

“A STUDY ON CUSTOMER SATISFACTION ON HE-MAN AUTO ROBOPARK PVT LTD”

PROJECT REPORT

Submitted in partial fulfilment of the requirement for the award Degree

MASTER OF BUSINESS ADMINISTRATION



University of Calicut

**Thenhipalam, Malappuram District, Kerala
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Pongam, Koratty East, Thrissur 2020-2022

UNIVERSITY OF CALICUT

BONAFIDE CERTIFICATE

Certified that this project report “**A STUDY ON CUSTOMER SATISFACTION ON HE-MAN AUTO ROBOPARK PVT LTD**” is the Bonafide work of “ANN MARY JAISON (Reg.No YPAUMBA015)” who carried out the project work.

Place: Pongam, Thrissur

Dr. Jacob P.M.

Date:

Director, NBS

UNIVERSITY OF CALICUT
BONAFIDE CERTIFICATE

Certified that this project report **“A STUDY ON CUSTOMER SATISFACTION ON HE-MAN AUTO ROBOPARK PVT LTD”** is the Bonafide work of **“ANN MARY JAISON (Reg.No YPAUMBA015)”** who carried out the project work under my supervision.

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DECLARATION

I ANN MARY JAISON hereby declare that the Project Report Entitled “**A STUDY ON CUSTOMER SATISFACTION ON HE-MAN AUTO ROBOPARK PVT LTD**” has been prepared by me and submitted to the University of Calicut in partial fulfilment of requirements for the award of the Master of Business Administration, is a record of original work done by me under the supervision of Dr. NIJO VARGHESE of Naipunnya Business School, Pongam, Koratty East, Thrissur. I also declare that this Project work has not been submitted by me fully or partly for the award of any Degree, Diploma, Title or recognition before any authority.

Place: Pongam, Thrissur

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TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Ms. ANN MARY JAISON**, MBA student of Naipunnya Business School Pongam, has successfully completed her Project in the topic "**A STUDY ON CUSTOMER SATISFACTION ON HE-MAN AUTO ROBOPARK PVT LTD**" for a duration from 14th July 2022 to 9th September 2022.

During the period she was found punctual, hardworking and inquisitive.

We wish her all the best for future endeavours.

HE-MAN AUTO ROBOPARK PVT.LTD

Departmental Head



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CONTENTS

CHAPTER NO	TITLE	PAGE NO
1	INTRODUCTION	1 – 42
2	REVIEW OF LITERATURE	43 – 62
3	THEORETICAL FRAME WORK	63 – 68
4	DATA ANALYZIZ AND INTERPRETATION	69 – 88
5	FINDING, SUGGESTION AND CONCLUSION	89 - 93
	BIBLIOGRAPHY	
	APPENDIX	

LIST OF TABLES

TABLE NO	TITLE	PAGE NO
4.1	GENTER WISE CLASSIFICATION OF RESPONDENTS	71
4.2	AGE WISE CLASSIFICATION OF RESPONDENTS	72
4.3	CLASSIFYING THE RESPONDENT ON THE BASIS OF THEIR CAR'S COMPANY	73
4.4	ANNUAL INCOME WISE CLASSIFICATION	74
4.5	INITIAL VISIT IN HE-MAN ROBOPARK	75
4.6	USAGE OF HE-MAN ROBO PARK	76
4.7	AWARENESS ABOUT HE-MAN ROBO PARKING	77
4.8	COST ANALYSIS	78
4.9	SATISFACTION LEVEL OF PRICING	79
4.10	COMPARISON OF NORMAL PARKING VS ROBO PARKING	80
4.11	TIME TAKES TO PARK IN ROBO PARK	81
4.12	SATISFACTION OF TIME TAKEN FOR PARKING IN ROBO PARK	82
4.13	ANALYSING SAFETY OF YOUR CAR IN HE-MAN ROBO PARK	83
4.14	DURATION OF CAR PARKING	84
4.15	SATISFACTION OF AUDIO-VISUAL SERVICES DURING PARKING	85
4.16	RATING OF COST, SAFETY AND TIME	86
4.17	SATISFACTION IN SERVICE OF HE-MAN ROBO PARK	87
4.18	ANALYZING ISSUES IN ROBOTIC PARKING	88

LIST OF FIGURES

FIGURES NO	TITLE	PAGE NO
4.1	GENTER WISE CLASSIFICATION OF RESPONDENTS	71
4.2	AGE WISE CLASSIFICATION OF RESPONDENTS	72
4.3	CLASSIFYING THE RESPONDENT ON THE BASIS OF THEIR CAR'S COMPANY	73
4.4	ANNUAL INCOME WISE CLASSIFICATION	74
4.5	INITIAL VISIT IN HE-MAN ROBOPARK	75
4.6	USAGE OF HE-MAN ROBO PARK	76
4.7	AWARENESS ABOUT HE-MAN ROBO PARKING	77
4.8	COST ANALYSIS	78
4.9	SATISFACTION LEVEL OF PRICING	79
4.10	COMPARISON OF NORMAL PARKING VS ROBO PARKING	80
4.11	TIME TAKES TO PARK IN ROBO PARK	81
4.12	SATISFACTION OF TIME TAKEN FOR PARKING IN ROBO PARK	82
4.13	ANALYSING SAFETY OF YOUR CAR IN HE-MAN ROBO PARK	83
4.14	DURATION OF CAR PARKING	84
4.15	SATISFACTION OF AUDIO-VISUAL SERVICES DURING PARKING	85
4.16	SATISFACTION IN SERVICE OF HE-MAN ROBO PARK	87
4.17	ANALYZING ISSUES IN ROBOTIC PARKING	88

CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The topic customer satisfaction is very essential for the modern market. The project is undertaken to measure the customer satisfaction of He-Man Auto Robopark Pvt ltd. Customer satisfaction is to analyze the satisfaction level of the customer it helps the organization to improve or change its products and services. Customer satisfaction can be measured by surveys and ratings. The company need to satisfy its customers. Customer satisfaction measures how successfully you, as a supplier of goods or services, meet the demands and expectations of your clients. This holds true for all communications both before and after the sale.

The word "measure" is used in the definition above, which emphasizes how crucial it is to empirically quantify customer satisfaction. To do this, you often conduct customer satisfaction surveys to learn what your clients think about the various faces of your service. It's not enough to simply hope your customer satisfaction will improve. You need concrete plans to drive it forward, backed by robust data. You must conduct polls, surveys, and feedback sessions to gather customer feedback for this. To establish assumptions about customer pleasure, you can also take into account other measures like client loyalty and retention. This method of measuring customer satisfaction allows you to pinpoint your areas of weakness and determine how to enhance your offerings in order to raise customer satisfaction levels.

Customer satisfaction is a metric used to express how satisfied a customer is with your company's goods, services, or experiences. This indicator is determined by asking customers how they feel about their experiences in surveys of customer satisfaction, with responses ranging from "very displeased" to "extremely satisfied."

Businesses use customer satisfaction surveys to measure these feelings, which are ultimately a reflection of how a customer feels about dealing with your company. You can get an idea of client loyalty from these responses, which also forecasts the possibility of customer referrals.

The most crucial element of any company is there clients. They not only have the ability to generate income, but they may also encourage others to try the goods and services by spreading good word of mouth. By maintaining high customer satisfaction, cut down on customer churn, boost client lifetime value, and make sure that consumers stick with the company for many years to come.

Customers who are brand loyal to the firm will express high customer satisfaction. These clients will introduce new prospects to the business and provide the marketing staff with more positive testimonials. For these users, design customer advocacy programs that will motivate them to promote company.

Programs that encourage customer advocacy reward clients who recommend the company to leads. Customers that sign up for the programs are provided incentives, and in return for evaluations and comments, they receive gifts or offers. This develops a connection that is mutually beneficial, rewards the best clients, and maintains the loyalty.

Customer satisfaction is a measure of how people feel when interacting with your brand. It can be influenced by any number of factors, such as:

- perceived product quality
- perceived product value
- convenience
- customer expectations
- communication
- complaint handling

Every brand, no matter how successful, wants to improve customer satisfaction. To do that, they need to define two things:

1. who their customers are
2. what it takes to satisfy them

The customer satisfaction help the company to improve the services and products. I had used the topic to analyze the customer satisfaction in He-Man Auto Robo park Pvt ltd. And also to analyze how the service in Robo park help to satisfy the customer.

1.2 STATEMENT OF THE PROBLEM

The survey concern about the customer satisfaction of the He-man Auto Robo park Pvt ltd. Every business would like to create loyal consumers, therefore ensuring customer satisfaction would be a goal. Customer confidentiality or a vague assessment of their level of happiness make it difficult to gauge customer satisfaction. The customer frequently struggles to articulate the source of their satisfaction. Regardless of how big or small the organisation is, customer satisfaction is crucial to the success of the enterprise. Since the client is considered the king of the market, a firm cannot advance or remain in its current location without satisfying the needs of its customers.

He-man Robo park bring an opportunity to reduce the total project cost. Taking the total cost of a building, a conventional ramp parking construction cost will be a good fraction of it. With ventilation, lighting, toilets, camera, lifts and security person for every parking floor, which increase the cost to a great level. Here they offer is the best solution for this problem by offering the best system with cost 50%-60% less compared to a ramp parking. Also the operation/maintenance cost of the system is very less compared to another mechanized parking system. Since all the parking structure of He-man Robo park is made of steel, even after decommissioning, the scrap value of the steel will provide a good part of parking project cost.

1.3 PURPOSE OF THE STUDY

The study conducted on the topic customer satisfaction on He-Man Auto Robo park Pvt.ltd. The purpose of the study is to know about the customer satisfaction towards the Robo parking. In this study three factors are mainly focus such as safety of the car, time for parking, cost for parking. Through this the company can improve there service through the opinion of the customers.

1.4 OBJECTIVE OF THE STUDY

Following are the objectives of the study:

- To know the customer opinion about safety of vehicle in Robo parking.
- To know the customer opinion about time consumption in Robo park.
- To know the customer opinion about parking fee in Robo park.

1.5 SCOPE OF THE STUDY

The scope of the study is to understand the customer/client satisfaction at He-Man Auto Robo park Pvt ltd. And to resolve the issues facing by the business. The result of the study and survey also useful for managers and administrators to know about the satisfaction of their customer.

1.6 SIGNIFICANCE OF THE STUDY

The topic “A study on customer satisfaction on He-Man Auto Robo park Pvt.ltd” help the company can get aware about all the drawbacks of the product and they can be aware whether their services met the need of the customer. Satisfying the customer is very important for every business. Through this study the company get to know the satisfaction level of the customer.

1.7 INDUSTRY PROFILE

The construction industry is acknowledged as having a significant impact on a nation's economic and social development, especially in light of the number of direct and indirect jobs it creates and the numerous other industries it influences to produce the goods, equipment, and services used in construction. When an economy is experiencing both exponential growth and a recession, it is typically one of the first industries to warn a region's financial status.

Steel is a special type of building material that is always a good investment. Steel is an excellent collaborator, advancing growth and development alongside all other materials. The basis of the past 100 years of progress has been steel, and it will continue to be essential to overcoming obstacles in the future.

No environmental duty is compromised in the steel sector. Steel is the most recycled material in the world and is completely recyclable. Technology for producing steel has advanced to the point where only scientific limitations restrict further advancement. To expand these borders, a fresh strategy is required. The search for answers to the world's environmental problems depends on steel.

Steel is the preferred material because to its accessibility, strength, adaptability, ductility, and recyclable nature. Steel was widely used to construct buildings in the 20th century, and many constructions are still stable today. Steel is a sturdy and secure structural material that resists mould, termites, and rot well. Steel frame has a natural zinc coating, which makes it durable for hundreds or even thousands of years. It is the material that is recycled the most globally, and because it is actually recycled, it can never be "consumed," only used. Steel products find their biggest usage in construction, which is common in developing nations.

The major part of the He-Man Robo park is steel structure which is 100% recyclable. This is actually a big advantage looking for LEED Certificate of the building. He-Man Robo park will transform parking into the most Eco- friendly part of the building, with no air pollution, clean and energy efficient parking structures.

The American economy depends heavily on the steel sector. Many components of industry, construction, transportation, and many consumer goods are made of steel. Steel, which has long been prized for its sturdiness, is now the material that is recycled the most. In 2008, the United States produced almost two thirds of its steel from scrap.

One of two processes is used in steelmaking facilities. Iron is extracted from iron ore in a blast furnace in the integrated steelmaking process. The molten result is then combined with recycled steel and refined with oxygen in a basic oxygen furnace (BOF). Although other iron-bearing materials may be employed, recycled steel constitutes the majority of the input in the production of steel in electric arc furnaces (EAF). About 62% of the steel produced in the United States in 2011 was produced using the less energy-intensive EAF process.

Steel used in the construction industry falls under the category of structural steel, which is welded in a variety of shapes and grades. It adopts the shape of an extended beam with various cross-sectional forms. For the majority of countries, institutions and organisations have established standards that govern its forms, dimensions, chemical makeup, and physical characteristics. Urbanization and construction generate significant demand for long steel products like bars and sections, and the expansion of the manufacturing sector generates demand for flat steel products like hot and cold rolled coil and stainless steel, which is likely to have a positive impact on the market share for structural steel.

Airports, factories, medical facilities, retail stores, and other non-residential development projects all find extensive use for structural steel. Airport building projects around the world are worth more than \$735 billion. Growing airport construction due to increased tourists would help the structural steel sector. To increase production efficiency and deliver high-quality goods, businesses are investing in technical breakthroughs and the introduction of new products. For instance, ArcelorMittal introduced Granite Quartz as a new product in November 2015. It is an organic coated steel that offers lovely crystalline colour variants and exceptional scratch resistance for roofs and facades. Because it is prone to corrosion in external environments and requires an expensive fireproof treatment, structural steel. While this may partially impede industry expansion, the structural steel market will expand as a result of rising product demand brought on by rising industrialization and construction activity.

Through 2026, the residential application segment is expected to experience considerable growth of more than 5.5%. Demand for the product will be driven by an expanding vertical form of development to replace historic residential apartments that are in disrepair. Old apartments are probably to be demolished by governments to prevent tragedies during natural disasters. The market value of structural steel will increase due to the building of public amenities and new homes under urban development plans. In residential constructions, structural systems like beams and columns are used. Globally, residential

construction has increased due to urbanisation, rising income levels, and construction projects. To provide a solid foundation for their structures, builders are concentrating on the quality of the building materials. The increasing use of the product in the construction of residential buildings would benefit market trends for structural steel. Due to its attributes, such as its high strength-to-volume/mass ratio, time-saving procedures, light weight, minimal space occupancy, and the fact that it is built for greater columns of free spaces, structural steel is often employed in the construction of skyscrapers.

Because structural steel can be recycled, it is regarded as a green building material, and it is projected that the country's growing number of green buildings would drive market expansion in the years to come. In the United States, LEED-certified buildings consume 25% less energy and 11% less water, according to the World Green Building Council. Green buildings also aid in reducing negative environmental effects, which is why the nation is placing more emphasis on their construction. With a sales share of more than 53% in 2020, the non-residential application category became the dominating one. Due to rising investments in healthcare facilities, data centres, big-box retail stores, stadiums, airports, and manufacturing facilities, it is predicted to grow at the quickest CAGR throughout the projected period. Industrial, commercial, offices, and institutional categories are further broken down into this sector. The largest portion of the non-residential category belongs to the industrial subsegment. Due to its great strength, structural steel is mostly employed in industrial structures, where it benefits structural integrity as well as reducing the possible impact of repairs. Due to its high durability and outstanding strength-to-weight ratio, which enables withstanding the weight of cars and pedestrians, it is also perfect for building huge bridges.

Long regarded as the most environmentally friendly building material, structural steel continues to strengthen its position as the most environmentally friendly by further lowering greenhouse gas emissions. The structural steel sector has been proactive in implementing measures of its own that often go beyond legal requirements, despite the fact that numerous legislative and regulatory efforts in recent years have focused on emissions, energy efficiency, and associated environmental concerns. Structural steel fabricators physically prepare the structural steel for a building or a bridge through a process of material management, cutting, drilling, shop fitting (bolting and welding), painting or galvanising (when necessary), and shipping. This is done based on the construction drawings provided by a structural engineer.

The construction industry is one of the oldest and biggest in the world, with a market of roughly 10 trillion US dollars. Construction has always been a contracting industry; there are a tonne of little businesses that make up this sector nowadays. One of the greatest sectors in any economy right now is building. It significantly boosts the country's economy and employs a sizable number of people.

Construction is a broad phrase that refers to the art and science of creating organisations, systems, and objects. The building of roads and other service facilities that become fundamental components of structures and are necessary for their use, as well as the upkeep and repair of buildings and other immovable structures, all fall under the category of construction. The processes involved in constructing buildings, infrastructure, industrial facilities, and related operations through to the end of their useful lives are covered by the term "construction" in its most common usage. Building of transportable structures, such as trailers and ships, is not considered construction; nevertheless, structural modifications and adjustments are included. Typically, it begins with planning, funding, design, execution, and construction, and it also includes maintenance, repair, and improvement work.

The use of metals and synthetic building materials is still being experimented with in the construction sector. Larger, more open structures can be built using lighter, stronger materials with less support. Natural disasters like earthquakes and storms won't damage these new items. The 21st century has seen a rise in the popularity of fast-track building. According to some estimates, 40% of building projects are currently being completed quickly. The 21st century has seen a rise in the popularity of fast-track building. According to some estimates, 40% of current construction projects are being completed quickly.

A distinct crew must be assembled for each sort of construction project in order to plan, design, build, and maintain it. There are generally three different styles of construction:

- 1.The process of adding structure to real estate is known as building construction.
2. Planning, cost estimating, design, and construction processes in industrial construction demand extremely specific knowledge.
3. Infrastructure construction, often known as heavy civil or heavy engineering, consists of significant public works such as dams, bridges, highways, railroads, water or wastewater distribution systems, and utility distribution.

General contractors, who focus on one sort of construction, such as residential or commercial building, typically perform or coordinate construction. Raw material costs, which make up 30% to 50% of overall costs and 20% to 40% of subcontracting costs, dominate the cost structure of the construction sector. Any country's construction industry primarily uses cement and steel as basic materials.

The consumption of steel by construction industry has grown of 16.1% over past 5 years whereas cement consumption has registered of 9.6%. Unprecedented rise in price of these two raw materials has a direct impact on the cost of the project and in turn margins of construction companies. Profitability also depends upon the diversity of the projects a company can execute. Companies having strong presence in segments like power and industrial segment which are complex to execute, tend to enjoy higher margins.

One of the key industries for the growth of any community is the steel industry. In actuality, the steel sector serves as the foundation for a wide range of other businesses. Actually, this industry served as the foundation for the industrial revolution that began in Europe at the turn of the century. The three main methods for obtaining final steel products are direct reduction, secondary processing, and integrated steel production.

Coke ovens are used in integrated steel manufacturing to turn coal into coke, and iron ore is sintered or pelletized before being fed into the blast furnace (BF). In the blast furnace, the ore is reduced to produce hot metal that contains around 4% carbon and lower amounts of other alloying elements. The basic oxygen furnace is then used to transform the heated metal into steel (BOF). After that, it is repeatedly cast to produce semi-finished goods as blooms, bars, or slabs. The finished shapes of the semi-finished items, such as bars, sheets, rails, and H or I beams, are rolled out.

Steel scrap is first melted in an electrical arc furnace as part of the secondary processing, which is frequently referred to as minimills (EAF). A ladle furnace may be used to process the produced molten steel before it is continuously cast and finished. Initially, minimills only offered inferior products, particularly reinforcing bars. However, they have recently been successful in seizing an expanding portion of the steel market.

