

A STUDY ON THE MARKET FEASIBILITY OF DETERGENT BAR SOAP BY CONVERTING WASTE COOKING OIL RELATED TO URBAN SLUM LIVELIHOODS IN CHENNAI

Submitted in partial fulfillment of the requirements for the award of

MASTER OF BUSINESS ADMINISTRATION

by

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SCHOOL OF MANAGEMENT STUDIES

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119**

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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **RANJANI K 40410138** who carried out the project entitled "**A Study on Market Feasibility of Detergent Bar Soaps By Converting Waste Cooking Oil Related to Urban Slum Livelihoods**" under my supervision from January 2022 to March 2022.

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DECLARATION

I **Ranjani K (40410138)** hereby declare that the Project Report entitled “**A Study on Market Feasibility of Detergent Bar Soaps By Converting Waste Cooking Oil Related to Urban Slum Livelihoods**” done by me under the guidance of **DR.G.Bhuvaneshwari** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

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ABSTRACT

Waste oil (WCO) is taken into account mutually of the risky wastes as a result of improper disposal of WCO will cause vital environmental issues like blockages of drains and sewers in addition as water or soil pollution. For this elimination of ecological imbalance, the centre of waste management tries to convert these wastes into various forms of new innovative products. For that, the used oil is to be covert into detergent bar soaps which is used for washing clothes in their households. The poor people also will start-up their business with this wonderful opportunity. With this reason, this study is found out the market feasibility of detergent bar soaps in urban slum population. Before starts the business, the analysis is very essential in the market whether the product will survive in the market with the existing competitors. The study was taken sample as 300 slum people to analyse their livelihoods and market feasibility of detergent soaps. The testing was used as One Way ANOVA, Correlation and Regression. Overall, the study resulted as there is a demand for the soaps in the slum. They want the product with good quality, quantity and affordable prices.

A Study on the Market Feasibility of Detergent Bar Soap by Converting WCO Related to Urban Slum Livelihoods in Chennai.

Chapter – 1 INTRODUCTION:

1.1 Introduction

Waste oil (WCO) is taken into account mutually of the risky wastes as a result of improper disposal of WCO will cause vital environmental issues like blockages of drains and sewers in addition as water or soil pollution. A number of studies tell us that reheating oil will unleash harmful toxins, increase the share of trans- fats in it, becomes rancid, offers rise to free radicals, and offers rise to some terribly harmful reactions. Reheating oil will take a toll on people's health by leading to many harmful effects. Cause devastating physical effects, like coating animals and plants with oil and suffocating them by chemical element depletion. Destroy future and existing food provides, breeding animals, and habitats; manufacture rancid odors; Foul shorelines, clog water treatment plants, and combust once ignition sources square measure present; as to dispose tiny quantities of used oil at unit level, combine the oil with absorbent like sand or wood or used towel or food scraps to avoid probabilities of spillage so throw it away in dustbins. According to the survey of FCCI, 3 million gallons of oil wasted and disposed in the improper way it is definitely hazardous society.

For this elimination of ecological imbalance, the centre of waste management tries to convert these wastes into various forms of new innovative products. Most of the waste management centres converts the waste cooking oil into bio-diesel which is essential for the society with replacing the lack of petroleum. The bio-diesel unit will not start by the normal people who are all under the poverty line. For that, the used oil is to be covert into detergent bar soaps which is used for washing clothes in their households. The poor people also will start-up their business with this wonderful opportunity. With this reason, this study is found out the market feasibility of detergent bar soaps in urban slum population. Before starts the business, the analysis is very essential in the market whether the product will survive in the market with the existing competitors.

Firstly, its concentrate the livelihoods of the people in the urban slums. It identifies their livelihood status, under sustainable livelihoods such as human capital, financial capital, social capital, natural capital, physical capital. Basically, the people survive their daily life with so many difficulties. They didn't have proper sanitation facilities, facing so many problems during rainy season. Their shelter is not enough for their family. In this pandemic, lots and lots of financial crisis faced by the particular community. Some days, people shouldn't have their foods especially, the ladies skip their foods and it was served only for the children hungry. most of the families faced trouble due to pandemic.

Secondly, it identified the quantity and quality of oil generated from the food outlets like multi-cuisine restaurant, hotels, street vendors, small tea shops. Some of the food outlets, they give oil for the recycling and it came again in the market with local brand. Some of the outlets, they give oil for secondary use to the small hotels and most of the hotels dispose in the street bins, dumping into lands, through dishwasher it pollutes drainage more. If the drainage pipe will get leakage. It affects the ground water level.

The main concept is to identify the market feasibility of detergents bar soaps. The same poor people can ability to buy the product with cost effective, quality, quantity, target market, potential market for the soaps. It is to compare the competitive. In this study, A Study on The Market Feasibility of Detergent Bar Soap by Converting UCO Related to Urban Slum Livelihoods in Chennai

A market valuation or market feasibility study is an opportunity to identify market demand. This study gives you a glimpse into the projected return and the potential market risks that may arise. The detergents soaps are essentially for their day-to-day activities. It is used to washed their clothes without any dirt.

1.1 Sustainable Livelihoods for Urban Slums:

Every human being sustains their lives to survive in this world. Different categories of people are there in the society. It is all differentiated by the standard of living of the human under 3 categories rich, middle class, poor. The richest people will get rich and poorer leads to under poverty line due to the pandemic. In the covid-19 pandemic period, they faced lot of problems to lead their day-to-day life. Urban Slums formed for lack of jobs in rural areas and increasing urbanisation in Chennai

are two significant factors contributing to the growth of slums. People move to Chennai from their hometowns and work in a variety of unorganised industries. The majority of the slums were single-room dwellings with deplorable living conditions.

This study focuses on the market opportunities for detergent soaps for urban slum livelihoods, and this product will enable them to improve the livelihoods of urban slum residents and eliminate pollutants from waste cooking oil in the environment. The concept behind it is a combination of three aspects. On the one hand, urban slums are having a hard time getting opportunities for them. They need to improvise the livelihood potential of the poor. On the other hand, the waste that produces it is polluted with waste oil and pollutes the environment. It is combined with the marketability identification of how urban slum dwellers prefer to use detergent bar soap for washing clothes. It introduces and identifies people's tastes. Only then will they be willing to coordinate entrepreneurial activity to enhance their power within the scope of basic needs and financial, skilled workforce, and new ventures. This study examines livelihoods with five capitals: human capital, financial capital, social capital, physical capital, and natural capital.

Human Capital:

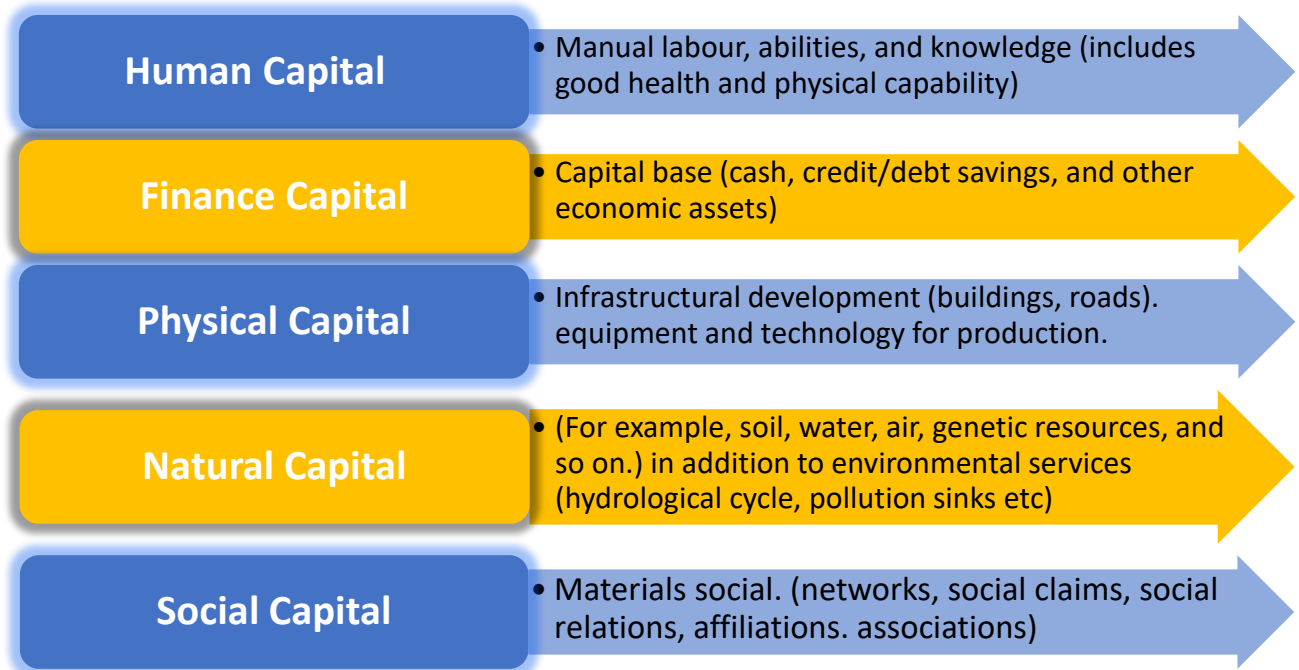
At all ages, people revel in health Individuals are adept at relationships and social participation, and for the duration of lifestyles set and gain excessive private requirements in their improvement and learning There is get entry to various and gratifying possibilities for work, private creativity, and recreation

Finance Capital:

Financial capital can be accumulated from two different sources. One source is represented by what is available. Holding in the form of equivalent available assets such as cash or livestock, other sources are identified Through the inflow of external funds from work income, pensions, remittances, etc. Types of financial liabilities. Of the five capitals, financial capital allows people to adapt For various livelihood strategies. It sets the stage for the creation or improvement of others Capital as financial capital.

Natural Capital:

Natural capital represents the existence of all livelihoods, especially for resource-dependent communities. The activity is based on it. This capital is especially important to the local community Share for poor stakeholders. This is an important value that is actually prone to disasters. Not rare These disasters are caused by natural processes. Floods, fires, seasonal storms, earthquakes



Physical Capital:

Physical capital is a measure of the existence of physical conditions necessary to support one's life. From an infrastructure perspective. The role of this asset can be seen in the context of opportunity cost. If your existing accessible infrastructure frees up work or provides time as a resource

Social Capital:

There are relied on and on hand structures of governance and justice Communities and society at big percentage key advantageous values and a feel of purpose The systems and establishments of society sell stewardship of herbal sources and improvement of people Homes, groups and society at big offer safe, supportive residing and running environments



1.1.2 Waste Cooking Oil Generation:

This study collects the information of waste cooking oil generating from the hotels, small tea shops, restaurants and street vendors around the slum surroundings. According to the survey questions UCO is highly generated and it can be collected

and converted into reusable cooking oil into the market as well some of the outlets gives the oil for the secondary using purpose. Most of the hoteliers has to be used the oil repeatedly beyond the limit. So, automatically the fried food is as eatable delicious poison for the food lovers.

It gives the awareness among the hoteliers about the evil impact of repetitive usage of UCO. On other hand, most of the food outlets adapted the improper method of disposing the UCO. They didn't aware about the environmental hazardous especially the small tea shops and street vendors delivers their wastes into dishwash, public trash bin, dumping into lands and sands. For instance, 10 litres of oil using for the frying items per day, minimum of 2 litres of oil generated as waste. These 2 litres of oil disposed in the improper way. It makes the ecological imbalance and causes the environmental hazardous for the society. This UCO waste has to be disposed in the dishwash it might be mixed in the drainage and it absorbs in the land the oil substances spoil the quality of ground water. The UCO dumps into the sands and lands, the roadside dogs, cats and other animals will affect with the oil substances. It has to be delivered in the trash bin it makes the whole waste cannot be spilt into separately.

1.1.3 Technical Aspect of UCO to Soaps:

It is scientifically proven that used cooking oil can be converted into detergent bar soaps for the elimination of evil impact of UCO. The Centre of Waste Management, Sathyabama Institute of Science and Technology experimented that innovative conversion of using the raw material as UCO for the washing soaps.

Waste cooking + Alkaline + Favours and additives = Detergent bar cakes.

100ml of oil using for single soap. In a shop daily 2 litres of oil generated with those 2 litres of oil can easily make 20 soaps. We have collected in the 50 shops for the assumption in a week 50 litres of oil can be generated.

Input $50 \times 1000 = 50000/100 = 500$. Approximately in a week output is 500 soaps.

1.1.4 Market Feasibility of Detergent Bar soaps:

Market Feasibility:

Market Feasibility is a study that identifies the success of a product in a particular market. This helps you identify potential markets, market competition, potential market development, and market analysis to evaluate your business ideas.

Phase 1 – Target Market Identification

- Define Customer needs:

Customer needs are those that motivate customers to purchase products and services. Needs are known (that is, customers can express them in words) or unknown and are important factors in determining the solution a customer purchases.

- Define Potential Markets:

Potential markets are some of the markets you can acquire in the future. These are customers you don't have right now but can attract. Learn how to identify these prospects and how to take them over.

Phase 2 – Prospective Positioning

- Conduct Competitive Analysis:

Competitor analysis is a strategy that involves investigating key competitors and gaining insights into product, sales, and marketing tactics. Implementing a stronger business strategy, dodging competitors, and gaining market share are just a few benefits of performing a competitive market analysis.

- Determine Target Market:

These include gender, age, income level, race, education, religion, marriage history, and geographic location. Consumers with the same demographics tend to value the same products and services. Therefore, segmentation is one of the most important factors in determining the target market.



Phase 3 – Implementation Planning

Evaluate Financial Viability:

The purpose of comparing the monetary viability is to first compare whether or not the enterprise version is possible or now no longer and, 2d to locate the ones volatile assumptions that might be effortlessly centered as a part of a product discovery process.

Customer Value Optimization:

Customer Value Optimization (CVO) is what you do to provide a particular value to your customers and is the most effective way to deliver that value. Basically, interested in solving one or more problems. Ability to solve problems is your value. What makes the method of solving a problem different from other methods? what is that? How does this method fit into the product or service market? Does it shout "great"? Do customers even know the process or even their own position in which your product or service solves a problem better? This is where customer value optimization is designed to help turn "magic" into "problems" and create maximum value for customers.

1.2 Industry Profile:

The Republic of India detergents market was valued at government agency 42,827.4 large integer in 2019 and is projected to succeed in government agency 73,660.4 large integer by 2027; it's expected to grow at a CAGR of 7.0% from 2020 to 2027. Detergent may be a wetting agent or a mix of surfactants possessing cleansing properties. These are metal salts of long-chain alkyl radical benzol sulphononic sulphonates. These molecules are amphipathic, i.e., hydrophobic additionally as deliquescent in nature and may add water, not like soaps. Detergents are ordinarily accessible in powder, liquid and bar type like soaps. They're utilized in varied applications like laundry cleansing, personal cleansing, unit cleansing, and washup. They assist take away dirt and grease from non-porous surfaces like metals, plastics and treated wood. Thus, they realize big selection of applications in industrial, commercial, and residential sectors. Detergents also are utilized in laundry detergents, shampoos, washup liquids, and floor or surface cleaners, among alternative home care product. The home care product market in Republic of India has been growing with rising population additionally as inflated awareness regarding heath and hygiene, and extended increase in per capita income. Rapid urbanization and dynamic lifestyles of individuals conjointly drive the demand for these product. However, issues rose with the unfold of varied diseases, like COVID-19 within the current state of affairs has inflated awareness relating to cleanup. Thus, shoppers have stated outlay a lot of on homecare product. In addition to the current, the outstanding use of detergents altogether the homecare product adds to the demand for detergents. Based on product type, the Indian detergent is categorized into powder, liquid, bar and others. In 2019, the powder phase diode the Republic of India detergents market, whereas the liquid phase is anticipated to register the very best CAGR throughout the forecast amount.

Powder detergents are processed by victimization one or a lot of surfactants, optical brighteners, chelating agents, detergent builder, cloth softeners, and enzymes. They realize intensive applications in business, industrial, and unit sectors for cleansing functions as they take away the dirt, oil, grease and alternative environmental pollutants with ease and effectiveness. Moreover, these substances are utilized in the formulation of laundry detergents, floor cleaners, and

surface cleaners. Further, the surge within the cleansing and medical care activities within the operational industries like producing, healthcare, business laundry and transportation cleansing is well increasing the consumption of commercial detergents in powder type. The key players operational in Republic of India detergent market are Ashirwad cluster, Jyothy Laboratories restricted, geographic area Unilever restricted, Procter & Gamble Co, Nirma restricted, Fena (P) restricted, Blue Chem Republic of India, Patanjali Ayurved restricted and Rohit Surfactants personal restricted. These corporations are incessantly that specialize in ways like product developments, plant expansions and mergers and acquisitions to expand their footprint and fulfill the growing market demand.

1.2 Problem Statement:

- ▶ Discarding of waste cooking oil in landfills, drainages and trash bins caused harmful environmental problems in the society. It polluted the land, water and soil. This study examined how used cooking oil can be converted into useful products. Such products are soaps, biodiesel, cleansing agent (glycerin) and so on.
- ▶ To illustrate this effect, waste management centres are trying to innovate by converting used cooking oil into many products to eliminate the wastes such as bio-diesel, soaps.
- ▶ This raw material serves as the secondary raw material to make soaps that are useful in the market. It relates to the Sustainable livelihoods Framework, which provides an understanding of the betterment opportunities for enhancing the economic status of this diversion.
- ▶ This study explores the feasibility of these soap markets in the context of urban slum in terms of sustainable livelihoods (human capital, physical capital, social capital, financial capital, natural capital).
- ▶ It helps to identify the livelihood of the population and this entrepreneurship helps them improve their standard of living.

1.3 Need of the Study:

- The need of the study is to prevent the unhealthy practices of reusing the cooking oil and reduce the oil wastage which is environmentally hazardous for the society.
- Discarding the cooking oil is the improper way most of the cooking oil used to be disposed of in the common trash bins, drainage sinks, and in the empty lands. It harms the ecological imbalances.
- To bring awareness between the people. It helps to know the causes of consumption, the repetitive oil and disposal in the environment.
- By collecting the WCO to convert the useful products like biodiesel and bar soap (Detergent and Dish wash soaps).
- To introduce the new product from the waste cooking oil converted into detergent bar soaps.
- To analyse the market feasibility of bar soaps in the urban slum.

1.5 Objective of the Study:

Primary Objective:

To find out the market feasibility of detergent bar soaps by using raw material as WCO in the urban slums.

Secondary objective:

To identify the sustainable livelihoods of people to understand the standard of living and buying power of the urban slum people

To evaluate the quantity and quality of waste cooking oil around the hotels in the urban slums.

1.7 Limitation of the Study:

- The Study is limited with only one slum in the Chennai to check the livelihoods of slum people.
- The Study is limited with 3 months of period to complete this feasibility analysis
- The Study is limited with 300 people perceptions in the slum area.

CHAPTER – 2

Review of Literature:

1. **Carole Rakodi:** A Livelihood approach: Conceptual issues and definitions: In this study, the author describes the urban livelihoods analysis of poor people who were in poverty. The understanding of their livelihoods assets include human, social, physical, natural and economic assets and evaluate their livelihood activities. This study adopted the livelihoods approaches has a number of implications for policy and actions. It is a people-centered approach which views the world from the point of view of the individuals, households and social groups who are pursuing livelihood strategies in volatile and insecure conditions and with limited assets.
2. **Emmanuel Adinyira 2007,** Sustainability has emerged as a planning concept from its beginnings in economics and ecological thinking and has widely been applied to urban development. Urban sustainability is simply described as a desirable state or set of urban conditions that persists overtime. Just as the task of defining sustainability has progressed in response to early economic thinking, so has the task of its assessment. Many urban sustainability assessment methods can be identified from literature. However an examination of these methods reveals largely three methodological foundations. Focusing on the context of urban development, this paper presents an appraisal of the relative potentials and limitations of methods developed around the three identified methodological foundations.
3. **Francis Anyanzu, 2016,** This study contributes to the debates on the formal assistance and protection of refugees and Internally Displaced Persons (IDPs) living in the Kampala Metropolitan area. The study explores the challenges that refugees and IDPs face in their attempts to meet their daily needs in the urban areas and the informal economic strategies which they have adopted to cope with these challenges. In investigating the challenges the refugees and IDPs face, the focus is on the interaction of the refugees and IDPs with the state and non-state bodies or organizations that have the formal mandate to assist and protect refugees and IDPs in urban areas, examining why the refugees

and IDPs face challenges in accessing formal resources and the strategies they have improvised to make a living.

4. **Charles Yaw Oduro, 2015**, In recent times, a growing body of research has drawn attention to the changing interface and interdependence between urban and rural spaces in Africa. This includes studies on physical, environmental, socio-demographic, economic and other transformations in the peri-urban zone. However, little is known about how residents of peri-urban communities adapt their livelihoods to these transformations. Using the case study approach, and by applying the sustainable livelihood framework as an analytical tool, we have explored the livelihood strategies adopted by the residents of four communities in peri-urban Accrain response to the city's physical expansion.
5. **Elisabet Vinyes, 2013**, Purpose Used cooking oil (UCO) is a domestic waste generated as the result of cooking and frying food with vegetable oil. The purpose of this study is to compare the sustainability of three domestic UCO collection systems: through schools (SCH), door-to-door (DTD), and through urban collection centres (UCC), to determine which systems should be promoted for the collection of UCO in cities in Mediterranean countries. Methods The present paper uses the recent life cycle sustainability assessment (LCSA) methodology. LCSA is the combination of life cycle assessment (LCA), life cycle costing, and social life cycle assessment (S-LCA).
6. **Giovanni De Feo, 2020**, Waste cooking oil (WCO) can be a useful secondary raw material, if properly managed. On the contrary, uncontrolled disposal generates negative environmental impacts as well as economic loss. Therefore, improving WCO recovery rate, with the cooperation of citizens and effective collection programs, is fundamental. The aim of the study was to investigate the reason for the low recovery of WCO in those areas suffering serious waste management problems such as the Campania region in Southern Italy. For this purpose, the case of a WCO collection program adopted in Angri, a town of around 34,000 people with a high population density, was studied.
7. **Y. Salmani, 2021**, The increasing trend of food waste is one of the serious challenges throughout the world. The purpose of this study is to investigate the status of edible oil waste (EOW) from farm to table using the SWOT (strengths,

weaknesses, opportunities, and threats) analysis in Iran (2021). First, semi-structured, interviews were conducted with 11 experts in the edible oil industry. a cross-sectional study was done on 40 restaurant managers through telephone interviews about the restaurant's discarded edible oils. Finally, an online study was undertaken among 121 households regarding their waste cooking oil at home.

8. **B. Endo Gauh Perdana, 2021**, Used Cooking Oil (UCO) has become an inherent lifestyle of Indonesian people as frying is the main cooking method. As UCO ways of disposal have not been properly managed, the question on how UCO should be managed contributes to the adaptability of circular economy strategies moving away from throw-away culture. This study adopts desk research methods collecting relevant information from articles, journals, and books. Utilizing six dimensions – governmental, economic, environmental, technological, societal, and behavioural – of CE research for built-in environment and its conceptual limitations, this study finds that the absence of UCO governance networks contributes to the establishment of UCO collection initiatives from private sectors and community-based programs
9. **Mathew Cohen 2017**, This paper presents a systematic review of the literature on urban sustainability assessment, (1) identifying the most common methodologies for assessing urban sustainability, and (2) urban sustainability. An organization to identify the most common frameworks for evaluation and (3) to identify indicators that measure urban sustainability. The study found that urban sustainability assessments generally lack a coherent framework and may be more closely aligned with general sustainability principles. This paper provides recommendations for future urban sustainability assessment studies, including the use of mixed law studies among other strategies. In conclusion, this study can provide a general framework for building a city sustainability assessment, in which indicators can be assigned to measure progress towards sustainable urban development.
10. **Nasir Uddin 2018**, this paper is considering the sustainability of urban development due to the living conditions of Bangladesh's Slum City Residents. Experienced data was collected by the Interview schedule in the two Slam districts in Bangladesh and 97 respondents FGD. The respondent has been properly selected from the second largest city of Bangladesh, that is, the

chittagong. The results clearly indicate that sustainability indicators, especially household and housing characteristics, health, drinking water, waste disposal system and safety.

11. **Patranite SRRIJUNTRAPUN 2017**, Framework The study of the sustainable living framework of DFIDS, the lack of capital, and the participation of the community are a factor that greatly contributes to the unstable life. However, in this study, since people living in the urban area are not largely dependent on the external sources, they are still inappropriate, so in this study It concludes that the use is inappropriate.
12. **Tia Dianing Insani, 2022**, the coastal area of the central Java, central Java, is suffering from tidal floods caused by the increase in sea level and land reduction. People are not only the ones with tide floods, as well as their livelihoods, but many of their livelihoods are not sustainable. This paper aims to measure the level of rural subsidiaries by multidimensional analysis, to understand the degree of impact on tidal floods in rural coastal communities and livelihoods. In order to express the level of livelihood livelihood livelihood level from various sources including lifestyle branch (LRI) and resilient radar life
13. **SANDEEP TAMBE, 2022**, sustainable living entities are in the principles of several cores, and it is a way to provide conceptual settings for analysis. In the 1990s, the basis for a sustainable life in the 1990s responded to a new development approach to participatory bottom-up plans. This challenged mainly economic growth. It recognizes that poor resources, ability and agencies have profits, interest, and environmental compatibility. This approach was widely used in international development policies and practices, leading to the top-down sector to transition to household investment.
14. **Luke Boyle 2018**, this paper uses existing knowledge about NSA equipment to emphasize the disadvantages of the approach based on urban governance, and technical social and economic tools technical enhance the potential. Arrangements are planned to adopt urban development that is affected by the existing community. This paper suggests that urban repair strategies have to be derived from the reality of a particular location or a particular location city. Such strategies should be based on an understanding of urban governance principles, participatory behavior, and market dynamics. Without these

collaborative procedural frameworks, urban renewal projects will continue to lack a transition to broader sustainability.

15. **Sayed Mohammad Nazim Uddin 2020**, garbage collectors make a living by collecting recyclable waste that contributes to urban development and poverty alleviation. They are mostly socially excluded and are exposed to various risks (eg, work-related health risks).
16. **Ali Jamshed 2019**, Rural area measure as are extremely at risk of floods because of restricted social, economic, and physical resources. Understanding rural vulnerability is important for developing effective disaster risk reduction ways. rural area measureas and cities are in and of itself joined, rural vulnerability was assessed while not considering its regard to cities. varied theoretical frameworks on systemizing and assessing vulnerability were developed with variable level of scope and depth in terms of scale, dimensions, and elements. withal, these frameworks failed to expressly mention the impact of flood or different hazards on the linkages between spatial units i.e., rural and concrete. This study aims to grasp and conceptualise the agricultural vulnerability with regard to the dynamics of rural–urban linkages within the case of flood events.
17. **Prosper Issahaku Korah, 2018**, This paper examines however native peri-urban household in Washington, one among the quickest growing cities in African nation square measure adapting to the results of physical transformation of their setting. By analyzing Landsat satellite pictures and mistreatment social analysis ways, the paper discusses the character and extent of urban growth, its impact on peri-urban livelihoods, and therefore the cope ways of peri-urban households.
18. **Christopher R. Wood 2007**, This analysis involves the planning and development of a simulation model to analyze the prices and emissions related to waste oil assortment for the native, or suburbanised, production and use of biodiesel. A case study for the food and drinkable industry is investigated. A series of simulation experiments was accustomed measure completely different scenarios for utilizing the fallow capability of a neighborhood food and drinkable distribution network for the gathering of waste preparation oils. The economic and environmental prices associated with aggregation WCO were compared to the economic and environmental savings

from mistreatment biodiesel, the impacts of such operation upon service level are investigated

19. **AMRITA SINGH 2014**, The outcome of the analysis is in continuation with earlier analysis that value continues to be a prevailing factor for rural population. Awareness of product is below average in rural shopper. It also gives North Rural shopper prefers to purchase from native search keeper because of accessibility of their native product on cheaper rate and credit facility provided from their finish. A rural person spends nearly five-hitter of his financial gain on soapanddetergent phase that indicates smart chance forrural shoppers targetin g corporations
20. **DEEPESH NAVNITLAL GHELA 2006**, This study analyses the getting behaviour of households and in brief on industrial consumers with relation to their detergent purchases. Following from this analysis, the scope for a brand-new detergent business venture are going to be investigated. The native business contains a plethora of detergent producing firms provision the retail and industrial markets analysis and strategy developed from this study can modify a new detergent business venture to possess Associate in Nursing improved understanding of the detergent industry in Pietermaritzburg resulting in some reduction of the risks for potential detergent entrepreneurs.
21. **G.Kothandapani, 2017** a straightforward production methodology with high come back soaps square measure invariably employed in each unit. The nonedible oil soap has Brobdingnagian market potential. Soap is that the traditional laundry compound made up of oil fats and caustic alkali. One will say a detergent is that the one that cleans any surface. artificial detergent is kind of totally different from other forms of detergent. there's massive demand of this shopper item. From the Nineteen Forties on-ward, artificial detergents have expanded chop-chop everywhere the globe. To improve detergency of the detergent cakes & powders, bound alternative components were supplementary thereto called builders, synergies, fillers and brighteners etc.

