in order to remain emotionally aware.The Goleman framework, as refined over the years, is somewhat more straightforward and perhaps that has made it more popular. The most recent version of this framework, from his book Primal Leadership; Realizing the power of Emotional Intelligence, consists of a 2X2 matrix. All consultants love the 2X2 construct and in fact I think it was Alan Weiss who said if you gave him a 2X2 matrix he could rule the world. Here is the Goleman Model which organizes 18 "competencies" into the following matrix:

Fig1: Model developed by Daniel Goleman: According to Goleman, bullying, disciplinary problems, violence and drug abuse are reduced in schools with a high EQ. With a solid basis in emotional intelligence, academic performance — as well as behavior — improves. The message is that no emotion is "wrong," but certain ways of expressing those emotions or acting on them are indeed inappropriate.

Why emotional intelligence is important?

Emotional intelligence (EI) forms the juncture at which cognition and emotion meet, it facilitates our capacity for resilience, motivation, empathy, reasoning, stress management, communication, and our ability to read and navigate a plethora of social situations and conflicts. EI matters and if cultivated affords one the opportunity to realize a more fulfilled and happy life. As the workplace evolves, so too does the body of research supporting that individuals (from interns to managers) with higher EI are better equipped to work cohesively within teams, deal with change more effectively, and manage stress – thus enabling them to more efficiently pursue business objectives.

Goleman (1995) recognized five distinct categories of skills which form the key characteristics of EI and proposed that, unlike one's intelligence quotient (IQ), these categorical skills can be learned where absent and improved upon where present.

Thus, EI, unlike its relatively fixed cousin, IQ, is instead a dynamic aspect of one's psyche and includes behavioral traits that, when worked upon, can yield significant benefits, from personal happiness and wellbeing to elevated success in a professional context.

Further Research

There are very practical reasons to promote social and emotional learning in schools, from kindergarten through college.There is an obvious connection to Goleman's third, motivational component: learning stimulates curiosity and promotes feelings of satisfaction, even joy, when students immerse themselves in the process of assimilating new information. The EQ of children starts developing long before they ever enter a classroom. But EQ levels will vary widely, depending on each child's home environment. Thus, teachers must be able to recognize those children whose emotional literacy needs a boost. Teachers should be ready to talk about feelings in the classroom. Future research must be concentrated in the field of education aiming the emotional wellbeing of students.

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"A STUDY ON STUDENTS ATTITUDE TOWARDS ENTREPRENEURSHIP"

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Abstract

Entrepreneurship has been recognized as the determinant or vital element of economic growth and development.Fostering entrepreneurial potentials among the younger generation can have long term associations with economic growth and to support unemployment situation by creating entrepreneurs through self-employment. But there is a general agreement that attitude towards entrepreneurship are determinant factors which decide to be successful entrepreneurs.Attitude can be based on the influence of demographic characteristics and family business background, self-efficacy,innovativeness and so on.
Key words: Entrepreneurship,innovativeness,economic growth and development.

I. INTRODUCTION

Entrepreneurship has Traditionally been defined as the process of designing,launching and running a new business which typically begins as a small business.
Anentrepreneur has been defined as "a person who starts organize and manage any enterprise. "Rather than working as an employee an entrepreneur runs a small business and assumes all the risk and reward of a given venture.The entrepreneur is commonly seen as a business leader and innovator of new ideas and business process.
The objective of this research is to identify the attitude of students towards entrepreneurship based on sample survey conducted among college students.

Il. REVIEW OF LITERATURE

Review of the literature is the study of the prevalent materials related to topic of research.This helps the research to get a clear idea about the particular field.It is important for the researcher to carry out of the research successfully. It is further intended to serve as a mean of exchange information with the hope that it could prevent further implication of the students to determine what is already know from the similar research.

Paco,Ferreira,Raposo,Rodrigues and Dinis(2015):Found that the
attitude toward the behavior had direct and positive effect on entrepreneurial
intensions.Hence,education and training should focus on changing personal attitudes then

providing technical knowledge about business because the effects could be more significant to the process of business creation and overcome pre-received barriers to entrepreneurship.

According to Kruger (2019): Intension serves as mediating factors between entrepreneurial action and potential exogenous influence (trades,demographics,skills,social,culture and financial support).They suggested that entrepreneurial intension helps in explaining the reason on why certain individuals tend to start own business before scan or deciding type of business to involve in.Theystated that entrepreneurs themselves should benefit from a better understanding or their own motives,intension affords the mach ance understand what factors drive them to make the decisions pursue entrepreneurial career and how the venture becomes reality.

DennyMeyer(2020):This study investigates the inclination towards entrepreneurship among university students in the northern region of the Peninsular Malaysia.The influence of demographic characteristics and family business background on university student's inclination towards entrepreneurship is also being examined. An empirical test carried out on the data gathered from questionnaires demonstrates that two entrepreneurship education variables are found to have statistically significant relationship on the inclination towards entrepreneurship.At The meantime, two demographic variables and a family business background variable have an effect on university student's inclination towards entrepreneurship.Finally,based on the findings,the implications of the study have been forwarded.

Ill. OBJECTIVES OF THE STUDY

*To examine the attitude of student towards entrepreneurship.
*To identify the factor which develop entrepreneurship in students.
*To identify whether students view entrepreneurship as a future career.
*To give suggestions to attract more towards entrepreneurship field.

ᴵⱽ. SCOPE OF THE STUDY

This study aims is to identify the attitude of students towards entrepreneurship based on sample survey conducted among college students. The study also examines whether student's family business background, innovativenessself-efficacy,risktaking and independence affects their attitude, in turn affects their career choice as an entrepreneurship.The main aim of the study is to identify potential benefits of entrepreneurship among students as a career option,problem that stands in its way and strategies to initiated to support it.

ⱽ. METHODS OF DATA COLLECTION

This study is based on both primary and secondary data. The primary data were collected through well-defined structured questionnaire based on objective.Secondary data were collected from various sources like magazine, journals and previous reports.

VI. DESCRIPTIVE RESEARCH DESIGN

In this study Descriptive Research Design is used.Descriptive study is designed to gather descriptive information.The major purpose of descriptive research is to describe the characteristic of population or phenomena.It portrays accurately the characteristics of particular individual situation or group and to determine the frequency of occurrence of such events.

VII. RESEARCH DESIGN

Research design is a systematic planning of research usually including the formulation of astrategy to resolve a particular question,the collection and recording of the evidence the processing and analysis of these data and their interpretation;and the publication of results.

VIII. SAMPLE SIZE

The sample size taken for this project is 50 respondents.The sample is selected based on convenient sampling.

IX.   LIMITATIONS OF THE STUDY

*All the findings and observation made in the study are purely based on
student's response which may be biased.
*Time and cost are also another constraint.
*The result of study is relevant to the sample only, hence it cannot be
generalized.

X. FINDINGS
*Most of students are in age group between19-21Years.
*Majority of the students are male.
*Majority of the students says that their parent has business back ground.
*Most of the students are getting motivation from education institution.
*Most of students opinion is entrepreneurship is profit making.
*Majority of the students family is expecting them to start own
venture.
*Most of the students opinion is govt support the important factors to develop an
entrepreneurship.
*Majority students agree that incentives and subsidies provided by government to support
entrepreneurship.

*Majority of the students strongly agree that introducing subtantial changes of present education system is require to deveop entreprenurial quality.

Xl. SUGGESTIONS

*The present management education requires some substantial changes to
develop entrepreneurial qualities.
*The governement should provide more subsidies and incentives to support
entrepreneurship.
*The society have negative attitude towards entrepreneurship,it should be changed.
*More support should be given by family and friends because support
from the have a great influence on building an entrepreneurial attitude
among students.
*Seminar and other entrepreneurial development programs should be conducted to provide
more knowledge about entrepreneurship.
*Entrepreneurship awareness programmust be conducted to give awareness to the society.
*To give suggestions to attract more towards entrepreneurship field.

Xll. CONCLUSION

Through the study I was able to understand the students attitude towards Entrepreneurship. The students have a positive attitude towards Entrepre-neurship.Factors like desire to earn money,support from friends and family and to gain social prestige are factors discouraging students like badex-perience others,risk,economic problems,neceessary steps to be taken to solve this problem.
To conclude, an Entrepreneur is a person who organize and manages a business undertaking and assumes the risk involved in it for the of profit.He is one who creates, develop and manages a busines enterprise. In shot, an Entrepreneur Is One Who Create His Own Business.

BOOKS AND REFFERENCE
*Stars-Up:What the angles won't tell you about business and life author Rohit Prasad, Professor at Management Development Intitute, Gurgon.

*The Golden Tap : The inside story of Hyper Funded Indian start-up auditor Kasyap Deorah,co-founder of chalo,Chaupathi Bazaar Right half.com.

*Young Turks Auditor-Shereen Bhan,managing editor at CNBC-TV 18 and Syna Denuhgara,feature editor at CNBC-TV18 Bhaag Inspir ing stories of students entrepreneurs in India Audiot-GaneshV,Entre preneur and marketing consultant.

WEBSITES
*http:///en.wikipedia.org/wiki/entrepreneurship
*http:www.entrepreneurshipattitude.con/factrs.htm *www.goolescholar.com

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"A STUDY ON SAVINGS AND INVESTMENT OF RURAL HOUSEHOLD WITH SPECIAL REFERENCE TO CHULLIMADA, KANJIKODE"

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Abstract: Saving is a very important component which is responsible for combating or meeting any emergency accrued by the individuals or the households or any corporate agencies. Saving is more of meant for meeting contingencies but sometimes it also acts as a form of investment. But sometimes people are not inclined towards saving and the vert delicate reason is lack of awareness. The present study can be relevant one to know the reason of dissaving and if saving occurs then what are the determinants which are responsible for saving.

Introduction: Saving is an important macroeconomic variable to be studied under the purview of the economic area on n individual as well as household basis. In a country like India, the income standard is almost uncertain and leads to more consumption rather than saving which has been a central problem. If the saving is low, then the investment will also be low leading to low capital formation. The present study analyses the determinants and patterns of savings behaviour in rural households.

India is a developing country where, there has been a consistent increase in the national saving rate after the independence period, though with considerable fluctuations from year to year. In international stand point of view, India has a had a high saving rate as compared to other developing countries, except those in East Asia. To study on rural saving, the compositions of savings, the methods of measuring savings, and the pattern of saving.

The present study tries to analyse the determinants and pattern of saving behaviour on rural households. Saving is an important variable for every country to be studied for the economic growth and development of under the purview of the economic area on an individual as well as household basis.

According to classical economists like Adam Smith ,Dvid Ricardo and J.J.MILL, "saving is an important determinant of economic growth". Saving components can be based on an individual or on household basis which proves to be the well being. As for an individual saving becomes the cushion for the future's intercourse of the unforeseen and upcoming as well as the uncertain circumstances of life. Saving is the part of the income earned by the individuals. For the higher economic growth of the country, marginal propensity to save should be higher but it helps to the

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multiplier process. The determinants and pattern of saving differ from rural to urban region.

The present study focuses to examine the main determinants of the saving pattern in rural population especially in the context of aggregate saving behaviour. India is fast losing its status as a country of big savers. According to RBI Annual Report (2011), "The persistence of inflation at the high average rate of about nine percent during 2011-12 further atrophied to save off the downward pressure on their real consumption or lifestyle". The changing pattern of India household savings is the result of a number of factors. The household savings in India has experienced a variety of changes over the past one or two decades as due to the changes in lifestyles and consumption models in a developing country like India.

OBJECTIVES OF THE STUDY

1. To analyze the savings and investments habits among rural households.
2. To analyze the attitude towards savings and investments.
3. To understand choice and saving preference of rural people.
4. To study and identify factors which influence the saving behaviour among rural people.

SCOPE OF THE STUDY

The future welfare of the society mainly depends upon the saving pattern of the families. For various purposes they are making some savings from their monthly income. In different opportunities they are investing their excess income for future benefit.

This study covers the saving and investment habits among rural households in Chullimada, kanjikode.

RESEARCH METHODOLOGY

Research Methodology is the term that basically means the science of how research is done scientifically. It is a way to systematically and logically solve problem, helps us to understand the process not just product of research and analysis method in addition to the information obtained by them.

RESEARCH DEIGN

It is a systematic study in which descriptive research is used to formulate the objective for the study.

SOURCE OF DATA

Primary data is collected through questionnaire method and interview method.

Secondary data is collected from the books, journals, other published and unpublished reports and websites.

 SAMPLING DESIGN

A sampling design is a definite plan for obtaining a sample from given population. It refers to the technique or the procedure of the researcher would adopt in selecting items for the sample. The study mainly based on convenience sampling method.

SAMPLE SIZE

The sample were selected from 50 respondents from Chullimada

 AREA OF THE STUDY

The study was conducted in the area of Chullimada.

 TOOLS FOR ANALYSIS

Tools used for the analysis of the study are Simple percentage analysis, bar diagram, Pie chart.

 LIMITATIONS

• This study confines within the limited period.

• The study covers only the rural households.

• The personal bias of the respondent may influence the study.

• Due to the lack of the availability of the head of the family as many of them are mostly out for work, the data received from the family members are

 inadequate.

REVIEW OF LITERATURE

In this chapter, the concepts relevant to the present study are compiled and presented in a logical order. To support and enrich the theoretical orientation of the present study, an attempt was made to review similar and relevant past studies and literature available in books, scholarly journals, magazines, newspapers and other resources.

A Study on The Indian Household Investors Survey Mathivanan.R. and Mohanaranjani (2013) 44 research paper aimed to analyze the gap between financial literacy and saving/investment behaviour among the working women. The findings of the study shows that women have expressed high degree of awareness i. e, financial literacy towards traditional saving/investment avenues, but they have actively have shifted their saving/investment avenues from traditional bank saving avenues to modern technically risky capital market operations.

SaritaBahl (2012) study aims to study the investment behaviour among the working women in Punjab. The study show that how much women are aware about the investment benefits and whether they invest their money or not, and if invested, how much money is invested by them. She made efforts to determine the level of agreement of working women of Punjab on various aspects of investment planning. (2005) conducted by the Society for Capital Markets Research &Development, Delhi

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emphasizes the fact that investment preferences among household investors have important socioeconomic applications. Such preferences influence the direction in which, and the channels through which, household financial savings would flow. A developing economy, like India, and needs a flowing amount of household savings to flow to corporate enterprises. Such flow can grow on a sustained basis if, and only if, there is an effective system to ensure that the enterprises receiving the flow are sound and will make proper use of the money provided.

Al-Tamimi (2006) investigated a study on most and least influencing factors on the United Arab Emirates investor's behaviour, by surveying 343 individual investor. The most influencing investment factors identified by the authors were: corporate earnings get rich quickly, stock marketability, past performance and the creation of organized financial markets. In addition two factors had unexpectedly the least influence, namely religious reasons and family member's opinions. However, the author did not consider the relationship between financial literacy and investment decision, which will be dealt in the current study.

Shri. T.S.Vijayan (2006) in his address at (ORCD) Conference co-hosted by pension Fund Regulatory and Development Authority has commented that financial education can help individuals to take control of their financial situation, and improved spending habits, increased savings, investments for future requirements, children's higher education, wise use of credit facilities, can all contribute towards growth and stability of the economy. He also said that as the currently available financial instruments are becoming more and or complex and the investors has to choose a plethora of instruments to invest his hard earned money. There should be cross-industry co-ordination and nexus between different industry bodies and regulators to promote a study on the awareness of financial instruments in India.

Das.V.S (2007) states in his report that financial education or financial literacy has assumed greater importance in the recent years, as financial markets have become increasingly complex and there is also an information asymmetry leading to making informed choices more and more difficult for the common person. Financial education can broadly be defined as providing the familiar with and understanding of financial market products, especially, rewards and risks, in order make informed choices. Viewed from this standpoint, financial education primarily relates to personal financial education to enable individuals to take effective actions to improve overall wellbeing and avoid distress in matters that are financial. The report also states that the absence of proper financial counselling, coupled with inadequate financial literacy levels

has often resulted in pushing the consumers towards costlier options and eventual debt traps. Thus, there is a need for financial counselling in all the areas.

Horioka and Wan (2007) in their research work had established the fact that china's household saving rate has been high and rising and that the main determinants of variations overtime and over space are the lagged saving rate, the income growth rate, the real interest rate and the inflation rate. However they found that the variables relating to the age structure of the population usually do not have a significant impact on the household saving rate. These results they claimed provide mixed support for the life cycle hypothesis as well as the permanent income hypothesis, and that they (the results) are consistent with the existence of inertia or persistence, and imply that china's household saving rate will remain high for some time to come. Regarding the issue of whether rural households can save or not, two conflicting views have been aired: the traditional or old view and the new view. The traditional view purports the idea that rural households cannot save because they are too poor and therefore rural savings mobilization efforts are deemed futile and worthless.

Krishnamoorthy.C. (2008) in his study has analysed the profile and awareness of salaried class investors and their attitude and satisfaction towards investment. It has been concluded that all salaried people were aware of bank deposits, PF, scheme, insurance schemes, post office savings schemes, gold and however only few were aware of UTI.

Ang (2009) examined the dynamic relationship between the domestic savings and investment rates in India over the period 1950-2005 by controlling the level of financial liberalization. The results indicate that greater financial liberalization enables more domestic resources to be channel to investment activities.

RaghavanGuruswami (2010) says that financial literacy has become an increasingly important requirement for functioning in matured economies. Trends in work patterns, demography and service delivery suggest that it will become even more important in the years ahead. Improvements in financial literacy can not only support social inclusion but also enhances the contribution to the economy as a whole. Financial illiteracy leads to financial exclusion, financial exploitation and financial discrimination. Socially under privileged, poor, disabled, women a group, uneducated, ethnic minorities unemployed, children as well as old people form the nucleus of financially excluded population in any country. Therefore to ensure against financial exclusion, there is an urgent need to promote and enhance financial literacy.

Sethupathi.M. (2011) empirical research work analyzed the financial services awareness and investment pattern of the rural masses in Coimbatore district of Tamil Nadu. The sample population knowledge on

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the modern and market sophisticated investment avenues is very much limited. The author has also specified that the rural households in the study area primary give importance to

The safely of the principal money they invest before selecting savings/investment avenue. The study reveals mixed investor's perceptions towards feasibility of financial services offered by various agencies in rural areas and it has been concluded that minimum deposit facilities or no-frill account is a more popular mode of financial inclusion among the rural masses of Tamil Nadu in general and in particular to the study region Coimbatore District as per the opinion.

TABLE SHOWING GENDER OF RESPONDENTS

Sl.no	Gender	No. of households	Percentage
1	Male	27	54
2	Female	23	46
3	Transgender	**0**	0
	Total	50	100

Interpretation

Out of the sample households taken for the study, 54% are male and 46% are female. The sex of the head of the household emphasizes the impact of saving as it is shown that the male population are more and suppose to involve themselves in different occupational status are inclined to save more

TABLE SHOWING SIZE OF THE FAMILY OF THE RESPONDENTS

SL. no	Size of the family	No. of households	Percentage
1	Only 2 members	10	20
2	2 – 5 members	28	56
3	5 – 10 members	7	14
4	More than 10	5	10
	Total	50	100

Interpretation

The size of the family is also determinants of the saving behaviour of the rural households. majority 56 % of households consist of a family size of 2-5 members and lowest that is 2 members constitute 20 % of the population . 5- 10 members constitute 14% and more than constitute 10%.

TABLE SHOWING ANNUAL INCOMES OF THE RESPONDENTS

Sl. No	Annual income	No of households	Percentage
1	Less than 1 lakh	30	60
2	1 – 2 lakh	14	28
3	2 – 3 lakh	6	12
4	More than 3 lakh	0	0
	Total	50	100

Interpretation

Around 60 % of households accrued annual income is less than 1 lakh , 28% accrued annual income between 1 – 2 lakh and 12% accrued 2-3 lakh

TABLE SHOWING ANNUAL SAVING OF THE RESPONDENTS

SL.NO	Annual saving	No. of households	Percentage
1	Less than 25000	28	56
2	25000-50000	15	30
3	50000-75000	6	12
4	75000- 1 lakh	1	2
	Total	50	100

Interpretation

Almost 56% of the households saving is less than 25000. Around 30% of the household saving is between 25000-50000 12%, 2 % are 50000-75000 and 75000-100000 respectively.

TABLE SHOWING MOTIVATING FACTOR OF SAVING OF THE RESPONDENTS

Sl. No	Motivator of saving	No. of households	Percentage
1	To Meet specific purpose	6	12
2	To Get tax benefits	5	10
3	To Earn income	23	46
4	To Meet contingent expenses	6	12
5	To be secured at old age	10	20
	Total	50	100

Interpretation

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Around 46 % of the households save on the objective to earn income. 20% on the objective to be secured at old age. 12 % has both on to meet specific purpose and to meet contingent expense. 10% on the objective to get tax benefits.

TABLE SHOWING MEDIUM INVESTMENT PREFERED BY THE RESPONDENTS

SL. No	Medium prefer to invest	No. Of households	Percentage
1	Bank deposits	15	30
2	Insurance	10	20
3	Post office	10	20
4	RD,NSC	2	4
5	Government security	8	16
6	RPF	2	4
7	Others	3	6
	Total	50	100

Interpretation

Almost 30 % of the household prefer bank deposits for investment both insurance and post office consist of 20%. 16 %prefer government securities. RD, NSC has and RPF also has 4%. the other section has 6%.

TABLE SHOWING TYPE OF INVESTMENT

Sl. No	Types of investment	No. of households	Percentage
1	Regular return plan	15	30
2	Medical plan	5	10
3	Pension	10	20
4	Specific purpose plan	15	30
5	Multiple purpose plan	5	10
	Total	50	100

Interpretation

In this, both regular return plan and specific purpose plan has 30%. Pension plan also has 20%. Both medical plan and multiple purpose plans have 10%.

TABLE SHOWING PERCENTAGE OF INCOME INVESTING

SL.NO	INCOME	No. of households	Percentage
1	0-15%	20	40
2	15%-30%	15	30
3	30%-50%	15	30
	Total	50	100

Interpretation Around 40% of the household invest 0-15% of their income for saving. 15-30% and 30-50 % both has 30 % income investing.

FINDINGS

Following findings of simple percentage analysis conducted on the data collected with the respect of the study.

1. Most of the respondents are male.

2. In this study most of the respondents accrue the annual income is less than 1
   lakh.

3. Most of the respondents annual saving is less than 25000

4. In this study, most of the household prefer bank deposits for investment (30%).

5. In this study, majority of the household invest 0-15% income for saving.

SUGGESTIONS

1. There is a need for conducting awareness classes on share market importance in the recent era.

2. Unnecessary expenditure can be avoided for increase the size of saving rural people.

3. Banks should provide facilities regarding investments that will help rural investors.

4. Additional schemes such as children's marriage scheme, education schemes should provide by the government that will help the rural people

5. There must be a proper channel of agents who can advise or council these people regarding saving.

CONCLUSION

This is a preliminary study of the saving pattern of the rural households. TH is a need of further research to identify the government policies, prices of commodities (durable and non durable goods) especially where there unequal distribution of income and a problem related to allocating of resources. There should be proper policies of the banks and other financial institutions in the rural areas. The price effect and the income effect policy should be introduced for the changes in the saving pattern in these areas. Interest rate policies of the financial institutions should be made more polis for the proper and effective implementation of the programmes and policies the government making the rural people more inclined towards saving. The main constraints of rural families inability to save are inadequacy of income sickness, fear of safety of their income. Other constraints identified included family and societal demands, misuse of money as a result of lack of budget, other problems inherent in the activities of financial intermediaries such remoteness of banks, high banking charges, and delays and congestion at banks. Frequency with which the rural household saved was diverse and is affected mainly by the amount of money that the family saved.

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A STUDY ON AWARENESS LEVEL OF PEOPLE TOWARDS CYBER CRIME WITH SPECIAL REFERENCE TO PALAKKAD MUNICIPALITY

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Abstract: The study estimates the awareness level of people in palakkad municipality. The study uses both primary and secondary data. Primary data is collected through primary sources, mainly questionnaire which is used to collect information directly from the people Secondary data was collected through cybercrime reports published by different journals, magazines, newspapers, report published by cyber cells. The study uses the tools research methodologY like diagram, bar graphs and pie chart for interpretation of the results.

INTRODUCTION

In this modern world computers have a very important role to play. The widespread availability of computers and internet connections provides unprecedented opportunities to communicate and learn. Unfortunately, although most of the people use the internet as powerful and beneficial tool for communication and education, some individuals exploit the power of the internet for criminal or terrorist purposes.

The offences which take place on or using the medium of internet is known as `CYBER CRIME' .These include the plethora of illegal activities may be grouped together. Because of the anonymous nature of internet, there are many disturbing activities occurring in the cyber space which may enable the perpetrators to indulge in various types of criminal activities which are called cybercrimes.

The term cybercrime is a misnomer. This term has nowhere been defined in any statue/Act passed or enacted by the Indian parliament. The concept of cyber crime is not radically different from the concept of conventional crime. Both include conduct whether act or omission, which cause breach of rules of law and counter balanced by the sanction of the state. Some of the newly emerged cybercrimes are cyber-terrorism, e-mail spoofing, cyber pornography etc. The computer may however be target for unlawful acts in the cases like-unauthorized access to computer/computer system/computer networks, theft of information contained in the electronic form-mail bombing, Trojan attacks, web jacking, etc. The weapon with which cybercrimes are committed is technology and therefore, the perpetrators of these crimes are mostly technology skilled persons who have a thorough understanding of the internet and computers applications. Information Technology Act 2000 and Information Technology Act 2008 include various provisions which can be used as a standard measures for accessing the awareness level of people towards cyber crime. This act defines various rules and conditions followed to conduct legal and safety transactions through internet connected system. This act also defines the penalty given for cyber criminals. Followings of these provisions under IT Act 2000 and IT Act 2008 and usage of safety measures like digital signatures, antivirus programmers, firewalls etc keep the user without cyber crime to an extent.

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OBJECTIVE OF THE STUDY

1) To evaluate the awareness level of people against cybercrime in palakkad municipality with reference to provisions of IT Act.
2) To identify the different types of cybercrimes.
3) To identify the consequences of cybercrimes.
4) To identify the different safety measures taken against cybercrimes.

Research design

The research design is the arrangement of the activities for the collection and analysis of the data for this study the design used was descriptive design as the name itself implies, is conducted describe something.

Tools used for data collection

For the purpose of the study both primary and secondary data has been collected. The primary data as obtained from questionnaires and secondary data through published source.

Tools used for analysis

Percentage method has been used. Tables, charts and diagrams are used for **Sample size**

125 samples are selected randomly and information has been collected through distribution of questionnaire to the peoples.

Sampling technique

The technique used for the research is convenient sampling (probability sampling) because the population is finite. presentation.

LIMITATIONS OF THE STUDY

1) The area of the study is limited to palakkad municipality only.
2) Generalization of findings may lead to reduce the accuracy.
3) Time constraint is another limiting factor.

REVIEW OF LITERATURE

Justice yatindrasingh in his book "CYBER LAWS" has elaborately discussed the meaning and importance of intellectual property right like trademarks, copyrights, patents etc. vis-à-vis cyber space. According to him, these rights refer to the property that is a creation of the mind i.e. inventions , literary and artistic works, symbols, names, images, and designs used in commerce.

Viveksood in his book "CYBER, ELECTRONIC EVIDENCE AND investigation: legal ISSUES" has suggested various strategies to curb cyber crimes. He says that since cyber crimes are technology based, so the best answer to these crimes is security technology. Fire-walls, anti-virus software and anti-intrusion systems are some of the effectively used security technologies. He concluded that "protect yourself" is the best Mantra against cyber crimes. According to him, effective cooperation between the law enforcement agencies within the country and between nations is also necessary to challenge cyber criminals and bring them before the law. Further he calls for strengthening of extradition treaties and their implementation as a must in this digital age.

Nandankamathin his book "LAW RELATING TO COMPUTERS, INTERNET AND ECOMMERS: A GUIDE TO CYBER LAWS AND THE INFORMATION TECHNOLOGY ACT, 2000" has commented on the emerging field of 'electronic

evidence' in the cases of cyber crimes. He has made an in-depth study about the admissibility and authenticity of electronic records, burden of proof in cyber offences, and of certain other concepts like production and effect of such evidences, videoconferencing, forensic computing and best evidence rule etc.

Vakul Sharma in his book "INFORMATION TECHNOLOGY; LAW AND PRACTICE" has evaluated the issue of jurisdiction in cyber space. While discussing the role of international law in deciding jurisdiction of cyber offences he has made references to various principle like territorial principle, nationality principle, protective principle, passive personality principle, effects principle and universality principle. Further, he has made deep insight into the controversial issue regarding extradition of cyber criminals. Moreover, he has examined the US, European and Indian approaches towards personal jurisdiction at a greater length.

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DR. Viswanathparanjape in his book "LEGAL DIMENSIONS OF CYBER CRIMES AND PREVENTIVE LAWS WITH SPECIAL REFERENCE TO INDIA" has pointed out that the problem of cyber crime has assumed gigantic proportions and emerged as a global issue. He has suggested the need for international cooperation to combat cyber crimes and in this regard he has comprehensively discussed various national and international conventions, summits etc.

GENDER WISE CLASSIFICATION OF THE RESPONDENTS

Gender	Number of respondents	Percentage
Male	60	48
Female	65	52
Total	125	100

INTERPRETATIONS

From the above table, it is clear that out of 125 respondents, 48% respondents are male, and 52% respondents are female. Majority of the respondents 52% are female.

ELECTRONIC DEVICE USED FOR INTERNET CONNECTION

Electronic device	Number of respondents	Percentage
Mobile phone	58	46.4
Computer	22	17.6
Tablet	10	8
Laptop	35	28

Any other	0	0
Total	125	100

INTERPRETATIONS

From the above table it is understood that, out of 125 respondent's 46.4% respondents were using mobile phone for internet connection. 28% respondents were using Laptop and 17.6% were using computer, 8% were using Tablet for internet connection. No any other electronic devices are used for internet connection.

DIFFICULTIES FACED BY RESPONDENTS

Difficulties	Number of respondents	Percentage
Misuse of personal Information	23	18.4
Hacking	8	6.4
Spamming	10	8
Data alteration	20	16
Virus	64	51.2
Others	0	0
Total	125	100

INTERPRETATIONS

It is clear from the above table that, out of 125 respondents 51.2% respondents were threatened by virus. 18.4% respondents were facing difficulty of Misuse of personal information, 6.4% were Hacking, 16% were data alteration, and 8% spamming.

IMPACTS OF CYBER CRIME

Impacts	Number of respondents	Percentage
Potential economic impact	10	8
Impact on market value	5	4
Mental stress	40	32
Cyber addiction	60	48
Additional cost for security devices	10	8
Total	125	100

INTERPRETATIONS

It is clear from the above table that, out of 125 respondents 48% respondents were have cyber addiction, 32% have mental stress, 8% have potential economic impact, 8% were spending additional cost for security devices, 4% have impact on market value.

SAFETY MEASURES TAKEN

Safety measures	Number of respondents	Percentage
Antivirus program	80	64
Digital signature	0	0
Digital certificate	3	2.4

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Secure electronic Transactions	1	0.8
Firewall	40	32
Secure socket layer	1	0.8
Public key software Infrastructure	0	0
Acquisition of from Reliable sources	0	0
Total	125	100

INTERPRETATIONS

From the above table it is understood that, out of 125 respondents 64% respondents were using antivirus program for safety measures against cybercrime, 32% were using firewall, 2.4% were using digital certificate.

FINDINGS

1) Majority of the respondents (52%) are female.

2) Mobile phone is the most highly used electronic device (46.4%) for internet connection and tablet is the least used electronic device (8%) for internet connection.

3) Virus is the highest difficulty (51.2%) faced by the respondents.

4) Cyber addiction is the highest impact (48%) faced by the respondents.

5) Antivirus program is the highest (64%) safety measure taken against cyber crime by the respondents.

SUGGESTIONS

1) Always avoid sending any photograph online particularly to strangers and chat friends as there have use been incidents of misuse of photographs.

2) Always use latest and updated antivirus software to guard against virus attacks.

3) Never send your credit card number to any site that is not secured, to guard against frauds.

4) Always keep a watch on the sites that the children are accessing to prevent any kind of harassment of depravation in children.

5) It is better to use a security program that gives control.

6) Use of firewall may be beneficial

7) Use strong passwords. Don't repeat your passwords on different sites, and change your passwords regularly. Make them complex.

8) Manage your social media settings. Keep your personal and private information locked down.

9) Secure your mobile devices. Be aware that your mobile device is vulnerable to viruses and hackers. Download applications from trusted sources.

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10) Avoid being scammed. Always think before you click on a link or file of unknown origin

CONCLUSION
This is an attempt to study the awareness level of people towards cyber crime, its consequences, types, and safety measures taken against cyber crime with regard to major provisions under IT Act 2000 and IT Amendment act 2008. The various issues with regard to the aspect of the study has been made and effectively dealt with the awareness level of common people towards cyber crime.
The result of the study shows that cyber crime is one of the emerging problems in the existing internet world and majority of people were aware about it. Most of the people nowadays are using internet connection for many purposes, have the possibility to become the victim of cyber crime. They should take necessary safety measures against cyber crime and be aware about the major provisions listed under IT Act 2000 and Amendment Act 2008.

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SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT OF SELECTED SECURITIES

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The purpose of this paper is to empirically test the risk and return associated with investing in different securities and portfolio. This study also extends its contributions in understanding the risk and return relationship of securities in the stock market. Security analysis is a pre-requisite for making investment. In the present day financial markets, investment has become complicated. One makes investments for a return higher than what he can get by keeping the money in a commercial or cooperative bank or even in an investment bank. In the finance field, it is a common knowledge that money or finance is scarce and that investors try to maximize their return. But the finance theory states that the return is higher, if the risk is also higher. Return and risk go together and they have a trade off. Most of the investments are risky to some degree. The art of investment is to see that the return is maximized with the minimum of risk, which is inherent in investments. If the investor keeps his money in a bank in savings account, he takes the least risk, as the money is safe and he will get back when he wants it. But he runs the risk that the return in real terms, adjusted for inflation is negative or small and even if positive, it may not come up to his expectations or needs. In the above discussion, we concentrated on the word 'Investment'. But for making investment, we need to make security analysis. It then becomes necessary to define properly investment and security analysis at the outset.

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INTRODUCTION
Meaning of security analysis

Investment is commitment of funds in the expectation of some positive rate of return. These funds are to be used by another party, user of fund, for productive activity. It can be giving an advance or loan or contributing to the equity (ownership capital) or debt capital of a corporate or non-corporate business unit. In other words, investment means conversion of cash or money into a monetary asset or a claim on future money for a return. This return is for saving, parting with saving or liquidity and lastly for taking a risk involving the uncertainty about the actual return, time of waiting and cost of getting back funds, safety of funds, and risk of the variability of the return. Investment in capital market is made in various financial instruments, which are all claims on money. These instruments may be of various categories with different characteristics. These are all called securities in the market parlance. In a legal sense also, the Securities Contracts Regulation Act, (1956) has defined "The security as inclusive of shares, scrips, stocks, bonds, debentures or any other marketable securities of a like nature or of any debentures of a company or body corporate, the Government and semi-Government body etc. It includes all rights and interests in them including warrants, and loyalty coupons etc., issued by any of the bodies, organizations or the Government." The derivatives of securities and Security Index are also included as securities in the above definition in 1998.

Meaning of portfolio management

A combination of such securities with different risk-return characteristics will constitute the portfolio of the investor. Thus, a portfolio is a combination of various assets and/or instruments of investments. The combination may have different features of risk and return, separate from those of the components. The portfolio is also built up out of the wealth or income of the investor over a period of time, with a view to suit his risk or return preferences to that of the portfolio that he holds. The portfolio analysis is thus an analysis of the risk-return characteristics of individual securities in the portfolio and changes that may take place in combination with other securities due to interaction among themselves and impact of each one of them on others.

Portfolio analysis includes selection of securities, portfolio construction, and revision of portfolio, evaluation and monitoring of the performance of the portfolio.

To understand the term investment we need to have the knowledge on Portfolio's are combination of assets traditional portfolio management was The selection of security to suit the particular requirement of an invested The modern portfolio theories is based on a scientific approach and has The scientific obligation based on the estimates of risk and return. The Portfolio attitudes of the investor toward a risk return tradeoff through analysis and screening of individual security.

- time factor
- return
- risk and relationship

Hence to understand the essence of investment analysis this study is undertaken

1.2 OBJECTIVES OF STUDY:

- To study and understand the practical aspects of portfolio management.

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- To study and understand the security analysis concepts.
- To measure the risk and return of selected securities.
- To understand how to create a better portfolio by maximizing return and minimizing risk

1.3 ASSUMPTIONS OF THE STUDY:

- This study assumes that an investor purchases the share at the beginning of the month and he sells the share at the end of the month.
- Investors make the decision on the basis of previous returns and risks that are unsystematic risks.
- The investors give preference to these securities that have given positive returns previously.

1.4 SCOPE OF THIS STUDY:

The scope of study is limited to 6 shares of the selected companies such as SBI, Reliance, Ashok Leyland, Asian Paint, NTPC and BHEL.

The prices of scrips are taken from the BSE index.

TOOLS FOR FINANCIAL ANALYSIS:

1. Average method/mean
2. Standard Deviation method
3. Correlation
4. Coefficient of variance (CV)

DATA COLLECTION:

The data are collected from both primary & secondary sources.

PRIMARY DATA:

It includes the data collected from the personal interaction with authorized manner of GEOJIT.

SECONDARY DATA:

The secondary method includes the lectures delivered by superintend of respective dept. The Boucher and materials provided by GEOJIT stock broking Ltd & also collected from www.moneycontrol.com and www.bseindia.com.

1.6 LIMITATIONS OF STUDY:

- This study is limited to some selected Companies (. SBI, Reliance, Ashok Leyland., Asian Paint , NTPC and BHEL)
- Dividend is not considered in the calculation of Return.
- Price changes are only taken into consideration.
- Situations in stock market are always subject to change.
- Time consuming is one of the limitations.

2.1 REVIEW OF LITERATURE

According to **Adam.Y.C.Lei & Huihua.li** (2015), Motivated by an obvious gap between the widespread use of Bloomberg terminals in the finance industry and the scant resources available to an instructor on how to incorporate the available information through the terminal into a finance course, we illustrate our experience using the terminal in an equity-focused security analysis and portfolio management course. Our goal is to enable students inexperienced with the terminal to prepare an analyst report. We identify the most significant challenges we face and provide the corresponding solutions. Our results are also applicable to other finance courses including financial analysis, investments, and student managed investment fund.

According to **Ali Asghary Karahroudy** (2017), Security Analysis and Framework of Cloud computing offers massive scalability, immediate availability, and low cost services as major benefits, but as with most new technologies, it introduces new risks and vulnerabilities too. Despite the fact that different cloud structures and services are expanding, the cloud computing penetration has not been as envisioned. Some specific concerns have stopped enterprises from completely joining the cloud. One of the major disadvantages of using cloud computing is its increased security risks. In this study I conduct an in depth analyses of the different aspects of security issues in cloud computing and propose a file distribution model as a possible solution to alleviate those security risks. It also shows the effectiveness of the new security model as compared with those currently being used. I present, a new file storage system with variable size chunks, distributed chunk addressing, decentralized file allocation tables, spread deciphering key, randomly selected file servers, and fault tolerant chunk system.

According to, **Hari P. Sharma, Dinesh K. Sharma, Princess Anne, R.K. Jana,** (2018), The focus of this research paper is to develop a model for security analysis and investment decisions using multi objective chance constrained programming (CCP). Using relevant variables and constraints a deterministic nonlinear programming model is derived using CCP technique. The model's efficiency and effectiveness is also evaluated as applied to a sample of stocks selected from the Dow Jones Industrial Average compiled into a high yielding portfolio.

According to **Stanis – aw – Gasik** (2007) portfolio management, What is a project portfolio? May it contain a set of investment project only? But in project-based organizations just commercial projects and their sets are much more important than investment projects. Moreover, in such organizations you may not easily strictly partition projects into investment and commercial. Usually the first commercial project of given type delivered to a customer is to some extent at the same time an investment project as the supplier develops new techniques then. So even the full model of investment portfolios must cover commercial projects

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PORTFOLIO MANAGEMENT

Concept of Portfolio:

Portfolio is the collection of securities may be financial or real assets such as equity shares, debentures, bonds, treasury bills and property etc. portfolio is a combination of assets or it consists of collection of securities. These holdings are the result of individual preferences, decisions of the holders regarding risk, return and a host of other considerations.

Characteristics of Portfolio Management:-

Return: All investments are characterized by the expectation of a return. In fact investments are made with the primary objective of deriving return. The expectation of a return may be from income (yield) as well as through capital appreciation. Capital appreciation is the difference between the sale price and the purchase price. The expectation of return from an investment depends upon the nature of investment, maturity period, and market demand and so on.

Risk: Risk is inherent in any investment. Risk may relate to loss of capital, delay in repayment of capital, non-payment of return or variability of returns. The risk of an investment is determined by the investments, maturity period* repayment capacity, nature of return commitment and so on. Risk and expected return of an investment are related. Theoretically, the higher the risk, higher is the expected returned. The higher return is a compensation expected by investors for their willingness to bear the higher

Safety : The safety of investment is identified with the certainty of return of capital without loss of time money. Safety is another feature that an investor desires from investment. Every investor expects to get back the initial capital on maturity without loss and without delay.

Liquidity: An investment that is easily saleable without lass of money or time is said to be liquid. A well developed secondary market for security increases the liquidity of die investment An investor tends to prefer maximization of expected return. minimization of risk, safety of funds and liquidity *of* investment.

DATA ANALYSIS AND INTERPRETATION

3.1 Expected Return:

The expected return of the investment of the investment is the weighted average of all possible returns multiplied by their respective probabilities

$$\overline{X} = \sum_{t=1}^{n} x_i P_i$$

Where

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X   = Expected Return

X$_i$ = Possible returns

P$_i$ =Probability associate with return

3.2 RISK MEASUREMENT:

Now we are ready to study the measurement of risk. The investor should capable to express the risk in quantitative terms. It should be remembered that risk measurement cannot provide cent per cent accuracy because risk is occurred due to many factors such as social, economical and political. It simply provides an approximate value of risk. The most popular measure of risk is the variance or standard deviation of the possible returns.

1. Standard Deviation

Risk refers to the dispersion of a variable. Standard deviation is the value of the variables around its mean. It is the square root of the sum of the squared deviations from the mean divided by the number of observations and it is represented as o2. It measures both the systematic and unsystematic risk. if the standard deviation or variance is low, it is assumed that the risk is low.

2. Coefficient of variation

Coefficient of variation (C.V.) is another measure which is used to measure risk. This can be calculated as follows.

CV=X

The CV indicates risks for rupee of expected returns. The lower the C.V> better the investment opportunity is.

Table:-1
Risk and Return analysis of NTPC

Date	Share price	P_0	Probable return $(P_1-P_0)/P_0 \times 100$	Probability	Expected return	Deviation $(11.9/5=2.38$	d^2	Variance $d^2 \times P$
1-4-15	147.90	120	23.25	0.22	5.11	2.73	7.45	4.63
30-4-15	150.30	120	25.25	0.23	5.80	3.42	11.69	2.68
01-9-15	120.20	120	0.17	0.18	0.03	-2.35	5.52	0.99
30-09-15	123.75	120	3.12	0.19	0.59	-1.79	3.20	0.60
31-3-16	122.50	120	2.08	0.18	0.37	-2.01	1.04	0.72
	664.65		**53.87**		**11.9**	**0**		**6.62**

Expected return = 11.9
Variance ie $\square^2 = 6.62$
Therefore $\square = \sqrt{6.62} = 2.57$
Coefficient of variance = $\square/X$

Coefficient of Variation (C.V.)= $\dfrac{2.57}{11.9} = 0.21$

Note : P_0 is the initial price of the shares.

Graph:-1
Risk and Return of NTPC
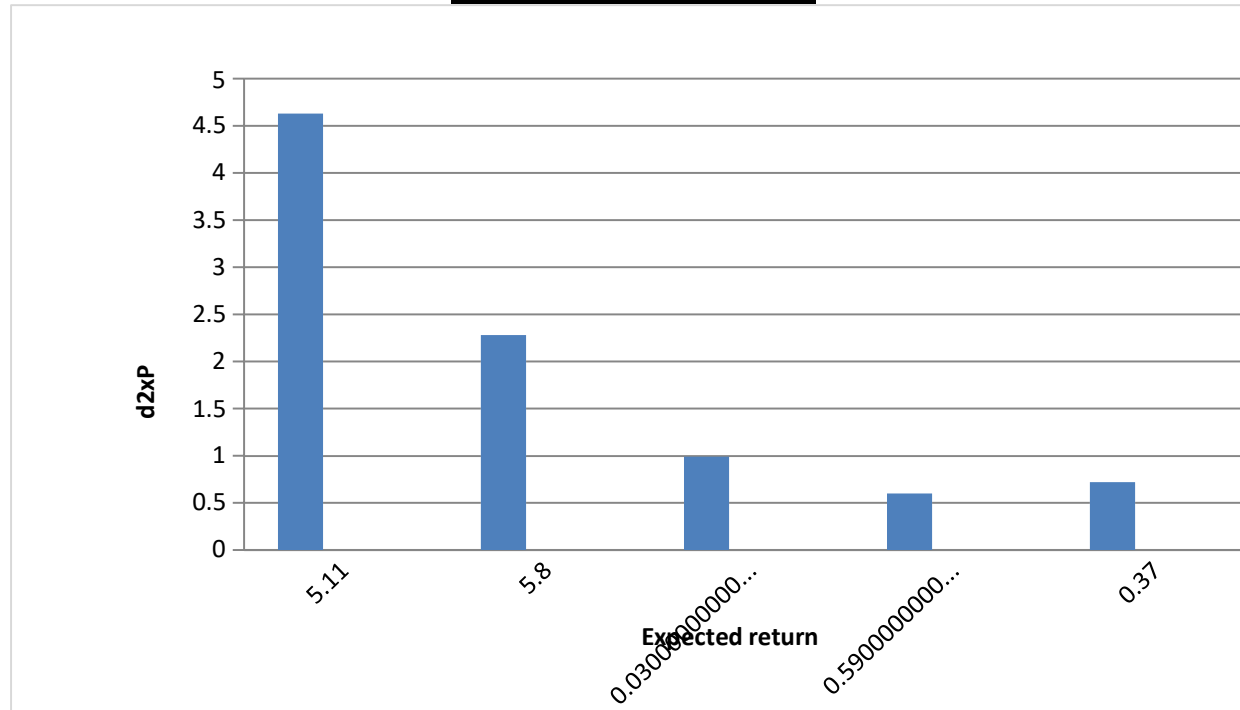
Interpretation:

The graph shows the decreasing trends in the expected return, but overall there is a high return with minimum risk. The risk per rupee of expected return on security is 0.21.

Table:-2
Risk and Return analysis of 'SBI'

Date	Share price	P_0	Probable return $(P_1-P_0)/ P_0 \times 100$	Probability	Expected return	Deviation $(7.09/5=1.41)$	d^2	Variance $d^2 \times P$
1-4-15	273.45	230	18.89	0.23	4.34	2.93	8.58	1.97
30-4-15	270.05	230	17.41	0.22	3.83	2.42	5.85	1.28
01-9-15	239.10	230	3.95	0.20	0.80	-0.61	0.37	0.07
30-09-15	237.25	230	3.15	0.19	0.60	-0.81	0.65	0.12
31-3-16	194.30	230	-15.52	0.16	-2.48	-3.9	15.21	2.43
	1214.15		**27.88**	**1.00**	**7.09**	**0**		**5.87**

Expected return = 7.09
Variance ie., $\square^2 = 5.87$
 $\square=\sqrt{5.87} = \underline{2.42}$

Coefficient of Variation (C.V.)= $\underline{2.42} = 0.34$
                                                    7.09

Graph:-2
Risk and Return of 'SBI'
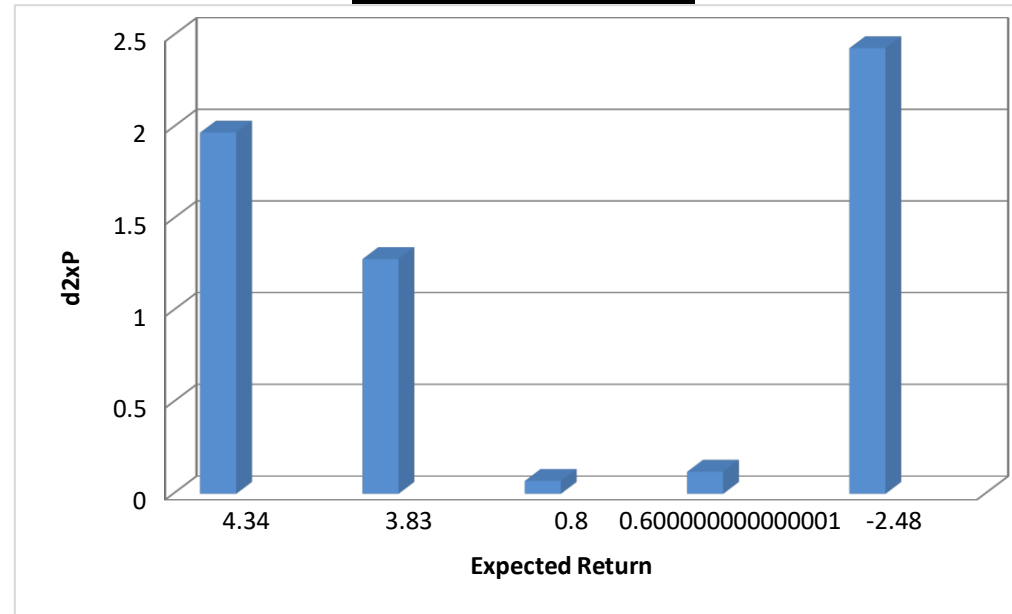
Interpretation:

The above graph shows that the expected return and risk is decreasing from 1-4-15 to 30-9-15. The overall strength of the security shows high return with moderate risk. While comparing 30-09-2015 to 31-03-2016 the strength of risk and return of the security is seems to unsatisfactory.

Table:-3
Risk and Return analysis of 'Reliance'

Date	Share price	P_0	Probable return $(P_1-P_0)/ P_0 x100$	Probability	Expected return	Deviation (4.56/5= .91)	d^2	Variance d^2xP
1-4-15	120	140	-14.28	0.17	-2.12	-3.33	11.08	1.88
30-4-15	130	140	-7.14	0.18	-1.28	-2.19	4.80	0.86
01-9-15	140	140	0	0.19	0	-.91	0.22	0.15
30-09-15	160	140	14.28	0.22	3.13	2.22	4.92	1.08
31-3-16	170	140	21.4	0.24	5.13	4.22	17.80	4.27
	720		**14.26**	**1.00**	**4.56**	**0**		**8.24**

Expected return = 4.56
Variance ie., $\square^2$ = 8.24
therefore $\square$ =√8.24 = <u>2.87</u>

Coefficient of Variation (C.V.) = $\dfrac{2.87}{4.56}$ = 0.63

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Graph – 3
Risk and Return of 'Reliance'
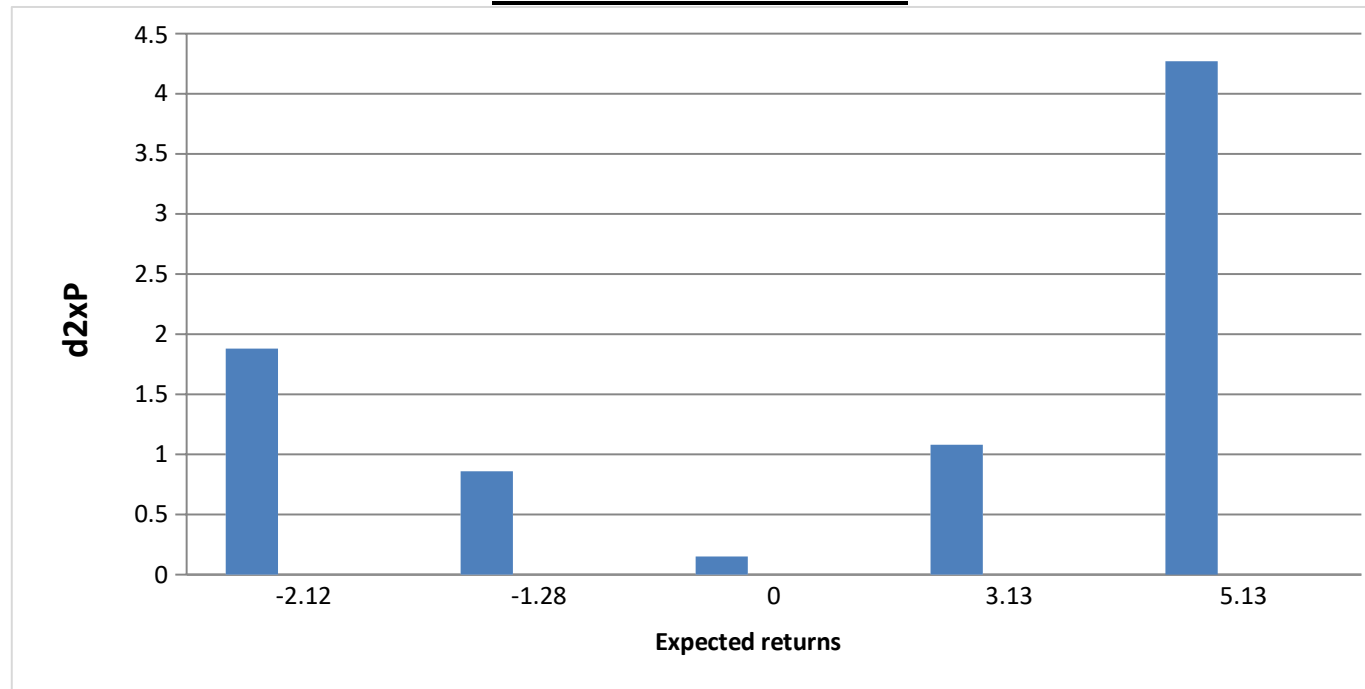
Interpretation:

 The risk per Rupee of expected return on this security is high (.63). It indicate even though there is no expected return, there exist some level of risk.