The direct reduction technique is a different way to make steel. With this technology, sponge pellets are created by reducing high-grade iron ore pellets with natural gas. Then, an electrical arc furnace is fed with the sponge iron pellets. Continuous casting and rolling is used to mould the produced steel into its final form.

The issue of the solid waste produced by the iron and steel industry not only prevents millions of square metres of land from being used for more beneficial reasons, but also contaminates it. Many of these waste materials include lead, barium, titanium, and other heavy metals. Furthermore, the concentration of hazardous chemicals in slag is well established. Heavy metals and poisonous chemicals are recognised to be harmful to health. Some slags may be categorised as hazardous waste items depending on the concentration levels. Furthermore, because of the probable leaking of these waste elements, ground water is vulnerable to major pollution issues. The various forms of solid waste products produced by the iron and steel industry are discussed in this section, along with the resulting environmental issues. The various methods of managing these wastes are discussed, with an emphasis on the use of slag and dust in civil engineering. The test findings of numerous studies in this field are compiled. There are also many suggestions for ways to lessen the negative effects of this issue on the ecosystem.

1.8 COMPANY PROFILE

HE-MAN ROBOTIC CAR PARKING SYSTEMS



He-Man Auto Robo park Pvt. Ltd was incorporated in 2012 as a Spin-off from its parent company He-Man Engineers which was established in 1988. He-Man Auto Robo park Pvt Ltd has multidisciplinary Design and Development team consisting of a mix of veterans and young dynamic engineers who are poised to face new challenges. ISO 9001 : 2015 certified production unit which broad over one lack sq.ft area are driven by pure passion for excellence.

In 2008 started dedicated R & D unit to develop automatic car packing machine. In 2011 started in house trails of the first Rob Park unit. In the 2012 installed first commercial rob park tower at MAGJ Hospital Mookkannur, Kerala. In 2016 Bagged order from sands Infra Build Pvt Ltd Kakkanad for fully automated car parking system. Which will become the world largest Automated car parking system after completion. After that in 2018 installed fully automated car parking system at Lisle hospital Ernakulam which can able to park 81 cars. In 2020 installed fully automated car parking system at Lourdes Hospital Ernakulam which can able to park 129 cars and in the same year they installed Bagged order from Confidant Group site Ernakulam which having 42 car spaces. In 2021 Bagged order from Lourdes Ernakulam for the expansion of robotic car parking system to 11 robotic level which can able to park 110 cars. Able to park 67 car space. In the same year bagged order from Lisie Hospital Ernakulam for the Robotic car parking system at Lisie Oncology block which have 58 car spaces.

PRODUCT

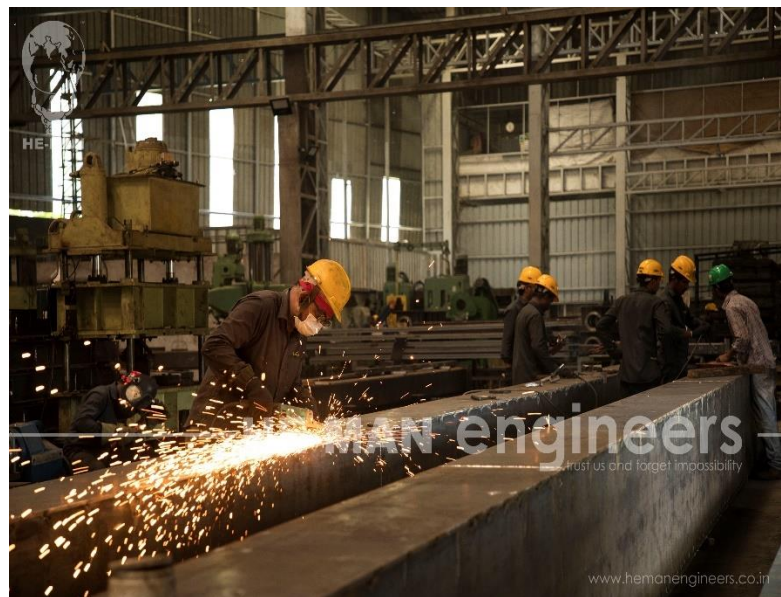
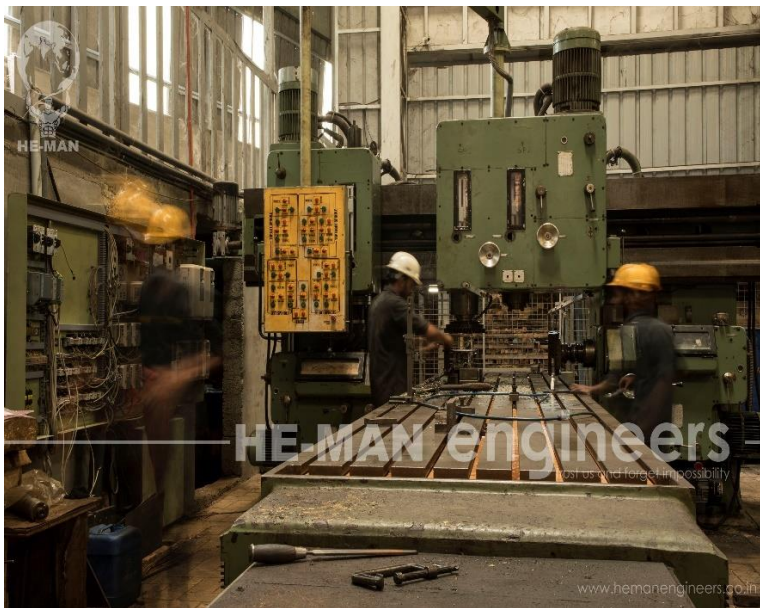
The products of He-Man Auto Robo park (p) Ltd is Steel body building, Auto rob park. Automobiles are synonyms for mobility and freedom. With the growing number of vehicles and the consequent shortage of parking space, there is haphazard and totally unregulated parking of vehicles all over. In densely populated areas they are real challenges for city planners, architects and developers. The need to offer sufficient parking space is a task for specialists.

This situation calls for the need for an automated parking that not only regulates parking in a given area but also keeps the manual control to a minimum. With a mission & vision of maximum utilisation of given area He man Auto Robopark Pvt. Ltd with our most efficient technology specially devised for the harsh environment gives the best solution for space constraints in this sophisticated world.

- 1. Pre-Engineered heavy structure:** Design, Fabrication and Erection of plant, machine shop & factory building are carried out by our highly skilled engineering teams by utilizing fully optimized technique and without compromising on quality.
- 2. Petroleum Storage Tank:** We manufacturing and supply petroleum storage tanks to industrial majors having high safety and also with major material handling challenges due to its huge size.
- 3. Power Transforming body:** We Fabricated heavy transforming structure for power Transaction giant in the industry. Normal weight of a power transformer body is around 40 Metric Ton.
- 4. Open Box Beam safety barrier:** we introduce safety barriers those are mainly used on either side of highways & other road work. We get repeat orders for these products widely from Middle East and Asia.
- 5. Ship Parts;** We fabricate ship parts specific order for ship building companies. We also manufacture hull parts for boats and trawlers.
- 6. Special Purpose Machine:** we design and manufacture all kind of special purpose machine according to the industrial requirements. Such as, Safety rail manufacturing machines, Special purpose

hydraulic press, concrete Electricity pole Tension release Machine,
Large turning machine with 6 meter turning radius.

- 7. Automated Car parking System:** Our state-of-the-art automated car parking system is designed to handle 118 cars in a land area of 18 Meter X 18 Meter in 10 floors. They use multiple of these 118 car tower modules to make huge parking tower. The parking is the most economical one in term of initial investment and operating cost.





THE MAIN FEATURES OF THE AUTOMATED CAR PARKING SYSTEM

- **Fully automated:** He-man Robotic car parking system is fully automated car parking system which requires no operators for its functionality.
- **Electronic parking assistance:** This system displays forward and reverse and stop instruction so that the driver can easily park the car without any external help.
- **Weather proof:** The system has weather proof covering. This keep the parked cars in clean condition and increasing life of parking system.
- **No human Access:** Double shutter and magnetic lock door prevent human access to parked cars. This makes cars safe from theft or scratch.
- **Local service support:** Local service support will be available for installation on 24/7 basis.
- **Smart card & Touch screen:** Smart card is issued by the system from Entry Cabin Touch Screen. The details of parked car written in this card. This card is used for the retrieval of the car.
- **Power Fail Safe:** Upon a power failure, the system uses the regenerative energy from motors to stop it safely. DG set with AMF panel assures immediate power backup for uninterrupted operation.

- **Less moving parts:** Only 5 motors are employed in parking/retrieval function of a module with approximately 50-100 Car spaces. Central unit holds these motors.



CUSTOMER OF THE COMPANY/ORGANISATION-LEVEL OF OPERATION

- The customers of the He-Man Auto Robopark (p) Ltd are hospitals. They already done their projects in Hospitals includes MAGJ Mookannur, Lisie Hospital Ernakulam, Lourdes Hospital Ernakulam etc.
- He man roboparks private Ltd mainly focus on hospital because they use more land for parking robopark reduce the usage of space, time and it make goodwill to the clients.
- Now a days hospitals face the problem of parking and they spent lot of space for that. This situation calls for the need for an automated parking that not only regulates parking in a given area but also keeps the manual control to a minimum. With a mission & vision of maximum utilisation of given area He man Auto Robo Park Pvt. Ltd with our most efficient technology specially devised for the harsh environment gives the best solution for space constraints in this sophisticated world. As per the needs of the client product may developed. Because, the size of the parking area may different to different clients and as per the needs of clients Auto robotic car parking is developed.



With a mission & vision of maximum utilization of the given area, He-Man Auto Robopark (P) Ltd with its most efficient and sophisticated technology, which are specially devised for the harsh environment provides the best solution in Automatic Car parking System against the space constraints. He-Man mission is to implement an outstanding parking technology, all over the world to solve every parking issues. During the process they give

prominent importance to the clients and they carefully combine client's requirements, technical & commercial viability as well as the environmental friendliness. The whole process is a collaborative effort of all the team which will provide universal quality assurance.

Automobiles are synonyms for mobility and freedom. With the growing number of vehicles and the consequent shortage of parking space, there is haphazard and totally unregulated parking of vehicles all over. In densely populated areas they are a real challenge for city planners, architects and developers. The need to offer sufficient parking space is a task for specialists. This situation calls for the need for an automated parking system that not only regulates parking in a given area but also keeps manual control to a minimum. With a mission and vision of maximum utilization of given area He-Man Auto Robo park Pvt.Ltd with our most efficient technology specially devised for the harsh environment gives the best solution for space constraints in this sophisticated world.

He-Man Robo park parking system use steel platforms to place or store cars which eliminates RCC floor casting in the car parking area. Since the space requirement for our system is less compared with ramp parking, the total height of the building could be minimized.

He-Man Robo park brings the opportunity to reduce the total project cost. Taking the total cost of a building, a conventional ramp parking construction cost will be a good fraction of it. With ventilation, lighting, toilets, cameras, lifts and security personals on every parking floor, which increase the cost to a great level. Here He-Man offers is the best solution for this problem by offering the best system with cost 50%-60% less compare to a ramp parking. Also the operation/maintenance cost of the system is very less compared to another Mechanised parking system. Since all the parking structure of He-Man is made up of steel, even after decommissioning, the scrap value of the steel will provide a good part of parking project cost.

All parking level of automated parking system are made of steel structures. For manufacturing the requirements are meet in the factory itself, the total project period will be comparatively less.

With the elimination of ramps, driving lanes, pedestrians and the reduction in ceiling heights, He-Man Robo park system requires substantially less area than the multi-story ramp parking. The system utilizes a steel framework rather than the monolithic concrete design of the multi-story ramp parking. Instead of ramps to move the car up and down, here use robotic units. He-Man Robo park system have two outstanding models, high and ultra-density car parking systems to get the maximum number of car parking slots in a given area. In these

models, cars are parked in front of another car, to save the driveway area. To retrieve the outer car, the front car is automatically shifted to the nearest vacant parking slot.

Parking has been a regular challenge due to the shortage of space. Distress is increased twofold by poor safety and traffic congestion. He-Man Group, a leader in heavy engineering, and TJAL, a well-known name in the field of steel structure building solutions for more than three decades, have developed an innovative multi-level robotic car parking solution that aims to transform the Indian parking landscape in order to meet these requirements. Although it can be customised to meet any design requirement, the innovative automotive parking system can enable fully autonomous parking of more than 160 SUVs on just 10 cents of land in its standard configuration.

By virtue of the relatively smaller volume, mechanized parking systems are used to replace space consuming and costly ramp parking. Like under or inside of existing or new structures or between irregularly shaped structures.

Energy Efficiency

He-Man Robotic parking system is one of the most energy efficient automated parking systems present in the world with just 0.3 units (KWh) of energy consumption for parking and retrieval of a single car.

Innovative Design

Automated parking itself is an innovative idea of the 21st century and He-Man Robo park brings the most advanced technologies such as EDS, Diagonal Movement, robotic parking and smart card access to it.

Recyclable Materials

The major part of He-Man Robo park is steel structure which is 100% recyclable material. All the structure follow nut and bolt design. This makes it easy to dismantle and relocate to another place.

Less Carbon Footprint

Inside a ramp parking, fuel driven cars create more carbon footprints searching for a parking lot, resulting in increased pollution He-Man Robo park system offers entry cabins on ground floor thereby eliminating the need for a drive through.

Indoor Air Quality

Since the parking is done by highly-efficient electric motors and advanced robotic systems, the quality of air within the building is clean.

Energy Regeneration

The system has the technology for regeneration electric power from Kinetic Energy while Robotic Unit moves down with a car.

The major part of He-Man Robo park is steel structure which is 100% recyclable. This is actually a big advantage if it is looking for LEED Certificate (Leadership in Energy and Environment Design Certificate) of the building. Conventional ramp parking structures are not eco-friendly, considering air pollution, fuel consumption and energy conservation. He-Man Robo park will transform parking into the most Eco-friendly part of the building, with no air pollution, clean and energy efficient parking structures.

Modular design is a design approach that subdivides a complex system into smaller part called modules that can independently created and installed.

Robotic car parking system is divided into modules that can handle up to 50-100 cars. A module will have a robotic unit, entry/ exit cabins and parking slots. Each module is independent of other modules. Modules are designed in such a way that there is no space loss in between when two modules are attached together. The large installation will have multiple entry/ exit cabin to avoid queue up. Each entry/ exit cabin can handle about 30 cars per hour. For example, a large installation with 3000+cars will have approximately 45 entry/ exit cabin that can handle up to 1350 cars per hour together. Maintenance shutdown/breakdown of a module won't affect the functionality of any other modules. Modular design makes the mechanical and electrical integration of large installations easy.

Standalone modules are mainly used for small installation of sizes in between 50-100 car spaces. In such cases, outside cladding and DG Set with automatic changeover will be installed by He-Man Robo park for uninterrupted operation of the year.

Parking along with commercial spaces is the current trend of parking development. Ground floor and first floor will be constructed for the commercial purpose. Parking will be on top of it or beneath the ground.

Commercial viability of car parking projects depends on operational/maintenance cost, project cost, land area cost and per hour parking charges. Operational/maintenance cost of conventional ramp parking is higher because of 24 x 4 securities personal manpower, lift, camera, lighting and ventilation requirements on every parking floor. For He-Man Robo park systems, there is no such requirement as the system is fully automated and no human access to the parked cars. Since the energy consumed by our system is just 0.3(KWh) for parking and retrieval, electricity cost is also less. The project execution time is around 6-9 months and this makes revenue generation to start the very next year. The land area required for He-Man Robotic parking system is also minimal.

“Modernisation of cities” is an area where He-Man Robotic enables a big opportunity for investors. For example, the smart cities mission of India. The initial investment for construction will be granted by the government and yearly profit needed to be shared with them.





UNIQUE FEATURES OF HE-MAN ROBO PARK

Diagonal Motion

He-Man Robo park system does both horizontal and vertical motion simultaneously (Diagonal movement of the unit). Since each motion requires acceleration, full speed running, deceleration and tuning phases, this technology save valuable time.

Fully Automated

He-Man Robotic car parking system is fully automated car parking system which requires no operators for its functionality. Also provide automatic shutters, automatic smartcard issuing machines and magnetically locked as factory built in the system.



Fast Car Retrieval

He-Man Robo park can be retrieved from any parking slot in less than 2 minutes in easy park model. This is enabled by incorporating the latest technologies of robotic parking. This makes it one of the fastest automatic parking system in the industry.

Double Shutters

Entry and exit bay (which is the only human access area) is guarded by double shutters. The outer shutter of the parking bay opens, only after the inner shutter closes. This is to prevent human access to the machine-operating area of the parking tower.

Service Tracking

This system monitors and reports different parameters like warning signals from sensors, delay in processor input power malfunctions, to the central monitoring station. This helps the service centre to predict and repair the faults and minimize the downtime.

Made in INDIA

The system is designed, developed and manufactured in India. This makes the parts available for a lifetime, regardless of India's diplomatic relation to any foreign country. This also avails direct and speedy access to the service.

Weather Proof

The system has a weather proof cladding. This keeps the parked cars in clean condition and increases life of parking system.

No Human Access

Double shutters and magnetic lock doors prevent human access to parked cars. This makes cars safe from theft or scratch.

Local Service Support

Local service support will be available for installations on a 24/7 basis.

Smart card and Touch screen

Smart card is issued by the system from entry cabin touch screen. The details of parked car are written in this card. This card is used for the retrieval of the car.

Electronic Parking Assistance

This system displays forward-reverse and stops instructions so that the driver can easily park the car without any external help.

Power Fail Safe

Upon a power failure, the system uses the regenerative energy from motors to stop it safely. DG set with AMF panel assures immediate power backup for uninterrupted.

E.D.S

Embedded Double-Engine System (EDS) is a redundancy technique in which all major motor will have an actively connected paired backup motor.

Less Moving Parts

Only 5 motors are employed in parking/retrieval function of a module with approximately 50-100 cars spaces. Central unit holds these motors.

He-Man Robo park systems are designed as a rugged system to cope with harsh environments. Energy supply in India means at least one power outage per hour, plus frequent power fluctuations. He-Man Robo park systems are specially designed to withstand this unstable electrical supply. In standalone parking buildings, the system comes with Aluminium

roof sheet, ACP and Glass cladding, all these are proven to be the best for Indian environment. He-Man Robo park system uses a fixed steel structure for parking the cars. These are no moving parts in the parking platforms which make them very reliable. Central Robotic unit is the part which holds all the moving parts and sensors. He-Man Robo park also use Triple modular redundancy (TMR) system in the sensor logic to point out faulty sensor without affecting functionality.

One of the major concern in every development project is the site disturbance during construction. Concretes, Tor steels, Scaffolding, and mud water make a construction site a never-ending nightmare. He-Man Robo park system offers the solution to this problem. A major part of the parking system is Per Fabricated Steel Structures, which are manufactured in our production unit. A robotic unit is also manufactured and tested in our unit before the installation of the system at the site. Blasting and painting are done in our paint shop. All parts of the system follow nut and bolt design, this makes it easy for transportation and site installation. He-Man Robo park is well equipped for parking system installation with truck mounted cranes, trucks and special purpose machines for an underground system.

A ramp parking system has a long construction period, for example, 1000 car parking spaces need approximately 18 months were as He-Man Robo park systems require 9 months in most of the cases. Moreover, the first 5 months is for manufacturing and site installation is only during the last 4 months.