22. **J. Austoria 2017**, Detergents square measure employed by nearly each home within the developed and developing world. Soap and most detergents square measure anionic surfactants and attack the sexy layer of the skin and increase its permeableness with very little or no inflammatory amendment and should result in hand disease of the skin, that is incredibly distressing and unhealthful. Aim: to judge the irritant potential of common home detergents (laundry and dish wash) employed by the Indian population employing a 24-hour skin test and to convincingly educate the patients on the detergents less seemingly to cause irritation within the explicit individual.
23. **Dwight Rus 2008** This market consumes virtually 1/2 the entire surface-active agent demand. For laundry detergents, the primary operate of a surface-active agent is to get rid of soil from materials and to suspend the soil in the wash water. cloth softeners square measure either additional to the ultimate rinse or as drier sheets which square measure accustomed dry the wet garments in dryers. Surfactants in dishwasher detergents square measure used for wetting surfaces to assist soil removal. The surface-active agent level in automatic dishwasher detergents is not up to in hand dishwash detergents to attenuate foaming in the dishwasher. the quantity of automatic handy dishwash detergent sales in pounds is almost equal. .
24. **Mrs. Pendse Priyanka Narendra** Detergents have a crucial place in each one's life because it is should to clean our laundry. Soaps were the earliest variety of detergents. Detergent could be a water soluble chemical substance that could be a formulation use to get rid of dirt and stains on garments. Detergent is a mixture of surface-active agent having cleansing properties and obtain mix with dirt and impurities to form them additional soluble
25. **Dr. Kavya Saini 2021** This study was conducted to analyse client preference for international or native brands of soaps. The Modi Malaysian Mujahidin Group Prime Minister of Asian nation has asked individuals to be self-directed and be vocal regarding native. the complete country is undergoing a renaissance currently for adopting native brands. numerous brands from shoe to food square measure inserting their top-selling brands against the tricolor background or modified their positioning strategy to embrace "vocal

for local" strategy of Asian nation, to faucet on the consumers' selection for nationalistic banner or square measure gearing up to tackle doable counterattack on account of a worldwide whole.

26. **Tejas P. Joshi 2017** Surface active agents (Surfactants) area unit a novel category of chemical compounds having twin characteristics of hydrophilicity and property. Surfactants are also referred to as amphiphiles or tensides. The applications of surfactants in science and business area unit large, covering each facet of refined activity. The science of surfactants is quickly growing with its wide applications in different industries, medical sciences, life sciences, chemistry, physics, engineering and pollution management etc. Although, surfactants within the gift day rule large efficient, significance and large potential, hardly 70 years back, wetting agent would have brought blank stares.
27. **Dr. Sanjay Tekade** Use of detergent for laundry garments for purity in ancient Bharat is mentioned in Hindu scripture i.e. Manusmriti. that was written in second century BCE to third century Ce. it's declared that in ancient time for cleanup purpose material used were alkaline-earth metal, process fruit, Sripada fruit and the paste of Sinapis alba. when the revolution of industries and lots of analysis in laundry product lead to producing of detergent in numerous forms such as powder, liquid and bar. currently a days material chemical, eco-friendly detergents square measure of detergent thought square measure running within the market.
28. **Urban Strategies for Waste Management Centre, 2020**, The transportation of used vegetable oil generated at supply are often distributed by the producer itself (e.g. citizens), though it's common for larger producers (e.g. restaurants, hotels, etc.) to hire personal authorised waste managers that give the service of assortment and adequate management. In each cases, it'll be necessary to implement and distribute specific on-site containers to facilitate the storage and more assortment of used oils. Whereas in some cases UCO assortment is ruled by public authorities, in different cities personal companies area unit answerable of its management. In any case, the separate assortment and treatment of used vegetable oil may be a widespread apply in several cities of Europe.

29. **D. C. Panadare** Waste vegetable oil (WCO) is being generated giant scale everywhere the world; thence it has devised serious issues of its waste management. organized assortment of WCO in voluminous amount is especially used for the assembly of biodiesel. Most researchers focus totally on the biodiesel generation from WCO, though alternative applications are vital and need attention. Objective of this critical review is to spotlight most of the said attainable applications of WCO which can help in its utilization except for biodiesel. It is processed to get transmutation oil, hydrogen gas, biodiesel or electricity production by direct burning. Applications like combined heat and power generation (CHP) will utilize WCO with utmost expeditiously. It also can be processed with chemicals to obtained perishable polymer sheets, greases, biolubricants, soaps and synthetic resin resins. Properly pure and sterilized WCO can be used as a carbon supply in fermentation processes for the assembly of rhamnolipid biosurfactant and polyhydroxybutyrate (PHB). Waste vegetable oil therefore is thought-about as a possible waste which may be utilised as energy source and stuff for chemical or biological processes
30. **Mr. Md. Ashaduzzman** Due to increasing self-service and ever-changing consumers' lifestyle the interest in package as a tool of advertisement and stimulator of impulsive shopping for behavior is growing progressively. therefore package performs a crucial role in promoting communications, particularly within the purpose of sale and will be treated in concert of the foremost important factors influencing consumer's purchase call in detergent trade. Literature analysis on question beneath investigation has shown that there's no agreement on classification of package components similarly as on analysis ways of package impact on consumer's purchase decision. By this thesis we tend to obtain to reveal components of package having the final word result on consumer selection. Taking into thought that package can be treated as a collection of varied elements communication completely different messages to a consumer; the analysis model was developed and tested so as to reveal impact of visual and verbal package components on consumer's purchase selections.

31. **Avneet Kaur Ahuja** The present study was conducted in five villages of district Kapurthala by choosing twenty farm girls from each village. Thus, a complete set of a hundred farm girls were interviewed to grasp the consumption pattern and preference for various brands of detergent powder used, factors influencing the whole selection, how the rural customers get info relating to varied brands and per capita consumption of detergent powder. It was ascertained that thirty-two per cent of the respondents most popular Tide and thirteen percent unbranded detergents. Farm girls between the age bracket 21-30 period had a preference for Surf stand out whereas those within the age bracket of 41-50 period and 51-60 period likable Wheel and Tide, severally. Majority of the respondents (51.0%) got information relating to whole of detergent from tv advertisements followed by newspaper and radio. Per capita consumption of detergent per month was found to be 500g no matter the detergent whole.
32. **P.INDIRA GANDHI** The paper is aimed to apprehend the patron satisfaction with soap powder. The survey was once primarily based on formal interview with the patron straight off and also the responses square measure succeeding through questionnaire. The sample size for this search is barely 242 respondents and also the district chosen to try to to the survey is Thanjavur. Here win over sampling approach was once adopted to conduct the survey. the foremost necessary intention of this establish regarding is to find out of the stage of client delight and suggests them the aptitude to boost the pride level, which can facilitate them to increase their sales. The agencies listen on enhancing on to apprehend shopping for behavior, demonstration provision, delivery of product, observe from calls and repair camps.

CHAPTER – 3

RESEARCH METHODOLOGY:

Research Methodology is the heart piece of research work. It has to be determined how the researcher undergone the study using the research design, sampling methods, structure, framing and mode of data collection, analytical tool to prepare the overall outcome with different analytical test and methods.

3.1 Research Design:

It is the most important for the research work to frame the entire research with appropriate research design.

3.1.1 Descriptive Research:

Descriptive Research refers to the qualitative and quantitative method using to find out the different characteristics, frequencies, trends and categories of a people, demographic situation of a people to collect the survey for the particular research work. Its main motto to describe and identify the the current problem of the society. It gives the exact answer for the 5W's and 2H's before starts the study, the researcher should identify these variables.

3.1.2 Descriptive – Survey Method:

Direct Survey method is used for this research under the Descriptive Research Method. Survey method is very flexible method to collect the feedback from the targeted people. It is very easy get responses for the right survey questions through offline or online forms. In this study, used to collect the responses from general investors through google forms.

3.2 Sampling Technique:

Sampling technique is used to define the method of collecting the sample from overall population size.

3.2.1 Convenient Sampling Method

Convenient sampling method helps to collects the sample with equally distributed under non-probability sampling. The samples are selected on the basis easy

availability to collect the data within a short span of time. This type of sampling technique is mostly used for pilot study. In this study, used this sampling technique from available general investors for the Primary data collection.

3.3 Questionnaire Method:

It is the method used for collecting the responses from targeted people. Framed the questions related to the topic and circulate it to the sample people to check the exact condition and opinion of the respondents'.

3.3.1 Structure of Questionnaire:

Generally, the questionnaire should structure with general basic questions and variables related questions. The general basic questions is related to the personal information of the respondents' like name, age wise, gender wise, educational status, occupation classification of the respondents'.

Direct Questions:

Direct questions like usually yes or no type questions to answer the respondents'.

Open and Close ended question:

Open ended question is to give the answer by their own whereas close ended question is giving the options to choose the answer which is relevant for the question or identify the perception of respondents' in the particular subject matter.

Likert Scaling questions:

Likert scaling questions used for rate the particular avenues or different category which is most likely or preferable option by the investor. To check the satisfaction level of the respondents' into the particular subject matter.

3.4 Data Collection:

Data collection which is mandatory for the study to do the research study. To examine and identify the solution with existing research article and to know the current problem

of the particular subject matter through respondents'. It is usually two modes of data collection one is Primary data and another one is secondary data.

3.4.1 Primary Data:

Primary data is the data collected from the people for the first time. It helps to identify the actual problem and current trend of the particular subject matter.

3.4.2 Secondary Data:

Secondary data is the data which is already done or available in the form to refer the books, websites and existing research article related the subject matter.

3.5 Sampling:

Sampling is the identify the sample level from the overall population level of the particular segment.

3.5.1 Sample Size:

In this study, that derive the overall population size is 50,000 among the population size is to calculated the sample size with the help of sample size calculator. The actual size collected for this study is 120.

3.5.2 Sample Location:

In this study, Convenient Sampling technique is used so chosen the Harbour Area, Chennai, Tamil Nadu to collects the Primary Data for this study.

3.5.3 Period of Study:

The period of study for this paper is from Aug 2021 to Oct 2021. (3 months)

3.5.4 Sample Targeted People:

The targeted people for this study are general investors who have invest in shares or various other available platform for the investment.

3.6 Tools for Analysis:

The tools for analysis is helps to find out the results from the primary data collection through percentage analysis and hypothesis analysis.

3.6.1 Percentage Analysis:

Percentage analysis is to calculate the respondents' answered for the questions. It is to check the frequency and percentage of people chosen particular answer for the questions asked.

3.6.2 Hypothesis testing:

Hypothesis testing is framing the assumption for the study. This would be the chances of problem occurred in the study or perception of respondents'. It is to identify or match the assumption testing with results of hypothesis framed and identify the hypothesis with the help of statistical test i.e., One way ANOVA (F test), **Chi Square**.

One way ANOVA:

Null Hypothesis H0: There is no significant difference between gender and employment

Alternate Hypothesis H1: There is significant difference between gender and employment

Correlation:

Correlation relationship between factors of buying and expectation of the product.

Regression:

Regression between the amount spent for soaps and expected amount to buy.

Qualitative Method:

Focused Group Discussion:

A focus group discussion brings people together who have comparable backgrounds or experiences to explore a particular topic of interest. It is a type of qualitative research in which participants are asked questions about their attitudes, beliefs, opinions, or ideas. In this study, It covers their perception and buying capacity and economic ability of the people over the decades.

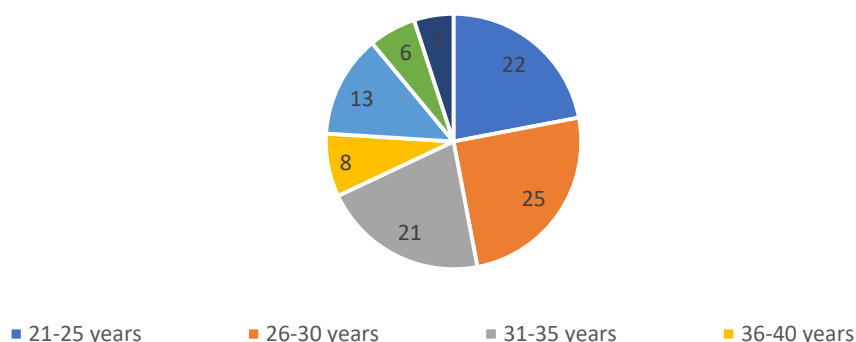
CHAPTER – 4

DATA ANALYSIS

Table No: 4.1.1 **Age Classification of Respondents**

Age	Frequency	Percent
21-25 years	66	22
26-30 years	75	25
31-35 years	63	21
36-40 years	24	8
41-45 years	39	13
46-50 years	18	6
More than 50 years	15	5
Total	300	100

Chart No: 4.1.1 **Age Classification of Respondents**



Interpretation:

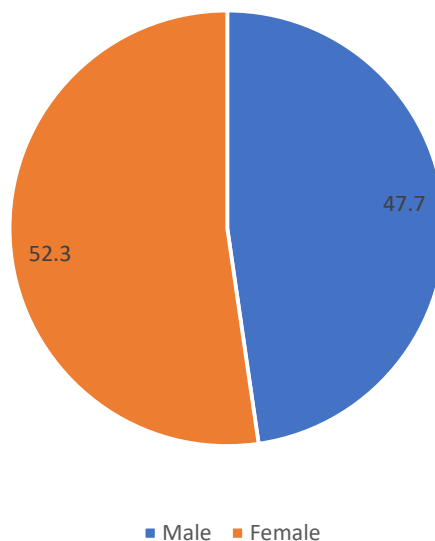
From the above table and chart represents the respondents age classification 22.73% of respondents from 21-25 age groups. 24.55% of respondents from 26-30 age groups. 20.90% from 31-35 age groups, 7.27% from 36-40 age groups. 13.63% from 41-45 age groups. 4.54% from 46-50 age groups. 6.36% from more than 50 years.

Inference:

Most of the respondents (24.55%) belongs to the 26-30 age groups

Table No: 4.1.2**Gender Classification of Respondents**

Gender	Frequency	Percent
Male	143	47.7
Female	157	52.3
Total	300	100

Chart No: 4.1.2**Gender Classification of Respondents****Interpretation:**

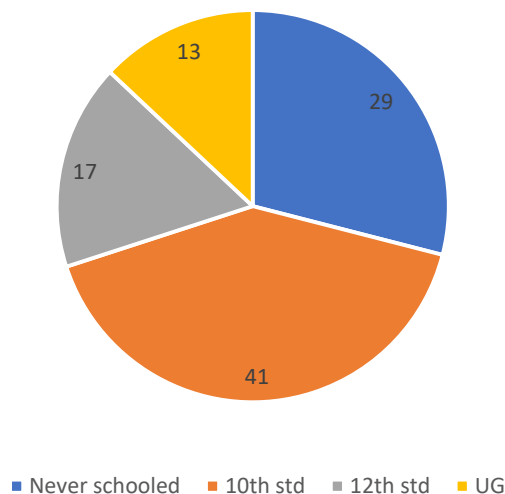
From the above table and chart the figures shown the gender classification of respondents. 40.9% from Male. 59.09% of respondents from female

Inference:

Majority of the respondents (59.09%) are females.

Table No: 4.1.3**Education Qualification of Respondents**

Education qualification	Frequency	Percent
Never schooled	87	29
10 th std	123	41
12 th std	51	17
UG	39	13
Total	300	100

Chart No: 4.1.3**Education Qualification of Respondents****Interpretation:**

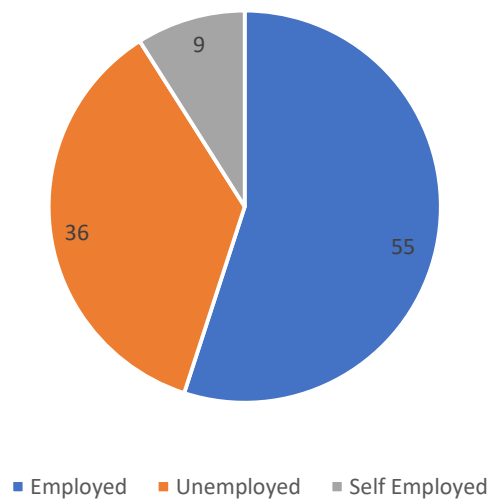
From the above table and charts shown the figures of respondent's educational qualification. 29.09% of respondents never schooled. They are uneducated. 40.9% of respondents completed till 10th std. 18.18% of respondents completed their education till 12th std. 11.81% of respondents completed they're Under graduated.

Inference:

Majority of the respondents (40.9) were completed their 10th std.

Table No: 4.1.4**Occupation of Respondents**

Occupation	Frequency	Percent
Employed	165	55
Unemployed	108	36
Self Employed	27	9
Total	300	100

Chart No: 4.1.4**Occupation of Respondents****Interpretation:**

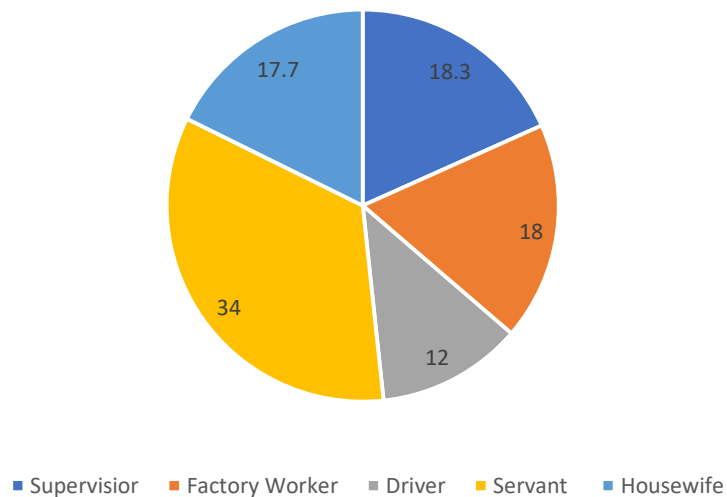
From the above table and charts represents the occupation of the respondents 54.54% of respondents were employed. 36.36% of respondents were unemployed. 9.09% of respondents were self employed.

Inference;

Majority of the respondents (54.54%) were employed.

Table No: 4.1.5**Designation of Respondents**

Designation	Frequency	Percent
Supervisor	55	18.3
Factory Worker	54	18
Driver	36	12
Servant	102	34
Housewife	53	17.7
Total	300	100

Chart No: 4.1.5**Designation of Respondents****Interpretation:**

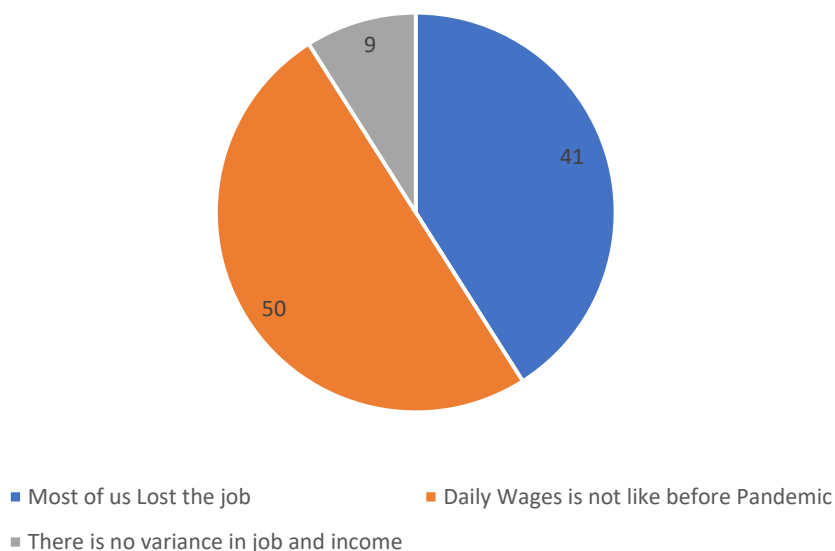
From the above table and charts represents their working occupation. 20.9% of respondents were working as a supervisor. 18.18% of respondents working as a factory worker. 10.9% working as a driver. 13.63% of respondents working as a frontline worker. 36.36% of respondents were house wife

Inference:

Majority of the respondents (36.36%) were house wife.

Table No: 4.1.6**Employability condition of the respondents**

Employability Condition	Frequency	Percent
Most of us Lost the job	123	41
Daily Wages is not like before Pandemic	150	50
There is no variance in job and income	27	9
Total	300	100

Chart No: 4.1.6**Employability condition of the respondents****Interpretation:**

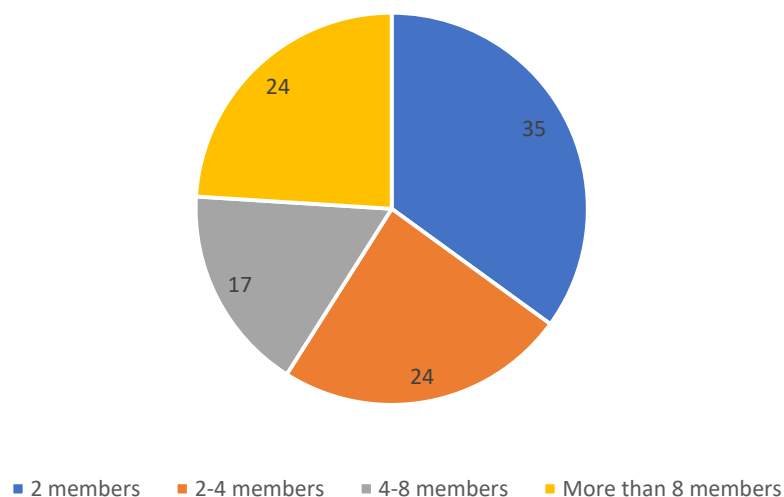
From the above table and charts shown the employability condition of the respondents. 41.81% of respondents lost their job due to pandemic. 49.09% of respondents affect their daily wages for the work. 9.09% of respondents have no variance in job and income.

Inference:

Majority of the respondents (49.09%) affects their daily wages due to the pandemic

Table No: 4.1.7**Number of Dependents in the family**

Number of dependents	Frequency	Percent
2 members	105	35
2-4 members	72	24
4-8 members	51	17
More than 8 members	72	24
Total	300	100

Chart No: 4.1.7**Number of Dependents in the family****Interpretation:**

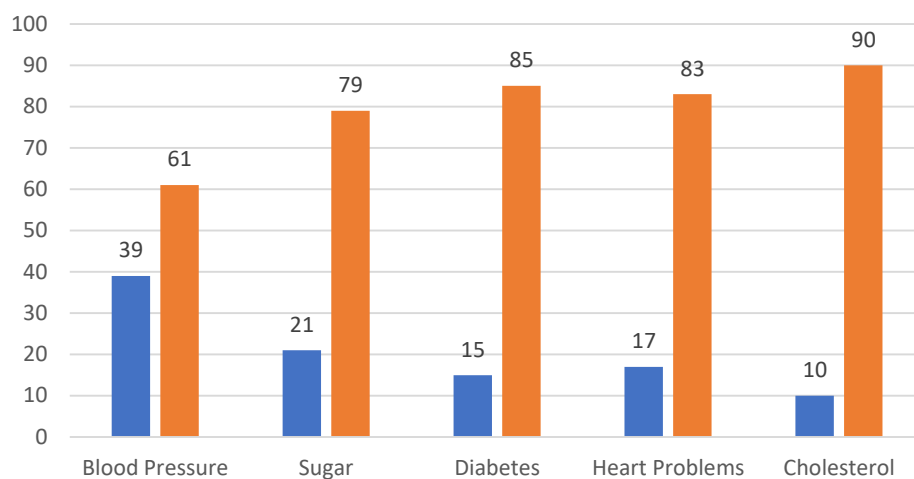
From the table and chart represents that number of dependents in the families. 32.72% of respondents have 2 members in a family. 23.63% of respondents have 2-4 dependents. 17.27% of respondents have 4-8 dependents. 24.54% of respondents have more than 8 members in a family

Inference:

Majority of the respondents (32.72%) have 2 members in a family.

Table No: 4.1.8**Health Issue of Respondents**

Health issue	Frequency		Percent	
	Yes	No	Yes	No
Blood Pressure	117	183	39	61
Sugar	63	237	21	79
Diabetes	45	255	15	85
Heart Problems	51	249	17	83
Cholesterol	30	270	10	90
Total	300		100	

Chart No: 4.1.8**Health Issue of Respondents****Interpretation:**

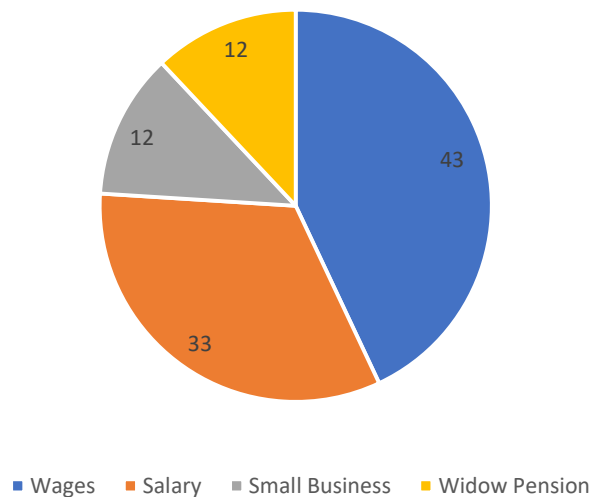
From the above table and charts that represents the normal imbalance health condition of the respondents. 39.09% of people having blood pressure whereas 60.9% not having blood pressure. 21.81% having sugar and 78.18% not having sugar. 16.36% having diabetes problem and 83.63 not having diabetes. 18.18% having heart problem and 81.81% not having heart problem. 10.9% having cholesterol and 89.09% not having cholesterol

Inference:

Majority of the respondents not having blood pressure, sugar, diabetes, heart problems, cholesterol. Their health condition was good

Table No: 4.1.9**Source of Income**

Source of Income	Frequency	Percent
Wages	129	43
Salary	99	33
Small Business	36	12
Widow Pension	36	12
Total	300	100

Chart No: 4.1.9**Source of Income****Interpretation:**

From the above table and chart represents that source of income of respondents. 43.63% of respondents running their expenditure with daily and weekly wages. 31.81% of respondents get salary from the company. 12.72% of respondents running small business and shops. 11.81% of respondents running with their widow pension from the government.

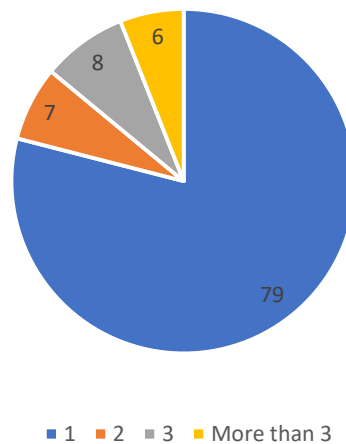
Inference:

Majority of the respondents (43.63%) running their expenditure with wages.

Table No: 4.1.10 Number of Earning Member in a family

No. of earning member	Frequency	Percent
1	237	79
2	21	7
3	24	8
More than 3	18	6
Total	300	100

Chart No: 4.1.10 Number of Earning Member in a family



Interpretation:

From the above table and charts shown that number of earning member in a family. 78.18% of respondents tell that only one member earning for their entire family. 10.9% of respondents tells that 2 members earning for their family. 8.18% of respondents tells that 3 members earning for their entire family. 6.36% of respondents tells that more than 3 members earning for their family.

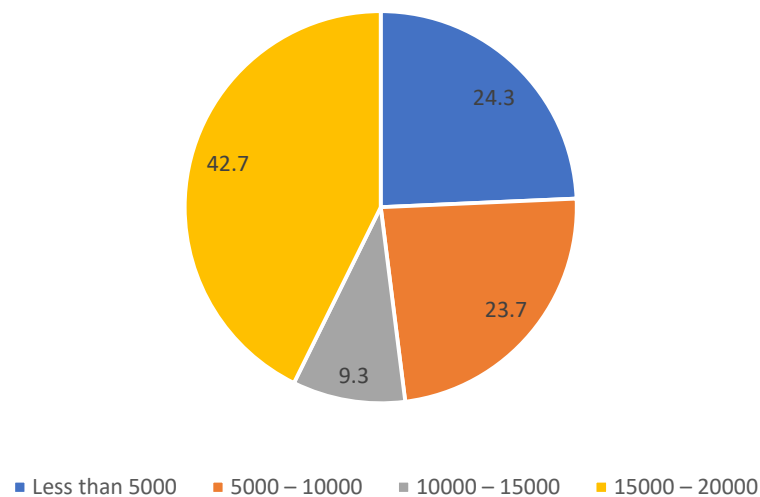
Inference:

Majority of the respondents (78.18%) answered that only one member earning for their whole family.