Table -4
Risk and Return analysis of 'BHEL'

Date	Share price	P_0	Probable return	Probability	Expected return	Deviation	d^2	Variance
			$(P_1-P_0)/P_0 \times 100$			(1.58/5= .31)		$d^2 \times P$
1-4-15	412	470	-12.34	.17	-2.09	-2.40	5.76	.97
30-4-15	426	470	-9.36	.18	-1.68	-1.99	3.96	.71
01-9-15	502	470	6.80	.21	1.42	1.11	1.23	.26
30-09-15	516	470	9.78	.23	2.24	1.93	3.72	.85
31-3-16	508	470	8.08	.21	1.69	1.38	1.90	.39
	2364		**2.96**		**1.58**	**0**		**3.18**

Expected return = 1.58

Variance ie., $\square^2$ = 3.18

therefore $\square$ = √3.18 = 1.78

Coefficient of Variation (C.V.) = $\dfrac{1.78}{1.58}$ = 1.12

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Graph:-4
Risk and Return of 'BHEL'
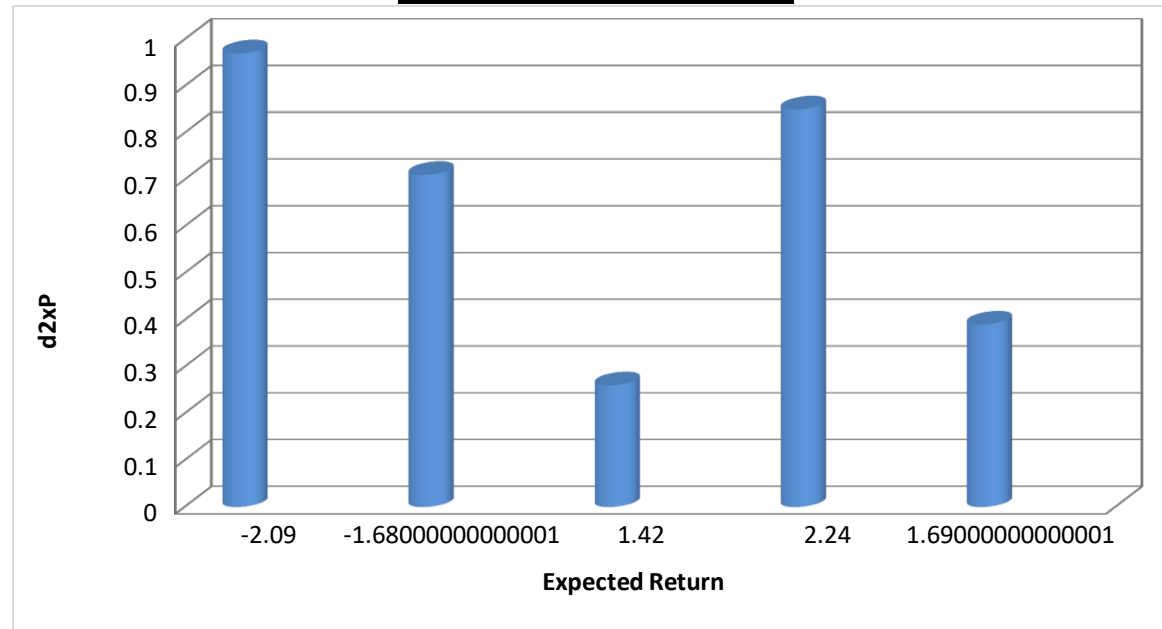
Interpretation:

An increase in return will leads to an increase in risk. On 30-09-2015 the expected return shows an increase of .82% and the risk also shows an increase of 0.59%.

Table:-5
Risk and Return OF Asian Paint

Date	Share price	P_0	Probable return $(P_1-P_0)/P_0 \times 100$	Probability	Expected return	Deviation (2.87/5=0.57)	d^2	Variance $d^2 \times P$
1-4-15	821.00	800	2.62	0.20	0.524	-0.051	0.0026	0.0005
30-4-15	762.90	800	-4.64	0.19	-0.881	-1.456	2.1199	0.4028
01-9-15	816.00	800	2.00	0.20	0.400	-0.175	0.0306	0.0061
30-09-15	841.00	800	5.14	0.20	1.028	0.453	0.2052	0.0410
31-3-16	868.70	800	8.59	0.21	1.804	1.229	1.5104	0.3172
	4109.7		**13.71**		**2.875**	**0**		**0.7676**

Expected return = 2.875
Variance ie., $\square^2 = 0.7676$
 therefore $\square = \sqrt{.7676}$ = .<u>87</u>
Coefficient of Variation (C.V.) = $\dfrac{.87}{2.87} = 0.30$

Graph:-5
Risk and Return OF Asian Paint
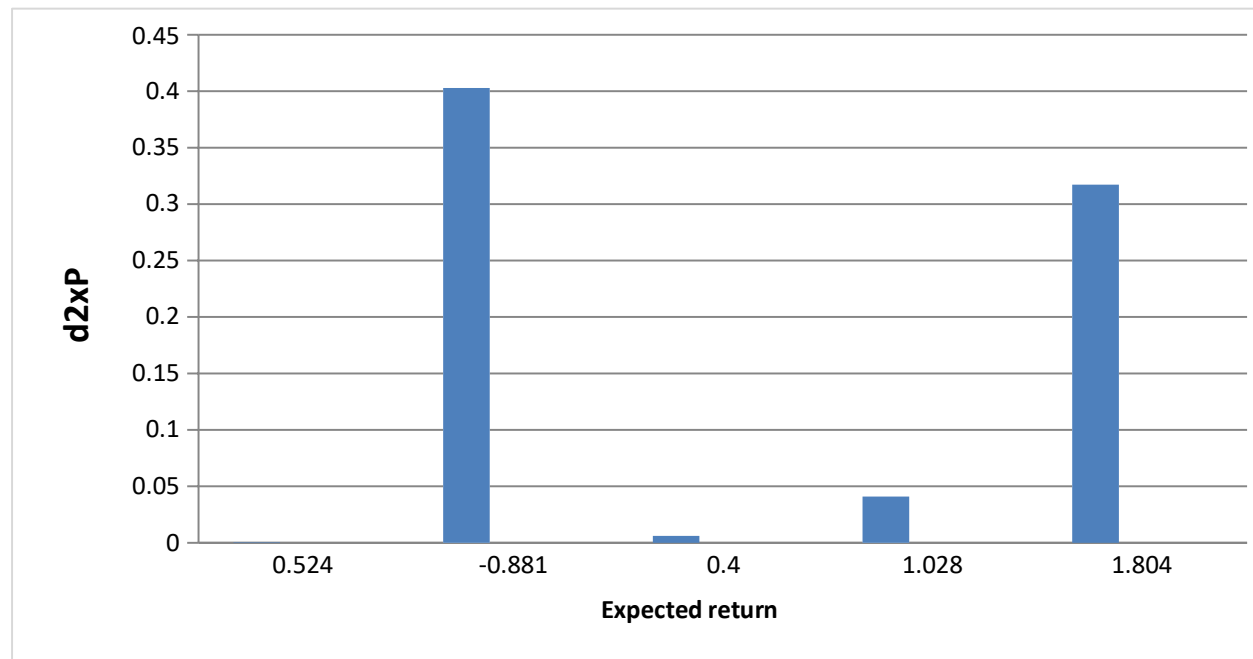
Interpretation:

The risk and return shows inverse relationship. That is high risk will give low return and vice versa. But in overall, this security provides maximum return with minimum risk.

Table:-6
Risk and Return Analysis of 'Ashok Leyland'

Date	Share price	P_0	Probable return $(P_1-P_0)/P_0 \times 100$	Probability	Expected return	Deviation (3.17/5=0.63)	d^2	Variance $d^2 \times P$
1-4-15	74.15	86	-13.37	0.17	-2.27	-2.9	8.41	1.43
30-4-15	69.55	86	-19.12	0.16	-3.05	-3.68	13.54	2.16
01-9-15	87.55	86	1.80	0.20	0.36	-0.27	0.07	0.01
30-09-15	92.20	86	7.20	0.22	1.58	0.95	0.90	0.20
31-3-16	108.55	86	26.22	0.25	6.55	5.92	35.04	8.76
	__432__		__2.73__		__3.17__	__0__		__12.56__

Expected return = 3.17

Variance ie., $\Box^2$ = 12.56

therefore $\Box = \sqrt{12.56}$ = 3.54

Coefficient of Variation (C.V.) = $\dfrac{3.54}{3.17}$ = 1.11

Graph-6
Risk and Return of 'Ashok Leyland'
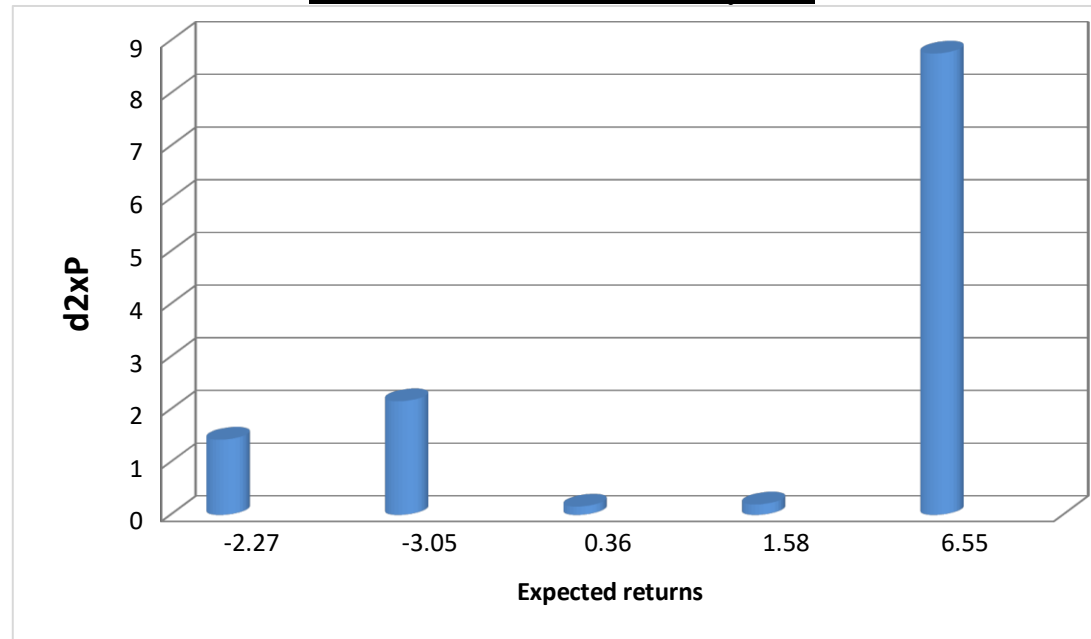
Interpretation:

By analyzing the financial year 2015-2016 the monthly risk and return shows an inverse relationship, But overall financial year's risk and return shows direct relationship. The above graph shows that this security is more risky, because the risk of the security exceeds the return by .37%.

Relations between Risk and Return of Securities

Table -7

Company Name	Return	Expected Return	Risk
Reliance Ltd.	14.26	4.56	2.87
Ashok Leyland	2.73	3.17	3.54
Asian paint	13.71	2.87	0.84
SBI	27.88	7.09	2.42
BHEL	2.96	1.58	1.78
NTPC	53.87	11.9	2.57

Graph-7
Relations between Risk and Return of Securities
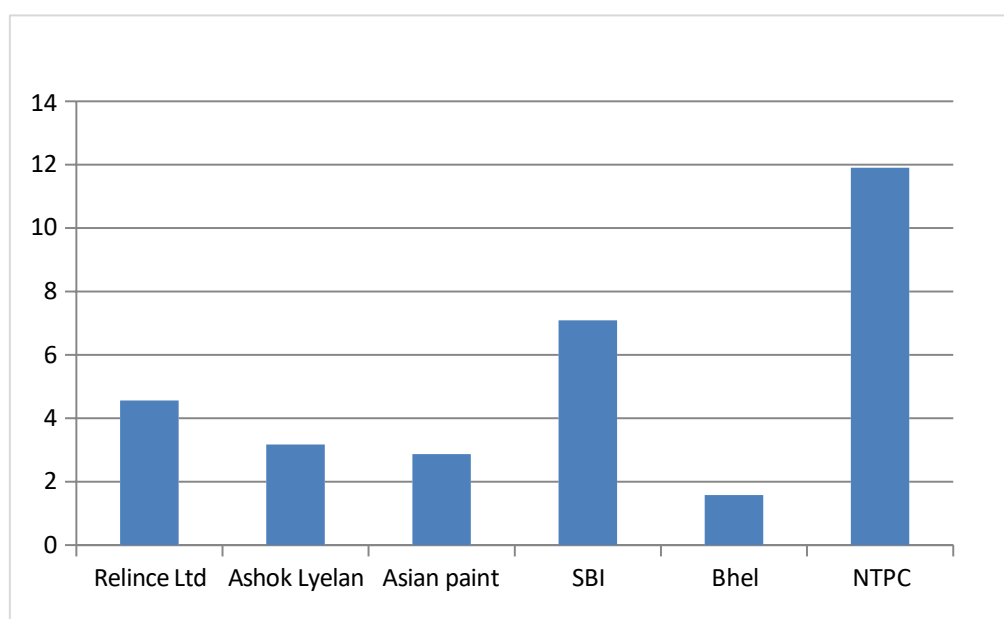
3.3 Analysis of Portfolio's Risk & Return

1. **Portfolio Return**

Portfolio analysis is generally made on the basis of risk return expectation. These are expressed as the expected rate of return (mean) and the variance or standard deviation of the return

The expected of portfolio a portfolio is the weighted average of return of the individual securities. The weight applied to each return is the percentage of investment made in portfolio. The expected return can be calculated with the help of the following formula.

Where:

R_p = Return on the portfolio

X_i = Proportion of total port folio invested in security-1

r_i urn of security – 1

2. $R_p = \sum_{t=1}^{n} x_i r_i$ k

Modern portfolio theory emphasizes the need for maximization of returns through a combination of securities, whose total variability is lower. The risk of each security is different from that of others and by a proper combination of securities; one can arrive at a combination wherein the risk of one is offset partly or fully by that of the other. Thus, holding of two securities reduce portfolio risk. The following are the important statistical measures use to measure portfolio risk. Covariance is the statistical measure used to measure portfolio.

a) **Covariance:** is a statistical measure of how 1 investment moves in relation to another. If 2 investments tend to be up or down during the same time periods, then they have positive covariance. If the highs and lows of 1 investment move in perfect coincidence to that of another investment, then the 2 investments have perfect positive covariance. If 1 investment tends to be up while the other is down, then they have negative covariance. If the high of 1 investment coincides with the low of the other, then the 2 investments have perfect negative covariance. The risk of portfolio composed of these assets can be reduced to zero. If there is no discernible pattern to the up and down cycles of 1 investment compared to another, then the 2 investments have no covariance.

Because covariance numbers cover a wide range, the covariance is normalized into the correlation coefficient, which measures the degree of correlation, ranging from -1 for a perfectly negative correlation to +1 for a perfectly positive correlation. An uncorrelated investment pair would have a correlation coefficient close to zero. Note that since the correlation coefficient is a satisfied measure, a perfectly un-correlation pair of investments will rarely, if ever, have an exact correlation coefficient of zero.

The most diversified portfolio consists of securities with the greatest negative correlation. A diversified portfolio can also be achieved by investing in uncorrelated assets, but there will be times when the investments will be both up and down, and thus portfolio of uncorrelated assets will have a greater degree of risk, but it is still significantly less than positively correlated investment. However, even positively correlated investments will be less risky than single assets or investments that are perfectly positively correlated. However, there is no reduction in risk by combining assets that are perfectly correlated.

Covariance is measured over time, by comparing the expected turns of each asset for each time period. The time periods are selected for the different states of the economy, comparing the expected returns of each asset during boom times, recessions, and normal times. Although returns can be selected according to other criteria, such as monthly returns, it makes sense to sample the returns based upon different states of the economy, since this is more likely to reveal their covariance.

The covariance between two securities x & y can be Mathematically defined as :

$$Cov_{xy} = \frac{\sum_{i=1}^{N} (R_x - \overline{R}_x)(R_y - \overline{R}_y)}{N}$$

Where
R_x = Return on security x
R_y = Return on security y
R_x = Expected Return on x

R_y = Expected Return on y
N = No. of observation

The interpretation of risk with the help of covariance can be made as follows.

➢ If the returns on two securities move together, their covariance is positive and the risk is more on such protocol
➢ If on the other hand, if the returns move independently or in opposite directions, the covariance is negative and the risk in total will be lower.

b).**Correlation:** The coefficient of correlation is another measure designed to indicate the similarity or dissimilarity in the behaviour of two variables. We define the coefficient of correlation of X and Y securities as:

r_{xy} = $\dfrac{Cov_{xy}}{\square_x \square_y}$

r_{xy} - coefficient of correlation between x and y

Cov_{xy} - Covariance between x and securities
$\square_x$ - Risk of Security X /Standard deviation of security x
$\square_y$ - Risk of Security Y /Standard deviation of security Y

Analysis of Portfolio's Risk and Return
Expected Return of Portfolio A

Company Name	Return	Proportion of investment
SBI	7.09	33%
BHEL	1.58	67%

Expected Return of portfolio = (7.09x.33) + (1.58x.67)
= (2.34+1.06)
= 3.4

Risk Analysis of Portfolio A

Company Name	Return	Expected Return	Risk (SD)	Proportion of investment
SBI	27.88	7.09	2.42	33%
BHEL	2.96	1.58	1.78	67%

COV$_{xy}$ =
COV$_{xy}$ = $Cov_{xy} = \dfrac{\sum\limits_{t=1}^{N} (R_x - \bar{R}_x)(R_y - \bar{R}_y)}{N}$ - $\dfrac{(27.88 - 7.09)\,(2.96 - 1.58)}{2}$

=$\dfrac{20.79x - 1.38}{2}$ = 14.34

COV$_{xy}$ = 14.34

R$_{xyz}$ = $\dfrac{14.34}{2.42x1.78}$ = $\dfrac{14.34}{4.3}$ = 3.33

$\square^2_p$ = $(.33)^2$ x $(2.42)^2$ + $(.67)^2$ x $(1.78)^2$+
2x(33x.67) x (3.33x2.42x1.78)

= .11x5.85+.45x3.17+6.34
= .6435+1.4265+6.34
= 8.41
$\square_p$ = $\sqrt{8.41}$
= **2.9**

Expected return = 3.4
Risk = 2.9

Interpretation:

Portfolio A gives maximum return with minimum risk. Higher the expected return, the lower
is the standard deviation or variance and lower is the correlation the better will be the security
for investor choice.

Expected Return of Portfolio B

Company Name	Return	Proportion of investment
NTPC	11.9	58%
Ashok Leyland	3.17	42%

Expected Return of Port folio B $=$ (11.9x.58) + (3.17x.4.2)

$\qquad\qquad\qquad\qquad\qquad\quad = $ (6.90+1.33)

$\qquad\qquad\qquad\qquad\qquad\quad = $ **8.23**

Risk of Portfolio B

Company Name	Return	Expected Return	Risk (SD)	Proportion of investment
NTPC	53.87	11.9	2.57	58%
Ashok Leyland	2.73	3.17	3.54	42%

$\mathbf{COV_{xy}} = \dfrac{(53.87-11.9)\ (2.73-3.17)}{2}$

$\qquad\qquad = \dfrac{41.97\text{x}.44}{2}$

$\qquad\qquad = \dfrac{-18.46}{2} = \underline{-9}$

$R_{xy} \qquad = \dfrac{-9.3}{2.57\ \text{x}\ 3.54} = \dfrac{-9}{9} = \underline{-1}$

$\square^2_p \qquad = (.58)^2 \text{ x } (2.57)^2 + (.42)^2 \text{ x } (3.54)^2 +$

$\qquad\qquad\quad 2\text{x}(.58\text{x}.42) \text{ x } (-1\text{x}2.57\text{x}3.54)$

$\qquad\quad = .33\text{x}6.6+.17\text{x}12.53-4.43$

$\qquad\quad = 2.18+2.13- 4.43$

$\qquad\quad = 4-4=0$

$\square_p \qquad = \sqrt{0}$

$\qquad\quad = \mathbf{\underline{0}}$

Expected return $\qquad = \qquad 8.23$

Risk $\qquad\qquad\quad = \qquad 0$

Interpretation:

This is a risk free portfolio with maximum return of 8.23.
The coefficient of correlation is -1.0 which means that there exists a perfect negative correlation between two securities. This means that the overall risk of the portfolio is nil or negligible.

Expected Return of Portfolio C

Company Name	Return	Proportion of investment
Asian paint	2.87	85%
Reliance	4.55	15%

Expected Return of portfolio C $\quad = \quad$ (2.87x.85) + (4.56x.15)

$\qquad\qquad\qquad\qquad\qquad\qquad = \quad$ 2.4395+.684

$$= \underline{\textbf{3.1235}}$$

Risk of Portfolio C

Company Name	Return	Expected Return	Risk (SD)	Proportion of investment
Asian paint	13.71	2.87	.87	85%
Reliance	14.26	4.56	2.87	15%

$$COV_{xy} = \underline{(13.71-2.87)\ (14.26-4.56)}$$
$$2$$

$$= \underline{10.84 \times 9.7} \quad = \underline{\ 105.148\ } = \underline{52.6}$$
$$2 \qquad\qquad 2$$

$$= \underline{-18.46} = \underline{\ -9}$$
$$2$$

$R_{xy} \qquad = \underline{\quad 52.6 \quad} \qquad = \qquad \underline{52.574\ } = \ \underline{\textbf{21.05}}$
$\qquad\qquad 2.87 \times .87 \qquad\qquad 2.4969$

$\square^2_p \qquad = \qquad (.85)^2 \times (.87)^2 + (.15)^2 \times (2.87)^2 +$
$\qquad\qquad\qquad 2 \times (.85 \times .15) \times 21 \times .87 \times 2.87)$
$\qquad = \qquad .72 \times .75 + .02 \times 8.23 + 13.37$
$\qquad = \qquad 54 + .16 + 13.37$
$\qquad = \qquad 14.07$
$\square_p \qquad = \qquad \sqrt{14.07} =$
$\qquad = \qquad \underline{\textbf{3.74}}$

Expected return $\qquad = \qquad 3.12$

Risk $\qquad\qquad = \qquad 3.74$

Interpretation:

The coefficient of correlation is 21.05 which means that there exist higher degree of positive correlation between two securities. This means that the overall risk of the portfolio is high

Table of Portfolios Risk and Return

Portfolios	Risk	Return
A	2.9	3.4
B	0	8.23
C	3.74	3.12

Interpretation: - From the above figures it clear that in total there is high return on portfolio B Companies when compared with portfolio A Companies and Portfolio C Companies. But at same time if we compare the risk is less for Companies in portfolio B when compared with Portfolio A and C Companies. As per the Markowitz an efficient Portfolio is one with "Minimum Risk, Maximum Profit" therefore, it is advisable for an investor to work out his Portfolio in such a way where he can optimize his return by evaluating and revising his Portfolio on a continuous basis.

Portfolio's Risk & Return
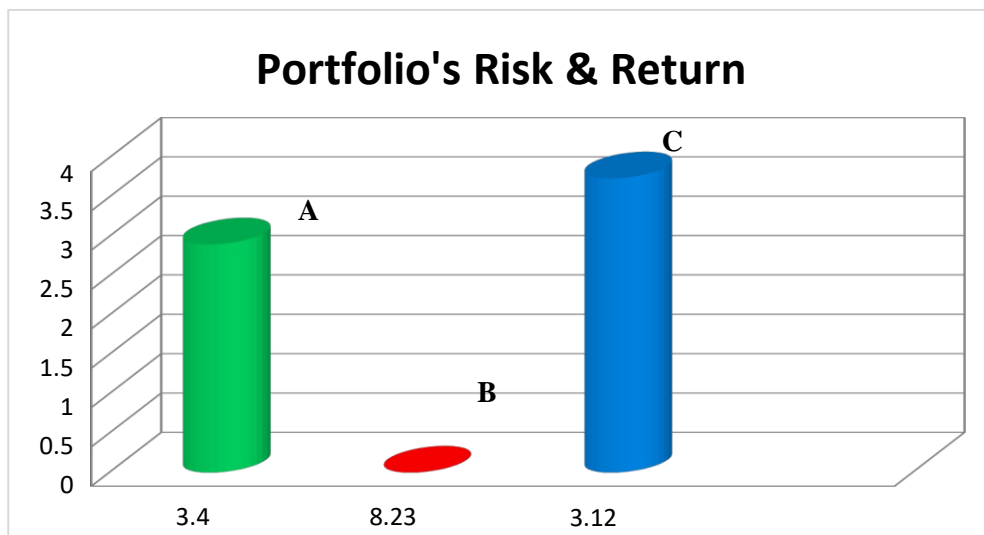
FINDINGS, SUGGESTIONS AND CONCLUSION

1. Generally risk is directly proportional to return. Majority of the Government securities are less risky and gives high return.
2. SBI is an return oriented security. Which assuring a high level return with minimum risk.
3. The risk and return need not be always directly related. Change of investor's choice, fluctuations in the market value, Government Policy, Taxation Policy etc. will affect the risk -return relationship.
4. BHEL is an aggressive security. Investor's who would like to earn higher return, have a high risk tolerance and longer time horizon.
5. Asian Paint is an efficient security. That provides highest return at a given level of risk.
6. Investing in Ashok Leyland is more risky in the financial year 2015-2016, because the monthly risk shows at slight increasing trend than return. So investing in this security is a risky one.
7. When the risk and expected return of a security is highly deviated, then the risk per rupee of expected return will reduce. It indicates that lower the C.V, better the investment opportunity.
8. If the return on security moves together with their covariance, then the risk will be more on such portfolio.
9. If the return move independently or in opposite directions, the covariance is negative and the risk in total will be lower.
10. Portfolio A is a conservative portfolio. Which give priority to safety and most appropriate for investors who are risk averse and have a shorter time horizon.
11. Portfolio B is an optimal – one. The investors prefer maximum diversification of risk
12. Portfolio C is an aggressive one. This gives high return with high risk. This is more suitable to investors who would like to earn higher return and have a high risk tolerance.

SUGGESTIONS

1. Before buying a security, it is better to find out everything one can about the company, its management and competitors, its earnings and possibilities for growth

2. For creating an efficient portfolio the investors must know about their formula plans. Because a better formula plans will helps the investors to maintain a trade off between the risk and return.
3. Don't buy too many different security better have only a few investment that can be watched.
4. Mutual funds are relatively easier to manage compared to equity investment.
5. Don't try to buy at the bottom and sell at the top. This can't be done concept liars.
6. Always keep a good part of your capital in cash reserve never invest your entire fund.
7. Not recognizing difference between value and price. This goes along with the failure to compute the intrinsic value of a stock which is simply the discounted future earnings of the business enterprise.
8. Don\t try to be Jack-Off all your investments. Stick to field you known beast
9. Make a periodic reappraisal of all your investment to see whether charging development have altered prospects.

CONCLUSION

Portion is a collection of securities and assets by which we can satisfy the basic objective" Maximize risk"

1. Port folio risk can be reduced by diversification
2. As compared to growth oriented portfolio income oriented Portfolio have a greatest difficulties to calculating its returns and risks
3. Frequent sale of security in the course of periodic portfolio revision of adjustment will result in short term capital gain which would be taxed at a higher rate compared to long term capital gain.
4. Portfolio revision is difficult and time consuming exercise
5. A good portfolio mix should enable its owner to enjoy a fouvarable tax planning
6. Failure to understand Mr. Market: just because the market has put a price a business does not mean it is worth it. Only an individual can determine the value if the market price is rationed
7. Frequent buying and selling of security for portfolio revision may push up transaction cost such as commission brokerage, thereby reducing the gains from portfolio revision
8. Learn how to take our losses and cleanly. Don't expect to be right all the time. If we have made a mistake, cut our losses as quickly as possible

STUDY ON "QUALITY OF WORKLIFE AT PRECOT MERIDIAN (C & D UNIT), WALAYAR, PALAKKAD

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INTRODUCTION

Quality of work life can be defined as "The quality of relationship between employees and the total working environment". Quality of work life is a process by which end organization respond to employees need for developing mechanisms to allow them to share fully in making the decision that designed their lives at work. The aim of quality of work life is to identify and implement alternative programs to improve the quality of professional as well as personal life of organization employees.

The elements in typical quality of work life program include open communication, equitable rewards system, a concern for employees, job security and satisfying ideas and participation in decision making. Quality of work life means having good supervision, good pay and benefit and interesting challenging and rewarding job.

Humanized word could humanize work through quality of life

One option is to redesign the jobs to have the attributes desired by the people. This approach seeks to improve quality of work life. There is a need to give the employees more of a challenge, more of a work of a whole task, more opportunity to use their ideas. It attempts to serve the higher order needs of employees as well as their more basic needs.

In the modern scenario Quality of work life as is strategy of human resource management is being recognized as the ultimate key for development among all the work systems not merely as a concession. This is integral to any organization towards its wholesome growth. This is attempted on parwith the strategies of CRM. Quality of work life must be built around anequitable pay program. In the future more workers may want to participate in this profit of the firm.

Work life balance is a broad concept including proper prioritizing between work (carrier and ambition) on one hand and life (pleasure, leisure, family and spiritual development) on other hand. Related through broader terms, includes life style balance and life balance. Organizations should provide a realization time for employees and offer tips to balance their personal and professional lives. They should not stain employee's personal and social life by forcing on them demanding working hour's overtime work business travels untimely transverse etc...

Importance of this study

There is a much about thequality every aspects via quality of products, quality of materials and inputs there in., quality of packing, quality of product development and quality of services. The quality of work life and quality of life, which is pivotal aspects in everyone's worklife.This also bring employee satisfaction.

To introduce the hard practices in to the organization it is the importance to have encouraging atmosphere. Quality of work life is one of the most important factors, which leads such favorable atmosphere it produces more humanized jobs. It attemptsto serve the higher order needs of Employees are human resources that that ought to be are to be random developed rather than simply used quality of work life leads to leads to an atmosphere that encourages than to improve their skills.

RESEARCH PROBLEM

In this research paper, a study has been made on "THE QUALITY OF WORK LIFE IN PRECOT MERIDIAN CUNIT LIMITED, WALAYAR" The study indicates various techniques used by the

company for the effectiveness and improvement of quality of work life. The organizational environment must have the capacity to satisfy meaningfully and employee's organizational and personal needs, and the ability to shape organizational values that better support, promote employees health and well being, job security, competency development, and balance between work and non work life.

OBJECTIVES OF STUDY

The objectives can be set in terms of measurable quantities; the actual desired result is often subjective, such as satisfactory response time, Further, the analyst must resist the temptation to tune what is measurable rather than what is important. If no system provided measurement corresponds to the desired improvement, that measurement must be devised.

- To understand the relationship of employees with supervisor
- To analyses the effectiveness of employees benefit
- To determine participation of the employee at precotMeridian Capital
- To know the work life balance of employees at Precot Meridian Limited
- To know the measure taken by the organization to improve the quality of work life. Of the employees in the organization
- To know whether QWL leads to improved productivity of organization

SIGNIFICANCEOF THE STUDY

The study is significance entirely as it would reveal the level of quality of work life of the employee of precotMeridian Ltd. Walayar. It is hoped that the study can make some positive suggestions to sustain with the quality of work life initiatives of precot Meridian Lid, Walayar increase morale of employees.

SCOPE OF THE STUDY

Quality of work life covers various aspects under the general umbrella of supportive organizational behavior. Thus; the QWI should be broad in its scope. It must evaluate the attitude of the employees towards the personal policies. The research will be helpful in understanding the current position of the respective company. This research can be further used to evaluate the work life balance of the employees. This study also helps in manipulating the basic exception of the employees. The study is aimed at finding out the employee's opinion towards his work life Satisfaction is a person is feeling of pleasure or disappointment resulting from comparing the performance of the job in relation to his/her expectations.

The study would reveal the intensity of gap between company's deliverance and the employee's expectations. The result of the study would keep the company informed about the employee's perception towards his her work life and various aspects concerned. To the employees at Precot Meridian Ltd. This study will help the respondents in understanding their work life quality. The researcher is keen to know the quality of work life of employees at Precot Meridian Ltd and to assess the mindset of the employees in order to bring about results essential for improving the organization culture and conditions, thus increasing the quality of work life of the employees at Precot Meridian Limited.

RESEARCH METHODOLOGY

Research comprises definition and redefinition of problem, formulation of hypothesis, collection, evaluation and analysis of data making, direction and reaching into conclusions. The objective of the study is to ascertain the Quality of Work Life of the employees in specific work environment relationship

RESEARCH DESIGN

Research Design is the arrangement of conditions for the collection and analysis of data for a research study, which will have relevant and scientific approach to the study. The research design is descriptive in nature.

Type of research

Descriptive Research

Descriptive Research design is a scientific method, which involves observing and describing the behavioral of a subject without influencing it in any way. Descriptive research is undertaken when the researcher desires to know the characteristics of certain groups such as age, sex, occupation, income or education. The objective of descriptive research is to answer the "who, what, when, where and how of the subject under study/investigation. It is essentially a fact-finding related largely to the present, abstracting generations by cross sectional study of the current situation. It includes survey and fact-finding enquires of different kinds. The data needed for the study are collected through observation, interview, and mailed questionnaire. It does not deal with testing of hypothesis

Description of Statistical tool used

 Percentage Method

Percentage Method

In this project Percentage Method test is used. The following is the formula:

Percentage of Respondent-number of respondent's total number of respondents& 100

SOURCES OF DATA COLLECTION

The sources of the data are as follows

Primary data

Primary data are those, which were collected a fresh and for the first time and thus happen to be original in character. However, there are many methods of collecting the primary data; not all have been used for the purpose of dis project. The ones that have been used are;

• Questionnaire

• Informal Interview

• Observation

Secondary data

Secondary data is collected from previous researches and literature to fill in the Respective project. The secondary data was collected through:

- Books
- Articles
- Journals
- Magazine
- Brochure
- Websites

SAMPLE SIZE

Sample Element: Employees at Precot Meridian Limited, Walayar

Sample Test: 50 Samples

Sample Tool: Percentage Method

Sample Media: Questionnaire

Sample Method: Simple Random Sampling

TOOLS FOR ANALYSIS

The collected data is tabulated, presented and analyzed with the help of tables using percentage method

TOOLS OF PRESENTATION

Tables, Graphs, Charts, Pie charts, Percentage analysis etc are the different tools for analyzing the data.

PERIOD OF STUDY

The study was conducted to July to September

LIMITATIONS OF THE STUDY

- The individual perspective appears to be different.
- The study is done with limited respondents hence generalization of the result Is not positive.
- Most of the employees are scared about their superior so they are not Supported with true date.
- The study was connected within the limited time frame.
- Most of the respondents were busy and hence the date supplied by them could Not consider on treated as accurate but definitely in close proximity to the actual.

REVIEW OF LITERATURE

Review of literature very significant and essential part of research study. It helps the researcher to gain a wide and deeper understanding of the area of the study It also guides the researches in planning the study by including various aspects that have to be stressed. A brief review of relevant studies relating to quality of work life is as follows.

S.Khodadadi (2014)

Investigated the QWI dimensions effect on the employees job satisfaction. In this study independent variables were permanent security providing, salary and benefits payment policies, development and promotion opportunity, and job independence, job satisfactions as dependent variables.114 employees selected randomly for this study and two questionnaires of quality of work life" and "job satisfaction" were used for data collection and analysis was done by using SPSS and LISREI. Software.

H.Mohammadia& M.A Shahrrabib (2013)

Conducted a research on relationship between quality of work life and job satisfaction, it is an empirical investigation. Questionnaire in like scales format and distributed among 86 full time employees of two governmental agencies in Iran. Supreme Audit Court and Interior Ministry and t-test used to examine the hypothesis. The results indicated that different working components have significantly influenced on job satisfaction.

Vijay Anand (2013)

The quality of work life among employees in India Textile Industry using Walton's model. The results with regard to fair and adequate payment shows that among employees opinion this component is lower than the average and their salary is not satisfactory and is not associated with their job.

THEORETICAL FRAMEWORK

"One cannot do right in one area of life, whilst he is occupied in doing wrong in another. Life is one indivisible whole"

Quality of Work Life (QWL) is a relatively new concept, which is defined, as the overall quality of an individual is working life. QWL is sometimes considered as a sub-concept of the broad concept of

quality of life, which refers to the overall quality of an individual's life. Quality of life includes factors such as income, health, social relationships, and other factors such as happiness and fulfillment.

The pursuit for improved productivity through human resources has its foundation in the early nineteenth century with F.W Taylor developing Scientific Management Theory and creating a new awareness regarding human resources. Prior to the advent of scientific management, human resources were considered as a mere instrument of production with regard to work from dawn to dusk. The working conditions were paid scanty attention. The labor was motivated by the lure of money. The Scientific Management focused mostly on division of labour, hierarchy, close supervision and management principles. These have no doubt brought several benefits to the society. From then onwards continuous research and investigations have been undertaken to understand human behavior at work and their ways to improve their job satisfaction, balanced with the aim of the organization to work for better productivity with job and employee satisfaction. In order to achieve these twin objectives, different approaches have been developed and applied for improvement of quality of working life of workers.

Meaning and concept of QWL

The phrase 'Quality of Work Life' (QWL) connotes different meanings to different people. Some consider it an industrial democracy or co-determination with increased employee participation in the decision making process. For others, particularly managers and administrators, the term denotes improvement in the psychological aspects of work to improve productivity. Unions and workers interpret it as more equitable sharing of profits, job security, healthy and congenial working autonomous work groups. Finally, others take a broader view of changing the entire organizational climate by humanizing work, individualizing organizations and changing the structural and managerial systems. Management considers it as a broader view of changing the entire organizational climate by humanizing work, individualizing organizations, and developing the structural and managerial systems.

Definition:

The QWL as strategy of Human Resource Management has assumed increasing interest and importance. Many other terms have come to be used interchangeably with QWL such as 'humanizations of work 'quality of working life, 'industrial democracy" and participative work.

According to Harrison (1985), QWL is the degree to which the working organization contributes to material and psychological well-being of its members. The QWL as "a process of joint decision making, collaboration and building mutual respect between management and employees"; it is concerned with increasing labour management co operation to solve the problems, improving organizational performance and employee satisfaction.

Importance of quality of work life

Quality of work life (QWL) is a fact that an individual's life cannot be compartmentalized and any disturbance on the personal front will affect his/her professional life and vice-versa. A good work life balance is also what motivates an employee the most to perform well at his or job and spend quality time with the family. Therefore, organizations have started to focus on the overall development and happiness of the employee for their motivation and reducing his/ her stress levels without jeopardizing the economic health of the company. Ways to achieve quality of work life.

Many companies find that paying attention to the needs of employees can benefit the company in terms of productivity, employee loyalty and company reputation.

- Enhance stakeholders relations and credibility
- Increase productivity
- Attraction and retention
- Reduce absenteeism

- Improve the quality of working life
- Company reputation
- Job satisfaction and involvement.

PRINCIPLES OF QUALITY OF WORKLIFE

Herrick and Maccobu identified four basic principles, which humanize that, the work there principles are as follows

- Job Involvement
- Job design
- Job satisfaction
- Sense of competence
- Job performance
- Productivity

TECHNIQUES FOR IMPROVING QUALITY OF WORK

- Job design
- Career development
- Autonomous work groups
- Flexible work groups
- Participative management
- Job security
- Administrative justice

Indian Approach to QWL

Indian philosophy advocates self-actualization as the goal of life, and the work as a way of life instrumental in achieving the ultimate goal. "Work-life according to the Indian view is itself a spiritual discipline. The progress of refinement to realize this! Objective or the identity of the self is yoga or work". SwamyYaktananda (1980) says according to the traditional teachings, the work place is a temple and work is worship. "The basic philosophy- the central theme of Gita is 'Karma Yoga'. Karma Yoga is concerned with multifarious development. The development of the self, the community, the society and industry is possible only through Karma Yoga. Karma Yoga means action, duty or work which is not prohibited, which is not harmful, and which is not performed with a selfish motive but to serving humanity.

FINDINGS

- The organizational atmosphere is based on fairness, integrity and trust.
- Majority of the employees are satisfied with the salary and other benefits provided by the organization.
- Employees feel comfort and satisfaction with their job.
- Most of the employees are satisfied with the health care and medical facilities provided by the organization.
- Few of employees face stress in their work. Organization follows participative leadership style.
- Organization provides more opportunities of career growth.
- Better working condition provided by the organization for their employees.
- Majority of the employees state that recreation facilities are good.
- Management involves employees in their decision making process of the organization.
- Majority of the employees are satisfied with the motivation in the work environment
- Majority of the employee's opinion that organization should have a good grievance settlement system.

SUGGESTIONS

Based on the findings of the present study, the following suggestions may be considered to improve the quality of work life of the employees:

- The organization tries to improve the employee's participation in decision making.
- Maintain and improve the relation with the employees by good grievance settlement and stress reduction programme.
- To provide more training to improve the skills and opportunities to learn new things to ensure good career of employees.
- The organization must maintain fair work hours and proper work schedules.
- Improve the health care and medical facilities to the employees.
- It is recommended that a complaint box should be kept in the organization It helps to become aware of the employee grievance.

CONCLUSION

From the study, it is clear that Quality of Work life of employees in Precot Meridian Ltd, Walayar is good. This research highlights some of the small gaps in employee's satisfaction towards the company. The quality mission should include not only the quality of products; but also the quality of work life of the employees. Quality of work life can be improved upon by having good supervision, good working conditions, good pay and benefits. An interesting and challenging and a rewarding job, more positive the industrial relation process, the greater the possibility of improved Quality of Work Life. Positive industrial relations should ensure better wages, flexible hours of work, conducive work environment, employment benefits, career prospects, job satisfaction and meaningful employee involvement in decision making etc. ultimately leads to better Quality of Work Life. Since the employees are the backbone of the company, the company should satisfy them in order to improve the business in higher competitive market if the liberalized economy considering the above mentioned factor.

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FACTORS INFLUENCING PURCHASE INTENTION OF STUDENTS SHOPPING ONLINE

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ABSTRACT

Online shopping has been more than a decade since e-commerce first evolved. Researchers and practitioners in the electronic commerce constantly strive to obtain a better insight in Customer behaviour in cyberspace. Online shopping or online retailing is a form of electronic commerce which allows Customers to directly buy goods or services from a seller over the Internet using a web browser. Alternative names are: e-shop, e-store, Internet shop, web-shop, web-store, online store, and virtual store. The largest of these online retailing corporations are e-Bay, Flipkart and Amazon.com, are based in the United States and have their global presence. Students play a major role in understanding and utilising the technology to their best, therefore, online shopping has become reasonably at ease in which case, they feel comfortable, risk free and authenticity with more comparison not compromising the cost factors drive their attitude and intention in buying products through online this persuaded the interest of the researcher select the study in Kerala confining to Palakkad District where there are sufficient number of arts, science and engineering colleges available for survey and analysis. The objective is to analyse the factors influencing purchase intention of students shopping online. For this research study, samples are selected only from students studying in Self- Finance Arts and Science Colleges in Palakkad District. Final sample achieved is five hundred and twenty (520) considered for data analysis and interpretation. The statistical tools used are Multiple Regression Analysis. Perceived Usefulness have increased their purchase intention of shopping online, thus proving that the hypothesis partially accepted when the predictors (X factors) viz. X: Purchase Attitude, Usefulness and Consumer Factors are significantly related with Y: Purchase Intention, while, Perceived Risk and Purchase Intention have negative effect, thereby, rejecting the null hypothesis (H_0). it is strongly recommended, if the ease of use has significantly influenced the perceived enjoyment by avoiding risk factors then there is a definite prospect to elevate the Purchase intention and behaviour of the shoppers.

FACTORS INFLUENCING PURCHASE INTENTION OF STUDENTS SHOPPING ONLINE

1. INTRODUCTION

Online shopping has been more than a decade since e-commerce first evolved. Researchers and practitioners in the electronic commerce constantly strive to obtain a better insight in Customer behaviour in cyberspace. With the development of the retail E-commerce, researchers continue to explain E-attitude of Customers of different perspectives. E-commerce is the buying and selling of the goods and services online; internet is the best source to use this tool. Today the amount of trade that is conducted electronically using e-commerce has increased with a wide spread usage of internet and technology. E-commerce includes transferring of funds online, supply chain management, marketing over internet. The invention of the internet has created a new pattern of the traditional way people shop. Customers are no longer tied to the opening hours or specific locations; it may become active virtually at any time and any place to purchase products and services. The Internet is relatively new medium for the communication and the exchange of information which has become present in our daily lives. The number of Internet users is constantly increasing, which is also significance that online purchasing is increasing rapidly. According to eBay results, over 497cities did online transactions in India. The major IT Hubs are almost all over India.

1(a) ONLINE SHOPPING

Online shopping or online retailing is a form of electronic commerce which allows Customers to directly buy goods or services from a seller over the Internet using a web browser. Alternative names are: e-shop, e-store, Internet shop, web-shop, web-store, online store, and virtual store. An online shop evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or shopping center; the process is called business-to- Customer (B2C) online shopping. In the case where a business buys from another business, the process is called business-to-business (B2B) online shopping. The largest of these online retailing corporations are e-Bay, Flipkart and Amazon.com, are based in the United States and have their global presence. Retail success is no longer about physical shop fronts evident by the increase of retailers now offering online store interfaces for buyers. With the growth in online shopping comes a wealth of new market footprint coverage opportunities for stores that can appropriately cater to offshore market demand and service requirements.

2. STATEMENT OF THE PROBLEM

Online shopping is growing in multi fold manner due to the change of consumer mentality and their shopping behaviour (Stoel, L & HA,S 2009). In fact, it is becoming increasingly popular in cities, especially among with high industrialization and literacy rate. Students play a major role in understanding and utilising the technology to their best, therefore, online shopping has become reasonably at ease in which case, they feel comfortable, risk free and authenticity with more comparison not compromising the cost factors drive their attitude and intention in buying products through online this persuaded the interest of the researcher select the study in Kerala confining to Palakkad District where there are sufficient number of arts, science and engineering colleges available for survey and analysis.

3. OBJECTIVE OF THE STUDY

- To analyse the factors influencing purchase intention of students shopping online

4. METHODOLOGY

The research is descriptive in nature Students pursuing various courses at Arts and Science in these colleges account for more than Twenty thousand. So they are the strongest population in Palakkad. For this research study, samples are selected only from students studying in Self- Finance Arts and Science Colleges in Palakkad District. Final sample achieved is five hundred and twenty (520) considered for data analysis and interpretation. The statistical tools used are Multiple Regression Analysis.

5. LIMITATIONS OF THE STUDY

The study has been confined to Palakkad District only. So, the result may not be applicable to other areas. The result fully depends on information given by the students studying in select streams. The study is confined to 520 respondents only and may reveal the result based on the sample size.

6. LITERATURE REVIEW

Ajitabh Dash, (2012), studied about the **"**Online Shopping and Customer Satisfaction: An Empirical Investigation", Internet is changing the way customers shop and buy goods and has rapidly evolved into a global phenomenon. It has become a tool for cutting the marketing cost thereby reducing the price of the product and keeping a company ahead in a highly competitive market situation. In India, internet is still considered as a new medium to link customers with retailers. In this sense the aim of this study is to identify the key factors influencing customers satisfaction through on line shopping. Multiple regression analysis is used to anticipate the impact of these independent variables, viz privacy, trust, complexity, product variety, risk, time utility and reliability.

According to **Gozukara et al. (2014),** the first dimension refers to consumer's attitude towards a utilitarian motivation (convenience, variety seeking, and the quality of merchandise, cost benefit, and time effectiveness). The second dimension states about hedonic motivation (happiness, fantasy, escapism, awakening, sensuality & enjoyment), and **Baber et al. (2014)** mentions the third one as perceived ease of use, and usefulness. Another dimension covers perceived risk which determine consumer's behavior towards online shopping.

Many researchers **(Subhalakshami & Ravi, 2015)** argued that perceived risk like financial risk, product risk, non-delivery risk, time risk, privacy risk, information risk, social risk, and personal risk have a negative and significant effect on consumer's online shopping behavior. Another dimension of consumer's behavior is trust and security on e-retailers, Monsuwe et al. (2004) suggested that positive shopping experience builds consumer's trust on e-retailers and reduces the perceived risk.

7. ANALYSIS AND RESUTLS

7(a). FACTORS INFLUENCING PURCHASE INTENTION

Table 1 reveals correlation (r=0.710) is strong followed by determination of power through variance of all factors (X) which are predictor [X1:Purchase Attitude (PA), X2: Perceived Usefulness (PU), X3: Perceived Ease of Use (PEoU), X4: Consumer Factors (CF), X5: Risk Factors (RF)] variables on the dependent factor Y: Purchase Intention (PI) of students shopping online achieved R^2=50.4% variance and the Adjusted R^2=0.499 signifies strong positive impact of X: All five Factor on Y: Purchase Intention (PI) at 50% (approx.).

Table 1: Model and Fitness Summary of factors (attitude, usefulness, ease of use, consume factors and Risk Factors) and purchase intention of students shopping online

Value of R	Value of R^2	Value of Adjusted R^2	DF of V_1 & V_2	F-Value	Significance
0.710	0.504	0.499	(5, 514)	104.51	0.000

Predictors: (Constant), Perceived Risk, Perceived Ease of Use, Perceived Usefulness, Purchase Attitude, Consumer Factors

Model explains fitness [F(5,514)=104.51,Sig.0.000) statistically proved good to further continue examining the beta coefficients which explains impact of each predictor (X1 to X5 i.e. X1:Purchase Attitude (PA), X2: Perceived Usefulness (PU), X3: Perceived Ease of Use (PEoU), X4: Consumer Factors (CF), X5: Risk Factors (RF)] on Y= Purchase Intention (PI) of students shopping online in Palakkad, Kerala. In this regard, the equation is

$$= 1.240 + 0.144 \text{ (X1: Purchase Attitude)} + 0.014 \text{ (X2: Usefulness)}$$
$$- 0.011 \text{ (X3: Ease of Use)} + 0.015 \text{ (X4: Consumer Factor)}$$
$$- 0.019 \text{ (X5: Risk Factor)}$$

When determining the multi-co-linearity of independent variables (X: All Factors) on dependent (Y: Purchase Intention of students) variables shows no trace of multi-collinearity exhibiting below the threshold (0.5) level specified by Ghozali 2006. This proves the model have merit to further conduct path analysis

The framed hypothesis framed is

Significant relationship expected between

➢ Purchase Attitude and Purchase Intention
➢ Perceived Usefulness and Purchase Intention
➢ Perceived Ease of Use and Purchase Intention
➢ Consumer Factor and Purchase Intention
➢ Risk Factor and Purchase Intention

Table 2: Regression Weights measuring influence of All Factors on Purchase Intention of students online shopping

Constructs	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.240	.128					
Purchase Attitude	.144	.012	.627	12.246	.000	.367	2.721
Perceived Usefulness	.014	.009	.074	1.623	.105	.464	2.156
Perceived Ease of Use	-.011	.007	-.071	-1.511	.131	.433	2.307
Consumer Factors	.015	.005	.223	3.097	.002	.185	4.396
Perceived Risk	-.019	.008	-.146	-2.329	.020	.244	4.091

Dependent Variable: Purchase Intention

Coefficient's strength proved significant positive impact and relationship exists between two independent variables [(X1:Purchase Attitude (PA), X4: Consumer Factors (CF)], while negative impact and relationship between another two independent variables [(X2:Usefulness (PU) and X5: Perceived Risk (PR)] and dependent variable (Y=Purchase Intention) signifying that one unit change in Purchase Attitude while shopping online significantly increases Purchase Intention of students shopping online by 0.144 units and the result is p=0.144, SE=0.012, 't'=12.246, Sig.0.000, thus proving the declared hypothesis is true. Followed by a unit change in Consumer Factor while online shopping significantly increases Purchase Intention of students shopping online by 0.015 units and the result is p=0.015, SE=0.005, 't'=3.097, Sig.0.000, and proving the declared hypothesis is true. Change in Usefulness by one unit while online shopping significantly increases Purchase Intention of students by 0.014 units and the result is p=-0.014, SE=0.009, 't'=1.623, Sig.0.105, and proving the declared hypothesis is true achieved significance at 10% level. A unit change in Risk Factor while

online shopping significantly decline Purchase Intention of students shopping online by 0.019 units and the result is p=-0.019, SE=0.008, 't'=-2.329, Sig.0.020, which reveals that risk factor is observed during online shopping even though, individual constructs on purchase attitude shows positive effects, when it comes to purchase intention marginal negative impact observed among students towards risk factor during online shopping. No relationship exists between Perceived Ease of Use and Purchase Intention to accept null hypothesis.

While considering the standardized beta coefficient considered weightage of all five factors which proved the highest positive perception of students towards Purchase Attitude followed by Consumer Factor and finally, Perceived Usefulness have increased their purchase intention of shopping online, thus proving that the hypothesis partially accepted when the predictors (X factors) viz. X: Purchase Attitude, Usefulness and Consumer Factors are significantly related with Y: Purchase Intention, while, Perceived Risk and Purchase Intention have negative effect, thereby, rejecting the null hypothesis (H_0).

8. SUMMARY OF THE RESULTS

8(a) FINDINGS

Standardized beta coefficient considered weightage of all five factors which proved the highest positive perception of students towards Purchase Attitude followed by Consumer Factor and finally, Perceived Usefulness have increased their purchase intention of shopping online, thus proving that the hypothesis partially accepted when the predictors (X factors) viz. X: Purchase Attitude, Usefulness and Consumer Factors are significantly related with Y: Purchase Intention, while, Perceived Risk and Purchase Intention have negative effect, thereby, rejecting the null hypothesis (H_0).

8(b) SUGGESTIONS

There are three factors that influence significantly the Purchase Attitude of College Students such as Marketing Factor, Consumer Factor and Technology factor. In this study all these factors were found to have significantly influenced the College students that helped them to prefer online shopping. It is suggested that if all these categories are taken care by the policy makers, the realistic of success in the online shopping business is not far away.

The TAM model suggests to strengthen the prospects for perceived ease of use and perceived enjoyment factors through promotional activities which were found to have insignificant impact based on the perception of the student respondents considered for the study. Whereas, there is significant effect realized with regards to perceived ease of use and purchase intention which is a positive sign for the growth of the shopping industry. Therefore, it is strongly recommended, if the ease of use has significantly influenced the perceived enjoyment by avoiding risk factors then there is a definite prospect to elevate the Purchase intention and behaviour of the shoppers.