Easy Parking System

In easy parking system, one block of the parking structure is present on both sides of the central robotic unit. The driver parks his car in entry bay with the help of electronic parking guides. The central robotic unit takes the car from entry bay and park it in the nearest free slot. When needed, the central robotic unit takes this car to exit bay. The system has less than 2 minute's retrieval time.

High Density Parking System

In a high-density parking system, two blocks of parking structure are present on both sides of the central robotic unit. The central robotic unit takes the car from entry bay and parks in the nearest outer free slots, cars are parked in the inner slots. To retrieve a car from an outer slot, the car in front (if present) is shifted to another free location.

Ultra Density Parking System

In ultra density system three blocks of parking structure are present on both sides of the central robotic unit. The central robotic unit takes the car from entry bay and parks in the nearest outer free slots. To retrieve a car parked in the inner slots. To retrieve a car from an outer slot, two cars in front (if present) is shifted together free location.

Under Ground Parking System

Basement floor of a building is the most suitable for car parking. Unlike other conventional ramp parking system, He-Man underground parking system does not require ramps. The driver parks his car in entry cabin which is present on the ground floor. Then the car is brought down by car lifts. As underground floors are free of offset rules, maximum cars can be accommodated in that area.



MAJOR COMPETITORS IN AUTOMATIC MULTILEVEL PARKING

CCCL ALONG WITH THEIR FOREIGN PARTNER SAMJUNG TECH (KOREA)





Samjung Tech has been growing and developing into a leading company since it separated from Samsung group in January 2000. On the basis of its abundant experience and high technologies, Samjung Tech has expanded its businesses into the various fields such as refrigeration & air conditioning system, parking system, platform screen doors system, construction, and all kinds of facility construction works. Samjung Tech comprises headquarters in Seoul, five nationwide branches located in metropolitans, and factories and research institutes established in Gimpo and Changwon, Korea. Through close collaboration of each part, Samjung Tech is willing to satisfy customers. Also Samjung Tech provides its top-notch products for foreign customers through overseas agents network worldwide.

Samjung Tech has reinforced human resources, information infrastructures and technical development capacity since established. In addition, it has minimized the business crisis from economic cycles by saving the cost and expanding its market share through a high-quality service. It has successfully attained at shortening the delivery, improving quality of products from combining equipment manufacturing and construction, and spurred on the global strategy for expanding export.

Building up reliability with customers, Succeed to manpower and the technology from Samsung Heavy Industries, maintained the good reputation as a reliable company.

Innovative technology, acquired lots of intellectual properties by developing innovative technology and preoccupied the market prior to other competitors.

Synergy from combining manufacturing and construction, It has been a leading company shortening the time limit for delivery, improving quality of products, and saving the cost from combining equipment manufacturing and construction.

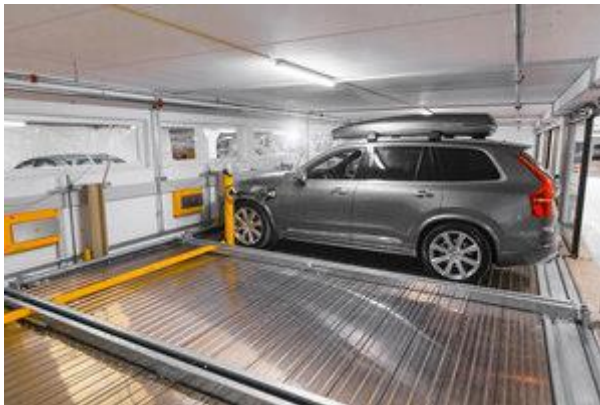
Outstanding human resources and organization, Most of the employees have job experience for a long time. It take absolutely advantageous position over accumulated technology, know-how, skillfulness, and organization.

Strength: CCCL brand name in civil structure building. Already installed 2 Automated Car parking projects in Delhi

Weakness: Parking shuttle is provided by the foreign partner. Supply of spare part and warranty depends on foreign policies of India and Korea. Turnkey cost for building the parking system including the RCC structure is 30% higher than He-Man Robo park Cost for the CCCL system and spare parts fluctuates with the foreign exchange rate of Indian Rupee. AMC cost of CCCL is 6% of product cost per annual, where He-Man Robo park charges 3% annually. CCCL can't guarantee the AMC for 25 years, as they don't have agreement with foreign partner to provide AMC for more than 10 years. Per hour car intake capacity of CCCL system is almost half of the He-Man Robo park system with similar configuration. 80% of the structure consists of RCC where He-Man Robo park is fully manufactured in Steel. Steel structure building is the technology of future as it is 100% Recyclable and environment friendly. Demolition of RCC building will cost high in monetary and environmental terms.

WOHR (GERMANY)





Established in 1902, Woehr transitioned to designing, innovating and installing various parking systems and solutions in 1959. Woehr is one of the leading manufacturers of car parking systems worldwide. We have been designing and installing parking systems for more than 65 years now. With our focus squarely on parking systems, we are now the company with the most extensive product range in our domain.

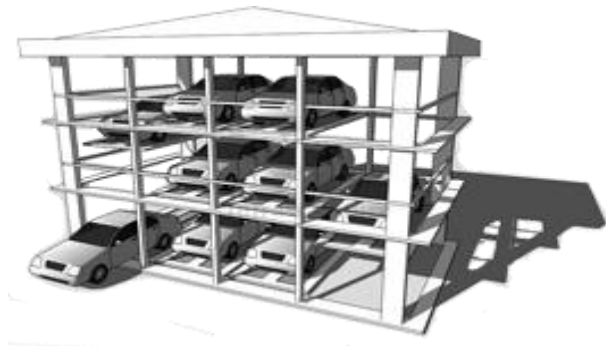
Proven track record of excellence and have revolutionized parking spaces in the last decade with the installation of over 1,25,000 car parking spaces in India and export to more than 60 countries. Innovations brought to the market by us include the Combilift, Puzzle Parking, Parksafes and Level Parker systems which are now an emblem of creativity and German engineering know-how.

Wohr's Vision is to become the dominant player in both the Indian and Global Car Parking Space industry by providing a wide and extensive range of car parking solutions for Commercial and Residential properties, Hotels, Hospitals, Offices and individual bungalows etc. We strive to provide our customers with innovative, efficient, and value-added car parking solutions for every requirement they may have. The aim to create value for our clients by providing efficient, environmentally friendly products and solutions backed by prompt and professional service accompanied by a proactive approach. Wohr India commits to professionalism, fairness in business, high quality standards and friendly service to the industry.

Strength: Already installed one Automated Car parking spaces in Delhi. Good brand name in low cost two levels Stack Parking

Weakness: Rate is 20% higher than He-Man Robo park. The spare parts for maintenance need to be supplied from Germany. The import duty, transportation and the installation charge to be borne by client. Supply of spare part and warranty depends on foreign policies of India and Germany. Cost for the WOHR system and spare parts fluctuates with the foreign exchange rate of Indian Rupee. AMC cost of Wohr is 6% of product cost per annual, where He-Man Robo park charges 3% annually. Per hour car intake capacity of WOHR system is almost half of the He-Man Robo park system with similar configuration. Also their AMC do not include spare parts. Wohr don't guarantee long term AMC (More than 10 year). 80% of the structure consists of RCC where He-Man Robo park is fully manufactured in Steel. Steel structure building is the technology of future as it is 100% Recyclable and environment friendly. Demolition of RCC building will cost high in monetary and environmental terms.

SIMPLEX PROJECTS LTD ALONG WITH THEIR FOREIGN PROVIRON
TECHNOLOGY SA (SWITZERLAND)



Incorporated in the year 1990 as a Public Limited Company. The Registered Office at Calcutta is controlling Project Sites all over India. In a short span of time of its working SPL has emerged as a renowned civil engineering and construction company. The Company has procured a fleet of costruction equipment over this period. It got Listed in the Bombay and National Stock Exchange at Rs. 180 and the stock prices reached its peak at Rs. 480. Simplex

Projects has complete access to technical collaborations with International construction giants for advanced techniques and research facilities in construction.

The Chief Minister, Mr Buddhadeb Bhattacharjee inaugurated the city's first underground computerised car parking facility (for accommodating 280 cars) at the 133-year-old New Market (formerly Sir Stuart Hogg Market) site, here at Kolkata on April 20. Revolutionary Fully Automatic Car Parking for Shopping Complex, Residential Complex, etc

Strength: Simplex brand name in infrastructure development. Simplex installed 3 Automatic Car parking projects in Delhi

Weakness: Parking shuttle is provided by the foreign partner. Supply of spare part and warranty depends on foreign policies of India and Switzerland Rate is 15% higher than He-Man Robo park. Cost for the Simplex system and spare parts fluctuate with the foreign exchange rate of Indian Rupee Even they project this as fully automatic, the system need operators to do parking process. Man power required for operation is very high power consumption is 5 times higher than He-Man Robo park. Per hour car intake capacity of Simplex system is almost half of the He-Man Robo park system with similar configuration. AMC cost of Simplex is 6% of product cost per annual, where He-Man Robo park charges 3% annually. Simplex can't guarantee the AMC for 25 years, as they don't have agreement with foreign partner to provide AMC for more than 10 years. 80% of the structure consists of RCC, where He Man Robo park is fully manufactured in Steel Steel structure building is the technology of future, as it is 100% Recyclable and environment friendly. Demolition of HCC building will cost high in monetary and environmental terms. The token (Smartcard) vending in Simplex system needs manpower. He-Man Robo park will dispense smartcard automatically to the driver and save precious manpower cost.

HE-MAN ROBOPARK

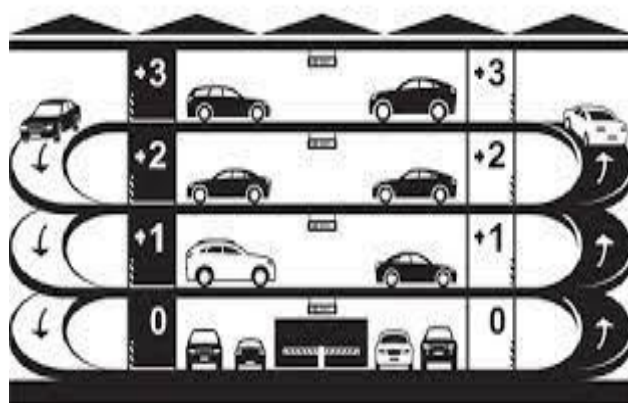
Strength: Robotic unit is completely manufactured in India Supply of spare parts and warranty do not depends on foreign policies of India Cost of the He-Man Robo park system and its spare parts do not fluctuate with foreign exchange rates as the manufacturing facility is located in India. Man power requirement of He-Man Robo park is nil as the system is fully automatic Power consumption of He Man Robo park is just 0.2 units (Parking retrieval). Per hour car intake capacity of He-Man Robo park is almost double as that of other systems with similar configurations AMC cost of He-Man Robo park is 3% of product cost per annual He-Man Robo park will dispense smartcard automatically to the driver and save precious manpower

cost. He-Man Robo park can guarantee the AMC for longer. Periods as the manufacturing facility is located in India. He-Man Robo park is fully manufactured in Steel. Steel structure building is the technology of future as it is 100% Recyclable and environmental friendly Demolition of RCC building will cost high in monetary and environmental terms.

Weakness: He-Man group is well known in public sector companies such as Telk, KEL and FACT etc. based on Kerala, but the brand name is not familiar in north India. The transportation cost of the system is high as the manufacturing facility is located in Kerala and most of the Steel materials come from north India Even though the He-Man group is established in 1987, its car parking division is started in 2009 only.

SEMI AUTOMATIC MICPS

STACK/DEPENDENT SEMI AUTOMATIC PARKING



A stack/dependent car parking system is suitable for house hold and small office purpose. Only up to two floors is possible. It can be constructed as an individual stack or as a group.

The drawback of the stack/dependent car parking system is the dependency. If driver have to access the top car, you need to grab the key the ground floor car and drive it out manually, before accessing the car at the top. Also the driver should return the ground floor car to the parking space and return its key after accessing the top floor car. This is a difficult process.

Even with these entire draw back, this system is the most desirable and economical for the domestic requirement of few extra space and total requirements are less than 20 car spaces. This also recommendable, for doubling the capacity of the already built basement.

ROTARY SEMI AUTOMATIC PARKING



This is a perfect solutions for small shops and business, when the only available land is for 2,4,6 parking spaces. The design enables you to park either 7,8,10 or 12 vehicles using the space of only 2 cars.

The drawback of the rotary car parking systems the power consumption As the parking and retrieval happens on a random basis, the unbalanced number the car can occurred between the left and right side of the rotary parking system. This may lead to high wear and tear Also the upward movement of this high weight side leads to high power consumption up to 3 unit/car parking.

Even with these power consumption wear and tear issues, that system recommendable for commercial use where the maximum number of available land area is less than 6 car space and required number of working is less than 30 spaces.

PUZZLE SEMI AUTOMATIC PARKING



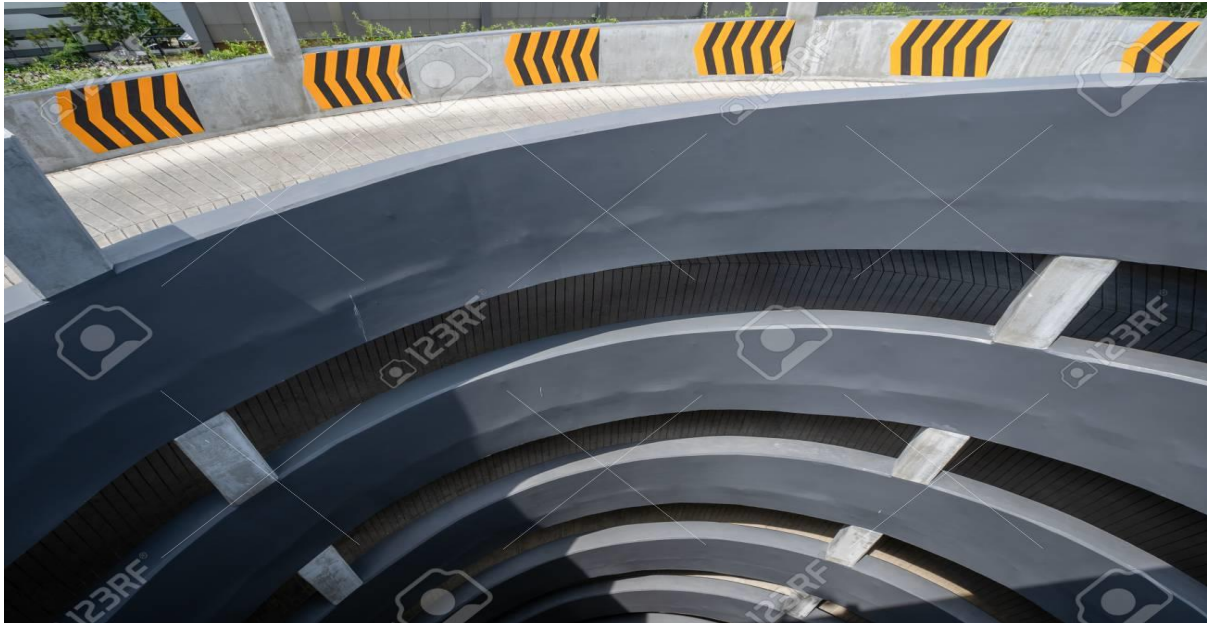
This system can have more than two levels of parking. Its design has a structure that needs parking entrances and exits on every column. The parking pallet moves left, right, upward, and downward and has always a minimum of one empty slot for movement.

This system is suitable for parking up to 4 floors only. The drawback of the puzzle parking system is the power consumption. For the higher levels, the power consumption is very high up to 4 unit power. This happens as there is no provision for counter weight in these models.

The puzzle parking model is not recommendable for the parking needs more than 50 cars. This is because of the number of machinery involved. Each parking space comes with one lifting motor and one horizontal movement for left, right movement. That means, around 100 motors involved in a puzzle parking system of 50 parking spaces. Also SUVs can be accommodated only in ground floor.

MULTI-LEVEL RAMP PARKING





Conventional multilevel ramp parking system can be underground, above ground or both under and above ground structure. The above ground structures are usually Open deck parking structures, which typically have at least two sides that are minimum 50 per cent, open to the outside.

The design for conventional multilevel parking includes entry and exit ramps and/or car lifts aisle/circulation space between vehicles car park area.

The drawback of the conventional parking ramps are the wastage space for huge spiralling ramps and drive ways. Also hidden costs like construction of staircase, lift and walk ways for the movement of the passengers are comes to picture when considering the total cost. Drivers have to move around the drive ways and ramps to find a vacant space. Power consumption for lighting the entire floor and maintain CCTV with security staff to monitor the safety is the recurring costs.

The civil foundation cost is also high as the RCC conventional parking structures are relatively very heavy and need heavy piling. This is not desirable were the location is sensitive for piling.



2013	31 cars	First He-Man robotic park at M.A.G.J. Hospital Mookkannur.
2014	Irish patent	Government of Ireland has granted patent valid from the date 9 th September 2014 for automatic multilevel car parking system.
2016	Indian patent	Government of India has granted patent valid from the date 19 th August 2010 to He-Man Auto Robo park Pvt.ltd for Automatic multilevel car parking system.
2017	U.S.A Patent	United states of America has granted patent valid from the date 3 rd January2017 for automatic multilevel car parking system
2017	81 Cars	LISIE Hospital Ernakulam
2019	3040 Cars	SANDS INFEINIT LULU Group, smart city, Kakkanad

PROJECTS



M.A.G.J Mookkannur, Angamaly 2042 sq. feet, 4 floor



Sands Infinit, LULU Group Smart City, Kakkanad, 3040 Cars, 204159 sq. feet, 4 floors



Lisie Hospital Ernakulam, Kerala, 81 Cars 2930 sq. feet, 7 floors



Lourdes Hospital Kochi, Kerala, 129 cars 6 floors

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

A literature review is a thorough summary of earlier studies on a subject. The literature review examines scholarly books, articles, and other sources that are pertinent to a particular field of study. This prior research should be listed, described, summed up, impartially evaluated, and clarified in the review. It needed to provide a theoretical framework for the study and assist you (the author) in defining its scope. By acknowledging the contributions of earlier researchers, the literature review reassures the reader that your work has been thoughtfully conceived.

A literature review is a summary of what reputable academics and researchers have written about a certain subject. The opening of an essay, research report, or thesis is more frequently where you will find one, however you may occasionally be required to create one as a distinct task. Your goal in writing the literature review is to explain to your reader what information and concepts have been formed on a subject, along with their advantages and disadvantages. The literature review must be defined by a central idea in order to be considered writing.

The prior research should be listed, described, summed up, impartially evaluated, and clarified in the review. It needed to provide a theoretical framework for the study and assist the author in defining its scope. By acknowledging the contributions of earlier researchers, the literature review reassures the reader that your work has been thoughtfully conceived. When a previous study in the subject is mentioned, it is assumed that the author has read, assessed, and incorporated that study into the current work. It is more than summary of the available information or a list of summaries.

In addition to broadening your understanding of the subject, writing a literature review allows you to develop and show off two talents.

1. The capacity to efficiently scan the material using manual or electronic methods in order to locate a collection of helpful articles and books
- 2.critical appraisal: the capacity to use analytical concepts to locate objective and reliable studies.

A literature review is not a list describing or summarising one piece of literature after another; it is a work of discursive writing. Every paragraph beginning with a researcher's name is typically a red flag. Instead, divide the components of the literature review into those that

provide themes or point out patterns while also incorporating pertinent theories. When a previous study in the subject is mentioned, it is assumed that the author has read, assessed, and incorporated that study into the current work. The review of the literature reveals the earlier investigations made by the researcher in this area. In order to get a better understanding of the scope of the research, prior studies are evaluated. By using theories, reports, records, and other data from comparable studies, the study problem can be better understood and made more particular. This helps to focus the issue and will inform the researcher about the direction the study should go.