Table No: 4.1.11 Monthly Income of respondents

Monthly Income	Frequency	Percent
Less than 5000	73	24.3
5000 – 10000	71	23.7
10000 – 15000	28	9.3
15000 – 20000	128	42.7
Total	300	100

Chart No: 4.1.11 Monthly Income of Respondents



Interpretation:

From the above table and charts represent the monthly income of the respondents. 42.7% monthly earning is 15000 – 20000. Least earning 9.3 of the respondents monthly earning is 10000-15000. In between 24.3% & 23.7 of the respondents earning from less than 5000 and 5000-10000

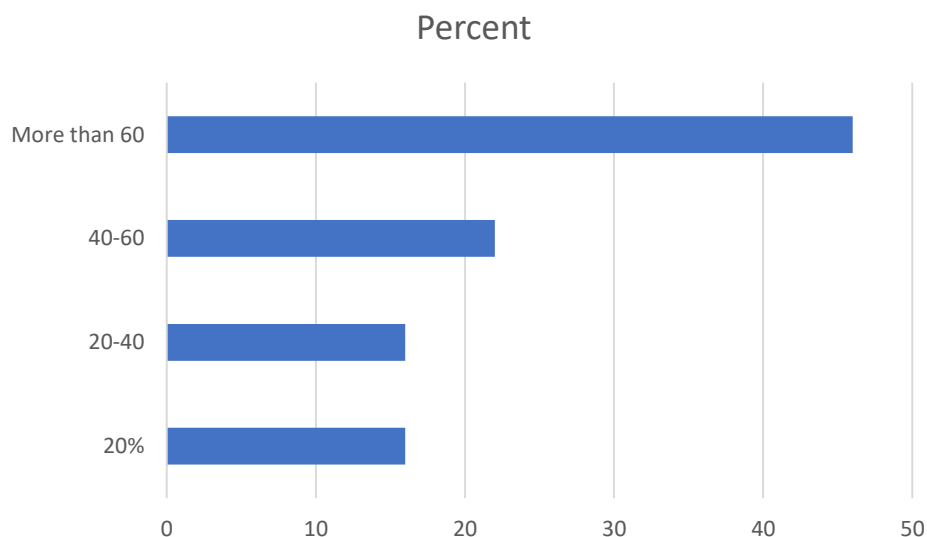
Inference:

Majority of the respondents (42.7) answered earned less than 5000 for the monthly income.

Table No: 4.1.12 Monthly expenditure of respondents

Monthly Expenditure	Frequency	Percent
20%	48	16
20-40	48	16
40-60	66	22
More than 60	138	46
Total	300	100

Chart No: 4.1.12 Monthly expenditure of Respondents



Interpretation:

From the above table and charts represent the monthly expenditure of the respondents. 16% of respondents spend 20% & 20-40% for their expenditure.. 22% of respondents spend 40-60% for their expenditure. 46% of respondents spend more than 60% for their expenditure.

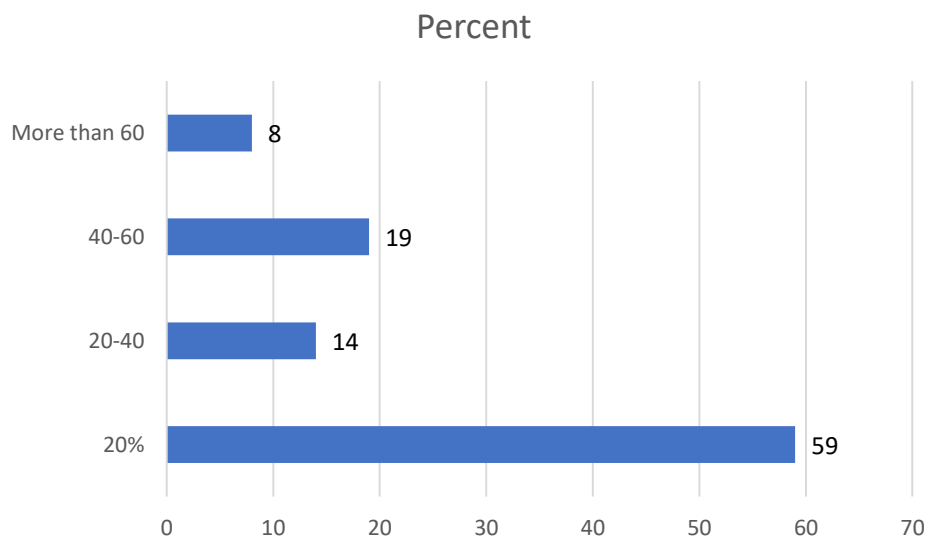
Inference:

Majority of the respondents (46.) replied that 40-60% spending for the monthly expenditure.

Table No: 4.1.13 Monthly Savings of Respondents

Monthly Savings	Frequency	Percent
20%	177	59
20-40	42	14
40-60	57	19
More than 60	24	8
Total	300	100

Chart No: 4.1.13 Monthly Savings of Respondents



Interpretation:

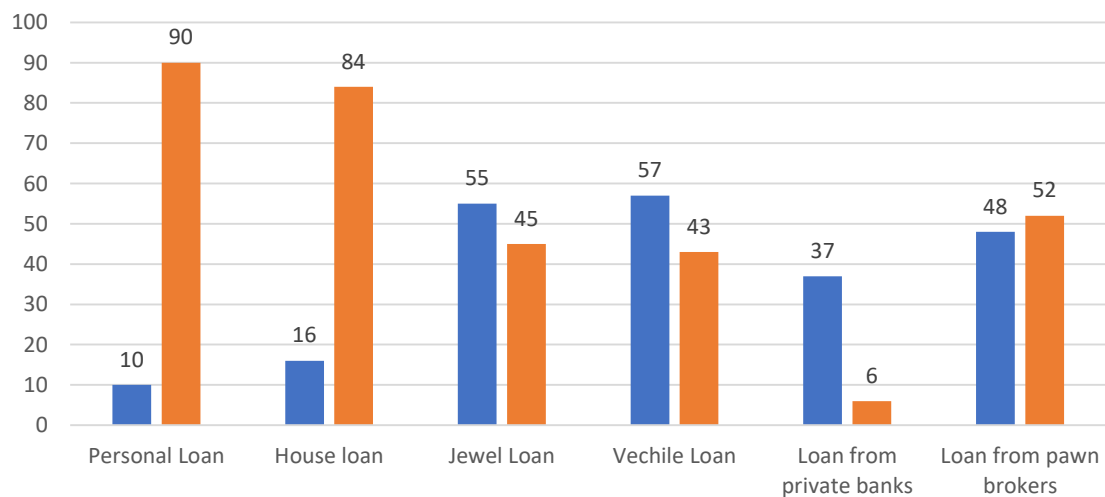
From the above table and diagram shows that monthly savings of respondents. 59% of respondents saving 20% of their income. 14% of respondents saving 20-40% of Income. 19% of respondents saving their income up to 40-60%. 8% of respondents saving more than 60% of their income

Inference:

Majority of the respondents (59) saves their 20% out of their monthly income.

Table No: 4.1.14**Loans of Respondents**

Loans	Frequency		Percent	
	Yes	No	Yes	No
Personal Loan	30	270	10	90
House loan	48	252	16	84
Jewel Loan	165	135	55	45
Vechile Loan	171	129	57	43
Loan from private banks	111	189	37	63
Loan from pawn brokers	144	156	48	52
Total	300		100	

Chart No: 4.1.14**Loans of Respondents****Interpretation:**

From the above table and charts shows that loans of respondents. 10% of taken personal loan whereas 90% not. 16% taken house loan whereas 84 not taken. 55% taken jewel loan whereas 45% not taken. 57% taken vehicle loan whereas 43 not taken.

Inference:

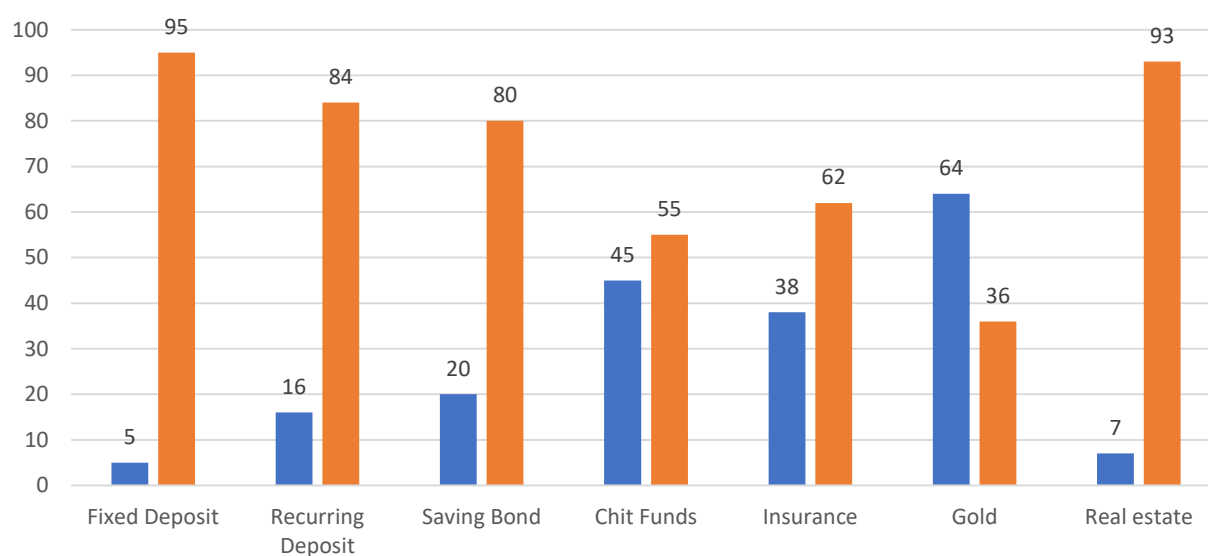
Majority of the respondents not taken personal loan either house loan, any loans from private banks, any loans from pawn brokers

Majority of the respondents taken jewel loans and vehicle loan.

Table: 4.1.15: Respondent's area of Investment

Area of Investment	Frequency		Percent	
	Yes	No	Yes	No
Fixed Deposit	15	285	5	95
Recurring Deposit	48	252	16	84
Saving Bond	60	240	20	80
Chit Funds	135	165	45	55
Insurance	114	186	38	62
Gold	192	108	64	36
Real estate	21	279	7	93
Total	300		100	

Chart No: 15 Respondents area of Investment



Interpretation:

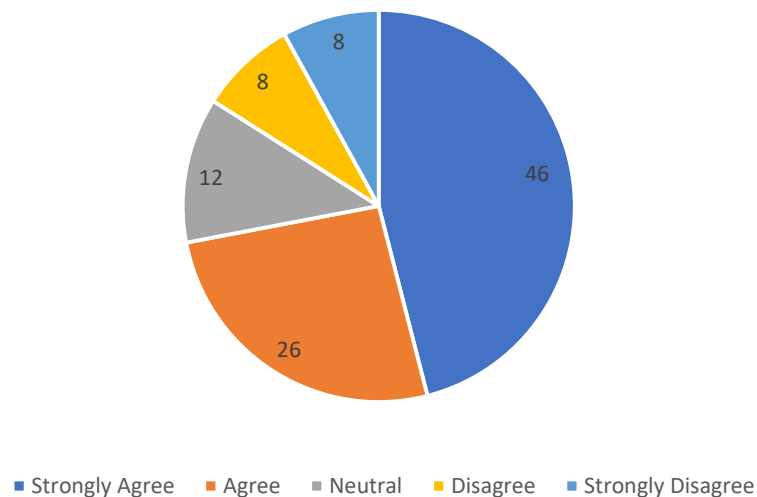
From the above table and charts represents the area of investment invested in various investment avenues

Inference:

Majority of the respondent not invested in the investment avenues

Table No: 4.1.16**Financial Crisis of Respondents**

Financial Crisis	Frequency	Percent
Strongly Agree	138	46
Agree	78	26
Neutral	36	12
Disagree	24	8
Strongly Disagree	24	8
Total	300	100

Chart No: 4.1.16**Financial Crisis of Respondents****Interpretation:**

From the above table and diagram shows the financial crisis due to the pandemic. 46% of respondents strongly agreed that they faced a lot of issue. 26% of respondents agreed that statement. 12% of respondents answered neutral. 8% of people disagreed the point. 8% of people strongly disagreed the statement.

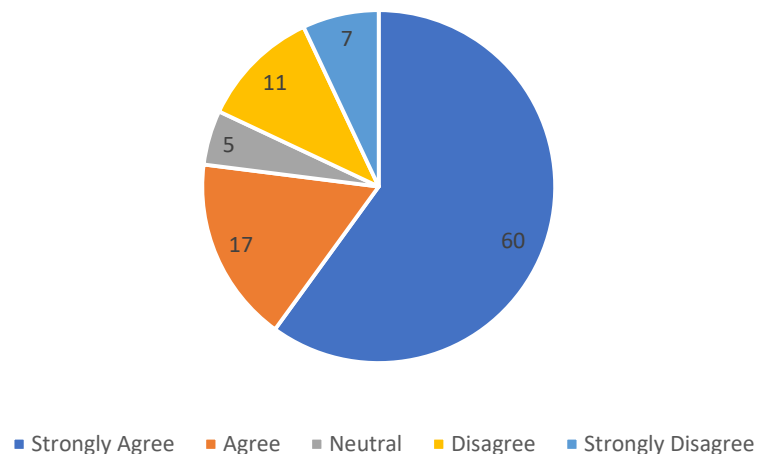
Inference:

Majority of the respondents (46%) answered strongly agreed the financial crisis during the pandemic.

Table No: 4.1.17 **Hospitality in the respondents Locality**

Hospitality	Frequency	Percent
Strongly Agree	180	60
Agree	51	17
Neutral	15	5
Disagree	33	11
Strongly Disagree	21	7
Total	300	100

Chart No: 4.1.17 **Hospitality in the respondents Locality**



Interpretation:

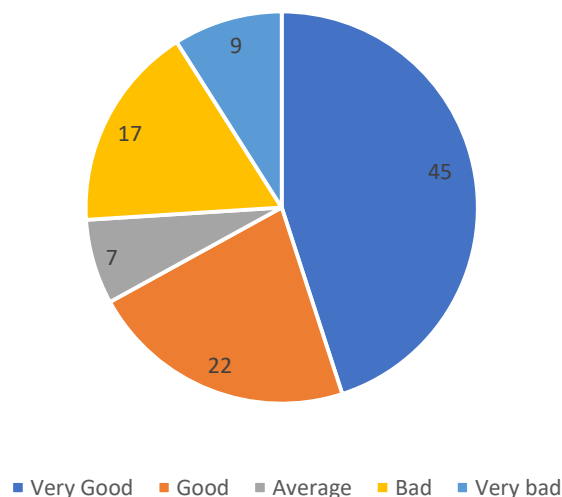
From the above table and chart represent the hospitality in the respondents locality 60% of respondents strongly agreed that they have well equipped hospital facilities. 17% agreed, 5% neutral, 11% disagreed, 7% strongly disagreed.

Inference:

Majority of the respondents (60%) answered they have well equipped hospital facilities.

Table No: 4.1.18**Road Condition in respondent's locality**

Road Condition	Frequency	Percent
Very Good	135	45
Good	66	22
Average	21	7
Bad	51	17
Very bad	27	9
Total	300	100

Chart No: 4.1.18**Road Condition in respondents locality****Interpretation:**

From the above chart and table respondents answer about the road condition of their locality 45% of respondents answered they have very good condition in their area. 22% says good, 7% says average, 17% says bad, 9% says very bad.

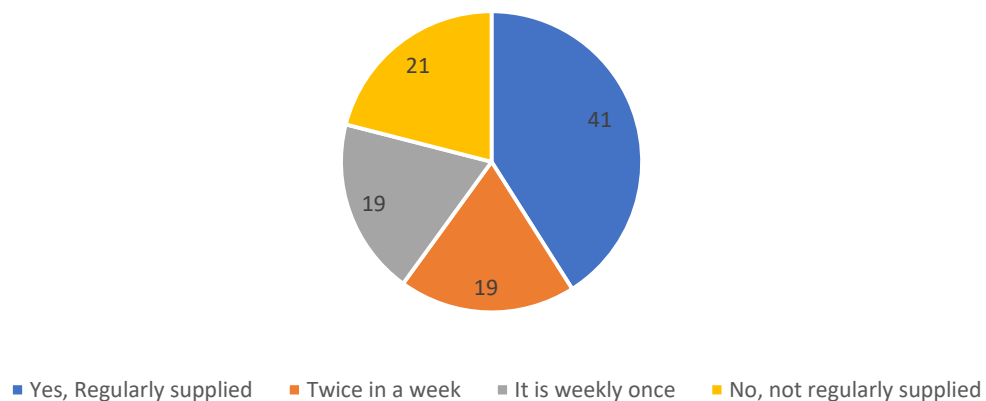
Inference:

Majority of the respondents (45%) answered they have very good facilities in their own locality

Table No: 4.1.19 Metro Water Facility in their Locality

Metro Water	Frequency	Percent
Yes, Regularly supplied	123	41
Twice in a week	57	19
It is weekly once	57	19
No, not regularly supplied	63	21
Total	300	100

Chart No: 4.1.19 Metro Water Facilities in their Locality



Interpretation:

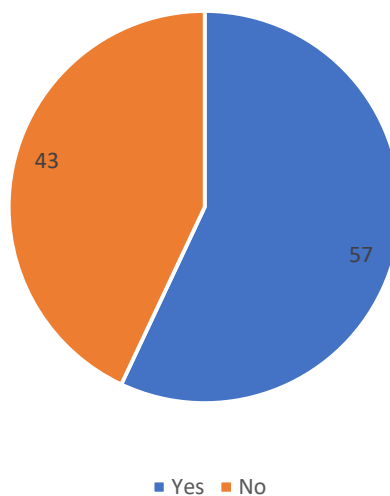
From the above table and chart the respondents answered about the metro water facility in their own locality. 41% of respondents replied that metro water supply was regularly supplied. 19% says twice in a week. 19% says weekly once supplied. 21% says not regularly supplied.

Inference:

Majority of the respondents (41%) answered metro water supply is regular in their locality

Table No:4.1.20**Market Facilities in their Locality**

Market Facilities	Frequency	Percent
Yes	171	57
No	129	43
Total	300	100

Chart No: 4.1.20**Market Facilities in their locality****Interpretation:**

From the above table and diagram represents the availability market facilities in their own area 57% answered yes. 43% answered no

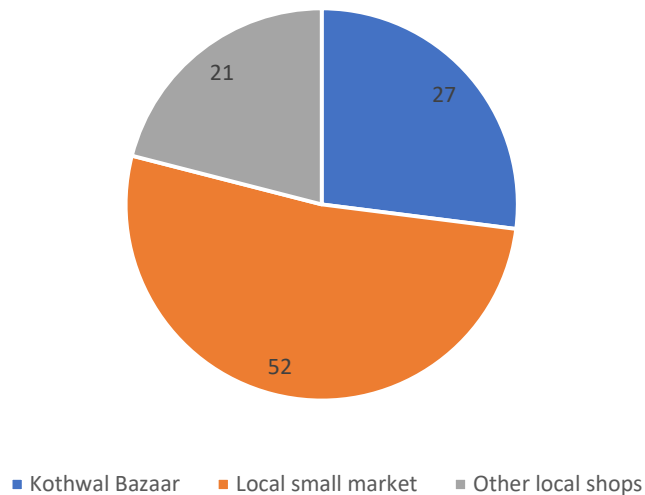
Inference:

Majority of the respondents (57%) answered yes

Table No: 4.1.21 Affordable Prices in the market

Affordable Prices	Frequency	Percent
Kothwal Bazaar	81	27
Local small market	156	52
Other local shops	63	21
Total	300	100

Chart No: 4.1.21 Affordable prices in the Market



Interpretation:

From the above table and diagram represents the affordable market facilities in their locality 27% using kothwal bazaar, 52% using local small market, 21% using other local shops

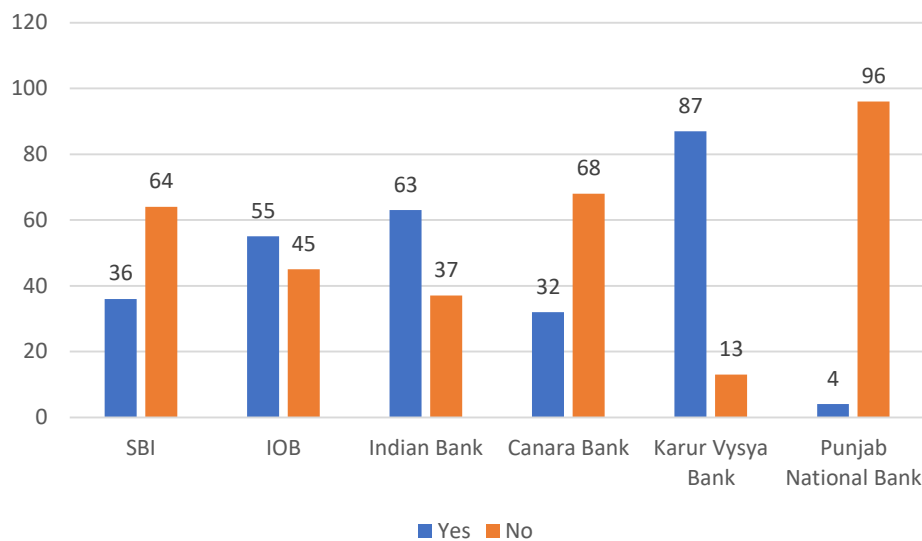
Inference:

Majority of the respondents (52%) using local small market to purchase their groceries in affordable prices.

Table No: 4.1.22 Bank Facilities in their Locality

Bank	Yes	No	Yes	No
SBI	108	192	36	64
IOB	165	135	55	45
Indian Bank	189	111	63	37
Canara Bank	96	204	32	68
Karur Vysya Bank	261	39	87	13
Punjab National Bank	12	288	4	96
Total	300		100	

Chart No: 4.1.22 Bank Facilities in their Locality



Interpretation:

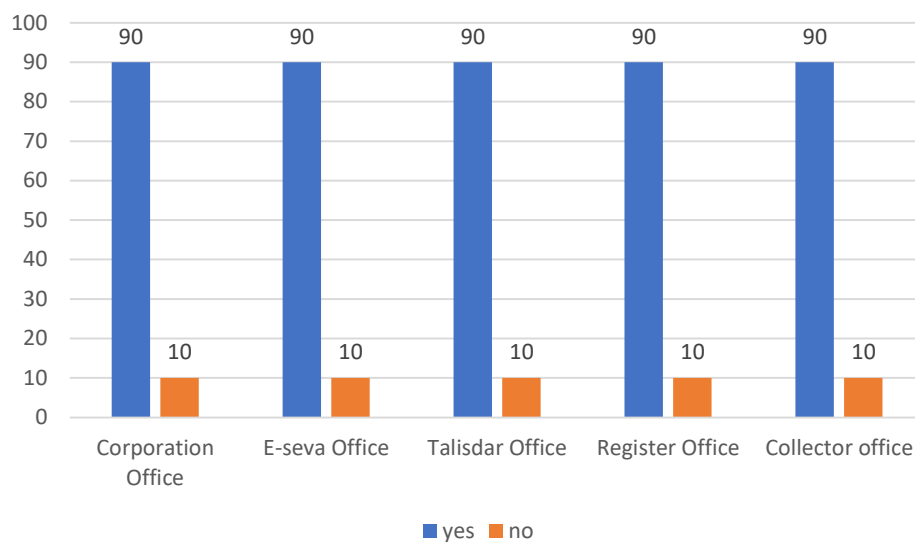
From the above table and diagram represents the availability of bank accounts for their banking activities.

Inference:

Majority of the respondents answered no, they didn't open bank account.

Table No: 4.1.23**Government offices in their locality**

Government Office	Frequency	Frequency	Percent	Percent
Corporation Office	270	30	90	10
E-seva Office	270	30	90	10
Talisdar Office	270	30	90	10
Register Office	270	30	90	10
Collector office	270	30	90	10
Total	300		100	

Chart No: 4.1.23**Government offices in their locality****Interpretation:**

From the above table and diagram represents the availability of Government offices facilities in their own area. 90% of respondents answered that all the government offices available in their own locality.

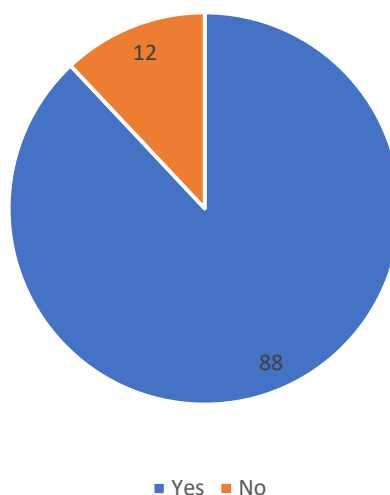
Inference:

Majority of the respondents(90%) answered yes.

Table No: 4.1.24 Educational Facilities of Respondents

Educational Facilities	Frequency	Percent
Yes	264	88
No	36	12
Total	300	100

Chart N0: 4.1.24 Educational Facilities of Respondents



Interpretation:

From the above table and diagram represents the educational facilities in their own locality. 88% of respondents replied that they have well furnished educational institutions like school and college for the children education.

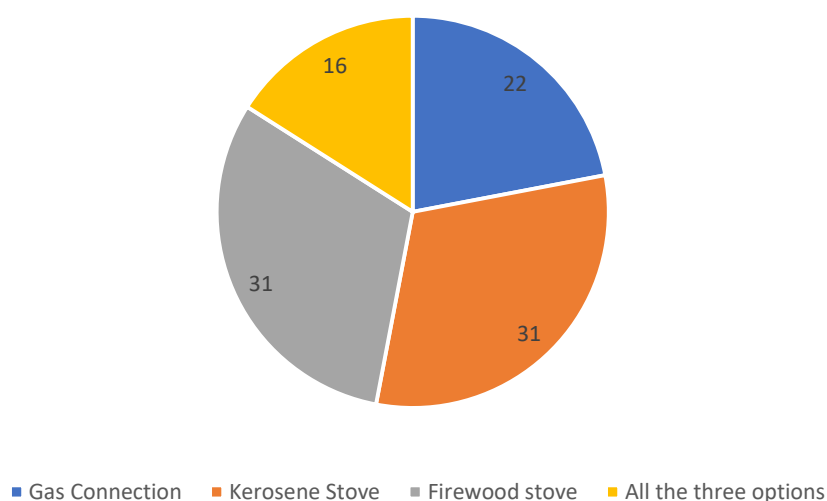
Inference:

Majority of the respondents (88%) answered yes

Table No: 4.1.25 **Respondents using energy for cooking**

Energy for cooking	Frequency	Percent
Gas Connection	66	22
Kerosene Stove	93	31
Firewood stove	93	31
All the three options	48	16
Total	300	100

Chart No: 4.1.25 **Respondents using energy for cooking**



Interpretation:

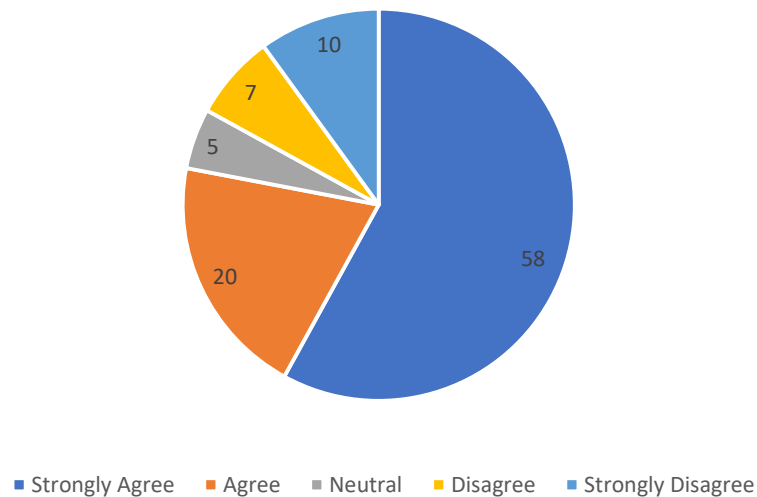
From the above table and chart represents the energy using for cooking. 22% of people using gas connection, 31% using kerosene and all the three options. 31% using firewood stove. 16% says using all the three options.

Inference:

Majority of the respondents 31% answered that they are using both kerosene stove and firewood stove.

Table No: 4.1.26**Electricity Facility of Respondents**

Electricity Facility	Frequency	Percent
Strongly Agree	174	58
Agree	60	20
Neutral	15	5
Disagree	21	7
Strongly Disagree	30	10

Chart No:4.1. 26**Electricity Facility of Respondents****Interpretation:**

From the above table and diagram represent the electricity facility in their locality. 58% of respondents answered that strongly agreed, 20% agreed, 5% says neutral, 7% says disagreed, 10% says strongly disagreed.