8(c) CONCLUSION

This behavioural change among the young consumers will create significant impact in the functioning of Indian retail business in future as the present proposition of brick and mortar retailing (93%) and online retailing (7%) would get modified in the vice versa. So, it would create major dent in the growth of brick and mortal stores in future. The enhancement of growth in online shopping will provide the benefit to the society in the aspect of reduction of carbon monoxide emission and less traffic as it effectively reduce the movement of people. From this research, it is clearly understood that the consumers have satisfaction and positive attitude towards online shopping .This phenomenon should be incorporated by the online shopping companies in an appropriate way to ensure the sustainable growth and development.

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INFLUENCE OF KUDUMBASREE ON WOMEN EMPOWERMENT – A STUDY

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Abstract: Empowerment of women and their participation in the development process has been considered an essential feature of development. It is presumed that real development is possible only if the women and men work in equal terms. Gender equality and empowerment of women is recognized globally as a key element to achieve progress in all areas. Rural women are regarded as voiceless and defenseless. Raping cases are appearing in the newspapers every day. Even politicians are not supporting them. So they are to be empowered to fight against the evils faced by them. Kudumbasree project was started in Kerala in 1998. Women empowerment is one of the important objectives of Kudumbasree along with poverty eradication. The aim of the Kudumbasree scheme is to improve the standard of living of poor women in rural areas by setting up micro-credit and productive enterprises. It opened a new string of expected events in our development history. Kudumbasree is the poverty eradication mission of the state of Kerala. It is a community based self help initiative involving poor women. Kudumbashree was conceived as a joint programme of the Government of Kerala and NABARD implemented through Community Development Societies of Poor Women, serving as the community wing of Local Governments .As per documents associated with Kudumbasree, women want to identify their inner strength, opportunities for growth and their role in reshaping their own destiny. Thirteen years are so far covered by this programme. The main objective of this paper is to know to what extend this programme has influenced the rural women for their empowerment. Kerala is considered as literate state compared with all the states of our country. The study indicates that majority of the members of Kudumbasree units are working on daily wages and their total income is low. The women empowerment has achieved only a limited extend by Kudumbasree members.

INTRODUCTION

Development is the mantra of globalization and liberalization. Women have an important role in the development process. Empowerment of women and their participation in the development process hasbeen considered an essential feature of development. It is presumed that real development is possible only if the women and men work in equal terms. Gender equality and empowerment of women is recognized globally as a Key element to achieve progress in all areas. Jawaharlal Nehru commended "in order to awaken the people, it is the women who has to be awakened first. Once she is on the move, the household moves, the village moves, the country moves and thus we build the India tomorrow" But the present position of women in developing and underdeveloped countries is not considered good. Rural women are regarded as voiceless and defenseless. Raping cases are appearing in the newspapers every day. Even politicians are not supporting them. So they are to be empowered to fight against the evils faced by them. There had been intensive efforts in nineties to bring the women-folk, especially those belonging to the weaker sections and poor, who had been economically and socially underprivileged within and outside the family, to the forefront and empower them through specific programmes and thereby empower the entire family and community. Ensuring justice to women was one of the prime objectives of the development agenda of the People's Planning Campaign initiated in 1997. Kudumbasree, a Malayalam coinage, means prosperity of the family. It is an innovative programme of the Government of Kerala introduced for the eradication of absolute poverty in ten years through concerted community action under the leadership of local self governments. Kudumbasree is the poverty eradication mission of the state of Kerala. Kudumbasree

project was started in Kerala in 1998. The programme has 37 lakhs members and covers more than 50% of the households in Kerala.

It has built around three vital components, micro credit, entrepreneurship and empowerment. Women empowerment is one of the important objectives of Kudumbasree along with poverty eradication. The aim of the Kudumbashree scheme is to improve the standard of living of poor women in rural areas by setting up micro-credit and productive enterprises. It is a community based self help initiative involving poor women. Kudumbashree was conceived as a joint programme of the Government of Kerala and NABARD implemented through Community Development Societies (CDSs) of Poor Women, serving as the community wing of Local Governments. The aim of the Kudumbashree scheme is to empower women as a strategy for Poverty Eradication. Empowerment of women and poor women driving their development is a powerful strategy to alleviate poverty. The Kudumbashree Community based organizations are acting as social safety nets, increasing access to entitlements and providing avenues for political participation.

ORIGIN OF THE RESEARCH PROBLEM

Poverty is a serious problem faced by all developing and underdeveloped countries in the modern world. It is felt that the problem of poverty can be solved through a concentrated endeavor by the State. Viableopportunities can be provided to the underprivileged and the destitute by means of lending asset creating facilities. Women households are the cruelest victims of deprivation and destitution. So any poverty eradication programs must aim at improving the standard of living environment along with empowerment of the women communities. Livelihood opportunities are to be provided to women. The micro credit and self help groupings are better sources for improving the standard of living of people. The aim of the Kudumbashree scheme is to improve the standard of living of poor women in rural areas by setting up micro-credit and productive enterprises. It opened a new string of expected events in development history. As per documents related to Kudumbashree, women want to identify their inner strength, opportunities for growth and their role in reshaping their own destiny. Kudumbashree aims at the empowerment of women, giving them the central place in the programmes meant for their benefit. The programme aims to empower them through collective action. Gender equality gains (including inclusion of women in education) will help to reduce fertility rates and improve maternal and child health. This process of empowerment should become the signal light to their children, their families and society at large. Thirteen years are so far covered by this programme. The researcher is interested to know to what extend this programme has influenced the rural women for their empowerment.

OBJECTIVES OF THE STUDY

The main objective of the study is to assess whether there is any significant change in empowerment of rural women through Kudumbasree.

HYPOTHESIS FIR THE STUDY

1. Kudumbasree makes no significant change in women empowerment.

2. There is no significant relationship of between acquisition of personal skills and women empowerment.

3. There is no significant relationship of between Decision Making power and women empowerment

4. There is no significant relationship of between self confidence and women empowerment

5. There is no significant relationship of between knowledge and women empowerment

6. There is no significant relationship of between awareness and women empowerment

METHODOLOGY AND SOURCES OF DATA

COLLECTIONOF DATA

The influence of Kudumbashree on women is assessed by the field surveys and personal interviews. Statistical evidences are also drawn from the sources available with the Department of Economics and Statistics and the Project Directorate of State Poverty Eradication Mission of the Government of Kerala. Micro-units, under the scheme are surveyed and examined for arriving at conclusions. The study is mainly based on primary data, and the secondary data is used to supplement and support the primary data. A field survey was carried out covering rural areas.

SAMPLING DESIGN

Five micro units of Kudumbashree of Palakkad district are selected by random sampling method and members of the selected units are the respondents. Five micro units are selected on random basis from these block Panchayaths. Each unit consists of 20 members. So a total of 100 members of 5 units are taken as sample respondents for the purpose of study.

METHOD OF DATA COLLECTION

All the items shown in the questionnaire is asked to members of the units. Personal interviews are also conducted with office bearers' of Kudumbasree units in the same period. Out of 100 questionnaires served, 90 respondents filled the questionnaire completely and 10 respondents have not filled certain questions and so they are rejected.

DATA ANALYSIS AND TECHNIQUES

The general information has been analyzed with the help of primary data collected from arespondents through structured questionnaires. Likewise, acquisition of personal skills, Decision making power, self confidence, Knowledge and awareness empowerments of the Kudumbasree members have also been analyzed on the basis of primary data.

TOOLS OF ANALYSIS

Statistical techniques like percentage, mean, standard deviation, Z test etc are used for analysis for data.

VARIABLES USED IN THE STUDY

The variables used for study related with empowerment of women consist of :

1. Personal skills

2. Decision making power

3. Self confidence

4. Knowledge and

5. Awareness.

SCOPE OF THE STUDY

The study is confined to Kudumbasree units of Kerala. Study is conducted on the basis of sample units taken from rural areas of Palakkad District.

REVIEW OF LITERATURE

Kudumbasree is a unique poverty eradication mission of the state of Kerala. Many studies have so far conducted in relation with Kudumbasree and self help groups in different parts of our country. A brief view of the studies so far conducted is given below.

Gurumoorthy (2000) reveals that empowering women contributes to social development. Economic progress in any country whether developed or underdeveloped could be achieved through social development. The self-help group disburses micro-credit to the rural women for the purpose of making them enterprising women and encouraging them to enter into entrepreneurial activities. Credit needs of the rural women are fulfilled totally through the self-help groups. SHGs enhance equality of status of women as participants, decision makers and beneficiaries in the democratic economic, social and cultural spheres of life. SHGs also encourage women to take active part in socio-economic progress of our nation.

Puhazhendhi and Staysail (2001) in their study attempted to evaluate the performance of SHGs with special reference to social and economic empowerment. Primary data collected with the help of structured questionnaire from 560 sample households in 223 SHGs functioning in 11 states representing four different regions across the country have formed the basis of the study. The findings of the study reveal that the SHGs as institutional arrangement could positively contribute to the economic and social empowerment of rural poor. The impact on the later is more pronounced than on the former. Though there has been no specific pattern in the performance of SHGs among different regions, the southern region could edge out other regions. The SHGs programme has been found more popular in the southern region and its progress in other regions is quite low, thus signifying an uneven achievement among the regions. Older groups had relatively more positive features like better performance than younger groups.

SakuntalaNarasimhan (2001)focuses specifically on rural Scheduled Caste and Scheduled Tribe women, who are disadvantaged as women, as members of the rural section of the laypeople and because of their low caste status. The book compares the effectiveness of State initiatives with the motivation - and conscientisation strategy advocated by Action for Welfare and Awakening in Rural Environment (AWARE), a non-governmental development organization working in 6000 villages spread over 7 States in India. It analyses the success of AWARE's work among women through various case studies and concludes that, besides monetary resources, it is the mindset of the policy makers, bureaucrats and particularly the women concerned that must change in order to assist the empowerment of women.

Jaya S. Anand (2002) in her discussion paper titled "Self-Help Groups in Empowering Women: Case study of Selected SHGs and NHGs", gives a review of progress of Self Help Groups. She has attempted to examine the performance of selected SHGs and NHGs and to assess its impact, especially the impact of micro credit programme on empowering women. It has been clearly established that delivering credit alone may not produce the desired impact. The supporting services and structures through which credit is delivered, ranging from group formation and training to awareness-raising and a wide range of other supporting measures are critical to make the impact of group activity strong and sustainable.

Meenakshi Malhotra (2004)in her work entitled, "Empowerment of Women" (in 3 volumes), deals with the issues leading to empowerment of women with particular reference to rural women. Volume one deals with issues like gender inequalities in labour market and in entrepreneurship. Volume two focuses on micro finance options for women empowerment. It looks into micro credit schemes for rural women and micro finance movement in India. Third volume describes the various programmes introduced to empower women and bring them into the orbit of development network.

J. Bhagyalakshmi (2004)in the article, "Women's Empowerment - Miles to Go", points out that India as a signatory to the UN Convention has taken several measures to ensure full development and advancement of women. The women specific programmes are showing positive results in empowering women, until now, one feels, there are miles to go and promises to keep. All forms of violence against women, physical and mental, whether at familial or communal level shall be dealt with great care. She states that all forms of discrimination against girl child and violation of her rights shall be eliminated by undertaking strong measures both preventive and disciplinary within and outside the family. Though women play a major role in agriculture and allied sectors, their contribution is hardly

recognized. Intensive efforts are needed to ensure that benefits of training, extension and various programmes will reach them to make them more effective in their own area of operation.

Sri.V.P.Ragavan (2009)in his article stated that the poor women of the State have become active participants in the planning and implementation process of various ant-poverty programmes. By participating in various income generating –cum-developmental activities, the morale and confidence of women became veryhigh. Capacity of the poor women of the State in several areas has gone up considerably. Status of women in families and community has also improved. Kudumbashree has gained national and international acclaim as an ideal and workable model of participatory development for eradicating poverty. He further stated that womenempowerment is the best strategy for poverty eradication.

Minimol M. C and Makesh K. G (2012)in their study identified that Intellectual empowerment is considered more important, or at least equally important to social, economic or financial empowerment. The concept of personal empowerment often fails to encompass intellectual empowerment. The objective intended to be achieved is that the members become more capacitated to think and act better from blunt in thinking to sharp; and from thick in action to fine. According to them the concept of SHGs for rural women empowerment has not yet run its full course in attaining its objective.

Sanjay Kanti Das (2012) in his study indicated that SHG-Bank Linkage of micro finance programme has a profound influence on the economic status, decision making power, knowledge and self worthiness of women participants of SHG linkage programme in Assam.

Kenneth Kalyani, Seena P.C (2012) reveals that economic development is the base for other development. Collective effort has been recognized as tenets of women empowerment. Through women empowerment leads to sustainable social development. Economic development of women leads to better living status in the family, educational, nutritional, and the health needs of the children were well satisfied. Economic independence through Kudumbasree improved the social participation of its members and the Kudumbashree NHG movement is supporting for social empowerment of poor women flock. Now it is apparent that a number of studies are conducted on SHG groups and Kudumbasree and its role on empowerment of women. The researcher is intended to study to know to what extend Kudumbasreeprogramme in Kerala has influenced the rural women for their empowerment.

DATA ANALYSIS

The entire analysis is divided into two parts such as Part A and Part B .Part A shows the profile of respondents. Part B indicates analysis related with women empowerment.

SUMARY AND FINDINGS

Kudumbasree is the poverty eradication mission of the state of Kerala. It is a community based self help initiative involving poor women. It was launched formally by the Government of Kerala on 17th May 1998. It is launched by the Government of Kerala for wiping out absolute poverty from the state through concerted community action under the leadership of Local Self Government. Kudumbashree is a Malayalam word which means prosperity of the family. The programme has 37 lakhs members and covers more than 50% of the households in Kerala. It has built around three vital components, micro credit, entrepreneurship and empowerment. The researcher studied the influence of Kudumbasree on the rural women for their empowerment. For the purpose of study five micro units of Kudumbashree of Kozhikode district are selected by random sampling method and members of the selected units are the respondents. Each unit consists of 20 members. So a total of 100 members of 5 units are taken as sample respondents for the purpose of study. Personal interviews are also to be conducted with office bearers' of Kudumbasree units in the same period. Out of 100 questionnaires served, 90 respondents filled the questionnaire completely and 10 respondents have not filled certain questions and so they are rejected. A scaling technique is used to measure variables related with level

of improvement on a three point scale with a weightage of three, two and one for Greatly Improved, Fairly improved and not improved.

The following are the major findings of the study.

1. Majority of them are working on daily wages.

2. Less than 50 percent of the members are earning income less than Rs 10,000.

3. Nearly forty two percent of respondents have 8 to 10th qualification.

4. Decision making power of Kudumbasree members have greatly improved after joining in Kudumbasree.

5. Self confidence has been improved.

6. Personal skills of members have greatly improved

7. Knowledge has not improved

8. Awareness about need for nutrition, dangers of using pesticides, use of liquors and its affects has been increased.

9. Factors like acquisition of personal skills, self confidence, knowledge and awareness has not achieved as a contributing factor for women empowerment.

RECOMMENDATION

The researcher put forward the following suggestions to enhance women empowerment

1. Proper information should be given to Kudumbasree members to know about the aim and objectives of Kudumbasree. For this purpose anganawadi teachers can be used.

2. Entrepreneur development programme should be started and proper training should be given to members in this respect. Commerce teachers who are working in higher secondary schools and colleges can be utilized for providing training.

3. Active participation of Kudumbasree members in gramasabhas is to be insisted.

4. The members should take active involvement in different activities including politics.

CONCLUSION

The study has provided an insight on women empowerment acquired by Kudumbasree members after joining in the Kudumbasree. Majority of the members of Kudumbasree are women workers who are working on daily wages. Decision making power, Personal skills, and awareness of the members are improved except self confidence and knowledge. By considering other factors such as self confidence and knowledge, we can conclude that women empowerment has not achieved to the fullest extent. Women workers should give due consideration for developing self confidence and knowledge about intellectual rights. Each unit of Kudumbasree must give attention to the various factors for the empowerment of members.

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"EFFECTIVENESS OF ONLINE COMMUNICATION BETWEEN INSTRUCTORS AND STUDENTS

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ABSTRACT

Human existence and survival, as well as the survival of an organization are dependent on communication. It is a method of generating and transmitting ideas, information, point of views, facts and feelings among people in order to establish a mutual understanding. Communication means not just talking it includes listening, writing and reading. In education communication plays a major role. It is necessary to ensure the success of communication in the field ofeducation. Whether it is between teacher-student, student-teacher, teacher-parent or vice versa. Effective communication is the process of conveying ideas, thoughts, knowledge and information in best possible way to achieve the goal.Overall in simple, it is the process of expressing the opinion of senders to the recipient in the most understandable manner.Due to the COVID 19 outbreak the online communication schooling has expanded very much and has became more effective. Due to the COVID 19 outbreak the use of online communication schooling has expanded very much and has became more effective.

INTRODUCTION

Online communication is similar to face to face communication it involves the exchange of information, being heard and understood. Creating a sense of unity in online class will enrich students learning experiences and help them stay connected throughout the course period.The teachers engage

with students in the aim of providing knowledge or information so that students can understand the materials in better and can build a bond with them.

Communicating with students in an online environment requires little more thought and planning than communicating in face to face class because the

online classes lack the body languages. In face to face class teachers have the benefit of using body language and facial expression which help them to delivertheir thoughts much easier, but this benefit is missed in online class. Identifyingthe communication defects in online communication can support the teachers to decide how to improve and develop the communication with their online students in a timely and acceptable manner.

STATEMENT OF THE PROBLEM

The outbreak of pandemic made a negative impact on education but the use of online communication made education effective. Online communication made teaching successful and convenient but it seems to have a lack of communication between instructors and students. It made students participation as well productivity low. Which lead to make a study on the effectiveness of online communication. Hence the present study is conducted to analyse the impact on student teacher online communication and to measure the student's participation and overall productivity. This study also identifies the approaches to make online communication more effective.

LITERATURE REVIEW

(Khan. M. A, Nabi. M. K, Khojah. M, & Tahir. M, 2021) The outbreak of COVID-19 has a major impact on educational system around the world it has caused the closure of educational institutions, which made a negative impact

on the student fraternity around the world.Computer-based learning has emerged as the closest equivalent for off- line instruction in the absence of traditional classroom teaching and one- to-one engagement. In light of this, it's important to look into students' perceptions and readiness for the online-learning system that has been implemented at the university level during the ongoing COVID- 19 pandemic. The present study takes a quantitative approach, with responses collected from 184 university students in the National Capital Territory (NCT)

of Delhi, India, using an online questionnaire during June - August, 2020. The study's findings show that students have a favourable attitude toward e-learning and hence accept this new learning approach. It has also objectively proved the importance of e-learning during the COVID-19 crisis. In reality, e-learning has evolved as a new technique to improve the learning process, and social media may help to boost the learning output even more. The study's findings will assist educational institutions and policymakers in taking this online-learning process to the next level in a more effective manner.

(Almahasees, Z., Mohsen, K., & Amin, M. O, 2021) Two online surveys were conducted to evaluate instructor and student perceptions of the learning process that occurred during the time of COVID-19. In this regard, the study aimed to determine both faculty andstudent perceptions of online learning by using two surveys

Wijayanengtias, M., &Claretta, D., 2021) This study was donefor knowing the perceptions of students in Surabaya about online lectures during the COVID-19 pandemic. Surabaya is a research locationsince it is the second largest city in East Java Province after Jakarta, which has the greatest COVID- 19 case. The stages of the perception process, namely stimulation, attention, and interpretation, are studied using Kenneth K, Edward M, Judy C. Pearson, and Paul E. Nelson's (2008) theories. In this study, the informants were active students at the top ten universities. Researchers observed the 10 university's official social media profiles in addition to using interview

techniques. According to the study's findings, students believed that online lectures during a pandemic were effective in preventing the spread of the corona virus. However, students are dissatisfied with various elements of it

OBJECTIVES OF THE STUDY

1.   To analyse the impact on student teacher online communication

2. To measure the student's participation and overall productivity

3. To analyse the approaches to make online communication more effective

RESEARCH METHGODOLOGY

Research is a process through which we attempt to achieve systematically and with the support of data to answer a question, the resolution of a problem or a greater understanding of a phenomenon. It is the systematic way to solve problems. This process is frequency called research methodology. The procedure by which researcher goes about their work of describing, explaining and predicting phenomena are called methodology.

DATA ANALYSIS AND DISCUSSION

The collecteddata specifies that the sample unit consist of 81.1% of students of age between 17-20 and 18.9% of students between 21-24 years. While there are no data collected from the students of those who are above 24 years.The given data summarises that the students uses mobile phone for attending their online class, it ranks first. The second ranking is given for the Laptop users.It clearly states that mobile phone is more comfortable and available device for majority of respondents.The information presented above exemplifies student's preference for the type ofeducation. It shows higher frequency of face to face class than online class. It is apparent that 83% of them prefer face to face education. The table above summarises how students feel about having one way

communication in an online class. It shows that 47.2 percent of student's experience one way communication at some points, while 22.6 percent strongly agree. On the other hand, 30.2% strongly disagree, claiming that they have never experienced one way communicationThe result shown above clearly shows the feelings of students of having more interactivesessions. It is clearlyshownthatthere are no higherinteractive sessions in onlineclass.49.1 percent strongly agree that they have not felt any kind of more interactive sessionswhile comparing with traditional education

PARTICIPATION LEVEL OF RESPONDENTS IN ONLINE CLASS

TABLE 4.15 Table showing the rank of participation in online class

Statement	SA	A	N	D	SD	Total	WM
	5	4	3	2	1	15	
Online classes find more comfortable	4 (20)	14 (56)	18 (90)	13 (26)	4 (4)	196	13.07
Online classes provide more concentration than offline classes	3 (5)	7 (28)	17 (51)	13 (26)	3 (3)	123	8.2
Due to the convenience I never miss the class	15 (75)	20 (80)	9 (27)	6 (12)	3 (3)	197	13.13
Online classes give curiosity to participate in class	4 (20)	12 (48)	17 (51)	11 (22)	9 (9)	150	10

Online classes encourage me to participate in class	3 (15)	12 (48)	14 (42)	15 (30)	9 (9)	144	9.6

[Source: Primary data]

Statement	Weighted average mean	Rank
Online classes find more comfortable	**13.07**	**II**
Online classes provide more concentration than offline classes	**8.2**	**V**
Due to the convenience I never miss the class	**13.13**	**I**
Online classes give curiosity to participate in class	**10**	**III**
Online classes encourage me to participate in class	**9.6**	**IV**

INFERENCE

The above table shows the ranking of participation level. The table indicate rank first for the convenience of the online class. Obviously online class provide time saving benefit than traditional education. Traditional education wastes the time for transportation while it is not there in online education. Comfortability is ranked second. Online education is seems to be more comfortable because it provide the possibility of attending the class from anywhere. It is clear, the main reasons for increasing the participation level of students is convenience and Comfortability of online class

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PRODUCTIVITY LEVEL IN ONLINE CLASS

TABLE 4.16 Showing the productivity level of the student's

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Total	WM
Online classes help me to increase my productivity	3 (15)	11 (44)	19 (57)	17 (84)	3 (3)	**153**	**10.2**
As I am at home, classes help me to focus on my studies and read more	1 (5)	14 (56)	22 (66)	6 (12)	10 (10)	**149**	**9.9**
Online classes help to acquire more knowledge than offline classes	4 (20)	7 (28)	21 (63)	10 (20)	11 (11)	**142**	**9.5**
Continuous time schedule lack my concentration.	7 (35)	16 (64)	17 (51)	12 (24)	1 (1)	**175**	**11.7**
I am able to make self-assessment on my studies in online class	8 (40)	14 (56)	16 (48)	12 (24)	3 (3)	**171**	**11.4**
There is greater variation in my marks while comparing to offline marks	6 (30)	18 (72)	19 (57)	8 (16)	2 (2)	**177**	**11.8**
During online class I feels like mind-wandering	11 (55)	18 (72)	16 (48)	3 (6)	5 (5)	**186**	**12.4**
Continuous usage of devices creates health issues which leads to lack of learning	9 (45)	19 (76)	18 (54)	3 (6)	4 (4)	**185**	**12.3**

[Source: Primary data]

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Statement	Weighted average mean	Rank
Online classes help me to increase my productivity	10.2	**VI**
As I am at home, classes help me to focus on my studies and read more	9.9	**VII**
Online classes help to acquire more knowledge than offline classes	9.5	**VIII**
Continuous time schedule lack my concentration.	11.7	**IV**
I am able to make self assessment on my studies in online class	11.4	**V**
There is greater variation in my marks while comparing to offline marks	11.8	**III**
During online class I feels like mind- wandering	12.4	**I**
Continuous usage of devices creates health issues which leads to lack of learning	12.3	**II**

INFERENCE

In this analysis bring out that the exposure to the productivity level of the students in online class. From the first four ranking it is clear that the students have low productivity in online education. Mind wandering is the one of main reason for the lack of productivity. The reason behind mind wandering is lack of face to face contact. Health issues are the other part of productivity. If there is good health obviously it helps in increasing the productivity but online education is mainly focused on technology. Heavy usage of devices cause health issues. The level of productivity had been decreased due the online education than face to face education

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EFFECTIVE ONLINE COMMUNICATION

TABLE 4.17 Showing the ranking of approaches

Statement	SA (5)	A (4)	N (3)	D (2)	SD (1)	Total	WM	VI
Interacting during class with students make class energetic	16 (80)	23 (92)	10 (30)	3 (6)	1 (1)	**209**	**3.94**	**A**
Using different modes of communication such as video enabling, emails, WhatsApp etc. Will make class active and create more concentration	15 (75)	26 (104)	8 (24)	3 (6)	1 (1)	**210**	**4**	**A**
Contacting through WhatsApp for clearing doubts are the best way than asking in class hours	5 (25)	19 (76)	19 (57)	8 (16)	2 (2)	**176**	**3.32**	**N**
Asking to read slides or text is the better way for making a good communication	10 (50)	22 (88)	11 (33)	6 (12	4 (4)	**187**	**3.53**	**A**
Conducting quiz, discussion groups, feedback sessions or just general conversation make class interesting	14 (70)	25 (100)	11 (33)	1 (2)	2 (2)	**207**	**3.91**	**A**

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Spending extra time for sharing student's thoughts and opinions in online class will help in understanding their view points	13 (65)	26 (104)	9 (27)	3 (6)	2 (2)	**204**	**3.85**	**A**
Off topic chats and having one on one contact other than class creates everyone in touch and feel sense of togetherness	10 (50)	24 (96)	16 (48)	2 (4)	1 (1)	**199**	**3.75**	**A**
Overall						**1392**	**3.76**	**A**

[Source: Primary data]

SCALE	RANGE	RESPONSE
5	4.50-5.00	Strongly agree
4	3.50-4.49	Agree
3	2.50-3.49	Neutral
2	1.50 – 2.49	Disagree
1	1.00 -1.49	Strongly disagree

CONCLUSION

Communication is the most important skill required in every filed. Communication is said to be effective only when the desired objective is achieved. Nowadays traditional communication is being declining and the use ofonline communication is increasing. Online communication is how people communicate, connect, transact to send, retrieve, or receive information of any kind through the internet using digital media. Our increasing presence of online communication made a greater help in the field of education during the pandemic time. This study aimed to explore the effectiveness of online communication between instructors and students. It mainly focused on analysingthe impact of online communication between instructors and students and to measure the productivity and participation level. Study suggests few approaches to be taken in online education for making the communication effective. Data was collected using purposive sampling technique. Students states online communication is being a greater help in their education but it also finds to have a lack of effective communication. It found to have lesser interactive session than face to face communication. Online communication made participation level more due to the Comfortability and the convenience of attending class from anywhere while productivity has been decreased than face to face class.

Productivity level have been decreased due to the health issues, lack of concentration etc. The study suggests few approaches for increasing the effectiveness of online communication between instructors and students are enabling video, conducting quiz, delivering content in concise manner and so on. A clear idea about the effectiveness of online communication is received from this.

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SENTIMENTAL ANALYSIS

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ABSTRACT

Sentiment analysis (or opinion mining) may be a tongue process technique to verify whether knowledge is positive, negative or neutral. Sentiment analysis is usually performed on matter knowledge to assist businesses, monitor whole and products sentiment in client feedback, and perceive what client wants. Sentiment analysis is the method of sleuthing positive or negative sentiment in text. It is usually utilized by businesses to discover sentiment in social knowledge, gauge whole name, and perceive customers. Since customers are categorical about their thoughts and feelings additional overly than ever before, sentiment analysis is turning into a necessary tool to observe and perceive that sentiment. Mechanically, analyzing client feedback, like opinions in survey responses and social media conversations, permits brands to be told what makes customers happy or pissed off, so they will tailor product and services to satisfy their customers' wants. Sentiment analysis models concentrate on polarity (positive, negative, neutral) however additionally on feelings and emotions (angry, happy, sad, etc), urgency (urgent, not urgent) and even intentions (interested, v. Not interested). Our aim is to produce a sentiment analysis system for client review classification, which will be useful to analyze the data within the style of number of tweets wherever opinions are extremely unstructured and either positive or negative. Sentiment analysis may be a machine learning tool that analyzes texts for polarity, from positive to negative. By coaching machine learning tools with samples of emotions in text, machines mechanically find out how to discover sentiment without any human input method of deciding the emotional tone behind a series of words, want to gain associate understanding of the attitudes, opinions and emotions expressed among an internet mention. The aim of this project is to make a sentiment analysis model which can enable to categories words supportive of their sentiments, that is whether they are positive, negative and additionally the magnitude of it.

INTRODUCTION

Sentiment analysis (or opinion mining) may be a tongue process technique to verify whether knowledge is positive, negative or neutral. Sentiment analysis is usually performed on matter knowledge to assist businesses, monitor whole and products sentiment in client feedback, and perceive what client wants. Sentiment analysis is the method of sleuthing positive or negative sentiment in text. It is usually utilized by businesses to discover sentiment in social

knowledge, gauge whole name, and perceive customers. Since customers are categorical about their thoughts and feelings additional overly than ever before, sentiment analysis is turning into a necessary tool to observe and perceive that sentiment. Mechanically, analyzing client feedback, like opinions in survey responses and social media conversations, permits brands to be told what makes customers happy or pissed off, so they will tailor product and services to satisfy their customers' wants.

Sentiment analysis models concentrate on polarity (positive, negative, neutral) however additionally on feelings and emotions (angry, happy, sad, etc), urgency (urgent, not urgent) and even intentions (interested, v. Not interested). **Sentiment Analysis** is the process of 'computationally' determining whether a piece of writing is positive, negative or neutral. It's also known as **opinion mining**, deriving the opinion or attitude of a speaker. Business: In marketing field companies use it to develop their strategies, to understand customers' feelings towards products or brand, how people respond to their campaigns or product launches and why consumers don't buy some products. Politics: In the political field, it is used to keep track of political view, to detect consistency and inconsistency between statements and actions at the government level. It can be used to predict election results as well. Public Actions: Sentiment analysis also is used to monitor and analyze social phenomena, for the spotting of potentially dangerous situations and determining the general mood of the blogosphere. Vader (Valence Aware Dictionary and sentiment Reasoned) is a lexicon and rule-based sentiment analysis tool that is specifically attuned to sentiments expressed in social media. Vader uses a combination of A sentiment lexicon is a list of lexical features (e.g., words) which are generally labeled according to their semantic orientation as either positive or negative.

MATERIALS AND METHODS

In the coaching method, our model learns to associate a selected input (i.e. a text) to the corresponding output (tag) supported, taking a look at the samples used for coaching. The feature extractor transfers the text input into a feature vector. Pairs of feature vectors and tags (e.g. positive, negative or neutral) are fed into the machine learning rule to get a model. In the prediction method, the feature extractor is employed to rework unseen text inputs into feature vectors. These feature vectors are then fed into the model, that generates foreseen tags (again, positive, negative or neutral). VADER sentiment analysis relies on a dictionary which maps lexical features to emotion intensities called sentiment scores. The sentiment score of a text can be obtained by summing up the intensity of each word in the text. Consider the following sentences: Do you get a sense of the feelings that these sentences imply? The first one clearly conveys positive emotion, whereas the second conveys negative emotion. Humans associate words, phrases, and sentences with emotion. The field of Text Sentiment Analysis attempts to

use computational algorithms in order to decode and quantify the emotion contained in media such as text, audio, and video. Text Sentiment Analysis is a really big field with a lot of academic literature behind it. However, its tools really just boil down to two approaches: the lexical approach and the machine learning approach. Lexical approaches aim to map words to sentiment by building a lexicon or a 'dictionary of sentiment.' We can use this dictionary to assess the sentiment of phrases and sentences, without the need of looking at anything else. Sentiment can be categorical — such as {negative, neutral, positive} — or it can be numerical — like a range of intensities or scores. Lexical approaches look at the sentiment category or score of each word in the sentence and decide what the sentiment category or score of the whole sentence is. The power of lexical approaches lies in the fact that we do not need to train a model using labeled data, since we have everything we need to assess the sentiment of sentences in the dictionary of emotions. VADER is an example of a lexical method. Machine learning approaches, on the other hand, look at previously labeled data in order to determine the sentiment of never-before-seen sentences. The machine learning approach involves training a model using previously seen text to predict/classify the sentiment of some new input text. The nice thing about machine learning approaches is that, with a greater volume of data, we generally get better prediction or classification results.
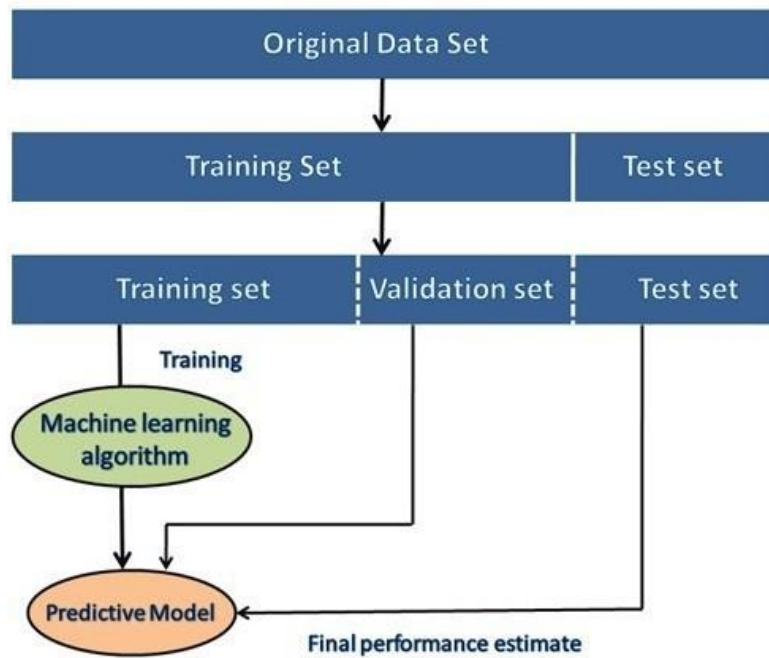
Scope of the Project

Thanks to tremendous expanse of opinions of users, their reviews, feedbacks and suggestions on the market over the online resource, it's most indispensable to find, analyze and consolidate their views for increased deciding. Our aim is to produce a sentiment analysis system for client review classification, which will be useful to analyze the data within the style of number of tweets wherever opinions are extremely unstructured and either positive or negative. Sentiment analysis may be a machine learning tool that analyzes texts for polarity, from positive to negative. By coaching machine learning tools with samples of emotions in text, machines mechanically find out how to discover sentiment without any human input method of deciding the emotional tone behind a series of words, want to gain associate understanding of the attitudes, opinions and emotions expressed among an internet mention. The aim of this project is to make a sentiment analysis model which can enable to categories words supportive of their sentiments, that is whether they are positive, negative and additionally the magnitude of it. Sentiment analysis (or opinion mining) may be a tongue process technique to verify whether knowledge is positive, negative or neutral. Sentiment analysis is usually performed on matter knowledge to assist businesses, monitor whole and products sentiment in client feedback, and perceive what client wants. Sentiment analysis is the method of sleuthing positive or negative sentiment in text. It is usually utilized by businesses to discover sentiment

in social knowledge, gauge whole name, and perceive customers. Since customers are categorical about their thoughts and feelings additional overly than ever before, sentiment analysis is turning into a necessary tool to observe and perceive that sentiment. Mechanically, analyzing client feedback, like opinions in survey responses and social media conversations, permits brands to be told what makes customers happy or pissed off, so they will tailor product and services to satisfy their customers' wants. Sentiment analysis models concentrate on polarity (positive, negative, neutral) however additionally on feelings and emotions (angry, happy, sad, etc), urgency (urgent, not urgent) and even intentions (interested, v. Not interested).

RESULTS

Sentence analysis is an application of natural language processing. It is also known as emotion extraction or opinion mining. This is a very popular area of research in text mining. The basic idea is to find the polarity of the text and classify it into positive, negative or neutral. It helps in making human decisions. In order to make sense analysis, a person has to do different types of tasks such as subjectivity detection, sentiment classification, aspect its term extraction, feature extraction etc. This paper offers a survey of the main approaches used for the attaint classification. Nowadays, social media has a huge impact on society. But it can be influential on society in both positive and negative ways. Our aim is to make proper use of Social Media in politics. This is the most efficient method to understand the sentiment of any posting in social media. We have analyzed some postings to understand political sentiments. There are some dominant keywords in any politically motivated posting. At first, we have prepared a dictionary consisting of

unique words collected from political or nonpolitical posts, titles or comments. We have extracted each word of the posting and then matched those with the dictionary words for classification to identify the sentiment expressed in a new post, title or comment. The machine learning algorithm used will be for video and audio, and textual analysis. The Algorithms used will be chosen in such a way as to avoid over fitting and give accurate results to the users.

Dataset Design

A database is an organized collection of data. The data is typically organized to model relevant aspect of reality. In a way that supports processes requiring this information.

A general-purpose database management system(DBMS) is a software system designed to allow the definition, creation, querying, update and administration of database. Well-known DBMS include MySQL, Microsoft access.

They actively deal with the design of the physical database. A key is to determine how to access paths are to be implemented. A physical path is derived from a logical path., pointers, chains, or other mechanism may be implemented. The general theme behind database is to handle information as a whole. The general objective is to make information access easy, quick, inexpensive and flexible for the user. Database design is the most critical part of the design phase. Database design transforms the information domain model created during the analysis into the data structures that will be required to implement the software system.

Types of data in datasets

Numerical data:Such as house price, temperature, etc. Categorical data:Such as Yes/No, True/False, Blue/green, etc.

Ordinal data:These data are similar to categorical data but can be measured on the basis of comparison.

Note: A real-world dataset is of huge size, which is difficult to manage and process at the initial level. Therefore, to practice machine learning algorithms, we can use any dummy dataset.

Need of Dataset

To work with machine learning projects, we need a huge amount of data, because, without the data, one cannot train ML/AI models. Collecting and preparing the dataset is one of the most crucial parts while creating an ML/AI project.

The technology applied behind any ML projects cannot work properly if the dataset is not well prepared and pre-processed.

During the development of the ML project, the developers completely rely on the datasets. In building ML applications, datasets are divided into two parts:

o   Training dataset:

o   Test Dataset

DISCUSSION

According to recent data from the social media tracking company Technocrat, four out of every five internet users use social media in some form. This includes Friendship Network, Blogging and Micro-Blogging Site, Content and Video Sharing Site etc. It is worth noting that after the World Wide Web (here only referred to as the Web), it has now completely changed into a more interactive and creative web. This allows a large number of users to contribute in different forms. The fact is that even those who are almost novices of web publishing techniques, they are making content on the web. Indeed, the value of a website is now determined largely by its user base, which, in turn, determines the amount of data available on it. It might be right to say that the data is new Intel. One such interesting form of user contributions on the web is review. Many sites on the web allow users to write their own experiences or opinions about a product or service as a review. The web is now full of user-interviews for various items for mobile phones, leisure trips and hotel services to movie reviews etc. It is interesting to see that these reviews not only express opinions of a group of users but are also a valuable source. To exploit collective intelligence For example, a user looking for a hotel in a particular tourist city might like to go through reviews of hotels available in the city before deciding to book one of them. Or users wishing to buy a special model of a digital camera can first see the reviews posted by many other users about that camera before making a purchase decision. It not only helps the user to get more and relevant information about different products and services on a mouse click, but also helps to reach a

more informed decision. Sometimes users like to write their own experiences about a product or service as a blog post rather than a clear review. However, in both cases the data is literally literal.

CONCLUSION

Overall, the success and failures of all these different approaches gave us a good overall picture of the challenges of sentiment analysis, and provide some guidelines for sentiment analysis with other sets of data in the future. First, we note the use of colloquial and slang language in most of the confessions. The use of spell checking corrected for this somewhat. Nonetheless, the synset and sentiment lexicons we used are better suited to more formal styles of writing. An alternative approach is to replace our synsets and lexicons with "slang" versions or even the automatic generation of sentiment lexicons on a slang corpus. Another area of interest is the difficulty in correlating topics with sentiment. Intuition says that topics themselves should portray different sentiments, and so should be useful for sentiment analysis. This method turns out be fairly crude, as sometimes topics may be too neutral or too general to actually be good indicators of mood. It is possible for someone to complain angrily about their current relationship, or laugh because of a happy moment during the relationship. All of these get mapped into the same topic, but each has a substantially different mood.

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An Efficient Cancer Classification using Extreme Learning Machine

C. Chandrasekar and P.S. Meena

*Abstract---*This Biological studies progress through the expansion of the expertise technologies. DNA microarrays turn out to be an effective tool utilized in molecular biology and in medicine. DNA micro arrays can be utilized to determining the alterations in expression levels or to identify single nucleotide polymorphisms. One can examine the expression of various genes in a single reaction in fast and effective manner. Microarrays can be utilized to determine the comparative amount of particular mRNAs in two or more tissue samples for thousands of genes concurrently. As the supremacy of this technique has been identified, various open queries arise about suitable examination of microarray data. For the above impenetrability and to obtain better consequences of the system with accuracy a new learning algorithm called Extreme Learning Machine (ELM) is used. ELM overcomes difficulties such as local minima, inappropriate learning rate and overfitting usually occurred by iterative learning techniques and performs the training rapidly. ELM utilizes the error free ANOVA techniques in the preprocessing stage. This paper represents that ANOVA technique can be utilized to normalize microarray data and afford determination of alterations in gene expression that are corrected for potential perplexing effects. The proposed technique is evaluated with the help of Lymphoma data set. The experimental result represents that proposed technique results in better classification accuracies with lesser training time and implementation complexity compared to conventional techniques.

*Keyword---*ELM, ANOVA, Cancer Classification and Gene Expression, Fast ELM

I. INTRODUCTION

CANCER is one of the atrocious diseases identified in majority of the living organism that is one of the demanding focuses for scientist towards 20th century. There were various proposals from several pioneers and thorough examination was still under performance. Mainly Cancer is featured by an abnormal, unrestrained growth that may destroy and assault contiguous healthy body tissues or somewhere else in the body. Living organisms like animals and plants are made of cells. The simplest organisms contain simply a single cell. The human body composed of billions of cells; majority of the cells contains a limited life-span and required to be replaced in cyclic manner. Every cell has the capacity of duplicating by itself. Millions of cell divisions and replications happen every day in the body and it is amazing that the process happens so faultlessly majority of the time every cell

division needs replication of the 40 volumes of genetic coding. On rare situations there is few faults in a splitting up and a rogue, probably malignant cell occurs. The immune system targets to identify such happenings and is usually has the capacity of reducing the abnormal cells before they have a chance to multiply. On the odd occasion, there is a malfunction of the system and a probably malignant cell survives, replicates and cancer is the occurred.

High-density DNA microarray [17] gathers the behaviors of various genes concurrently and the gene expression [18] profiles have been utilized for the cancer classification in recent times. This new technique assures to afford superior therapeutic capacity to cancer persons by means of diagnosing cancer kinds with enhanced accuracy. SVM, FNN [9, 16], etc., are the various classification techniques effectively utilized to the cancer diagnosis difficulty. On the other hand, its optimal extension to more than two classes was not evident that may enforce restrictions in its application to multiple tumor kinds. Then the Multicategory SVM that is a recently suggested extension of the binary SVM, and pertain it to multiclass cancer diagnosis problems [11][12]. The advance level of cancer prediction is ELM [10].

A blend of Integer Coded Genetic Algorithm (ICGA) and Particle Swarm Optimization (PSO), combined with the neural network based Extreme Learning Machine (ELM) is engaged for gene choosing and cancer classification. ICGA is utilized with PSO-ELM to choose an optimal set of genes that are afterwards utilized to construct a classifier to enlarge an algorithm (ICGA_PSO_ELM) that can deal with the sparse data and sample imbalance. An investigation into the functions of the selected genes, using a systems biology approach, revealed that many of the identified genes are involved in cell signaling and proliferation. An analysis of these gene sets shows a larger representation of genes that encode secreted proteins than found in randomly selected gene sets. Secreted proteins constitute a major means by which cells interact with their surroundings. Increasing biological proof has recognized the tumor microenvironment as a serious issue that identifies tumor survival and growth. Therefore, the genes detected by this examination that encode secreted proteins may afford significant insights to the nature of the critical biological characterizes in the microenvironment of every tumor kind that permits these cells to thrive and proliferate.

In recent days, Extreme Learning Machine (ELM) is utilized for predicting cancer cells in living organism by the method of ANOVA (Analysis Of Variance). This technique solves issues such as local minima, improper learning rate and over fitting usually occurs in iterative learning techniques and

completes the training very fast. However, the usage of ELM will take more time when large data is used for classification. This is overcome by using the proposed ELM technique called Fast ELM. This proposed technique has the capability to perform the classification in lesser less than the conventional techniques.

II. RELATED WORK

Sridhar Ramaswamy *et al.,* [15] explains about multiclass cancer diagnosis with the help of tumor gene expression [8] signatures, that intentionally tells about, the complex grouping of clinical and histopathological data for optimal healing of patients with cancer based on establishing accurate diagnoses, it appears to be hard because of the atypical clinical presentation or histopathology. To conclude whether the diagnosis of multiple common adult malignancies could be attained entirely by molecular classification, for instance this paper uses 218 tumor samples, spanning 14 general btumor kinds, and 90 normal tissue models to oligonucleotide microarray gene expression examination. In recent times, [7] DNA microarray-based tumor gene expression profiles have been utilized for cancer diagnosis.

Runxuan Zhang *en al.,* in [6] proposed a fast and efficient classification technique called ELM algorithm. In ELM one may randomly desire and repair all the hidden node parameters and then systematically make a decision on the output weights. Examinations have indicated [2] that ELM has good simplification concert and can be executed effortlessly. Several nonlinear activation functions can be utilized in ELM, such as sigmoid, sine, hard limit [5], radial basis functions [3] [4], and complex activation functions [1].

Lipo wang *et al.,* [19] presents the accurate cancer classification with the help of expression of very few genes, the author targets at determining the smallest set of genes that can guarantee highly accurate classification of cancers from microarray data with the help of supervised machine learning techniques. The importance of determining the minimum gene subsets is in three phases as below:

- It significantly decreases the computational load and noise occurring from unrelated genes. In the illustrations examined in this paper, determining the minimum gene subsets still permits for extraction of simple diagnostic rules that directs to accurate diagnosis without the requirement for any classifiers.

- It makes things easier for gene expression examinations to contain only a very small number of genes slightly than thousands of genes that can reduce the cost for cancer testing appreciably.

- It terms for additional examinations into the probable biological relationship among these few numbers of genes and cancer expansion and treatment.

Ahmad M. Sarhan, [20] suggests the cancer classification based on microarray gene expression data using DCT and ANN. The author generally discusses about a stomach cancer identification system according to the Artificial Neural Network (ANN), and the Discrete Cosine Transform (DCT).

The presented technique gathers classification characteristics from stomach microarrays with the help of DCT. The features obtained from the DCT coefficients are then used in ANN for classification. The microarray images utilized in this paper were gathered from the Stanford Medical Database (SMD).

III. METHODOLOGY

Microarray analysis is not straightforward because of the large number of genes, which are investigated simultaneously. By incorporating several factors of interest (for instance time and different treatments) in the experimental design, the interpretation of the data becomes even more difficult. The influence of the factors of interest should be separated from each other to draw sensible conclusions from the data analysis.

To address these problems, a new methodology called ELM is proposed. Unlike traditional implementations and learning theory, from function approximation point of view, ELM theory shows that the hidden node parameters can be completely independent from the training data. ANOVA ranking technique used for selecting the most appropriate gene.

A. *Extreme Learning Machine (ELM)*

Extreme learning machine (ELM) [14] meant for Single Hidden Layer Feed-forward Neural Networks [13] (SLFNs) will randomly selected the input weights and analytically determines the output weights of SLFNs. This algorithm tends to afford the best generalization performance at extremely fast learning speed.
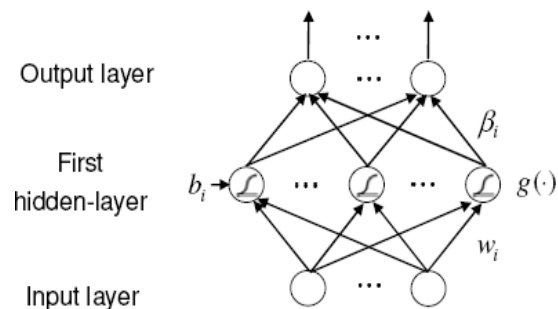

Fig. 1: Structure of ELM Network

The structure of ELM network is shown in figure 1. ELM contains an input layer, hidden layer and an output layer.

The ELM has several interesting and significant features different from traditional popular learning algorithms for feed forward neural networks. These include the following:

The learning speed of ELM is extremely fast. The learning step of ELM can be completed in seconds or less than seconds for many applications. In the past, it seems that there exists a virtual speed barrier which most (if not all) classic learning algorithms cannot break through and it is not unusual to take very long time to train a feed-forward network using classic learning algorithms even for simple applications.

The ELM has better generalization performance than the gradient-based learning, such as, backpropagation in most cases. The traditional classic gradient-based learning

algorithms and some other learning algorithms may face several issues like local minima, improper learning rate and over fitting, etc. For avoiding these issues, some methods such as weight decay and early stopping methods may need to be used often in these classical learning algorithms.

The ELM likely to reach the solutions straightforward without such trivial issues. The ELM learning algorithm looks very simpler than most learning algorithms for feed-forward neural networks. Different from the traditional classic gradient-based learning algorithms which only work for differentiable activation functions, as easily observed the ELM learning algorithm could be used to train SLFNs with many non-differentiable activation functions.

B. *Extreme Learning Machine Training Algorithm*

If there are N samples (x_i, t_i), where $x_i = [x_{i1}, x_{i2} \ldots x_{in}]^T$ $\in R^n$ and $t_i = [t_{i1}, t_{i2}, \ldots, t_{im}]^T$ $\in R^n$, then the standard SLFN with N hidden neurons and activation function $g(x)$ is defended as:

$$\sum_{i=1}^{N} \beta_i\, g\left(w_i.\,x_j + b_i\right) = 0_j, j = 1, \ldots\ldots, N.,$$

where $w_i = [w_{i1}, w_{i2}, \ldots, w_{in}]^T$ is nothing but the weight vector that connects the ith hidden neuron and the input neurons, $\beta_i = [\beta_{i1}, \beta^{i2}, \ldots, \beta^{im}]^T$ is the weight vector that connects the ith neuron and the output neurons, and b_i is the threshold of the ith hidden neuron. The "." in w_i. x_j means the inner product of w_i and x_j. The SLFN aims to minimize the difference between o_j and t_j. This can be expressed mathematically as:

$$\sum_{i=1}^{N} \beta_i\, g\left(w_i.\,x_j + b_i\right) = t_j, j = 1, \ldots\ldots, N.,$$

or, more in a matrix format as H ß = T, where

$$H(a_1, \ldots, a_{\tilde{N}}, b_1, \ldots, b_{\tilde{N}}, x_1, \ldots, x_N) = \begin{bmatrix} g(w_1, x_1 + b_1) & \cdots & g(w_g, x_g + b_g) \\ \vdots & \ddots & \vdots \\ g(w_1, x_1 + b_1) & \cdots & g(w_g, x_g + b_g) \end{bmatrix}_{N \cdot \tilde{N}}$$

$$\beta = \begin{bmatrix} \beta_1^T \\ \vdots \\ \beta_{\tilde{N}}^T \end{bmatrix}_{\tilde{N} \cdot m} \quad \text{and} \quad T = \begin{bmatrix} t_1^T \\ \vdots \\ t_{\tilde{N}}^T \end{bmatrix}_{N \cdot m}$$

The matrix H is the hidden layer output matrix of the neural network. If the number of neurons in the hidden layer is equal to the number of samples, then H is square and invertible. Otherwise, the system of equations needs to be solved by numerical methods, concretely by solving

$$min_\beta \, \|H\beta - T\|$$

The result that minimizes the norm of this least squares equation is

$$\beta = H^+T$$

where $H^\dagger$ is called Moore-Penrose generalized inverse. The most important properties of this solution are:

- Minimum training error.
- Smallest norm of weights and best generalization performance.
- The minimum norm least-square solution of $H\beta = T$ is unique, and is

$$\beta = H^+T$$

The ELM algorithm works as follows

Give a training set $N = \left\{(x_1, t_1) | x_1 \in R^n, t_1 \in R^m, 1 = 1 \ldots\ldots N\right\}$ activation function $g(x)$ and hidden neuron $\tilde{N}$, do the following

- Assigning random value to the input weight w_i and the bias $b_i, i = 1, \ldots\ldots, \tilde{N}$
- Find the hidden layer output matrix H.
- Find the output weight β, using $\beta = H^+T$, where β, H and T are defined in the same way they were defined in the SLFN specification above.

After the learning process is completed by providing several conditions, the proposed technique can be able to detect the cancer occurrence in the microarray gene.

C. ANOVA Model

Analysis of Variance (ANOVA) can be used in microarray data analysis to investigate the significance of the effects from factors which could possibly influence the gene expression. The ANOVA fixed effects model in which three of the possible factors of interest are incorporated is given by expression below. In this model the measured gene expression (X_{ijkr}) is assumed to be the result of the added effects of the factors Time (T),

Treatment (S) and Gene (G) over timepoint i, treatment j, gene k and replicate r:

$$X_{ijkr} = \mu + T_i + S_j + G_k + TS_{ij} + TG_{ik} + GS_{jk} + TSG_{ijk} + \varepsilon_{ijkr}$$

The effect of interactions between factors is also incorporated in the three factor ANOVA model shown here (TS, TG, GS and three way interaction TSG). The effects are added to a general mean expression value which is indicated with μ. Finally the remaining variation is captured in the error term. In the normal application of ANOVA, the sum of squares and mean squares are calculated for each factor and interaction. With an F-test the significance of the effect of each factor is then calculated. The main effects are vectors with a length equal to the number of levels in each factor. The interaction matrices consist of the combined effect of two factors, when corrected for the general effect of these factors. For example, the interaction matrix of the factors Gene and Treatment shows the effect of a gene and treatment after the general treatment effect and general gene effect have been corrected for. Thus, the interaction effect could be interpreted as the response of a gene to the treatments additional to general gene and treatment effects. This is of course interesting to the biologists who are looking for genes which respond to the treatments incorporated in the experiment.