Literature reviews can use as a convenient reference for a certain subject. Reviews of the literature can serve as a starting point or overview for the investigation in short on time. They are helpful papers that keep professionals abreast of the most recent developments in their industry. The breadth and depth of the literature review highlight the author's authority in their subject for academics. Literature reviews also give a research paper's investigation a strong foundation. Most research papers require extensive knowledge of the relevant literature.

The objective of my study is to know about the satisfaction of customers in He-Man Robo park.

CUSTOMER SATISFACTION:

Halstead, Hartman and Schmidt (1994) discovered that customer satisfaction is an emotive reaction specific to a transaction that arises from the customer comparing the performance of the goods to a pre-purchase benchmark.

Webbrook and Oliver (1991) Customer satisfaction is described as a post-choice evaluation of a particular purchasing decision.

Oliver (1987) Satisfaction is a summary attribute phenomena that coexists with other consumer emotions, according to research into whether satisfaction is an emotion.

Fe and Ikova (2004) emphasised that how a consumer interprets the term "satisfaction" affects the actions they do to get it. According to research, customer satisfaction is multidimensional in character and is considered as a function of customer satisfaction with various interactions with the service provider.

Giese & Cote (2000) customer satisfaction is a response (emotional or cognitive), the response relates to a specific focus (expectations, product, consuming experience, etc.), and the response

occurs at a specific period, according to research into numerous literatures (after consumption, after choice, based on accumulated experience, etc)

Tse and Wilton (1998) stated that customer satisfaction refers to a consumer's assessment of the apparent difference between prior expectations (or some norm of performance) and the actual performance of a product as viewed after use.

Das Prasun, 2009 Literature on customer satisfaction is voluminous and spans several areas such as marketing, management and accounting. For example, numerous papers use the ACSI (American Customer Satisfaction Index) to study customer satisfaction at the company, industry and macroeconomic levels. This paper focuses only on customer satisfaction studies that are related to retailing and does not survey the literature that studies the design of satisfaction survey instruments, as there is no control over survey design. The basic tenet of this research stream is that higher service quality improves customer satisfaction, resulting in better financial performance, although the mechanisms by which this improvement happens vary.

Mano and Oliver (1993) product appraisal, product evoked affect, and product pleasure were all three facets of the post-consumption experience that were looked at. Oliver (1989; Westbrook and Oliver 1991) defines product satisfaction as an attitude-like post-consumption evaluative judgement, with the evaluative component of that judgement shifting along the hedonic continuum.

Veloutsou (2005) : There is a difference between tangible things and services, as explains in his study on customer happiness. Because diverse aspects of customer satisfaction affect how tangible and intangible commodities are differentiated, they should be handled differently.

Kumar and Oliver (1997) showed that feeling happy, having their expectations met, and receiving value were all related to customer satisfaction.

Oliver (1987) Customer happiness, as the result of a purchase or usage experience, would seem to be a key factor in the chain of events leading from product choice to other post-buy occurrences, such as positive word-of-mouth and customer loyalty.

Cadotte et al (1987) It is generally agreed that conceived customer satisfaction refers to the process through which customers form opinions based on an assessment of their user experience.

Foxman and Bob (1989) assert that the outcome of the evaluation determines satisfaction. In some circumstances, such as after consumption or before repurchasing, an internal, naturally occurring response may serve as a measure of satisfaction. The evaluation of contentment may occasionally be influenced outside.

Kristeet al. (1999) According to a comparison of what was expected and what was obtained, customer satisfaction is an evaluation of the experience of consuming a product. The study's general finding is that consumer satisfaction is influenced by expectations, and that impact might be either positive or negative.

Oliver (1981) When the emotion around unmet expectations is combined with the consumer's previous feelings regarding the consumption experience, contentment is defined as "the summary psychological state arising."

The "value-percept hypothesis," which Westbrook and Reilly first articulated in 1983, describes satisfaction as an emotional reaction brought on by a cognitive-evaluative process—that is, the comparison of the good or service to one's values—rather than as an anticipation. The "equity theory" was put forth by Fisk and Young (1985); Swan and Oliver (1985), according to which people feel treated fairly when they compare their input-to-output ratios to those of others.

According to **Fornell (1992)** A strong competitive position in the market, which guarantees a bigger market share and profit for the business organisation, is the cause for the increased emphasis on customer satisfaction by that organisation. Customer satisfaction is vital for an organization's growth since it promotes product repurchases, good word-of-mouth, and customer loyalty. Every firm adopts methods that maximise customer satisfaction as they work to develop.

Boulding et al., 1993, The transaction-specific perspective or cumulative perspective can both be used to define customer satisfaction. According to the transaction-specific approach, consumer happiness is determined by an analysis of recent purchase experiences. According to Hallowell (1996), "the customer's impression of the value gained is the outcome of the customer satisfaction."

As per **Parker and Mathew (2001)** According to Namkung (2008), "customer satisfaction is crucially important" since it indicates how consumers perceive many aspects of the

consumption experience. There are two main definitional methods for the idea of customer satisfaction.

According to **Kumar R & Barani (2012)** Customer satisfaction is positively correlated with tangibles, dependability, responsiveness, competence, trustworthiness, accessibility, and customer knowledge.

Suchánek, Richter and Králová (2015) The purpose of study is to ascertain how quality affects consumer satisfaction, corporate success, and the competitiveness of the food sector. Data was gathered by the authors from a sample of food and beverage production enterprises as well as their clients. The study's findings indicate that product quality has a significant impact on customer satisfaction, performance, and business competitiveness.

Anderson et al. (1994) claim that increasing customer satisfaction increases the value of a company's customer assets and future profitability. The authors also assert that satisfied customers are more tolerant of price increases because they received benefits from the company for which they are willing to pay more. They also buy more frequently, in larger quantities, and are eager to try new products from the company that makes them satisfied. The costs of attracting new customers are higher. (2015), Hyun Soon et al. (2014), Srivastava and Rai (2013), Nayak (2013), Markovic and Jankovic (2013), and others, customer satisfaction is the overall assessment of a particular service firm that arises from comparing that firm's performance with the customers' general expectations of how firms in that industry should perform. Poor-quality service results in customer dissatisfaction, and customers may decide to leave the establishment or even move on right away. (2013) Cheng and Rashid. Despite the fact that the terms service quality and customer satisfaction are commonly used synonymously, some studies contend that service quality is a facet of customer satisfaction that also takes into account trade-offs as well as individual and contextual elements (Zeithaml and Bitner, 2003).

Parasuraman et al. (1994), Many researchers agreed that the level of service quality determines how satisfied customers are (Wu et al., 2014; Khan and Fasih, 2014; Markovic and Jankovic, 2013; Boon-Liat und Md. Zabid Abdul, 2013; Auka et al., 2013). According to the aforementioned, the level of service quality, which is determined by how well expectations are met by the perceived service of service providers, predicts consumer pleasure. Numerous studies have already shown that there is a connection between customer satisfaction and service quality (Agbor, 2011; Mohajerani and Miremadi, 2012).

Daniel and Berinyuy (2010) also stated that there is a relationship between customer satisfaction and service quality. However, the aforementioned study pointed out that while many customers' pleasure is based on sentiments about service encounters and experiences, service quality is an abstract concept that is influenced by experience or perception.

In **schwacke's 2007** brand monitoring survey, the jaguar brand in Germany came in first for overall customer satisfaction, moving up nine spots from last year's performance. According to Geoff Cousins, managing director of Jaguar Cars, "customer satisfaction is generate the sales growth and profitability." More than 1,00,000 customers were polled about how satisfied they were with their brand, and Jaguar came out on top not just overall but also in the crucial area, moving up eight spots.

Sally Dibb, Lyndon Simian 1991; Customers have certain needs, aspirations, and levels of fulfilment. Even though some clients are similar, they have similar needs for products, services, and concepts. Every client group or market segment has unique expectations, therefore retail marketers need to create retail brands and concepts that meet their objectives. Modern retail market strategy relies heavily on the processes of market segmentation, targeting, and positioning. The crucial choices and actions required for successful full deployment are looked at.

According to **Yi (1990)**, As there is enough evidence to back it, customer contentment might be seen as a mindset.

According to **Zairi (2000)** Satisfaction is the sensation of pleasure and expectation fulfilment. Customers will become unsatisfied with a product if their needs are not met, whereas they will be satisfied and loyal to the brand or product if their needs are met. In other words, the products or services that meet the customer's expectations for quality and service for the price he has paid are those that he finds to be satisfactory. Customers who are satisfied with a product or brand will stick with it, and their loyalty will be profitable for the business. Customer happiness is a crucial component of marketing and affects the market significantly. Customer satisfaction is crucial in any business since it improves your standing in the marketplace if your customers are happy with your services or goods.

Kurniawan (2010) customer satisfaction can change over the period of time; it is a dynamic process. The individual perception about the products or services performance leads to customer satisfaction. In the present day's retail business, ensuring customer satisfaction in delivering the right product and service to the end-users is the major concern for the future

growth of the organization. In the present study an attempt is made to find out the customer satisfaction during purchase in retail outlets based on customer survey.

Ittner and Larcker (1998) provide empirical evidence at the customer, business-unit and firm-level that various measures of financial performance (including revenue, revenue change, margins, return on sales, market value of equity and current earnings) are positively associated with customer satisfaction. However, in the retail industry they find a negative relationship between satisfaction and profitability which may be because benefits from increased satisfaction can be exceeded by the incremental cost in retail.

Sulek et al. (1995) find that customer satisfaction positively affects sales per labor hour at a chain of 46 retail stores. Anderson et al. (2004) find a positive association between customer satisfaction at the company level and Tobin's q (a long-run measure of financial performance) for department stores and supermarkets. Babakus et al. (2004) link customer satisfaction to product and service quality within retail stores and find that product quality has a six significant impact on store-level profits. Research on customer satisfaction usually views employees as facilitators of the sales process who are critical to improving the conversion ratio, by providing information to the customers on prices, brands, and product features and by helping customers to navigate store aisles, finding the product and even cross-selling other products. The unique feature of the retail store execution problem is that it combines the factory and the sales components, but this stream of literature focuses only on the latter.

According to **LaTour and Peat (1979)**, While attitude is a pre-decision construct, pleasure is a post-decision experience construct (Caruana, Money and Berthon,).

Kotler and Armstrong define service as "an activity, benefit, or satisfaction given for sale that is essentially intangible and does not result in ownership of something" (p. 1).

The market environment has undergone significant transformation over the past few decades, and is today characterised by previously unheard-of levels of diversity, knowledge richness, and instability. Technological advancements and globalization, two major environmental shifts, are to blame for the volatility in the environment. With the elimination of time and location limitations, the new economy has rendered the old economic symphony of scale, scope, and structure meaningless. The economy and industry have changed as a result of technological advancements and the forces of globalization. marketplaces and consumers, leading to a borderless global economy, 54 industries that are globalizing, convergent, and consolidating, fragmented and frictionless markets, and engaged, informed, and demanding

consumers (Thomas and Gupta, Marketing Theory & Dractice: Evolving through turbulent times, Global Business Review, 2005, Vol.6, Issuel).

CUSTOMERS SATISFACTION ON TIME:

Time has commonly been regarded as a significant component of the total cost of a transaction, making customers aware that their time is most valuable (Anderson and Shugan, 1991; Jacoby et al., 1976; Kellaris and Kent, 1992). Past research has suggested various dimensions of time that include: pace, urgency, sequencing, separation, scheduling, duration, punctuality, flexibility, linearity, synchronization and present and future time perspectives (Ballard and Seibold, 2004; Owen, 1991; Moore, 1963, Lauer, 1981).

The waiting time problem has become an important part of service provider's priorities as today's customers are becoming intolerance to waiting time in a service process. Further, consumers do not evaluate service quality solely on the outcome of service, but they evaluate it on the basis of service delivery process and time is the most important factor for evaluating customer satisfaction in a service process (Davis and Vollmann, 1990; Friedman and Friedman, 1997). Additionally waiting time is the deciding factor for service evaluations for many consumers as they value time more than ever. It is also important to notice in which stage the customer is feeling dissatisfaction in a service encounter.

From an economic and psychological standpoint, waiting is viewed as a bad experience. More waiting times are frequently substituted for money. A significant factor in how clients evaluate the service overall is the wait time (Peritz, 1993). Additionally, the length of time spent checking out at a store affects how satisfied a consumer is overall (Katz, Larsen, Blaire and Larsen, 1991). Additionally, studies have demonstrated that lengthy waits have a detrimental impact on customer satisfaction (Chebat and Filiatrault, 1993).

According to Leclerc, Schmitt, and Dube (1995), Schwartz (1975), Rafaeli (1989), Hui and Tse (1996), and Sheu et al. (2003), waiting time is frequently considered to be a waste of time and has been described as unpleasant, uninteresting, and irritating (Hui and Tse, 1996; Katz et al., 1991). McDonnell (2007) asserts that, in contrast to many other customer service contact points, bank branches and financial institutions are more prone to experience hostility and irritation. Additionally, studies have shown that many customers dislike standing in line, which

has a negative impact on how well services are rated (Krentler, 1988; Kumar et al., 1997; Houston et al., 1998; Ho and Zheng, 2004).

According to Davis and Maggard (1990), the length of time a customer waits has an adverse relationship with how satisfied or dissatisfied they are with the service received. In their study on a two-stage service process, they discovered that the customer's first delay before beginning the service process has a greater impact on their satisfaction than do successive waits during the procedure. They received funding for their study from Sasser, Olsen, and Wyckoff (1978) and Maister (1985). According to Davis and Maggard (1990), management should invest more time and resources in the beginning phase of the wait. This priority is required due to the fact that a disgruntled restaurant patron complains to fifty other people (Lyth and Johnson, 1998).

The scholarly and business communities broadly accept **Parasuraman et al(1985)** 's study on the association between waiting time and perceived service quality. Customer satisfaction with waiting is determined by the difference between perception and expectation for the waiting experience (Maister, 1985).

Davis and Vollman(1990) You could make the case that in the majority of service operations, customer expectations and satisfaction with regard to waiting times depend on a variety of variables, such as the customer's prior experiences, the number of customers using the facility, how important the customer's time is to them, and other distractions, whether intentional or not.

According to Hornik (1984) Consumers frequently overestimate the amount of time they spend waiting, and the delay might affect how they feel (Dube-Rioux et al., 1989; Hui and Tse, 1996; Taylor, 1994). According to earlier studies, the customer's pleasure is also impacted by crowding during the service process (Eroglu et al., 2005; Michon et al., 2005). This suggests that decreased customer satisfaction results from a perception of both exceptionally uncrowded and extremely packed settings at the service area. This indicates that when there are few customers, service managers should allocate their human resources carefully. In contrast, when there is a large crowd, more service personnel should be sent.

Taylor (1994) asserts that the effectiveness of a service procedure as a whole is impacted by the customers' rage and perception of punctuality. Customers' perceptions of the social fairness of the service provider—specifically, whether or not it adheres to the first-come, first-served principle—have an impact on how satisfied they are with the wait time (Larson, 1987).

According to Piyush et al. (1997), the waiting time guarantee offered by service providers has an impact on customer satisfaction as well.

CUSTOMER SATISFACTION IN PRICE:

The challenge for the service provider to dominate the market is increased by the market's competition, which has a small number of clients and many rivals. The rivalry involves the function of price in their given products and services as well as consumer happiness, which will result in a number of benefits.

According to Cakici et al (2019): In making purchases, customers heavily consider price (Konuk, 2019). Customers will make decisions based on a variety of priorities and issues. Prior to the consumer making a decision, the pricing is still on the list for evaluation and comparison (Sallaudin Hassan & Shamsudin, 2019). It is crucial to comprehend the proper function of price from both the perspectives of service suppliers and customers (Konuk, 2019).

In order to meet consumer demand, a service provider must be sure they are aware of their needs and wishes. Based on their circumstances and requirements, needs and wants can simply be established (Cakici et al., 2019). Demand in this context refers to a consumer's capacity to make a purchase of a good or service. Customers could desire high quality results with pricey components. Still, they must strike a balance between their wants and needs and their financial capacity (Shafei & Tabaa, 2016). Pricing and those capacity to pay are tightly associated. The price that service providers charge determines whether or not a customer is ready, willing, or able to purchase or use the goods or services.

Pricing is a constant source of conflict for service providers (Shamsudin, Johari, et al., 2020). The price can be established in a variety of ways by the service providers. The outcomes that will ultimately lead to mutual approval by customers as an exchange within the items and cost paid, however, are what matter most (Konuk, 2019). If the price was too high, it would eventually result in fewer sales (Kaura et al., 2015). In addition, if it were set too low, it would suffer a loss of business (Minbashrazgah et al., 2017). Scholars advised service companies to either raise prices or boost sales volume in the underlying economy. Less customers will purchase if the price is high, but more customers would purchase even if the service provider dropped the price, even though the profit margin would be minimal (Shafei & Tabaa, 2016). Price is among the most straightforward business decisions, according to Shamsudin, Ramle,

et al. (2020), but it also has the biggest impact on the long-term viability of commercial organisations.

In a similar spirit, service providers must guarantee that price setting and its function live up to client expectations. Price may determine whether a company survives (Weisstein et al., 2014). Although customers liked the services, they might not have the money to visit often. The excessive price will replace the total satisfaction of the customer with frustration. The part of price paid to service providers may maximise cash flow and increase profit (Shafei & Tabaa, 2016). The service provider will experience maximum sales growth if a price plan is implemented properly.

The difference between a product's actual and perceived prices is known as price perception. Customers or market segments may perceive things differently from one another. Customers compared the price to a referent price to determine if it was high or low, according to Shamsudin, Nayan, et al. (2020d). Customers will evaluate the price in relation to that of competitors in the market. Reference pricing is connected to psychological pricing since it might persuade customers to make purchases by giving them a favourable impression of the price. According to recent research (Gallarza et al., 2019), customers are seeking high-quality, reasonably priced products. In addition, it was noted by (Kaura et al., 2015) that service suppliers should carefully label the prices because high prices may be mistaken for quality. The quality of the goods and services must be reflected in the price, according to the service providers. Customer expectations that are not met will result in delayed business growth. Customers will begin to converse and share their experiences, which could deter potential customers from visiting.

In order to affect client views based on market sensitivity and elasticity, the service provider must ensure that the price it sets may do so. Customers might not be concerned about the price if the product is not on their consumption wish list, according to Shamsudin, Nayan, et al. (2020c). It might also be the result of the consumer's weak preferences for the goods or lack of brand loyalty (Sallaudin Hassan & Shamsudin, 2019). Customers that do not fit into the target markets owing to their ability to pay could also not be price sensitive (Razak & Shamsudin, 2019). Price perceptions may not be relevant for luxury goods as well. When compared to a staple commodity, the demand will be the opposite. When customers can compare and review the costs of competitors, service providers need to concentrate more on the cost.

Overall, by enhancing favourable client experiences, price perceptions are crucial for the expansion of successful businesses (Lynn & Brewster, 2018). The majority of service providers strive to provide the best services possible. However, the added accurate pricing may provide clients more value. The fundamental definition of value is when the sum of the benefits exceeds the sum of the costs (Shamsudin et al., 2021). Cost savings may enable clients to quickly generate additional value by achieving enormous benefits. Correct price perceptions can enable the service provider to continue operating and dominate the sector.

Focus, concentration, and scope of marketing have changed as a result of organizations' efforts to adjust to these shifting environmental realities. Customers of today desire ease and variety. Customers mix and match products and services based on their needs.