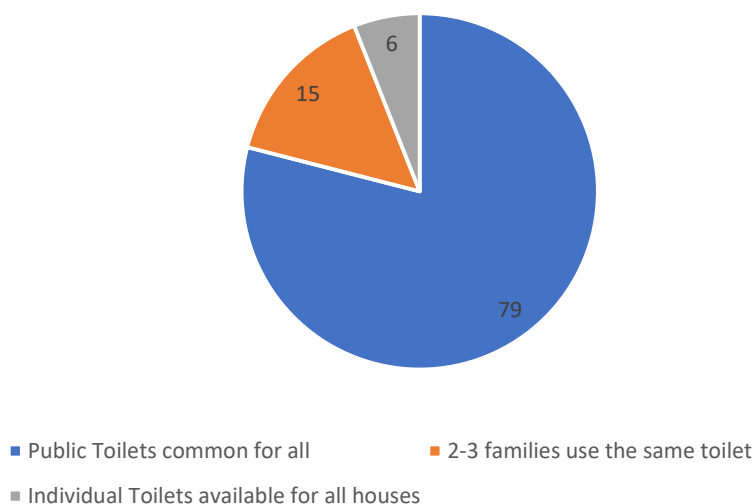
Inference:

Majority of the respondents (58%) answered that they have strongly agreed about the electricity facilities.

Table No: 4.1.27 Respondents Sanitation Facilities

Sanitation Facility	Frequency	Percent
Public Toilets common for all	237	79
2-3 families use the same toilet	45	15
Individual Toilets available for all houses	18	6
Total	300	100

Chart No: 4.1. 27 Respondents Sanitation facilities.



Interpretation:

From the above table and diagram represent the respondents sanitation facilities in their locality. 79% of respondents using public toilets which common for all. 15% of respondents using 2-3 families uses the same toilets. 6% of respondents using individual toilets available for all houses.

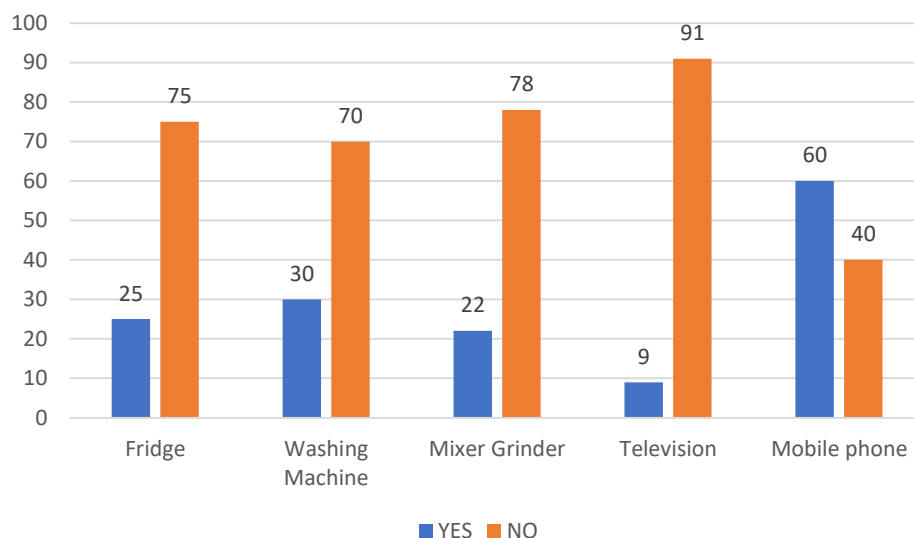
Inference:

Majority of the respondents (79%) answered that they using public toilets which is common for all.

Table No: 4.1.28 Electrical Appliances in respondents house.

Electrical Appliances	Frequency	Frequency	Percent	Percent
Fridge	75	225	25	75
Washing Machine	90	210	30	70
Mixer Grinder	66	234	22	78
Television	27	273	9	91
Mobile phone	180	120	60	40

Chart No: 4.1.28 Electrical Appliances in respondents house.



Interpretation:

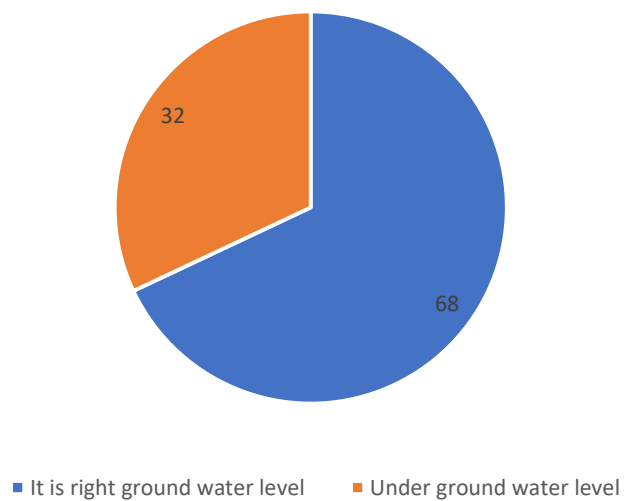
From the above table and chart represents the usage of electrical appliances of respondents. 25% using fridge whereas 75% not using fridge. 30% using washing machine whereas 70% not using washing machine. 22% using mixer grinder whereas 78% not mixer grinder, 9% using television whereas 91% not using television, 60%% using mobiles whereas 40% not using the mobile phones.

Inference:

Majority of the respondents not using any of the electrical appliances their house purposes.

Table No: 4.1.29**Level of ground water in respondents location**

Ground Water Level	Frequency	Percent
It is right ground water level	204	68
Under ground water level	96	32
Total	300	100

Chart No: 4.1.29**Level of ground water in respondents location****Interpretation:**

From the above table and diagram shows that the ground water level of respondents, 68% of respondents says that there is right ground water level. 32% of respondents says that there is under ground water level.

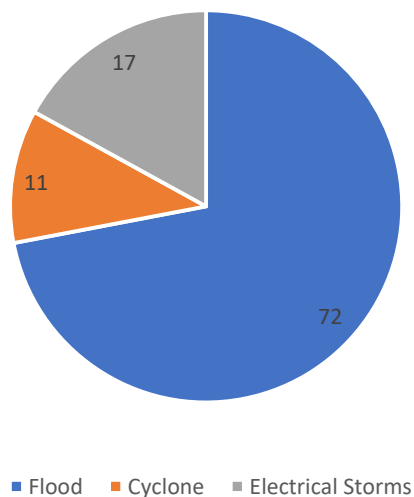
Inference:

Majority of the respondents (68%) answered that there is right level of ground water.

Table No: 4.1.30 Natural Calamities Affected in Respondents area

Natural Calamities	Frequency	Percent
Flood	216	72
Cyclone	33	11
Electrical Storms	51	17
Total	300	100

Chart No: 4.1.30 Natural Calamities Affected in Respondents area



Interpretation:

From the above table and diagram shows that the natural calamities affected in respondents area. they are affected by (72%) flood, (11%) cyclone and (17%) electrical storms.

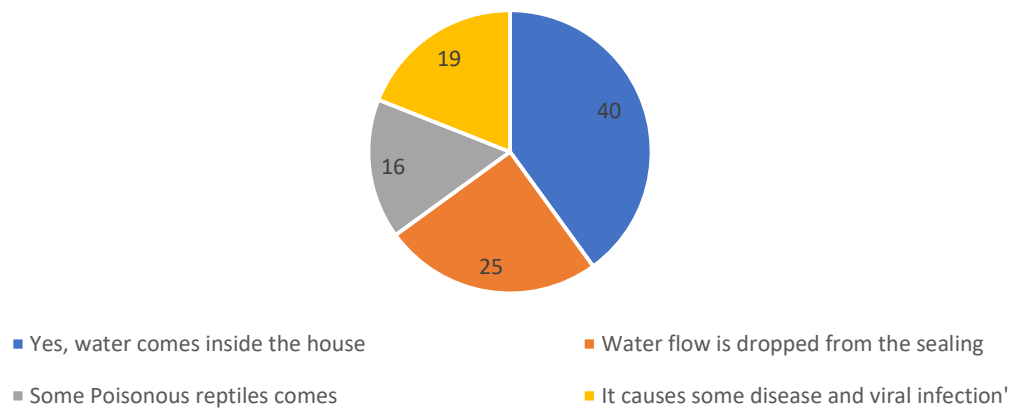
Inference:

Majority of the respondents affected by flood.

Table No: 4.1.31 Respondents faced the difficulties during flood.

Rainy difficulties	Frequency	Percent
Yes, water comes inside the house	120	40
Water flow is dropped from the sealing	75	25
Some Poisonous reptiles comes	48	16
It causes some disease and viral infection'	57	19
Total	300	100

Chart No: 4.1.31 Respondents faced the difficulties during flood.



Interpretation:

From the above table and chart shows that the respondents faced the difficulties during the flood. 40% of respondents faced that water comes inside the house. 25% says that water flow is dropped from the sealing, 16% says that some poisonus reptiles comes in the flood, and19% it cause some diease and viral infection.

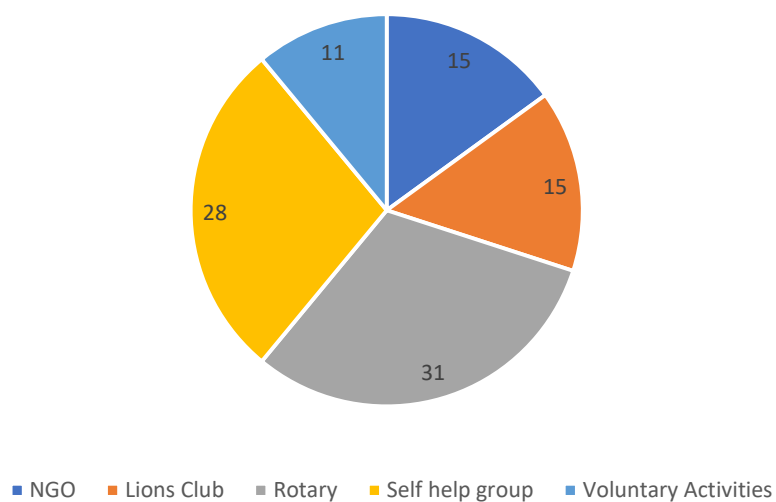
Inference:

Majority of the respondents says that water comes inside the house.

Table No: 4.1.32 **Respondents involved in social activities**

Social Activities	Frequency	Percent
NGO	45	15
Lions Club	45	15
Rotary	93	31
Self help group	84	28
Voluntary Activities	33	11
Total	300	100

Chart No: 4.1.32 **Respondents involved in social activities**

**Interpretation:**

From the above table and chart shows that the people involved in social activities in their locality. 15% both NGO and Lions club, 31%z says rotary club. 28% from self help groups, 11% from voluntary activities

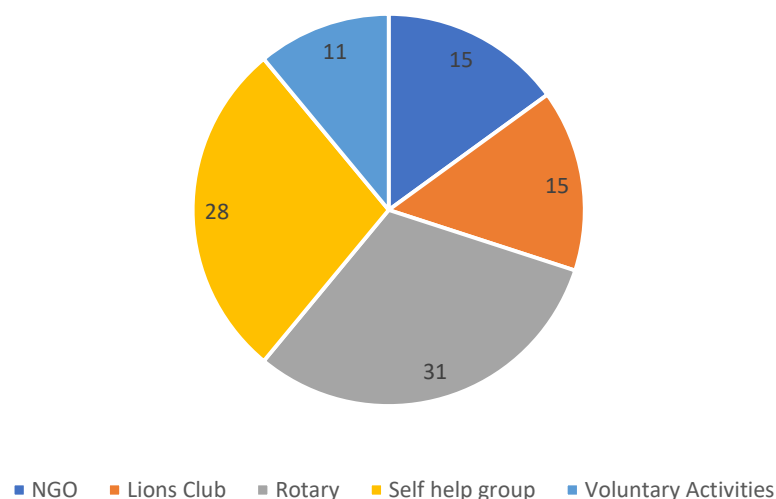
Inference:

Majority of the respondents involved in Rotary club activities.

Table No: 4.1.33 Any Voluntary activities held in Respondent's area

Voluntary Activities for the area	Frequency	Percent
NGO	45	15
Lions Club	45	15
Rotary	93	31
Self help group	84	28
Voluntary activities	33	11
Total	300	100

Chart No: 4.1.33 Any Voluntary activities held in Respondents area



Interpretation:

From the above table and chart shows that the some social activist helps for the community for their betterment. 15% from NGO & Lions Club, 31% from Rotary, 28% from self help groups. 11% of the respondents says that voluntary activities

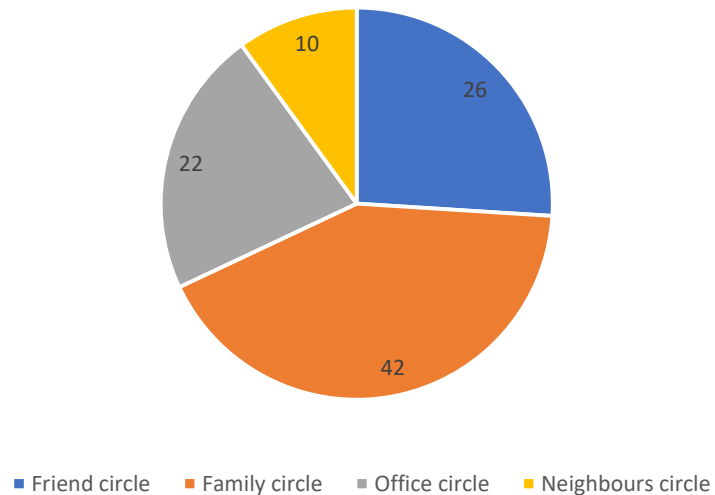
Inference:

Majority of the respondents answered that Rotary club help them for the betterment for their living.

Table No: 4.1.34 Respondents circle of Interaction

Interaction Circle	Frequency	Percent
Friend circle	78	26
Family circle	126	42
Office circle	66	22
Neighbours circle	30	10
Total	300	100

Chart No: 4.1.34 Respondents circle of interaction

**Interpretation:**

From the above table and diagram, shows that respondents interaction circle in their day to day activities. 26% interact their friends circle, 42% interact with their

family circle, 22% interact with their office circle, 10% interact with their neighbour circle

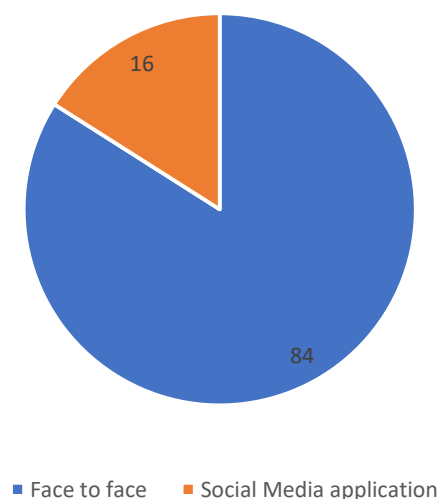
Inference:

Majority of the respondents interact with their family circle.

Table No: 4.1.35 Respondents personal interaction

Personal Interaction	Frequency	Percent
Face to face	252	84
Social Media application	48	16
Total	300	100

Chart No: 4.1.35 Respondents Personal interaction



Interpretation:

From the above table and chart shows that the respondents level of interaction. 84% says most of the interaction engaged in face to face. 16% says their interaction engaged through social media application.

Inference:

Majority of the respondents says most of the interaction engaged in face to face

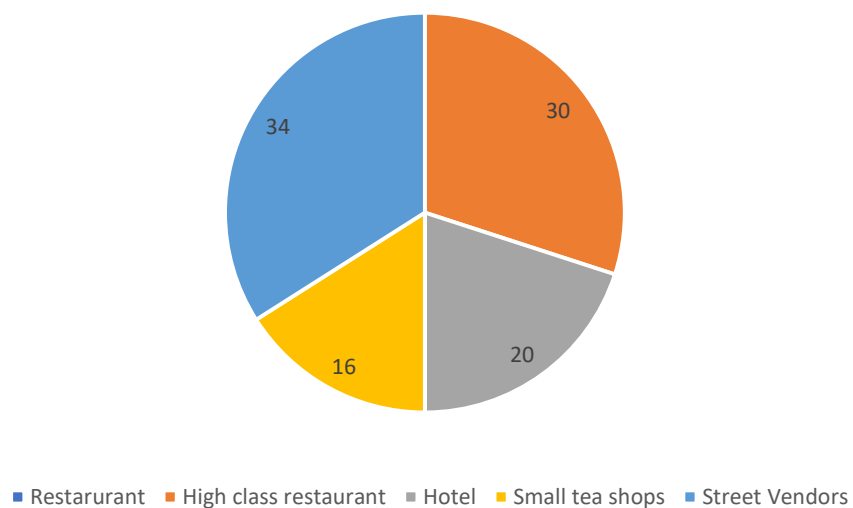
Part – B

Waste cooking oil generation

Table No: 4.1.37 Respondents Classification of Restaurant

Restarurant	Frequency	Percent
High class restaurant	15	30
Hotel	10	20
Small tea shops	8	16
Street Vendors	17	34

Chart No: 4.1.37 Respondents classification of Restaurants

**Interpretation:**

From the above table and chart represent the respondents running classification of food outlets, 20% of respondents running high class restaurants, 20% running hotels, 16% running tea shops, 34% are street vendors.

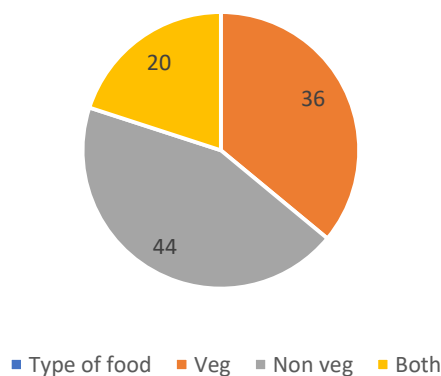
Inference:

Majority of the respondents running street side food outlets

Table No:4.1. 38 Respondents type of food serving for the customers

Type of food	Frequency	Percent
Veg	18	36
Non veg	22	44
Both	10	20

Chart No: 4.1.38 Respondents type of food serving for the customers



Interpretation:

From the above table and chart shows that respondents category of food serving for the customers, 36% says vegetarian alone, 44% says non-vegetarian alone, 20% says both.

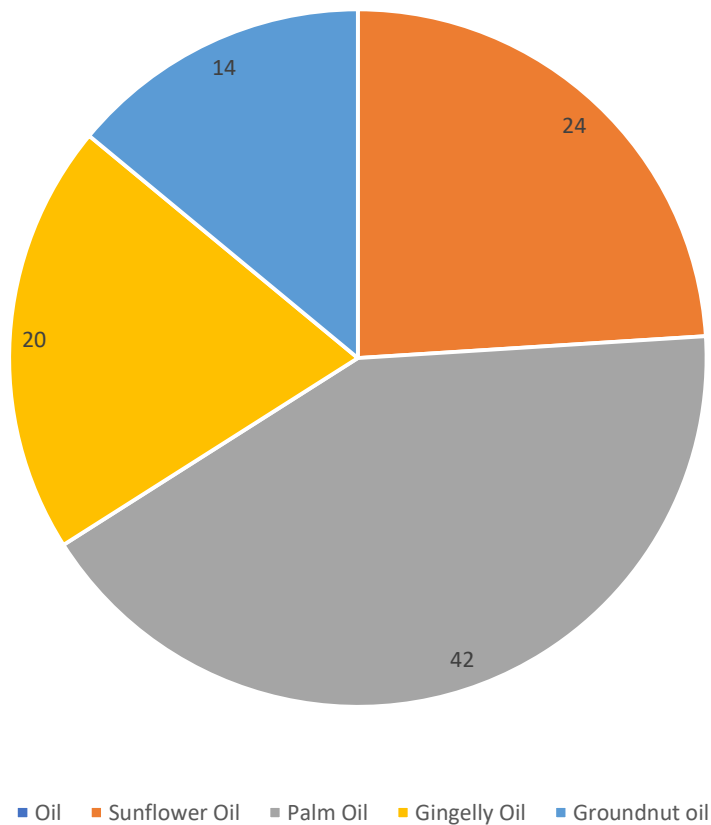
Inference:

Majority of the respondents says that they serving non-veg food for their customers.

Table No: 4.1.39 Respondents using categories of oil

Oil	Frequency	Percent
Sunflower Oil	12	24
Palm Oil	21	42
Gingelly Oil	10	20
Groundnut oil	7	14

Chart No: 4.1.39 Respondents using categories of oil



Interpretation:

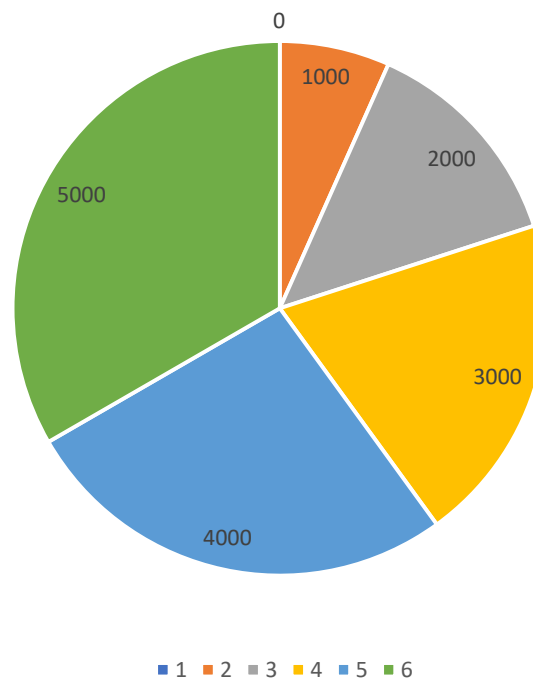
From the above table and chart shows that respondents which category of oil using for the cooking, 2% using sunflower oil, 425 using palm oil, 20% gingelly oi, 14% using groun oil

Infernce:

Majority of the respondents using palm oil for the cooling

Table No: 4.1.40**Respondents amount spent for the cooking oil**

Amount spent for oil	Frequency	Percent
1000	6	12
2000	9	18
3000	11	22
4000	17	34
5000	7	14

Chart No; 4.1.40**Respondents amount spent for the cooking oil****Interpretation:**

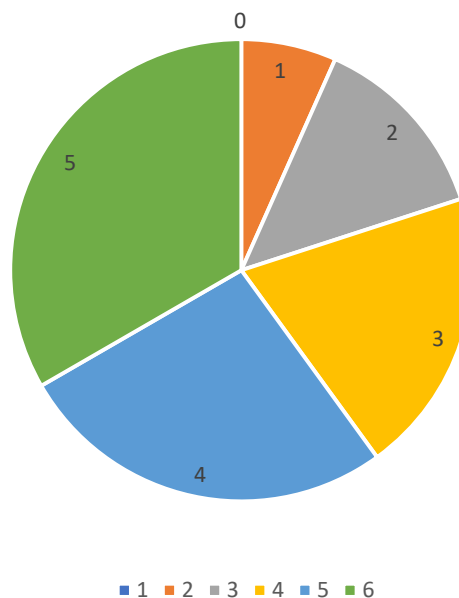
From the above table and chart shows that respondents spend amount for the cooking oil for a week 12% says 1000, 18% says 2000, 22% says 3000, 34% says 4000, 14% says 5000

Inference:

Majority of the respondents says they spend 3000 for the week to purchase the cooking oil

Table No: 4.1.41**Oil repetition for frying the foods**

Oil Repetition	Frequency	Percent
1	5	10
2	17	34
3	12	24
4	10	20
5	6	12

Chart No: 4.1.41**Oil repetition for frying the foods****Interpretation:**

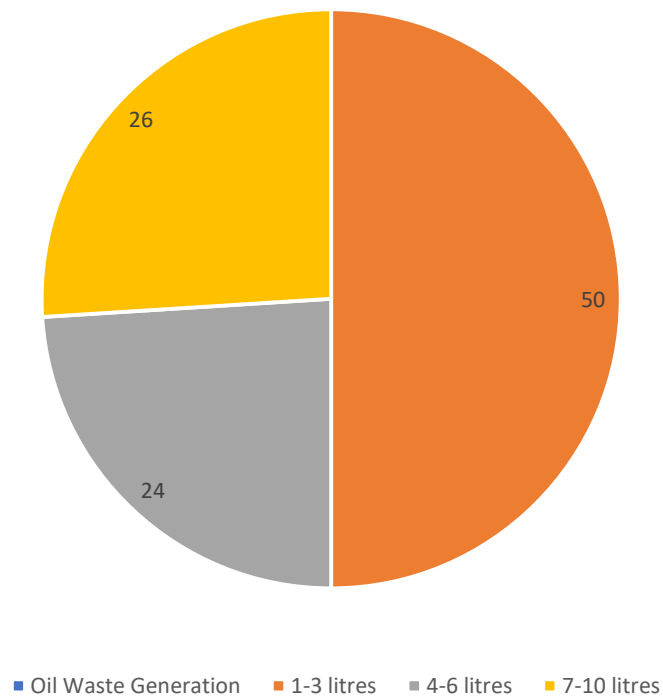
From the above table and chart represent that oil repetition for frying the foods, 10% says they repeat the oil only once, 34% of respondents says that they repeating the oil only twice, 24% of respondents says that thrice, 20% says 4 times, 12% says 5 times.

Inference:

Majority of the respondents says that they repeating the oil for more than 3 times

Table no:4.1.42**Oil Waste generation from food outlets**

Oil Waste Generation	Frequency	Percent
1-3 litres	25	50
4-6 litres	12	24
7-10 litres	13	26

Chart No: 4.1.42**Oil waste generation from food outlets**

Interpretation;

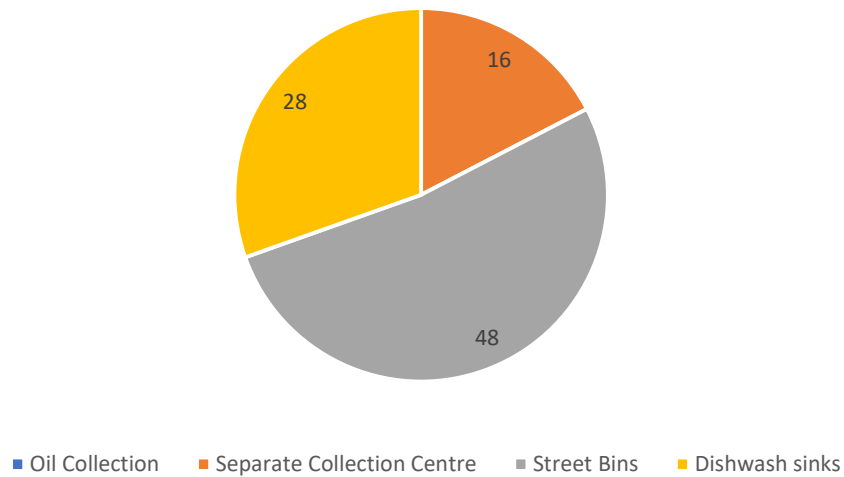
From the above table and chart represent the oil waste generating from the food outlets, 1-3 litres 50%, 24% says 4-6 litres, 26% percent says 7-10 litres.

Inference;

Majority of the respondents says that 1-3 litres of waste oil generating from the food outlets.

Table No: 4.1.43**Waste oil disposing systme**

Oil Collection	Frequency	Percent
Separate Collection Centre	8	16
Street Bins	24	48
Dishwash sinks	14	28
Both	50	100

Chart No: 4.1.43**Waste oil disposing system****Interpretation:**

From the above table and chart represent the waste oil disposal system followed by the fhollowed by the hotelliers, 16% says separate oil collection agency, 48% says disposed in street bins, 28% says disposed in diswash

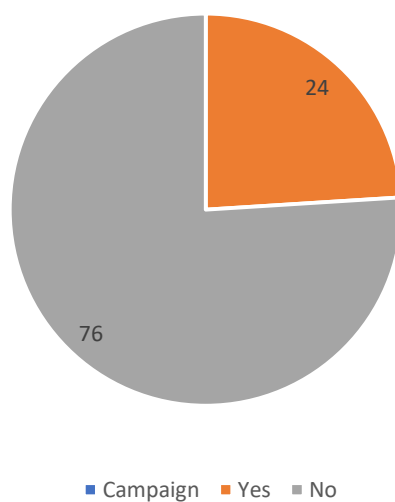
Inference:

Majority of the respondents disposed in street bins

Table no: 4.1.44 Any informative campaign organised for waste oil hazardous

Campaign	Frequency	Percent
Yes	12	24
No	38	76

Chart No: 4.1.44 Any informative campaign organised for waste oil hazardous



Interpretation:

From the above table and chart represent that any awareness campaign organised for the waste oil environmental hazardous 24% says yes, 76% says no

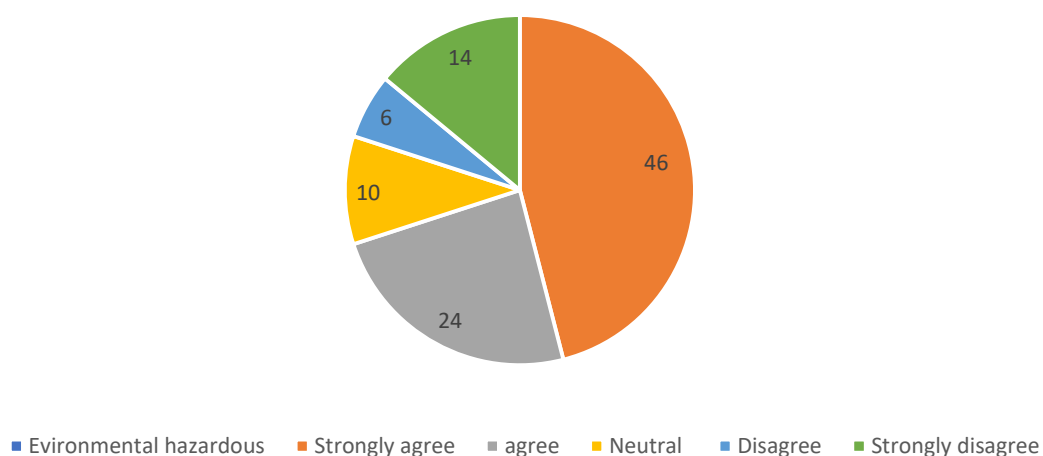
Inference:

Majority of the respondents says that there were no campaign programme organised for the waste oil hazardous.