First, the main effect is calculated for each of the factors of interest. The three factors used in the ANOVA model are time effect, treatment effect and the effect of each individual gene. The main effect is then calculated for each factor by subtracting the general overall mean from the mean per Time point, the mean per Gene, and the mean per Treatment

$$main\ effect = y_r - y \dots$$

where y is gene expression, and r is either i... , .j.. or ..k. , depending on the effect which is calculated. The next step is the calculation of the interaction matrices. The interaction matrices of the interaction between Gene and Treatment (GS), Time and Treatment (TS) and Time and Gene (TG) are calculated with:

$$GS = y_{.jk.} - y_{.j..} - y_{..k.} - y_{....}$$

$$TS = y_{ij.} - y_{i..} - y_{.j.} - y_{....}$$

$$TG = y_{i.k.} - y_{i...} - y_{..k.} - y_{....}$$

The three factor interaction (GTS) of Time and Gene can be calculated as follows:

$$GTS = y_{ijk.} - y_{.jk.} - y_{ij..} - y_{i.k.} - y_{i...} - y_{.j..} - y_{..k.} - y_{....}$$

The three factor interaction is in fact a data cube.

IV. EXPERIMENTAL RESULTS

This chapter experiments the proposed methodology using the Lymphoma data set. The Lymphoma data set is a data set about the three most prevalent adult lymphoid malignancies. It contains 62 samples consisting of 4,026 genes spanning three classes, which include 42 Diffuse Large B-Cell Lymphoma (DLBCL) samples, nine Follicular Lymphoma (FL) samples, and 11 B-CELL CHRONIC LYMPHOCYTIC LEUKEMIA (B-CELL) SAMPLES.

The data set can be found at http://genome-www.stanford.edu/lymphoma/. The 62 samples are randomly split into 50 training samples and 12 testing samples at each trial and the average performance has been obtained over 100 trials for both ELM and SVM-OVO.

The BSS/WSS method is also used for gene selection. Ten different numbers of genes, from 10 to 100 in intervals of 10, are selected and used in the simulation of both the ELM and SVM-OVO algorithms which uses ANOVA test. The average testing accuracies over 100 trials are shown in Table 5. From the table it can be clearly observed that the accuracy for the usage of ELM is better when compared to the conventional methods (Eg. SVM). As the table indicates, the SVM accuracy for the gene combination of 10-20 is 97.63% where as the proposed method yields the accuracy of 98.56% which is better than SVM. For the gene combination of 21-30, ELM produces the accuracy of 99.31%, whereas, SVM produces the accuracy of only 97.45 %. ELM produces 100% accuracy for the gene combination of 51-60, 61-70 and 91-100, but the usage of SVM does not produce 100% accuracy.

When the standard deviation is considered, ELM results in lesser standard deviation when compared to the SVM technique. Minimum standard deviation is obtained for ELM in all gene combinations. This is clearly indicated in table 1.

TABLE 1
TESTING ACCURACY (%) FOR THE ELM AND SVM ALGORITHMS ON THE
LYMPHOMA DATA SET

#Gene combination	SVM		ELM	
	Accuracy	Std Dev	Accuracy	Std Dev
10-20	97.63	4.4	98.56	3.4
21-30	97.45	5.3	99.31	2.2
31-40	96.12	5.8	99.66	2.5
41-50	95.21	6.3	99.77	2.3
51-60	98.32	5.1	100	0
61-70	97.45	4.6	100	0
71-80	96.41	4.8	99.51	2.1
81-90	96.65	4.1	99.96	1.2
91-100	96.44	5.6	100	0

Figure 2 shows the graph for accuracy comparison between the ELM and SVM technique. From the graph, it is clear that the proposed method shows better accuracy for all the gene combinations. The overall accuracy is higher for ELM when compared to the SVM technique.
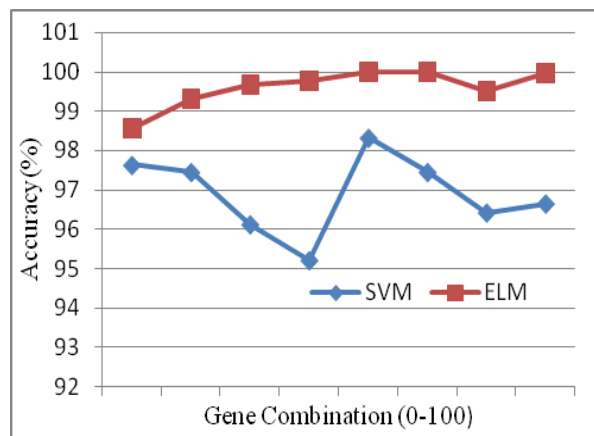

Fig. 2: Accuracy Comparison between SVM and ELM

From the table it can be clearly observed that the training time for the usage of ELM is lesser when compared to the training time taken by SVM. As the table indicates, the SVM training time for the gene combination of 10-20 is 390.13 seconds where as the proposed method yields the training time of 165.21 seconds which is very much lesser than SVM. For the gene combination of 21-30, ELM takes 185.39 seconds for training, whereas, SVM trains in 420.22 seconds.

The total training time and the average number of hidden nodes/support vectors are given in Table 2. From the table it can be clearly observed that the training time for the usage of ELM is lesser when compared to the training time taken by SVM with more compact network. As the table indicates, the SVM training time for the gene combination of 10-20 is 390.13 seconds where as the proposed method yields the training time of 165.21 seconds which is very much lesser than SVM. For the gene combination of 21-30, ELM takes 185.39 seconds for training, whereas, SVM trains in 420.22 seconds. When the average node per support vectors are considered, ELM technique results in more nodes when compared to the SVM technique. Consider the gene combination of 10-20, the average nodes is 17.41 for ELM but it is only 10.18 for SVM method. For gene combination of 51-60, the average nodes per SVs are is 32.14 for ELM but it is only 11.53 for SVM method. The overall average nodes per SVs for the proposed method are higher than the nodes obtained by SVM technique.

TABLE 2
TRAINING TIME(S) AND AVERAGED NUMBER OF HIDDEN NODES FOR THE ELM AND SVM ALGORITHMS FOR 100 SPLITS OF TRAINING AND TEST SET ON THE LYMPHOMA DATA SET

#Gene combination	Training time (s)		Average nodes/SVs	
	SVM	ELM	SVM	ELM
10-20	390.13	165.21	10.18	17.41
21-30	420.22	185.39	11.24	26.12
31-40	460.89	215.23	11.95	30.14
41-50	494.36	232.18	12.28	26.91
51-60	507.55	270.45	11.53	32.14
61-70	522.63	315.23	11.96	33.14
71-80	525.27	341.25	11.79	33.29
81-90	545.01	379.25	12.29	36.2
91-100	553.65	421.45	11.89	35.03

For the selected data set, ELM with ANOVA technique takes much less total training time than the SVM algorithm with ANOVA. As it is mentioned before, the SVM algorithm has to build c(c-1)/2 binary classifiers to distinguish between every two class combinations. For the Lymphoma data set, with the number of categories classified decreases, the difference between ELM and SVM is also decreased.

It can be seen that the number of hidden nodes for ELM is always smaller than the number of support vectors for SVM, indicating a more compact network realized by ELM.

V. CONCLUSION

In this paper, a fast and efficient classification method called the ELM algorithm which uses ANOVA test for a multicategory cancer diagnosis problem based on microarray data is presented. Its performance has been compared with the SVM algorithm. SVM for multicategory classifications is done by modifying the binary classification method of SVM to a one-versus-all or one-versus-one comparison basis. This inevitably involves more classifiers, greater system complexities and computational burden, and a longer training time. ELM with ANOVA can perform the multicategory classification directly, without any modification. Study results are consistent with our hypothesis that, when the number of categories for the classification task is large, the ELM

algorithm achieves higher classification accuracy than the SVM algorithm for the ANOVA test with less training time and a smaller network structure. It can also be seen that ELM achieves better and more balanced classification for individual categories as well.

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VIRTUAL BOX INTERVIEW SYSTEM

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ABSTRACT

Virtual interviewing is a standard method for first round of screening providing interviewers with an efficient, fair, and structured method for conducting interviews. Virtual interviews utilize technology to equip hiring personnel to interview candidates who are not able to do a traditional face -to-face interview or candidates that align with a prospective position that may be a full or part time telecommuting opportunity. These types of interview also allow interviews to that are restrained by time and place making the recruiting process more efficient in discovering and employing talent. Emotions, in everyday speech, a person's state of mind and instinctive responses. Emotion is also linked to Behavioral, Speech tone and facial expressions. The Virtual Interview System is an integration of web and android applications. Here the interviewer is a chat bot, and can recognize the facial emotions of jobseeker by using the technology, artificial intelligence. Here, we have to computerize our process where each and everything is done systematically and computerized. The Virtual Interview Management module assists in capturing all-relevant information about the jobseekers which is automatically captured in a database and a professional quality temporary disposable/photo Jobseeker badge is printed. No need to encode regular Jobseekers again

INTRODUCTION

Virtual interviewing is becoming the standard method for first round of screening providing interviewers with an efficient, fair, and structured method for conducting interviews. Virtual interviews utilize technology to equip hiring personnel to interview candidates who are not able to do a traditional face-to face interview or candidates that align with a prospective position that may be a full or part-time telecommuting opportunity. These types of interview also allow interviews to that are restrained by time and place making the recruiting process more efficient in discovering and employing talent.

Currently for selecting an employee for a particular field, several manual tasks are involved. So the man power is required. In this era of digitalization, the decrease of man power and the increase of technology sounds more efficient. So the replace of of manual way with software system is more suitable, convenient and efficient today. This project intended to process an interview with the help of technology which can provide accurate result. I have found that there must be a need of this system in our future society

MATERIALS AND METHODS

Automated Resume Extraction and Candidate Selection System will be built on Google's Cloud. Large enterprises and head-hunters receive several thousands of resumes from job applicants every day. HRs And Managers go through a hundreds of resumes manually. Resumes or Profiles are unstructured documents and have typically number of different formats. As a result manually reviewing multiple profiles is a very time consuming processes. How to ensure you have the Appropriate Candidate in the right jobs at the right time. This is a significant problem faced by large companies today in the market. Now a day's many job portals are available but the basic problem in available system are it required manual efforts for both candidates and Employers. Candidate has to provide complete information in given text filed and employer also needs to apply many filters to select the candidate. Even though Employer has applied many filters he would get thousands of resume even going through it and selecting candidates is very inefficient and time consuming task. Some costly extraction systems are available in the market that also do the search on keyword basis and has many extraction limitations like forcing candidates to fill templates and keep updating the templates as per job profiles.

Scope of the Project-To choose the right career is probably the most important decision in anyone's life. But most of the people are a victim of career indecisiveness. A career guidance platform is the need of the hour to cater to millions of confused individuals. It's weird that when we buy some product online or go shopping, or if we are going to check out some new place we always consult our friends. But when it comes to career guidance, we are happy with whatever life has for us in-store rather than seeking career guidance and finding the most suitable career path. There is a high probability if you don't seek career guidance at the right time you might end up in the wrong career. A student may be highly interested in a specific field of work and aims to get into a company which work on that specific field. But he/ she may fail in getting placed in that company due to lack of information of the company's recruitment process and preparation. There is a high probability if you don't seek career guidance at the right time you might end up in the wrong career. There are websites which provide company specific interview questions but they are subscription based and it contains commonly asked question from around the country but not college or region specific. This Career Guidance Platform helps the freshers to get exposure to the interview process and assist them with company information, company reviews, interview questions, tips and advice. It can also be referred to as a service provider provided by particular college to help students in making clever decision and changes so as to develop their potentials. It gives information on the fields the company is working on. It provides all the information a fresher would need in discovery and evaluation of a company. It provides a company-related interview experience and provides users with insights into the hiring process. It will give a structured way to provide feedback and gain a deeper understanding of interviewee's personalities and experience knowledge..

RESULTS

Recently college graduates often have the chance to participate within the interview once they attempt to pursue further studies or find employment. So as to master all possible questions within the interview, the simplest way is to understand what sorts of questions could also be asked and practice responding to questions. Generally, college students rarely have the chance to practice interview during school. So as to extend opportunities for people to practice social skills, like admission interview and employment interview, many scholars engaged within the design and development of social skill training systems Job interviews are employed by the potential future employer as a way to work out whether the interviewee is fitted to the companys needs. To form an assessment, interviewers heavily rely on social cues, i.e. actions, conscious or unconscious, of the interviewee that have a selected meaning during a social context, like employment interview. During this paper an approach is presented to employment interview simulation environment which uses a social virtual character as a recruiter and signal processing techniques to enable the virtual character to react and adapt to the users behaviour and emotions. The aim of this simulation is to assist youngsters improve social skills which are pertinent to job interviews. The proposed system features a real-time social cue recognition system, a dialog/scenario manager, a behaviour manager and a 3D rendering environment. The next section offers a quick review of the interdisciplinary literature. This system provides some feedbacks including facial preference, head nodding, reaction time, speaking rate and volume to let users know their own performance within the mock interview. Using speech-to-text system will check the grammar. The system will provide the result in a graphical format. The result of two or more interviews can be compared to track the progress of the candidates.

Table Name: - Admin

Primary key: - Ad_id

Sl. No	Column Name	Data Type	Size	Constraint
1.	Ad_id	Int	10	Primary Key
2.	Username	Varchar	25	Unique
3.	Password	Varchar	20	Not Null
4.	Email	Varchar	30	Unique

Table Name:-Candidate

Primary key:-candidate_id

Sl. No	Column	Data Type	Size	Constraint
1.	candidate_id	int	10	Primary key
2.	Adm_no	int	10	Unique
3.	Name	varchar	25	Unique
4.	Age	int	5	Not Null
5.	Address	varchar	50	Not Null
6.	gender	varchar	10	Not Null
7.	college	varchar	30	Not Null
8.	class	varchar	10	Not Null
9.	department	varchar	25	Not Null
10.	semester	int	10	Not Null
11.	Contact_no	varchar	10	Unique
12.	Email	varchar	20	Unique
13.	Photo	text	-	Not Null
14.	Id_proof	text	-	Not Null
15.	User_name	varchar	20	Unique
16.	Password	varchar	20	Not Null
17.	Date	date	-	Not Null

Table Name:- Candidate_Marks

Primary Key: - candidate_id

Sl. No	Column Name	Data Type	Size	Constraint
1.	Adm_no	int	10	Foreign key
2.	Qualification	varchar	25	Not Null
3.	marks	double	10	Not Null
4.	board	varchar	10	Not Null
5.	status	varchar	10	Not Null

Table Name:-Company

Primary Key:-company_id

Sl. No	Column Name	Data Type	Size	Constraint
1.	Company_id	int	10	Primary Key
2.	Name	varchar	20	Unique
3.	Address	Varchar	30	Unique
4.	Country	Varchar	10	Not Null
5.	State	Varchar	10	Not Null
6.	City	Varchar	10	Not Null
7.	Number	Int	10	Unique
8.	Username	Varchar	20	Unique
9.	Password	Varchar	20	Not Null
10	Email	Varchar	20	Not Null
11.	Photo	text	-	Not Null

Table Name:- Job

Primary Key:-User_id

Sl .No	Column Name	Data Type	Size	Constraint
1.	User_id	Int	10	Primary Key
2.	Name	Varchar	20	Unique
3.	Photo	Varchar	-	Unique
4.	Job_title	Varchar	20	Not Null
5.	Job_descripn	Varchar	30	Not Null
6.	Place	Varchar	15	Unique
7.	Contact_no	Int	10	Unique
8.	Last_date	Date	-	Not Null
9.	Date	Date	-	Not Null
10.	Job_post	Varchar	20	Not Null
11.	Experience	Int	5	Not Null
12.	Email	Varchar	20	Unique
13.	Qualification	Varchar	20	Not Null
14.	Min_salary	Double	10	Not Null
15.	Max_salary	Double	10	Not Null

Dataset Design

A database is an organized collection of data. The data is typically organized to model relevant aspect of reality. In a way that supports processes requiring this information.

A general-purpose database management system(DBMS) is a software system designed to allow the definition, creation, querying, update and administration of database. Well-known DBMS include MySQL, Microsoft access.

They actively deal with the design of the physical database. A key is to determine how to access paths are to be implemented. A physical path is derived from a logical path., pointers, chains, or other mechanism may be implemented. The general theme behind database is to handle information as a whole. The general objective is to make information access easy, quick, inexpensive and flexible for the user. Database design is the most critical part of the design phase. Database design transforms the information domain model created during the analysis into the data structures that will be required to implement the software system.

Types of data in datasets

Numerical data:Such as house price, temperature, etc. Categorical data:Such as Yes/No, True/False, Blue/green, etc.

Ordinal data:These data are similar to categorical data but can be measured on the basis of comparison.

Note: A real-world dataset is of huge size, which is difficult to manage and process at the initial level. Therefore, to practice machine learning algorithms, we can use any dummy dataset.

Need of Dataset

To work with machine learning projects, we need a huge amount of data, because, without the data, one cannot train ML/AI models. Collecting and preparing the dataset is one of the most crucial parts while creating an ML/AI project.

The technology applied behind any ML projects cannot work properly if the dataset is not well prepared and pre-processed.

During the development of the ML project, the developers completely rely on the datasets. In building ML applications, datasets are divided into two parts:

o   Training dataset:

o   Test Dataset

DISCUSSION

This study proposes an approach to dialog state tracking and action selection supported deep learning methods. First, the interview corpus during this study is collected from 12 participants, and is annotated with dialog states and actions. Next, a long-short term memory and a man-made

neural network are employed to predict dialog states and therefore the Deep RL is adopted to find out the relation between dialog states and actions. Finally, the chosen action is employed to get the interview question for interview practice. to gauge the proposed method in action selection, an interview coaching system is made. It is documented that syntactic constraints, when applied to speech recognition, greatly improve accuracy. However, until recently, constructing an efficient grammar specification to be used by a connected word speech recognizer was performed by hand and has been a tedious, time-consuming task susceptible to error. For this reason, very large grammars haven't appeared. We describe a compiler for constructing optimized syntactic di- graphs from easily written grammar specifications. These are written during a language called grammar specification language (GSL). The compiler features a pre-processing (macro expansion) phase, a parse phase, graph code generation and compilation phases, and three optimization phases. Digraphs also can be linked together by a graph linker to make larger digraphs. Language complexity is analysed during a statistics phase. Heretofore, computer generated digraphs were often crammed with redundancies. Larger graphs were constructed and optimized by hand so as to realize the specified efficiency. We demonstrate that the optimization phase yields graphs with even

CONCLUSION

This project introduced a combination of web and android application were the associated entity can reduce the works in a traditional interview system . Now a days the use of technology in all fields are increasing. So this method will effectively replace the existing traditional interview system. This system reduces the use of manpower, because the system itself conduct the interview. And the time used to conduct an interview will be less and accurate. Sometimes in our existing system the result of interview may be wrong due to the state of mind of the interviewer. But in this case the system will provide accurate result according to the performance of the candidate. This system consume less time than existing system. It is important to develop in the future because to have an efficient replacement to the existing one will give progressive result to our society and our nation.

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THIRD EYE-SMART STICK

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ABSTRACT

Blind person finds it difficult to detect the presence of any obstacles in their way while moving from one place to another and it is very difficult to find the exact location of the stick if it have been misplaced. Thus, the smart stick comes as a proposed solution to help the visually impaired people in their day to day living without the help of others. In this paper we proposed a solution for the blind people by using an ultrasonic sensor in the blind stick. The instrument stands used to perceive the obstacles at the range of four meters and infrared instrument is castoff to perceive the nearer complications in front of the blind people. Thus the radio frequency transmitter and receiver help the user to find the exact location of the smart stick with the help of buzzer. Theproposedideausestheprincipleofacamerabasedassistivedeviceimplemented onaRaspberryPi3board.Theintegratedsystemconsistsofacameramodule/web camera, The camera is an input device whichfeedstherequiredimagefordigitization.ThisimageisprocessedusingOpen CV libraries. The blind can ask this system to find / determine the position of objects by its color. Its done by using RGB composition. Finally, the Text to Speech engine reads out the text to the user. One smart stick also used here to detect if anyobstacle occurs in front of blind and calculate the distance between them and send out as an audio. The sensor data send to controller and this will alert with voice. One help button attached with stick can used for if any emergency situation, blind have to call for help. The message receiver can track blind current location by using his android application.

INTRODUCTION

Technologies are growing very fast, which helps people to get a better and easier life. The smart stick is a technique to help sightless people to recognize their way. Sightless People suffer from the lack of ability to do their daily activities, from walking in the street to visiting friends or relative or any daily things. Therefore, the solution for this major problem is proposed by designing a stick that can aid the person

to walk safely without having fear of hitting someone on the way or any solid objects. The stick has been designed using Solid Work software.

The serious problem faced by the blind people is mobility. The main purpose of the project is used for the detecting objects coming forward, it help the blind and

visually impaired people to avoid knocking or falling. We have proposed a technique for obstacle detection using an ultrasonic sensor. And it send an audio output with distance between them and alarms the user. The stick consist of a camera that will help to find object , which user ask through the microphone. Here we use the RGB color compositions to find objects. If the user faces any difficult situations, he could request help from others using the panic button provided. A message will be send to user's android device through the Bluetooth device. And then a request message with his location will be send to the emergency contact set on this android application.
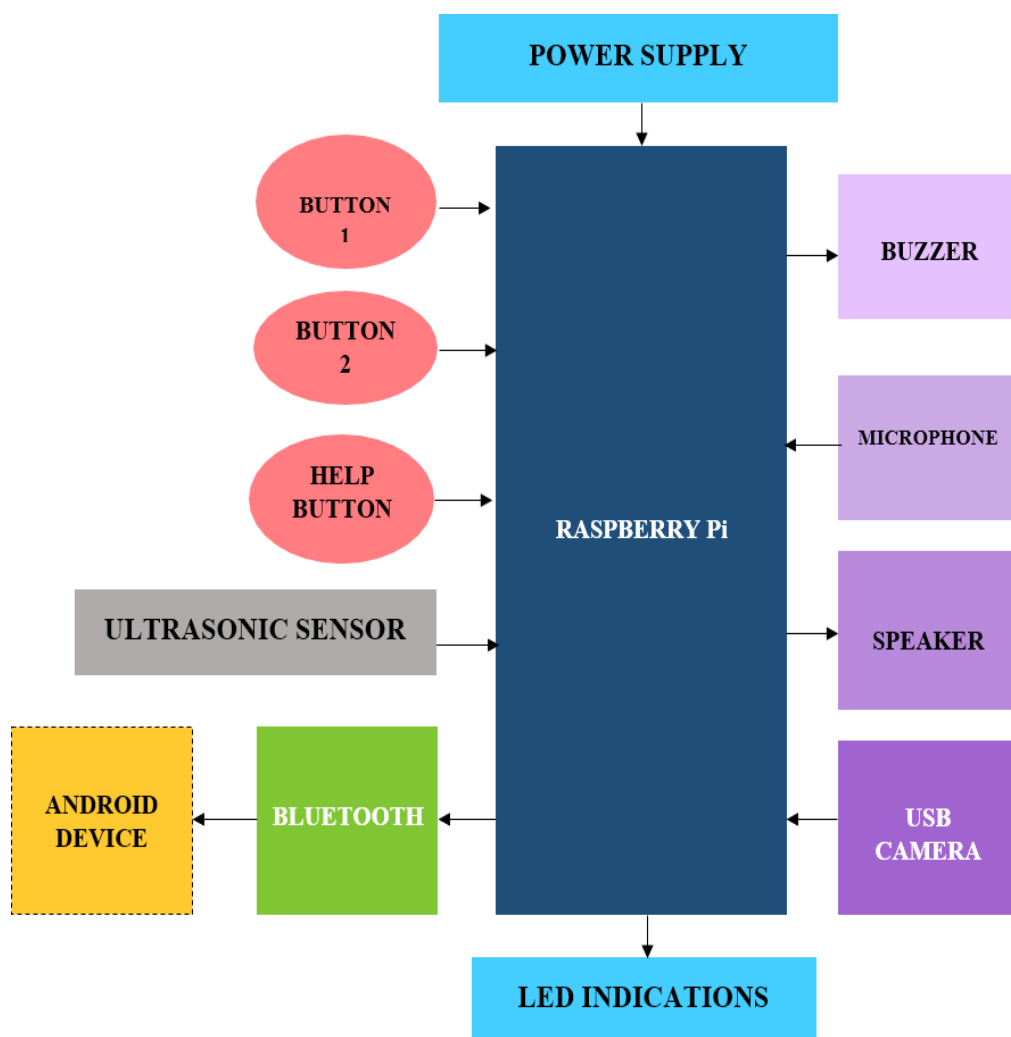
BLOCK   DIAGRAM   DESCRIPTION

1. RASPBERRY PI

Here   we   use   aRaspberrypi.Allotherperipheralsareconnected toRaspberrypi.Itconnectsthetemperaturesensor,waterpresencesensor,PIRsensor,   camera, buzzer and motors. It also provides control of the wholesystem.

2 . POWER SUPPLY

The power supply section contains a step down transformer for stepping down the AC 230V into 9V and is rectified using bridge rectifier and filtered using capacitor filtering method and given to PIC as its source voltage, 5v DC.

3. CAMERA

A USB webcam is a camera that connects to a computer, usually through plugging it in to a USB port on the machine. The video is fed to the computer where a software application will let you view the pictures and also transfer them to theinternet.

4 SPEAKER

Computer speakers, or **multimedia speakers**, are speakers sold for use with

computers, although usually capable of other audio uses, e.g. for an MP3 player. Most such speakers have an internal amplifier and consequently require a power source, which may be by a mains power supply often via an AC adapter, batteries, or a USB port (able to supply no more than 2.5W DC, 500mA at 5V).

5 BLUETOOTH

Bluetooth is a wireless technology standard for exchanging data over short distances using short-wavelength UHF radio waves in the ISM band, industrial scientific and medical radio bands from 2.400 to 2.485 GHz from fixed and mobile devices, and building personal area networks (PANs). It was originally conceived as a wireless alternative to RS-232 data cables.

6. BUZZER

Itis an electronicdevice whichis used tothealarm modulenotifies theuserbyabuzzerthatit is time to take medications.Upon pressing the dispense button,the buzzer terminates andLED stopsblinking.

7. ULTRASONIC SENSOR

An ultrasonic sensor is an electronic device that measures the distance of a target object by emitting ultrasonic sound waves, and converts the reflected sound into an electrical signal. Ultrasonic waves travel faster than the speed of audible sound (i.e. the sound that humans can hear).

8. MICROPHONE

A microphone, colloquially called a mic or mike (/maɪk/), is a device – a transducer – that converts sound into an electrical signal.

9. PUSH BUTTON

A push button or simply a button is a simple switch mechanism to control some aspect of a machine or a process. Buttons are typically made out of hard materials, usually plastic or metal. The surface is usually flat or shaped to accommodate the human finger or hand , so as to be easily depressed or pushed.

10. LED INDICATIONS

It denotes the working status of power supply, data transfer and program execution. It comestodesign for safety.

WORKING

Whencapturebuttonisclicked,thissystem starts to detect objects coming forward using the ultrasonic sensor attached to it. After detecting the obstacles, the system speakout the distance between the obstacle and the stick through the speaker. Then he could avoid hitting. If we press the 2nd button system wait for audio input, which asks to find any objects. The system

capturestheimageinfrontofthecamerawhichisconnectedtoRaspberryPithroughUSB. Using RGB color compositions the system detect the object and speak out its position or direction. All the operations are done in digital values. So as to convert the result to audio output, here we use Text-to-speechlibrary

Last but not least stick is provided with a panic button, if the user face any difficult situations he could use that button. A message will be send to user's android using a Bluetooth module. And this android application sends a message with location, requesting help to emergency contact set on this application.

RESULT AND DISCUSSION

ADVANTAGES

➢ This helps them to walk with the help of obstacle detectionstick.

➢ This machine helps the blinds to be more secure in theirsurroundings.

➢ This technology can be accessed by the blinds as its comparativelycheaper.

➢ This also provide an help button so the blind can get help fromothers.

DISADVANTAGES

➢ It always need an internetconnection.

APPLICATION

➢ Gives more chance to work insociety.

➢ Help the guardian of this visually impaired person to trackhim

CONCLUSION

The proposed Third Eye system works very smoothly and can perform all operations easily. Blind and visually challenged peoples are facing many trouble while walking and couldn't reach their destination without any assistance. So our project could help them in allneeds. We provide ultrasonic sensor to detect objects , and camera is used to find desired objects and a panic button is installed to request help from others which sends a message to emergency contact which contains location information also. The implementation cost is low when its industrially prepared.

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DEFECT DETECTION OF MANGO LEAVES USING CONVOLUTION NEURAL NETWORK

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ABSTRACT

Going beyond consumer devices, there are cameras all over the world that capture images for automation purposes. Cars monitor the road, and traffic cameras monitor the same cars. Imaging devices are used by engineers, doctors and space explorers alike. To effectively manage all this data, we need to have some idea about its contents. Automated processing of image contents is useful for a wide variety of image-related tasks. For computer systems, this means crossing the so-called semantic gap between the pixel level information stored in the image files and the human understanding of the same images. Computer vision attempts to bridge this cap. Objects contained in image files can be located and identified automatically. This is called object detection and is one of the basic problems of computer vision. Convolutional neural networks are currently the state-of-the-art solution for object detection. The main task of this thesis is to review and test convolutional object detection method using tensorflow. The theoretical part would review the relevant literature and study how the convolutional neutral network architectures have improved in the past few years. The experimental part would shows how easily a SSD-mobile net convolutional neutral network architecture can be implemented in practice, test how well a navel detection system trained on general image and video data perform to detect mango leaves defects and explore, both experimentally and based on the literature, how the current systems can be improved.
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INTRODUCTION

Object detection is technologically challenging and practically useful problem in the field of computer vision. Object detection deals with identifying the presence of various individual objects in an image. Great success has been achieved in controlled environment for object detection/recognition problem but the problem remains unsolved in uncontrolled places, in particular, when objects are placed in arbitrary poses in cluttered and occluded environment. As an example, it might be easy to train a domestic help robot to recognize the presence of coffee machine with nothing else in the image.

On the other hand imagine the difficulty of such robot in detecting the machine on a kitchen slab that is cluttered by other utensils, gadgets, tools, etc. The searching or recognition process in such scenario is very difficult. So far, no effective solution has been

found for this problem. A lot of research is being done in the area of object recognition and detection during the last two decades. The research on object detection is multi-disciplinary and often involves the fields of image processing, machine learning, linear algebra, topology, statistics/probability, optimization, etc. The research innovations in this field have become so diverse that getting a primary first hand summary of most state-of-the-art approaches is quite difficult and time consuming.

The approach used incorporates four computer vision and machine learning concepts: sliding windows to extract sub-images from the image, feature extraction to get meaningful data from the sub-images, Support Vector Machines (SVMs) to classify the objects in sub-image, and Principle Component Analysis (PCA) to improve efficiency. As a model problem for the motivating application, this project focused on the problem of recognizing objects in images, in particular, detection of mango tree leaves defects. For this algorithm to be useful as a real-time aid to the visually-impaired, it would have to be enhanced to distinguish between "close" and "far" objects, as well as provide information about relative distance between the user and the object, etc. The training and testing of the proposed algorithm was done using data sets.

MATERIALS AND METHODS

In 2012, Krizhevsky et al. achieved promising results with CNNs for the general image classification task, as mentioned in section 2.4.6. In 2013, Girshick et al. published a method generalizing these results to object detection. This method is called R-CNN

R-CNN forward computation has several stages, shown in figure. First, the regions of interest are generated. The RoIs are category-independent bounding boxes that have a high likelihood of containing an interesting object. A separate method called Selective Search, is used for generating these, but other region generation methods can be used instead.Next, a convolutional network is used to extract features from each region proposal. The sub-image contained in the bounding-box is warped to match the input size of the CNN and then fed to the network. After the network has extracted features from the input, the features are input to support vector machines (SVM) that provide the final classification.
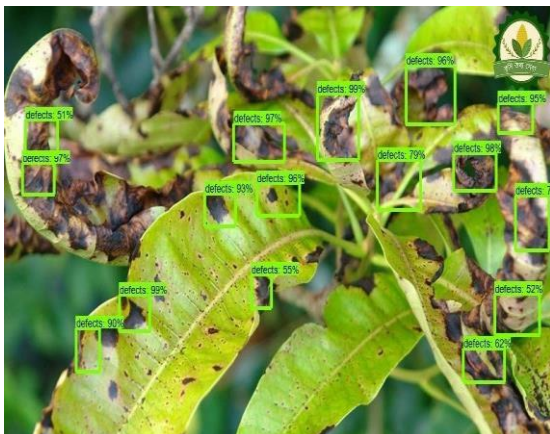
RESULTS

Computer vision deals with the extraction of meaningful information from the contents of digital images or video. This is distinct from mere image processing, which involves manipulating visual information on the pixel level. Applications of computer vision include image classification, visual detection, 3D scene reconstruction from 2D images, image retrieval, augmented reality, machine vision and traffic automation.

Today, machine learning is a necessary component of many computer vision algorithms. Such algorithms can be described as a combination of image processing and machine learning. Effective solutions require algorithms that can cope with the vast amount of information contained in visual images, and critically for many applications, can carry out the computation in real time.

The goal of "defect detection" is to find the location of an defects in a given picture or video clip accurately and mark the object with the appropriate category. To be precise, the problem that object detection seeks to solve involves determining where the object is, and what it is. However, solving this problem is not easy. Unlike the human eye, a computer processes images in two dimensions. Furthermore, the size of the object, its orientation in the space, its attitude, and its location in the image can all vary greatly.

After running the program a new window will open, it would display the defect detected image of mango leaves. which can be used to detect objects in real time. The results are shown below:

Testing the model

To test the model, first select a model checkpoint (usually the latest) and export into a frozen inference graph. checkpoints is created when train our model with the help of checkpoint would testing our model . This project used all images for training. The image folder store more than 200 of images per object to train the model of every angle of the object .

DISCUSSION

Computer vision deals with the extraction of meaningful information from the contents of digital images or video. This is distinct from mere image processing, which involves manipulating visual information on the pixel level. Applications of computer vision include image classification, visual detection, 3D scene reconstruction from 2D images, image retrieval, augmented reality, machine vision and traffic automation.

Today, machine learning is a necessary component of many computer vision algorithms. Such algorithms can be described as a combination of image processing and machine

learning. Effective solutions require algorithms that can cope with the vast amount of information contained in visual images, and critically for many applications, can carry out the computation in real time.

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CONCLUSION

The navel proposed system in Images and videos is the application which mainly aims to detect the multiple defects from various types of images. To achieve this goal shape and edge feature from image is extracted. It uses large image database for correct object detection and recognition. This system will provide easy user interface to retrieve the desired images. The system have additional feature such as Sketch based detection. In Sketch detection user can draw the sketch by hand as an input. Finally the system results output images by searching those images that user want.

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HAND GESTURE RECOGINITION SYSTEM

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ABSTRACT

Hand gesture recognition is very significant for human-computer interaction. In this work, we present a novel real-time method for hand gesture recognition. In our framework, the hand region is extracted from the background with the background subtraction method. Then, the palm and fingers are segmented so as to detect and recognize the fingers. Finally, a rule classifier is applied to predict the labels of hand gestures. The experiments on the data set of images show that our method performs well and is highly efficient. Moreover, our method shows better performance than a state-of-art method on another data set of hand gestures. Hand gesture recognition is a natural way of human computer interaction and an area of very active research in computer vision and machine learning. This is an area with many different possible applications, giving users a simpler and more natural way to communicate with robots/systems interfaces, without the need for extra devices. So, the primary goal of gesture recognition research applied to Human-Computer Interaction (HCI) is to create systems, which can identify specific human gestures and use them to convey information or controlling devices. For that, vision-based hand gesture interfaces require fast and extremely robust hand detection, and gesture recognition in real time. This paper presents a solution, generic enough, with the help of machine learning algorithms, allowing its application in a wide range of human-computer interfaces, for real-time gesture recognition. As we know, the vision-based technology of hand gesture recognition is an important part of human-computer interaction (HCI). In the last decades, keyboard and mouse play a significant role in human-computer interaction. However, owing to the rapid development of hardware and software, new types of HCI methods have been required. In particular, technologies such as speech recognition and gesture recognition receive great attention in the field of HCI.

INTRODUCTION

As we know, the vision-based technology of hand gesture recognition is an important part of human-computer interaction (HCI). In the last decades, keyboard and mouse play a significant role in human-computer interaction. However, owing to the rapid development of hardware and software, new types of HCI methods have been required. In particular, technologies such as speech recognition and gesture recognition receive great attention in the field of HCI. Gesture is a symbol of physical behavior or emotional expression. It includes body gesture and hand gesture. It falls into two categories: static gesture and dynamic gesture. For the former, the posture of the body or the gesture of the hand denotes a sign. For the latter, the movement of the body or the hand conveys some messages.

Gesture can be used as a tool of communication between computer and human. It is greatly different from the traditional hardware based methods and can accomplish

human-computer interaction through gesture recognition. Gesture recognition determines the user intent through the recognition of the gesture or movement of the body or body parts. In the past decades, many researchers have strived to improve the hand gesture recognition technology. Hand gesture recognition has great value in many applications such as sign language recognition, augmented reality (virtual reality), sign language interpreters for the disabled, and robot control.

MATERIALS AND METHODS

In present day lot of research has been taking place to develop a natural and simple interaction between human and computer. By using image processing vision based hand gesture recognition interaction can be established. For hearing impaired people it is very difficult to express their thoughts and it is very difficult when it comes for teaching and parenting them. Hand gestures are used as a primary language for deaf people and when they want to communicate with people. Hand gesture involves and shapes, orientation and movement of hands. Further hand gesture can be classified into two categories, namely static and dynamic hand gestures. Static hand gestures is defined as the configuration of the sign of hand gestures and poses that are represented

in the form of images while dynamic hand gesture defined as the sign of moving hand gesture represented by the image sequence or video. In this paper we are concerned in recognition of dynamic hand gesture. The inputs are taken from web camera or any other camera. These images are subjected to modest Python algorithms which pre- process the image and detect the skin region and count the number of active fingers. The main steps for a general gesture recognition system are: acquired gesture, features analysis, and finally classification tool. Gesture recognition systems suffer from some challenges which can be raised at any stage of recognition. Some of these challenges are easy to handle, like scaling problem or skin color but some like cluttered background or lighting variation can pose problems in recognition

Scope of the Project

Hand gestures have been the mode of communication for humans before we learned to speakandcommunicateverbally.Itisthemostconvenientformofcommunicationfortwoindiv   iduals to interact with each other without the barrier of language. From the start of the21st Century, we all have aspired to control any device with just a movement of our hand or wrist. Our hands have always played an important role in helping us learn and remember. There fore, Hand Gesture Recognition is a perceptual computing user interface that allows devices to capture and interpret these gestures as commands. These devices can then execute commands based on these unique gestures. The fundamental point of building hand gesture recognition system is to make a characteristic interaction between human and PC where the motions can be utilized for controlling a robot or passing on significant data. Step-by step instructions to frame the hand motions to be

comprehended and well deciphered by the PC considered as the issue of signal communication. The processing power of computational devices has grown at an exponential rate. Phenomenon's like

artificial intelligence, Internet of things, virtual and stimulated reality etc are making major contributions to every sector of the society. Consequentially, the diversity of input methods to devices with computational abilities have become a domain of research. Powerful devices equipped with a variety of sensors can process various types of input signals simultaneously and effectively.

RESULTS

Recently college graduates often have the chance to participate within the interview once they attempt to pursue further studies or find employment. So as to master all possible questions within the interview, the simplest way is to understand what sorts of questions could also be asked and practice responding to questions. Generally, college students rarely have the chance to practice interview during school. So as to extend opportunities for people to practice social skills, like admission interview and employment interview, many scholars engaged within the design and development of social skill training systems Job interviews are employed by the potential future employer as a way to work out whether the interviewee is fitted to the companies needs. To form an assessment, interviewers heavily rely on social cues, i.e. actions, conscious or unconscious, of the interviewee that have a selected meaning during a social context, like employment interview. During this paper an approach is presented to employment interview simulation environment which uses a social virtual character as a recruiter and signal processing techniques to enable the virtual character to react and adapt to the users behavior and emotions. The aim of this simulation is to assist youngsters improve social skills which are pertinent to job interviews. The proposed system features a real-time social cue recognition system, a dialog/scenario manager, a behavior manager and a 3D rendering environment. The next section offers a quick review of the interdisciplinary literature. This system provides some feedbacks including facial preference, head nodding, reaction time, speaking rate and volume to let users know their own performance within the mock interview. Using speech-to-text system will check the grammar. The system will provide the result in a graphical format. The result of two or more interviews can be compared to track the progress of the candidates.
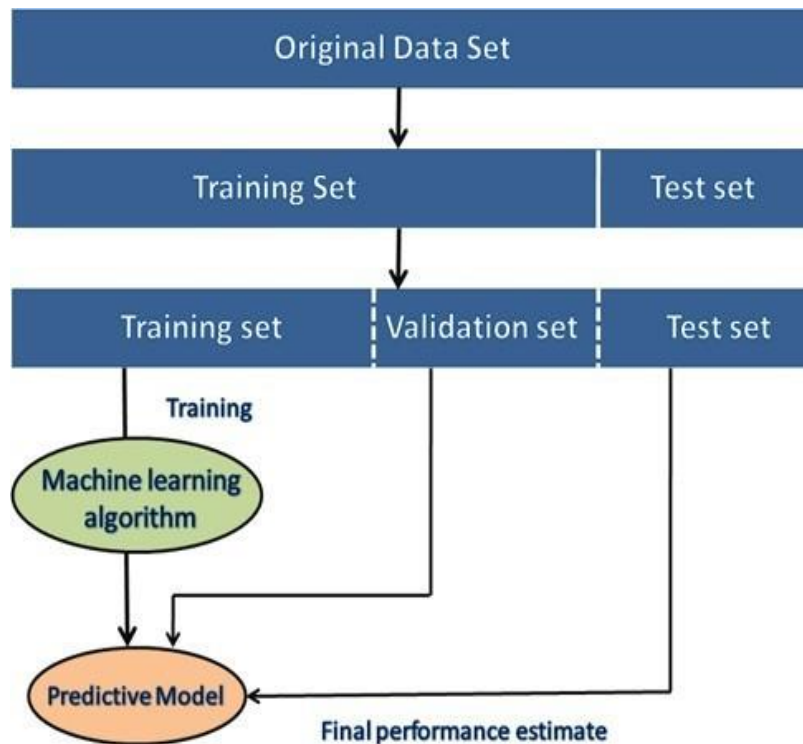
Dataset

A dataset is a collection of data in which data is arranged in some order. A dataset can contain any data from a series of an array to a database table. Below table shows an example of the dataset: A tabular dataset can be understood as a database table or matrix, where each column corresponds to a particular variable, and each row corresponds to the fields of the dataset. The most supported file type for a tabular dataset is "Comma Separated File," or CSV. But to store a "tree-like data," we can use the JSON file more efficiently.

Types of data in datasets

Numerical data:Such as house price, temperature, etc. Categorical data:Such as Yes/No, True/False, Blue/green, etc.

Ordinal data:These data are similar to categorical data but can be measured on the basis of comparison.

Note: A real-world dataset is of huge size, which is difficult to manage and process at the initial level. Therefore, to practice machine learning algorithms, we can use any dummy dataset.

Need of Dataset

To work with machine learning projects, we need a huge amount of data, because, without the data, one cannot train ML/AI models. Collecting and preparing the dataset is one of the most crucial parts while creating an ML/AI project.

The technology applied behind any ML projects cannot work properly if the dataset is not well prepared and pre-processed.

During the development of the ML project, the developers completely rely on the datasets. In building ML applications, datasets are divided into two parts:

o   Training dataset:

o   Test Dataset

DISCUSSION

Human-Computer correspondence is an indispensable bit of everyone's lifestyle. The human-PC collaboration mode has progressed from the fundamental reassure to the current mouse, joystick, and remote data devices, exceptionally support the relationship among individuals and PCs and make it more straightforward for individuals to chip away at PCs and improve work force. Regardless, this sort of correspondence mode can't totally meet the weight of the human-PC association because of the dependence on further information gear devices. The hand gesture is laid out as a spread of motions or improvements made by hands or arms combined, it's reliably prepared for imparting a guarantor's objective, as such it will go about as a strategy for regular correspondence among human and machine. Concentrating open motion affirmation is unbelievably significant for the event of later humanistic human-PC cooperation. This paper investigated the current assessment standing and utilization of sign affirmation finding a functional pace ordinarily used hand gesture affirmation ways, exploring their quality, weak concentrations, and a once-over the inconvenient issues in the current examination of hand gesture affirmation. The paper proposes hand following based advanced mouse application, which can be actualized utilizing a standard webcam. Our methodology is to utilize a computerized camera and PC inventive and farsighted age, comprehensive of photograph division and gesture recognition, to control mouse obligations like left and legitimate clicking, double tapping, looking over and to show the manner in which it can complete everything that cutting edge mouse devices can.

CONCLUSION

The basic goal of Human Computer Interaction is to improve the interaction between users and computers by making the computer more receptive to user needs. Human Computer Interaction with a personal computer today is not just limited to keyboard and mouse interaction. Interaction between humans comes from different sensory modes like gesture, speech, facial and body expressions. Being able to interact with the system naturally is becoming ever more important in many fields of Human Computer Interaction. Interactive presentation systems use advanced Human Computer Interaction techniques to provide a more convenient and user-friendly interface for controlling

presentation displays, such as page up/down controls in a slideshow. Compared with traditional mouse and keyboard control, the presentation. The use of a physical controller like mouse, keyboard for human computer interaction hinders natural interface as there is a strong barrier between the user and computer. In this paper, we have designed a robust marker- less hand gesture recognition system which can efficiently track both static and dynamic hand gestures. Our system translates the detected gesture into actions such as opening websites and launching applications like Player and PowerPoint. The dynamic gesture is used to shuffle through the slides in presentation. Our results show that an intuitive HCI can be achieved with minimum hardware requirements.

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STUDY ON SELF DIAGONISING PLANT MONITORING SYSTEM USING SPI PROTOCOL

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1. INTRODUCTION

From ancient time onwards mass production units and huge plants faces the common problem of much complex control systems. Then the whole work being done manually made it tougher too. Seeking a solution to reduce the toughness has given us the idea of automation. This further resulted in an evolution in technology to increase the production efficiency with minimum labour cost. Even then the complexity of the system did not possess a notable change. Reducing this complexity can only be achieved by dividing the task, which in turn needs a centralized control. This control can be achieved by means of a common link, a communication path among them.

This necessity has lead to the search of a new protocol that fulfills this chip to chip communication. Thus the objective was to achieve a link between the controllers. The search attained a successive completion with the introduction of a **peripheral interfacing protocol**. This provided way to interface and to control multiple peripherals simultaneously. The project provides a solution by simply dividing the task between multiple controllers. The implementation of this idea is made possible with the help of **SPI protocol** coming under **MSSP serial module**.

"IMPLEMENTATION OF SELF DIAGNOSING PLANT MONITORING SYSTEM USING SPI PROTOCOL" introduces such a communication method, achieved through SPI protocol. The working of this protocol is briefly explained by taking the case of a monitoring system for plant. For efficient working of a plant a monitoring section have to be set up to measure its various parameters. These measured values can be displayed and often used for further processing. This module is designed with an objective of physical parameter monitoring and measurement. This process is done normally in a cyclic manner allotting a fixed amount of time to display each parameter sequentially; options are also provide that the user can choose a particular parameter to be displayed according to the requirement. Initially the total work is divided into multiple sections, each sections controlled by using individual controllers called slaves. Then each of these slave units is controlled by a master controller for further processing. Here a master controller of PIC16F72 is used to control three slaves of the same i.e. PIC 16F72.These slaves are in turn used to control three sensors measuring a particular physical parameter. The sensors used

here are IC LM 35 to measure atmospheric temperature, IC HS 220 to measure the present atmospheric humidity.

Also the mechanical arrangement of a rotating fan with an IR sensor in it is made to measure the speed. Each of these sensor outputs is fed to appropriate slave controllers. Conversion of these analog signals to their equivalent digital values is done by the slave controllers. These sensed values as digital output is fed to the master controller from the slave controller, as the master commands the slave to do so. Only one slave controller gets selected at a time. Then these sensor outputs get displayed on an LCD display with the help of the master controller. Thus the display of a particular parameter is dependent on slave controller selection. Two provisions are provided for operation mode. One is being the **cyclic method** of displaying the parameters periodically. Other being the **switching method**, were a particular switch selects a particular slave to display the parameter sensed. Thus the parameter gets monitored by the system.

Here in the proposed system, the output section contains the display unit only, but this can be enhanced so as to provide further control action. Then the modified form of the project can include an indicator for high/low indication along with other circuitry to be activated to maintain the state, thus improving the efficiency of the project.

Another important characteristic of the proposed system is the quality measurement of its components by self diagnosing process. In its prototype it has three sensors and can be extended to more than twenty five sensors in the real world applications. The system measures the linearity response of sensors and checks its quality to sustain as a part of the unit. If its provide error exceeds acceptable range, the system itself communicate with the user to replace the sensor by better one. The performances of the sensors are affected by weather condition, voltage variation, and physical damage by user etc. so it is important to check the performance quality of components.

2. LITERATURE REVIEW

1. Initial attempt of implementing the plant monitoring system was forwarded in the year of 1972 [1]. Here the system having a memory unit for storing process variables and relationship data between main monitor screens and sub-monitor screens. But it was limited by numbers of sensors to be interfaced due to lack of a protocol.

2. In 1980 a new approach of plant monitoring systems was introduced using SPI protocol in IEEE [2].It was applicable on automobile area where several sensors are needed to read the physical variables.

3. In 1982, a new system was implemented through IEEE [3] to monitor using I^2C.It contains main systems and several sub systems. The sub systems report the physical variables to main systems which is the control unit.

4. In 2000, The ACCLAIM, a microprocessor-based power-plant controller [4] was designed to provide the user with the primary features of statistics gathering and plant control. The hardware and software are designed in a modular fashion to permit maximum flexibility for future expansion and enhancements. The features of ACCLAIM are presented, and function implementation is reviewed from both hardware and software standpoints. It is concluded that the primary user benefits of the ACCLAIM series controller include: (1) accurate drain data accessible through the ACCLAIM's history and statistic files; (2) reduced maintenance and operating manpower; (3) decreased redundant capital equipment requirements for safety margin due to the ACCLAIM's tighter control; and (4) rectifier diagnostics to support remote control and decision making

5. In 2004, the paper introduces the methods of monitoring and controlling the liquid location and discharge of boiler in the power plant, as well as the characteristics of the monitor and control system [5]. By providing both the hardware and software, this paper also studies the use of computer and fuzzy control technology, in order to meet the requirements of liquid location and discharge change while the boiler of the small or medium-sized power plant is in operation.

6. In 2007, the paper describes the research of NC2000 computer monitoring system in Xinjiang Xiabandi hydraulic power plant [6]. The system adopts client/serve system structure; it realizes the remote signaling, remote measuring, remote control and real-time monitoring for the water-turbine generator set. Under the condition of single generate, through analysis incompatibility in anti-disturbance and stability of the turbine speed governor system which controlled by PID mode, we establish the priority of parameters optimization strategy to ensure the stability, and then follow the given optimization model parameters to adjust the

stability. The simulation results and the practice show that the method relieved the contradiction between disturbance and stability, it has obtained certain result. The results of debugging and operating show that, the monitoring system has high control precision, electrical analog data acquisition cycle is less than 250ms, response time is less than 1s, data transmission is reliable, maintenance is easy. It has a high technical level. Contra posing the problems exposed during the operation, this paper puts forward the corresponding solutions to the similar hydraulic power plant at automatic control, and it has certain reference.

3. SYSTEM DESIGN

From the detailed analysis it's clear that ancient plant monitoring systems used manually operated machine parts. But with the advancement of technology automation came and a separate controlling section was assigned for the system. Then also reduction in complexity was not achieved as a single controller has to deal with more input-output units. Thinking of reducing the peripherals is meaningless as the number of in-outs keeps on increasing with the accuracy and efficiency of the plant. So the only way for simplification is to introduce more controllers to share the task and a method to interconnect them.

The proposed system is designed with this objective of reducing the complexity in huge plants by making use of a distributed mechanism. This is achieved by using peripheral interfacing protocol SPI. To illustrate the process a working model is set up with three microcontrollers called as slave controllers to which the output of three sensors (i) a temperature sensor, (ii) a humidity sensor & (iii) a speed sensor are fed. The parameters measured through these slave controllers are collected by the master controller for display. Full duplex mode of communication is possible between the master controller and slave controllers, but only the master controller selects the slave controller and initiates the transmission from that selected slave controller. Also the master controller displays the measured parameters i.e. transmitted data of the selected slave controller. Master initiates a slave by using the clock signal, SCK. Data transfer is done through two other pins of the controller SDI (serial data in) and SDO (serial data out). Multiple slaves are interfaced through pin SS (slave select). Thus for the proposed system four wire SPI is used.

Even though many protocols are available to provide interconnection between devices, methods to interface slow operating peripherals are rare. SPI seems to be the best among them, as it provides high speed communication between peripherals. Another main advantage behind choosing SPI is that a single master gets supported. Thus the control of the system is done by the master controller and so the master controller decides the parameter to be monitored by selecting the particular slave controller. Also in future while modifying the system to provide further features in addition to monitoring the physical parameters, only the master program need to be altered.

Designing phase of the proposed system remains incomplete without the mentioning of input output units. The input unit involves a temperature sensor, a humidity sensor and a speed

sensor and the output unit is an LCD display. As a brief description, the temperature sensor used in

the proposed system is LM 35 which is capable of measuring temperature from -40°C to 150°C. LM 35 is chosen as it perfectly suits the situation since the accuracy is maintained up to 125°C. The humidity sensor used in the proposed system is HS 220 to measure the relative humidity. Its operating range lies within (30-90) % RH. For measuring the speed of a moving part an arrangement of a rotating leaf and an IR module is used. Each of these sensors generates voltages for the measured parameters depending on its own resolution. The circuit is designed so as feed these sensor outputs to slave controllers, where analog to digital conversion are done. Huge industrial plants contain enormous parameters to be monitored for perfect functioning. Then the sensors can be further attached for multiple measurements or can be changed according to parameter variation.