The concept of customer satisfaction occupies a central position in marketing thought and practice. It is a major outcome of marketing activity and service to link processes culminating in purchase and consumption with post purchase phenomena such as attitudinal change, repeat purchase, and brand loyalty. Customer satisfaction presents a versatile cross-channel metric to gauge the service provider's strengths and weaknesses from the customer's point of view.

Meeting these expectations is the key to ensuring client pleasure. Expectations are formed in the mind of the client for a variety of reasons and causes, including prior experience, promotional claims, word of mouth, and information from third parties. According to Kotler (Kotler, Philip 2006), satisfaction is a function of perceived performance and expectations, which describes how a person feels after comparing a product's perceived performance to his or her expectations.

Customer satisfaction is multifaceted and depends on a variety of interactions with the service provider. Customer satisfaction is a term used in business to describe the idea of gauging how happy customers are with an organization's efforts. Customer happiness has become a strategic goal for the majority of businesses over the last few decades. Increasing satisfaction became a goal in and of itself in the 1980s. In the 1990s, it became widely understood that maximizing customer happiness is a strategic objective for all businesses engaged in providing customer service. Happy consumers are more likely to come back and make larger purchases, recommend the business to others, and even pay more for the organization's services.

Since behavior is influenced by satisfaction, service providers can better affect both short- and long-term client behavior by having a deeper understanding of what factors influence customer satisfaction. The idea's inclusion in the marketing idea that high customer satisfaction ratings

are generally seen as the best predictor of a company's future profit reflects the idea's centrality. (Anderson et al., 1997; Marketing Sciences, Customer Satisfaction, Productivity and Profitability: Difference between Goods and Services) Because pleased customers are more likely to be tolerant of price rises and more prepared to pay for the benefits they receive, this suggests good profits and client loyalty. Otherwise, it will result in high replacement prices, client turnover, and high customer acquisition expenses. This is a technique to achieve strategic goals, such client retention, which have a direct impact on earnings (Anderson et al., 1994).

Customer satisfaction is typically defined as a customer's opinion after making a purchase of a good or service. Product packaging, on-time delivery, price, responsiveness, complaint-resolution skills, overall communication, accessibility, and attitude are all factors that affect customer satisfaction. The majority of businesses are aware that customer satisfaction levels become increasingly crucial as markets get more competitive. In this situation, it is crucial to offer clients great value—that is, quality, service, and price—in order to maintain their satisfaction and loyalty. Enhancing quality and customer satisfaction lowers expenses related to subpar services, including those for addressing complaints, field service, rework, and warranties. Word-of-mouth from happy customers decreases the cost of acquiring new clients and improves the company's reputation overall, whereas that from unhappy clients has the obvious opposite impact. The continually shifting environment compels businesses to find new ways to gain a competitive edge and to adapt to these harsh and hostile environmental conditions, which raises concerns about service quality. Quality has long been seen as one of management's top goals for competitive advantage and as a must for the survival and expansion of businesses. In today's extremely competitive market, the pursuit of quality improvement has become a highly desired goal.

Despite conceptual differences, there is a strong correlation between service quality and client happiness. Customer happiness is influenced by and derived from perceived service quality. Companies with a strong focus on delivering excellent value to customers should have a culture that supports high standards. The perception and resistance of the client to an offering might be moderated by a high-quality service. Customers' demands and expectations must be met, and ideally exceeded, by the quality. Because of this, service quality is frequently regarded as a crucial factor in building successful client relationships.

A service offer that is subpar or unclear may make it more difficult to draw in and keep happy consumers (Einnew et al. The impact of Service quality and Service characteristics on customer

Retention: Small Business and their Banks in the UK, British Journal of Management, 1996). Customer happiness has become increasingly more significant to commercial organizations in recent years. of all kinds must put more of an emphasis on quality improvements if they wish to raise their competitiveness on the global market due to rising customer expectations, new technology possibilities, and increasing globalization. Keeping in mind this reality is more intensely competitive and unregulated environment, all businesses are paying closer attention to service quality and client happiness.

If one looks at the historical development of the term "customer satisfaction" as a concept, it has been used frequently in the study of marketing since the 1950s, and it continues to be the most significant and pertinent subject, continuing to pique the interest of both academics and practitioners in the field. Hence. According to the viewpoint, the main focus of marketing is client pleasure. The processes of customer satisfaction incorporate both consumption and purchase. They also link the client's post-purchase attitude, such as attitude shift, repeat business, and brand loyalty. The researcher's main presumption that the idea of customer happiness is a component of the core marketing activity appears to be true when taking into account the fact that customer satisfaction generates revenues and profits. It appears that since the 1970s, researchers have developed a variety of ideas, methods, and approaches to assess customer happiness in order to make it more operational and measurably (Pfaff, 1972). (Fornell, 1992). However, the researcher has examined pertinent literature in order to highlight the assumption made in the preceding paragraphs despite not assuming the presumptions to be true.

As is clear, the term "customer satisfaction" combines the words "customer" and "satisfaction." It would be possible to explore these two words independently before looking at the literature on customer satisfaction. A customer is described by Business Dictionary as "a party that receives or consumes items (goods or services) and has the option to select among a variety of products and suppliers" (Business Dictionary) (sometimes known as a client, buyer or a purchaser) is the actual recipient of products, ideas, or services that they have purchased from a seller, vendor, or supplier in exchange for money or another useful consideration. However, there are numerous distinct definitions and justifications for the term "customer." Customers are described by Goldner (2006) as "any organization or a person with whom you have done business over the preceding twelve months." According to Grigoroudis and Siskos (2009), a client is someone who evaluates the value of the goods and services that are provided to them. The client is the individual or organization who receives the finished product of the work.

Consequently, a more specific definition of a client is "an individual, a person, a group, or an organisation to to which goods are sold to or services are being offered by the supplier in the recent or distant past."

For both customers and businesses that sell goods and services, the definition and meaning of "satisfaction" are extremely important concepts. "Satisfaction" ensures the validity of the value of the price the client paid for the product or service, and for businesses, it is the factor that determines the organization's fate and, thus, the long-term sustainability of the business in general. Now that "customer and satisfaction" has been used to frame the two unique concepts. It is important to consider how "customer satisfaction" has been defined in the historical literature as a whole. Despite the extensive study that has been done since the 1950s, the literature that is currently available defines "customer satisfaction in various shapes and formats. Researchers have not yet come up with a universal definition of what constitutes consumer satisfaction, according to Cardozo (1965). Oliver (1997) stated that "everyone knows what customer satisfaction is unless asked to give a definition," which provided strong support for Cardozo's claim. So it appears that nobody is aware. The key conundrum is that no study has been able to clarify whether contentment is a process or an outcome, therefore the concept of satisfaction has essentially been preconceived and understood (Yi, 1990).

Additionally, the majority of researchers have evaluated several customer satisfaction models and defined "customer satisfaction" based on their own understanding, paying little heed to definitional considerations (Oliver and DeSarbo 1988, Tse and Wihon 1988; Mano and Oliver 1993; Oliver 1993. Spreng. Mackenzie, and Olshavsky 1996). The literature is replete with several conceptual and operational definitions of customer satisfaction, as stated by Peterson and Wilson (1992), who claim that works on customer satisfaction are distinguished by their lack of definition and methodological standardisation. However, the researcher has included a few of the most appropriate definitions here in the context of the current study that is being conducted. Customer satisfaction, according to Howard and Sheth (1969), is the buyer's perception of whether his or her efforts have been sufficiently or insufficiently repaid.

Customer satisfaction, according to **Hunt (1977)**, is an assessment that the (consumer) experience was at least as excellent as it was expected to be. Hung (1977) said that the definition of satisfaction involves reflecting on an experience after it has passed. Understanding consumers and influencing their purchasing behaviour are the two main objectives of marketing. The so-called "information processing perspective" is one of the key viewpoints

used in consumer behaviour research to examine purchasing behaviour (Holbrook and Hirschman 1982). The concept proposes that a variety of motivating and influencing elements are combined with a need-satisfying behaviour in the customer decision-making process. The steps of the procedure are as follows (Engel, Blackwell et al. 1995):

- Understanding the difference between the ideal state and the existing situation, which acts as a trigger for the entire consumption process, is known as need recognition.
- Look up information - Look up information that is pertinent to the purchase decision from both internal (one's memory) and/or external sources.
- Pre-purchase alternative evaluation-assessment of choices that can satisfy the realized demand by assessing benefits they might give and narrowing the field of possibilities to the one (or several) favor.
- Acquisition of the desired good or service through purchase.
- Consumption-utilisation of the procured option.
- Evaluation of whether and to what extent the consumption of the alternative created satisfaction during the post-purchase period.
- Disposal of the leftover or unfinished product during divestiture. In addition to the information processing perspective, marketing analyses consumer behaviour by using the idea of attitudes, which has its roots in psychology (Balderjahn 1988, Ronis, Yates et al. 1989; Luzar and Cosse 1998). Customer attitudes are frequently cited as the primary influence on consumer behaviour, and there is no shortage of research on how attitudes might predict behaviour.

Concept of contentment Numerous happy clients are a necessary prerequisite for the existence of many businesses on the market. Customers are the primary driver of a company's existence and market development. Therefore, it follows that businesses who want to compete must provide their clients useful and distinctive conditions that meet their needs. This satisfaction covers not only the emotions experienced throughout the buying process but also the environment both before and after the actual purchase. If the business becomes more accessible to its customers, it will be simpler to meet their demands and fulfil their wishes over time.

1. Therefore, continuing to meet customer expectations is essential for the company's long-term success.

2. Customer delight and customer satisfaction are frequently linked. Products and services that are a source of satisfaction give their clients the desired value, at the very least to a sufficient extent. According to the definition of satisfaction in Standard ISO 10004, "Satisfaction is a judgement, an opinion given by the customer. The degree of satisfaction represents the difference between the customer's vision of the expected product, and the customer's perception of the delivered product."
3. Consumer decisions are influenced by a variety of factors, including economic ones like income, price, savings, and loans as well as noneconomic ones like demographic, sociological, and psychological ones.
4. It is difficult to identify and satisfy client wants, expectations, preferences, and behaviour, and even knowing these things does not ensure success in the market. The reason for this is that customer behaviour is irrational. Consumers who purchase a specific commodity typically have predetermined standards regarding its quality, function, or use. They don't actually buy the goods; instead, they pay for the value or what they anticipate from the product. Expectations vary and can occasionally be either excessively overblown or very modest. Because of this, beginning and defining the customer's unique needs comes before the consumer makes a decision. A demand for particular goods and services results from customer needs. Apparently, J. "Consumer need is a state of indispensability of products ownership or use. being a result of accomplished level of development of the human environment and his requirements as a bio-psycho-social structure," says Senyszyn.
5. All requirements for consumption involve items made through human labour. Another definition states that the absence of anything essential to a person's survival, personal growth, attainment of and maintenance of a particular social standing, etc. creates the possibility or actual situation of a need.
6. A lack of satisfaction brought on by a lack of material or intangible qualities in a particular scenario causes needs, which generate pain. Humans have only a few basic necessities, yet their passions can be anything. Despite having limited resources, individuals prefer goods that offer high value for their money. Customers make decisions based on perceived value, which certain goods or services may provide. Defining value for a good is different from defining value for a service since services have a different worth than products do.

Although there are material components, given the nature of services, their value has always been mostly immaterial. Service is typically received by customers more emotionally than items are. In the decision-making process for customers, value is crucial. They select the goods or services whose worth is deemed to be the highest from a selection of offers. Customers simply assess a product's perceived worth rather than its actual value and cost. For today's manufacturers, determining the value of the products that are supplied to the consumer is a difficulty.

The products on the market nowadays are produced using cutting-edge methods and technology, and they are really contemporary. As a result, it is challenging to estimate the product's value from the perspective of the customer. The customer's impression of the delivered product influences the customer's satisfaction⁸, thus it is critical to distinguish between the organization's assessment of the product's quality and the customer's perception. The satisfaction of the purchase, which is defined as a function of convergence of expectations with the perceived mode of action of the products by the purchaser, can be discussed whether the customer's expectations are met. There are numerous definitions of satisfaction in the literature that emphasise the unique features of customer satisfaction to varying degrees, such as an answer to a service or product offer, an assessment of whether or not needs were met, and lastly emotions related to the purchase of a good.

A subjective feeling that arises from unique experiences of individual perceptions and emotions is a state of satisfaction or discontent. This happiness or discontent is a reflection of how you feel about how well or poorly a product or service met your expectations. The client's satisfaction is connected to his favourable impressions, and conversely, his discontent will be connected to the absence of positive incentives. Reviews of goods or services on the market come in a wide variety and are generally quite subjective. The same may be said of customer satisfaction, which is a subjective feeling that is influenced by a number of circumstances.

There are three types of satisfaction from an analytical perspective.

1. Global or partial contentment.
2. Present or cumulative contentment.
3. Unbiased or contrasting satisfaction

Definitions of satisfaction in regard to how people react to services and goods

Response to goods and services

1. The customer's emotional reaction, which combines his feelings and experiences following the consumption of a good or service with the hopes and value they were expecting.
2. The consumer's favourable emotional response to a product or service evaluation.
3. The outcome of a psychological process in which a client contrasts the amount of business performance they see with other standards, typically his expectations
4. The correlation between the anticipated, perceived, and actual product qualitythe significance of its numerous attributes.

Opinion on whether the prerequisites have been met

1. The buyer's assessment of how closely transactions adhered to his demands and expectations
2. The customer's assessment of the extent to which their needs have been met.
3. Assessment of a purchased good or service

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

A research methodology is a means to describe how a researcher plans to conduct their investigation. It is a rational, methodical approach to a study issue. A methodology explains how a researcher will conduct the study in order to produce accurate, legitimate data that meet their goals and objectives. It includes the data they will gather, where they will get it, how they will gather it, and how they will analyse it.

A research approach offers the study credibility and yields reliable scientific results. Additionally, it offers a thorough plan that aids in keeping researchers on course, facilitating a simple, efficient, and manageable approach. The reader can comprehend the strategy and procedures utilised to arrive at results by understanding the researcher's methodology.

Any formal research project, including research papers, theses, dissertations, journal articles, and theses, will have a section (or chapter) on research technique. This section outlines the methodological decisions made and provides support for those decisions. Therefore, researchers utilise this section to explain why the techniques they chose are the most appropriate for achieving the study's goal and producing results that are valid and trustworthy. Additionally, based on the applicability and efficiency of the techniques used, this part enables readers to assess the validity and dependability of a study.

There are three key types of research methodologies:

Qualitative Methodology: Research employing words and textual information is referred to as qualitative methodology. In exploratory research, where a poorly defined research problem is being studied, this type of study is typically used. When attempting to comprehend abstract concepts, perspectives, body language, views, or even visual data, it is helpful.

Quantitative Methodology: Numerical data must be measured and tested in quantitative research. Quantitative research is often used when the study aims are confirmatory, as opposed to qualitative research, which is more exploratory in character.

Mixed-Methods Methodology: As its name implies, it mixes qualitative and quantitative techniques in order to take use of each methodology's advantages and produce insightful findings.

3.2 RESEARCH DESIGN

A framework for data gathering and analysis is provided by a study design. There are other titles for a study design, such as an outline. It signifies the intended investigation's plan, structure, and methodology. "A research is the logical and methodical planning and a piece of research," claims Pauline V. Young. A framework for data gathering and analysis is provided by research designs. Therefore, after forming the hypothesis, the research design serves as the foundation for moving forward with the study of the issue.

The validity and reliability of a study are directly related to the methodology that was employed. As a result, the focus of this part is on the research methodology chosen and applied for this study in order to fulfil the research objectives. The instruments used to measure the relevant various constructions are also described in this portion of the document.

Generally speaking, exploratory or descriptive research is considered as research design. Exploratory research's primary goal is to delve into a topic or problem in order to gain understanding and new information. In situations where the researcher lacks sufficient knowledge to move forward with the research endeavour, exploratory research is generally useful. The research methodology used is unstructured and fixable. Structured questionnaires are not frequently used. The analysis of the raw data is done in accordance with its qualitative nature.

I conducted my study using descriptive research. Descriptive research is a type of analysis that focuses on outlining the features of the population or issue under study. With this methodology, the "what" of the study topic is given more attention than the "why."

Descriptive research, then, primarily focuses on describing the characteristics of a particular demographic group without addressing the "why" behind a particular phenomenon. In other words, it "describes" the research's subject without explaining "why" it occurs.

When a specific phenomenon is being studied, descriptive research is required to clarify and explain its internal links and characteristics. Prior to the start of data collection, the descriptive research will present an accurate picture of the respondents and the analytic strategy. Or, people, things, and circumstances. In contrast to exploratory research, descriptive research identifies its study questions. Individuals surveyed and the analysis procedure used before data collection.

3.3 POPULATION OF THE STUDY

The population of the study consist of customers of He-Man Robo park in Ernakulam and Thrissur districts.

3.4 SAMPLE SIZE

A sampling is a limited portion of a population whose characteristics are researched to learn more about the population as a whole. It can be described as a group of responders (people) chosen from a wide population for the purpose of a survey when referring to people. The process of selecting sample participants from a population is known as a sampling method. In research study, 113 respondents are taken to measure the customer satisfaction in He-Man Robo park.

3.5 SAMPLING TECHNIQUE

The main information was gathered using the Convenience sampling technique. The convenience sampling makes use of participants who are most readily accessible. Typically, samples of this kind are biased. Most likely, it does not adhere to the accurate definition of a random sample, which stipulates that each member of the population has an equal 83 percent chance of being chosen. It is restricted in terms of generalization because it does not accurately represent the population. The findings from the convenience samples cannot be used to derive valid conclusions about the large groupings. A researcher may use convenience sampling, a non-probability method, to obtain a rough estimate of the truth without incurring the time and expense of a random sample.

3.6 DATA COLLECTION

The process of preparing and gathering data is referred to as data collection. In order to make decisions about crucial topics, data collecting is done in order to collect information to retain on record. to impart knowledge to others. Data is mostly gathered to provide details on a particular subject. Due to its significance and bearing on the study effort, the planning of data collecting for research projects is typically determined early on in the research process. A survey questionnaire is used to obtain the data for this study from the respondents. Primary data is used for this study.

3.6.1 PRIMARY DATA

The researcher had to rely on the main data to complete the study's goal. In order to respond to the questions freely, frankly, honestly, and sincerely, they were made aware that there were no right or wrong answers and that their professional careers would not be kept in strict confidence. Primary data are those that are collected fresh and for the first time using a questionnaire.

3.7 STATISTICAL TREATMENT

Analysis of gathered data is aided by statistical tools. To support a conclusion with numbers, statistical analysis is helpful. This research study uses percentage analysis and weighted mean.

3.8 SOFTWARE USED FOR ANALYSIS

MS Excel was utilized in this project research in order to analyze the data and draw conclusions.

MS EXCEL

A spreadsheet programme called Microsoft Excel is accessible on Windows, Mac OS X, and iOS devices. It features calculators, graphing tools, pivot tables, and the macro programming language Visual Basic for Applications. For these schemes, it has created the production standard for spreadsheets, especially after version 5 in 1993, when it replaced Lotus 1-2-3 as the industry standard. A component of Microsoft Office is Excel.