Table No: 4.1.45 Hoteliers Opinion about the waste oil disposal creates the environmental hazardous

Environmental hazardous	Frequency	Percent
Strongly agree	23	46
agree	12	24
Neutral	5	10
Disagree	3	6
Strongly disagree	7	14

Chart No: 4.1.45 Hoteliers Opinion about the waste oil disposal creates the environmental hazardous



Interpretation:

From the above table and diagram represents that hoteliers opinion about the waste oil disposal creates the environmental hazardous, 46% says strongly agree, 24% says agree, 10% says neutral, 6% says disagree, 14% says strongly disagree

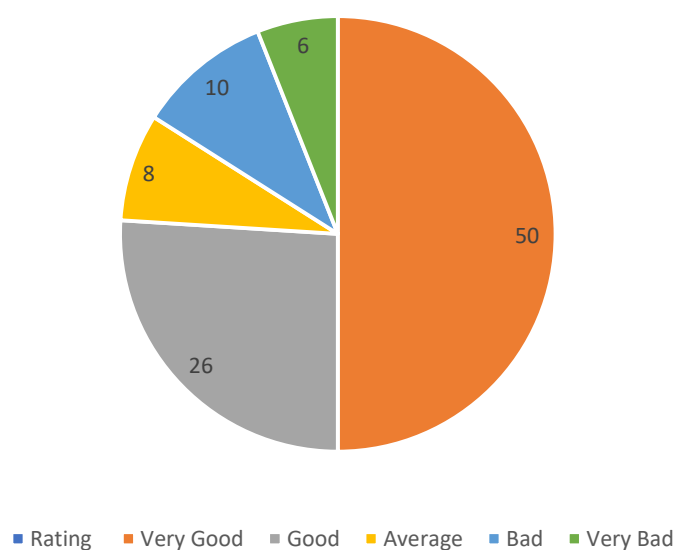
Inference:

Majority of the respondents says that the waste oil disposal in the environment creates the pollution and damage the surrounding of well being.

Table No: 4.1.46 Hoteliers opinion about the waste cooking oil collection system

Rating	Frequency	Percent
Very Good	25	50
Good	13	26
Average	4	8
Bad	5	10
Very Bad	3	6

Chart No: 4.1.46 Hoteliers opinion about the waste cooking oil collection system



Interpretation:

From the above table and diagram shows that the hoteliers opinion about the waste cooking oil collection system. 50% says very good, 26 says good, 8% says average 10% says bad, 6% says very bad.

Inference:

Majority of the respondents says that the waste cooking oil collection is very good for the environment.

Part – C

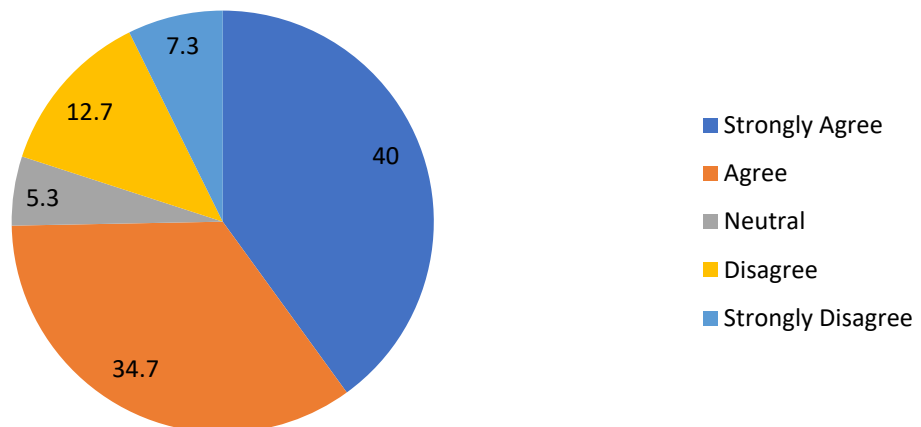
Market Feasibility for bar detergent soaps

Table No: 4.1.47 Repondents hygiene level by cleaning their clothes

Options	Frequency	Percent
Strongly Agree	120	40
Agree	104	34.7
Neutral	16	5.3
Disagree	38	12.7
Strongly Disagree	22	7.3
Total	300	100

Chart No: 4.1.47

Repondents hygiene level by cleaning their clothes



Interpretation:

From the above table and diagram shows that the hygiene level of the respondents by cleaning their clothes. 40% of the respondents strongly agreed. 34.7% agreed, 5.3% says netural, 12.7% disagreed, 22% strongly disagreed.

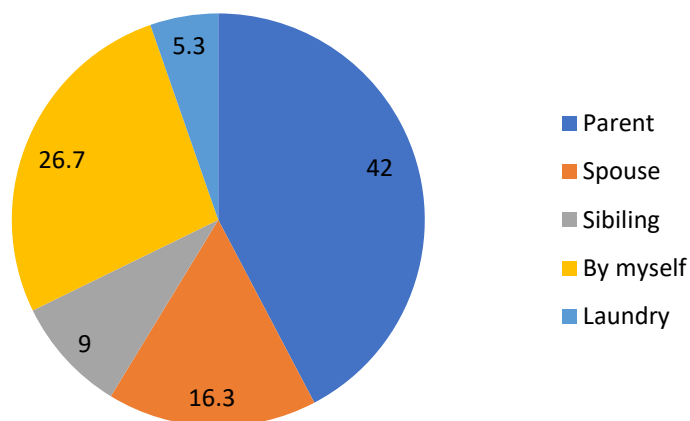
Inference:

Majority of the respondents says that strongly agreed that they mostly concentrate the hygiene level to washing their clothes.

Table No: 4.1.48 Respondents regularly washed their clothes in home

Options	Frequency	Percent
Parent	128	42
Spouse	49	16.3
Sibiling	27	9
By myself	80	26.7
Laundry	16	5.3
Total	300	100

Chart No: 4.1.48 Respondents regularly washed their clothes in home



Interpretation:

From the above table and diagram the Respondents regularly washed their clothes in home, 42% says parent, 16.3% says spouse, 27% says sibilings, 26.7% says by themselves and 5.3% says laundry.

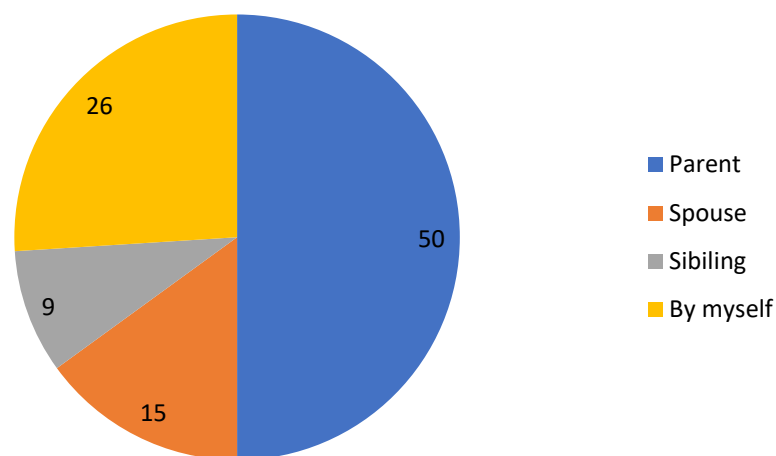
Inference:

Majority of the respondents (42%) says that their clothes washed by their parents

Table No: 4.1.49 Respondents who used to buys the detergents soaps for their family

Options	Frequency	Percent
Parent	150	50
Spouse	45	15
Sibiling	27	9
By myself	78	26
Total	300	100

Chart No: 4.1.49 Respondents who used to buys the detergents soaps for their family



Interpretation:

From the above table and diagram shows that the actual buyer in every respondents home. 50% says parents, 15% says spouse, 9% says sibilings, 26% says by themselves.

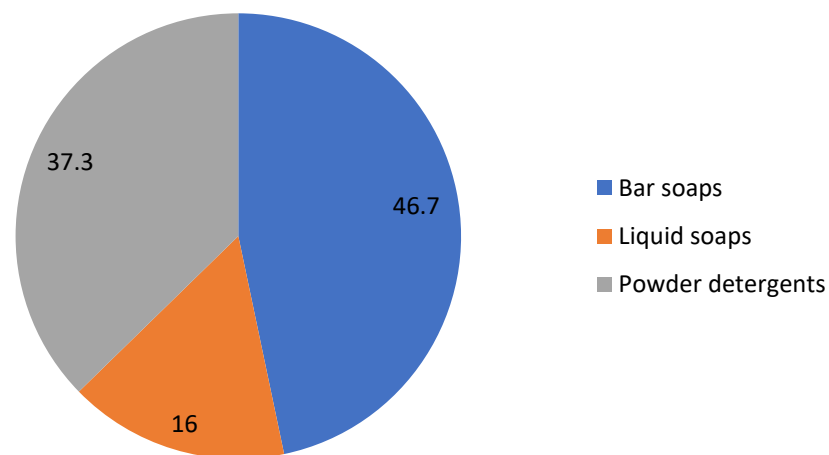
Inference:

Majority of the respondents (42%) says that their clothes washed by their parents

Table No: 4.1.50 Respondents specified the cleaning agent for washing clothes

Options	Frequency	percent
Bar soaps	140	46.7
Liquid soaps	48	16
Powder detergents	112	37.3
Total	300	100

Chart No: 4.1.50 Respondents specified the cleaning agent for washing clothes



Interpretation:

From the above table and diagram represents the respondents specified the cleaning agent for washing clothes. 46.7% says bar soaps, 16% says liquid soaps, 37.3% says powder detergents

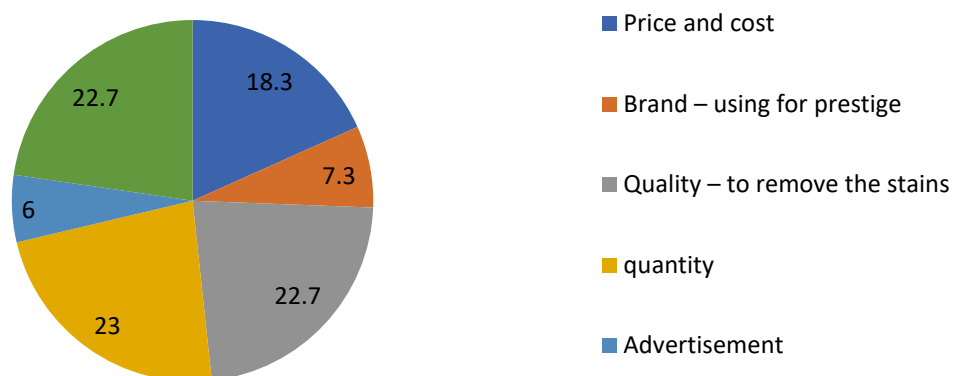
Inference:

Majority of the respondents answered that they were using the bar detergent soaps for the washing the clothes.

Table No: 4.1.51 **Factors for buying the soaps**

Options	Frequency	Percent
Price and cost	55	18.3
Brand – using for prestige	22	7.3
Quality – to remove the stains	68	22.7
quantity	69	23
Advertisement	18	6
Without any effects for hands and legs	68	22.7
Total	300	100

Chart No: 4.1.51 **Factors for buying the soaps**



Interpretation:

From the above table and diagram shows that the factors for buying the material. 18.3% says price, 7.3% says brand, 22.7% says quality, 23% says quantity, 6% says advertisement, 22.7% says without any effects for hands and legs.

Inference:

Majority of the respondents says that quantity influence the factor to buy the product.

Table No: 4.1.52 Any skin infection faced by the respondents

Options	Frequency	Percent
Fingers and palm get rough	103	34.3
Foot eruption while washing the clothes	53	17.6
Some erosion will appen after wash the clothes	105	35
It affects y skin smoothness	39	13
Total	300	100

Chart No: 4.1.52 Any skin infection faced by the respondents



Interpretation:

From the above table and diagram shows that the any skin infection faced by the respondents while using the detergent soaps. 34.3% says Fingers and palm get rough, 17.6% says Foot eruption while washing the clothes, 35% says Some erosion will appen after wash the clothes, 13% says It affects y skin smoothness

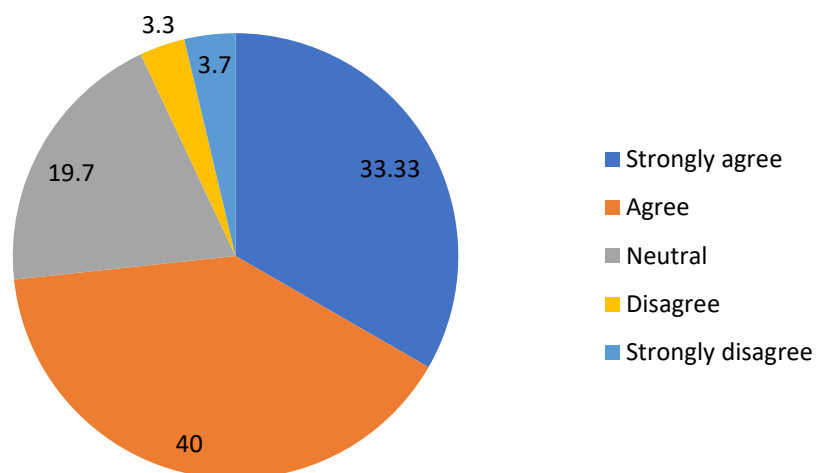
Inference:

Majority of the respondents says that they have felt some erosion will happen after wash the clothes

Table No: 4.1.53 Respondents agree to use the cleaning material with affordable prices

Options	Frequency	Percent
Strongly agree	100	33.33
Agree	120	40
Neutral	59	19.7
Disagree	10	3.3
Strongly disagree	11	3.7
Total	300	100

Chart No: 4.1.53 Respondents agree to use the cleaning material with affordable prices

**Interpretation:**

From the above table and diagram shows that the respondents opinion about the if cleaning material available in the market with affordable prices. 33.33% says Strongly agree, 40% says Agree, 19.7% says Neutral, 3.3% Disagree, 3.7% Strongly disagree

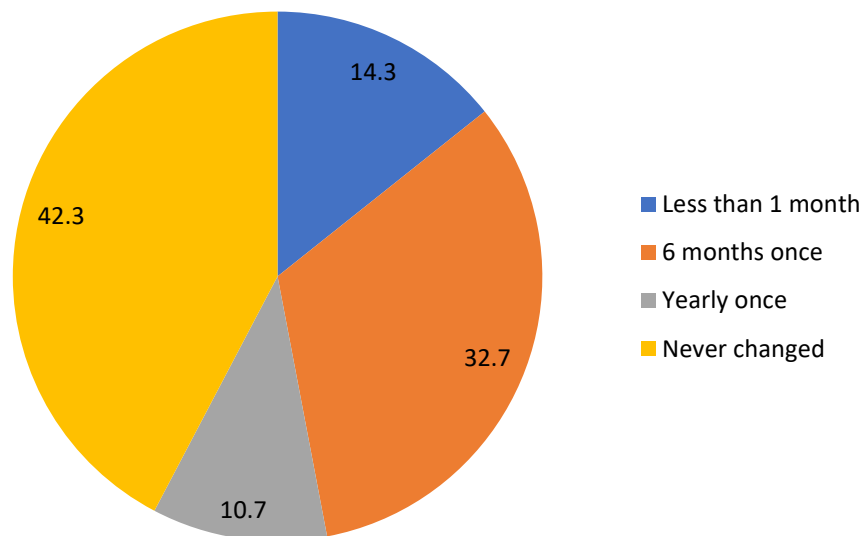
Inference:

Majority of the respondents says that they agreed the product available in the market with affordable prices.

Table No: 4.1.54 Respondents often to change your soap brand

Options	Frequency	Percent
Less than 1 month	43	14.3
6 months once	98	32.7
Yearly once	32	10.7
Never changed	127	42.3
Total	300	100

Chart No: 4.1.54 Respondents often to change your soap brand

**Interpretation:**

From the above table and diagram represent the respondents often to change the brands. 14.3 says that less than 1 month, 32.7% says 6 months once, 32% says yearly once, 42.3% says never changed.

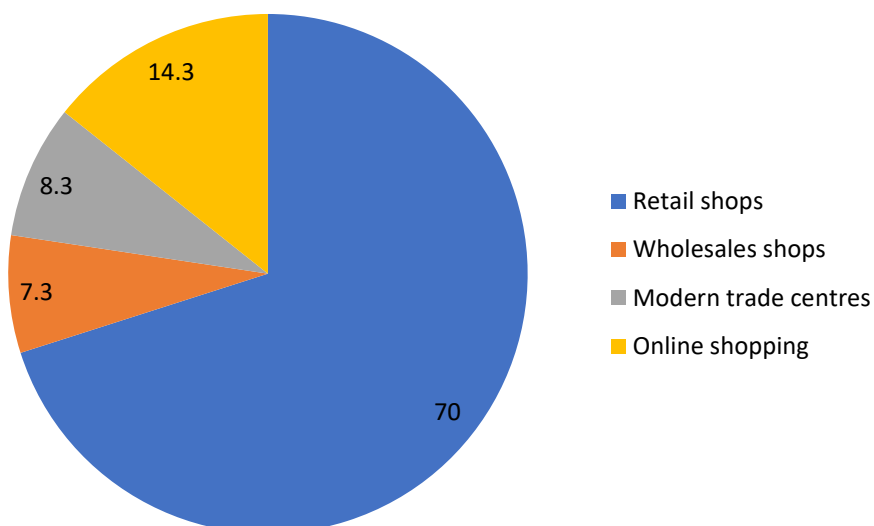
Interpretation:

Majority of the respondents answered that they have never changed the soap brand.

Table No: 4.1.55 Respondents bought the house cleaning material for your home

Options	Frequency	Percent
Retail shops	210	70
Wholesales shops	22	7.3
Modern trade centres	25	8.3
Online shopping	43	14.3
Total	300	100

Chart No: 4.1.55 Respondents bought the house cleaning material for your home

**Interpretation:**

From the above table and diagram show that the respondents buying soaps through shops. 70% says retail shops, 7.3% says whole sale shops, 8.3% says modern trade centres. 14.3% says through online shopping

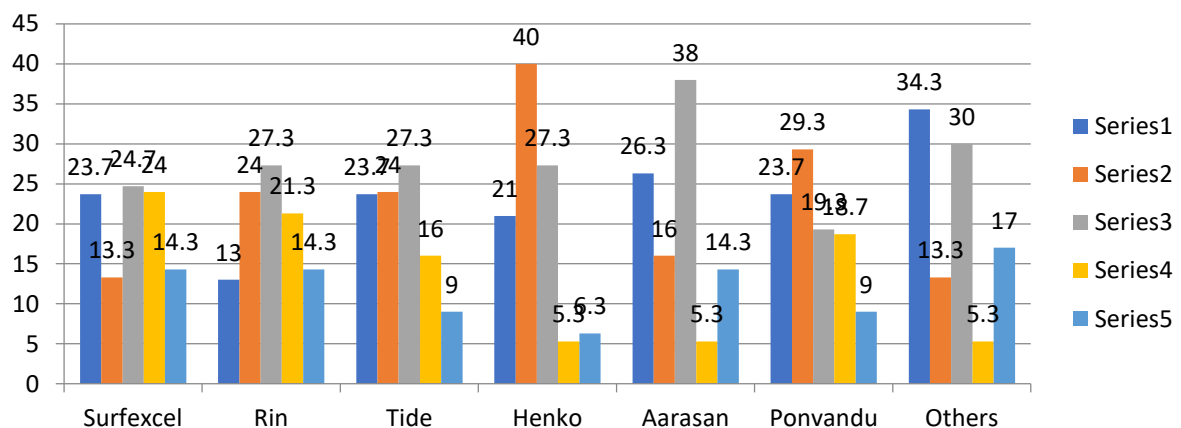
Inference:

Majority of the respondents says that they used to bought the soaps with nearby retail shops.

Table No: 4.1.56 Competitor Brands available in the market for detergent soaps

Option	1		2		3		4		5	
	F	P	F	P	F	P	F	P	F	P
Surfexcel	71	23.7	40	13.3	74	24.7	72	24	43	14.3
Rin	39	13	72	24	82	27.3	64	21.3	43	14.3
Tide	71	23.7	72	24	82	27.3	48	16	27	9
Henko	63	21	120	40	82	27.3	16	5.3	19	6.3
Aarasan	79	26.3	48	16	114	38	16	5.3	43	14.3
Ponvandu	71	23.7	88	29.3	58	19.3	56	18.7	27	9
Others	103	34.3	40	13.3	90	30	16	5.3	51	17

Chart No: 56 Competitor Brands available in the market for detergent soaps



Interpretation:

From the above table and chart says that the Competitor Brands available in the market for detergent soaps

Inference:

Majority of the respondents gave the 3 ratings for surf excel, rin, tide and aarasan.

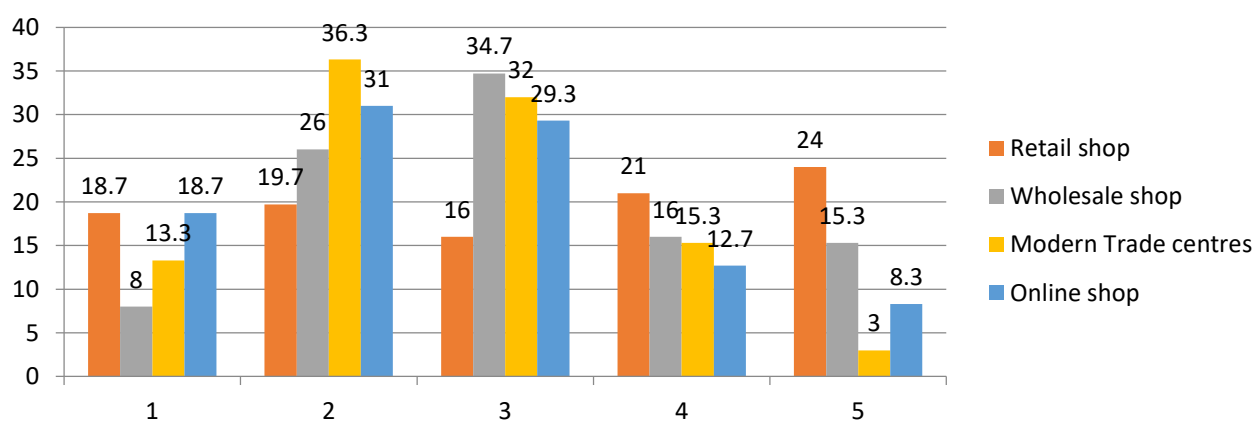
Majority of the respondents gave the 2 ratings for ponvandu and henko.

Majority of the respondents gave the 1 rating for other local brands.

Table No: 4.1.57 Which mode is very easy and preferable to bought the cleaning material?

Option	1		2		3		4		5	
	F	P	F	P	F	P	F	P	F	P
Retail shop	56	18.7	59	19.7	48	16	63	21	74	24
Wholesale shop	24	8	78	26	104	34.7	48	16	46	15.3
Modern Trade centres	40	13.3	109	36.3	96	32	46	15.3	9	3
Online shop	56	18.7	93	31	88	29.3	38	12.7	25	8.3
Total	300	100	300	100	300	100	300	100	300	100

Chart No: 4.1.57 Which mode is very easy and preferable to bought the cleaning material?



Interpretation:

From the above table and diagram represent the easy and preferable mode for buying the soaps.

Inference:

Majority of the respondents gave the 5 rating for retail shop.

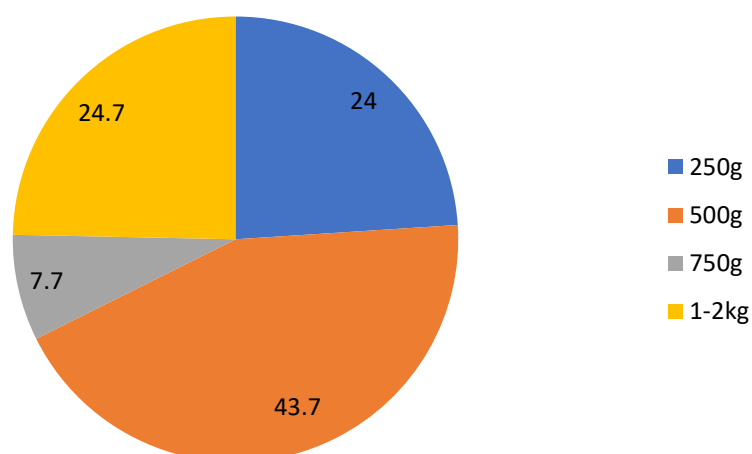
Majority of the respondents gave the 3 rating for wholesale shop.

Majority of the respondents gave the 2 rating for modern trade centres & online shopping.

Table No: 4.1.58 In a month how much quantity use for washing clothes

Options	Frequency	Percent
250g	72	24
500g	131	43.7
750g	23	7.7
1-2kg	74	24.7
Total	300	100

Chart No: 4.1.58 In a month how much quantity use for washing clothes

**Interpretation:**

From the above table and diagram represent the respondents using the quantity for the month. 24% says 250 g, 43.7% says 500 g, 7.7% says 750 g, 24.7% says 1-2 kg.

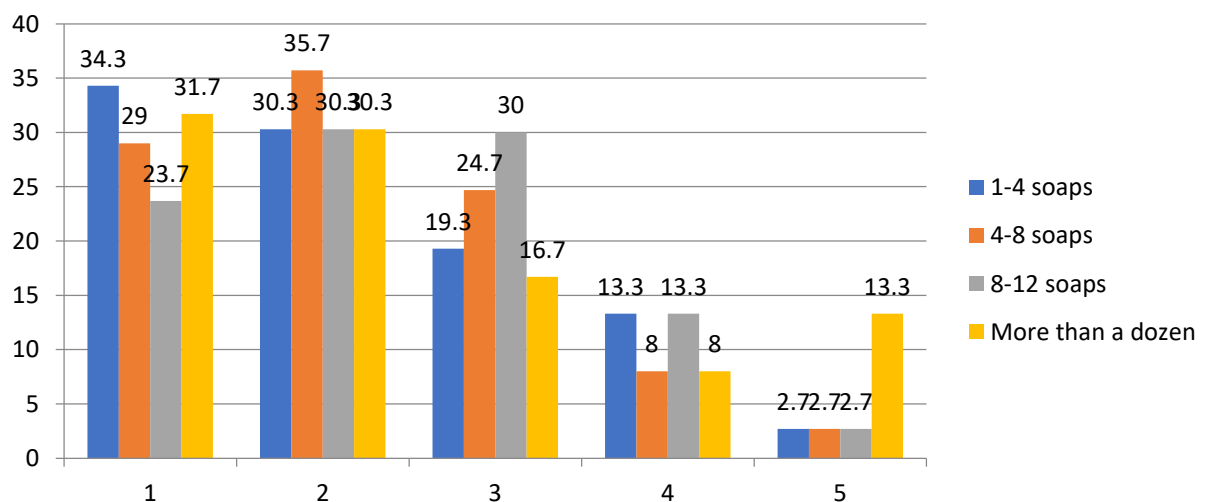
Inference:

Majority of the respondents answered that they have need to consume 500 g in a month for washing the clothes.

Table No: 4.1.59 How many detergents soaps you bought for washing purpose

Option	75g		100g		150g		200g		250g	
	F	P	F	P	F	P	F	P	F	P
1-4 soaps	103	34.3	91	30.3	58	19.3	40	13.3	8	2.7
4-8 soaps	87	29	107	35.7	74	24.7	24	8	8	2.7
8-12 soaps	71	23.7	91	30.3	90	30	40	13.3	8	2.7
More than a dozen	95	31.7	91	30.3	50	16.7	24	8	40	13.3
Total	300	100	300	100	300	100	300	100	300	100

Chart No: 4.1.59 How many detergents soaps you bought for washing purpose



Interpretation:

From the above table and diagram represent that the customers used to purchase number of soaps to wash the clothes.