In the proposed system, SPI protocol functions between four microcontrollers. Three slave controllers to which the input peripherals, the sensors are connected and one master controller to initiate the transmission and to monitor the sensor outputs in the interfaced LCD display. The system is made to operate in two modes by varying the master program in the software section.

An additional feature developed in this system is that the system is capable of diagnosing itself. For the diagnosing process the normal response of the used sensors are initially recorded as a reference and any variation in it will be recognized and reported.
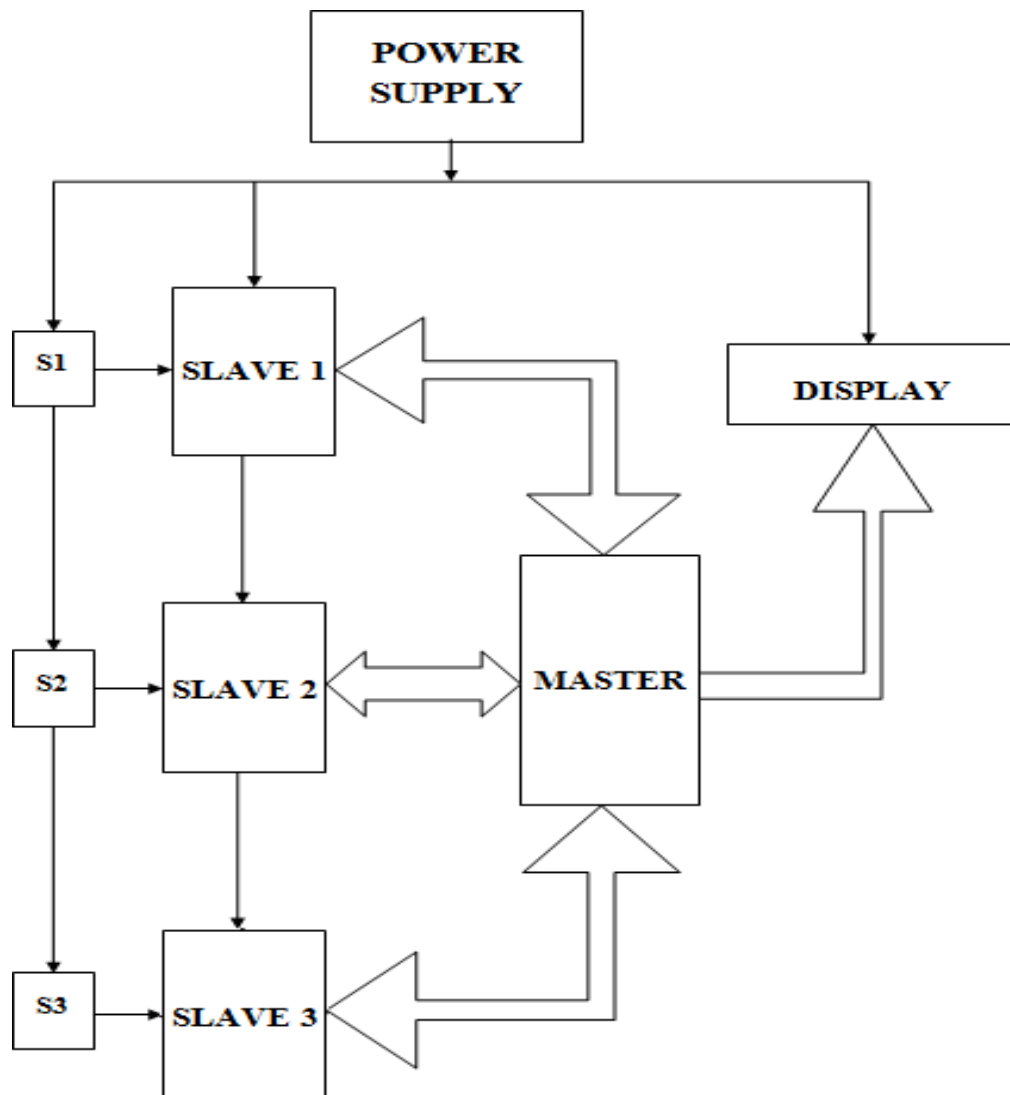
4.BLOCK DIAGRAM

Fig.3.1

Master – Master controller

Slave – Slave controller

S1 – Sensor 1

S2 – Sensor 2

S3 – Sensor 3

Display – LCD Display

5. CONCLUSION

This project '**IMPLEMENTATION OF SELF-DIAGNOSING PLANT MONITORING SYSTEM USING SPI PROTOCOL'** helps the user to monitor various physical parameters using the same controller together with sensor analysis. This is achieved by connecting some controllers as slaves, handling particular physical parameters to the master controller to control the slave controllers. Controller-to-controller communication is established using the **SPI** protocol that belongs to **MSSP** Module. An approach to self-diagnosing that improves the reliability of the system is also achieved here through sensor analysis.

Further enhancement can be done, so that instead of just displaying the measured quantity, some remedial measures can be added. For example when the sensed temperature exceeds a particular value some coolants can be activated. This can be extended to other application levels such as helping the user to maintain some atmospheric conditions stable inside the plant.

Application of the project can be done on areas where multiple parameters have to be measured and multiple operations regarding to the measurement have to be performed simultaneously. Such requirements can be widely observed in Automobile industries,Pharmacies,Confentioneries…There the essential conditions required for their perfect functioning can be obtained by enhancing and implementing this idea.

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BIOMEDICAL TELEMETRY SYSTEM FOR AMBULANCES

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ABSTRACT

Objectives: To evaluate the present condition of a person who need an emergency.Thereby arranging the medical facilities in the hospital within a 50km radius.

Methods: Subjects were assigned to receive either standard paramedic treatment or transmission of Pulse rate, blood pressure, pulse oximetry, and relevant medical history to a general hospital intensive care unit. Cardiology senior house officers then determined each patient's suitability for pre-hospital thrombolysis time, and transmitted this decision back to the ambulance.

Conclusions: Continuous telemetry systems may significantly reduce call to treatment times for patients recommended for pre-hospital thrombolysis in a rural setting. However, this benefit must be balanced against the very small proportion of eligible patients identified as suitable for pre-hospital thrombolysis. This limitation may be due to communications problems, the criteria used to identify eligible patients, or the seniority of physicians tasked with making treatment decisions.

INTRODUCTION

For many years, advances in medicine have been accompanied by similar developments in technology. Over recent decades, the development of electronic equipment-based biomedical systems has allowed remarkable improvements in research, diagnostic, and patient treatment techniques. The use of information and telecommunication technologies, as well as electronics applied to medicine may go beyond the medical techniques, and provide support for other processes associated with healthcare.

Recent advances in the electronics industry have been applied to telecommunications, leading to the development of innovative solutions that use microprocessor-based systems, and integrating mobile communications into our everyday life. Modern society recognizes that telemedicine can provide solutions that enable healthcare services to be brought to remote and/or isolated places that would have been unthinkable 20 years ago. New wireless sensors offer low-cost telemedicine and versatile methods for supervising chronic patients, regardless of their location, so increasing the demand for efficient and practical telemedicine systems.

Information and communication technologies therefore open up a range of possibilities to enhance patient-doctor and doctor-patient interaction and so ease access to healthcare services, bringing patients more freedom, and improving the qual- ity of their overall healthcare.
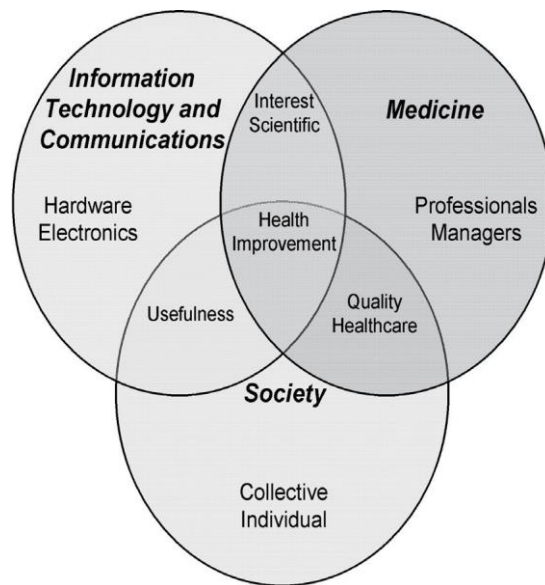
DEVELOPMENT OF THE TELEAMBULANCE SYSTEM

This kind of application is intended to take the patient – virtually – from the ambulance into the ICU (Intensive Care Unit) and from the medical specialists back to the ambulance via mutual interaction of both units, thereby:

1. Assuring better medical care during the patient's transportation by the ambulance person/

2. 9+

3. el, who receive direct indications, in real time, from the medical specialists in the hospital's ICU, based on the data they receive.

4. Allowing medical systems and procedures to be prepared that take account of the current situation of the patient, so they hospital staff are ready to act from the very moment the patient arrives at the hospital.

5. Allowing early treatment of critical compli- cations that may threaten the patient's life or determine future development of his/her clinical situation, thus helping to improve the patient's quality of life.

Enhancing the quality of an integrated service involving healthcare centres and accident and emergency services in hospitals.

COMMUNICATION SYSTEM

Ambulance telemonitoring applications require a very detailed prior analysis of the communica- tion system to be used, since long-distance com- munications are involved. Given the low power consumption equipment, another aspect to be carefully considered is communication cost.

Table 2 (Public Communication Systems) shows some of the mobile communications media offered by telecom operators.

Table 2. Basic feature public wireless communications systems

Public wireless communications systems				
Technology	Bit rate	Range	Property	Application
EDGE[3] 2.75G	850-900, 1800 y 1900 MHz	Similar GSM	On line data every time	Aircraf over land Road, citys
UMTS[4] 3G	2 Mb/s 1885-2025 MHz	Good in 40 countries	On line data every time- more price than GPRS	Aircraf over land Road, citys

[1] Generation.
[2] General Packet Radio Service.
[3] Enhanced Data rates for GSM of Evolution.
[4] Universal Mobile Telecommunications System.

Block diagram of the operation of the hybrid network, detail of a repeating unit

CONCLUSION

All the published references are proof of the medical utility of applications like this. There is no doubt that, in addition to improving efficiency in patient care during ambulance transportation, they will allow hospital resource management to be improved and so lead to long-term savings, even taking into consideration their initial deploy- ment costs. Optimization of hospital resources is a necessity, especially since our modern society is getting older a result of low birth rates and longer life expectancy. Thus, health care systems will be under greater pressure and with fewer resources. The teleambulance can lead to considerable im- provements in the management of those resources, by delivering data in advance of a critical patient arriving at hospital, which is required for their

care: doctors at the hospital will know the cur- rent medical status from the very beginning of the trip and so can plan the necessary resources to rapidly and effectively treat the patient, thus enabling better resource management**.**

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STUDY ON AIRPORT LUGGAGE MANAGEMENT SYSTEM

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ABSTRACT

The travel industry is under constant pressure to improve customer service, safety and satisfaction while streamlining the process of passenger travel. A number of technologies have been implemented to speed these processes but one technology that has the potential to revolutionize baggage handling technique is Radio-frequency identification technology (RFID).

In this case study we are going through a miniature working model of airport luggage management system. The luggage management and verification are simplified and made user friendly. This consists of two sections arrival section and departure section.

The Departure section performs the verification of luggage and ensures that the bag is successfully loaded into the place. At departure section the passengers will get an RFID tag. The passengers should swap the RFID tag to enter his/her details. Then the DC motor will be ON and the luggage will be sent to the aeroplane after the verification process. When the bag comes through the conveyer the RFID reader reads the RFID tag attached to it and sends a message to the passenger's mobile number.

The next section is arrival section. In this section the passenger details are received, via email, from departure section. The RFID reader reads the tag and transmits a message to the passengerusing GSM. Then bag goes on the conveyor. Then the RFID reader reads the tag in the bag and displays the details on the LCD display.The baggage will wait on the conveyer 10 minutes. After that the bag will be timed out and next bag will come.

INTRODUCTION

Travel and transportation impacts a wide spectrum of industries. The airline industry handles more than 2 billion passengers annually. A major challenge to the industry, both in customer satisfaction and security, is tracking passenger baggage.

Meeting security measures for baggage matching can delay departures significantly, impacting cost efficiencies and customer satisfaction. Cost of mishandled or lost baggage, Passenger traffic monitoring is major issues in the air transport industry.The balance of enhanced security standards and customer

convenience is becoming increasingly more difficult to achieve in the wake of new threats that terrorism poses. With airportts and airlines continuing to be vulnerable to threats, one of the areas where the maximum time is consumed is check-in for passengers and baggage handling for airport / airline staff.

RFID is used to enhance the ability for baggage tracking, dispatching and conveyance so as to improve the management efficiency and the users' satisfaction. The RFID-enabled system provides baggage handlers and airport operators with real-time and historical track-and- trace data, giving an instant overview of the position of bags in ULDs and dollies.

Developed in response to customer requests, the system provides a significant improvement in communication between the operators and baggage handlers, which will help to reduce the number of short - shipped or misrouted items. This, in turn, will improve passenger security and satisfaction as well as reducing flight delays caused by mishandled baggage.
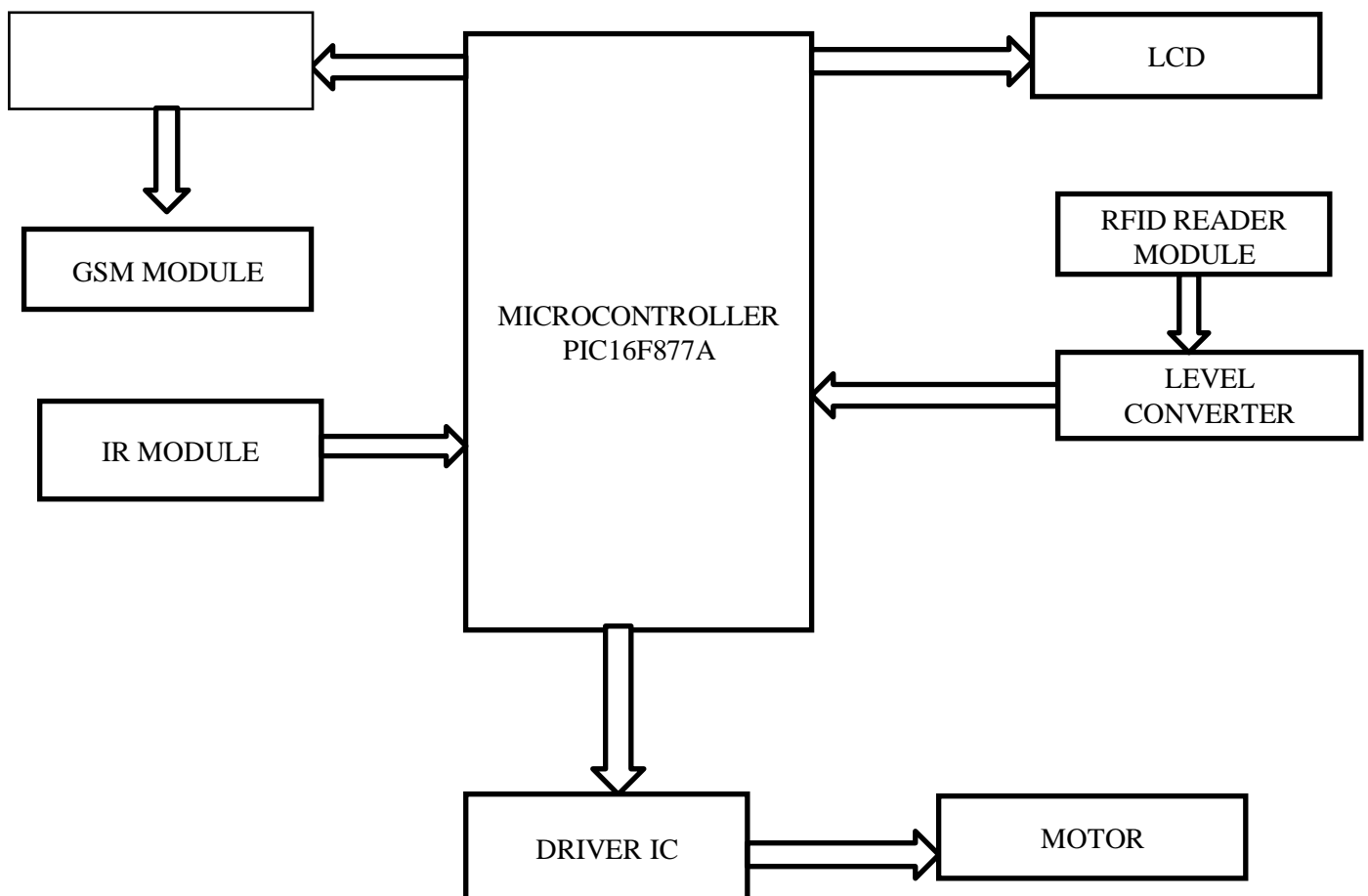
WORKING

Let us check the demo of ALM in a simplified manner. Here a 12V battery is used as power supply unit for providing voltageto the regulator IC LM7805. In the power supply section 230 AC is given as input to the step down transformer, then the output from the transformer is rectified and followed by a filter (capacitor of 1000uf). The filtered 12V DC is given to the regulator IC. The
voltage required for the microcontroller is 5V. In order to supply 5V to the micro controller the regulator IC LM7805 is used.

The required clock frequency is provided using crystal of 4 MHz and two 22pf capacitors. These are connected to the clock inputs of the micro controller. A push button switch is connected to the MCLR pin of the microcontroller. When the push button is pressed a low signal will get into the MCLR pin(to jump into the initial location).The microcontroller used here is IC PIC16F877A. The PIC has 5 basic input/output ports namely port A, port B, port C, Port D and Port E. All these ports are bidirectional. The port D pins in the microcontroller is programmed as output pins these pins are connected to the LCD. The first and third pin of the LCD is connected to ground (ground and contrast pins respectively. And the second pin is Vcc. The fourth pin , register select is connected to RC 0 and the fifth pin, read or right mode, is connected to ground (i.e., write mode is selected here). The enable pin of the LCD, i.e.,pin6, is connected to RC1. The conveyor section is implemented with the help of a DC motor and a driver IC L293D. The pins of driver IC is connected to the controller through RA2, RA3 and RA4. The driver IC output 12V amplified signal. This signal is connected to the DC motor. The DC motor has 2 pins. To work the DC motor one of the pins should be high and the other pin should be

low. The 25th and 26th pins of the microcontroller is transmission and reception pins respectively. The RFID reader reads a 12 byte data from the external world and gives the data to the controller through the RX (26th pin) pin.

BLOCK DIAGRAM

```
┌──────────────┐          ┌─────────────────────┐          ┌──────────────┐
│              │ ◄────►   │                     │  ────►   │     LCD      │
└──────┬───────┘          │                     │          └──────────────┘
       │                  │                     │
       ▼                  │                     │          ┌──────────────┐
┌──────────────┐          │                     │          │ RFID READER  │
│  GSM MODULE  │          │   MICROCONTROLLER   │          │    MODULE    │
└──────────────┘          │     PIC16F877A      │          └──────┬───────┘
                          │                     │                 ▼
┌──────────────┐          │                     │          ┌──────────────┐
│  IR MODULE   │  ────►   │                     │ ◄────    │    LEVEL     │
└──────────────┘          │                     │          │  CONVERTER   │
                          │                     │          └──────────────┘
                          └──────────┬──────────┘
                                     ▼
                          ┌──────────────┐          ┌──────────────┐
                          │  DRIVER IC   │  ────►   │    MOTOR     │
                          └──────────────┘          └──────────────┘
```

CONCLUSION

Travel and transportation impacts a wide spectrum of industries. A major challenge to the industry, both in customer satisfaction and security, is tracking passenger baggage. Meeting security measures for baggage matching can delay departures significantly, impacting cost efficiencies and customer satisfaction.

With the increasing transparency of the baggage handling process and a reduced baggage claims record, the RFID project will help the airline to build a strong brand image and set new standards of passenger service. In addition, the baggage tagging initiative is also expected to reduce the overall operating cost, beyond the savings associated with baggage claims.

A BRIEF STUDY ON BILINEAR FORMS

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INTRODUCTION

A linear functional is a scalar valued transformation on a vector space, similarly a bilinear form on a vector space is also a scalar valued mapping of vector space which is linear in both variables. Hence the name the adjective 'Bilinear'.

Bilinear Form

Definition 3.1.1. *Let V be a vector space over a field K. A bilinear form on a vector space V over a field K is a mapping*

$$B : V \times V \longrightarrow K$$

such that for all $v_1, v_2, w_1, w_2, v, w \in V$ and $\alpha \in K$ we have

$$B(v_1 + v_2, w) = B(v_1 w) + B(v_2 w)$$

$$B(v, w_1 + w_2) = B(v w_1) +$$

$$B(v w_2)$$

$$B(\alpha v, w) = B(v, \alpha w) = \alpha B(v, w)$$

Thus a Bilinear Form on a vector space V is a function on $V \times V$ such that it is linear in both coordinates

Define

$$B(v, \ w) = \sum_{i-1}^{m} \sum_{i=1}^{n} a_{ij} \epsilon_i \eta_j$$

Then B is a bilinear form on
(V,W)

Proposition 3.1.1. *Let V and W be vector spaces over a field K. The then set of all bilinear forms on the pair(V,W) is a subspace of the space of all the functions from* $V \times W$ *into K*

Proof. Clearly the set of all bilinear forms on the pair (V,W) is a subset of the space of all functions from $V \times W$ into K.

Let B_1 and B_2 be any two bilinear forms on (V,W).

ie, B_1 and B_2 are functions from $V \times W$ into K.

Then for any $a \in K$, $aB_1 + B_2$ is a function from $V \times W$ into K.

Now we have to show that $aB_1 + B_2$ is a bilinear form

Let $x_1, x_2 \in V, y \in W, l \in K$

$$
\begin{aligned}
(aB_1 + B_2)(lx_1 + x_2, y) &= aB_1(lx_1 + x_2, y) + B_2(lx_1 + x_2, y) \\
&= a[lb_1(x_1y) + B_1(x_2, y)] + [lB_2(x_1, y)B_2(x_2, y)] \\
&= l[aB_1(x_1, y) + B_2(x_1, y)] + [aB_1(x_2, y) + B_2(x_2, y)] \\
&= l[aB_1 + B_2(x_1, y)] + [aB_1 + B_2(x_2, y)]
\end{aligned}
$$

This Shows that $aB_1 + B_2$ is linear in the first argument.

In a similar way we can prove that $aB_1 + B_2$ is linaer in second argument.

$$(aB_1 + B_2)(x, ly_1 + y_2) = l(aB_1 + B_2)(x, y_1) + (aB_1 + B_2)(x, y_2)$$

for $x \in V, y_1, y_2 \in W$.

Hence $aB_1 + B_2$ is a bilinear form. Therefore the collection of all bilinear forms on (V,W) forms a subspace of spaces of all functions from $V \times W$ into K. We denote this subspace by L(V,W,K)

Orthogonaliy

One of the most useful geometric concepts that we associate with inner products is to identify when two vectors are orthogonal. We can do this with bilinear forms as well. Given a bilinear form B we can define the related notion of orthogonality in the natural way,we define it and establish the associated results here.

Definition 4.0.1. *A vector $x \in V$ is said to be orthogonal to $y \in V$ with respect to B if* $B(x,y) = 0$

Definition 4.0.2. *A Bilinear Form is said to be reflexive if the orthogonality relation is symmetric with respect to B*

ie, for $x, y \in V, B(x, y) = 0$ implies $B(y, x) = 0$

Bilinear form on finite dimensional vector space

In this chapter we treat bilinear forms on finite dimensional vector spaces. The matrix of a bilinear form in an ordered basis is introduced, and the isomorphism between the space of bilinear forms and the space of n × n matrices is established. Also in the succeeding subsections a discussion is made on diagonalization. Throughout this chapter the dimension of a vector space is denoted by n and a basis of an n dimensional vector space by $\{\alpha_1, ..., \alpha_n\}$.

In the example 4.0.1 when n = 1, the matrix $X^T A Y$ is 1 × 1, that is a scalar, and the bilinear form is simply $B_A(X, Y) = X^T AY \sum_i \sum_j x_i a_{ij} y_j$. We will

presently show that every bilinear form on an n-dimensional vector space is of this type, that is B_A for some n × n matrix A.

Matrix representation of a Bilinear form

Theorem 5.1.1. *Let V be a finite dimensional vector space over a field K. For each ordered basis B of V , the function which associates with each bilinear form on V its matrix in the ordered basis B is an isomorphism of the space L(V, V, K) onto the space of n × n matrices over K.*

Proof.

Let $B = \{\alpha_1, ..., \alpha_n\}$ be an ordered basis for V . Let f maps for each bilinear form B on V , its corresponding $[B]_B$. That is $f : L(V, V, K) \longrightarrow K^{n \times n}$. To prove f is an isomorphism.

Claim: To prove f is one-one.

Assume $[B_1]_B = [B_2]_B$. This implies $B_1(\alpha_i, \alpha_j) = B_2(\alpha_i, \alpha_j) \forall i, j$. Now for any bilinear form B on V , the values of B on V × V are determined by the values of B on B × B. Hence $B_1(\alpha_i, \alpha_j) = B_2(\alpha_i, \alpha_j) \forall i, j \implies B_1 \equiv B_2$.

Thus it is one one. Clearly the map f is onto. Since if we are given an n ×n matrix A, then the function B defined as in equation (5.1.1) is a bilinear form on V .

Claim: The map f is linear.

That is to prove $[kB_1 + B_2]_B = k[B_1]_B + [B_2]_B, \ \forall k \in K$, where B_1, B_2 are bilinear forms on V . Now we have, $(kB_1 + B_2)(\alpha_i, \alpha_j) = kB_1(\alpha_i, \alpha_j) + B_2(\alpha_i, \alpha_j), \ \forall i, j$, since $kB_1 + B_2$ is a bilinear form on V (by proposition 3.1.1).

So $[kB_1 + B_2]_B = k[B_1]_B + [B_2]_B, \ \forall k \in K$ and for any bilinear forms B_1 and B_2 on V . Thus the map f is linear. Hence the map f is an isomorphism between the spaces L(V, V, K) and the space of all n × n matrices.

Matrices of Bilinear Forms in Different Ordered Bases

Theorem 5.2.1. *Let V be a finite dimensional vector space over a field K and let $B = \{\alpha_1, ..., \alpha_n\}$ and $B^{'} = \{\alpha^{'}_1..., \alpha_n\}$ be ordered bases for V . Suppose B is a bilinear form on V . Then there exists an invertible matrix P such that $[B]_B = P^T [B]_B P$.*

Proof. Given two ordered bases B and B' and a bilinear form B on V . Consider the unique scalars P_{ij} (by remark 2.1.3) such that $\alpha'_j = \sum_{i=1}^{n} P_{ij}\alpha_i$, j = 1, . . . , n.

Let $x \in V$, $X = [x]_B = (x_1, ..., x_n)^T$ and $X' = [x]_{B'} = (x'_1, ..., x'_n)^T$ be the coordinate matrices of x in the ordered basis B and B' respectively.

$$x = \sum_{j=1}^{n} x'_j \alpha'_j = \sum_{j=1}^{n} x'_j (\sum_{i=1}^{n} P_{ij}\alpha_i)$$

$$= \sum_{j=1}^{n} \sum_{i=1}^{n} (P_{ij} x'_j)\alpha_i$$

$$= \sum_{i=1}^{n} (\sum_{j=1}^{n} P_{ij} x'_j)\alpha_i$$

That is $X = PX'$, where $P = [P_{ij}]_{n \times n}$.

<u>Claim:</u> P is invertible.

Since B and B' are linearly independent sets

$$X = 0 \iff \sum x_i \alpha_i = x = 0 = \sum x'_i \alpha_i,$$
$$\iff x'_i = 0 \forall i,$$
$$\iff X' = 0.$$

That is P $X' = 0$ has only the trivial solution. So P is invertible. That is we have obtained an n × n invertible matrix P such that $[x]_B = P[x]_{B'}$, $\forall x \in V$. Now for any x,y $\in$ V ,

$$B(x, y) = [x]_B^T [B]_B [y]_B$$

$$= (P[x]_{B'})^T [B]_B (P[y]_{B'})$$
$$= [x]_B^T P^T [B]_B P [y]_B$$
$$= [x]_B^T (P^T [B]_B P)[y]_B$$

By the definition and uniqueness of the matrix representing B in the ordered basis B we have,

$$[B]_{B'} = P^T [B]_B P$$

.Diagonalization of Bilinear forms

In this section we will answer when a bilinear form on a finite dimensional vector space is diagonalizable. That is if B is a bilinear form on a finite dimensional vector space V , whether there is an ordered basis B for V in which B is represented by a diagonal matrix. Here we will prove that this is possible if and only if B is a symmetric bilinear form on a vector space over a field of characteristic not equal to 2. One part is obvious since if B is diagonalizable, then matrix of B corresponding to that basis is diagonal and a diagonal matrix is always symmetric.

Lemma 5.3.1. *Let V be a vector space over a field of characteristic not equal to 2. Let B be a non trivial symmetric bilinear form on V . Then there exists $x \in V$ such that $B(x, x) \neq 0$.*

Proof. Since B is non trivial there exists x, $y \in V$ such that $B(x, y) \neq 0$. If

$$B(x, x) \neq 0 \ or \ B(y, y) \neq 0$$

then we are done.
So assume both

$$B(x, x) = 0 \ and \ B(y, y) = 0.$$

Let z = x +
y.
Then $$B(z, z) = 2B(x, y) \neq 0,$$

0 and field is of characteristic not equal to 2.

since $B(x, y)$
$\neq$

Theorem 5.3.1. *Let V be a finite dimensional vector space over a field of characteristic not equal to 2, and let B be symmetric bilinear form on V . Then there is an ordered basis for V in which B is represented by a diagonal matrix.*

Proof. We prove the result by the induction on the dimension n of the space V .
Our aim is to find an ordered basis $B = \{\alpha_1, ..., \alpha_n\}$
such that

$$B(\alpha_i, \alpha_j) = 0$$

for $i \nvDash j$.
If $B \equiv 0$, then matrix of B in any ordered basis is the zero matrix which is diagonal. Also if the dimension of the space is 1, then the matrix of B is 1×1 which is also diagonal.
Thus suppose $B \nvDash 0$ and n > 1. Then by the lemma 5.3.1, there is a vector 0 $x \in V$ such that

$$B(x, x) \nvDash 0.$$

Let W be the one dimensional subspace of V spanned by x, and let $W^\perp$ be the set of all y in V such that B(x, y) = 0.
Since $B(x, x) \nvDash 0$, with respect to the basis B = {x} of W, $[B \upharpoonright_W]_B$ is invertible and so $B|_W$ is non degenerate, then by the case 6 of the theorem 4.1., we have

$$V = W \oplus W^\perp.$$

Now the restriction of B to $W^\perp$ is a symmetric bilinear form on $W^\perp$. Since $W^\perp$ has dimension n - 1, we may assume by induction that $W^\perp$ has a basis $\{\alpha_2, ..., \alpha_n\}$ such that

$$B(\alpha_i, \alpha_j) = 0, \qquad j(i \geq 2, j \geq 2).$$

Putting $\alpha_1 = x$, we obtain a basis $\{\alpha_1, ..., \alpha_n\}$ for V such that $B(\alpha_i, \alpha_j) = 0$ for $i \nvDash j$.

Corollary 5.3.1. *Let K be a subfield of the field of complex numbers, and let A be a symmetric n × n matrix over K. Then there is an invertible n × n matrix P over K such that $P^T AP$ is diagonal.*

Proof. We have given a symmetric n×n matrix $[a_{ij}]_{n \times n}$. Take the standard basis of K^n over K,

$$B = \{\epsilon_1, ..., \epsilon_n\}, \epsilon_j = (0, ..., 1, ..., 0).$$

Define a bilinear form B on K^n as in equation 5.1.1. Clearly $[B]_B$ = A. Since A is symmetric B is also symmetric.
Then by the theorem 5.3.1., there is an ordered basis B' in which $[B]'_B$ is diagonal.Now

by the theorem 5.2.1 there is an invertible matrix P such that $[B]_{B'} = P^T AP$

That is $P^T AP$ is diagonal.

We have characterized the diagonalization of bilinear forms on vector spaces over fields of characteristic not equal to 2. In general, theorem 5.3.1 need not hold if the field is of characteristic two.

Example 5.3.1. *Let $K = Z_2$ and $V = K^2$ with the standard basis, B.*

Let B be a symmetric bilinear form represented by the matrix: $A = \begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$ with respect to B.

We will assume that B is diagonalizable and arrive at a contradiction.

Suppose that B is diagonalizable. Then there exists a basis B' for which

$$D = [B]_{B'}$$

is diagonal. That is there exists an invertible matrix P such that

$$D = P^T AP.$$

Since P is invertible, rank D = rank A. Thus $D = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$

Let $P = \begin{bmatrix} a & b \\ c & d \end{bmatrix}$. Then,

$$\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} = \begin{bmatrix} a & c \\ b & d \end{bmatrix} \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \begin{bmatrix} a & b \\ c & d \end{bmatrix} = \begin{bmatrix} ac + ac & bc + ad \\ bc + ad & bd + \end{bmatrix}$$

Here $ac + ac = bd + bd = 0$ in Z_2. This implies $1 = 0$ which is a contradiction..

Quadratic forms

We could go on to define other interesting properties of bilinear forms by introducing quadratic forms. What this section is going to demonstrate is that it is possible to take symmetric bilinear forms and find analogous quadratic forms. Like always, we will begin with a definition.

Definition 5.4.1. *Quadratic Forms: Let V be a vector space over the field K. A quadratic form is a function $f : V \rightarrow K$ such that the following hold.*

1. *$f(kv) = k^2 f(v)$ for all $v \in V$ and $k \in K$*

2. *$B_f(u, v) = f(u + v) - f(u) - f(v)$ is a symmetric bilinear form.*

Given a quadratic form, the notation B_f denotes the symmetric bilinear form associated with the quadratic form f.

Note: An expression of the form

$$f(x) = \sum_{i=1}^{n} \sum_{j=1}^{n} a_{ij} x_i x_j, \ \forall x \in V$$

defines a quadratic form f:V$\rightarrow$R

Theorem 5.4.1. *Symmetric Bilinear Forms have Quadratic Forms.*
If B is a symmetric bilinear form in V , then f(v) = B(v, v) is a quadratic form in V . Also, $B_f(u, v) = 2B(u, v)$ for all u, v $\in$ V.

Proof. :

1. $f(kv) = B(kv, kv) = k^2 B(v, v) = k^2 f(v)$

2.

$$\begin{aligned}
B_f(u, v) &= f(u + v) - f(u) - f(v) \\
&= B(u + v, u + v) - B(u, u) - B(v, v) \\
&= B(u, u + v) + B(v, u + v) - B(u, u) - B(v, v) \\
&= B(u, u,) + B(u, v) + B(v, u) + B(v, v) - B(u, u) - B(v, v) \\
&= 2B(u, v).
\end{aligned}$$

Since f was defined to be a symmetric bilinear form, we can see that B_f is a symmetric bilinear form.

Conclusion

In this project titled "A Brief Study On Bilinear Forms" an attempt is made to study some elementary concepts of Bilinear forms ,its different types along with some examples. In the first part of the project, focus is given to the introduction of the selected topic.Next we discussed the orthogonality of bilinear forms and some of its properties. The main discussion of bilinear forms in this project is made on finite dimensional vector spaces.Though , this is an introductory approach, but we could explore some of the beauty of bilinear forms to a great extent and how it stands as a generalization of inner products on vector spaces over the real or complex fields.

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QUEUING THEORY

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INTRODUCTION

Queues or Waiting lines are very common in everyday life. We quite often face the problem of long queues for a bus, a movie ticket and for various other situations. Long queues are generally seen in front of railway booking offices, post offices and bank counters particularly in large cities. Similarly, we also find automobiles waiting at service stations, ships waiting for berths, airplanes waiting for landing and patients waiting for doctors. Queues are thus a very common phenomenon of modern civilized life.

The study of the queues determines the measures of performance of queuing situations. The objective of queuing analysis to offer a reasonably satisfactory service to waiting customers. Unlike the other tools of Operations research, queuing theory is not an optimization technique, rather,it determines the measure of performance of waiting lines such as the average waiting time in queue and the productivity of the service facility which can then be used to design the service installation. This project introducing the notion of queuing theory and it's applications in daily life.

CONTENT

Queuing theory deals with analysis of queues and queuing behaviour. When customers wait for a service the time thus lost by them is expensive. The cost associated with waiting in queue are known as **waiting time costs**. Similarly if there are no customers,service station will be **idle**. Costs associated with service or the facilities are known as **service costs**. The objective of the queuing theory is to achieve an economic balance between these two types of costs. That is queuing theory helps in minimizing the total waiting and service costs.

The queuing models classified into two types depending on the number of severs.

Single server queuing model

In single server queuing model there is only one server. An example of single server queuing model is a queue in front of a ATM Machine.

Multiple server queuing model

In multiple server queuing model there are multiple servers. A good example of a multiple server queuing model is a railway reservation system where we could have several counters where people who come, join the line and whichever is free the person get service.

Depending on queue length

Infinite queue length model

The infinite queue length model assumes that there is no restriction on the length of the queue.If new customers arrival is independent of the number of customers already in the system.

Finite queue length model

In finite queue length model we restrict the queue length to a certain limit,after the threshold limit is reached,customer who come into the system do not join the system.

Depending on service requests generated by customers

Finite population model

A finite population queuing model consists of service requests generated by finite number of customers handled by either a single or multiple number of servers.

Infinite population model

A infinite population queuing model consists of service requests generated by infinite number of customers handled by either a single or multiple number of servers.

Behaviour of arrivals

Behaviour of arrival is based on the patience of the customer.

Patient Customer

If a customer, on arriving at the service system wait in the queue until served and does not switch between waiting lines.

Impatient Customer

The customer who wait for a certain time in the queue and leave the service system without getting service due to a certain reasons.

- **Balking**: The customer leave the system without joining is called balking This is due to either by seeming the number of customers already in the system or by estimating the excessive waiting time for the desired service.

- **Reneging**: A customer joins the system, but after sometime decides not to continue and simply moves out of the system is called reneging.

- **Jockeying**: Customers move from one queue to another hoping to receive service more quickly.

State of Queuing system

- **Transient state**: A Queuing system is said to be in transient state when its operating characteristics, arrivals, waiting time and service time of the customers are depend on time.

- **Steady state**: A Queuing system is said to be in a steady state when its oper- ating characteristics, arrivals, waiting time and service time of the customer are independent on time.

- **Explosive state**: If the arrival rate of the system is more than its servicing rate, the length of the queue will go on increasing with the time and will tend to infinity.

Exponential and Poisson Probability Distribution

Definition 2.2.1. *The exponential distribution with parameter λ is given by*

$$\lambda e^{-\lambda t}$$

for t > 0

. The exponential distribution that expresses the probability of the time between the events. This distribution lends itself well to modeling customer inter arrival times for a number of reason. The first is the fact that the exponential function is a strictly decreasing function of t. This means that after an arrival has occurred, the amount of waiting time until the next arrival is more likely to be small than large. Another important property of the exponential distribution is what is known as the **no-memory property**. The no-memory property suggests that the time until the next arrival will

never depend on how much time has already passed. This makes intuitive sense for a model where we're measuring customer arrivals because the customer's actions are clearly independent of one another.

It's also useful to note the exponential distribution's relation to the Poisson distribu- tion. The Poisson distribution is used to determine the probability of a certain number of arrivals occurring in a given time period.

Definition. *The Poisson distribution with parameter λ is given by*

$$\frac{(\lambda t)^n e^{-\lambda t}}{n!}$$

where n is the number of arrivals

. We find that if we set $n = 0$, the Poisson distribution gives us $e^{-\lambda t}$ which is equal to $P(T > 0)$ from the exponential distribution.

The relation here also makes sense. After all, we should be able to relate the proba- bility that zero arrivals will occur in a given period of time with the probability that an inter arrival time will be of a certain length. The inter arrival time here, of course, is the time between customer arrivals, and thus is a period of time with zero arrivals.

Kendall notation

A very convenient notation suggested by Kendall to denote queuing system has been universally occupied and used.It consist of a 5 part description A/B/C:D/E. The first and second letters A and B denotes the probability distribution of the arrival time and the probability distribution of the service time respectively. The third letter C denotes the number of servers, and the letters D and E denotes the maximum number of people allowed in the system and queue population respectively.

Little's Equation

In many queues, it is useful to determine various waiting times and queue sizes for particular components of the system in order to make judgments about how the system should be run. Let us define L to be the average number of customers in the queuing system at any given moment of time assuming that the steady-state has been reached. We can break that down into L_q,the average number of customers waiting in the queue, and L_s, the average number of customers in service. Since customers in the system can only either be in the queue or in service, it goes to show that $L = L_q + L_s$. Likewise, we can define W as the average time a customer spends in the queuing system.W_q is the average amount of time spent in the queue itself and W_s is the average amount of time spent in service. As was the similar case before $= W_q + W_s$.

Defining λ as the arrival rate in to the system per unit time, it can be shown that

$$L = \lambda W$$

$$L_q = \lambda W_q$$

$$L_s = \lambda W_s$$

This is known as the Little's Formula.

APPLICATIONS

Traffic system

The vehicular traffic flow and explore could be minimised using queuing theory in order to reduce the delay on the roads. A basic model of vehicular traffic based on queuing theory.

Banking

Most banks used standard queuing models. It is very useful to avoid standing in a queue for a long time or in a wrong line and to give tickets to all customers. Queuing is used to generate a sequence of customer's arrival time and to choose randomly between three different services open an account, transaction and balance with different period of time for each service.

Health care systems

Queuing system is very beneficial in the health care systems as well. Queuing system minimizes the time that the customers have to waste in waiting and utilizing their resources and servers. These servers include the nurses, hospital beds, doctors and other health care services.

Railway station

The population that the country has it doesn't match up with number of trains running various routes especially those connecting the metro cities. Indian railway is trying to meet the ever increasing demand of over billion people. The queuing system is used to avoid the inconvenience of passengers and it is feasible and the results are effective and practical.

Computer system

Jobs are executed in the order of arrival, if the computer is busy when a job arrives; the job is placed in a queue. In the terminology of queuing theory the computer is the server and the jobs are customers. The logical structure of the queuing model can be restored with a simple device.

Toll plaza

Toll plaza performance measures such as average queue length, average waiting time, maximum queue length and representations of projected traffic volumes Toll plaza designing factors such as lane selection options, electronic toll collections rates, and number of maximum waiting time at the tolls were compared between two different types of manual tolls were combined with traffic flow measure the specified toll performances. For generating traffic flow in a stimulation model, deterministic traffic counts for a time period can be used as an input parameter into the model rather than considering a probabilistic distribution.

CONCLUSION

The formation of queue is a common phenomenon which occurs whenever the current demand for a service. Queuing systems are useful throughout society. The capacity of these systems can have an important result on the quality of human life and productivity of the process. Queuing systems are successfully used for the performance analysis of different systems such as computer,communications,transportation networks,etc. In addition, different models of queuing theory, applications and example are given. This analysis provides some fundamental concepts of queuing theory and their applications.

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The Matrix Geometric Method for Structured Markov Chains

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Abstract: Markov Chain Methods are commonly encountered when modeling modern complex computers and communication systems. In this paper, I present the irreducible discrete type Markov Chain process, focusing on the matrix geometry method.

Let A_k, k≥0 be a sequence of K×K nonnegative matrices and let $A = \sum_{i=0}^{\infty} A_i$ be

Such that A is an irreducible stochastic matrix. The unique power-bounded solution of the nonlinear matrix equation $G = \sum_{k=0}^{\infty} A_k G^k$ has been shown to play a key role in the analysis of Markov chains of M/G/1 type. Here, with the help Quasi-Birth-Death process I am solving the M/G/1 type Markov chain method using Matrix Geometric method.

Keywords: M/G/1 type Markov chain, Quasi-Birth-Death process, Matric geometric method

Introduction:

The transition matrix of Markov chain have a special block structure

$$\begin{pmatrix} B_{00} & B_{01} & 0 & 0 & 0 & 0 \dots \\ B_{10} & A_1 & A_2 & 0 & 0 & 0 \dots \\ 0 & A_0 & A_1 & A_2 & 0 & 0 \dots \\ 0 & 0 & A_0 & A_1 & A_2 & 0 \dots \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \ddots \end{pmatrix}$$

The state space of such a chain consist of integer pairs (η, k), where η is called the level of the chain and takes an infinite set of values $\eta \geq 0$, where k is called the phase of the chain and takes on the finite set of values $1 \leq k \leq K$.

The block Matrices:

$$A_0 = \begin{pmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{pmatrix}, \qquad A_2 = \begin{pmatrix} \lambda_1 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & \lambda_2 \end{pmatrix}$$

$$A_1 = \begin{pmatrix} -(\gamma_1 + \lambda_1) & \gamma_1 & 0 \\ \gamma_2 & -(\mu + \gamma_1 + \gamma_2) & \gamma_1 \\ 0 & \gamma_2 & -(\gamma_2 + \lambda_2) \end{pmatrix}$$

And

$$B_{00} = \begin{pmatrix} -(\gamma_1 + \lambda_1) & \gamma_1 \\ \gamma_2 & -(\gamma_2 + \lambda_2) \end{pmatrix}$$

$$B_{01} = \begin{pmatrix} \lambda_1 & 0 & 0 \\ 0 & 0 & \lambda_2 \end{pmatrix}, \qquad B_{10} = \begin{pmatrix} 0 & 0 \\ \mu_2 & \mu_2 \\ 0 & 0 \end{pmatrix}$$

The Quasi-Birth-Death Case

When the blocks of QBD process are reduced to single elements:

$$\mathbf{Q}_{M/M/1} = \begin{bmatrix} -\lambda & \lambda & 0 & 0 & 0 & \cdots \\ \mu & -(\lambda + \mu) & \lambda & 0 & 0 & \cdots \\ 0 & \mu & -(\lambda + \mu) & \lambda & 0 & \cdots \\ 0 & 0 & \mu & -(\lambda + \mu) & \lambda & \cdots \\ \vdots & \vdots & \vdots & \vdots & \vdots & \ddots \end{bmatrix}.$$

From $\pi Q = 0$, we can write $-\lambda \pi_0 + \mu \pi_1 = 0$, $\pi_1 = (\lambda/\mu) \pi_0$

In general

$$\lambda \mu_{i-1} - (\lambda + \mu) \pi_i + \mu \pi_{i+1} = 0,$$

Which gives

$$\pi_{i+1} = (\lambda/\mu) \pi_i, \, i = 1, 2, \dots$$

We can prove this using mathematical induction

Hence

$$\pi_i = \left(\frac{\lambda}{\mu}\right)^i \pi_0 = \rho^i \pi_0 \quad \text{where } \rho = \lambda/\mu$$

Once π_0 is known, the remaining values, $\pi_i, i = 1, 2, 3, \dots$ may be determined recursively. A similar result exists when Q is a QBD process:

The parameter ρ becomes a square matrix R of order K

The components π_i become subvectors of length K.

QBD process $\pi Q = 0$ with

$$Q = \begin{pmatrix} B_{00} & B_{01} & 0 & 0 & 0 & 0 \dots \\ B_{10} & A_1 & A_2 & 0 & 0 & 0 \dots \\ 0 & A_0 & A_1 & A_2 & 0 & 0 \dots \\ 0 & 0 & A_0 & A_1 & A_2 & 0 \dots \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \ddots \end{pmatrix}$$

Let π be partitioned conformally with Q, i.e.

$$\pi = (\pi_0, \pi_1, \pi_2, \cdots)$$

where

$$\pi_i = (\pi(i,1), \pi(i,2), \cdots, \pi(i,K))$$

In analogy with the point situation, there exists a constant matrix R s.t.

$$\pi_{i=¿\ \pi_{i-1} R,\ i=2,3,\cdots\ ¿} \tag{1}$$

The subvectors π_i are geometrically related to each other since

$$\pi_i = \pi_1 R^{i-1} \tag{2}$$

We can find R from

$$A_2 + R A_1 + R^2 A_0 \tag{3}$$

Now

$$R = -A_2 A_1^{-1} - R^2 A_0 A_1^{-1} = -V - R^2 W$$

$$R_{(0)} = 0\ ;\ R_{(k+1)} = -V - R^2_{(k)} W\ ,\ k=1,2,\cdots \tag{4}$$

The eigenvalues of R lie inside the unit circle which mean that (I-R) is nonsingular and hence

$$\left(\sum_{i=1}^{\infty} R^i \right) = (I - R)^{-1} \tag{5}$$

Solution of M/G/1 using upper-Hessenberg Markov chains

Discrete-time Markov chains can be treated if the matrix inverse A_1^{-1} is replaced with the inverse $(I - A_1)^{-1}$.

Consider the discrete-time case.

$$p = \begin{pmatrix} B_{00} & B_{01} & B_{02} & B_{03} & \cdots & B_{0j} & \cdots \\ B_{10} & A_1 & A_2 & A_3 & \cdots & A_j & \cdots \\ 0 & A_0 & A_1 & A_2 & \cdots & A_{j-1} & \cdots \\ 0 & 0 & A_0 & A_1 & \cdots & A_{j-2} & \cdots \\ 0 & 0 & 0 & A_0 & \cdots & A_{j-3} & \cdots \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots & \ddots \end{pmatrix}$$

$A = \sum\limits_{i=0}^{\infty} A_i$ is a stochastic matrix assumed to be irreducible.

$$\pi_A A = \pi_A, \quad \text{And} \quad \pi_A e = 1$$

P is known to be positive-recurrent if

$$\pi_A \left(\sum_{i=1}^{\infty} i \, A_i e \right) \equiv \pi_A b \in 1 \qquad (6)$$

To compute π from $\pi P = \pi$. As before, we partition π conformally with P, i.e.

$$\pi = (\pi_0, \pi_1, \pi_2, \cdots)$$

where

$$\pi_i = (\pi(i, 1), \pi(i, 2), \cdots, \pi(i, K))$$

The analysis of M/G/1-type processes is more complicated than that of QBD processes because the subvectors π_i no longer have a matrix geometric relationship with one another.

The key to solving upper block-Hessenberg structured Markov chains is

the computation of a certain stochastic matrix G.

G_{ij} is the conditional probability that starting in state i of any level

$n \geq 2$, the process enters level $n - 1$ for the first time by arriving at

state j of that level.

This matrix satisfies the fixed point equation

$$G = \sum_{i=0}^{\infty} A_i G^i$$

and is indeed is the minimal non-negative solution of

$$X = \sum_{i=0}^{\infty} A_i X^i$$

It can be found by means of the iteration

$$G_{(0)} = 0; \; G_{(k+1)} = \sum_{i=0}^{\infty} A_i \, G_{(k)}^i = 0, \, k = 0, 1, 2, ..$$

Once the metrix G has been computed, then successive components of π can be found. From

$$\pi P = \pi (I - P) = 0$$

From this

$\pi = \Big(\pi \qquad\qquad\qquad\qquad {}^{i}$

$$\pi_i = \left(\pi_0 B_{0i}^* - \sum_{k=1}^{i-1} \pi_k A_{i-k+1}^* \right) A_1^{*-1}$$

1

Conclusion :

The matrix geometric method is more convenient to use rather than the classicalmethods for some queueing models such as M/G/1

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WASTE DISPOSAL AND MANAGEMENT IN MUNDUR

PANCHAYATH IN PALAKKAD DISTRICT

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ABSTRACT

A waste disposal and management system is the strategy an organization uses to dispose, reduce, reuse, and prevent waste. Possible waste disposal methods are recycling, composting, incineration, landfills, bioremediation, waste to energy, and waste minimization. Waste can be solid, liquid, or gases and each type have different methods of disposal and management. Waste management deals with all types of waste, including industrial, biological, household, municipal, organic, biomedical, radioactive wastes. In some cases, waste can pose a threat to human health.[2] Health issues are associated throughout the entire process of waste management. Health issues can also arise indirectly or directly. Directly, through the handling of solid waste, and indirectly through the consumption

of water, soil and food. Waste is produced by [3] human activity, for example, the extraction and processing of raw materials.[4] Waste management is intended to reduce adverse effects of waste on human health, the environment, planetary resources and aesthetics.

The aim of waste management is to reduce the dangerous effects of such waste on the environment and human health. A big part of waste management deals with municipal solid waste, which is created by industrial, commercial, and household activity.

Key Words

Solid Waste, Waste disposal, Waste Management

INTRODUCTION

India is developing country with 16 percent of the world Population and two percent of the totalland area. The exponential increase in industrialization is not only consuming large areas of a g r i c u l t u r a l l a n d b u t s i m u l t a n e o u s l y c a u s i n g s e r i o u s environmental degradation. Industrialization and urbanization have result on discharge of large wastes is rich in organic matter a s w e l l a s i n nu t r ie nt s . The r e ar e e no r mo u s qu a nt i t ie s o f industrial solid organic wastes available outside the farm from different sources and they are getting to be used judiciously in crop production. Ir. these wastes are properly disposed so that itdonot contribute to the problem of pollution (sundhari and Mathew 2010).

Waste is defined as discard material which has no value in normal use or for ordinary use. Solid wastes are those undesirable, useless and unwanted material and substances that comes from I it mum and animal activities.

Waste is generated in all sorts of ways its composition and volume largely depend on c o n s u mp t i o n p a t t e r n s a n d t h e industrial and economic structures in place. Air quality, water and soil contamination, space consumption and odors all affect our quality of Life.

CLASSIFICATION OF WASTE

In India, especially in rural areas waste is a severe threat to the public healt h c o n c e r n a n d c l e a n l i n e s s . T h e a b s e n c e o f d i s p o s a l o f so l id a nd l iq u id w a s te ar e le a d i n g t h r o u g h ve c t o r borne disease such as diarr hea, ma lar ia, po lio , dengue, cho lera, t ypho id and other water born infect io n such as schistoso miasis.

TYPES OF WASTE

W a s t e i s a n y m a t e r i a l / l i q u i d t h a t i s t h r o w n a w a y a s unwanted. As per physical properties waste can be categorized as solid waste and liquid waste.