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

Data collection is the process of compiling precise data from numerous sources and evaluating it to identify trends, possibilities, and solutions to research problems, as well as to assess potential consequences. Data collection is crucial because of how heavily dependent our society is on it. To assure quality assurance, keep research integrity, and make educated business decisions, accurate data collecting is required. The researchers must specify the data sources, data types, and methodologies used during data gathering. We'll quickly find that there are numerous approaches of gathering data. Data collecting is heavily utilised in the domains of study, business, and government. A researcher can assess their hypothesis using the data that they have gathered. No of the subject of study, gathering data is typically the first and most crucial phase in the research process. Depending on the type of data needed, different disciplines of research require different approaches to data gathering.

The process of evaluating, purifying, manipulating, and modelling data in order to find relevant information, make conclusions, and support decision-making. Data analysis takes on many forms and methodologies, incorporating various techniques under a variety of titles, in various fields of business, science, and social science.

After all the data has been gathered, a technique called data analysis is utilised to examine the data that has been gathered. The kind of data and the instrument used to analyse it both depend on each other. The questionnaire was revised for completeness and consistency before processing the replies. The data was then coded to enable descriptive analyses like weighted mean and percentage analysis.

TABLE 4.1 GENDER WISE CLASSIFICATION OF RESPONDENTS

Particular	No.of respondents	Percentage
Male	70	62
Female	40	35
Prefer not to say	3	3
Total	113	100

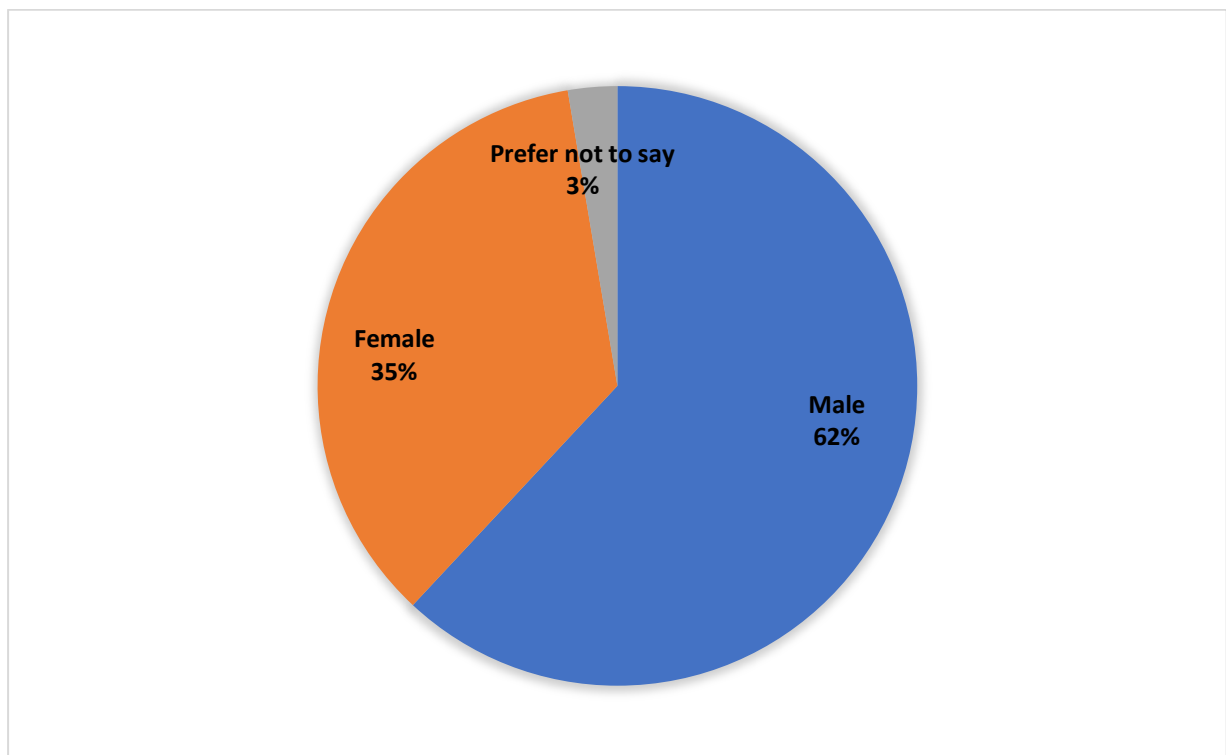


FIGURE 4.1 GENDER WISE CLASSIFICATION OF RESPONDENTS

INTERPRETATION

Gender difference among the sample selected for the study, 62% respondents are male, 35% respondents are female and 3% respondents prefer not to say.

TABLE 4.2 AGE WISE CLASSIFICATION OF RESPONDENTS

Particular	No.of respondents	Percentage
18 – 25	83	73
26 – 35	27	24
36 – 45	1	1
46 - 55	1	1
Above - 55	1	1
Total	113	100

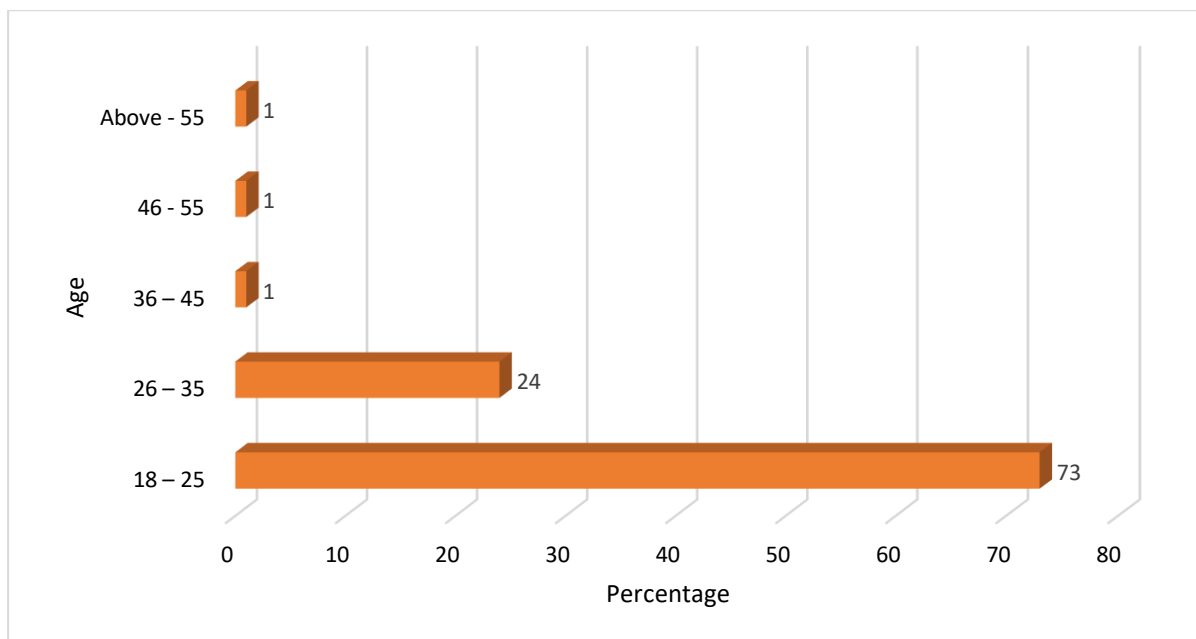


FIGURE 4.2 AGE WISE CLASSIFICATION OF RESPONDENTS

INTERPRETATION

73% of respondents comes under the age group 18-25 years, 24% of the respondents comes under the age group of 26-35 years, 1% comes under the age group of 36-45 years, 1% comes under 46-55 years age groups and 1% respondents comes under the above 55 age group.

TABLE 4.3 CLASSIFYING THE RESPONDENT ON THE BASIS OF THEIR CAR'S COMPANY

Particular	No.of respondents	Percentage
Honda	26	23
Ford	12	11
Suzuki	22	20
Tata	6	5
Mahindra and Mahindra	6	5
Toyota	15	13
Others	26	23
Total	113	100

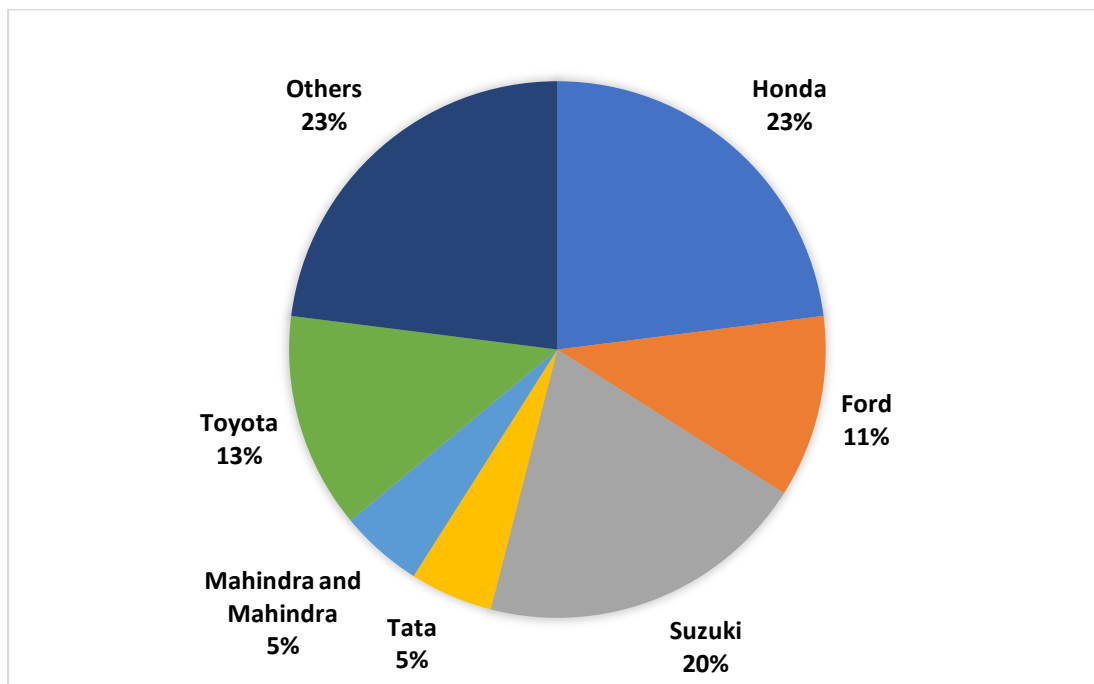


FIGURE 4.3 CLASSIFYING THE RESPONDENT ON THE BASIS OF THEIR CAR'S COMPANY

INTERPRETATION

In this study 23% respondents are using Honda and other category cars, 11% of respondents using Ford cars, 20% respondents using Suzuki cars, Tata and Mahindra and Mahindra using customers are about 5% and 13% respondents are Toyota users.

TABLE 4.4 ANNUAL INCOME WISE CLASSIFICATION

Particular	No.of respondents	Percentage
Below 250,000	75	66
250,000 - 500,000	25	22
500,000 – 10,00,000	11	10
Above 10,00,000	2	2
Total	113	100

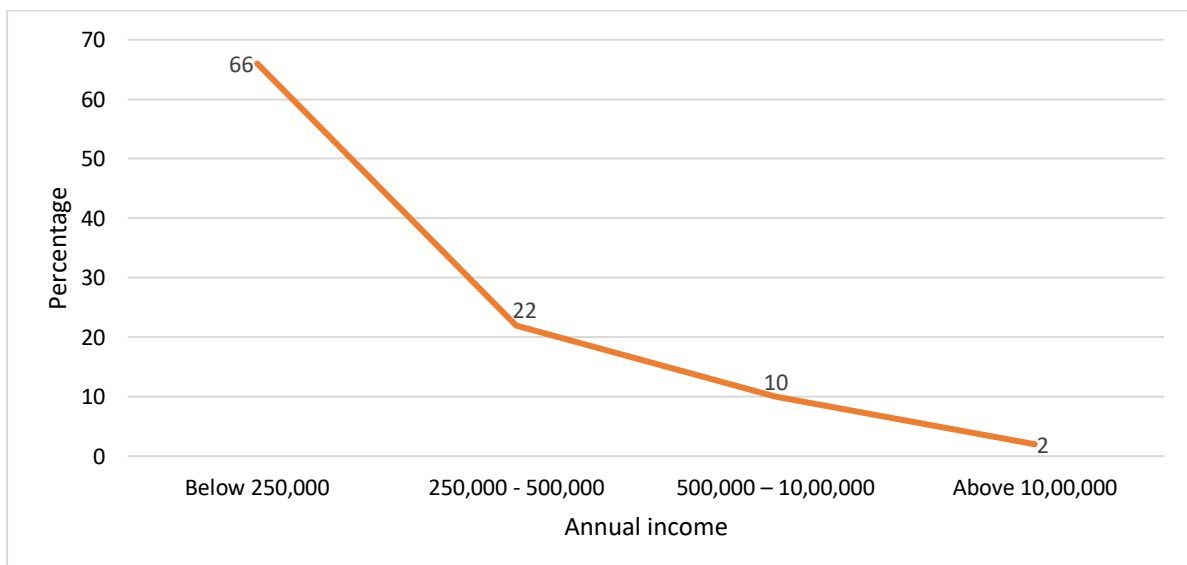


FIGURE 4.4 ANNUAL INCOME WISE CLASSIFICATION

INTERPRETATION

66% of respondent have the annual income of below 250,000, 22% have 250,000-500,000 as annual income, 11% of respondent have annual income of 5,00,000-10,00,000 and 2% of respondents comes under above 10,00,000 of annual income.

TABLE 4.5 INITIAL VISIT IN HE-MAN ROBOPARK

Particular	No.of respondents	Percentage
MAGJ Mookkannur	68	60
Lisie Hospital Ernakulam	35	31
Lourdes Hospital Ernakulam	8	7
Olivia Hospital Alappuzha	5	2
TOTAL	113	100

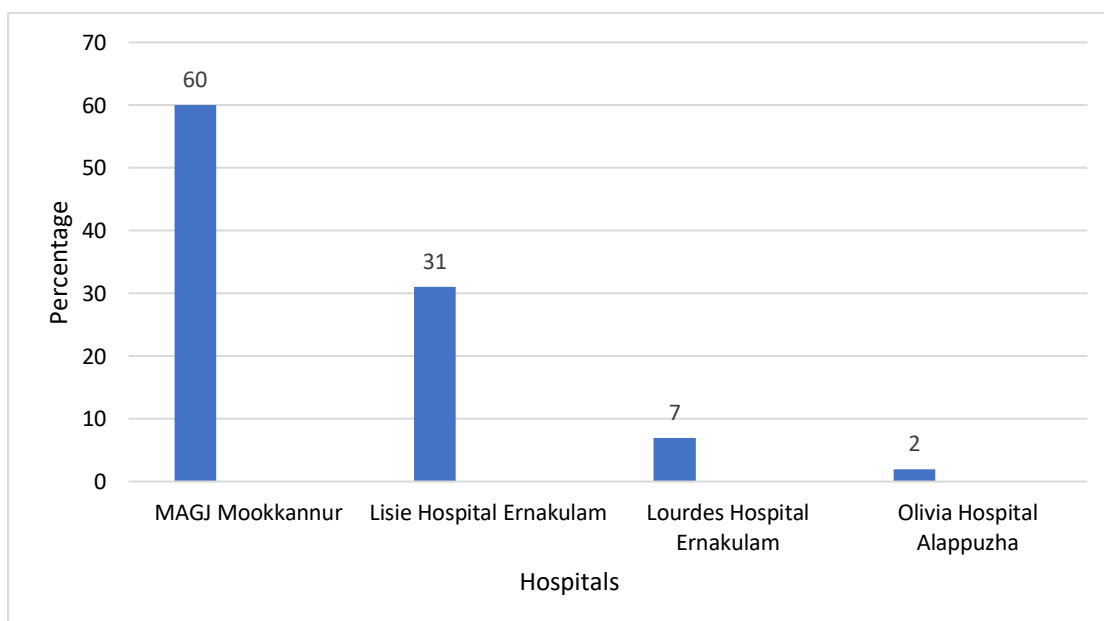


FIGURE 4.5 INITIAL VISIT IN HE-MAN ROBOPARK

INTERPRETATION

In this study shows that 60% of respondents first saw He-Man Robo park in MAGJ Hospital Mookkannur, 31% respondents first saw in Lisie Hospital Ernakulam, 7% saw first in Lourdes Hospital Ernakulam and 2% respondents saw first in Olivia Hospital Alappuzha.

TABLE 4.6 USAGE OF HE-MAN ROBO PARK

Particular	No.of respondent	Percentage
Below 1 month	56	49
1-6 month	36	32
6-1 year	10	9
More than 1 year	11	10
Total	113	100

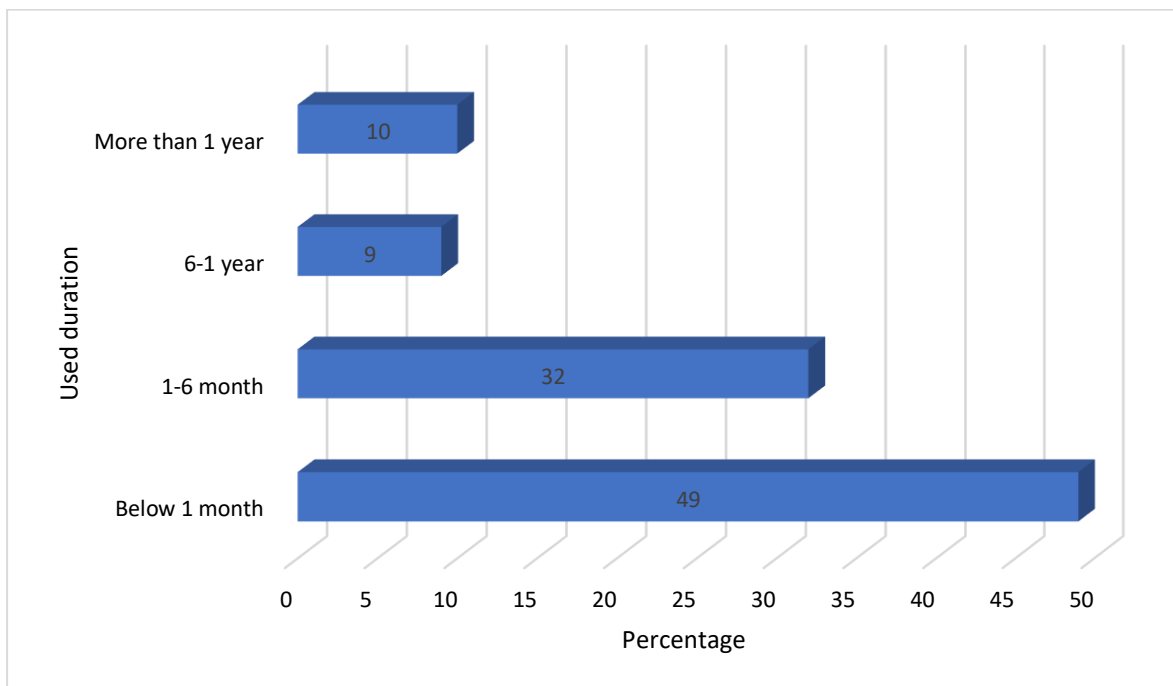


FIGURE 4.6 USAGE OF HE-MAN ROBO PARK

INTERPRETATION

In this study 49% of respondent using He-Man Robo park below 1 month and 32 % respondents using He-Man Robo park for 1-6 months. 9% use robo park for 6–1 year and 10% uses He-Man robo park for more than 1 year.