Inference:

Majority of the respondents says they used to buy 1-4 soaps in 75g

Majority of the respondents says they used to buy 4-8 soaps in 100g

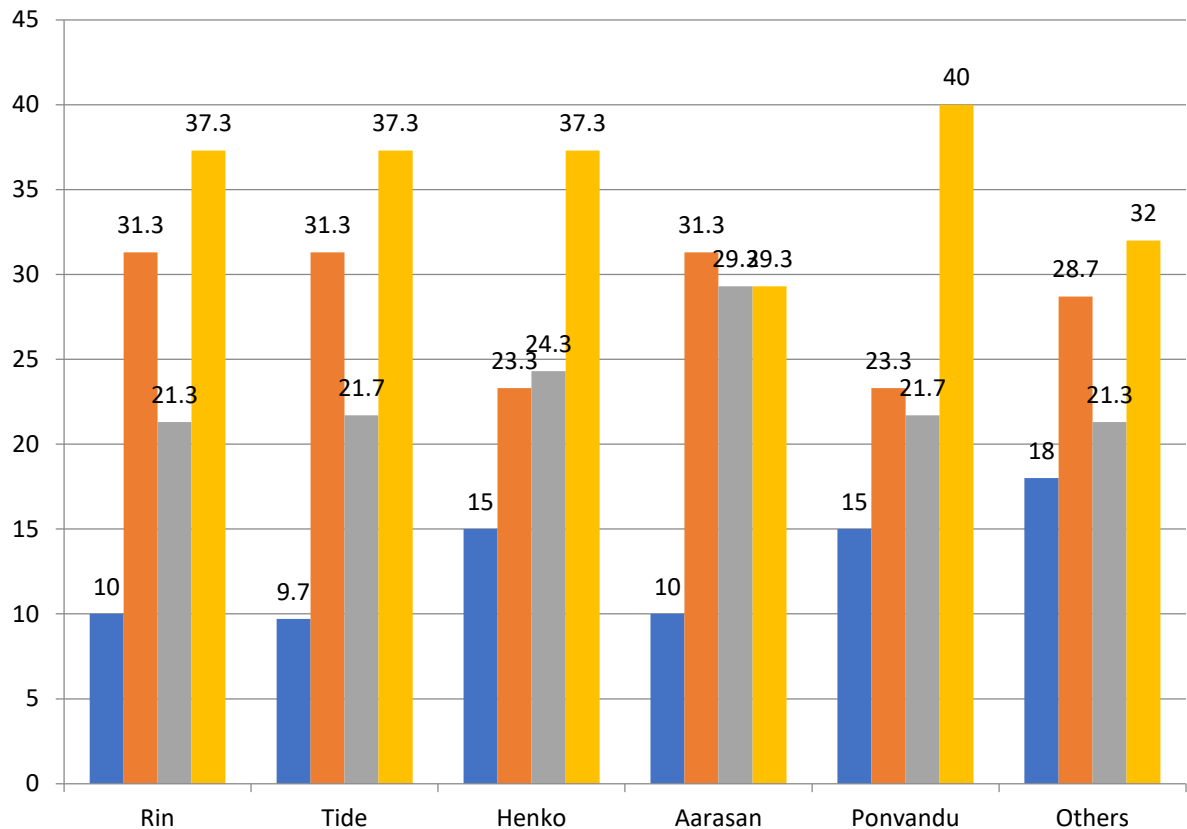
Majority of the respondents says they used to buy 8-12 soaps in 100g

Majority of the respondents says that they used to buy more than a dozen in 75g

Table No: 4.1.60 brands' motives you to buy the products through their offers and discounts?

Option	Buy one get one		Combos		Coupon		Discount	
	F	P	F	P	F	P	F	P
Surf excel	69	23	118	39.3	25	8.3	88	29..3
Rin	30	10	94	31.3	64	21.3	112	37.3
Tide	29	9.7	94	31.3	65	21.7	112	37.3
Henko	45	15	70	23.3	73	24.3	112	37.3
Aarasan	30	10	94	31.3	88	29.3	88	29.3
Ponvandu	45	15	70	23.3	65	21.7	120	40
Others	54	18	86	28.7	64	21.3	96	32
Total	300	100	300	100	300	100	300	100

Chart No: 4.1.60 brands' motives you to buy the products through their offers and discounts?



Interpretation:

From the above table and diagram shows that the brands' motives you to buy the products through their offers and discounts.

Inference:

Majority of the respondents says that surf excel and arasan gives more attractive combos to buy the product.

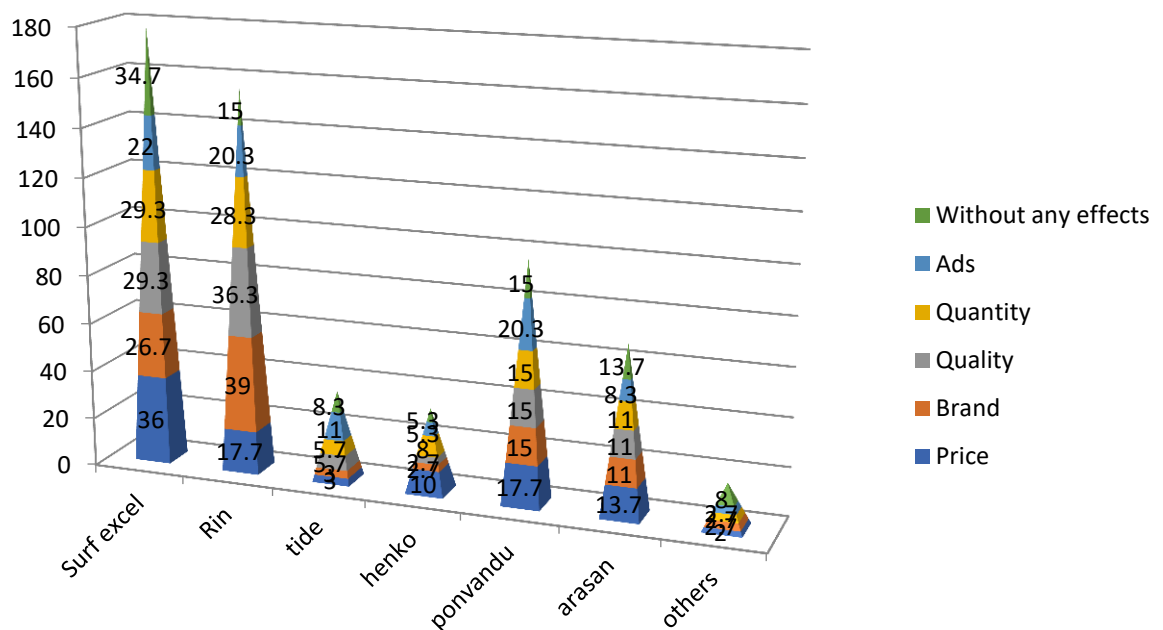
Majority of the respondents says that rin, tide, henko, ponvandu and others gives more attractive discount offers to buy the product.

Table No: 4.1. 61 factors that respondents liked most to retain the current brand?

Option	Surfexcel		Rin		Tide		Henko		Aarsan		ponvandu		others	
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
Price	108	36	53	17.7	9	3	30	10	53	17.7	41	13.7	6	2

Brand	80	26.7	117	39	9	3	8	2.7	45	15	33	11	8	2.7
Quality	88	29.3	99	36.3	17	5.7	8	2.7	45	15	33	11	10	
Quantity	88	29.3	85	28.3	17	5.7	24	8	45	15	33	11	8	2.7
Ads	96	22	61	20.3	33	11	16	5.3	61	20.3	25	8.3	8	2.7
Without any effects	104	34.7	45	15	25	8.3	16	5.3	45	15	41	13.7	24	8
Total	300	100	300	100	300	100	300	100	300	100	300	100	300	100

Chart No: 4.1. 61 factors that respondents liked most to retain the current brand



Interpretation:

From the above table and diagram represent the respondents says that the factor to retain the brands available in the market.

Inference:

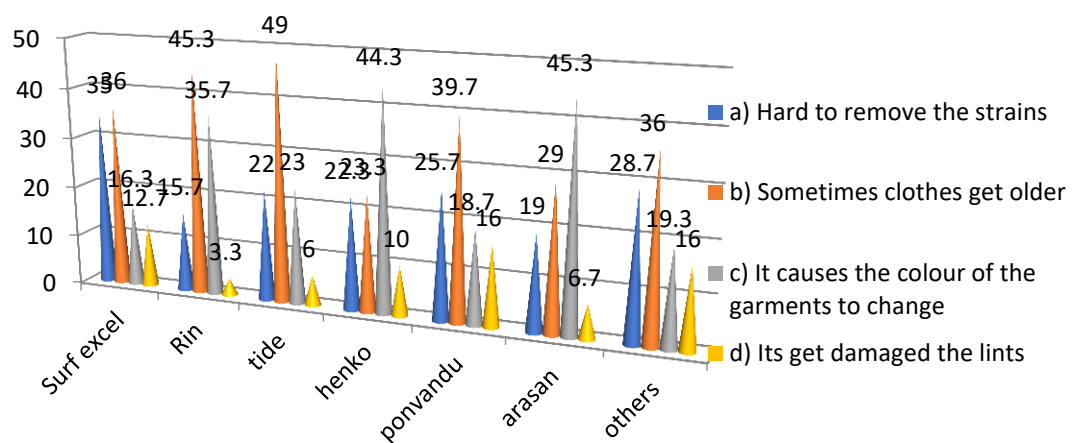
Majority of the respondents answered that price, quantity, advertisement, without any skin effects influence the surf excel brand to buy the product.

Majority of the respondents answered that brand and quality influence the rin to buy the customers

Table No: 4.1.62 Respondents specify their current brand difficulties to clean

Option	Surfexcel		Rin		Tide		Henko		Aarsan		ponvandu		others	
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
a) Hard to remove the strains	105	35.0	47	15.7	66	22.0	67	22.3	77	25.7	57	19.0	86	28.7
b) Sometimes clothes get older	108	36.0	136	45.3	147	49.0	70	23.3	119	39.7	87	29.0	108	36.0
c) It causes the colour of the garments to change	49	16.3	107	35.7	69	23.0	133	44.3	56	18.7	136	45.3	58	19.3
d) Its get damaged the lints	38	12.7	10	3.3	18	6.0	30	10.0	48	16.0	20	6.7	48	16.0
Total	300	100	300	100	300	100	300	100	300	100	300	100	300	100

Chart No: 4.1.62 Respondents specify their current brand difficulties to clean



Interpretation:

From the above table and diagram shows that some of the difficulties of the current brands faced by the respondents

Inference:

Majority of the respondents says that hard to remove the strains for surf excel

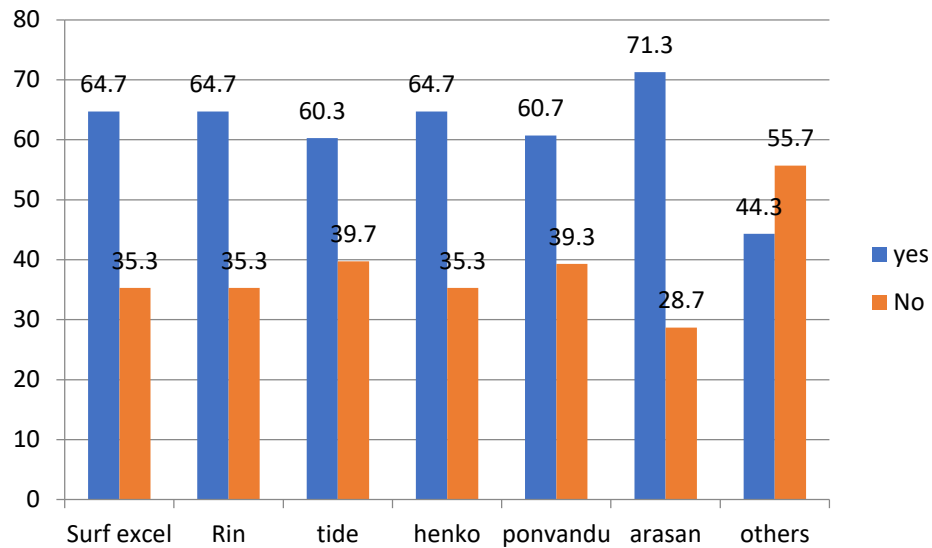
Majority of the respondents says that sometimes it get older for rin

Majority of the respondents says that it causes the colour of the garments to change for henko.

Table No: 4.1.63 Respondents opinion that current brands gives the skin infection

Option	Surfexcel		Rin		Tide		Henko		Aarsan		ponvandu		others	
	F	P	F	P	F	P	F	P	F	P	F	P	F	P
yes	194	64.7	194	64.7	181	60.3	194	64.7	182	60.7	214	71.3	133	44.3
No	106	35.3	106	35.3	119	39.7	106	35.3	118	39.3	86	28.7	167	55.7
Total	300	100	300	100	300	100	300	100	300	100	300	100	300	100

Chart No: 4.1. 63 Respondents opinion that current brands gives the skin infection



Interpretation:

From the above table and diagram represent that current brands affect any skin infection to the customers

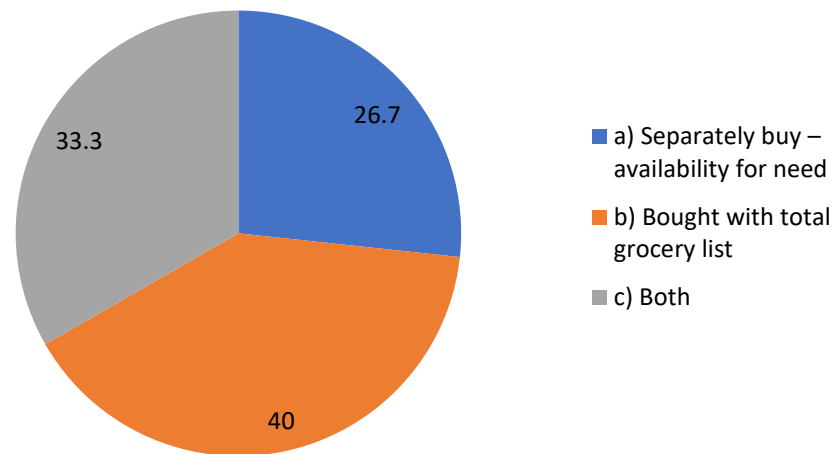
Inference:

Majority of the respondents says yes it gives some skin infection in all the brands except other brands.

Table No: 4.1.64 Respondents bought the detergents separately or with monthly grocery list

Options	Frequency	Percent
a) Separately buy – availability for need	80	26.7
b) Bought with total grocery list	120	40.0
c) Both	100	33.3
Total	300	100.0

Chart No: 4.1.64 Respondents bought the detergents separately or with monthly grocery list



Interpretation:

From the above table and diagram represent the customer have bought the soaps with grocery list or separate according to the need. 26.7% says they buy separately for their needs. 40% says they used to buy with total grocery list. 33.3% says both.

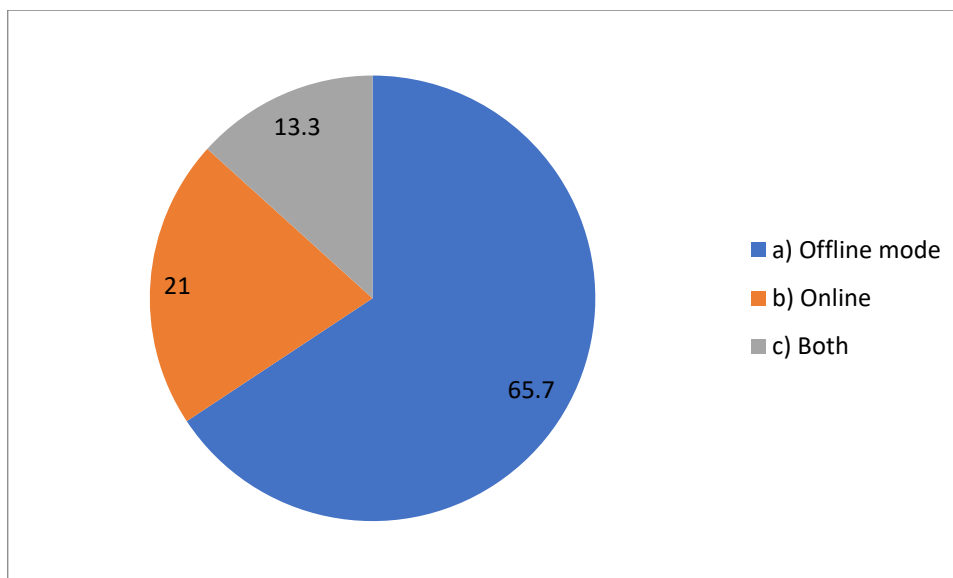
Inference:

Majority of the respondents says that they used to buy the soaps with the total grocery list.

Table No: 4.1.65 Are you kind of person to buy the products in online/offline

Options	Frequency	Percent
a) Offline mode	197	65.7
b) Online	63	21.0
c) Both	40	13.3
Total	300	100.0

Chart No: 4.1.65 Are you kind of person to buy the products in online/offline



Interpretation:

From the table and diagram shows that customer preferable to buy the product. 65.7% says offline mode, 21% says offline mode, 13.3% says both.

Inference:

Majority of the respondents says that they used to buy the product in offline mode.

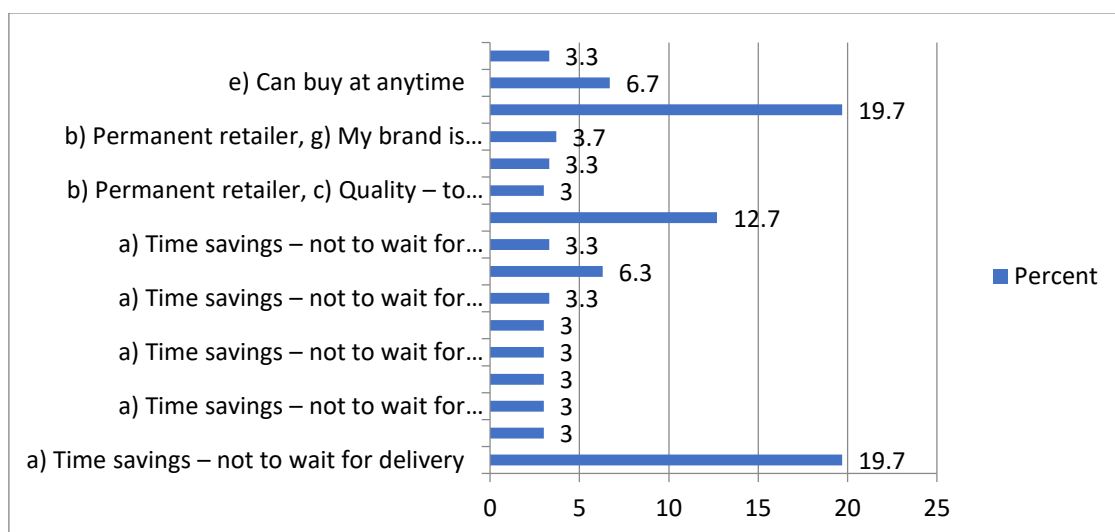
Table No: 4.1.66 Respondents choice for the offline mode to buy the detergents

Options	Frequency	Percent
a) Time savings – not to wait for delivery	59	19.7
a) Time savings – not to wait for delivery, b) Permanent retailer, c) Quality – to check the expiry dates, d) Easy to buys, e) Can buy at anytime, h) Do not wait for the time to deliver.	9	3.0
a) Time savings – not to	9	3.0

wait for delivery, b) Permanent retailer, d) Easy to buys, e) Can buy at anytime		
a) Time savings – not to wait for delivery, b) Permanent retailer, d) Easy to buys, e) Can buy at anytime, h) Do not wait for the time to deliver.	9	3.0
a) Time savings – not to wait for delivery, b) Permanent retailer, f) Cost is lower in physical	9	3.0
a) Time savings – not to wait for delivery, c) Quality – to check the expiry dates, d) Easy to buys, e) Can buy at anytime, h) Do not wait for the time to deliver.	9	3.0
a) Time savings – not to wait for delivery, c) Quality – to check the expiry dates, e) Can buy at anytime, g) My brand is available only in offline shops	10	3.3
a) Time savings – not to wait for delivery, d) Easy to buys, e) Can buy at anytime	19	6.3
a) Time savings – not to	10	3.3

wait for delivery, d) Easy to buys, f) Cost is lower in physical		
b) Permanent retailer	38	12.7
b) Permanent retailer, c) Quality – to check the expiry dates, d) Easy to buys	9	3.0
b) Permanent retailer, d) Easy to buys, f) Cost is lower in physical	10	3.3
b) Permanent retailer, g) My brand is available only in offline shops	11	3.7
c) Quality – to check the expiry dates	59	19.7
e) Can buy at anytime	20	6.7
f) Cost is lower in physical	10	3.3
Total	300	100.0

Chart No: 4.1.66 Respondents choice for the offline mode to buy the detergents



Interpretation:

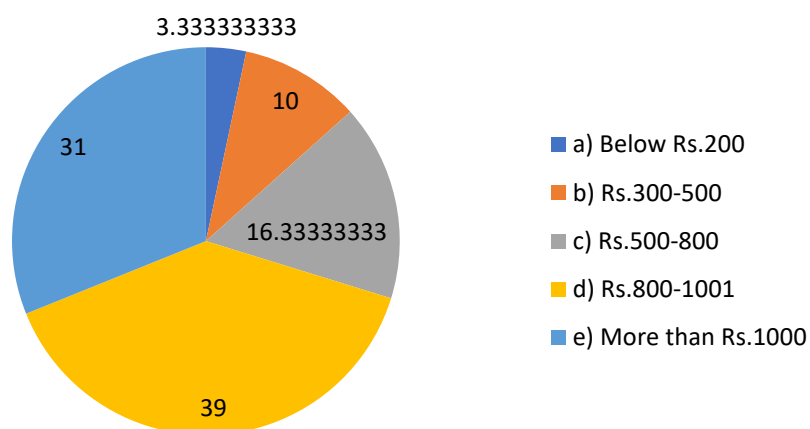
From the above table and diagram represent the respondents choices to buy the soaps in offline mode rather offline mode.

Inference:

Majority of the respondents says that quality and time savings to make choice for buying the soaps through online mode

Table No: 4.1.67 In a month how much amount spend for buying this material to use the cleaning

Options	Frequency	Percent
a) Below Rs.200	10	3.333333
b) Rs.300-500	93	31
c) Rs.500-800	49	16.333333
d) Rs.800-1000	20	6.666667
d) Rs.800-1001	117	39
e) More than Rs.1000	10	3.333333
Total	300	100.0



Interpretation:

From the table and diagram represent the respondents spending amount for buying the detergent soaps, 3.33% says below 200, 10% says Rs.300-500, 16.3% says Rs. 500-800, 39% says Rs.800-1000, 31% says more than Rs.1000

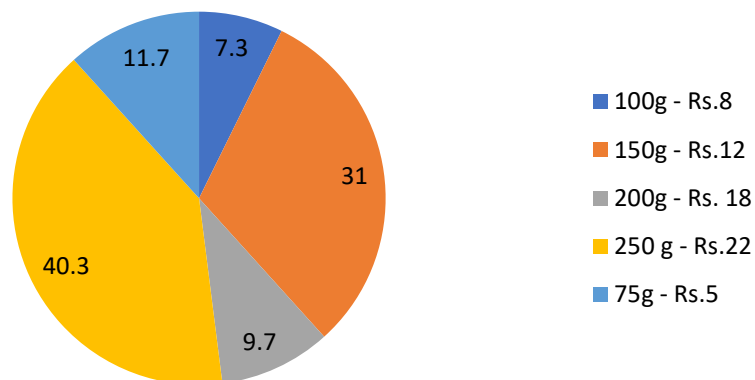
Inference:

Majority of the respondents says that they spent Rs.800-1000 for a month to wash the clothes.

Table No: 4.1.67 How much you expected the rate for these washing clothes

Options	Frequency	Percent
100g - Rs.8	22	7.3
150g - Rs.12	93	31.0
200g - Rs. 18	29	9.7
250 g - Rs.22	121	40.3
75g - Rs.5	35	11.7
Total	300	100.0

Chart No: 4.1.67 How much you expected the rate for these washing clothes

**Interpretation:**

From the above table and diagram represent the respondents expected rate to buy the detergent soaps, 7.3% says 100g for Rs.8, 31% says 150g – Rs.12, 9.7% says 200g – Rs, 18, 40.3% says 250g – Rs.22, 11.7% says 75g – Rs.5.

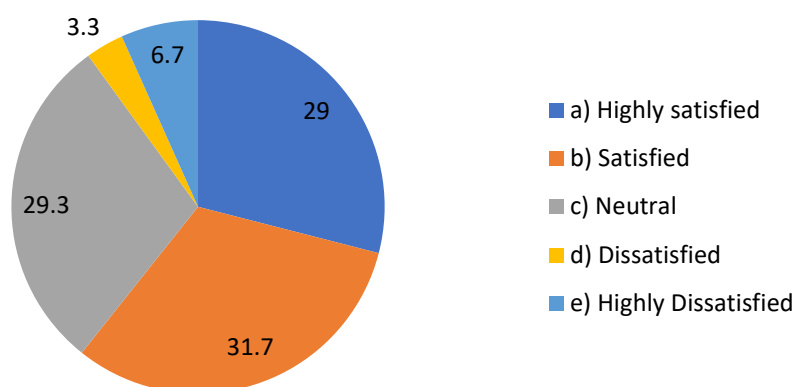
Inference:

Majority of the respondents says that they expected rate for buy soaps is 250g for Rs.22

Table No: 4.1.68 Respondents satisfactory level of price of detergent soaps?

Options	Frequency	Percent
a) Highly satisfied	87	29.0
b) Satisfied	95	31.7
c) Neutral	88	29.3
d) Dissatisfied	10	3.3
e) Highly Dissatisfied	20	6.7
Total	300	100.0

Chart No: 4.1.68 Respondents satisfactory level of price of detergent soaps?



Interpretation:

From the above table and diagram represent the satisfactory level of the price of the detergent product. 29% says highly satisfied, 31.7% says satisfied, 29.3% says neutral, 3.3% says dissatisfied, 6.7% says highly dissatisfied.

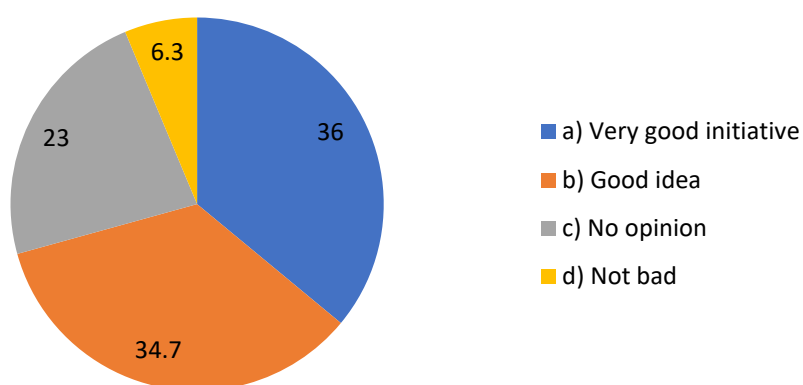
Inference:

Majority of the respondents that they were highly satisfied the price of the detergent soaps.

Table No: 4.1. 69 Can you agree the innovation to make the waste cooking oil to soaps?

Options	Frequency	Percent
a) Very good initiative	108	36.0
b) Good idea	104	34.7
c) No opinion	69	23.0
d) Not bad	19	6.3
Total	300	100.0

Chart No: 4.1.69 Can you agree the innovation to make the waste cooking oil to soaps



Interpretation:

From the above table and diagram represent the respondents opinion about the product with raw material as waste cooking oil, 36% says very good initiative, 34.7% says good idea, 23% says no opinion, 6.3% says not bad.

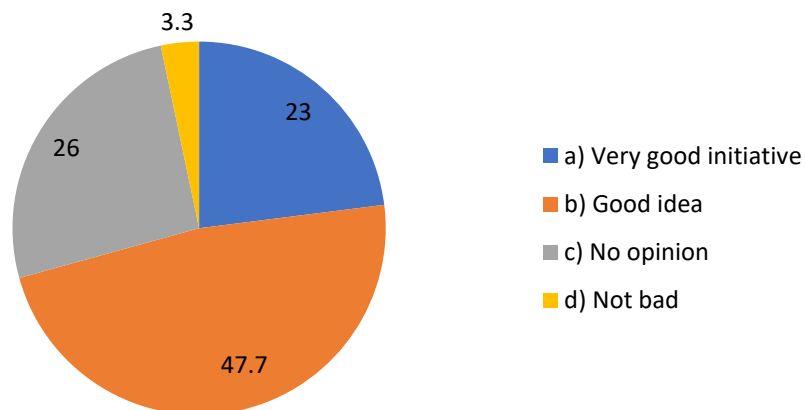
Inference:

Majority of the respondents opinion is that very good initiative to do covert the waste material to useful product

Table No: 4.1.70 Could you encourage the start up by the people who wants to improve their standard of living

Options	Frequency	Percent
a) Very good initiative	69	23.0
b) Good idea	143	47.7
c) No opinion	78	26.0
d) Not bad	10	3.3
Total	300	100.0

Chart No: 4.1.70 Could you encourage the start up by the people who wants to improve their standard of living



Interpretation:

From the table and diagram represent the respondents opinion about the start up idea to improve their living standards. 23% says very good initiative, 47.7% says good idea 26% says no opinion, 3.3 says not bad.

Inference:

Majority of the respondents appreciated this kind of start up and its very good idea to improve their standards.