SOLID WASTE

An y wa s t e o t her t ha n hu ma n e xcr e t a , ur ine a nd wa s t e wat er is called solid waste. Solid waste can be classified in to different type depending on there and source. That is

- Household waste
- Industrial waste

LIQUID WASTE

Used and unwanted water is called waste water. Black water.W a s t e w a t e r g e n e r a t e i n t h e t o i l e t i s c a l l e d b l a c k w a t e r . I t contains har mful pathogens.

BIO WASTE

Bio wast e is defined in t he wast e fr ame wor k dir ect ive as "biodegradable garden and park waste, food and kitchen waste fro m househo lds, restaurant s, cater er s and r etail pr emises and comparable waste from food processing plants.

AIMS AND OBJECTIVES

- To study quantity of the waste disposal in MundurGramapanchayath.
- To study about the problems faced by the locals
- To suggest suitable disposal management .

METHODOLOGY

The present work consist of three major parts

Literature survey: Available literature on the topic of research has been scanned fro m var ious librar ies and internet

Data collection: For the present study data have been obtain from both the pr imar y and seco ndar y sour ces.

SECONDARY SOURCE:

S e c o n d a r y c o l l e c t i o n s a r e w h e r e t h e w a s t e f r o m a number of primar y collections is t aken from t he t ransfer station to t he final disposal sit e.

D a t a c o l l e c t io n i s ba s e d o n t h e s e c o n d a r y d a t a . T he seco ndar y dat a ' s ar e co l lect ed fr o m we bs it e s , r eport s . Projects and art ic les etc. I n t e r n e t a n d w e b s i t e a r e a l s o p r o v i d i n g v a l u a b l e infor mat ion concer n with populat ion.

Laboratory work:

T he o bt a in dat a ha ve been pro cessed in la bo r ator y adopt ing different met hod and t echniques.

ANALYSIS

The waste disposal evaluation on Mundur Panchayath is summarised in this article. How thus the effect? What are the different methods follow waste disposal? Predictions on future growth? How health impact of improper waste disposal? Reasons for growing waste? What is the major source of waste? What are the causes of waste disposal? These are some of the questions we address in this article through.

NEGATIVE IMPACT OF WASTE

Disposing of waste has huge environment impacts and can cause serious problems. Some waste will eventually rot, but not all and in the process it may smell or generate methane gas which is explosive and contribute to the greenhouse effect. Leachate produced as waste decomposes may causes pollution.

WASTE DISPOSAL SOLUTION

Eco-responsibility pertains to the three RS Mantra of Reuse, Reduce and Recycle. Local communities, authorities, and state need to put more efforts towards the education of waste management. Avoidance and waste reduction involves techniques such as repair of broken things instead of buying new, purchasing and reusing second hand it ems and designing reasonable and recyclable products. Get to know the rules of recycling and ditch the plastic bags make a new plan start composting.

CONCLUSION

The effect that waste has on our natural environment and ult imately on the quality of our life has been made public in) r ld wide debates. The problems related to waste have many dimensions. In economically challenged communities, the scope magnitude of the problem may ofte n exceed the capacity t hat vocal authorities have to effectively resolve issues of waste collection and disposal, in addition to other difficult city -:: managerial tasks. In the 1950's the influence of human activitie s on the natural environment became more evident to scholars. Ecology theory embodies the idea that human influence on⁻±, e natural environment has evolved into an integrated field in which scientists look at solving problems in regard to nature in Lilies by using different tools. Bearing in mind the complexity o f nature and cit ies. The ecological conditions of urban areas are -⁻lewed as the necessary measures for environmental protection and recovery. Land, water, vegetation and other living organisms fill cities and interact with people. In consequence their protection and care reflect upon the quality of human life. There are severa factors related to improving ecological conditions in cities. Environmental benefits are noticeable through the reduction of pollutants, since consequences of air

contamination are both local and global. Another parameter is to preserve the natural condition Ofland and it s ability to sustain life. Also accessibility to clean water supports not only the existence of all living organisms but also contributes heavily to production processes, irrigation and transportation purposes. 120 To effectively protect nature in cities it is also necessary to consider factors beyond air, land and water.

For instance, energy issues, characteristics of infrastructure, social and cultural patterns, as well as waste management are features that affect the balance of cities. The results obtained from the analysis of the municipality of Jiutepec in Mexico show a growing and dynamic entity with issues of development, public service shortage and environmental hazards in particular in water and soil contamination. Although a specific environmental database is lacking, the deterioration of nature is visible in some areas and general concerns among locals are rising.

The characteristics of waste management in the municipality reflect the limited resources that local governments have to handle waste issues in contrast with the creativity shown by residents t o me e t their needs. This is particularly evident in the structure of pr ivat e organizations and informal waste separation and processing activities. The idea that waste management can be integrated as an element that promotes the welfare of life and improves the ecological conditions of urban settlements lies firstly in recognizing the endemic nature of the waste to be handled. Secondly, ensuring effective waste collection coverage leads to the reduction of a ir , noise and soil pollution. Thirdly, social approaches such as knowledge transfer have shown to be effective in encouraging sustainable household habits, which help improve recycling and the reduction of gas emission in landfills and waste dump sites. Lastly. creating enduring partnerships of collaboration between parties contributes to continuity in waste management practices and avoids palliative improvements. This leads to sustainability in the system humankind has established for living and the preservation of the environment in which it exist addressing our waste problems. Modern methods of waste management are far suffer for people and gentler on the environment. Recycling and composting are growing rapidly.

SUGGESTION

- Construct biogas plants in cluster settlement basis.
- Establish plastic reuse plants.
- To aware people about waste disposal.
- The best solution to our waste problem is to reduce generation Government notifies new solid waste management rules.
- Recycling the bin.

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HUMAN- ELEPHANT CONFLICT: AN ANALYSIS OF PUDUSSERY GRAMA PANCHAYAT, KERALA

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ABSTRACT:

Humans and wildlife are part of the environment. They have their separate arena of life and different methods of living. But sometimes, there happens a conflict between the two. This is commonly termed as Human- Wildlife conflict. It can be described as the negative interaction of wildlife and humans resulting in damage of crops injure people, injure domestic animals, killing of people and domestic animals etc.

INTRODUCTION:

During the recent times, the most common form of human- wildlife conflict is the human – elephant conflict, especially in elephant range countries. The expansion of the human settlements has disturbed the elephant habitat. The loss of habitat is the main reason for the human- elephant conflict. When their habitat shrinks they are forced to be in contact with humans resulting in the damage of crops. This can be seen as the severe conflict over space and resources. Currently, the human-elephant conflict has become a threat to biodiversity conservation.

The Elephantide family once ranged across the American, European, Asian and African continents, but now only occurs in parts of Asia and sub-Saharan Africa. The IUCN lists shows the Asian elephants as endangered and the African savanna and forest elephants as vulnerable. The world elephant day is celebrated on 12th August every year.

According to IUCN reports, today, in most of the African nations the real and perceived costs of human- elephant conflict greatly outweigh the potential benefits. In order to meet the challenge, in 1997 the African Elephant Specialist Group (AfESG) officially inaugurated a five-member Human- Elephant Conflict Task Force.

In 2021, the Union Minister for Environment, Forest and Climate, India, told the RajyaSabha that 1401 human and 301 elephant death happened India as a result of Human Elephant Conflict in the past 3 years from 2018-2020. The statistics further shows that about 115 elephants and 457 people died in 2018-2019, in 2019-2020 it was 99 elephants and 585 people. And the most recent one of 2020-2021 (upto December 2020) the statistics is 87 elephants and 359 people died due to Human-Elephant Conflict.

There are a total of 88 elephant corridors in India. Out of which 20 are in South India, 12 in North west India,14 North West Bengal, 22 North East India, 20 Central India. Also there are 10

MIKE sites in India. Recently, the death of an elephant in Kerala, after eating a cracker loaded fruit, brought the issue of Human- Elephant Conflict into the spotlight. The statistics from the Kerala Forest department shows that from 2010-2020, nearly 173 people died of Human Elephant Conflict. The highest was in the year 2016 (33), and the lowest was in the year 2015 (6). Simultaneously, nearly 64 elephants died after being hunted, electrocuted, hit by speeding vehicles and from explosions. The most conflict prone areas in Kerala are the districts of Kannur, Wayanad, Calicut, Malappuram, Palakkad and Thrissur. The Forest department statistics tells us that, in these areas nearly 120 people were killed by elephant attacks from 2002-2012.

FINDINGS

After analyzing and interpreting the data collected, we can find that there are mainly three spheres for the Human-Elephant Conflict in the study area which we have to give special attention. They are:

1. Habitat loss

2. Habitat fragmentation

3. For food and water

Habitat loss :Habitat is the type of natural environment in which a particular organism lives. It is characterized by both physical and biological features. A species' habitat is those places where it can find food, shelter, protection and mates for reproduction. Because of the increase in population, we need more space to live. So we encroach the forest land for agriculture, housing, etc. Intensive harvesting of timber, firewood and other minor forest products also leads to their habitat loss. We are blocking the desire lines (path way) of the elephants by constructing railway tracks through forests, roads etc. Accessing of their habitat make them feel about us as a hindrance and they become aggressive.

Habitat Fragmentation :Habitat fragmentation is the process by which habitat loss results in the division of large continuous habitats into smaller, more isolated remnants. Elephants live in matriarchal societies where females form cohesive groups with strong social bonds and males are solitary but interact with other males and females within their home range. Clans have well defined home range and show strong fidelity to these ranges. All clan members show coordinated movement within the clan's home ranges. As a result of this fragmentation, they lost their connectivity and often get denied from access to critical resources like food, water etc. So, they are entering into human settlements for their requirements.

For Food and Water: Elephant is a herbivore who spends 16-18 hours in a day for consuming food. In the wild they forage for food, constantly searching for root, small trees, bamboos,

grasses and any other edible plants. A mature elephant eats upto 140-170 kg of food daily. Activities like deforestation, human-made forest fire, unlimited timber harvesting, Encroachment of forest lands etc results in the shortage of supply of food and water. Due to this scarcity of food and water they descent from the forest in search of it.

SUGGESTIONS

• Barriers are used for preventing elephant exit outside reserve forest areas or entry into cultivated fields or human inhabited areas. Barriers may be used to guide elephants through funneling to over bridges or under passes set up for them to negotiate railway lines, highways or canals safely. Barriers can be solar powered fences, rubble walls, other types of fences made from railway tracks, steel channels and bars etc.

• Bee Sound Elephants are known to be afraid of bees. Bee sound played has been used as a repellent method in Africa and found to be very effective, especially if it is backed by beehive fences.

• Carnivore sound Playback calls of predators such the tiger or even smaller carnivores such as leopards may evoke negative responses in elephants and keep them from entering agricultural areas.

• Drones have been recently used in Africa to drive away elephants over long distances, and found to be very effective. Elephants are scared of drones and quickly run away from the site when buzzed by a drone. Drones use the same principal as the bee fences where the sound of the drone is perceived as swarm of bees and elephants beat a hasty retreat. It is a good option to implement if the resources for drones are available. However drones are difficult to fly at night due to limited visibility. Permission from various authorities is also required to use drones, particularly near international borders. Also, drones may be less useful in heavily populated areas because of the risk of trampling of crops and people by elephants.

• Trip Alarm consists of a string stretched across entry points of elephants and connected to a switch of a battery-operated electric bell. The alarm bell rings when elephants across the trip. This gives sufficient warning to the community to come to the point and drive away elephants. Trip alarms are very effective in situations when entry points of elephants are known.

• Sensor based alarm system could be tried to detect animals in or near village/agriculture land or eve to detect elephant near railway tracks. These are solar powered infra rayed system and could be even fitted with camera and can alert villagers/ driving squad when elephants are detected close to human settlement or agriculture land through SMS/lights/sound etc. The PRT and RRT could then come in action to drive the elephant. This will help from physically guarding the agriculture field by villagers

CONCLUSION

Results obtained in the present investigation clearly demonstrate that as of now only two methods can be actively and effectively used to control human-elephant conflict. Those are Co-habitation and solar fencing. Cohabitation is the state or fact of living or existing at the same time or in to affect local people awake and taking classes on how to behave during elephant encounters. In places where co-habitation is not found possible solar fencing can be adopted to protect their crops and areas from elephants. This study arise scope for further investigation, like hanging fence method, beehive fences so on.

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MCDM-BASED SPATIO-TEMPORAL ANALYSIS OF LAND DESERTIFICATION USING EARTH OBSERVATION DATA IN PALAKKAD PLAIN REGION, KERALA, INDIA.

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ABSTRACT

This study aims to evaluate a Spatio-temporal analysis of the current sensitivity of land towards desertification in the Palakkad plains region where the phenomenon has been observed with increasing intensity over the past two decades. The study area is divided into three, the Funnel, Middle, and Lower regions for analysing the dispersion of desertification. The study attempts to investigate the factors influencing desertification progress using earth observation data and identify the area under the evolution of desertification using the Analytical Hierarchical Process (AHP). Environmental factors affecting desertification progress were checked and then used to determine the most important aspects using correlation and linear regression analysis in order of priority as, vegetation indices (NDVI, EVI), moisture indices (NDMI, MSI), temperature (LST), Land Use Land Cover change, actual Evapotranspiration and Wind speed.

The resulting Desertification vulnerability status is obtained for the study area, funnel, middle and lower regions, and the change in the area between two decades (2001 to 2021) is calculated. The change suggested that the land is evolving towards desertification as very low desertification areas in the study area were the funnel region, middle region and lower regions also depict similar changes in evolution as the vegetation and moisture indices show a decline in mean and standard deviation and the LULC change indicates barren land has increased from 395.4 km² (10.3%) in 2001 to 615.3 km² (16%) in 2021. The results indicated that the low desertification area was observed to be 88.0 km² (2.3%) in 2001, but in 2021 the class was reduced to 0 km². The moderate and high classes increased from 1356.5 km² (35.5%) to 1543.2 km² (40.4%) and 1025.2 km² (26.8%) to 1554.7 km² (40.7%) respectively even though the high desertification areas have reduced from 51.1 km² (1.3%) to 32.0 km² (0.8%).

Keywords: Desertification, Earth observation data, MCDM, Correlation, Temporal change.

INTRODUCTION

The word desertification calls as though dunes are blown onto the fertile ground by an unknown force to create a desert, even though it implicates the irreversible state of a piece of land by losing its fertility and productivity to sustain vegetation and moisture due to some changes caused by the environment and anthropogenic activities. As defined by the United Nations Convention against Desertification (UNCCD, 2014), Desertification is the degradation of land in arid, semi-arid, and sub-humid areas due to various factors of land degradation, including climate change and human activities. The target three of Sustainable Development Goal 15 By 2030 states, to combat desertification, by restoring degraded land and soil, including land affected by desertification, drought, and floods, and strive to achieve a land degradation-neutral world before 2030.

Remote Sensing and Geographic Information Systems techniques help us to monitor temporal changes of our surface, by using these techniques we can easily find out the partial change in productive land as well as unproductive land. (Elhag et al., 2014), attempted to investigate the potential use of remote sensing and geographical information system (GIS) in the assessment and evaluation of land degradation and desertification in the Wadi Al Kanger area, Khartoum State, Sudan by monitoring and mapping the land use and land cover (LU/LC) about drought, sand encroachment, and land degradation processes. (Singh et al.,) used remote sensing and GIS to map as well as monitor land cover and land-use changes in the Northwestern coastal zone of Egypt. (Munkhnasan et al., 2017) performed a correlation technique to assess the relationship between Desertification and Environmental Variables Using Remote Sensing Techniques in Hongo Khaan, Mongolia (Hostert et al., 2001) explored the probability of GIS and remote sensing for desertification monitoring and assessment.

In the present study Normalized Difference Vegetation Index, Enhanced Vegetation Index, Normalized Difference Moisture Index, Moisture Stress Index and Land Surface Temperature, Actual Evapotranspiration, and Land Use Land Cover are used for identifying desertification status of the study area using Analytical Hierarchical Process (AHP).

SIGNIFICANCE OF THE STUDY

After observing and studying the earth's surface, it has been well established that the earth's surface is changing rapidly and behind this change there are many forces such as climate change, industrialization, human population, trends in food demand, land degradation and environmental problems. Desertification is not only relevant on a global scale, but it is

also relevant at the national and local levels, thus the study area remains open for macro and micro-level impact assessment.

The intention of the study is to identify desertification and its temporal change from 2001 to 2021 and analyse the spreading of desertified regions from the funnel region towards the middle and lower regions of the study area. The current situation in the study area is critical for humans, if no proper action is taken for sustainable development, the future generations will certainly face problems such as drought, food and drinking water scarcity, polluted environment, unsanitary and poor soil productivity, etc. As temperature rises and low rainfall results in low vegetative cover leading to gradual desertification of the region. This thesis will contribute to the monitoring and conservation of desertification by remote sensing and GIS techniques for the Palakkad district in Kerala.

This study will be relevant and useful to surveyors, government agencies, planners, regulators, industry researchers, and innovators to make action plans and resource planning according to the requirement of different desertification affected areas.

OBJECTIVES OF THE STUDY

- To study the spatial matrix variation of land use land cover from 2001 to 2021

- To analyse the variations and statistical relationships of Remote Sensing indices such as Vegetation, Soil moisture, and temperature indices using Remote Sensing techniques and Wind speed over two decades.

- To prepare the desertification vulnerability map using AHP

- To assess the bi-temporal change in desertification vulnerability of Palakkad Plain from 2001 to 2021.

METHODOLOGY

Software Used

ArcGIS 10.5 was used for all the analysis in the study. The Importance of ArcGIS. ArcGIS has a longstanding experience and a solid reputation. In this way, it has become the standard software for various organizations dealing with geographic information systems. It is used for the production and utilization of Maps, geographic information organization, planned data analysis, sharing, searching, use, and supervision of geographic data, maps, and geographic data within the range of use Geographical data in the dataset.

Datasets

In the present study, the Landsat - 7 ETM images on 02 March 2001, and the Landsat 8 OLI images on 03 March 2021 Landsat – 8 satellite images were used, because this satellite provides OLI images with 11 spectral bands. They were selected purposively for identifying the desertification area because the image contains the eleven spectral bands with different ranges out of that six bands namely, green band, red band, NIR band, SWIR band, TIR- 1 band, and TIR-2 bands were used. Radiometric calibration, geometric correction, and cloud removal are carried out using ArcGIS QGIS and ERDAS Imagine software.

Correlation Analysis

The correlation coefficient is also known as the sample correlation coefficient R product moment correlation coefficient or correlation coefficient. It measures the linear correlation between two random variables. For example, when the value of a predictor variable is manipulated (increased or decreased) by a certain amount, the result variable changes proportionally (Lamchin et al., 2017). Linear regression analysis is also used to determine the strength of the association between various environmental factors. This was done to calculate statistical measurement data between the independent and dependent variables. 160 random sampling points were created in the survey area using ArcGIS. The reported statistical measures include the coefficient of determination R and the linear regression R^2.

Analytic Hierarchy Process (AHP)

Analytic Hierarchy Process (AHP) is one of the Multi-Criteria decision making methods that were originally developed by Prof. Thomas L. Saaty. In other words, it is a method of deriving the ratio scale from paired comparison. You can get input from actual measurements such as price and weight, or from subjective opinions such as satisfaction and preference. AHP allows some minor inconsistencies in judgment, as humans are not always consistent AHP consists of five stages; to solve a resolution problem, break it down into parts, and instrument each part in a hierarchical manner. Then, assign mathematical qualities to each part. In order to determine the general significance of each factor, the abstract pertinence of each was determined. And finally, a correlation lattice was then created, and the standardized main eigenvector was calculated, which gives the weight of each factor.

CONCLUSION

In this study, multiple remote sensing datasets were used to analyse the trends in desertification vulnerability over two decades, from 2001 to 2021. It is clearly evident from the study that the study area reveals an evolving trend towards desertification. The evaluation of three classified regions indicates that funnel region is the mostly affected region followed by middle and lower regions which almost have the comparable trend but in less extent, which will become severe if required measures are taken. Observing the dynamics of desertification and their link to climate change and Human activity in the region is critical to successful environmental recovery. Based on Landsat imagery, this monitoring study discovered that vegetation (NDVI) and moisture (NDMI) have decreased and barren lands have increased significantly. This is proof that the change in NDVI values has led to dry conditions in the funnel region regardless of the amount of rainfall that is received. Desertification between 2001 and 2021, as well as the proportional share of the five classes of desertification, has evolved significantly. The low desertification areas of 2001 have changed from 34.1% to 18.1%, which is an extremely significant change. It is disturbing to find the evergreen forest in Kerala, which is located in our study area, particularly the Silent Valley National Park, is showing a negative trend in the NDMI values, the same condition prevails over the central part of the Funnel region as seen in the NDVI values.

The findings also demonstrate that desertification and environmental degradation are linked. In the study area, parameters show heterogeneity and non-stationary relationships. It is admirable that the intensity of temperature and the thermal reflectance is reduced during recent years by proper irrigation provided for paddy cultivation, which is done during the end of February and the beginning of March according to the local farmers. The link between elevation, climate, and human activity gives both positive and negative relationships between desertification and environmental elements. Lower altitude locations have high and severe desertification, as well as lower NDVI and NDMI values due to increased human interference, whereas higher altitude also shows a decrease in NDVI and NDMI. The dissemination of desertification is vastly directed in and from the funnel region toward the middle and lower regions. The AHP used in this study proved to be important in terms of assigning weights over the parameters which makes the analysis better using GIS. The results show the severity of desertification over the years and the spatial distribution of their sensitivity. The change detection map could be a reference for panchayat level planners, and administrators to set the spatial priority of all the mitigation plans to required areas. Based on

the results, combating efforts such as an early warning system could be carried out by the spatial priorities. However, to achieve such a result, there has to be abundant and adequate data to enable confident predictions and changing patterns.

SUGGESTION

The present condition of the study area should be improved to reduce the probability of evolving conditions that trigger desertification. The micro-level assessment of the regions most affected by desertification has to be concentrated to identify precise locations for planning, implementing mitigation measures, and supply of resources. Methods for improving vegetative cover and improving moisture of the regions have to be applied to the severely affected gram panchayats.

Panchayat level action plans must include the specified areas and should be able to implement the measures like planting and maintaining green patches of trees, contour farming and contour bunds, contour vegetative barriers, shelterbelts, contour trenches, gully control measures, check-dams, strip cropping, agroforestry, rainwater harvesting, construction of Artificial Recharge Structure and groundwater resource enhancement, etc.

Before starting the actual planning and management, it is essential to fix targets to be achieved through consultations with experts, policymakers, and representatives of the farming community. These initial consultations are of utmost importance especially those with representatives of the farming community who should be partners in the decision-making process. Hence, the understanding of the agro-ecosystem, social organization, and total participation of the local people is very important for the comprehensive area development plan.

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GENDER , CASTE AND TRAUMA:
IN SELECTED WORKS OF OMPRAKASH VALMIKI AND BAMA

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ABSTRACT : The Untouchable, also called Dalit officially Scheduled Caste, formerly Harijan, in traditional Indian society, the former name of the members who belonged to low caste Hindu groups. Untouchability is believed to have first mentioned in the Dharmashastra. Dalit Literature was initially a form of protest and resistance against the everyday humiliations that Dalits as individuals and community had to face and to an extent, that still holds true. In this particular article , , the autobiographies of two eminent Dalit writers Omprakash Valmiki's *Joothan: A Dalit's life* translated from Hindi to English (2003) and Bama's *Karukku* Tamil to English (2012) is taken to analyse and evaluate how gender plays a role in reflecting the trauma of Dalits along with the caste based oppression.

KEYWORDS : Gender, caste, Dalit autobiographies, theory of trauma.

The emergence of Dalit autobiographies open up a new dimension to the study of the whole of autobiographies in English literature. These works portrays their traumatic experiences in general and these depicts the true life incidents of the writer .Dalit literature as a genre has emerged as a result of Dalit movements and Dalit autobiography became popular in Maharashtra and subsequently in other provinces as one of the significant genres in Dalit writings .The poems, novels a and prose writings are largely confessional in nature .The confessions are mostly made to invoke the painful experiences that the authors have gone

through in a caste oriented society .In their writings one can find their own language and use of grammar .

Dalit writers mostly prefer to write out the authenticity of experience instead of imaginative fictional narratives .Dalit's are marginalized entities and were denied education for quite long time by the society infested with casteism and social hierarchy .Instead of celebrating the self ,the writers narrate a life of pain and suffering of their collective lot . The empowerment of education and the exposure to Ambedkarite ideology gave them the spirit of writing .Dalit writings plays an important role in documenting the injustices they face and the authenticity is marked here .Dalit autobiography marked a radical break with traditions and conventions in literature .Authenticity of expression and experience are the striking elements of this genre

.The Dalit writers approach to the oppressor's tradition characterised by a tendency for radical appropriation. Another striking aspect is the ability of the authors to arouse feelings in the minds of the readers .They have been accepted by a wide reading society. These autobiographies turned out to be empathic outbursts of their smoldering anger taking on the hegemonic paradigms on the brahminical values glorified in mainstream literature .

The Dalit writings were in a way revolt against everything that destroyed their culture and identity. Through writing they could reconstruct the Dalit cultural historiography in the postcolonial context of Indian literature .In these ways these writings enhanced in the location of self where the identity of an individual is determined on the basis of their skills . Therefore, to the Dalit writer's autobiography, in realistic sense is not mere facts and events related to achievements but trauma and failure of their personal life .The essence of experience, shared in the self-narratives are considered to be a trauma literature where they share the oppressions and violations from the upper caste society around them.

The evolution of trauma theory in literary criticism can be best understood in terms of changing psychological definitions of trauma as well as the semiotic, rhetorical and social concerns that are part of trauma in society .The trauma theory is concerned with the traumatic experiences of authors in their self-narratives .Pain, the threshold condition of human and bodily existence is the primary mode of conveying trauma .Trauma is both memorable and describable .In the case of Dalit trauma, since all Dalit authors writes about their experiences in collective is expressed in a cathartic manner .

Untouchables were not only socially ostracized, they were physically and mentally tortured, relegated to live on the outskirts of villages and had to do free labor for the upper caste families and this is a major contributing factor to their trauma. Dalit trauma is truly unique, because it is not caused by environmental factors like famines and droughts, or the trauma inflicted by one person on another; it is trauma that is engendered by the social institution of the caste system, and was religiously sanctioned for centuries .Dalit trauma is intergenerational, which is just one of the several reasons Dalits identify and sympathize with African American victims of slavery and racism. The trauma can be either collective or individual. Cultural, collective trauma occurs when members of a group feel that they have been subjected to terrible treatment overtime which leaves a permanent mark upon their group consciousness and irrevocably affects the future constructions of their identities .All together takes the form a fearful condition for the Dalit's to live in their birth land .With the emergence of Dalit writings the traumatic experiences finds light in the society. To identify and evaluate this traumatic theory, the autobiographies of two eminent Dalit writers Omprakash Valmiki's *Joothan: A Dalit's life* translated from Hindi to English (2003) and Bama's *Karukku* Tamil to English (2012) have been taken.

As autobiographies are actually like reliving their suffering, the study of this genre will be more effective than others. The features of trauma theory which have been identified and

outlined in this introduction are applied to Dalit autobiographies .Dalits have faced collective trauma as a community that has faced severe prejudices and institutionalized discrimination for centuries .The experience of a Dalit from Tamil Nadu and a Dalit from Maharashtra will be different and even that of a Dalit woman and Dalit man will be different. The process of trauma growing from independent to collective also includes a lot of activism and in the case of Dalit trauma, this has been achieved in the form of speeches, protests, meetings, laws, storytelling and writing. Dalit trauma is also especially relevant because it is current and discrimination based on caste is still prevalent in India.

Gender and Caste as reflective of trauma

The traumatic experiences in the self-narratives of Omprakash Valmiki and Bama are the clear interpretation of the lives of Dalit, still prevalent in India. Dalits endure to face physical violence, including mass killings and rapes by vigilante groups owned and operated by high caste landowners, when they ask for fare, wages and freedom from molestation.

Dalits struggle against these prejudices through political as well as cultural means. The cultural and collective trauma is articulated through every words and it cannot be represented in mellifluous poetic stanzas. Valmiki in his book *joothan* presents the traumatic flashes of encounter with his persecutors as events narrated in present sense, capturing the intensity of the memory and portentous that the subject has not yet healed from the past traumas. While Dalit life writing explicitly references of atrocity in India, it also develops a notion of the human subject that can be serviceable within multiple contexts of suffering. It is an atrocity memoir that calls responsiveness to oppressive conditions within a community. It folds the atrocity narrative into authentications and evidentiary statements that are explicitly political.

To the Dalit writers, autobiography, in realistic sense is not about the facts and events correlated to the achievements and failures of their personal life. It is about a political act by

their choice to interpret them from Dalit point of view, and make sense of these events to assert Dalit identity. In the self-narratives they share various themes of oppression like, segregation, untouchability, exploitation, patriarchy that they experience in their own structure of language.

In the book *Joothan: A Dalit's life*, Arun Prabha Mukherjee gives a traumatic explanation to the title 'Joothan'. "When I think about all those things today, thorns begin to prick my heart. What sort of life was that? After working hard day and night, the price of our sweat was just joothan" (Valmiki 12) clearly illustrates the spiteful and ostracized condition of the lives in the basti. The situation is where Valmiki shares one of his traumatic childhood experiences, where it was common among Dalit people to bring the joothan's or leftover food from weddings occurred in the nearby upper caste houses. The title suggest the practice of collecting leftover and unwanted food from the upper caste Hindus because the term joothan means polluted or contaminated, revealing the extent of trauma that even one word can comprise. Valmiki mentions how much it troubles to look back at the humiliating treatment and is clearly visible through the lines, 'thorns begin to prick my heart'. When looking close to the autobiography *Karukku*, is a pun. The word Karukku in Tamil refers to the Palmyra plant which have serrated edges and are like double edged swords. The word contains within it the word 'karu' which literally translates to seed, but also means growth and freshness; implies that the Dalits will continue to live and flourish amidst of all the hardships and challenges by the upper caste people. Therefore both of the autobiographies start fighting against the trauma around them through the 'titles'.

In *Joothan*, the living conditions, "The stench was so over powering that one would choke within a minute. The pigs wandering in narrow lanes, naked children, dogs, daily fights, this was the environment of my childhood" (32), clearly emphasizes the material condition of Dalit life, describing the village communities' habits of personal hygiene. In Dalit life writing the body is the center of the various kinds of unpleasant discrimination.

Valmiki recounts

experiences at the school where he is insulted and then physically abused by his headmaster. "The headmaster had pounced on my neck. The pressure of his fingers was increasing. As a wolf grabs a lamb by the neck, he dragged me out of the class and threw me on the ground. He screamed: 'Go sweep the whole playground" (16). The headmaster, Kaliram insisted him to do his family occupation and did not allow him enter the class unless doing it. The trauma faced is clearly detectible in these statements where he says that those words penetrate into his breast like knife. It was common in basti to gather the unwanted foods of upper caste families.an instance is shared where Valmiki's mother faced a bad condition from the upper caste landowner where he pointed at the basket full of dirty pattals and said "you are taking a basket full of joothan. And on top of that you want food for your children. Don't forget your place, Chuhri" (27). In here the women in the Dalit society face difficulties and subjugation from the landowners. The embarrassment they tend face at those times but the women folk were strong, where Valmiki's mother took the basket back to the landowner and moved towards him in rage, "Sukhdev Singh had pounced on her to hit her, but my mother had confronted him like a lioness. Without being afraid" (38). These lines clearly brings onward the birth of rebellion in every Dalit. On another day before annual examination he had to clear doubts in his mathematics subject, but the teacher avoided him and did not even consider him as a student. But on one day Valmiki was asked by the teacher to his home, but was bleakly treated by him. The teacher asked him to do household chores but as he expected, he was not taught by the so called 'teacher'. "My heart was full of bitterness. He had sneaked away, sending me to get the wheat ground" (45). Another instance can be brought to identify the traumatic struggles, when he was appearing for the board exams and he was the first student from nearby villages of his caste to appear for the high school exams. Meanwhile, Fauza, one among the Tyagi forced him to do job the day before exam. "He held me by the elbow and dragged me to his field. He threatened me to do the work or else" (11). Shows the physical and mental trauma one had to

face from the upper caste fellows. He felt as 'a thousand stings on my body' and a 'revolt had taken birth' are the watchwords which have prime importance. The pain, stress, suffocation, injury and torture faced by a child can disturb the personality and inner self, leading to several mental and traumatic stress. It would be an emotional injury leading to a psychological injury. These can be considered as the personal trauma's faced by Valmiki as a student, a Dalit or a low caste. The narrative focus on individual trauma which begins with pain on the body physically, on the senses and on emotions through insults or humiliations. The book shares instances where a group of people are traumatized and this condition is said to be collective trauma. In joothan, when a group of men refused to work wage less they were severely beaten by police, who were bribed by the upper caste men. Valmiki witnesses the village elder's being tormented and he has being a witness to the atrocities of the people in basti. "I have not been able to forget these bitter memories. They flash like lighting now and then" (15), where he is unable to control his wrath towards the ones who hurt him.

In *Karukku*, Bama describes an incident at school that pained her. When she was in seven, along with her friends played running right up the coconut tree which was slanted. By her touch a coconut fell down and being scared everyone scattered away. The next day the Headmaster reprimanded her "You have shown us your true nature as a Paraya" (Bama 12), she was pained, unable to prove her innocence. She was in distress as she had been shamed and insulted in front of all the children. After some days she was admitted to the school, because of the note from the priest. But she was abused by bad words from the headmaster and the entire classroom looked at her mischievously; she could not control her tears and wept. The pain she felt was not trifling one. This continues even in college, "All the same now and then, our class teacher, or the PT teacher would ask all the Harijan children to stand up, either at the assembly, or during lessons. We'd stand up. They'd write down our names, and then ask us to sit down" (26). They felt really bad where they would stand in front of two thousand students,

feeling ashamed and hanging their heads. In all here it is evident that along with gender, caste also plays a vital role in adding childhood trauma. Bama while recording her suffering simultaneously also records the sufferings of the older men and women of her community. In her first account with untouchability' she notes with indignation at the way the village elder of her community has to appear meek to the upper castes: "Why we should have to fetch and carry these people, I wondered. Such an important elder of ours goes off meekly to the shops to fetch snacks and hands them over reverently, bowing and shrinking, to this fellow who just sits there and stuffs them into his mouth" (32). Similarly she describes at length the complicit nature of police atrocity where the men of the community are forced into hiding while the women maintained the family. The police officers verbally and mentally abused the women. Even here the elder folks of the community is not spared. Bama becomes a direct witness to the police violence. The trauma thus described is a trans-generational one both is physical and emotional terms. Bama also takes into account the specific sufferings of the Dalit women. She is able to tease out the cultural conditions that divest Dalit women of a life of dignity or happiness namely the double patriarchies and the various masculinities at labor. A case can be taken as an instance where, the men were hiding in the forest as they were wanted by the police. The woman were the ones who remained in the place, who did all sorts of jobs within and without the house. Even in straitened circumstances when men evade the police, "continue working and taking care of their children" (21) shows the willpower each dalit woman have which can be gained as a result of the induced trauma from generations. The policemen use obscene language, swore at them and said that they should be ready to entertain the police's as their husbands are not home. By rightly identifying the visible and invisible agencies that require Dalit women to maintain a more or less static identity, Bama is able to at least initiate the process of unchaining the mind and thereby voice out for her opinions.

The self-narratives chosen are *Joothan: A Dalit's life* and *Karukku* by Bama. As the selected works are the autobiographies of the authors, it is a real reflection of their traumatic experiences. Trauma theory can be put forward into this self-narratives as it denotes a vibrant, interdisciplinary area of Western scholarship developed since the 1980s through cross-fertilization between psychology and humanities. The works which took the complete form of an artistic content holds on to this theory and the traumatic experiences can be well mentioned. This project served as a platform in critiquing the exclusions within the nation, in exposing the ideologies prevalent in subjugating Dalits, in uncovering the dalit patriarchal prejudices towards women and highlighting the gender specific traumas. The dalit society faces problems and were essentially downtrodden for centuries because of the upper-caste belief in the ancient scripts. The name dalit is a political identity, one that represents the severe trauma that they had endured for centuries and also encapsulates the suffering of other marginalized groups.

Through the process of analyzing, of the two said books, it is quite clear that caste based gender oppression lead the dalit life into a traumatic one. In the case of women social seclusion, denial of education, oppression by upper caste women, physical and sexual abuse and health and hunger are the ways in which Dalit women trauma is gendered. In the case of men occupational hazard, emasculation and infantilization and police brutality are the ways in which Dalit men trauma is gendered. The position of the Dalits in the present scenario has been far better when we compare the situation before independence. The supportive legal policies and social awareness about caste based discrimination have moved Dalit society towards the main stream. Now they enjoy all the rights granted by The Constitution. Although there are cases where the denial of certain rights are claimed all over the world, they tends to lead a strong and happy life.

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LITERATURE IN LANGUAGE TEACHING

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Abstract

The role of literature in the ELT classroom has been re-assessed by many experts, and now many of them view literary texts as providing rich linguistic input, in addition to effective stimuli for students to express themselves in other languages. In this way, literature can be a potential source of learner motivation. Literary texts offer a rich source of linguistic input and can help learners to practice the four language skills -speaking, listening, reading and writing- in addition to exemplifying grammatical structures and presenting new vocabulary. It is found out as well that literary texts provide opportunities for multi-sensorial classroom experiences and can appeal to learners with different learning styles.

Keywords
Literature, English Language Teaching, Short Stories

Introduction

Literature has not only many functions, but power. Many experts identify this power, for instance what is said by Kelly (1996:8) that some of the major values of (children) literature are enjoyment, aesthetics, understanding, imagination, information and knowledge, cognition, and language. In short this idea can be explained as follows. It is the fact that good books give readers pleasure, enjoyment when reading them. Aesthetics pertain to the beauty that the readers perceive in a literary work. Literature is a verbal art that leads readers to appreciate the beauty of language. It adds aesthetic dimensions to readers" lives, leading them to view their personal experiences in different ways. Fictions, nonfiction and poetry are artistic interpretations of experiences, events and people. Literature also has the value of enhancing understanding self and others. By reading literature readers will perceive themselves by reflecting others experience through the book. Also, understanding cultures lead readers learn about the ties that unite people everywhere. People who come to understand and appreciate various cultures are more likely to realize that people throughout the world share the same emotions, experiences, and problems.

Literary work also functions for developing imagination. Imagination is a creative, constructive, power. Every aspect of daily life involves imagination. People imagine as they talk and interact with others, make choice and decisions, analyze news reports, or assess advertising and entertainment (Sloan in Kelly 1996). Creative thought and imagination are intimately related to higher-order thinking skills. Literature is essential to educating the imagination as it illustrates the unlimited range of the human imagination and extends readers" personal visions of possibilities.

Literature nourishes readers" creative process by stirring and stretching the imagination, providing new information ideas, and perspectives so that readers can imagine the possibilities and elaborate on original ideas. In this way, it expands readers; ability to express imagination in words and images. Literature also increases information and knowledge. Reading enables them to participate in experiences that go far beyond mere facts. Fine nonfiction writers not only increase their readers; store of knowledge, they also stimulate readers to think about the many dimensions of the concepts explored

in their books, encouraging questioning and critical thinking. In this way, literature also stimulates cognition. Literature is a way of thinking it serves as a source of knowledge and a sounding board for children reasoning. All lit stimulates thinking by giving readers substance for reflection; this facilitates cognitive development (Kelly, 1996: 10)

In language teaching, literature provides language model. Language and thinking are so closely interrelated that the ability to think for one"s self depends on one"s mastery of the language (Kelly, 1996:11). Literature, however, often furnishes a richer model for language than conversation as author frequently use elaborate sentences and sumptuous words, while speakers tend to employ the same few words over and over in conversation. Teachers, parents, and librarians often hear children use language acquired from their favorite stories.

This paper aims to explain the use of literary work in English language teaching. The literary work that will be analyzed should be interesting, and has valuable things or values to be understood. The work analyzed in this paper, a short story *Button, Button* by Richard Matheson will be purposed to be applied in English language teaching by exploring its linguistics inputs and its application for practicing language skills. This story tells about the problem of a couple in New York city. They are offered a "package" with some instruction and if it is successfully followed, it will give some amount of money for the doer. The female character is interested in doing this business. Is she successful in getting the amount of money? Unfortunately, it ends in tragic. This is the intriguing problem that leads the readers of this story interested in analyzing and getting valuable lesson.

Method

The 'Text and Activities' method is the most common approach to using fiction and poetry in the classroom. This method is a kind of low technology one, so that it is easy to be applied in classroom. All we really need are words of a literary text on a page to discussed and analyzed.

In this paper the literary text is used for explaining and understanding, as well as stimulating readers for practicing the language skills. In this case, the literary text as the object of analysis is the short story *Button, Button* by Richard Matheson, one of the short stories compiled in *American Short Stories for the EFL Classroom* (1985). This text will be analyzed for its use in the ELT Classroom. The analysis will be emphasized on the linguistic inputs that readers/students can get, such as the grammar structure and vocabularies and the use of the literary work for practicing 4 (four) language skills. This way of analysis can be applied for other literary works, though it is not necessary to apply all of the four language skills at the same work, for instance.

Analysis

In using the literary text in EFL classroom, the most important thing is to prepare the students to read the text. The preparation is important in giving the students the background for the reading to take place. The preparation also should help motivate the students to want to read, so that there will be no students" complaint on the task. This activity should cover up the ideas of literary function or power that are mentioned above. The pre-reading activities should cover the functions of literary works such as enjoyment, aesthetics, understanding, imagination, information and knowledge, cognition, and language.

The pre-reading activities that can be given by teacher to lead for the enjoyment, understanding, imagination, among other are the explanation about the cultural setting of the short story, and some questions related to the cultural setting. The setting of this short story (*Button, Button*) is New York, a metropolitan city. This setting is easily found out at the beginning of the story, "The package was lying by the front door – a cube-shaped cartoon sealed with tape, their name and address printed by hand: "Mr. and Mrs. Arthur Lewis, 217 E. Thirty-seventh Street, New York, New York 10016." By explaining the cultural setting of the big city, reader will get the ideas on the context, especially the cultural context of the story. For example, the culture of sales marketing does his job in a big city, will give vivid ideas on what and how they are doing and for what purpose. This explanation to the students as the pre-reading activities will lead them to understand the problem faced by the people in such a big city life cultural context. The problem of human being expressed by people through literary works is always interesting because it reflects human"s problems and their response towards the problem. Moreover, the problem, often, is universal, meaning that it can happen anywhere and to any people.

This understanding will help readers/students perceive the importance of reading and studying literary works to enrich their perspective of life.

The post reading activities that can be delivered to the students are some questions they have to answer at the end of the reading. Such questions are: What does the title *Button, Button* mean?, Does the story have tragic end ? Do you agree with the female character, Norma‟s assertion that the death of someone you have ―..never seen..never will see ― is not important to you? What is the message the author want to deliver in this story? Does the author have specific idea on the nature of human being expressed in this story?

The questions given identify the comprehension of the readers/students on the story. The comprehension can be seen from the answers to the questions and the discussion further on the answers of the questions. This is also important to identify the students‟ response and expression on the problems presented in the story. The students‟ ideas on such problems need to be explore further in group discussion in the classroom.

The linguistics inputs that can be drawn from the stories can be described in two parts, the vocabularies and grammatical structure. The vocabularies that can be learned from this story, for examples, are as follow: vocabularies related to the „―sales‖ and behavior of the characters as well as the condition of people in such cultural context: sales pitch, whatchamacallit, monetarily, gadget, genuine offer, shudder, dismay, scope, stack, abruptly, slipper, authentic, incredulous, numb, repress, eccentric, authentic, contemptuous, ridiculous. Teachers need to know exactly the meaning of the words and asks students to find out the meaning and idea of the words. This activity can be followed up with the making of sentences using this word. The students can create their own sentences, by inserting this word in each sentence. This encourages the understanding of the meaning and language producing skill.

The other grammatical structure and vocabularies that are valuable to be learned are some phrases. There are some phrases that are important as the linguistic inputs valuable to observe, such as ―It is a sick one. Now you are loading things. Not that I believe a word. His voice was guarded. She cut him off. ―...turned over the supper steaks. ― The teacher can ask students tofind out the meaning of the phrases in the context, and get the whole understanding of the story. This will enrich the students‟ vocabularies and grammatical structure, as well as the understanding on the plot of the story.

The next function of literary works in English language teaching is its use for practicing the four language skills, though it is not necessary to apply for all of the four language skills at once. Here are some examples of instruction. In writing skill, for example, students are asked to write down the one of the mentioned or discussed expression as the prompt to write down a short paragraph. For example, the expression of ―It is a sick one‖. In this sentence, one refers to the joke. The meaning of the sentence is if it is a joke it is a sick joke, a joke that is not amusing but sickening. Students can continue with their own ideas from this prompt, to express ―the sick one‖. Such expression can be applied for practicing speaking skill as well. The other examples can be drawn from the other phrases found out in the story. By identifying the phrases, understanding the meaning, and producing it in the students ― own expression, the creative reading can be reproduce into other activities covered in other language skills, such as speaking and writing.

Conclusion

In this paper the literary text is used for explaining and understanding, as well as stimulating readers for practicing the language skills. The short story *Button, Button* by Richard Matheson here is one of the examples. Readers interested in using literary works can find out other examples and apply it in ELT. The analysis on the linguistic inputs such as grammar structure and vocabularies and the use of the literary work for practicing 4 (four) language skills do not necessary to put away the students ― understanding on the human problems presented in the literary works. The language inputs and the students‟ perceiving on the human problems as well as the enjoyment the aesthetics can be explored at the same time at the classroom to enrich students‟ appreciation on literary works and all at once improving their language competence. This needs the teacher‟s creativity in using exploring the literary works as a text to be used in language teaching.

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DECRYPTING THE ENCRYPTED WORLDS:
IN SELECTED WORKS OF
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ABSTRACT: Since the publication of Text Worlds by Paul Werth, Text World Theory has enjoyed a sustained level of attention, scrutiny, and development thanks to the work of other scholars. The interest that Text World Theory has generated over the past two decades has not only ensured the survival of the theory following the loss of its creator, but has furthermore became a canonical stylistic-analytical framework. This particular theory along with Semiotics is used to decrypt various discursive elements of the two worlds belonging to two different genres of fiction namely, *Inferno* ,a scientific fiction and *Templar Legacy*, a historical fiction respectively to prove how the world built for the plots are similar to each other.

KEYWORDS : Text-world theory, Semiotics, Represented world, Discourse.

Text World Theory is a cognitive linguistic theory of discourse processing proposed in its initial form by Paul Werth. The foundations of the theory were first set out in a series of articles published during the 1980s and 1990s. Werth's work on the theory was cut short due to his death in 1995. However, Werth was near completion of a manuscript for a monograph on Text World Theory at the time of his death and this manuscript was seen to be of such significance to the scholarly community that the work of preparing it for publication was taken on by colleague and fellow linguist Mick Short. The monograph, posthumously published in 1999 under the title *Text Worlds: Representing Conceptual Space in Discourse*, contains Werth's fullest explication of his Text World Theory.

While Text World Theory borrows some of its basic architecture from possible worlds theories – most notably, the concept of a "world" as a representation of a particular state of affairs – it departs from these theories considerably in its own treatment of meaning. As an experientialist, usage-based approach in which linguistic meaning is derived in part from extra-linguistic local and cognitive contexts, the theory assumes a rich but highly indeterminate structure for the worlds resulting from any particular use of language. Possible worlds, by contrast, are rigidly specified, minimalistic worlds, which contain only as much information as is needed to solve the particular logical problem for which the worlds have been constructed, and nothing more.

All text-worlds are established from a mixture of world-building elements (WB) and function-advancing propositions (FA).World- building elements represent the deictic and referential elements which define the time, location, and characters. On the other hand, function- advancing propositions are the events, actions and states which drive discourse forward.

As we know, Language can be defined as a system of communication that uses symbols and signs to deliver its meaning. In fact, symbol and signs are something that usually found in daily life as a vehicle of language to shape a concept or an idea. Study of these kind of symbols is known as semiotics. The meaning can be intentional such as a word uttered with a specific meaning, or unintentional, such as a symptom being a sign of a particular medical condition. Signs can communicate through any of the senses: visual, auditory, tactile, olfactory, or gustatory.

Text World Theory is intended as a practical tool in the analysis of discourses. Therefore, the best way to develop an understanding of how the theory works is to apply it in

analysis. Using the Text World alongwith semiotics, the Encrypted world of Templar Legacy and Inferno are analysed and compared in the following chapters, to see how similar or different they are from each other.

DECRYPTED WORLD OF *INFERNO* and *TEMPLAR LEGACY*

The world of *Inferno* is analysed and the discursive elements are discussed upon to find various elements which help in forming a 'mental image' for the readers. *Inferno,*a science fiction, is a 2013 mystery thriller by Dan Brown, is the fourth book in the Robert Langdon series, which includes *Angels and Demons*, *The Da Vinci Code*, and *The Lost Symbol*. It was number one on the *New York Times* Best Seller list for hardcover fiction and combined print and e-book fiction for the first eleven weeks of its release and is stayed on the E-book fiction list for the first seventeen weeks. A film adaptation was released in 2016.

Below is a short extract from Chapter 15 in *Inferno,* in which Langdon, in his mind tries to extract the information of Dante's hell imagery and it's significance in ongoing chaos from a painting in Sienna's kitchen-

> " Inferno di Dante," Sienna whispered, her expression rapt as she inched closer to the stark image of the underworld now projected on her kitchen wall. Dante's vision of hell, Langdon thought, rendered here in living color.Exalted as one of the preeminent works of world literature, The inferno was first of three books that made up Dante Alighierie's Divine Comedy- a 14,223 line epic poem describing Dante's Brutal descent into the underworld…Dante related offerings".(Inferno:25;321)

This extract tries a wide description of Dante's hell as presented in the 'stark image' of the painting found in the kitchen of Sienna. This further helps creating in forming an epistemic subworld which is accessible by different participants which are attributed to Langdon. This

epistemic subworld helps in providing a representation of the painting and the overall significance.

He pounded his fist again into the stone.Templars had first forged their destiny in forgotten caverns with the determination of zealots. He would do the same. The great devise was out there. He was close. He knew it" (Templar Legacy:14:124).

Through the discourses like the one aforementioned and some more, the desperateness of the quest to find the Great Devise is quite evident.

The whole journey is based on the search for the clue left by Saunière in his codes throughout the place before his death, that lead to source of his wealth and also the direction for the Great Devise that the league of Templars seeks. Just Like the mystic portrayal of Dante's Inferno, here too in Steve Berry's Templar Legacy, this also shows the cryptogram as a guiding light for the secrets he himself encoded.

This character is actually based on real life figure of priest located in the same place as mentioned in the novel, the small village Rennes-le-Château. François-Berenger Saunière (11 April 1852 – 22 January 1917) was a Roman Catholic priest in the French village of Rennes-le-Château, in the Aude region, officially from 1885 until he was transferred to another village in 1909 by his bishop. He declined this nomination and subsequently resigned. From 1909 until his death in 1917 he was a non-stipendiary Free Priest (an independent priest without a parish, who did not receive any salary from the church because of suspension), and who from 1910 celebrated Mass at an altar constructed in a special conservatory by his Villa Bethania. Saunier's refusal to leave Rennes-le-Château to continue his priesthood in another parish incurred permanent suspension.

The motivation of the antagonist of the 'Represented world' is clear. To find the solution for ever growing population on Earth, particular focus on exploitation of planet's resources beyond its capabilities ,and to put an end to humanity's exponential himself. The mode , A virus. It's up to Robert Langdon to solve puzzles using clues from Dante's Inferno to prevent this. Bio weapons is the major tool which is focused upon. Robert Langdon's antagonist the bioengineer named Bertand Zobrist, believable and, while a bit insane he wanted him to be methodical and convincing. The virus which is mentioned is as follows "Bertand's virus is a sterility plague. One third of the population will be infertile" (Inferno: 102:450)

Throughout the ongoing conversation between different characters , the author is able to create a believable yet far fetched virus into life. This representational virus is introduced to the reader , it's origin and even the mode of transmission has been emphasized in a convincing way in which, Sinskey agrees.

> The fastest spreading pathogen Zobrist could choose. Releasing an air bone virus underwater was unusual and yet there were many life forms that incubated in liquid and then hatched into air -mosquitoes, mould spores, the bacterium that caused Legionnaires' disease, mycotoxins, red tides, even human beings. Sinskey grimly pictures…. damp air (Inferno: 90:401).

Another prominent element which the author engages in creating his world is the usage of various symbols which in itself acts as a path finder or solution to the chaos. In this section, there are some symbols found in the realm of *Inferno* that are discussed and analysed.

The symbol itself is carved on the biohazard-tube seal which is acknowledged as a common image in Middle Age that is associated with the Black Death. Later, the storyline also mentions the presence of three-headed Satan in a mosaic of the Baptistry of San Giovanni that resembles the torturer for the damned. In result, the three gnashing mouths of Satan

symbolize of how efficiently the plague ate through the masses .As the relationship between symbol and the recurring obstacle in the novel can be seen through the impact of Bertrand Zobrist's plague which is fast in curbing the population in the future.

Next symbol is of 'carnal malefactors'. The symbol represents second circle of Hell which the Hell consists of nine circles according to Dante Alighieri's Inferno part. This second circle is projected to the lustful which is one of the Seven Deadly Sins. The carnal malefactor itself is an eternal windstorm that blows the lustful as they are punished by their inability to control their desire. The desire reflected by the carnal malefactors in the context of the novel can be seen through the social issue which is an overpopulation due to the inability of mankind to control their desire in procreation.

Then comes 'the eyes of death'. The refrain is found in the lower right corner of La Mappa of Botticelli penned as "the truth can be glimpsed only through the eyes of death" that later referring to Dante's Death Mask . This symbol is the first clue given by Bertrand Zobrist to find the plague which means that 'the eyes of death' itself symbolizes to the Dante's Death Mask that acquires Robert Langdon to peer into the back of the mask for finding the truth .

After examining this encrypted world on Inferno, the author, Dan Brown has used various discourses, between the characters as well as between the author and readers, and also employing symbols to create a world , a represented encrypted world to be exact , for the readers to engage and decipher its meaning and justify it's presence.

Similarly almost similar technique of world building is employed in creating the world of *Templar legacy,* with some personal touches of the author of course. The *Templar Legacy*, a historical fiction, is a novel written by Steve Berry which is,about Cotton Malone, an

intriguing person. He is a lawyer/super spy/former US Government agent now retired in Copenhagen, selling books.