TABLE 4.7 AWARENESS ABOUT HE-MAN ROBO PARKING

Particulars	No.of respondents	Percentage
Newspaper	22	19
Friend	68	61
Magazine	9	8
Other	14	12
Total	113	100

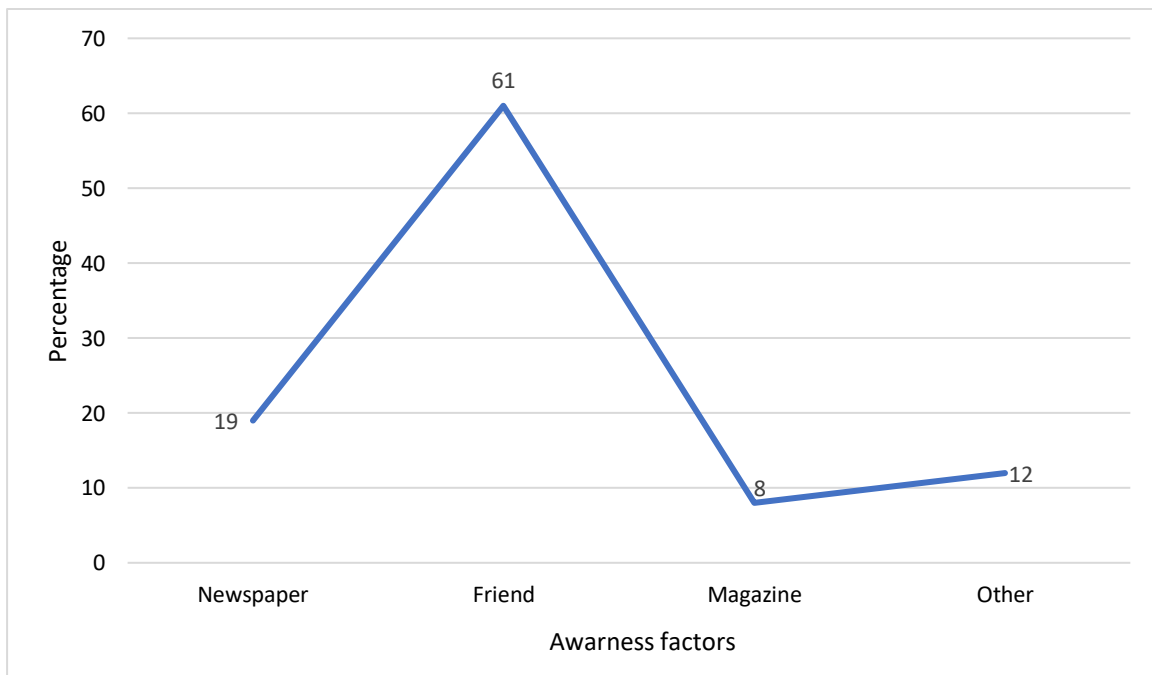


FIGURE 4.7 AWARENESS ABOUT HE-MAN ROBO PARKING

INTERPRETATION

61% of respondents know about He-Man Robo park through friends. Only 8% respondents know about He-Man through magazine. 19% respondents know about He-Man through newspaper and 12% respondents mention others.

TABLE 4.8 COST ANALYSIS

Particular	No.of respondent	Percentage
30 RS/- - 40 RS/-	59	52
40 RS/- - 50 RS/-	39	35
50 RS/- - 60 RS/-	9	8
Above 60 RS/-	6	5
Total	113	100

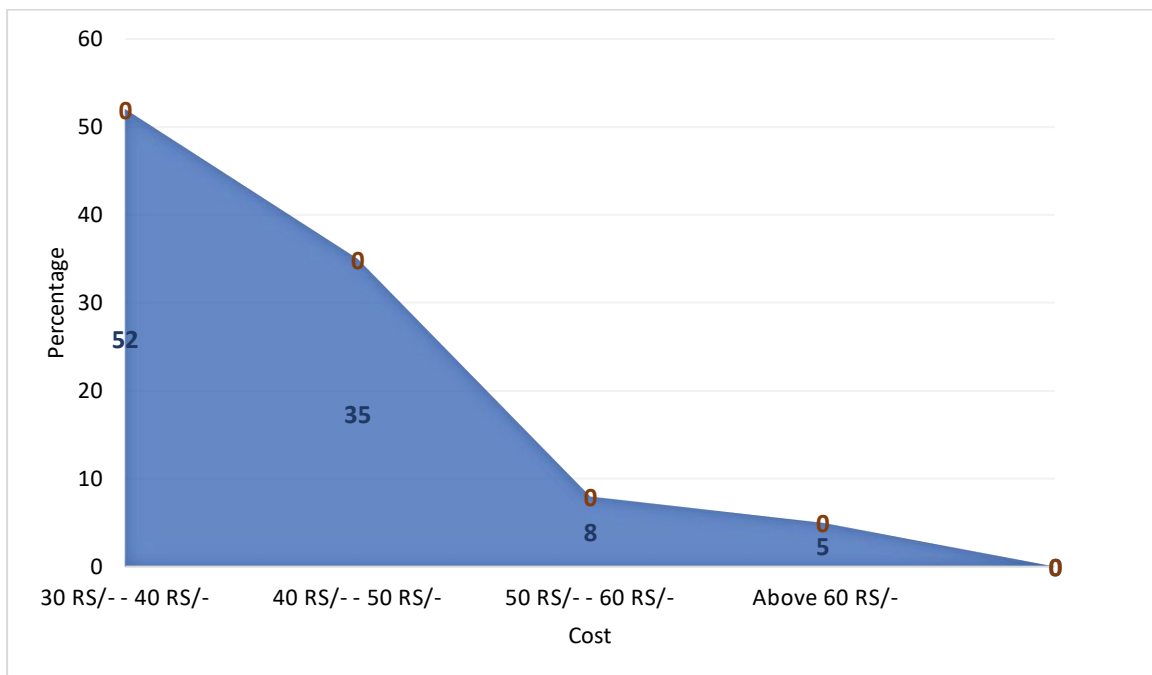


FIGURE 4.8 COST ANALYSIS

INTERPRETATION

In this study the cost analysis shows that 52% of the respondents says that the cost for parking is 30 RS/- - 40 RS/-. 35% respondents mention 40 RS/- -50 RS/-. 8% and 5% respondents say 50 RS/- -60 RS/- and above 60 RS/- are the fee for parking.

TABLE 4.9 SATISFACTION LEVEL OF PRICING

Particular	No.of respondent	Percentage
Extremely Satisfied	24	21
Very Satisfied	61	54
Moderately Satisfied	21	19
Not very Satisfied	5	4
Dissatisfied	2	2
Total	113	100

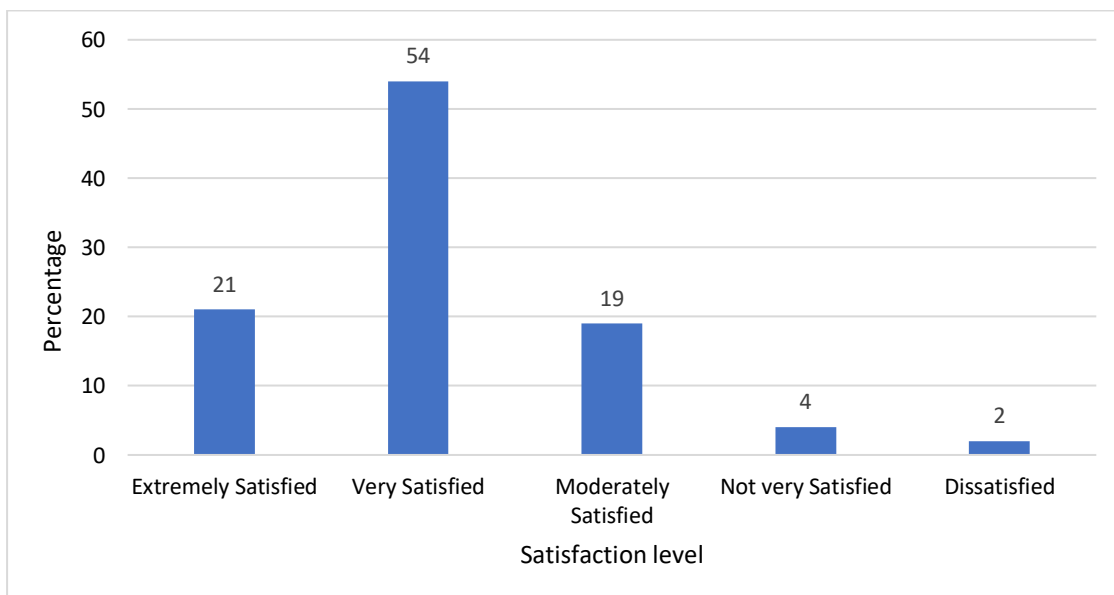


FIGURE 4.9 SATISFACTION LEVEL OF PRICING

INTERPRETATION

54% of respondents are very satisfy with the pricing and 2% shows dissatisfaction. Extremely satisfied respondents are 21%, moderately satisfied are 19% and 4% respondents are not very satisfied.

TABLE 4.10 COMPARISON OF NORMAL PARKING VS ROBO PARKING

Particular	No.of respondent	Percentage
Agree	49	43
Strongly agree	36	32
Neutral	24	21
Strongly disagree	1	1
Disagree	3	3
Total	113	100

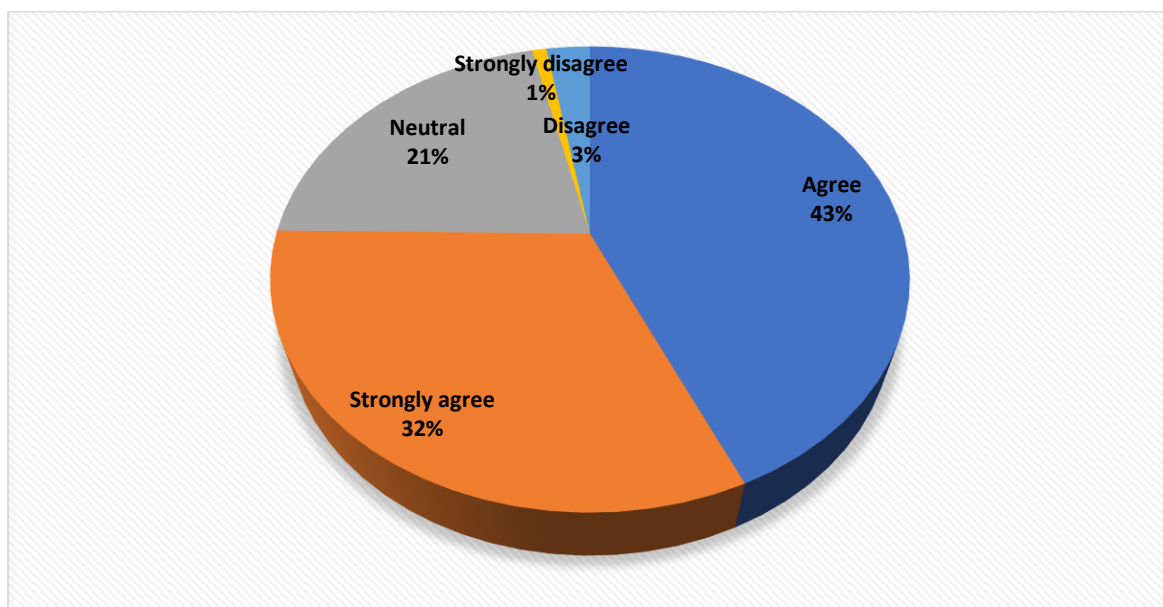


FIGURE 4.10 COMPARISON OF NORMAL PARKING VS ROBO PARKING

INTERPRETATION

43% of respondents shows that he-man Robo parking is better than normal parking and 32% respondents are strongly agree. 1% and 3% respondents were strongly disagree and disagree. 21% respondents mention neutral.

TABLE 4.11 TIME TAKES TO PARK IN ROBO PARK

Particular	No.of respondent	Percentage
Less than 2 mints	37	33
2-3 mints	52	46
3-4 mints	18	16
More than 4 mints	6	5
Total	113	100

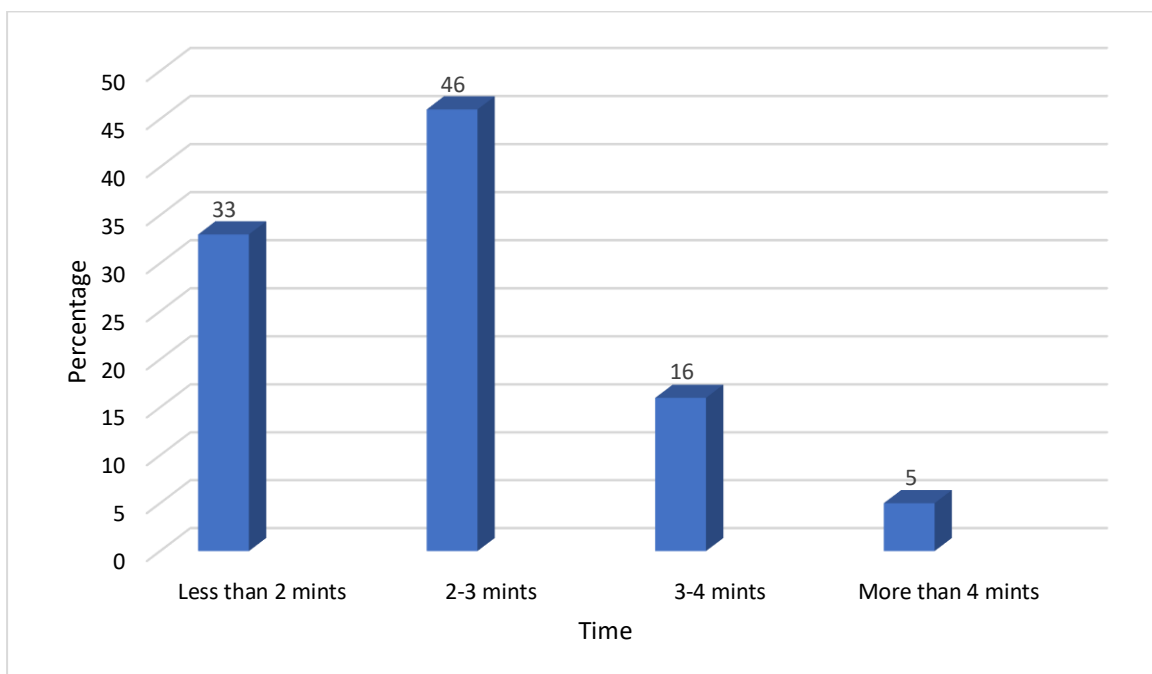


FIGURE 4.11 TIME TAKES TO PARK IN ROBO PARK

INTERPRETATION

Most of the respondents says that 2-3 mints (46%) are taken to park in He-Man Robo park. 33% mention that He-Man take less than 2 mints to park. 3–4 mints were mention by 16% of respondents and 5% respondents says that He-Man robo park take more than 4 mints to park.

TABLE 4.12 SATISFACTION OF TIME TAKEN FOR PARKING IN ROBO PARK

Particular	No.of respondent	Percentage
Extremely Satisfied	32	28
Very Satisfied	56	50
Moderately Satisfied	22	19
Not very Satisfied	2	2
Dissatisfied	1	1
Total	113	100

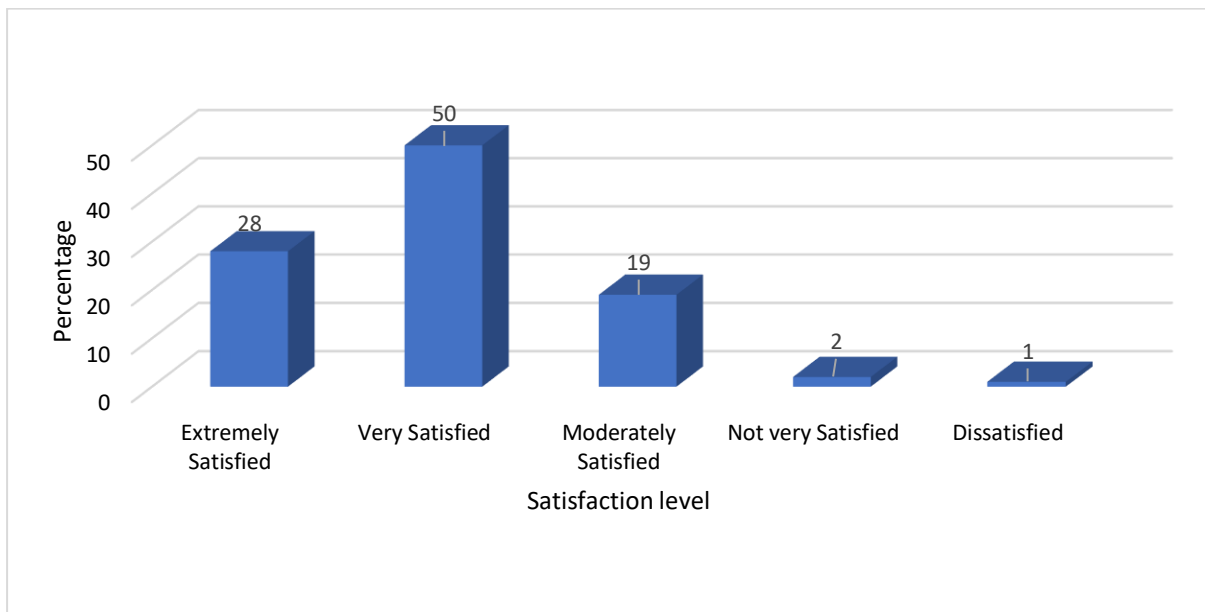


FIGURE 4.12 SATISFACTION OF TIME TAKEN FOR PARKING IN ROBO PARK

INTERPRETATION

Satisfaction of time taken for parking in Robo park, 50% of respondents are very satisfied and 1% are dissatisfied. 28% were extremely satisfied and 2% were not very satisfied. 19% were moderately satisfied with the time taken for parking.

TABLE 4.13 ANALYSING SAFETY OF YOUR CAR IN HE-MAN ROBO PARK

Particular	No.of respondent	Percentage
Excellent	34	30
Good	62	55
Average	12	10
Bad	3	3
Worst	2	2
Total	113	100

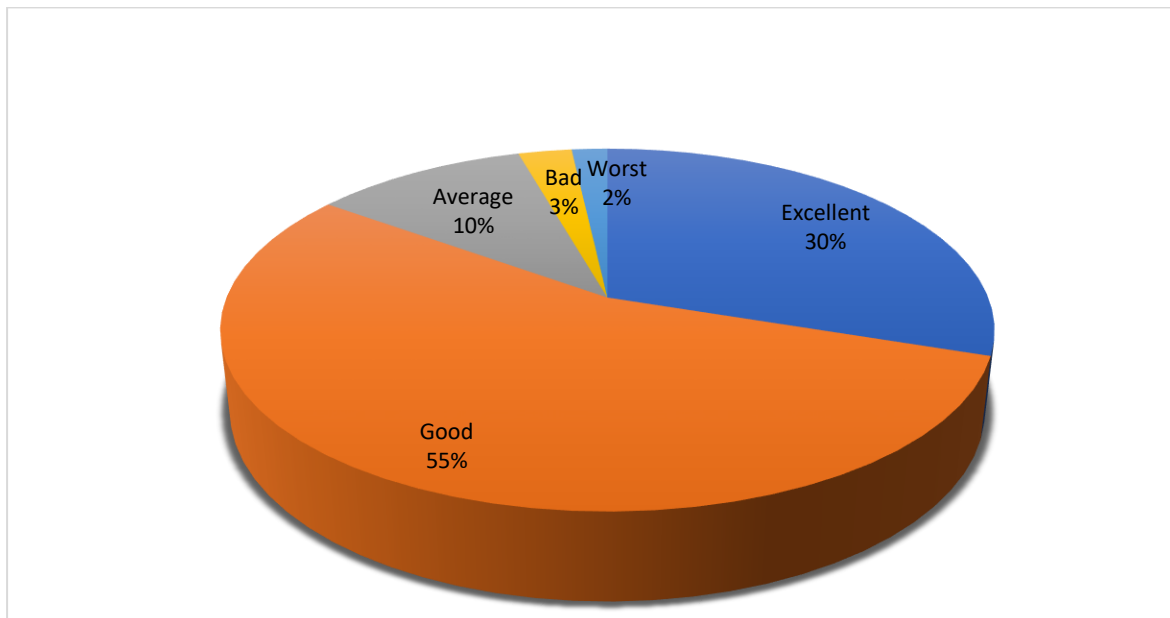


FIGURE 4.13 ANALYSING SAFETY OF YOUR CAR IN HE-MAN ROBO PARK

INTERPRETATION

In the analysis of safety of cars in He-Man Robo park the study shows that 55% are good and 30% are excellent.