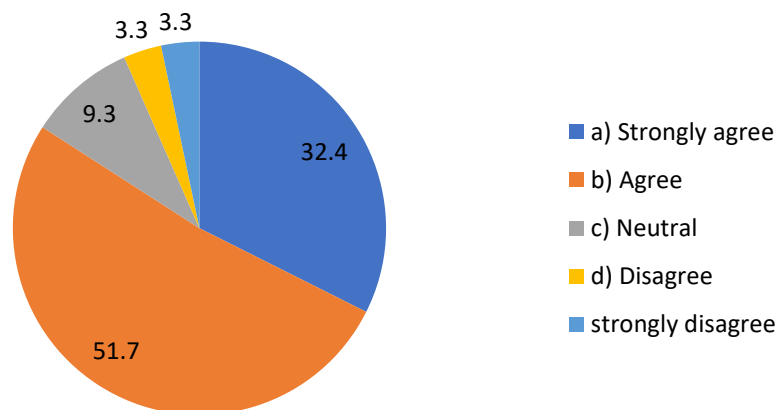
Table No: 4.1.71

Will agree to prefer that kind of cleaning material to your circle

Options	Frequency	Percent
a) Strongly agree	107	35.7
b) Agree	155	51.7
c) Neutral	28	9.3
d) Disagree	10	3.3
Total	300	100.0

Chart No: 4.1.71

Will agree to prefer that kind of cleaning material to your circle



Interpretation:

From the above table and diagram represents the respondents would prefer this product to their circle. 35.7% says strongly agreed, 51.7% says agreed, 9.3% says neutral, 3.3% says both disagreed and strongly disagreed the statement.

Inference:

Majority of the respondents answered that they agreed and would prefer this kind of product to their circle.

Hypothesis Analysis:

One way Anova:

Hypothesis:

Null Hypothesis:

There is no significance difference between Gender and employment of work

Alternate Hypothesis:

There is significance difference between gender and employment of work

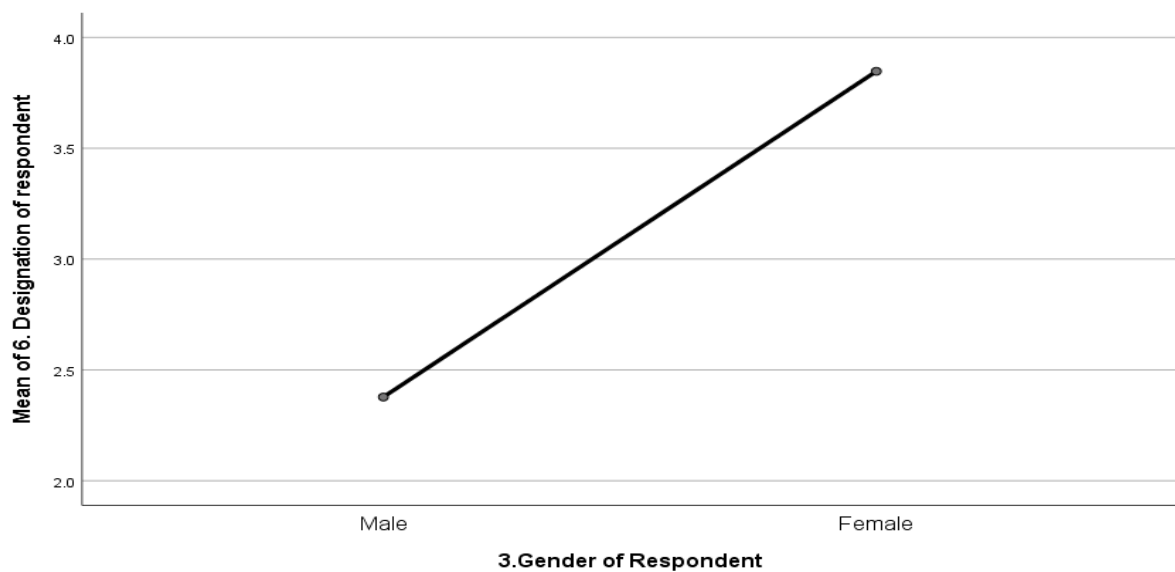
Descriptives								
6. Designation of respondent								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Male	143	2.38	1.060	.089	2.20	2.55	1	4
Female	157	3.85	1.292	.103	3.64	4.05	1	5
Total	300	3.15	1.395	.081	2.99	3.31	1	5

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
6. Designation of respondent	Based on Mean	.000	1	298	.985
	Based on Median	.279	1	298	.598
	Based on Median and with adjusted df	.279	1	266.931	.598
	Based on trimmed mean	.432	1	298	.511

ANOVA					
6. Designation of respondent					
	Sum of	df	Mean	F	Sig.

	Squares		Square		
Between Groups	161.607	1	161.607	114.681	.000
Within Groups	419.940	298	1.409		
Total	581.547	299			

Robust Tests of Equality of Means				
6. Designation of respondent				
	Statistic ^a	df1	df2	Sig.
Brown-Forsythe	116.795	1	294.878	.000
a. Asymptotically F distributed.				



Based on the result generated by SPSS, the significant value is 0.000 and it is lower than 0.05 so reject null hypothesis .Hence there is a significance difference in the gender and employment

Correlation:

Correlation relationship between factor and fulfilling needs

Correlations			
Correlations		5) For what are all the components that makes you to buy the detergent soaps	7) Will you agree to use the cleaning material with affordable prices, quality, quantity and fulfil your needs
	5) For what are all the components that makes you to buy the detergent soaps	Pearson Correlation	1
		Sig. (2-tailed)	.249 ^{**}
		N	.000
			300
			300
	7) Will you agree to use the cleaning material with affordable prices, quality, quantity and fulfil your needs	Pearson Correlation	.249 ^{**}
		Sig. (2-tailed)	1
		N	.000
			300
			300
**. Correlation is significant at the 0.01 level (2-tailed).			

Since .00 is less than 0.05 so reject the null hypothesis and accept the alternate hypothesis

Regression

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.594 ^a	.352	.350	1.111
a. Predictors: (Constant), 24) In a month how much amount spend for buying this material to use the cleaning:				

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	200.190	1	200.190	162.108	.000 ^b
	Residual	368.007	298	1.235		
	Total	568.197	299			
a. Dependent Variable: How much you expected the rate for these washing clothes []						
b. Predictors: (Constant), 24) In a month how much amount spend for buying this material to use the cleaning:						

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.547	.173		8.929	.000
	24) In a month how much amount spend for buying this material to use the cleaning:	.543	.043	.594	12.732	.000
a. Dependent Variable: How much you expected the rate for these washing						

clothes []

How much you expected the rate for these washing clothes []					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	75g- Rs.5	35	11.7	11.7	11.7
	100g - Rs.8	22	7.3	7.3	19.0
	150g - rs. 12	93	31.0	31.0	50.0
	200g - Rs.18	29	9.7	9.7	59.7
	250g - Rs.22	121	40.3	40.3	100.0
	Total	300	100.0	100.0	

Expenditure will be taken as X (independent) and expected rate taken as Y(dependent). Since rate to be estimated in the regression like Y on X. From the output regression equation

$$Y = a + bX$$

$$Y = 1.55 + 0.543X$$

Assumed that X is 75g – Rs. 5, 100g – Rs.8, 150g – Rs.12, 200g – Rs. 18, 250g – Rs.22

$$Y = 1.55 + (0.543 \times 5) = 4.265$$

$$Y = 1.55 + (0.543 \times 8) = 5.894$$

$$Y = 1.55 + (0.543 \times 12) = 8.066$$

$$Y = 1.55 + (0.543 \times 18) = 11.324$$

$$Y = 1.55 + (0.543 \times 22) = 13.496$$

The expected value of Y is higher in the 250g – Rs.22 and also the customer also prefer the expected rate to buy to detergent soaps for this rate. Since it is lowest and affordable prices to buy the product by the customers

CHAPTER – 5

FINDINGS, SUGGESSTION AND CONCLUSION

5.1 Findings of the study:

- ✚ Most of the respondents (24.55%) belongs to the 26-30 age groups
- ✚ Majority of the respondents (59.09%) are females.
- ✚ Majority of the respondents (40.9) were completed their 10th std.
- ✚ Majority of the respondents (54.54%) were employed.
- ✚ Majority of the respondents (36.36%) were house wife.
- ✚ Majority of the respondents (49.09%) affects their daily wages due to the pandemic
- ✚ Majority of the respondents (32.72%) have 2 members in a family
- ✚ Majority of the respondents not having blood pressure, sugar, diabetes, heart problems, cholesterol. Their health condition was good
- ✚ Majority of the respondents (43.63%) running their expenditure with wages.
- ✚ Majority of the respondents (78.18%) answered that only one member earning for their whole family.
- ✚ Majority of the respondents (42.7) answered earned less than 5000 for the monthly income.
- ✚ Majority of the respondents (46.) replied that 40-60% spending for the monthly expenditure.
- ✚ Majority of the respondents (59) saves their 20% out of their monthly income
- ✚ Majority of the respondents not taken personal loan either house loan, any loans from private banks, any loans from pawn brokers
- ✚ Majority of the respondents taken jewel loans and vehicle loan.
- ✚ Majority of the respondent not invested in the investment avenues
- ✚ Majority of the respondents (46%) answered strongly agreed the financial crisis during the pandemic.
- ✚ Majority of the respondents (60%) answered they have well equipped hospital facilities.
- ✚ Majority of the respondents (45%) answered they have very good facilities in their own locality

- ✚ Majority of the respondents (41%) answered metro water supply is regular in their locality
- ✚ Majority of the respondents (57%) answered yes
- ✚ Majority of the respondents (52%) using local small market to purchase their groceries in affordable prices.
- ✚ Majority of the respondents answered no, they didn't open bank account.
- ✚ Majority of the respondents(90%) answered yes.
- ✚ Majority of the respondents (88%) answered yes
- ✚ Majority of the respondents 31% answered that they are using both kerosene stove and firewood stove.
- ✚ Majority of the respondents (58%) answered that they have strongly agreed about the electricity facilities.
- ✚ Majority of the respondents (79%) answered that they using public toilets which is common for all.
- ✚ Majority of the respondents not using any of the electrical appliances their house purposes.
- ✚ Majority of the respondents (68%) answered that there is right level of ground water.
- ✚ Majority of the respondents affected by flood.
- ✚ Majority of the respondents says that water comes inside the house.
- ✚ Majority of the respondents involved in Rotary club activities.
- ✚ Majority of the respondents answered that Rotary club help them for the betterment for their living.
- ✚ Majority of the respondents interact with their family circle.
- ✚ Majority of the respondents says most of the interaction engaged in face to face
- ✚ Majority of the respondents running street side food outlets
- ✚ Majority of the respondents says that they serving non-veg food for their customers.
- ✚ Majority of the respondents using palm oil for the cooling
- ✚ Majority of the respondents says they spend 3000 for the week to purchase the cooking oil
- ✚ Majority of the respondents says that they repeating the oil for more than 3 times

- ✚ Majority of the respondents says that 1-3 litres of waste oil generating from the food outlets.
- ✚ Majority of the respondents disposed in street bins
- ✚ Majority of the respondents says that there were no campaign programme organised for the waste oil hazardous.
- ✚ Majority of the respondents says that the waste oil disposal in the environment creates the pollution and damage the surrounding of well being.
- ✚ Majority of the respondents says that the waste cooking oil collection is very good for the environment
- ✚ Majority of the respondents says that strongly agreed that they mostly concentrate the hygiene level to washing their clothes.
- ✚ Majority of the respondents (42%) says that their clothes washed by their parents
- ✚ Majority of the respondents (42%) says that their clothes washed by their parents
- ✚ for the washing the clothes.
- ✚ Majority of the respondents answered that they were using the bar detergent soaps
- ✚ Majority of the respondents says that quantity influence the factor to buy the product.
- ✚ Majority of the respondents says that they have felt some erosion will happen after wash the clothes
- ✚ Majority of the respondents says that they agreed the product available in the market with affordable prices.
- ✚ Majority of the respondents answered that they have never changed the soap brand.
- ✚ Majority of the respondents says that they used to bought the soaps with nearby retail shops
- ✚ Majority of the respondents gave the 3 ratings for surf excel, rin, tide and aarasan.
- ✚ Majority of the respondents gave the 2 ratings for ponvandu and henko.
- ✚ Majority of the respondents gave the 1 rating for other local brands.
- ✚ Majority of the respondents gave the 5 rating for retail shop.

- ✚ Majority of the respondents gave the 3 rating for wholesale shop.
- ✚ Majority of the respondents gave the 2 rating for modern trade centres & online shopping.
- ✚ Majority of the respondents answered that they have need to consume 500 g in a month for washing the clothes.
- ✚ Majority of the respondents says they used to buy 1-4 soaps in 75g
- ✚ Majority of the respondents says they used to buy 4-8 soaps in 100g
- ✚ Majority of the respondents says they used to buy 8-12 soaps in 100g
- ✚ Majority of the respondents says that they used to buy more than a dozen in 75g
- ✚ Majority of the respondents says that surf excel and arasan gives more attractive combos to buy the product.
- ✚ Majority of the respondents says that rin, tide, henko, ponvandu and others gives more attractive discount offers to buy the product.
- ✚ Majority of the respondents answered that price, quantity, advertisement, without any skin effects influence the surf excel brand to buy the product.
- ✚ Majority of the respondents answered that brand and quality influence the rin to buy the customers
- ✚ Majority of the respondents says that hard to remove the strains for surf excel
- ✚ Majority of the respondents says that sometimes it get older for rin
- ✚ Majority of the respondents says that it causes the colour of the garments to change for henko.
- ✚ Majority of the respondents says yes it gives some skin infection in all the brands except other brands.
- ✚ Majority of the respondents says that they used to buy the soaps with the total grocery list.
- ✚ Majority of the respondents says that they used to buy the product in offline mode.
- ✚ Majority of the respondents says that quality and time savings to make choice for buying the soaps through online mode.
- ✚ Majority of the respondents says that they spent Rs.800-1000 for a month to wash the clothes.

- ✚ Majority of the respondents says that they expected rate for buy soaps is 250g for Rs.22
- ✚ Majority of the respondents that they were highly satisfied the price of the detergent soaps.
- ✚ Majority of the respondents opinion is that very good initiative to do covert the waste material to useful product.
- ✚ Majority of the respondents appreciated this kind of start up and its very good idea to improve their standards.
- ✚ Majority of the respondents answered that they agreed and would prefer this kind of product to their circle.

The overall findings of the study is the urban slum people ready to adopt the waste cooking oil to detergent soap, their expectation with large quantities and affordable prices and without any skin infection because the washing soaps usually causes some skin infection itching and all. The conversion of this soap having market and its surely worked. In the family, the parent decides which soap suitable for their needs. The potential markets for the soaps are retail shops and wholesale shops in the available local markets around their locality. They are highly satisfied with the affordable prices of soaps rather than the existing product. The people having no facilitate to use the mobile phones. So, the behaviour of consumer in the slum people most preferable and ready to buy in the offline stores. Some of them used to bought the soaps with monthly grocery list and if they bought separately any need to use and they bought with both of the reasons. The people ready to adopt the entrepreneurial activities for improving their standard of living.

5.2 Suggestion and Discussion:

5..1 Focused Group Discussion:

Focused group discussion is one of the tools in the qualitative technique. In this discussion it concentrates the livelihoods and preference, choice, taste, habits of the customers which is reliable with the detergent soaps. Because, every family have the need to buy detergent soaps to wash their clothes. In this FGD, the people involved who participated in the discussion their name have to be mentioned in the following.

Devaki (70yrs), Munusamy (54yrs), Sheela (40yrs), Shanthi (36yrs), Sumathi (38 yrs), Manikandan (46 yrs), Gayathri (20yrs), Balu (47yrs), Babu (40yrs), Venkateshan (50yrs), Kuppan (38yrs), Kumari (23yrs), Uma (26yrs), Thangam (27yrs), Amuthu (19yrs).

Totally 15 members involved in the group discussion from the slum. They have shifted in the slum for the various reasons because of the poverty and poor condition of the family. Some of them lost the wealth, parents, family, so they shifted in the slum before 40 years. In the early period, it was the cow and horse barn to keep the cattles there. After that, they occupied the places that period there were no roof in the houses, they were no proper to live with the children and family. The people restructured the places with the available facilities which was able to arrange according to their power. Now, also the places haven't any facilities to survive with the children. The houses in the slum its very small and 2 people cannot able to sleep in those rooms. There is no proper sanitation facility in the slum. Since, they were using the common toilets for the sanitation. They were separately having the bathing rooms which also not in good condition. The drainage facilities also have not in proper in way. The bad smell has to be appearing while entered into slum. Overall, they also felt that move from that place because of the future of their children. This place will not suit for the further years if their children grown up. But the poor economic condition pulls them down and makes retain the same place with the poverty reasons.

The 70 year old lady revealed that economic condition of the earlier period. It was fine enough to manage family. She used to bought all the necessary things with Rs.10. but now Rs.100 wasnot enough for the single time food. Moreover, the slum people also waiting for the good opportunity to improve the living standard of the people. Most of the ladies in the slum they have gone for servant duty to earn some of the money from the work and somewhat able to manage the family. They were awaiting for the opportunity to overcome their poverty.

The discussion about the washing clothes, the ladies who have participated in the discussion revealed that the ladies only do the washing clothes for their family. They spent at least 2-4 hours per day for washing clothes. They used to wash the clothes by the hands not by the washing machine. While washing clothes they

prefer to use the detergent soaps to buy the clothes. They might feel that while washing clothes they have to put hard energy for washing the clothes to remove the dirt and stains from it. They used to remove the dirt with brush with applying the detergent soaps. The ladies might get body pain, skin infection, itching and foot fungus etc., the cost of the soaps also will get higher. It was easily dissolved in the water. Per day they need one soap for washing the clothes. They said the current available brands was good but need to be reduce the price, with good quality to retain for long time, quantity with more grams, offers, discounts that motivates the people to buy the soaps. With this info, this study gives the suggestion below.

5.2.2 Suggestion:

This study understands the market feasibility with customer needs, analysing potential market, competitor analysis, determining the target market, evaluate the financial viability for the detergent soaps. First and foremost thing in day-to-day life is hygiene. In our daily lives essential to clean our clothes is soaps. That soap made up of with waste cooking oil to eliminate the pollution in the environment. This soap will have a bright future, and if implemented correctly, it will have a significant impact on society in terms of reducing waste and creating new valuable products. It has also served as a secondary raw source for raw materials such as bio fuel, glycerin, and other chemicals. The detergent substance can sometimes cause skin infection and irritation. The majority of the time, homemakers is just responsible for the laundry. They spent more than 2 to 4 hours per day washing clothes. As a result of the harmful chemicals used in soaps, their hands and legs become stiff. They will also be harmed by the chemicals. We have to get rid of the soaps in this one. They expect the product to easily stain the dirt from the particles at the same time, the soapy base will also less because if it is in more soapy it need more water to wash the clothes. The scarcity of the water in the city, especially in the urban slums very rare to survive. The soap will give the solution for this problem definitely it will reach peak in the market.

The factors for the soaps, price, quality, quantity, advertisement, without any effects. That make them to buy the soaps. In initial stage, the soaps price will enter into the market with lowest price rather than the competitor with good quality and

quantity that makes the people to make buy the product. Then we don't need to give the advertisement for the product. The customer themselves do the marketing for the product. First we have to satisfy the customer need. Then, they will take care the suggesting and marketing activities to their neighbours, relatives, family members. They might be satisfied that their expectation to buy the large quantities soaps with lowest amount.

For the initial reach, it may handle the technique with free sample for the people to use and collect feedback from them about the product, the area of improvement, how much they satisfied with the product, what are the difficulties they may face while using. Now the market fixed the trend after washed the clothes for the refreshing of the clothes to use the fragrance for the refreshing smell. That we suggest don't make them to go and spend for fragrance. We promote the product with additive of the fragrance in the soaps itself. Those fragrance smell make the people encourage to buy the product.

The campaign for the product will motivates the people and inspire with the innovation if we explained how the product will come out of convert the waste cooking oil to useful product. It gives the idea for the people this product is the conversion of the waste material and it eliminates the environmental hazardous and big mafia for the improper handling of the waste cooking oil.

The suggestion is to concentrate the factors that need to give qualitative and quantitative product in the potential markets for the customers. Because there is a huge competitor in the market and the competitor is very successful and have footprint in the market. This new innovation product will be motivated the people to eliminate the waste cooking oil hazardous to the environment. They should be given the appropriate informative campaigns for the people and also the hoteliers to practice the proper collection method without disposing the oil into drainage, sinks, dumps into soil, with public garbage etc., This soap will have the great future and it will implement in the right way surely have a great impact in the society to eliminate the wastes and come up with the new usable product in the society. It also been a secondary raw material not only for soaps also for raw material as bio diesel, glycerine, etc.,

5.3 Conclusion:

This study understands the market feasibility with customer needs, analysing potential market, competitor analysis, determining the target market, evaluate the financial viability for the detergent soaps. First and foremost, thing in day-to-day life is hygiene. In our daily lives essential to clean our clothes is soaps. Those soap made up of with waste cooking oil to eliminate the pollution in the environment. This soap will have a bright future, and if implemented correctly, it will have a significant impact on society in terms of reducing waste and creating new valuable products. It has also served as a secondary raw source for raw materials such as bio fuel, glycerine, and other chemicals. The detergent substance can sometimes cause skin infection and irritation. The majority of the time, homemakers are just responsible for the laundry. They spent more than 2 to 3 hours per day washing clothes. As a result of the harmful chemicals used in soaps, their hands and legs become stiff. They will also be harmed by the chemicals. We have to get rid of the soaps in this one. They expect the product to easily stain the dirt from the particles at the same time, the soapy base will also less because if it is in more soapy it need more water to wash the clothes. The scarcity of the water in the city, especially in the urban slums very rare to survive. The soap will give the solution for this problem definitely it will reach peak in the market.

The market analysis includes with customer needs, customers are the king in the market. Their wants and need play a major role in the market to fix the demand and supply of the product. The demand of detergent soaps is there in the market with strong competitors. So, we have to identify what the product really the customer need. Most of the households the grocery list were used to purchased by the elders which means the age group above 30 years probably. The ladies playing the vital role to take over all the households especially in the urban slums. They spent maximum of 4 hours to wash their clothes. The customers want the product with minimum rate and some other offers with the product motivates them to buy the product rather than the competitor.

The potential market to enter the soaps is retail and wholesale traders. Because the most of the customer around the slum not aware of the online shopping and

modern trade centres. They believe the words of the retail trader. Basically, if small entrepreneur product first convinces the retail trader to introduce with the customer by their shop loyalty. The retain customers used to buy the products in the same shop. So that the retail trader was the potential market to introduce the product to the customers. Once, they started buy the product. They will know the difference with available brand and new brand. Then, we need to market the product the customer itself market the product to their neighbours, friends, families, surrounding and workplace.

The competitors are surf excel, rin, henko, ponvandu, aarasan, tide and others soaps have the strong footprints and created the own demand for the product. This statistic displays the market share of the laundry detergent segment in India for 2016, by company. That year, Hindustan Unilever had the highest market share with 37.4 percent, while Reckitt Benckiser had the lowest market share with 1.5 percent.

Demand for cleaning agents continues to grow due to consumer awareness, such as the importance of hygiene and the spread of infectious diseases. The global market benefits from the growing focus on the importance of hygiene and the need to disinfect home surfaces. Time-constrained consumers spend less and less time doing household chores, but one of the main benefits of all-purpose disinfectants is convenience, as they strive to maintain a high level of hygiene and cleanliness. Marketing and innovation will be important in the coming years. Manufacturers need to maintain promotional activities at all times to promote their brand image and enhance their market presence. In addition, companies need to respond quickly to changing demands and respond to changing trends through product innovation and technological know-how. Expanding the production line to include natural and environmentally friendly product and packaging options is one way companies may need to evolve.

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MARKET ANALYSIS AND THE FEASIBILITY OF ESTABLISHING SMALL BUSINESSES Azzam Azmi Abou-Moghli, PhD Applied Science University Ghaith Mustafa Al-Abdallah, PhD Applied Science Universit European Scientific Journal May edition vol. 8, No.9 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431 94

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ANNEXURE – 1 QUESTIONNAIRE

Part – A: Livelihood Analysis:

- [illegible]

Blood pressure		
Sugar		
Diabetes		
Heart problems		
Cholesterol		
Allergies		

- | | | | |
|--|-------------------|-----------|-----------------|
| 10. Your source of Income from: | a.business; | b.salary | c.rental income |
| d.capital assets | | | |
| 11. Number of earning member in your family: | a.1 | b.2 | c.3 |
| d.more than 3 | | | |
| 12. Monthly income of respondents: | a.10k | b.10to25k | c.25to50k |
| d.more than 50k | | | |
| 13. Monthly expenditure of respondents: | a.20% from income | b.20-40% | c.40-60% |
| d.more than 60% | | | |
| 14. Monthly savings of respondents: | a.20% from income | b.20-40% | c.40-60% |
| d.more than 60% | | | |
| 15. Do you taken any loans: | Yes | No | |

Personal loan from office		
house loan		
Jewel loan		
Vehicle loan		
Loan from private institutions		

Loan from pawn brokers		
------------------------	--	--

16. Kindly mention your area of investment: yes no

Fixed deposit		
Recurring Deposit		
Savings Bond		
Chit funds		
Insurance		
Gold		
Real estate		

17. During the pandemic, did you face any financial crisis in your family?

Strongly agree	Agree	Neutral	Disagree	Strongly disag
----------------	-------	---------	----------	----------------

18. Have you agreed that you have well equipped hospital facilities?

Strongly agree	Agree	Neutral	Disagree	Strongly disag
----------------	-------	---------	----------	----------------

19. Please share about the level of road condition in your area

Very good	Good	Average	Bad	Very bad
-----------	------	---------	-----	----------

20. Is metro water supply available in your area

a. Yes, regularly supplied

b. Twice in a week

c. it is weekly once

d. no, not regularly supplied

21. Do you have market facilities in your area? a. Yes b. No

22. Which market do you use for affordable prices? A. kothwal bazaar b.

Koyambedu bazaar c. local small market d. other local shops

23. Is bank available in your area: yes no

SBI		
IOB		
Indian bank		
Canara Bank		
Karur vysya bank		
Punjab national bank		

Others : (Specify) _____

24. Is government office available in your area: yes

no

Corporation office		
E-seva centre		
Talisdhar office		
Register office		
Collector office		

25. Do you have well furnished educational institutions like school colleges in your area? a. Yes b. No

26. Which type of energy is used for cooking?

- a. Gas connection b. Kerosene stove c. Firewood stove d. Both 1 and 2 e. Both 2 and 3 f. All the three options.

26. Do you have stable connection of electricity:

Strongly agree	Agree	Neutral	Disagree	Strongly disag	
----------------	-------	---------	----------	----------------	--

27. Please share the sanitation facility available in your area?

- a) Public toilets common for all
b) 2-3 families use the same toilets
c) Individual toilets available for all houses

28. Do you use the electric appliances in your home

Yes

no

Fridge		
Washing machine		
Mixer grinder		
Induction stove		
Television		
Laptops		
Mobile phone		
Air conditioner		

29. In your area, please give a opinion about the ground water level:

- a) It is right ground water level
b) Under ground water level

30. Do any natural calamities affect your area?

- a) Flood
b) Cyclone
c) Electrical storms

Others please specify _____

31. In the rainy season, did you face the difficulty of overflowing water in your house?

- a) Yes, water comes inside the house
b) Water flow is dropped from the sealing
c) No, there is no problem of overflowing

32. Are you engaged in any social work activities?

- a) NGO
b) Lions club
c) Rotary Club
d) Self help groups
e) Voluntary activities

33. Any volunteers from this group helps you to growth of your area?

- a) NGO
b) Lions club
c) Rotary Club

- d) Self help groups
34. Which circle will you interact more with?
- Friend circle
 - Family circle
 - Office circle
 - Neighbors circle
35. Are you kind of personally used to interacting face to face or social media?
- Face to face
 - Social media application
36. If you more hang up with social media which one do you have more contact

	1`	2	3	4	5
Whatsapp					
Facebook					
Instagram					
Twitter					
Telegram					

Part – B: Waste Cooking Generation

- What type of restaurant are you running?
 - High class multi cuisine restaurants
 - Hotel
 - Small tea shops
 - Street vendors
- Which type of hotel are you running?
 - Veg
 - Non veg
 - Both
- Which kind of oil using for the cooking:

	refined	not refined
Sunflower oil		
Palm oil		
Gingelly oil		
Groundnut oil		

- How much do you spend on buying the oil?

1000	2000	3000	4000	5000
------	------	------	------	------

What are all the fried items there in your menu:

Veg		
Vada	Poori	Snack Items
Non veg		
Chicken	Red Meats	Sea foods

- How many times do you repeat the oil for frying the foods?

1	2	3	4	5
---	---	---	---	---

6. After using the oil, how much oil waste is generated in your outlet?

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

7. What will you do after using that oil?

If you dispose, where will you dispose the oil

If you not dispose, what will you do with the waste oil

8. Where do you deliver your waste cooking oil?

- a) Separate collection center
- b) Street bins
- c) Dishwash sinks
- d) Both

1) Do you agree that you concentrate hygiene by cleaning your daily usable things

- a) Strongly agrees
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

2) Who regularly washed your clothes in home?