The novel taking place in present time is intertwined with the history of medieval ages, the Templar Knight's existence and their pursuit of lost treasure in the modern day. The Order still exists but they are hiding and disguised as regular monks. One of the marshals is in search for Templar's lost treasure and secret: The Great Device, the bones of Jesus Christ.

"He sucked a few deep breaths of the dank air and thought back to the beginning .AD 1118. The Holy Land had finally been wrestled from the Saracens and Christian kingdoms had been established,but a great danger still existed. So nine knights banded together and promised to the new Christian King of Jerusalem that the route to and from the holy land would be safe for pilgrims… The Templars were granted by the pope a legal autonomy unmatched in the Western world" (Templar Legacy:56:421).

This piece of extract is a brief history of Templars, how it rose to power and it's immense power it withheld in the era, through the mind of the antagonist of the world of *Templar Legacy*, De Roquefort. This extract is able to create a participant accessible subworld of Templar's history and legacy,which the character De Roquefort holds dear.

The Poor Fellow-Soldiers of Christ and of the Temple of Solomon (Latin: *Pauperescommilitones Christi TempliqueSalomonici*), also known as the Order of Solomon's Temple, the Knights Templar or simply the Templars, were a Catholic military order founded in 1119, headquartered on the Temple Mount in Jerusalem through 1128 when they went to meet with Pope Honorius II. They were recognized in 1139 by the papal bull Omne datum optimum. The order was active until 1312 when it was perpetually suppressed by Pope Clement V by the bull Vox in excelso.

In the created realm, the several hundred members of a secret Knights Templar hide out in an elaborate abbey in French mountains, protecting themselves and some of the shreds of secret knowledge that once were a key to their power. Formed in the 12th century, Knights Templar were "warrior monks," pious men who had no personal property but carried simple swords and were driven fighters.

Location and country landscapes , another important element in the process of world building is, of course, one's world's physical landscape. Steve Berry encompasses the beauty and history of the whole county in his portrayal of his characters, plot and the mystery as well. The story undertakes in Southern France. Many museums and landmarks have been revealed as the containers for mystery as the story moves forward. Rennes le Chateau's sudden fame and decade long myth is in the centre of the journey.

For instance,

> Malone marveled at the Pyrenees, which were so much like the Alps in appearance and majesty. Separating France from Spain, the crests seemed to roll to infinity, each jagged peak crowned with bright snow,the lower elevations a mixture of green slopes and purple crags. Between the summit lay sun scorched valleys,deep,foreboding, the haunts of Charlemagne, The Franks,Visgoths and Moors…(*Templar Legacy*:56 457).

Which, in a similar fashion, the protagonist Cotton Malone is very much well versed in geography and the history bounded to it.

> The address from Lars Nelle's notebook has led them down one of the many rues . As they walked Malone thought of the fourteenth century, when Popes exchanged Rome's Tiber river for the French Rhone and occupied the huge palace on the hill,. Avignon became an asylum for the heretics.Jews gaming houses and brothels

flourished. Policing was lax and roaming after the dark could be life

threatening.. (*Templar Legacy*: 25:191)

Along with Cryptogram as a symbol, Steve Berry has been able to incorporate various symbols in his encrypted world, for the readers to engage in as symbols played a major role in the quest for treasure and Great devise. symbol which is a written text, Lisez les Regles du Caridad, which representsthe Reading the rules of Caridad. This reference is to a painting done by Juan de Valdes Leal. This later on, is decoded contains to decrypt the secret of Sauniere. Another symbol is where Gospels as narrated by Thorvaldsen, mentions different symbols in which Jesus was compared. Luke describes Jesus as Meek. A lamb. Mathegoes the other way, for him Jesus does not bring in peace rather sword. The symbol which is throughout constant is the "Great devise". The Great Devise is a factual cache of treasure and knowledge that was hidden away from the French King, Phillip IV, during The Great Purge in 1307 when the Templars were wiped out for political reasons.

This novel revolves around the pursuit for this device. The Symbol, The Shroud of Turin, also known as the Holy Shroud, is a length of linen cloth bearing the negative image of a man. Some claim the image depicts Jesus of Nazareth and the fabric is the burial shroud in which he was wrapped after crucifixion.

This, interestingly similar to the world created by Dan Brown in his book *Inferno* , Steve Berry employs both symbols as well as various discursive techniques to form his represented world in his work *Templar Legacy*.

One of the critical pillars of speculative fiction is world building – an author must craft a world the reader can believe in. World building is the process of creating a fictional world within the novel that can be as complex as designing an entirely new and unique location with exotic creatures, societies. religions and governments. World building can transport

readers into an entirely different realm. Once the reader is immersed in the

world, they willbe able to suspend disbelief and fully engage with the entire

story structure to enjoy a full experience.

Although belonging to two different genres of fiction , both novels namely,

Templar legacyand Inferno, creates their own' Represented world' employing

almost similar techniques, symbols and dialogues.

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PROVERBIAL WISDOM OF IGBO PEOPLEAS REFLECTED IN THE WORKS OF ACHEBE

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ABSTRACT: The crowning glory of Achebe's novels is undoubtedly his use of language. this paper attempts to read on the proverbial wisdom of the Igbo people as depicted in the novels of Chinua Achebe, following the art of a folk tale teller, Achebe has presented the diversity of African culture before the readers in all its fullness and depth. This study observes how Achebe recreates the past glory of the Igbo society, not through myth, ritual, festivity, anecdotes and proverbs.

Key words: Igbo, culture, tradition, proverb, wisdom, language

People of the city (1954) was the first modern Nigerian novel in English in tone and essence, but it isargued that the real tradition of Nigerian literature in English started with the emergence of Things Fall Apart (1958) as a typical Igbo novel to articulate social change through cultural conflicts and tensions. Achebe introduced psychological crisis into Nigerian literature when early Nigerian prose fiction was dominated by Amos Tutola's fantastic folklore romances and Ekwesi's stories of city life.

Achebe's novels created a different order of reality through imagination. He depends largely on anthropological details to project the true traditional Igbo life and its cultural crisis. Achebe delved deep into African tradition to write about Igbo life and culture from within, as an Igbo. Achebe succeeded in portraying realistically the cultural, social, political, and religious aspects of his country through his works.

A major component of Achebe's artistic strategy is his use of language. Proverbs not only enrich his language but give the reader the experience of a whole culture. His characteristic mode of writing fulfills Achebe' s own idea that the English of the African will have to be a new English, still in communion with its ancestral home but altered to suit its new African surroundings. He tries to instill pride and beauty of traditional Africa, which are impressively subsumed in the language of his fiction.

The most striking feature of Achebe's works is that they create a complex and sympathetic portrait of the traditional, ethnic, self-contained village culture in Africa. He deals with a conflict, social and psychological in treatment, created as an after effect of the incursion of the white man's culture into the consummate world of African society. His works highlight the problems between the educated and the uneducated, between the literate and the illiterate, and between the civilized and the primitive.

Achebe takes two things into consideration: firstly, to recreate the past of Africa and, secondly, to counter the European version of Africa. He endeavors not only to increase awareness about Igbo cultural traditions, but to remind his own people of their past and to assert that it was of great value. The European opinion discarding Africa was widely perpetrated. This was in unison with the imperialistic strategy which further enhances the stature of the white colonial policies, crushing the indigenous culture

In Achebe's novels rural life is at the very center: the characters are deeply rooted in the soil; the events are perfectly in tune with the routine life of the people engaged in rustic occupations; the language and beliefs and behavior patterns evoke a non- urban, non- sub urban tenor of living. Achebe being a non descriptivist story teller, resorts to the devices of suggestion, implication, and indirection, rather than explicit statement. Igbo religion is not a redemptive one like Christianity and Islam, nor utilitarian. Every activity of life, society, and agricultural season is devoutly punctuated by some religious exercise or expression or magico-religious rites. Igbos believe in duality of things. For them "nothing is by itself, nothing is absolute". This duality is evident even in Igbo proverbs. Any proverb expressing a point of view or some "truth" is contradicted by another.

According to Igbo culture a good speaker is he who uses language with skill and wisdom; for the igbos, the core of conversation is the appropriate use of proverbs. They believe that "Proverbs are the palm oil with which words are eaten" (African trilogy 20). They reflect the good and lean times through which their societies pass. They are also invaluable rhetorical devices, seeming to state basic truths. Proverbs do not merely convey a quaint charm, nor are they only part of the elaborate conventions of Igbo society, they have a very important role to play in conversation and are an indispensable aspect of Achebe's style. The proverbs are always appropriate, allowing a speaker to make his point tactfully and concisely. The concentration of meaning and evocative power of the proverbs impart a poetical quality to Achebe's prose.

The society of Umuofia holds achievement and success in high regard. This attitude is well expressed in many passages in Things Fall Apart such as those that tell the reader. "you can tell a ripe corn by its look" (African trilogy 31) and "if a child washed his hand, he could eat with kings" (African trilogy 21); "you have the yam and you have the knife" (African trilogy 179).

Several proverbs embody Igbo beliefs about spirituality. For instance: "when a man says yes, his chi says yes also" (African trilogy 35). The chi in Igbo cosmology is the guardian spirit granted to every individual at the time of birth and is part of the individual's supreme creative essence. According to Igbo belief, the chi is entirely responsible for the fortunes and the misfortunes of individuals. Thus, when Okonkwo strived forprosperity, his chi agreed. But when he started to aggressive, his chi disagreed andprecipitated his downfall.

Other proverbs, such as "mother is supreme" (African trilogy 112), communicate the Igbo view of society. When a man falls into misfortune, he seeks solace at his mother's place. Okonkwo in things fall apart, takes refuge in Mbanta, his mother's village during his exile. Also, the last rites of man are performed by his mother's people.

A great number of Achebe's proverbs concern matters of power and politics, particularly where related to the effects of colonization. Thus, "if one finger broughtoil, it soiled the others" (African trilogy 106). The effortless spreading of anarchy among the natives, after the advent of the white man, is evident in this proverb.
The saying: "you have the yam and you have the knife" is generally used about a powerful deity.But leaders like Esaul and Ngaka (arrow of god) are also hailed thus because they are rich and influential and command the respect of the clansmen. Resentment at Zulu's positive attitude to the whites finds expression in some proverb: "if a man kills the sacred python in the secrecy of his hut, the matter lies between him and his God" (African trilogy 131).

In arrow of god we learn that "when a handshake goes beyond the elbow, we knowit has turned to another thing" (African trilogy 332) and "no matter how strong orgreat a man was, he should never challenge his chi" (African trilogy 345).
Contempt for the rule of Ezeulu, the Chief Priest, is evident in the proverb: "the man who carries a deity is not a king" (African trilogy 346). When Ezeulu goes tothe White man's prison, the people's indifference to his predicament appears in citing the following proverbs. "the lizard who threw confusion into his mother's funeral rite, did he expect outsiders to carry the burden of honoring his dead?" (African trilogy 448). When` Ezeulu fails as the keeper of the clan's customs he admits: "a man who brings home ant–infested faggots should not complain if he isvisited by lizards" (African trilogy 379).

There are many other proverbs used in different contexts such as: "only a foolish man can go after a leopard with his bare hands"(African trilogy 406);" the offspringof a hawk cannot fail to devour chicks"(African trilogy 451); "a man who visits a craftsman at work finds a sullen host" (African trilogy 435); "a man should not wash his hands with spittle" (African trilogy 180); "if he is ill he will also be well" (African trilogy 481); "whoever puts the other down, will strip him of his anklet"(African trilogy 504); "whenever you see a toad jumping in broad daylight, then know that something is after its life" (African trilogy 163); "if the rat cannot flee as fast enough, let him make way for the Sin the market is sold" (African trilogy 460);" only those who carry evil medicine on their body should ear the rain"(African trilogy 469);"when suffering knocks at your door and you say there is no seat left for him he tells you not to worry because he has brought his own stool"

(African trilogy 469); "as a man comes into this world so he will go out of it" (African Trilogy 216).

By the time we come to the Igbo society of Nigeria in No Longer at Ease, most of the traditional values have disappeared. However, some of the proverbs which explicate moral and spiritual wisdom remain with the people. Some sayings are: "as it was in the beginning, is now and ever shall be, world without end"(African trilogy216); "when there is a big tree small ones climb on its back to reach the sun"(African trilogy 252); "a debt may become mouldy but it never rots"(African trilogy 252);"the start of weeping is always hard"(African trilogy 252);"an only palm fruit does not get lost in the fire"(African trilogy 117). The impatience and the foolhardiness of Obi Okonkwo is compared to that of: "the young antelope who danced herself lame when the main dance was yet to come' (African trilogy 181).

Selfishness and greed for power and money are the characteristics of the political motto of the people and their leaders: "ours is ours but mine is mine" (African trilogy 199). Achebe's fourth novel A Man of the People has a few proverbs that clearly trace the decline and decay of the cultural values of the Nigerian society.

The maturity and rich culture of the African society is evident in the expressions which are full of sayings and proverbs. These proverbs and sayings are a store house of the collective wisdom of the people and can survive the times and regions. The culture and tradition of the Igbo people is varied and beautiful when compared to the culture of the west. Every aspect of Igbo culture; its rituals 'its language, its principles and the values it venerates are revered by Achebe. Achebe's fiction demonstrates his pre–occupation with language, not simply as a communicative device, but as a total cultural experience. At this level, language is not merely technique. It is the embodiment of its civilization and therefore represents or dramatizes modes of perception with in its cultural grouping.

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RACIAL CONSCIOUSNESS IN TONI MORRISON'S NOVEL BELOVED AND THE BLUEST EYE

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ABSTRACT

"Racial Consciousness in Toni Morrison's
Novels Beloved and The Bluest Eye" examines the racist oppressions against the
African-Americans. It gives a brief history of African-American
literature and gives certain details of Morrison's works. It concentrates on the repression
towards a black girl, Pecola who becomes a symbol of black community's self-
hatred and belief in its own ugliness. It deals with the devastated motherhood caused by white
cultural domination in the lives of African-Americans and sums
up how the self gets questioned because of the racist oppressions.
KEYWORDS ; Racism,Oppression,Cultural trauma,Dehumanisation.

Toni Morrison uses the psychological ramifications of the physical, emotional and spiritual desolation produced by slavery to mould her characters' sense of self through direct experience with slavery and white oppression. The inability of male and characters to form a sense of identity in her novels Beloved and The Bluest Eye is tied to cultural trauma they experience which makes it impossible to shape a sense of self. The most permanent negative impact of slavery Morrison focuses on in Beloved is the way in which former slaves are haunted even in freedom, by the dehumanization they endure. Due to their repressed social status, Morrison's characters are only able to experience relationships if they are granted the privilege to do so by those who hold power over them. As time progresses beyond legalized slavery, the now 'free' African Americans have to achieve a societal standard of whiteness in order to gain acceptance. Morrison's first novel The Bluest Eye exposes the result of white presence in society on African Americans and how this presence imposes difficulty on the individual to form an identity. Morrison uses this reality to structure these two novels and the bonds between the characters, their society and themselves. Through the allowance of denial of relationships, Morrison demonstrates in Beloved and The Bluest Eye how slavery, the deliberate dehumanization of African slaves, and the presence of whiteness in society alter her characters ability to form their own sense of self-identity. The alienation of slave's experience echoes into future generations by disabling any hope of forming relationships after attaining freedom and creates psychological obstacles that African Americans must conquer in the future.

In the majority of her novels, Morrison highlights the importance of identity, the formation of self and the influence of the environment and society on that development. According to Ron Eyerman, cultural trauma refers to a dramatic loss of identity and meaning, a tear in the social fabric, affecting a group of people that has

achieved some degree of cohesion. African slaves were unified by their environment and society's racial oppression. In the case of Morrison's characters in Beloved, the trauma in question is slavery, not only as an institution or even an experience, but as a collective memory, a form of remembrance that grounded the identity formation of people.

Morrison also discusses in her novels her characters' struggle for identity formation. Erik Erikson's theory of psychosocial development encompasses changes in peoples' understanding of themselves, one another and the world around them during the course of development. According to Erikson, identity formation while beginning in childhood, gains prominence during adolescence. Faced with physical growth and sexual maturation, adolescents must accomplish the task of integrating their prior experience and characteristics into a personal identity. The experiences slaves are able to draw upon, however are not capable of fulfilling their needs for an identity because their experiences and relationships are limited due to the social and racial groups to which they belong. Both men and women are classified by their relation to each other, men's masculinity and women's femininity is based upon who defines it. In the case of characters in Beloved, it is defined by the slave owners and the society in which they live. Their psychological development is delayed because they are denied the mature adult relationships. Their capacity to understand themselves in relation to one another and society is inhibited. This is an extension of the cultural trauma produced by slavery because of denying the basic human right to choose sexual partner for physical, emotional and reproductive reasons. They are denied the ability to develop on a psychosocial level to achieve an understanding of their own identity.

in order to understand how slavery and the discrimination of African Americans influence their sense of identity, readers must understand what identity means. Identity refers to the enduring aspects of a person's definition of her or himself, the conception of who one is and what one is over time and across situations. Personal identity is a cumulative product built up over a person's lifetime experiences)

Characters in Beloved find difficulty establishing and maintaining any type of intimate relationship due to the abuse and discrimination they deal with throughout their lives. Identity is a sense of personal continuity and uniqueness based not only on personal need but also on membership in various groups, such as familial, ethnic and occupational. African slaves were not only discriminated for belonging to their racial group, but also for being slaves and belonging to that social group. Since these group identities, in addition to satisfying the need for affiliation, help people define themselves, not only in their own eyes, but in the eyes of others. It is clear why the characters in Morrison's novels find difficulty in forming a personal identity. In this eyes of others, they are subhuman and this in turn affects how they see themselves because they have internalized society's racism.

In Beloved, Paul D, one of the main characters, internalizes the mistreatment he experiences for years. Despite his inner strength and motivation to preserve, that dehumanization transforms him into an unemotional man with a fractured identity. After attempting to murder one of his owners, Paul D is sent to a place Morrison describes similar to a prison. Paul D and the forty five members were forced to work

on the chain gang alongside and were subjected to humiliating treatment along with physical and sexual abuse. He locks away his memories in a tobacco tin heart, rusted shut from years of abuse and repression. Paul D internalizes the discrimination inflicted upon him. He is emasculated to such an extent that he believes he is unworthy of human attachment.

As in the case of Sethe, the protagonist in Beloved, the dehumanization of female slaves deprives characters of their femininity by denying them motherhood. It was customary for infants to be separated from their mothers as soon as possible to disallow any chance to form emotional attachment. This makes it easier to debase women as human beings by denying them the natural desire to mother their children. Not only did the physical separation of the mother and child prevent female slaves from identifying themselves as mothers, but the concept of motherhood alone, due to the economic realities of racism, was usually limited to white women. Many African slaves were influenced by West African motherhood practices in which the individual mother is valued but the act of mothering was a collective communal process. The cult of true womanhood emphasizes motherhood as a woman's highest calling. It stresses a motherhood confined to the home and children under the protection of husband. In Beloved, the characters are denied not only nuclear family households but also the base human instinct to care for their children.

Sethe not only experiences separation from her children because she sacrifices her own wellbeing to send them to safety. As a direct attack on her as a black mother, she is also robbed of her breast milk, the essence of motherhood in a very animalistic fashion. Throughout the novel, Sethe focuses on her milk and the life-force she is naturally supplied with. While talking with Denver, Sethe describes the events in which her breast milk was stolen. Seethe continues to focus on the memory because breast milk is the only part of her related to motherhood, she thinks is safe from white people. Her milk is the substance that would sustain her child's life, is the one thing that truly belongs to her. When the white boys take it from her, they diminished her worth as a woman, a mother and a human being.

The masculinity of the slaves is attacked by the school teacher. The school teacher strips the slaves in Garner's plantation, of anything that makes the men feel more powerful. He takes away their guns, their ability to hunt for food or protect themselves, by denying them ability to learn, to reason, though he guarantees their stay at sweet home. With every ounce of pride school teacher takes away from men of sweet home, his power grow exponentially while that of the slaves grow weaker.

The dehumanization of slaves in Beloved extends beyond the denial of basic human desires such as motherhood, of the identification of one's own femininity or masculinity progresses into the categorization of slaves as animals.

While Beloved, discusses the direct effect of discrimination of slaves, she reveals how the future generation of slaves are affected by the past through society in The Bluest Eye. The title of the novel itself calls attention to the presence of whiteness and how that presence can affect not only a collective group, but also an individual. The noun 'eye' in the title is singular suggesting perhaps the damage inflicted upon

the individual by society-white lens in relation to beauty and acceptance. Also, by using the word 'eye' allows for a double meaning of 'I.' Morrison might be emphasizing the importance of vision.

Cultural trauma is present in The Bluest Eye as well. The way in which trauma affects an individual is different than how it affects a culture. As a cultural process, trauma is mediated through various forms and representation and linked to the reformation of collective identity and the reworking of memory. Three prominent characters in Morrison's The Bluest Eye, Cholly Breedlove, Pauline Breedlove and Pecola Breedlove deal not only with the struggle to form personal identities, but also with the presence of whiteness in society and the pressure to meet society's white standard.

Cholly Breedlove is one of the male characters in The Bluest Eye whose life is negatively impacted by his inability to identify with his ancestral past. Cholly is abandoned by his mother nine days after his birth and is rescued and raised by his grandmother. His father abandoned him before his birth. His grandmother doesn't hesitate to remind him that he owes her his life. Part of Cholly's difficulty with the formation of his own identity stems from a lack of ancestral past and failure to progress during the early stages of Erik Erikson's psychosocial theory. Erikson's

theory of psychosocial development includes eight stages; each stage is marked by a conflict or crisis between the person and his or her environment. Cholly does not experience any confidence in his life.

Cholly's formation of self identity is also delayed the origin of his name. Cholly is upset because he is not named after his father, but instead he is the namesake of a distant relative who is deceased before Cholly is born. The origin of one's self is important in identity formation. Since Cholly cannot identify with anyone he is related to, he lacks any resemblance of a sense of self and his maturation is stunted. It makes it easier for Cholly to internalize society's racism.

Cholly experience dehumanization in The Bluest Eye similar to Morrison's character Sethe in Beloved. While Sethe is robbed of a natural life-force, Cholly's first encounter with sex, a natural human experience is perverted by two white hunters. During the reception after Aunt Jimmy's funeral, Cholly and Darlene runoff to a field where their flirtations quickly turn into sexual relations. While in the middle of intercourse, Cholly and his partner are interrupted by two white hunters. As Cholly tries to dress himself, the hunters shined their flashlights on the couple and ordered Cholly to finish which he obeyed. The white hunters repeatedly refer to him as 'coon' and order him to mate with Darlene like crude animals. This humiliation and dehumanizing experience creates within Cholly hatred in the novel by his domestic violence towards his wife and the molestation of his daughter.

Pauline Breedlove is one of the female characters in The Bluest Eye affected by the white standard society has placed upon her. Pauline has a deformity on her foot that prevents her from having a nickname among her peers when she is younger. This lack of nickname made her unable to relate herself to her peers and her inability for form and identity at a young age is thwarted. Also as a result of her deformity is her extreme concern about her physical appearance.

Pauline internalizes society's love of white beauty to such a degree that she views herself as worthless unless she can attain that standard. As she was unable to

relate to any of the women in the North, Pauline frequented the movie theatres where along with the idea of romantic love, she was introduced into another standard - physical beauty. Probably the most destructive idea in the history of human thought. Both originated in envy, thrived in insecurity and ended in disillusion. These are the days in Pauline's life when she learns that beauty equals virtue. This cult of white womanhood permeating the nineteenth century further devalued black woman since the social and economic reality of slavery made it almost impossible to live up these so called feminine virtues. She was never able, after her education in the movies, to look at a face and not assign it some category in the scale of absolute beauty; the scale was the one she absorbed in full from the silver screen.
to
Pecola Breedlove, the protagonist in The Bluest Eye, is either seen as
worthless by everyone around her (save for the Mac Teers), or is not seen at all. Pecola has internalized society's racism
the most out of all the characters in the novel.
As a result of all the abuse she suffered from her father, mother, strangers and other children, she believes that everything would change for the better if she acquired blue eyes. It is the construction of white womanhood that Pecola desire to have blue eyes is born, since both she and her mother long for a white middle class conception of beauty and grace. It has been communicated to them through the portrayal of white women in the movies. In the eleven years of her life, Pecola is raped, impregnated by her father, loses the baby she is carrying and is driven into the madness from the persistent abuse, but continues to search
for blue eyes to cure her alleged ugliness and
societal rejection. At the end of the novel, Pecola begins to converse with her imaginary friend - her double. Ironically, having been denied a sense and a voice to articulate her pains, in the end and insane Pecola has found not one but two voices. She internalizes society's racism and already weakened perception of herself and her low self-esteem disables any ability for Pecola to form a sense of self. She is unable to experience relationships and relate to others which is a key element in forming an identity according to Erikson. Since she is unable to form mature relationships and have positive experience to integrate and accumulate over her short lifetime. She is forced to create a second identity in order
to satisfy her needs for human interaction
and acceptance.
Toni Morrison focuses on the dehumanization of African-American slaves in
her novel Beloved. The views of society at that time of slaves as a subhuman group denies them basic human desires and makes it impossible for them to create a stable sense of personal identity. They are forced to identify with their social and ethnic group, but by doing so their sense of self is lost. In The Bluest Eye, Morrison shows how the cultural trauma of a cohesive group can lead to the inability of individuals in the group to form identities. The presence of whiteness in society at that time creates an unattainable white standard that African-Americans need to attain in order
to gain
acceptance. The result of the attempt and failure in relation this standard disabled any chance African-Americans have to find themselves. The inability to form intimate relationships made it impossible to form a sense of self which only worsened their lack of identity.
Combining political consciousness with aesthetic sensibility, Morrison
achieves a delicate balance between her political commitment to her people and her

aesthetic responsibility to her art of fiction. While exploring the dynamics of racism, sexism and classism, Morrison did not limit her gaze to the problems within the black community as she relentlessly exposes intra-racism, black male brutalities, female sexual abuse and incest. Thus, without
directly denouncing white society, she
valorizes the black community. By indirection Morrison avoids the polarization of black and white humanity - one as inherently good and the other as irrevocably corrupt- thereby allowing all people to vicariously experience rebirth. Thus, Morrison, brilliantly succeeds in her attempt to elevate through fictional art the reclaimable and beautiful in the human condition.
The novels of Morrison do more than inform us of what kind of life or lives black people in America lead. What they seek to do is to make the readers see experiences from the black perspective. Her novels are critiques of being and as such suggest strategies for survival in a world
where the individual confronts tangible,
immediate threats as well as impersonal and abstract hazards. Her six novels that mirror the triple perspective of black American women, bring much of the American experience out of the marginal shadows and help give American literature as a whole a more complete and final dimension.

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हिंदी भाषा के भक्तिकाल के प्रमुख कवियों में से एक कबीरदास ने अपना जीवन निर्गुण भक्ति में व्यतीत किया. आज के आर्टिकल में हम कबीरदास के जीवन के बारे में विस्तार से जानेंगे.

कबीर दास पर निबंध

Essay On Kabir Das In Hindi

भारत पुराने समय से शिक्षित देश के रूप मे है। भारत मे समय-समय पर कई लेखको (किसी कृति का रचयिता), साहित्यकारो (Litterateur) तथा कवियों (Poets) ने जन्म लिया है।

इस देश मे एक से बढ़ाकर एक कवि हुए है। देश के अग्रणी कवियों मे से एक कबीर दास जिन्हे भारत के कवियों के इतिहास मे सबसे सफल तथा प्रभावशाली कवियों मे कबीर दास जी को सबसे प्रमुख माना जाता है।

हिंदी साहित्य इतिहास में भक्ति काल की निर्गुण भक्ति धारा के ज्ञानमार्गी शाखा के प्रतिनिधि कवि कबीरदास का जन्म 1398 में हुआ यह मूल रूप से उत्तर प्रदेश के निवासी थे कबीर का जन्म काशी में हुआ जो वर्तमान में वाराणसी के नाम से जाना जाता है

मान्यताओं के अनुसार कबीरदास का जन्म लहर तारा गांव में एक विधवा ब्राह्मणी के घर हुआ था जिसने लोक लाज के भाई से कबीर दास को तालाब के किनारे पर छोड़ दिया।

कबीर दास का पालन पोषण निसंतान दंपत्ति नीरू और नीमा द्वारा किया गया जो मुस्लिम जाति के जुलाहा थे कबीर की पत्नी का नाम लोई था इनके पुत्र का नाम कमाल तथा पुत्री कमाली थी।

कबीरदास के गुरु का नाम रामानंद था कबीर दास निरक्षर थी उन्होंने अपने जीवन में जो भी ज्ञान प्राप्त किया वह लोक अनुभव और सत्संगति के माध्यम से प्राप्त किया था।

इसकी पुष्टि कबीर दास के एक पंक्ति से होती है जिसमें उन्होंने खुद लिखा है मसि कागज छुओ नहीं कलम गई नहीं हाथ.. जिससे यह स्पष्ट होता है कि कबीर दास अनपढ़ थे।

इन्होंने समाज में व्याप्त छुआछूत, जातिगत भेदभाव, बाह्य आडंबरो और मूर्ति पूजा का घोर विरोध किया इन्होंने बहू ऐश्वर्यावाद धारणा का खंडन किया तथा एकेश्वरवाद का समर्थन किया।

इनका निधन 1518 में 120 वर्ष की आयु में हुआ जब वे मगर में रहा करते थे कबीर दास शिक्षित ना होने के कारण उनके उपदेशों का संकलन उनके शिष्य धर्मदास द्वारा किया गया।

शिष्य धरमदास ने बीजक नाम से कबीर के उपदेशों को संकलित किया बीजक के तीन भाग थे जिसमें साखी, सबद और रमैनी सम्मिलित थी।

कबीर की भाषा संदूकड़ी या पंचमेल खिचड़ी थी जिसमें सभी भाषाओं के शब्द प्रयुक्त होते थे। प्रसिद्ध लेखक हजारी प्रसाद द्विवेदी ने कबीर दास को वाणी का डिक्टेटर यानी भाषा का तानाशाह कहा था।

कबीरदास के बारे में **10** वाक्य

10 Lines On Kabir Das In Hindi

कबीरदास हिंदी साहित्य के इतिहास के निर्गुण भक्ति की शाखा के कवि थे, ये मूर्तिपूजा के विरोधी थे. ये एक ही भगवान मानते थे. उनके अनुसार सभी का एक ही धर्म है.

महान कवि कबीरदास जी का जन्म एक विधवा ब्राह्मणी के घर 1398 ईस्वी को काशी के निकट हुआ था.

इनका जन्म हिन्दू परिवार में हुआ, पर मुस्लिम नीरू तथा नीमा द्वारा इनका पालन पोषण किया, जिस कारण ये अपना कोई धर्म नहीं मानते थे.

इनके अनेक उपनाम थे, जिसमे कबीरदास, कबीर परमेश्वर, कबीर साहेब प्रमुख थे. हजारी प्रसाद ने इन्हें मस्तमौला कहा था.

कबीर का विवाह लोई के साथ हुआ जिससे उन्हें कमाल तथा कमाली दो संतान हुई.

इन्होने कबीर पंथ की स्थापना की और शिक्षा का संचार किया.

कबीरदास अन्धविश्वास, मूर्तिपूजा और कुप्रथाओ के विरोधी थे.

इन्होने हमेशा हिन्दू मुस्लिम एकता को समर्थन किया तथा सभी कुरीतियों का विरोध किया.

कबीरदास जी अपना गुरु रामानंद जी को मानते थे.

कबीरदास जी का देहांत 1518 ईस्वी को मगहर में हुआ था.

कबीरदास की अनेक किताबे प्रकाशित हुई, जिसमे बीजक, सॉन्ग्स ऑफ़ कबीर, कबीर ग्रंथावली, द कबीर बुक और कबीर says आदि प्रमुख थी.

संत कबीरदास पर निबंध

प्रख्यात समाज सुधारक और संत कबीरदास का जन्म साल 1398 में लहरतारा में हुआ था जो कि अब के वाराणसी शहर और तब के काशी में पडता था। कबीर दास का जन्म जिस परिवार में हुआ था वह एक बहुत ही सामान्य परिवार था।

इनके पिता जी का नाम नीरू और इनकी माता जी का नाम नीमा था। कबीर दास की मृत्यु पैदा होते ही हो जाती क्योंकि इनका जन्म जिन माता की कोख से हुआ था वह विधवा थी और इसीलिए लोक लाज के डर से इनकी माता जी ने इन्हें एक तालाब के पास छोड़ दिया।

जहां पर नीरू और नीमा नाम के जूल्हे की नजर इनके ऊपर गई और वह इसे अपने घर पर ले कर आए और उन्होंने ही इनका पालन पोषण किया।

घर की आर्थिक स्थिति खराब होने के कारण कबीर दास ने कोई भी शिक्षा ग्रहण नहीं की। संत कबीर दास ने जो भी ज्ञान प्राप्त किया था, वह ज्ञान इन्हें अपने गुरु रामानंद से प्राप्त हुआ था।

जिसके द्वारा ही इन्हें इस बात की इंफॉर्मेशन हासिल हुई थी कि कैसे उन्हें समाज में फैले हुए जाती पाती और अन्य तमाम प्रकार के अंधविश्वास का पुरजोर विरोध करना है।

यह एक ही नहीं बल्कि कई भाषाओं के जानकार थे। यह अक्सर साधु की टोलियो के साथ घूमने के लिए निकल जाते थे और यही वजह है कि इन्हें कई भाषाओं का ज्ञान था।

कबीरदास जिस भाषा को कहते थे उसे सधुक्कड़ी भाषा कहा जाता था। यह जगह जगह पर जाकर के लोगों को सदमार्ग पर आने का उपदेश देते थे और लोगों को अच्छा इंसान बनने की प्रेरणा देते थे।

कबीरदास जी का जीवन

कबीर दास का जीवन संघर्षपूर्ण रहा था। एक विधवा ब्राह्मणी (Widow brahmini) के घर मे जन्म लेने पर उस ने लोक-लाज के भय से कबीर दास को तालाब के पास एक टोकरी मे छोड़ आई।

कुछ समय बाद वहाँ से एक जुलाहे नामक मुस्लिम दंपति ने एक छोटी उम्र के शिशु को देखकर उसे अपने घर ले गया और इसे अपने संतान की तरह पाला और बड़ा किया था।

कबीर दास का पालन-पोषण किसने किया था? कबीर दास का पालन-पोषण मुस्लिम परिवार मे हुआ था। कबीर का पालन-पोषण नीरू जुलाहे नामक व्यक्ति ने किया था।

संत कबीर दास का जन्म कैसे हुआ था?

जनश्रुति (संसार में प्रचलित कोई ऐसी ख़बर जिसका पुष्ट आधार ज्ञात न हो।) के अनुसार कबीरदास का जन्म 1398 ई में काशी मे एक विधवा ब्राह्मणी के घर में हुआ था।

परंतु लोकापवाद के भय के चलते उस विधवा ब्राह्मणी ने कबीर दास को लहरतारा ताल नदी के पास छोड़ आई। कुछ लोगो का मानना है।

कि कबीर दास ने माँ की गर्भ से जन्म लिया ही नहीं लिया उनका जन्म एक कमल के पुष्प से हुआ था। इसलिए उनका जन्मदिन नहीं मनाया जाता था। इन्हे कबीरा और कबीर साहब के नाम से जाना जाता है।

कबीर दास की प्रारम्भिक शिक्षा

कबीर दास की परस्थिति ऐसी थी। कि वे अपनी प्रारम्भिक शिक्षा भी ग्रहण नहीं कर पाये। ये बचपन से ही साधू-संतो का संगत करते थे।

उन्होने अपनी शिक्षा अपने गुरु स्वामी रामानंद से ही प्राप्त की थी। इनके जीवन मे सबसे ज्यादा प्रभाव उनके गुरु रामानन्द जी का नजर आता था।

कबीर दास जी बचपन से ही सबसे अलग सोच रखते थे। इन्होने समाज मे चलनसार (प्रचलित) पाखंडों (वेद विरुद्ध किया जाने वाला आचरण।), कुरीतियों (वह रीति-रवाज़ जो अच्छा न हो।),

अंधविश्वास (अज्ञात पर विश्वास करना।), धर्म (जो धारण करते है वहीं धर्म कहलाता है) के नाम पर होने वाले अत्याचारों (किसी के प्रति बलपूर्वक किया जाने वाला अनुचित व्यवहार।) का विरोध किया था।

संत कबीर दास एक समाज सुधारक के रूप मे

Sant Kabir Das as a social reformer

कबीर दास एक कवि के साथ-साथ एक महान समाज सुधारक के रूप मे भी थे। कबीर दास ने अपने सम्पूर्ण जीवन को समाज में हो रहे अत्याचारों और कुरीतिओं को खत्म के लिए लगा दिया था।

देश के विकास के लिए इन्होने कई कार्य किये जो देश के लिए वरदान के रूप मे सामने आए। कबीर दास जी ने अपने जीवन के अंतिम पल तक अपने इरादो पर झुटे रहे और सभी के कल्याण के लिए अपना जीवन तक न्योछावर (झोंक देना।) कर दिया था।

संत कबीर दास का धर्म

जनश्रुति (Manpower) के आधार पर कबीर दास का जन्म हिन्दू के घर मे हुआ। परंतु उनका लालन-पालन एक मुस्लिम परिवार मे हुआ था। इसलिए कबीर दास जी दोने धर्मों (हिन्दू-मुस्लिम) से जुड़े हुए थे।

कबीर दास जी का पंथ, सम्प्रदाय या धर्म क्या था? तो इसका जवाब होगा। कबीर दास का कोई पंथ, सम्प्रदाय तथा धर्म निश्चित नहीं था। कबीर दास जी ने अपने जीवन को दोनों धर्मों की और से निर्भीक होकर समाज में चल रही धर्मों के रूढ़ियो को तोड़ कर प्रहार किया था।

" पाथर पूजै हरि मिलें, हम लें पूजि पहार ।
घर की चाकी कोई न पूजै, पिस खाय ये संसार ।। "

भावार्थ:- कबीर दस जी एक प्रचलित दोहा है। जिसमे उन्होंने बताया कि यदि पत्थर कि मूर्ती कि पूजा करने से भगवान् मिल जाते तो मैं पहाड़ की पूजा कर लेता हूँ। कि उसकी जगह कोई घर की चक्की की पूजा कोई नहीं करता ,जिसमे अन्न पीस कर लोग अपना पेट भरते हैं।

कबीर दास की इन पंक्तियों, व्यंग्य की परिधि से मुसलमान भी न बच सके: उनका एक और व्यंग्य -

'काँकर-पाथर जोरि के, मस्जिद लई चिजा चढ़ी
मुल्ला बाँग दे, का बहरा हुआ खुदाय ।।णाय ।

भावार्थ:- कबीर दास जी इस दोहे के माध्यम से मुस्लिमो को बेहरा बता रहे है। जिन्हें नमाज़ (इबादत) पढ़ने के लिए जोर से चिल्लाना (बांग) लगानी पड़ती है, यदि नमाज के प्रति मुस्लिम इतना प्रेम प्रकट करते है। तो उन्हें खुद जाकर नमाज पढ़ना चाहिए।

यह लोग खुद क्यों नही आते नमाज़ पढने (खुद- आय)? "का बहरा भया खुद आय".नमाज पढ़ना में मन मे तडप होनी। जिससे इबादत मिल सकें। ये बाते कबीर दास को अच्छी नहीं लगी।
भक्ति कैसे करनी चाहिए?
कबीर दास जी स्वय भक्त थे।परन्तु उनका मानना था. उन्होंने बताया कि हमें भक्ति से लेकर हमें मर्म समझना आवश्यक होता है।कबीर जी आजान या आदान नहीं थे.

इस्लाम (इस्लाम एक इब्राहीमी धर्म है।) में मुस्लिम समुदाय पुरे दिन में पांच नमाज का सम्पूर्ण अध्याय करते थे. ऊंचे स्वर में नमाज का उच्चारण ही अजान होता है।

कबीर दास जी का मानना था। कि ईश्वर /खुदा को नाम से पुकारा जाय, तो वे ह जीव के संग सदैव रहता है। उसके लिए किसी भी मंदिर, मस्जिद में जाने की आवश्यकता नहीं होती है।

उन्हें मंदिरों, मस्जिद में ढूढ़ना लोगो की सबसे बड़ी मुर्खता है। उन्होंने बताया की ईश्वर मनुष्य शरीर के प्रत्येक अंग में ईश्वर का निवास होता है। इसलिए कहते है। ईश्वर को मन से याद करना सबसे बेहतर माना जाता है।
कबीर तथा रामानन्द (गुरु) का मिलन कैसे हुआ था?
कबीर बचपन से शिक्षा ग्रहण करने के लिए उत्सुक रहते थे। उस समय काशी मे स्वामी रामानन्द की चर्चा सबसे ज्यादा हुआ करती थे।

कबीर दास ने रामानन्द का शिष्य बनने का निश्चिय कर लिया था। और उनके पास गए। और कबीर दास रामानन्द के शिष्य बनने के लिए आग्रह किया किया। तो इसे रामानन्द ने मना कर दिया था। जिससे कबीर काफी दुखी हुए।

कबीर जानते थे। कि रामानन्द प्रातः गंगा मे स्नान करने जाते है। इसलिए वे उनसे पहले गंगा नदी के घाट पर जाकर सो गए। रामानन्द जी ने कबीर को सीढ़ियो पर देखा तो बोले बोलो राम-राम। उसके बाद से कबीर दास ने इस मंत्र को अपना लिया। फिर रामानन्द ने कबीर को अपना शिष्य बना लिया था।
संत कबीर के गुरु
कबीर दास के शिक्षा-दीक्षा गुरु रामानंद जी थे। इन्होने कबीर दास को शिक्षा ग्रहण कराई थी। एक बार रामनन्द ने कबीर को राम-राम बोलने को कहा।

आगे बढ़कर राम नाम का यह मंत्र मनुष्य जीवन की सत्य की महान लक्ष्य प्राप्ति में तथा विषमता के दुराग्रहों को छोड़कर सामाजिक न्याय और समानता की स्थापना करने मे सहायक बना।

जो भी गुरु (स्वामी रामानंद) द्वारा सिखाते थे। उस ज्ञान को सबसे पहले कबीर दास कंठस्थ करते थे। उनकी ये विशेषता उनको रामानन्द के लिए सबसे प्रिय बनाता था।
गृहस्थी संत कबीर दास
संत कबीर दास एक भक्त के साथ-साथ एक गृहस्थी भी थे। कबीर दास का मनाना था। कि ईश्वर की गृहस्थी भी अर्चना (भक्ति) कर सकते है। कबीर दास की पत्नी का नाम क्या था? इसका जवाब है। कबीर दास की पत्नी का लोई देवी था। जिन्होने दो संतान को जन्म दिया था। कबीर दास के एक पुत्र था। जिसका नाम कमाल था। कबीर की एक पुत्री भी थी। जिसका नाम कमाली था।
कबीर दास किस काल मे हुए थे?

संत कबीर दास जी भक्ति-काल (1400 से1700 ईस्वी तक का समय) के युग मे हुए थे। इन्हे भक्ति काल युग का प्रमुख निर्गुण (जिसका कोई भेद, स्थिति, आकार, धर्म या पंत रंग रूप अर्थात जो व्यक्ति अदृश्य होता है।) कवि माना जाता था। कबीर दास ने अपने ईश्वर को निर्गुण बताया था।

कबीर की भक्ति Devion of Kabir

कबीर दास जी बहुत गहरी मानवीयता और सहृदयता के कवि थे। अक्खड़ता और निर्भयता को उनके कवच के रूप मे माना जाता है।

कबीर दास मे हृदय में मानवीय करुणा, निरीहता, जगत के सौन्दर्य को महसूस करने वाला हृदय कबीर दास जी के पास विद्यमान था। ये कवि के साथ-साथ चित्रिण भी करते थे।

कबीर हिन्दुओ के देवता भगवान राम (विष्णु के सांतवे अवतार) के महान भक्त भी थे। कबीर दास बहुत ही दयालु तथा जिज्ञासु (जानने की इच्छा करने वाला) व्यक्ति थे।

वे प्रायः अपने साथियो के साथ रहते थे। तथा अपनी रचनाए अपने साथियो के सामने प्रस्तुत करते थे। तथा उनसे पूछते थे।- कहो भईया अंबर कासौ लागा'

कबीरदास के प्रमुख कार्य
Main Workof Kabir Das

कबीर दास जी के द्वारा किये गए अधिकांश कार्य आज के जमाने के लोगो के लिए संदेश के रूप प्रदर्शित किये जा सकते है। कबीर दास जी ने दरिद्र, (दलित, गरीब, दुखी, उजाड़) उन्हे बताया जिनके पास दो समय का भोजन खुद के आश्रय और पहनने के कपड़े खरीदना असंभव था।

इस प्रकार के लोगो की कबीर दास ने आर्थिक सहायता की कबीर दास की किंवदंतियों का प्राथमिक उद्देश्य "सामाजिक भेदभाव और आर्थिक शोषण के खिलाफ विरोध" था। कबीर दास का सबसे प्रमुख कार्य उनकी रचनाए है।

साहित्य में स्थान Place in literature

भारतीय साहित्य मे कबीरदास को सबसे श्रेष्ठ सच्चे संत, समाज सुधारक, उपदेशक तथा युग निर्माता के रूप मे माना जाता है। कबीर दास ने अपने सम्पूर्ण जीवन मे एक से बढ़कर एक रचनाओ का निर्माण किया.

इसलिए इन्हे हम हिंदी साहित्य का भगवान/ निर्माता भी कह सकते है। कबीरदास एक अनपढ़ व्यक्ति होते हुए भी ये स्वर्णिम काल के महान कवियों मे सबसे श्रेष्ठ तथा सबसे ज्ञानी थे।

कबीर दास की रचनाओ को पढ़कर लोग अदभूत ज्ञान प्राप्त कर रहे है। इनकी सम्पूर्ण रचनाए सार्वभौमिक आध्यात्मिक दृष्टिकोण को स्पष्ट करती है। कबीर दास का काम उनका विरासत था। कबीर दास जी रचनाए इस से संसर मे अमर बन गए है।

कबीर दास जी की रचनाएँ
Compositions of Kabir Das ji

कबीर दास जी शिक्षा ग्रहण करने किसी भी गुरुकुल मे नहीं जा पाये। इसलिए उन्होने अपनी शिक्षा अपने गुरु से ही प्राप्त की थी। कबीर दास जी ने अपने गुरु से अच्छा ज्ञान प्राप्त किया था।

वे बिना गुरुकुल जाते हुए भी उनके बाकी सभी दोस्तो से वे सबसे श्रेष्ठ थे। वे रामानन्द के सभी शिष्यो मे श्रेष्ठ थे। वे सबसे ज्ञानी थे। उनका ज्ञान बहुत ही प्रभावशाली था। ये अवधि, ब्रज, और भोजपुरी व हिंदी जैसे भाषाओ का ज्ञान प्राप्त करते थे। इन भाषाओ का इन्हे बहुत ज्यादा ज्ञान प्राप्त था।

ये राजस्थानी तथा हरियाणवी खड़ी बोली के महारथी थे। कबीर दास जी की प्रत्येक रचना मे सभी भाषाओ का मिश्रण देखने को मिलता है।

इसलिए इन्हे लेखन की भाषा 'सधुक्कड़ी' व 'खिचड़ी' (खड़ी बोली, हरियाणवी, ब्रज भाषा, अवधी, भोजपुरी, मारवाड़ी और पंजाबी भाषा के मिश्रण खिचड़ी या सधुक्कड़ी कहते है।)को माना जाता है।

एक प्रश्न बनाता है। किस कवि की भाषा को सधुक्कड़ी या पंचमेल खिचड़ी की भाषा कहा जाता है? तो इसका जवाब होगा। संत कबीर दास।

कबीर दास लेखन का कार्य नहीं कर पाते थे। ये कार्य अपने शिष्यो द्वारा करवाते थे। इनके शिष्य भी बहुत गुणवति थे। जिसमे धर्मदास ने बीजक नामक ग्रन्थ का निर्माण किया था।

कबीर दास की प्रमुख रचनाएं
सुखनिधन
होली
अगम
कबीर दास की रचनाओ को "कबीर ग्रंथावली" नामक संग्रह मे मे संगृहीत किया गया है। अन्य रचनाओ को एक और ग्रंथ " गुरु ग्रंथ साहब" मे रखा गया है। इनकी रचनों का बीजक ही प्रमाणित माना जाता है।

राम और अल्लाह मे अंतर
Difference between ram and allah
कबीर दास ने हिन्दुओ के भगवान श्री राम तथा मुस्लिम धर्म का ईश्वर अल्लाह के बीच मे इन्होने कभी भेद नहीं किया था। साथ ही इन्होने लोगो को भी समझाने का प्रयास भी किया कि भगवान मे भेद/ अंतर नहीं होता है। केवल उनके नाम भिन्न-भिन्न होते है। भगवान एक ही होता है। उनके अलग-अलग रूप होते है।

कबीर दास जी ने कहा कि बिना उच्च वर्ग या निम्न वर्ग जाँती-पाँति तथा बिना धर्म के भेद का धर्म होना चाहिए। भाईचारे का धर्म होना चाहिए। लोग उस भगवान मे धर्म जाती का भेद करते है। जिनका कोई धर्म भी नहीं था। भगवान अंधविश्वासी नहीं होते है। भगवान तो मात्र कर्म पर विश्वास करते है।

संत कबीर दास की मृत्यु कैसे हुई थी?
How Did Saint Kabir Das die?
कबीर दास का जन्म-मृत्यु दोनों रहस्यमय तरीके से हुए थी। 1398 मे जन्मे कबीर दास जी का जीवनकाल (1398-1518 तक) 120 साल था। ये सबसे लंबी उम्र जीने वाले कवि भी थे।

माना जाता है। कि इनकी मृत्यु होते ही ये सीधे मोक्ष (जन्ममरण के बंधन से छूट जाने का ही नाम मोक्ष है। जिसका अर्थ मुक्ति होता है।) को प्राप्त होते है।

कबीर दास ने अपना सम्पूर्ण जीवन काशी मे रहे। परंतु उनकी जब मृत्यु हुई। उस समय मगहर नामक जगह पर चले गए। (जिसे वर्तमान मे संत कबीर नगर जिले के रूप मे स्थित है।)

कई लोगो कि मान्यता के अनुसार कबीर दास का अंतिम संस्कार (Funeral) करने के लिए कबीर के हिन्दू शिष्यो तथा मुस्लिम शिष्यो के बीच मे विवाद बन गया।

दोनों धर्मो के लोग अपने-अपने रीति-रवाज़ से कबीर का अंतिम संस्कार करना चाहते थे। कहा जाता है। कि जब इन्होने कफन (मुर्दा या शव लपेटने की चादर) को हटाया तो वह पर शव नहीं बल्कि फूल मिले थे।

शव के स्थान पर फूल बन गए। जिसमे से आधे फूलो को हिन्दुओ ने अपनी रीति से जलाया तथा आधे फूलो को मुस्लिमो ने दफना दिया था।

कबीर दास जी मगहर क्यो गए थे? उनके जाने का क्या उद्देश्य था?
कबीर दास का मगहर जाने का प्रमुख उद्देश्य था। लोगो के अंधविश्वास को तोड़ना था। लोगो का मानना था। कि जो वाराणसी मे मारता है।

वो स्वर्ग (मृत्यु के बाद ऐसा स्थान जहाँ सभी प्रकार के सुख प्राप्त हों और नाममात्र भी कष्ट या चिंता न हो।/Heaven) मे जाता है। या मुक्ति प्राप्त करता है। और जो मगहर मे मारता है। उसे नरक (मृत्यु के बाद ऐसा स्थान जहाँ बहुत कष्ट या तकलीफ़ हो। और जहाँ रहना असहनीय हो।/hell) मे जाना पड़ता है।

लोगो के इस प्रकार के अंधविश्वास को तोड़कर सन 1518 को मगहर मे कबीर दास जी इस संसार से विदा हो गए थे। वर्तमान मे उस जिले का नाम संत कबीर नगर रखा गया है।

वहा पर कबीर दास की मजार (मजार एक कब्र को कहते है। जिसमें किसी पीर का शव या लाश रखा हो। उसको मजार कहा जाता है। मजार का प्रयोग मुस्लिम लोगो के लिए किय जाता है।) बनाया गया है। जो कि दो इमारतों पर बना हुआ है। और आज के वह के लोगो का मानना है। कि इतिहास कुछ भी क्यो न रहा हो परंतु कबीर दास जी ने हमारे जिले को पवित्र बना दिया है।

एक समाज सुधारक तथा एक फकीर के रूप मे
कबीर एक ऐसे व्यक्ति थे। जिन्होने अपने जीवन मे कभी-भी शास्त्र का अध्ययन नहीं किया फिर भी सबसे श्रेष्ठ तथा सर्वोपरी ज्ञानी थे। इन्हे एक फकीर के रूप मे तथा एक समाज सुधारक के रूप मे भी जाना जाता है।

ये बचपन मे एक फकीर थे। फिर अपने कर्मो से उन्होने खुद को फकीर (गरीब) से समाज सुधारक (समाज की सहायता करने वाला) के रूप मे हुए। उनके जीवन का सार यही है। कि करियर बना हुआ नहीं मिलता हमे करियर को बनाना पड़ता है।

उपसंहार
कबीर दास के समय शिक्षा की कोई व्यवस्था नहीं थी। फिर भी उन्होने इस प्रकार भाषा, संवेदना, विचार प्रणाली सभी दृष्टियों से अनेक रचनाओ के निर्माता (निर्माण करने वाला) बनें।

वर्तमान मे एक से बढ़कर एक सरकारी विद्यालय है। जिसमे निःशुल्क शिक्षा ग्रहण कराई जाती है। कबीर अनपढ़ थे। इन्होने अपने कर्मो से अपना सम्पूर्ण जीवन बदल दिया।

गरीब से खुद को अमीर बना दिया इसमे उन्होने अपने खुद के बजाय उन्होने किसी से भी सहयता नहीं ली। उनसे हमे सीख मिलती है। कि हमे अपना करियर स्वय बनाना पड़ता है। उन्होने अपने शिष्यो से सम्पूर्ण लेखन करवाया था।

आज के जमाने मे तो कंप्यूटर से लिखा जा सकता है। कबीर दास के जीवन से हमे सीख लेनी चाहिए। कि किसी भी परिस्थिति मे हमे रुकना नहीं चाहिए। अपने कार्य पर लगे रहो।

V V COLLEGE OF SCIENCE & TECHNOLOGY

(Affiliated to University of Calicut)
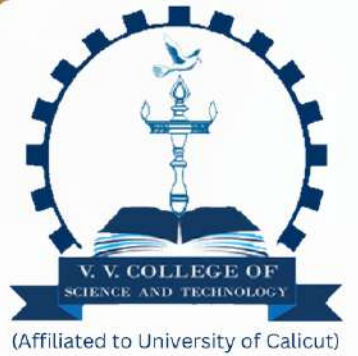
OUR COURSES

B.Sc Electronics

B.Sc computer Science

B.Sc Geography

B.Sc Mathematics

B.A English

B.C.A

B.com Finance

B.Com C.A

B.Com Co-operation

B.B.A

M.Sc Computer Science

M.Com Finance

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A STUDY ON ELECTRONIC FINANCIAL

LITERACY OF PEOPLE IN PALAKKAD

INTRODUCTION

Evolution is inevitable hence; evolution of Financial Literacy was inexorable in this era of extraordinary technological developments. Financial Literacy has evolved itself into Digital Financial Literacy in the recent past. Financial Literacy is a lucid concept which involves a person's ability to take decisions regarding budgeting, savings and personal finance management. While on the other hand Digital Financial Literacy is much broader and complex concept that encompasses two components-Digital Literacy and Financial Literacy Financial literacy has evolved itself into Digital Financial Literacy in the recent past financial literacy is a lucid concept which involves a person ability to take decisions regarding budgeting savings and personal finance management. It seeks to know the relationship between the age and the level of awareness regarding different Digital Financial products or services. It makes an effort to envisage if there is any relation between education level and type of investments made by the people in managing their funds digitally.

For a country like India were most of the transactions are done physically, paving the way for black money and Tax evasion ,reformation in the monetary system is necessary to increase the usage of Digital Financial Products and blocking the loopholes in the system which are a boon for the tax evader. This paper tries to envisage and provide a much clearer picture of Digital Financial Literacy among the people of Palakkad, Kerala

In this paper we are trying to find and establish a liaison between the age of rural respondents and the level of awareness about different Digital Financial services and products.

DATA ANALYSIS AND INTERPRETATION

TABLE NO 1.1 GENDER OF THE RESPONDENTS

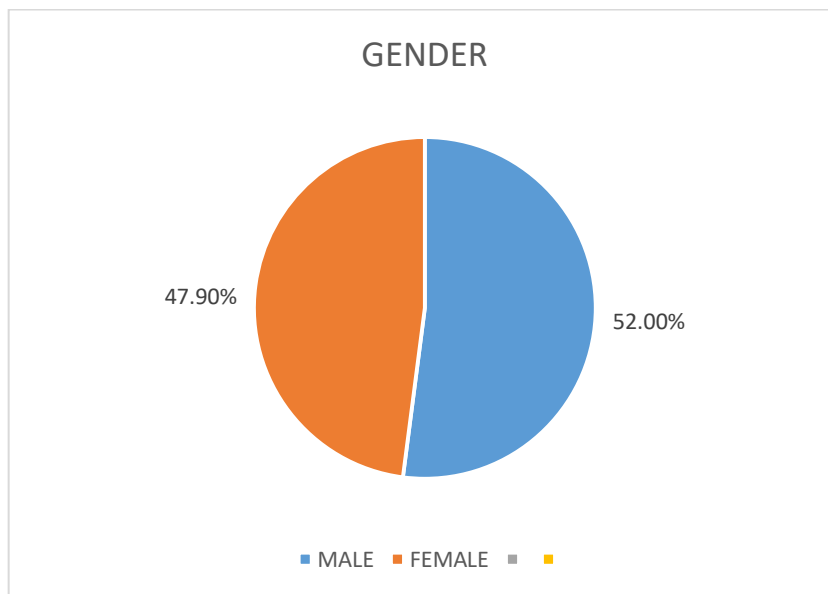| ATTRIBUTES	FREQUENCY	PERCENTAGE
MALE	0	52.0%
FEMALE	50	47.9%
TOTAL	50	100%

CHART NO 1.1 GENDER OF THE RESPONDENT
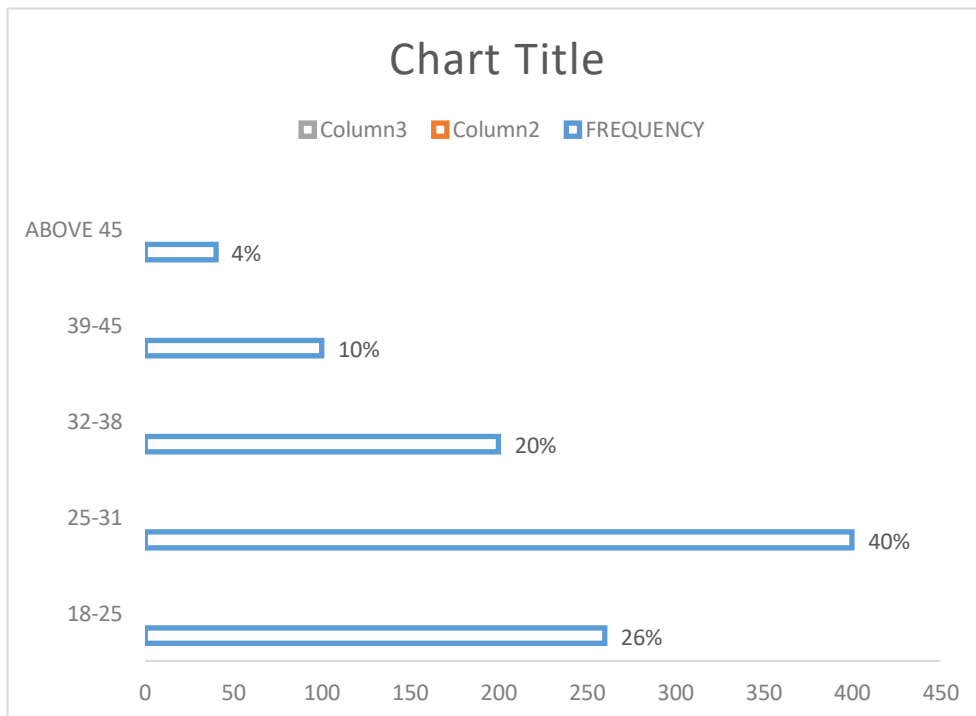
INTERPRETATION

From the above table it is clear that majority of the respondents are male (52.00%) and rest of the respondents 47.90% are female

TABLE 1.2 AGE OF THE RESPONDENTS

AGE	FREQUENCY	PERCENTAGE
18-25	260	26%
25-31	400	40%
32-38	200	20%
39-45	100	10%
ABOVE 45	40	4%
TOTAL	50	100%

CHA RT NO 1.2 AGE OF

THE RESPONDENTS

Chart Title

□Column3 □Column2 ■FREQUENCY

- ABOVE 45 — 4%
- 39-45 — 10%
- 32-38 — 20%
- 25-31 — 40%
- 18-25 — 26%

(horizontal axis: 0, 50, 100, 150, 200, 250, 300, 350, 400, 450)

INTERPRETATION

Most of the respondents are come under in age group of 25-31 as 40% because most of the people in thisage group are educated or employed and minimum number of respondents are come under the category above 45 because they are not aware about the technologies developed in digital field.

TABLE NO 1.3 MOST PREFERRED EWALLET

ATTRIBUTES	FREQUENCY	PERCENTAGE
AMAZON PAY	50	5%
GOOGLE PAY	725	72.5%
PAYTM	150	15%
PHONE PE	75	7.5%
TOTAL	1000	100%

PERCENTAGE

■ AMAZON PAY   ■ GOOGLE PAY   ■ PAYTM   ■ PHONE PE
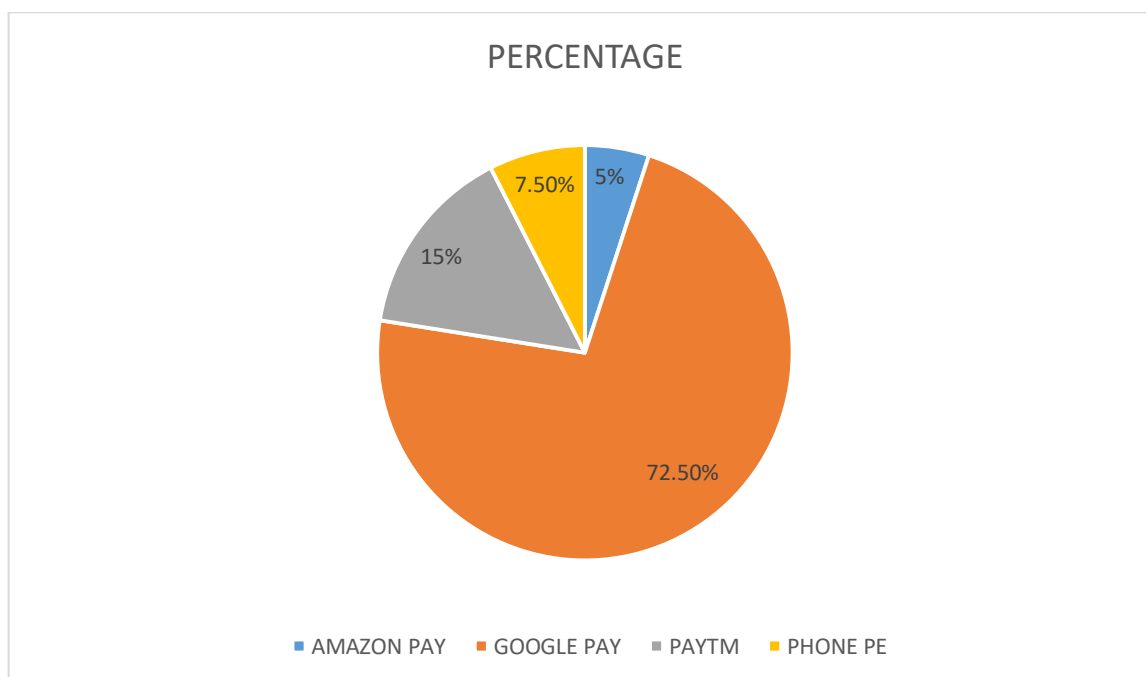
CHART NO 1.4 MOST PREFERRED EWALLE

INTERPRETATION

Most preferred e-wallet is Google pay (72.5%) and least preferred wallet is amazon pay (5%).

TABLE NO 1.5 SOURCE OF AWARENESS ABOUT E WALLET

ATTRIBUTES	FREQUENCY	PERCENTAGE
SOCIAL MEDIA	350	35%
FRIENDS	120	12%
ADVERTISEMENTS	520	52%
MAGAZINE/TELEVISION	10	1%
TOTAL	1000	100%
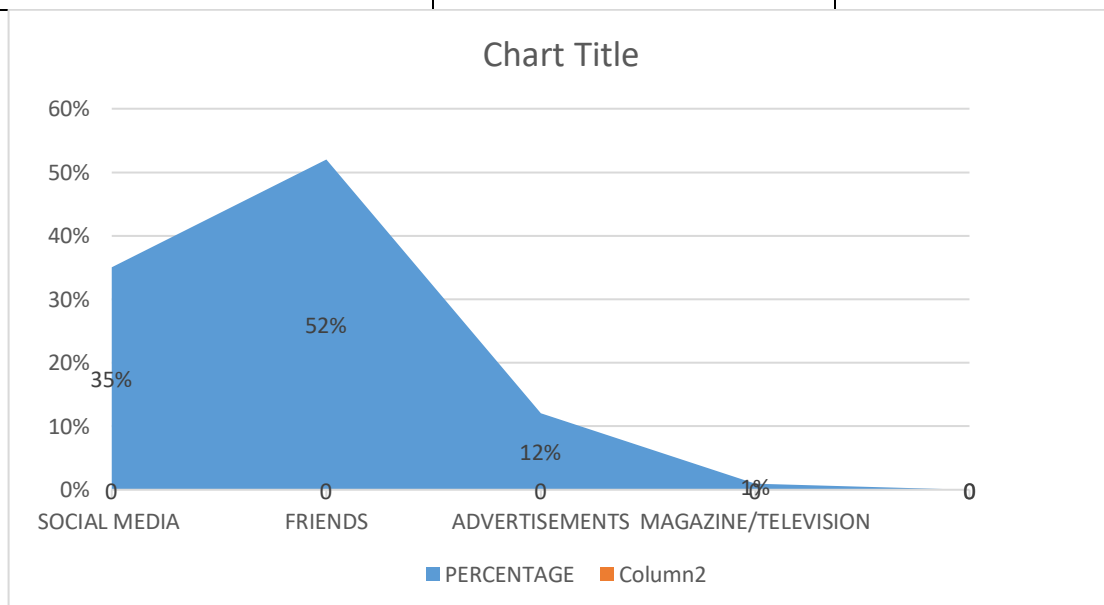
CHART NO 1.5 SOURCE OF AWARENESS ABOUT E WALLET

INTERPRETATION

Most of the respondents are aware about e wallets through advertisements (52%).and next through social medias (35%).

TABLE 1.5 SHOWING USAGE OF E WALLETS

ATTRIBUTES	FREQUENCY	PERCENTAGE
YES	540	54%
NO	460	46%
TOTAL	1000	100%

USAGE OF E WALLETS
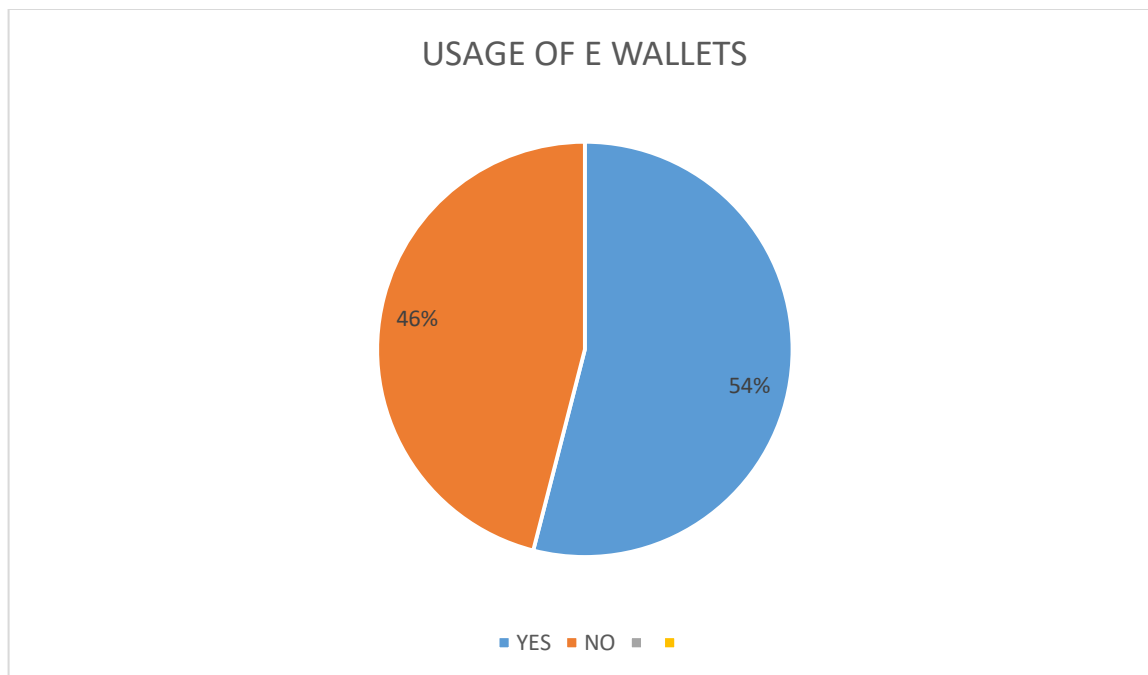
INTERPRETATION

Majority (54%) of the respondents are using e-wallets for financial transactions.

TABLE 1.6 SHOWING REASONS FOR SELECTING MODES OF PAYMENT

ATTRIBUTES	FREQUENCY	PERCENTAGE
TIME SAVING	200	20%
EASE OF USE	300	30%
SECURITY	200	20%
WIDE ACCEPTABILITY	300	30%
TOTAL	1000	100%

PERCENTAGE
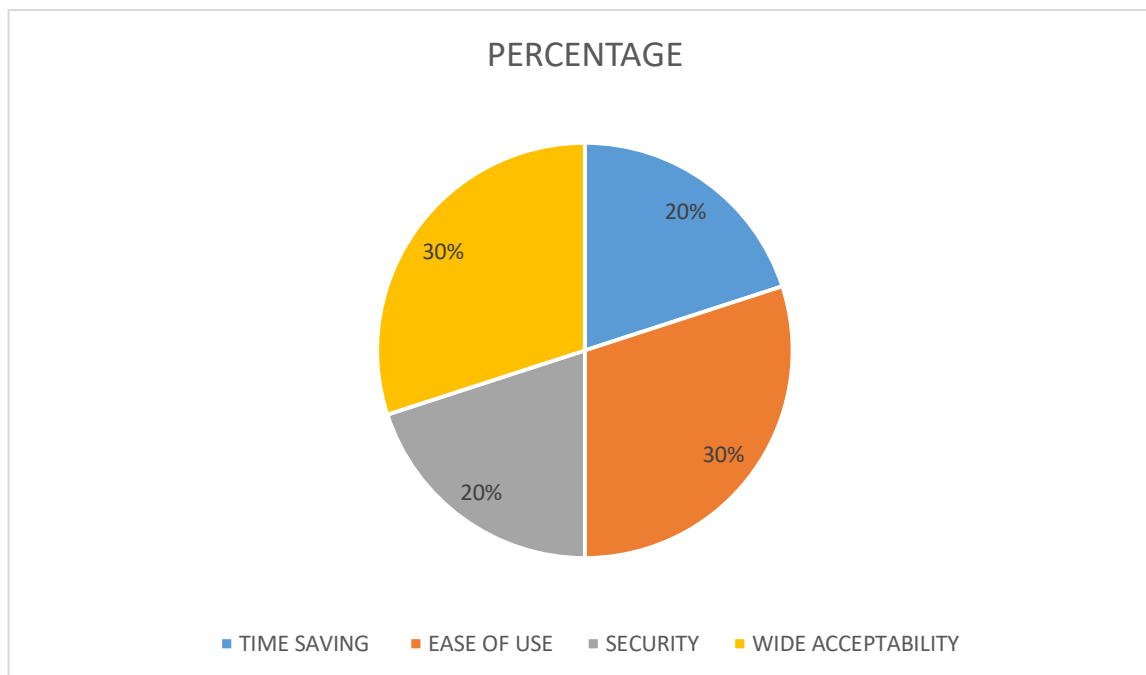
CHART NO 1.6 SHOWING REASONS FOR SELECTING MODES OF PAYMENT

INTERPRETATION

Ease of use ,wide acceptability(30%) are equally responsible for the reasons for selecting modes of payment and also time saving, security are equally (20%) selected by the respondents.

TABLE 1.7 SHOWING MOST CONVENIENT E WALLET

ATTRIBUTES	FREQUENCY	PERCENTAGE
SMART PHONE	650	65%
LAPTOP	110	11%
COMPUTER	100	10%
ALL OF THE ABOVE	140	14%
TOTAL	1000	100%

TABLE 1.7 SHOWING MOST CONVENIENT E WALLET
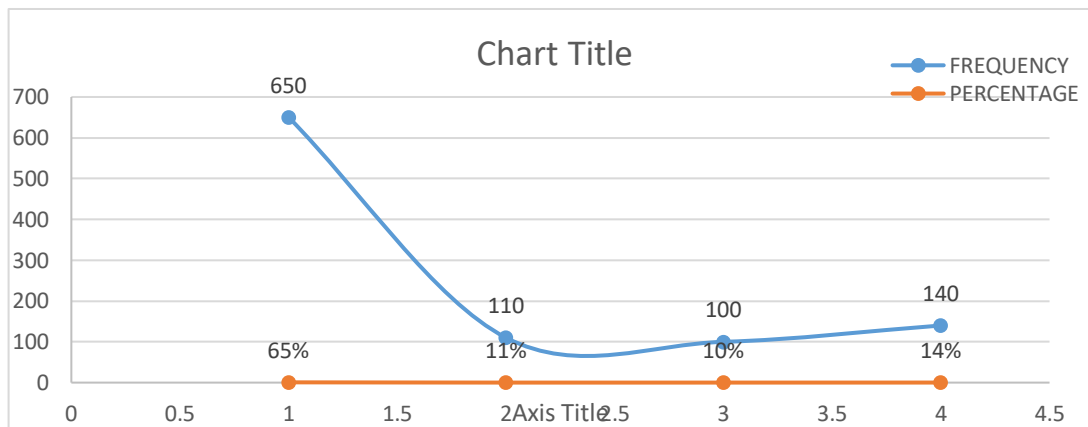
INTERPRETATION

From the above table and graph majority of the respondents are more convenient in mobile phone (65%) for using e wallets and also all are using laptop,computer for financial transactions.

TABLE 1.8 SHOWING ATTRACTING FEATURES OF E WALLETS

ATTRIBUTES	FREQUENCY	PERCENTAGE
QUICK TRANSFER	200	20%
EXCITING REWARDS	500	50%
MORE SECURE	150	15%
ALTERNATE CHOICE	150	15%
TOTAL	1000	100%

Chart Title
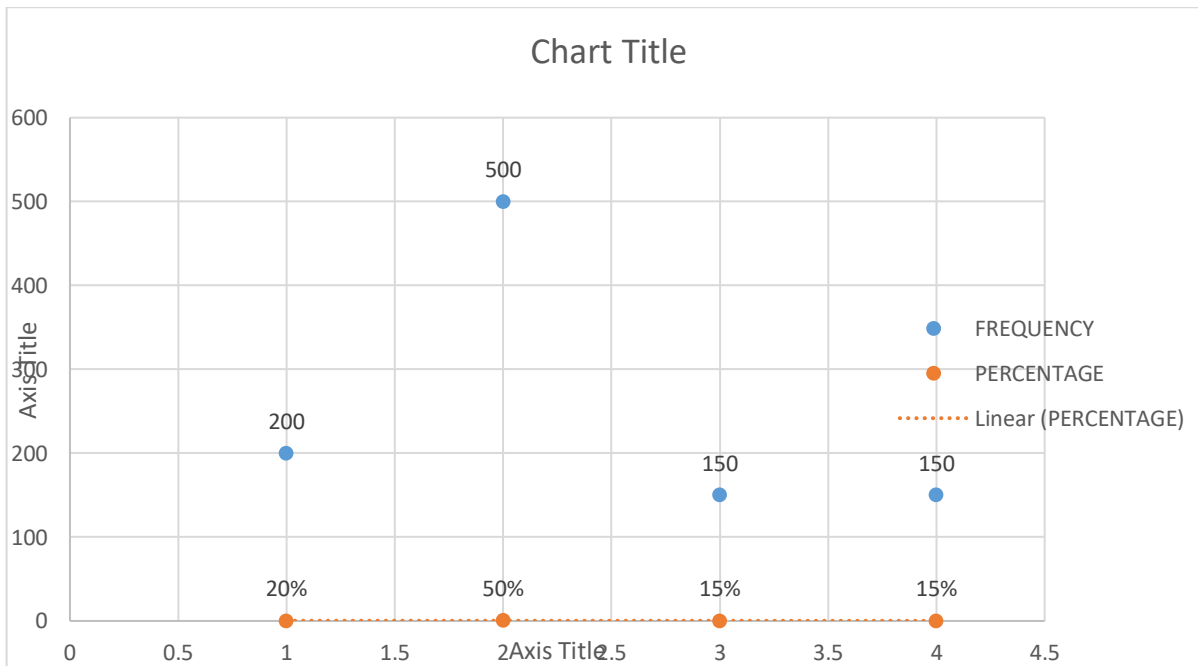
INTERPRETATION

From the above table majority of the respondents come to know about the attracting features of e wallets are exciting rewards(50%) while others are quick transfer(20%),more secure(15%).

1.9 TABLE SHOWING PURPOSE OF USING E WALLETS

ATTRIBUTES	FREQUENCY	PERCENTAGE
MONEY TRANSFER	200	20%
RECHARGE	100	10%
UTILITY AND BILL PAYMENT	100	10%
ALL OF THE ABOVE	600	60%
TOTAL	1000	100%

Chart Title

MONEY TRANSFER   RECHARGE   UTILITY AND BILL PAYMENT   ALL OF THE ABOVE
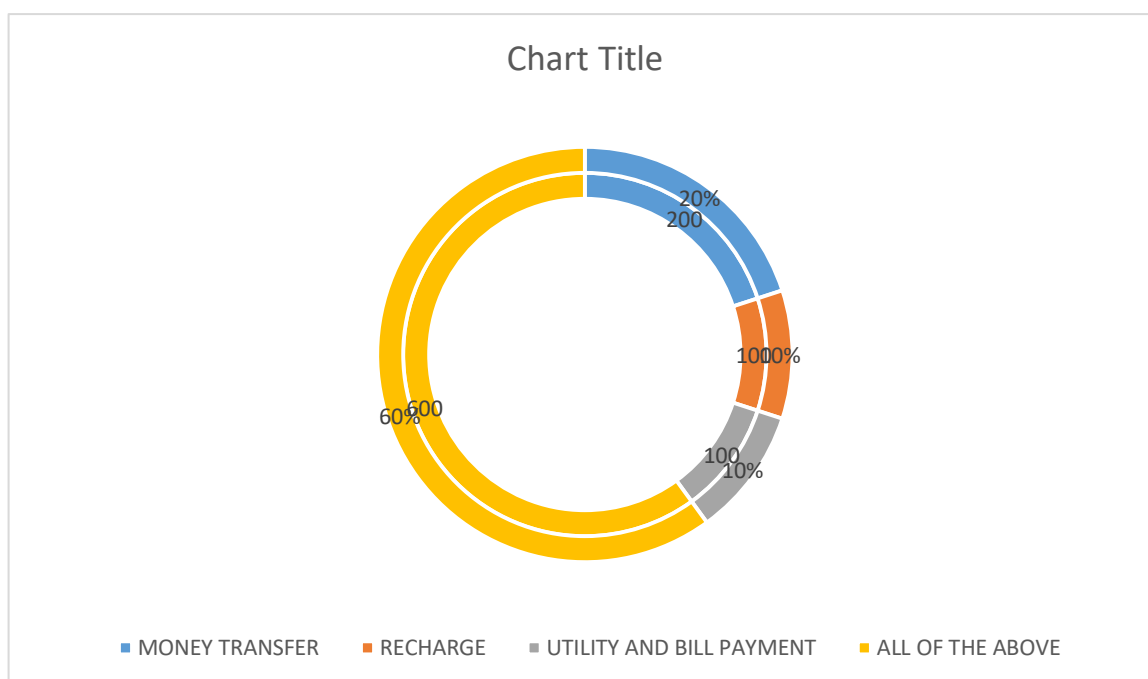
INTERPRETATION

Majority of the respondents were using e wallets for the purpose of money transefring,recharge,bill payment and all together.

1.10 TABLE SHOWING USAGE

ATTRIBUTES	FREQUENCY	PERCENTAGE
ONLY ONCE	60	6%
5-10 TIMES	200	20%
10-15 TIMES	200	20%
MORE THAN 15 TIMES	540	54%
TOTAL	1000	100%

PERCENTAGE

- ONLY ONCE
- 5-10 TIMES
- 10-15 TIMES
- MORE THAN 15 TIMES
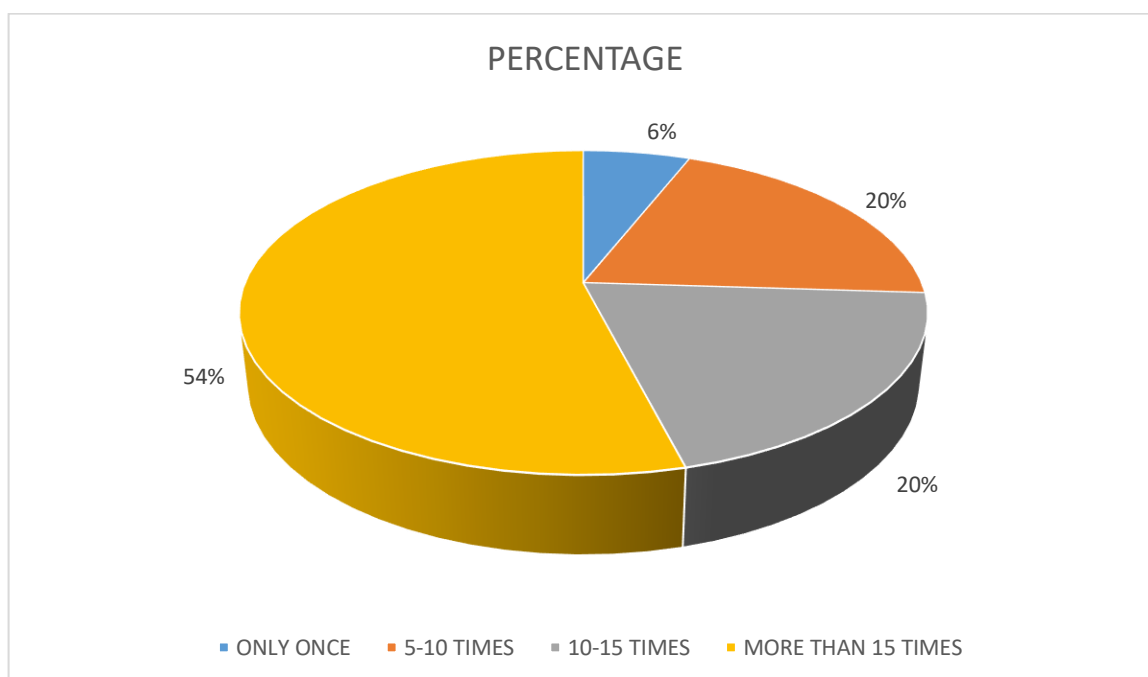
INTERPRETATION

Most of the respondents(54%) are using e wallets more than 15 times only(6%) respondents are using only once

1.11 SATISFACTION LEVEL TOWARDS USABILITY OF E- WALLETS

ATTRIBUTES	FREQUENCY	PERCENTAGE
VERY SATISFIED	50	5%
SATISFIED	700	70%
NEUTRAL	100	10%
UNSATISFIED	110	11%
VERY SATISFIED	40	4%
TOTAL	1000	100%
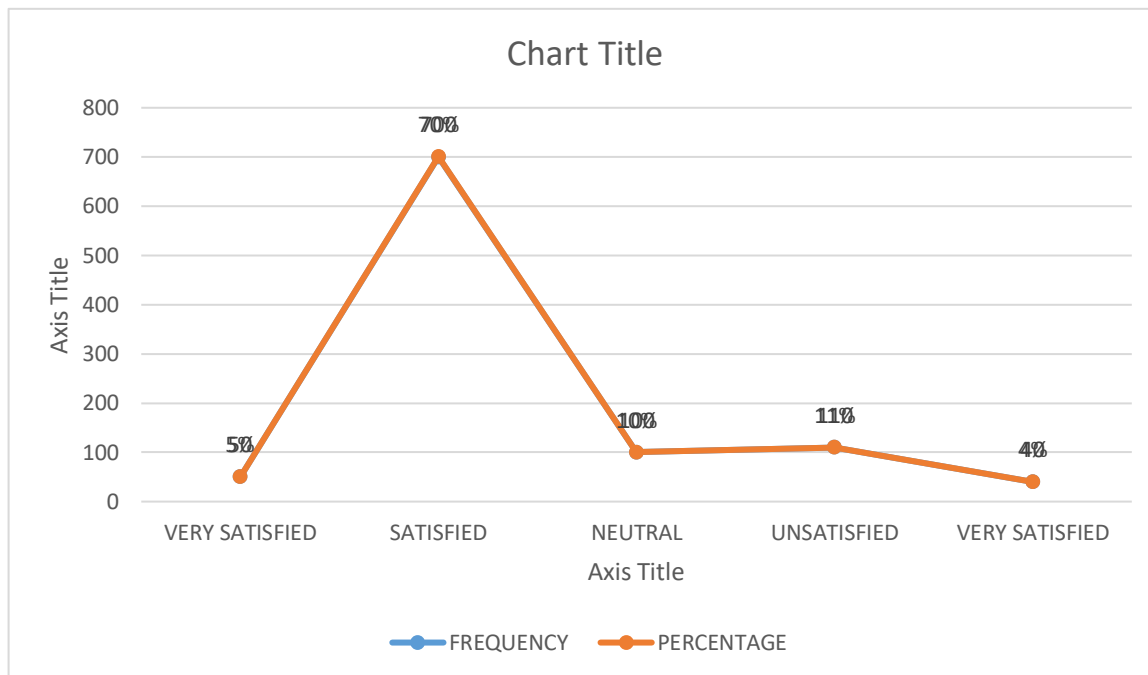
INTERPRETATION

Most of the respondents (70%) are satisfied towards the usability of e-wallets and least of the respondents are only (5%).

1.12 TABLE SHOWING HOW OFTEN DO YOU USE E-WALLETS

ATTRIBUTES	FREQUENCY	PERCENTAGE
DAILY	600	60%
WEEKLY	200	20%
MONTHLY	200	20%
YEARLY	100	10%
TOTAL	1000	100%
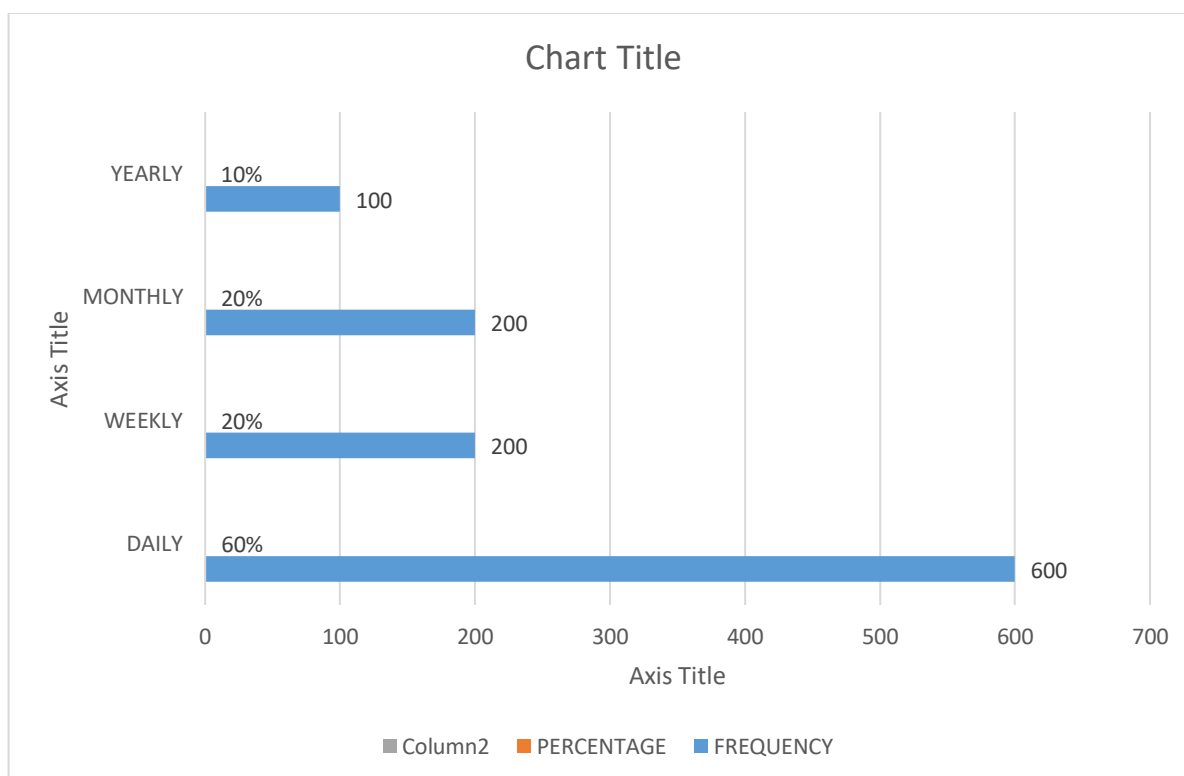
CHART NO 1.12 SHOWING HOW OFTEN DO YOU USE E- WALLETS

INTERPRETATION

Majority of the respondents are using e wallets daily(60%)

1.13 TABLE SHOWING OBSTACLES WHILE USING E-WALLETS

ATTRIBUTES	FREQUENCY	PERCENTAGE
SECURITY OF MOBILE PAYMENT	100	10%
TOO MUCH TIME CONSUMING TO SET UP	612	61.2%
INVOLVES DANGER OF LOSING MONEY	222	22.2%
CANNOT BE USED FOR INTERNATIONAL TRANSACTION	66	6.6%
TOTAL	1000	100%

CHART 1.13 SHOWING OBSTACLES WHILE USING E-WALLETS

INTERPRETATION

There are some difficulties while using e-wallets among them too much time is consuming to set up is mostly (61.2%) facing by the respondents and the least one is cannot be used for international transactions (6.6%)

1.14 TABLE SHOWING USEFULLNESS OF E-WALLETS MODE OF PAYMENT

ATTRIBUTES	FREQUENCY	PERCENTAGE
STRONGLY AGREE	850	85%
AGREE	50	5%
DISAGREE	50	5%
STRONGLY DISAGREE	50	5%
TOTAL	1000	100%

PERCENTAGE

■ STRONGLY AGREE ■ AGREE ■ DISAGREE ■ STRONGLY DISAGREE
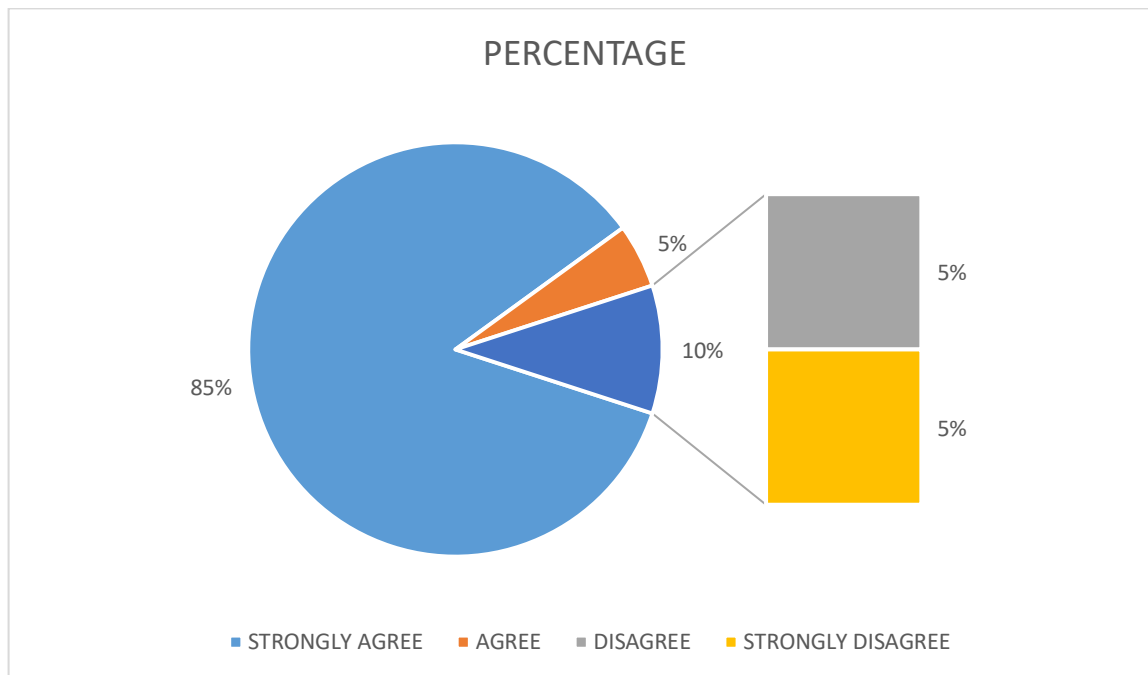
INTERPRETATION

Maximum number (85%) of respondents are strongly agreeing about the usefulness of e-wallets mode of payment. And (5%) of respondents are strongly disagreeing about the usefulness of e-wallets.

1.15 TABLE SHOWING STRATEGIC WEAPON OF E-WALLETS WHICH ATTRACTS USERS

ATTRIBUTES	FREQUENCY	PERCENTAGE
SCRATCH CARD AND CASH BACK	156	15.6%
DIWALI OFFER AND WELCOME 2021 OFFER	160	16%
CHAT OPTIONINSIDE E WALLETS	95	9.5%
ALL OF THE ABOVE	589	58.9%
TOTAL	1000	100%

PERCENTAGE

- SCRATCH CARD AND CASH BACK
- DIWALI OFFER AND WELCOME 2021 OFFER
- CHAT OPTIONINSIDE E WALLETS
- ALL OF THE ABOVE
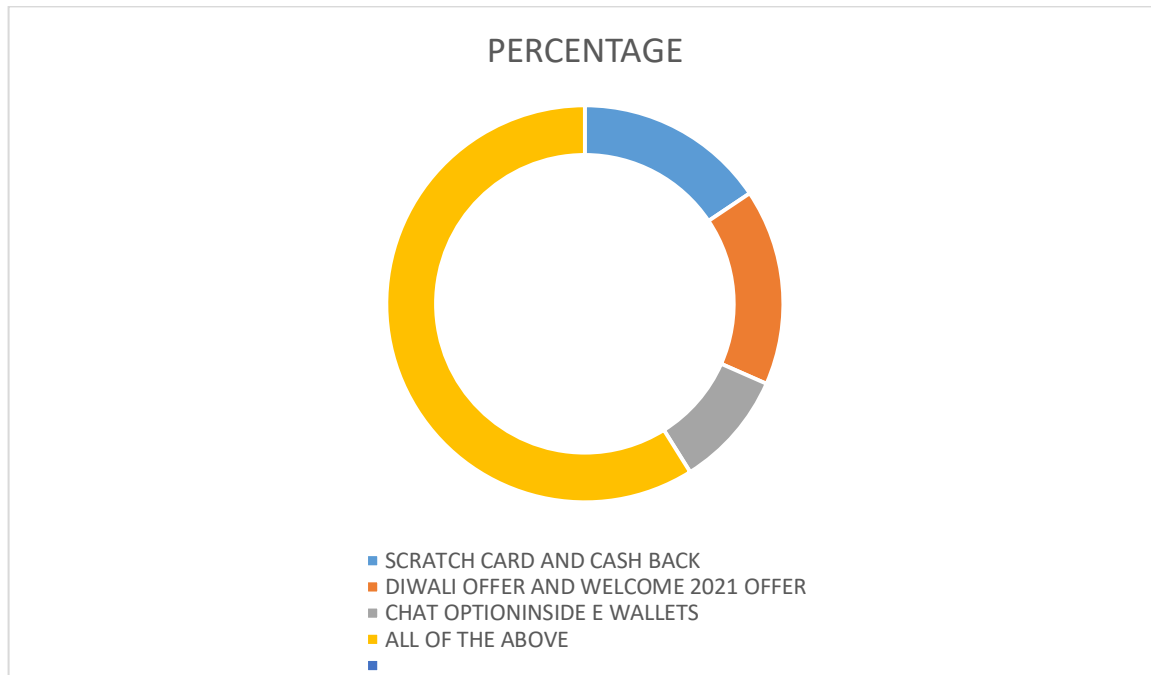
INTERPRETATION

The main strategic weapons of e-wallets are scratch cards and cash back ,Diwali offers and chat optionse-wallets.

1.16 TABLE SHOWING AVAILIBILITY OF E WALLETS IN INDIA

ATTRIBUTES	FREQUENCY	PERCENTAGE
YES	628	62.8%
NO	372	37.2%
TOTAL	1000	100%

Chart Title
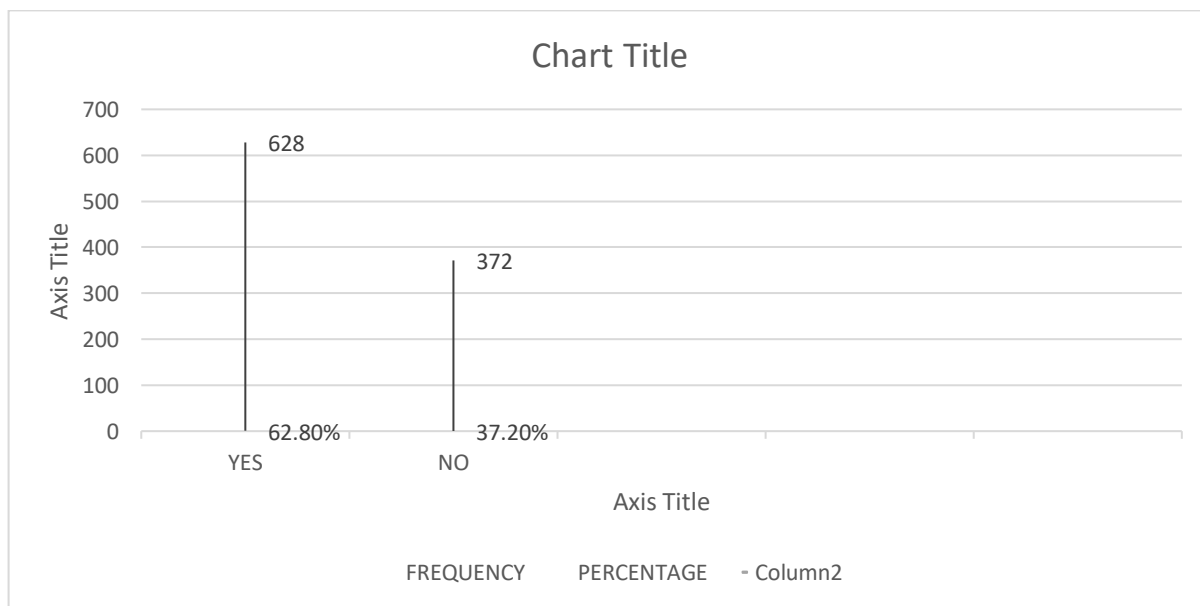
INTERPRETATION

Respondents are more aware about the availability of e-wallets in India. They know many Information about the e-wallets.

1.17 TABLE SHOWING PROMOTING SAVINGS

ATTRIBUTES	FREQUENCY	PERCENTAGE
YES,VERY MUCH	50	5%
UPTO A CERTAIN LEVEL	150	15%
NOT AL ALL	800	80%
TOTAL	1000	100%

Chart Title
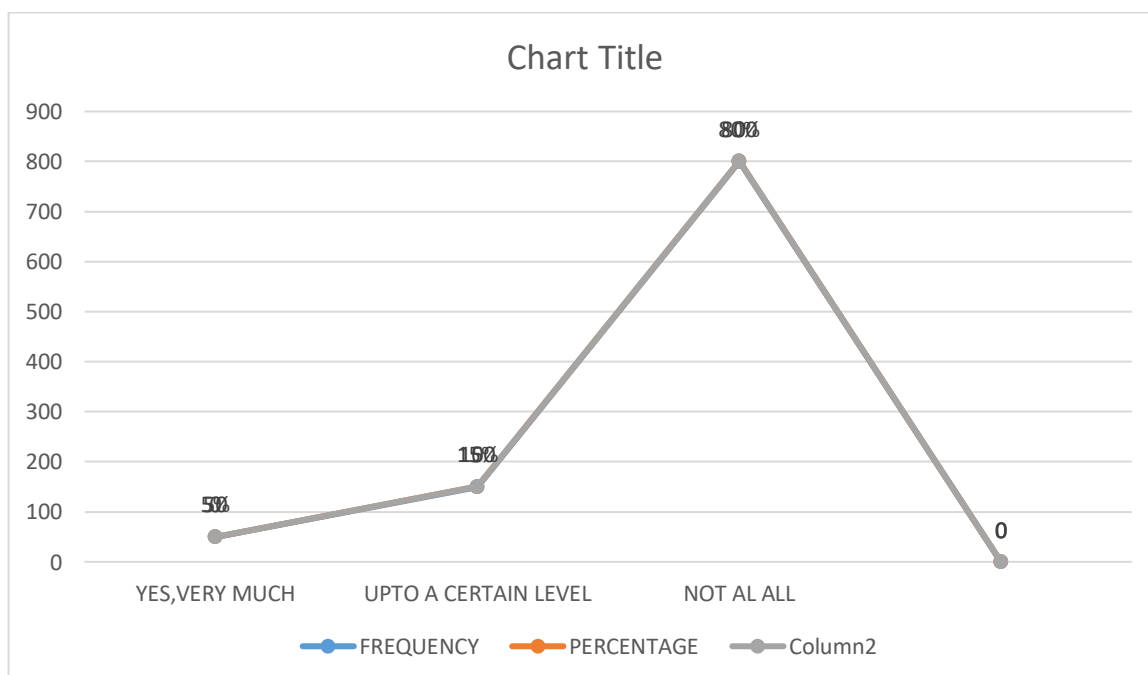
INTERPRETATION

From the above figure it is clear that majority of the respondents have no savings while using e-wallets because it is very easy to transact the amount and other facilities like bill payments.

FINDINGS

- 52% of the respondents are male and 49.02% of respondents are female.
- Majority of the respondents belongs to the age group under 25-31(40%).
- Google Pay is the most preferred E-wallet (72.5%).
- Most of the respondents are aware about e-wallets through advertisements (52%).
- Majority of the respondents are using e –wallets (54%).
- Time savings ,ease of use ,security and wide acceptability are equally connected to the   reasons for selecting modes of payment.
- Mobile phone is the most convenient e-wallet (65%).
- Exciting rewards are the most (50%) attracting feature of e-wallets
- E-wallets are mostly used for recharging, money transfer, utility and bill payment (60%)
- (54%) of the respondents are using e-wallets more than 15 times
- Most of the respondents are satisfied towards usability of e-wallets (70 %).Least percentage is (4%).

• The main obstacle while using e-wallets is too much time consuming (61.2%)

• Maximum number of respondents are strongly agreeing about the usefulness of e-wallets mode of payment (85%).

• Respondents are more aware about the availability of e-wallets in (62.8%) India but they are not widely using it.

SUGGESTIONS

• Develop programmes to promote digital financial education –cost effective special programmes for women , less educated , startups.

• There is need for providing more information about the product through mobile phones, tv, magazines, newspaper

• Conduct awareness classes among rural people and illiterate about the problems while using e-wallets and security issues

• Educational istitutions should introduce ne technologies among students.

CONCLUSION

The project entitled" A STUDY ON ELECTRONIC FINANCIAL LITERACY OF PEOPLE WITH REFERENCE TO PALAKKAD RURAL AREAS "was an attempt to study the electronic financial literacy among people in Palakkad. People are ready to adopt the new technologies and there is a good progressing change among people. Education level also helps in contributing towards increasing the confidence of the respondents in managing their funds digitally.

The importance of digital financial literacy is self-evident. Digital Financial Literacy is critical for the empowerment of all underprivileged parts of society in today's world, as everything is done digitally. We can deduce from this study that the well-educated rural populations of Kerala make extensive use of digital financial services, whereas a major percentage of the uneducated population does not. Moreover, women of rural areas especially the uneducated and the elder women didn't find them suitable for the usage of these services. The main reason for this was the fear of hackers or fear of losing their hard-earned money. Hence, service providers of Digital Financial apps should try to build an interface that is user friendly for the less educated, women and elderly people. However, this is also not enough various camps needs to be set up which gives them a physical demonstration of these services usage.

We also uncovered the fact that education contributed towards increasing the confidence level of people in managing the funds digitally. During the course of the study, we also deciphered that Direct Benefit Transfer scheme was acting as a catalyst for stimulating people to acquire Digital Financial Literacy. Additionally, this scheme as also helped in increasing some people's income. Consequently, more additions and weights must be provided to this system in order to target the less advantageous parts, by the policy makers so as to achieve an inclusive Digital Financial growth in the economy.

QUESTIONNAIRE

A SURVEY ON ELECTRONIC FINANCIAL LITERACY OF PEOPLE IN PALAKKAD QUESTIONNAIRE

1. Name :

2. Age :

3. Gender of the respondent?

a) Female b) Male c) others

4. Are you aware regarding the functionality of e-wallets?

a) Aware b) Fully aware c) Partially aware d) Not aware

5. Which e-wallet do you prefer the most?

a) Amazon Pay b) Google Pay c) Paytm d) Phonepe

6. From where did you get the information about e-wallets?

a) Social media b) Friendsc) Advertisements d) Magazine/Television

7. Do you use e-wallets for financial transactions?

a) Yes b) No

8. Why do you use e-wallets over other modes of payment?

a) Time saving b) Ease of use c) Security d) Wide acceptability

9. Which device is most convenient for making the payment via e-wallets?

a) Smart phone b) Laptop c) Computer d) All of the above

10. How do you consider e-wallets against other sort of payment methods?

a) Quick transfer b) Exciting rewards c) More secure d) Alternate choice

11. What is your purpose of using e-wallets?

a) Money transfer b) Recharge c) Utility and Bill payment d) All of the above

12. What do you keep in mind while using e-wallets?

a) Available discounts b) Premium offers c) Cash back d) Rewards

13. How many times have you used e-wallets?

a) Only once b) 5-10 times c) 10-15 times d) More than 15 times

14. How would you rate e-wallets according to usability?

a) Very satisfiedb) Satisfied c) Neutral d) Unsatisfiede) Very unsatisfied

15. How often do you use e-wallets?
a) Daily b) Weekly c) Monthly d) Yearly

16. Are there any obstacles while using e-wallets?
a) Yes b) No

17. What are the obstacles you face while using e-wallets?
a) Security of mobile payment b) Too much time consuming to set up
c) Involves danger of losing money d) Cannot be used for international transaction

18. Is e-wallets services useful mode of payment?
a) Strongly disagree b) Disagree c) Agree d) Strongly agree

19. Among the following, which one do you think is a strategic weapon of
e-wallets to attract users?
a) Scratch card and cash back b) Diwali offer and welcome 2021 offer c) Chat option inside e-wallets d) All of the above

20. Do you think e-wallets should be widely available in India?

a) Yes   b) No   c) Maybe

21. Would you like to continue using E-wallets?

a) Very likely b) Likely c) Neutral d) Unlikely e) Very unlikely

22. Does e-wallets promote your savings?

a) Yes, very much b) Upto a certain level c) Not at all

23. Are you satisfied with the security of your credentials?

a) Yes b) No

24. Would you like to refer your friend to use e-wallets?

a) Yesb) No

SIGNATURE

PLACE