- a) Parent
- b) Spouse
- c) Siblings
- d) By myself
- e) Laundry

3) Who buys the detergents soaps for your family

- a) Parent
- b) Spouse
- c) Siblings
- d) By myself

4) Kindly specify which kind of cleaning agent use for washing clothes and dishwash:

- a) Bar soaps
- b) Liquid soaps
- c) Powder detergents

5) For what are all the components that makes you to buy the detergent soaps

- a) Price and cost – ability to buy
- b) Brand – using for prestige
- c) Quality – to remove the strain easily
- d) Quantity – long lasting
- e) Advertisement – influence to use
- f) Without any effects for hands and legs

6) Could you specify what kind of skin infection faced by you while wash your clothes

- a) Fingers and palms of hands gets rough
- b) Foot eruption while washing the clothes
- c) Some erosion will happen after wash the clothes

- d) It affects my skin smoothness
- 7) Will you agree to use the cleaning material with affordable prices, quality, quantity and fulfil your needs
 - a) Strongly agree
 - b) Agree
 - c) Neutral
 - d) Disagree
 - e) Strongly disagree

Evaluate the industry environment:

Livelihoods

- 8) Could you encourage the start up by the people who wants to improve their standard of living?
 - a) Very good initiative
 - b) Good idea
 - c) No opinion
 - d) Not bad
 - e) Bad
- 9) Can you agree the innovation to make the waste cooking oil to soaps?
 - a) Very good initiative
 - b) Good idea
 - c) No opinion
 - d) Not bad
 - e)
 - f) Bad
- 10) Will agree to prefer that kind of cleaning material to your circle
 - a) Strongly agree
 - b) Agree
 - c) Neutral
 - d) Disagree
 - e) Strongly disagree

Define Potential Market:

- 11) How often do you change your soap brand?
 - a) Less than 1 month
 - b) 6 months once
 - c) Yearly once
 - d) Never changed
- 12) Where do you bought the house cleaning material for your home?
 - a) Retail shops
 - b) Wholesale shops
 - c) Modern trade centres
 - d) Online shopping
- 13) Which mode is very easy and preferable to bought the cleaning material?

1 2 3 4 5

- a) Retail shops
- b) Wholesale shops
- c) Modern trade centres

- d) Online shopping
- 14) Have you bought this material for a month or by need?
- Weekly Once
 - Twice in a week'
 - Once in a month
 - Two months once
- 15) In a month how much quantity use for washing clothes?
- 250g
 - 500g
 - 750g
 - 1-2kg
- 16) How many detergents soaps you bought for washing purpose
- 75g 100g 150g 200g 250g
- 1-4
 - 4-8
 - 8-12
 - More than a dozen

Competitor Analysis:

- 17) Could you specify the brand currently used for washing clothes?

1 2 3 4 5

- Surf excel
 - Rin
 - Tide
 - Henko
 - Aarsan
 - Ponvandu
 - Pathanjanli
 - Others
- 18) What are all the brands' motives you to buy the products through their offers and discounts?

Combos discount coupon Buy one
get one

- Surf excel
 - Rin
 - Tide
 - Henko
 - Aarsan
 - Ponvandu
 - Pathanjanli
 - Others
- 19) What are the factors you liked most to retain the current brand?
- Surf excel Rin Tide Henko Aarsan Ponvandu
- Pathanjanli
- Price and cost – ability to buy
 - Brand – using for prestige

- c) Quality – to remove the strain easily
 - d) Quantity – long lasting
 - e) Advertisement – influence to use
 - f) Without any effects for hands and legs
- 20) Could you specify your current brand difficulties to clean:
- Surf excel Rin Tide Henko Aarsan Ponvandu
Pathanjali
- a) Hard to remove the strains
 - b) Sometimes clothes get older
 - c) It causes the colour of the garments to change
 - d) Its get damaged the lints
- 21) Is current brands gives any skin hazards to use?
- Yes No
- a) Surf excel
 - b) Rin
 - c) Tide
 - d) Henko
 - e) Aarsan
 - f) Ponvandu
 - g) Pathanjali
 - h) Others

Conduct Internal Analysis:

Determine Target Market:

- 22) Have you bought the detergents separately or with monthly grocery list
- a) Separately buy – availability for need
 - b) Bought with total grocery list
 - c) Both
- 23) Are you kind of person to buy the products in online/offline
- a) Offline mode
 - b) Online
 - c) Both
- 24) Why you choose the offline mode to buy the detergents
- a) Time savings – not to wait for delivery
 - b) Permanent retailer
 - c) Quality – to check the expiry dates
 - d) Easy to buys
 - e) Can buy at anytime
 - f) Cost is lower in physical
 - g) My brand is available only in offline shops
 - h) Do not wait for the time to deliver.
- 25) Why you choose the online mode to buy the detergents
- a) Easy to purchase
 - b) Cash on delivery
 - c) Easy Payment available through online
 - d) Deliver at door steps
 - e) Time savings
 - f) For discounts, coupons, combo offer
 - g) My brand is available only in online
- 26) What are the online website to preferable to buy the products

- a) Indiamart
- b) Amazon shopping
- c) Flipchart grocery
- d) Big basket
- e) Swiggy mart
- f) Jio Mart
- g) Easy day
- h) d-mart

Financial Viability:

- 27) In a month how much amount spend for buying this material to use the cleaning:
- a) Below Rs.200
 - b) Rs.300-500
 - c) Rs.500-800
 - d) Rs.800-1000
 - e) More than Rs.1000
- 28) How much you expected the rate for these washing clothes
- a) 250g – Rs.30,
 - b) 500g – Rs.60,
 - c) 1kg – Rs.120,
 - d) 2kg – Rs.240.
- 29) In your opinion How much amount you need to buy the detergent soaps?
- a) 100g -
 - b) 250g -
 - c) 500g -
 - d) 1kg –
- 30) What is the satisfactory level of price of detergent soaps?
- a) Highly satisfied
 - b) Satisfied
 - c) Neutral
 - d) Dissatisfied
 - e) Highly Dissatisfied

A STUDY ON THE MARKET FEASIBILITY OF DETERGENT BAR SOAP BY CONVERTING WASTE COOKING OIL RELATED TO URBAN SLUM LIVELIHOODS IN CHENNAI

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ABSTRACT

Waste Cooking oil (WCO) is taken into account mutually the risky wastes as a result of improper disposal of WCO will cause vital environmental issues like blockages of drains and sewers in addition as water or soil pollution. For this elimination of ecological imbalance, the centre of waste management tries to convert these wastes into various forms of new innovative products. For that, the used oil is to be covert into detergent bar soaps which is used for washing clothes in their households. The poor people also will start-up their business with this wonderful opportunity. With this reason, this study is found out the market feasibility of detergent bar soaps in urban slum population. Before starts the business, the analysis is very essential in the market whether the product will survive in the market with the existing competitors. The study was taken sample as 300 slum people to analyse their livelihoods and market feasibility of detergent soaps. The testing was used as One Way ANOVA, Correlation and Regression. Overall, the study resulted as there is a demand for the soaps in the slum. They want the product with good quality, quantity and affordable prices.

I. INTRODUCTION

Waste Cooking oil (WCO) is taken into account mutually of the risky wastes as a result of improper disposal of WCO will cause vital environmental issues like blockages of drains and sewers in addition as water or soil pollution. A number of studies tell us that reheating oil will unleash harmful toxins, increase the share of trans- fats in it, becomes rancid, offers rise to free radicals, and offers rise to some terribly harmful reactions.

Reheating oil will take a toll on people's health by leading to many harmful effects. Cause devastating physical effects, like coating animals and plants with oil and suffocating them by chemical element depletion. Destroy future and existing food provides, breeding animals, and habitats; manufacture rancid odors; Foul shorelines, clog water treatment plants, and combust once ignition sources square measure present; as to dispose tiny quantities of used oil at unit level, combine the oil with absorbent like sand or wood or used towel or food scraps to avoid probabilities of spillage so throw it away in dustbins. According to the survey of FCCI, 3 million gallons of oil wasted and disposed in the improper way it is definitely hazardous society.

A. Market Feasibility of Detergent Bar soaps

Market Feasibility:

Market Feasibility is a study that identifies the success of a product in a particular market. This helps you identify potential markets, market competition, potential market development, and market analysis to evaluate your business ideas.

Phase 1 – Target Market Identification

➤ Define Customer needs:

Customer needs are those that motivate customers to purchase products and services. Needs are known (that is, customers can express them in words) or unknown and are important factors in determining the solution a customer purchases.

➤ Define Potential Markets:

Potential markets are some of the markets you can acquire in the future. These are customers you don't have right now but can attract. Learn how to identify these prospects and how to take them over.

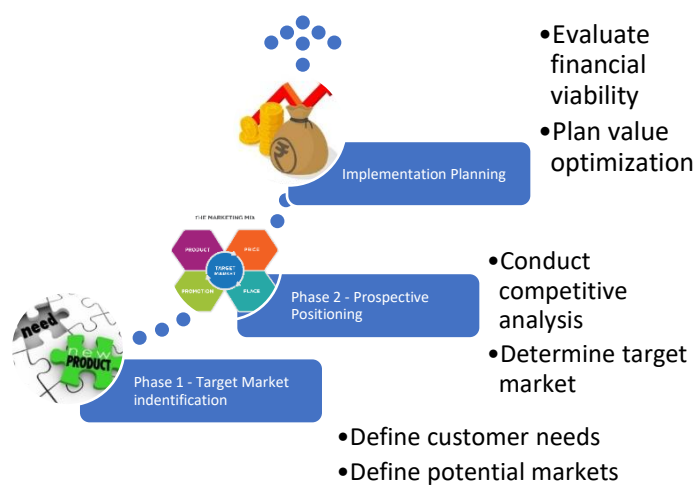
Phase 2 – Prospective Positioning

➤ Conduct Competitive Analysis:

Competitor analysis is a strategy that involves investigating key competitors and gaining insights into product, sales, and marketing tactics. Implementing a stronger business strategy, dodging competitors, and gaining market share are just a few benefits of performing a competitive market analysis.

➤ Determine Target Market

These include gender, age, income level, race, education, religion, marriage history, and geographic location. Consumers with the same demographics tend to value the same products and services. Therefore, segmentation is one of the most important factors in determining the target market.



Phase 3 – Implementation Planning

Evaluate Financial Viability:

The purpose of comparing the monetary viability is to first compare whether or not the enterprise version is possible or now no longer and, 2d to locate the ones volatile assumptions that might be effortlessly centered as a part of a product discovery process.

Customer Value Optimization:

Customer Value Optimization (CVO) is what you do to provide a particular value to your customers and is the most effective way to deliver that value. Basically, interested in solving one or more problems. Ability to solve problems is your value. What makes the method of solving a problem different from other methods? what is that? How does this method fit into the product or service market? Does it shout "great"? Do customers even know the process or even their own position in which your product or service solves a problem better? This is where customer value optimization is designed to help turn "magic" into "problems" and create maximum value for customers.

B. OBJECTIVE OF THE STUDY

Pirmary Objective:

To find out the market feasibility of detergent bar soaps by using raw material as UCO in the urban slums.

Secondary objective:

To identify the sustainable livelihoods of people to understand the standard of living and buying power of the urban slum people

To evaluate the quantity and quality of waste cooking oil around the hotels in the urban slums.

II. REVIEW OF LITERATURE

Dr. Kavya Saini 2021 This study was conducted to analyse client preference for international or native brands of soaps. The Modi Malaysian Mujahidin Group Prime Minister of Asian nation has asked individuals to be self-directed and be vocal regarding native. the complete country is undergoing a renaissance currently for adopting nativebrands. numerous brands from shoe to food square measure inserting their top-selling brands against the tricolor background or modified their positioning strategy to embrace "vocal for local" strategy of Asian nation, to faucet on the consumers' selection for nationalistic banner or square measure gearing up to tackle doable counterattack on account of a worldwide whole.

Tejas P. Joshi 2017 Surface active agents (Surfactants) area unit a novel category of chemical compounds having twin characteristics of hydrophilicity and property. Surfactants are also referred to as amphiphiles or tensides. The applications of surfactants in science and business area unit large, covering each facet of refined activity. The science of surfactants

is quickly growing with its wide applications in different industries, medical sciences, life sciences, chemistry, physics, engineering and pollution management etc

Dr. Sanjay Tekade Use of detergent for laundry garments for purity in ancient Bharat is mentioned in Hindu scripture i.e. Manusmriti. that was written in second century BCE to third century Ce. it's declared that in ancient time for cleanup purpose material used were alkaline-earth metal, process fruit, Sripada fruit and the paste of Sinapis alba. when the revolution of industries and lots of analysis in laundry product lead to producing of detergent in numerous forms such as powder, liquid and bar. currently a days material chemical, eco-friendly detergents square measure of detergent thought square measure running within the market.

Urban Strategies for Waste Management Centre, 2020, The transportation of used vegetable oil generated at supply are often distributed by the producer itself (e.g. citizens), though it's common for larger producers (e.g. restaurants, hotels, etc.) to hire personal authorised waste managers that give the service of assortment and adequate management

III. RESEARCH METHODOLOGY

The survey design used was a descriptive survey design aimed at data collection and analysis. The method used was a convenient sampling. non-Probability sampling method with a sample size of 300 slum population as a subject. This study targets the Broadway Zone in Chennai. Two methods of data collection Primary data questionnaire and secondary data i. e, literature, website reviews, Books, interviews with people. The limit of the study was that there were only 300 samples. Respondents and surveys targeted only general investors in specific zones. This study uses a structured and pre-built one Constructed question. It's an objective study. As a result, they affect perception and expectations.

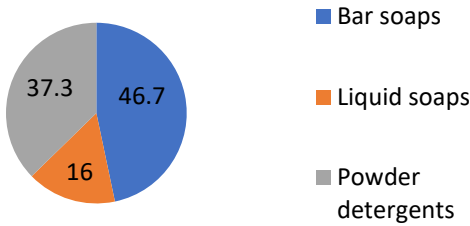
IV. DATA ANALYSIS

Table: 1 Respondents specified the cleaning agent for washing clothes

Options	Frequency	percent
Bar soaps	140	46.7
Liquid soaps	48	16
Powder detergents	112	37.3

Total	300	100
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Figure: 1 Respondents specified the cleaning agent for washing clothes



Interpretation:

From the above table and diagram represents the respondents specified the cleaning agent for washing clothes. 46.7% says bar soaps, 16% says liquid soaps, 37.3% says powder detergents

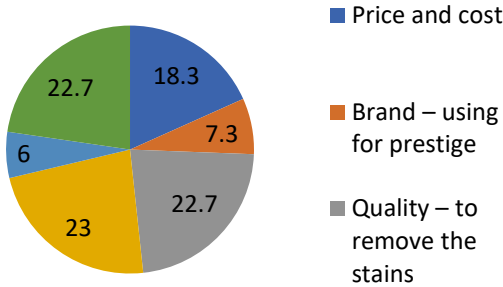
Inference:

Majority of the respondents answered that they were using the bar detergent soaps for the washing the clothes.

Table:2 Factors for buying the soaps

Options	Frequency	Percent
Price and cost	55	18.3
Brand – using for prestige	22	7.3
Quality – to remove the stains	68	22.7
quantity	69	23
Advertisement	18	6
Without any effects for hands and legs	68	22.7
Total	300	100

Figure: 2 Factors for buying the soaps



Interpretation:

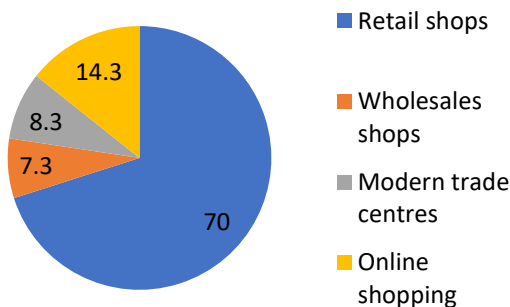
From the above table and diagram shows that the factors for buying the material. 18.3% says price, 7.3% says brand, 22.7% says quality, 23% says quantity, 6% says advertisement, 22.7% says without any effects for hands and

legs.
Inference:
Majority of the respondents says that quantity influence the factor to buy the product.

Table:3 Respondents bought the house cleaning material for your home

Options	Frequency	Percent
Retail shops	210	70
Wholesales shops	22	7.3
Modern trade centres	25	8.3
Online shopping	43	14.3
Total	300	100

Figure: 3 Respondents bought the house cleaning material for your home

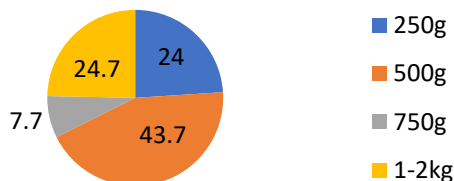


Interpretation:
From the above table and diagram show that the respondents buying soaps through shops. 70% says retail shops, 7.3% says whole sale shops, 8.3% says modern trade centres. 14.3% says through online shopping
Inference:
Majority of the respondents says that they used to bought the soaps with nearby retail shops.

Table No: 4 In a month how much quantity use for washing clothes

Options	Frequency	Percent
250g	72	24
500g	131	43.7
750g	23	7.7
1-2kg	74	24.7
Total	300	100

Figure: 4 In a month how much quantity use for washing clothes



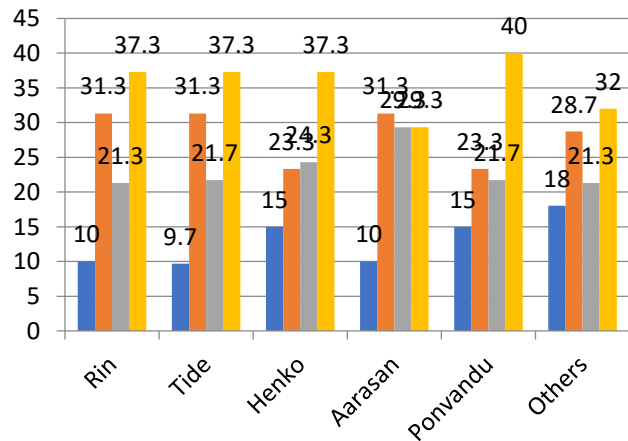
Interpretation:
From the above table and diagram represent the respondents using the quantity for the month. 24% says 250 g, 43.7% says

500 g, 7.7% says 750 g, 24.7% says 1-2 kg.
Inference:
Majority of the respondents answered that they have need to consume 500 g in a month for washing the clothes.

Table: 5 brands' motives you to buy the products through their offers and discounts?

Option	Buy one get one	Combos	Coupon	Discount
	P	P	P	P
Surf excel	23	39.3	8.3	29..3
Rin	10	31.3	21.3	37.3
Tide	9.7	31.3	21.7	37.3
Henko	15	23.3	24.3	37.3
Aarasan	10	31.3	29.3	29.3
Ponvandu	15	23.3	21.7	40
Others	18	28.7	21.3	32
Total	100	100	100	100

Figure: 5 brands' motives you to buy the products through their offers and discounts?

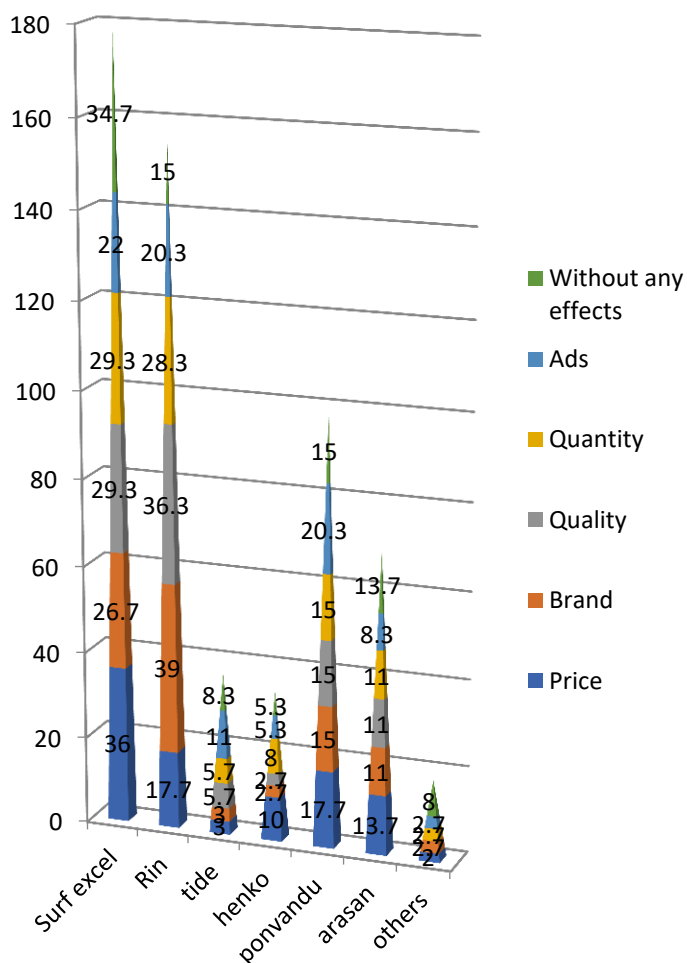


Interpretation:
From the above table and diagram shows that the brands' motives you to buy the products through their offers and discounts.
Inference:
Majority of the respondents says that surf excel and arasan gives more attractive combos to buy the product.
Majority of the respondents says that rin, tide, henko, ponvandu and others gives more attractive discount offers to buy the product.

Table: 6 factors that respondents liked most to retain the current brand?

Option	Surf excel	Rin	Tide	Henko	Aarasan	Ponvandu
	P	P	P	P	P	P
Price	36	17.7	3	10	17.7	13.7
Brand	26.7	39	3	2.7	15	11
Quality	29.3	36.3	5.7	2.7	15	11
Quantity	29.3	28.3	5.7	8	15	11
Ads	22	20.3	11	5.3	20.3	8.3
Without any effects	34.7	15	8.3	5.3	15	13.7
Total	100	100	100	100	100	100

Figure: 6 factors that respondents liked most to retain the current brand



Interpretation:

From the above table and diagram represent the respondents

says that the factor to retain the brands available in the market.

Inference:

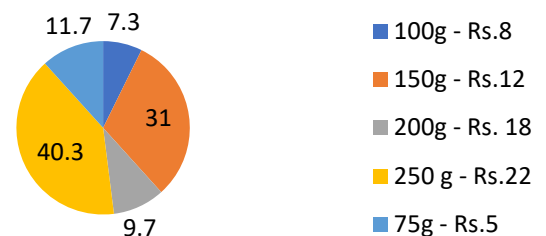
Majority of the respondents answered that price, quantity, advertisement, without any skin effects influence the surf excel brand to buy the product.

Majority of the respondents answered that brand and quality influence the rin to buy the customers

Table: 7 How much you expected the rate for these washing clothes

Options	Frequency	Percent
100g - Rs.8	22	7.3
150g - Rs.12	93	31.0
200g - Rs. 18	29	9.7
250 g - Rs.22	121	40.3
75g - Rs.5	35	11.7
Total	300	100.0

Figure: 7 How much you expected the rate for these washing clothes



Interpretation:

From the above table and diagram represent the respondents expected rate to buy the detergent soaps, 7.3% says 100g for Rs.8, 31% says 150g – Rs.12, 9.7% says 200g – Rs, 18, 40.3% says 250g – Rs.22, 11.7% says 75g – Rs.5.

Inference:

Majority of the respondents says that they expected rate for buy soaps is 250g for Rs.22

Hypothesis

One way Anova:

Hypothesis:

Null Hypothesis:

There is no significance difference between Gender and employment of work

Alternate Hypothesis:

There is significance difference between gender and employment of work

ANOVA					
6. Designation of respondent					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	161.607	1	161.607	114.681	.000
Within Groups	419.940	298	1.409		
Total	581.547	299			

Robust Tests of Equality of Means				
6. Designation of respondent				
	Statistica	df1	df2	Sig.
Brown-Forsythe	116.795	1	294.878	.000
a. Asymptotically F distributed.				

Based on the result generated by SPSS, the significant value is 0.000 and it is lower than 0.05 so reject null hypothesis .Hence there is a significance difference in the gender and employment

Correlation:

Correlation relationship between factor and fulfilling needs

Since .00 is less than 0.05 so reject the null hypothesis and accept the alternate hypothesis

Regression

Expenditure will be taken as X (independent) and expected rate taken as Y(dependent). Since rate to be estimated in the regression like Y on X. From the output regression equation $Y = a + bX$

$$Y = 1.55 + 0.543X$$

Assumed that X is 75g – Rs. 5, 100g – Rs.8, 150g – Rs.12, 200g – Rs. 18, 250g – Rs.22

$$Y = 1.55 + (0.543 \times 5) = 4.265$$

$$Y = 1.55 + (0.543 \times 8) = 5.894$$

$$Y = 1.55 + (0.543 \times 12) = 8.066$$

$$Y = 1.55 + (0.543 \times 18) = 11.324$$

$$Y = 1.55 + (0.543 \times 22) = 13.496$$

The expected value of Y is higher in the 250g – Rs.22 and also the customer also prefer the expected rate to buy to detergent soaps for this rate. Since it is lowest and affordable prices to buy the product by the customers.

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.547	.173		8.929	.000
	24) In a month how much amount spend for buying this material to use the cleaning:	.543	.043	.594	12.732	.000
a. Dependent Variable: How much you expected the rate for these washing clothes []						

V. FINDINGS

The overall findings of the study is the urban slum people ready to adopt the waste cooking oil to detergent soap, their expectation with large quantities and affordable prices and without any skin infection because the washing soaps usually causes some skin infection itching and all. The conversion of this soap having market and its surely worked. In the family, the parent decides which soap suitable for their needs. The potential markets for the soaps are retail shops and wholesale shops in the available local markets around their locality. They are highly satisfied with the affordable prices of soaps rather than the existing product. The people having no facilitate to use the mobile phones. So, the behaviour of consumer in the slum people most preferable and ready to buy in the offline stores. Some of them used to bought the soaps with monthly grocery list and if they bought separately any need to use and they bought with both of the reasons. The people ready to adopt the entrepreneurial activities for improving their standard of living.

VI. SUGGESTION

The suggestion is to concentrate the factors that need to give qualitative and quantitative product in the potential markets for the customers. Because there is a huge competitor in the market and the competitor is very successful and have footprint in the market. This new innovation product will be motivated the people to eliminate the waste cooking oil hazardous to the environment. They should be given the appropriate informative campaigns for the people and also the hoteliers to practice the proper collection method without disposing the oil into drainage, sinks, dumps into soil, with public garbage etc., This soap will have the great future and it will implement in the right way surely have a great impact in

the society to eliminate the wastes and come up with the new usable product in the society. It also been a secondary raw material not only for soaps also for raw material as bio diesel, glycerine, etc.,

VII. CONCLUSION

This study understands the market feasibility with customer needs, analysing potential market, competitor analysis, determining the target market, evaluate the financial viability for the detergent soaps. First and foremost, thing in day-to-day life is hygiene. In our daily lives essential to clean our clothes is soaps. Those soap made up of with waste cooking oil to eliminate the pollution in the environment. This soap will have a bright future, and if implemented correctly, it will have a significant impact on society in terms of reducing waste and creating new valuable products. It has also served as a secondary raw source for raw materials such as bio fuel, glycerine, and other chemicals. The detergent substance can sometimes cause skin infection and irritation. The majority of the time, homemakers are just responsible for the laundry. They spent more than 2 to 3 hours per day washing clothes. As a result of the harmful chemicals used in soaps, their hands and legs become stiff. They will also be harmed by the chemicals. We have to get rid of the soaps in this one. They expect the product to easily stain the dirt from the particles at the same time, the soapy base will also less because if it is in more soapy it need more water to wash the clothes. The scarcity of the water in the city, especially in the urban slums very rare to survive. The soap will give the solution for this problem definitely it will reach peak in the market.

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Programme: B.Com, (General),	CGPA: 7.69
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- Leadership
- Adaptability
- Flexibility
- Trust worthy
- Self Confidence
- Event Management
- Multi-tasking

Hard Skills:

- Tally Erp 9
- Typewriting English Higher
- SPSS Tool
- MS Office
- Finance for Managers (Coursera)
- Fundamentals of Digital Marketing (Google digital unlocked)
- Business Analysis Basics (Simple learn

Personal Projects:

Mini Guided Project: Investment Risk Management (Coursera)

Mini Academic Project: A Study on significance of Portfolio management in Indian Stock Market with enhance the growth of investors.

Paper Published: Research Paper Published in **Dr. MGR University Book Chapters for Women's Day**, in the topic "A Study on Women Empowerment Through Entrepreneurship with Special Reference to Micro Small and Medium Enterprises in Chennai".

Main Project: Final Year Project undertaken in the Centre of Waste Management in the Sathyabama Institute of Science and Technology in the topic, "A Study on The Market Feasibility of Detergent Bar Soap by Converting UCO Related to Urban Slum Livelihoods in Chennai".

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Tamil Proficiency Award: Received the overall highest mark in College during UG.

Community Service Director – Rotaract Club of Sri Kanyaka Parameswari Arts and Science College for women.

Participate in cultural events like **Drama, skits, Crafts** and received prizes.