TABLE 4.14 DURATION OF CAR PARKING

Particular	No.of respondent	Percentage
Less than 1hr	32	28
1hr-1 day	53	47
1 day-1 week	17	15
1 week-2 weeks	7	6
More than 2 weeks	4	4
Total	113	100

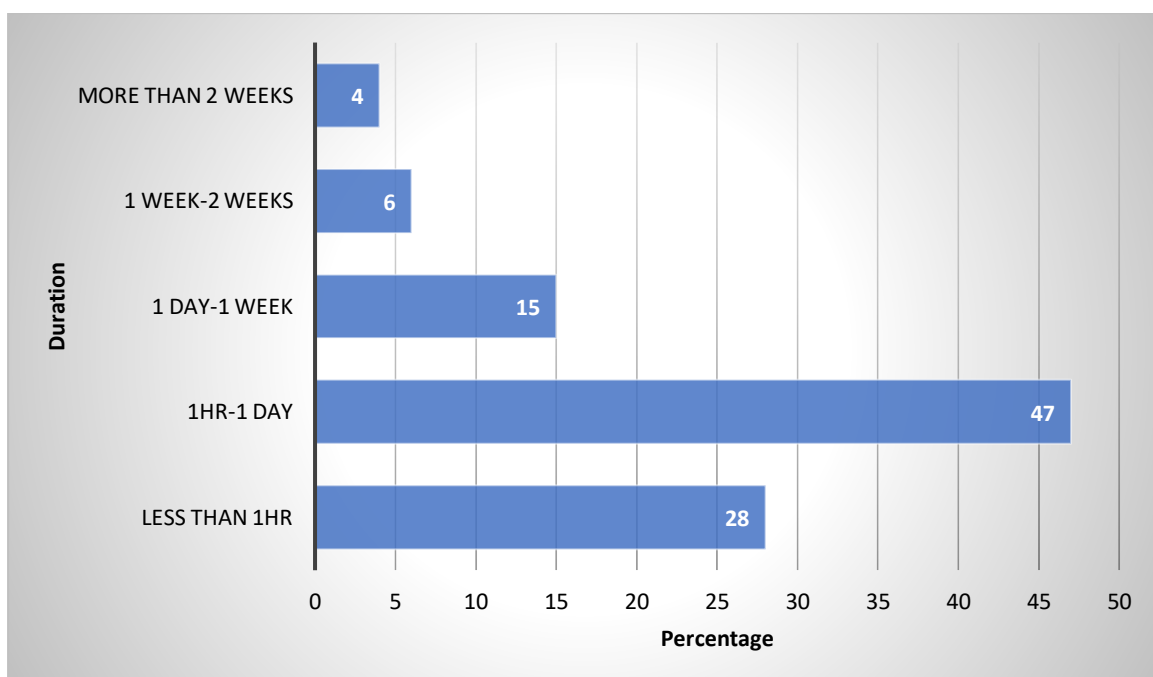


FIGURE 4.14 DURATION OF CAR PARKING

INTERPRETATION

28% of respondents park for less than 1 hr. Most of the respondent park for 1hr to 1 day (47%). 15% respondents park in robo park for 1 day-1 week.

TABLE 4.15 SATISFACTION OF AUDIO-VISUAL SERVICES DURING PARKING

Particular	No.of respondent	Percentage
Extremely Satisfied	40	35
Very Satisfied	47	41
Moderately Satisfied	20	18
Not very Satisfied	4	4
Dissatisfied	2	2
Total	113	100



FIGURE 4.15 SATISFACTION OF AUDIO-VISUAL SERVICES DURING PARKING

INTERPRETATION

In satisfaction of audio-visual services 35% respondents are extremely satisfied and 41% are very satisfied. 18% respondents were moderately satisfied, 4% were not very satisfied and 2% were dissatisfied.

TABLE 4.16 RATING OF COST, SAFETY AND TIME

	1	2	3	4	5	6	7	8	9	10	Total	WM
TIME	27 (27)	26 (52)	25 (75)	13 (52)	3 (15)	3 (18)	2 (14)	3 (24)	5 (45)	6 (60)	382	3.38
COST	13 (13)	25 (50)	28 (84)	11 (44)	3 (15)	3 (18)	6 (32)	6 (48)	8 (72)	10 (100)	476	4.21
SAFETY	13 (13)	19 (38)	30 (90)	17 (68)	6 (30)	5 (30)	2 (14)	2 (16)	9 (81)	10 (100)	480	4.24
OVERALL											1338	11.83

INTERPRETATION

In this study the focusing factors are time, cost and safety in He-Man auto Robo park pvt.ltd. In my study 27 respondents gave 1st rank for the time taken for parking, 28 respondents gave 3rd rank for the parking fee and 30 respondents gave 3rd rank for the safety of the car. Here we can understand that most of the customers prefer He-Man Robo park for the time consuming.

TABLE 4.17 SATISFACTION IN SERVICE OF HE-MAN ROBO PARK

Particular	No.of respondent	Percentage
Extremely Satisfied	34	30
Very Satisfied	61	54
Moderately Satisfied	13	11
Not very Satisfied	3	3
Dissatisfied	2	2
Total	113	100

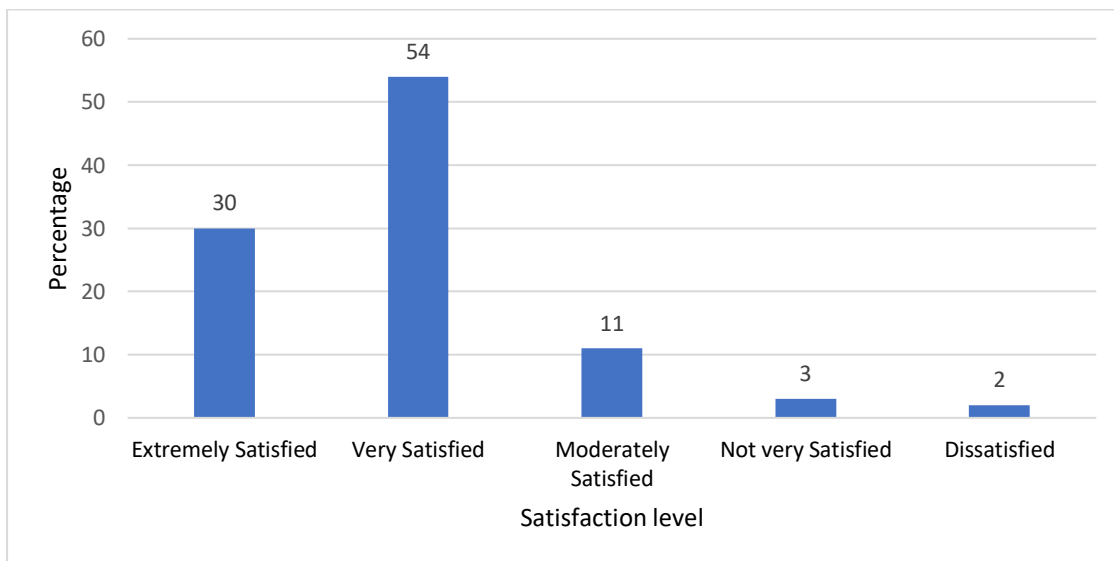


FIGURE 4.16 SATISFACTION IN SERVICE OF HE-MAN ROBO PARK

INTERPRETATION

54% of respondents are satisfied with the services in He-Man Robo park and only 2% of respondents shows dissatisfaction. 30% were extremely satisfied and 3% were not very satisfied with the service in He-Man robo park. 11% respondents mention for moderately satisfied.

TABLE 4.18 ANALYSING ISSUES IN ROBOTIC PARKING

Particular	No.of respondent	Percentage
Positive Response	110	97
Negative Response	3	3
Total	113	100

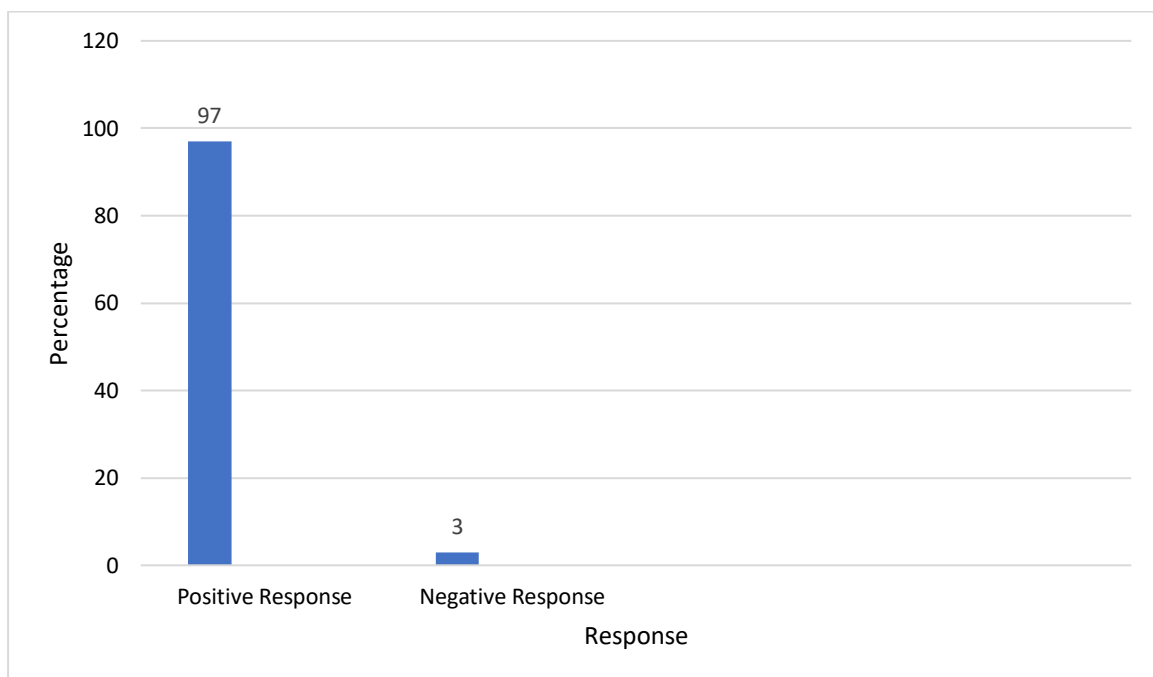


FIGURE 4.17 ANALYSING ISSUES IN ROBOTIC PARKING

INTERPRETATION

The study shows that most of the customers are satisfied with the services in He-Man robotic parking. Only 3% are not satisfied with the services.

CHAPTER 5

DISCUSSION

5.1 INTRODUCTION

Customer satisfaction is a major part in every organization. The business cannot withstand in the market without satisfying the customer needs. My topic was “A study on customer satisfaction on He-Man Auto Robo Park Pvt.Ltd.” the study was conducted among the people in Ernakulam and Thrissur district. 113 respondents were taken for the study.

5.2 SUMMARY OF FINDINGS

The study was conducted among the people in Ernakulam and Thrissur district. Total respondents are 113. The major findings are given below:

- Gender difference among the sample selected for the study, 62% respondents are male. 73% of respondents comes under the age group 18-25 years, 24% of the respondents comes under the age group of 26-35 years. 23% respondents are using Honda and other category cars. 66% of respondent have the annual income of below 250,000.
- In this study shows that most (60%) of respondents first saw He-Man Robo park in MAGJ Hospital Mookkannur, 31% respondents first saw in Lisie Hospital Ernakulam.
- Most of the respondents are using He-Man Robo park below 1 month. 49% of respondents are using He-Man Robo parking below 1 month. 32% of respondents are using for 1-6 month.
- The study shows that most of the customer comes to know about the He-Man Robo park through friends (61%). And 19% of respondents know through newspaper.
- Fifty-two percentage of respondents says that He-Man Robo park charge 30 RS/- - 40 RS/- for parking.
- In the satisfaction analysis its shows that 54% of respondents are very satisfied with the pricing of Robo park, 21% respondents are extremely satisfied with the pricing. Here we can see most of the respondents are satisfied with the pricing in Robo park.
- When Robo parking compare with normal parking, 43% of respondents feel more value for Robo park. 32% strongly agree for Robo parking.
- In this study 46% respondents mention that He-Man Robo parking take 2-3 mints for parking, 33% respond that it taken less than 2 mints.

- Fifty percentage respondents are very satisfied with the time for parking in Robo park, 28% are extremely satisfied with the time.
- Considering the safety of the cars 55% of respondents mention good in parking He-Man Robo park, 30% of respondents mention excellent in the case of safety.
- Twenty- eight percentage of respondent park for less than 1 hr. Most of the respondent park for 1hr to 1 day (47%).
- In satisfaction of audio-visual services 35% respondents are extremely satisfied and 41% are very satisfied.
- In this study the focusing factors are time, cost and safety in He-Man auto Robo park pvt.ltd. In my study 27 respondents gave 1st rank for the time taken for parking. Minimal time consuming is the major attracting factor of He-Man Robo parking.
- Fifty-four percentage of respondents are satisfied with the services in He-Man Robo park.
- The study shows that most of the customers are satisfied (97%) with the services in He-Man robotic parking.
- Through this study I understood that customer satisfaction plays an important role in every business. He-Man Robo parking satisfied the most of customer needs.
- About the safety of the cars most of the respondents are satisfied. Only few of the customer commented worst for the safety of the cars.
- Half of the respondents are satisfied with the time taken for Robo parking. The maximum time it taken to park is 2 mints.
- When it comes to price, the respond of customers shows that the minimum cost for parking is 30/-. It shows that there is no fixed price for Robo parking. Clints are fixing the price for parking.
- This study helps to analyze the 3 factors, they are safety, time and price. Most of the respondents are satisfy with these three factors.

5.3 SUGGESTIONS

- Company should provide more advertisement for the product. Comparing to another product the public awareness is low for the company.
- The company must not compromise the quality of the product. Major part of parking system is steel structure which is 100% recyclable.
- Company should expand the product to other states.
- Company should provide awareness about the safety of the cars in He-Man Robo park.
- In the case of parking fee majority of the customers are satisfied with the parking fee still some of the customer shows dissatisfaction. Company should keep an stability in the parking fee.

5.4 LIMITATIONS OF THE STUDY

- The study is conducted at Ernakulam and Thrissur district only, it is not applicable for other districts.
- The sample size for the study is 113. May not be applicable for entire customers.
- The study only focuses on safety, time and price of He-Man Auto Robo park pvt.ltd. Due to insufficient time the study is not focuses the service quality and other related factor in He-Man Auto Robo Park.

5.5 CONCLUSION

The project entitled “A STUDY ON CUSTOMER SATISFACTION ON HE-MAN AUTO ROBO PARK PVT.LTD” conducted among 113 customers in Ernakulam and Thrissur District. The objective of the study is to analysis the satisfaction of the customers in He-Man Robo park in three factors such as time, safety and price. The most of the respondents in the study shows that the customers are satisfied with the product. The main advantage of He-Man Robo park are, it reduces the total project cost and land area required for He-Man Robotic parking system is minimal. In robotic parking the time taken to park is 2 mints. In this study it shows that the customers are satisfied with the product.

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APPENDIX

QUESTIONNAIRE

I am Ann Mary Jaison, pursuing my Post Graduation in Master of Business Administration. I am conducting market research on the “A STUDY ON CUSTOMER SATISFACTION ON HE-MAN AUTO ROBOPARK PVT LTD”. The information collected will be used only for academic purposes. I request you to kindly spend a few minutes of your time to fill out this questionnaire which forms a comprehensive part of my research. Your response holds a great significance in the successful completion of my study. This is purely for academic purpose and I assure you that confidentiality of your responses will be respected.

1. Gender:

- a. ☐ Male
- b. ☐ Female
- c. ☐ Prefer not to say

2. Age:

- a. ☐ 18 – 25
- b. ☐ 26 - 35
- c. ☐ 36 - 45
- d. ☐ 46 - 55
- e. ☐ Above 55

3. Which company's car do you have?

- a. ☐ Honda
- b. ☐ Ford
- c. ☐ Suzuki
- d. ☐ Tata
- e. ☐ Mahindra and Mahindra
- f. ☐ Toyota
- g. ☐ Other

4. What is your annual income?

- a. ☐ Below 250,000
- b. ☐ 250,000 - 500,000
- c. ☐ 500,000 – 10,00,000
- d. ☐ Above 10,00,000

5. Where do you first see He-Man robopark?

- a. ☐ MAGJ Mookkannur
- b. ☐ Lisie Hospital Ernakulam
- c. ☐ Lourdes Hospital Ernakulam
- d. ☐ Olivia Hospital Alappuzha

6. How long are you using He-man robopark?

- a. ☐ Below 1 month
- b. ☐ 1-6 month
- c. ☐ 6- 1 year
- d. ☐ More than 1 year

7. How do you come to know about He-Man robopark?

- a. ☐ Newspaper
- b. ☐ Friend
- c. ☐ Magazine

8. How much you pay to park in He-Man?

- a. ☐ 30 RS/- - 40 RS/-
- b. ☐ 40 RS/- - 50 RS/-
- c. ☐ 50 RS/- - 60 RS/-
- d. ☐ Above 60 RS/-

9. How satisfied are you with the pricing of the parking?

- a. ☐ Extremely Satisfied
- b. ☐ Very Satisfied
- c. ☐ Moderately Satisfied
- d. ☐ Not very Satisfied
- e. ☐ Dissatisfied

10. Compared to normal parking how do you feel in robopark?

I feel more value for roboparking compared to normal parking.

- a. ☐ Agree
- b. ☐ Strongly agree
- c. ☐ Neutral
- d. ☐ Strongly disagree

- e. ☐Disagree

11. How much time it takes to park in robopark?

- a. ☐Less than 2 mints
- b. ☐2-3 mints
- c. ☐3-4 mints
- d. ☐More than 4mints

12. How satisfied are you with the time for parking in robopark?

- a. ☐Extremely Satisfied
- b. ☐Very Satisfied
- c. ☐Moderately Satisfied
- d. ☐Not Very Satisfied
- e. ☐Dissatisfied

13. What you think about the safety of your car in He-Man robopark?

- a. ☐Excellent
- b. ☐Good
- c. ☐Average
- d. ☐Bad
- e. ☐Worst

14. How long you park in He-Man?

- a. ☐Less than 1hr
- b. ☐1hr-1 day
- c. ☐1 day-1 week
- d. ☐1 week- 2 weeks
- e. ☐More than 2 weeks

15. How satisfied are you with the audio-visual service/instruction provided during the parking in robopark?

- a. ☐Extremely Satisfied
- b. ☐Very Satisfied
- c. ☐Moderately Satisfied
- d. ☐Not Very Satisfied
- e. ☐Dissatisfied

16. Rate the factors that affect you to park in robopark?

RATE	1	2	3	4	5	6	7	8	9	10
TIME										
COST										
SAFETY										

17. Are you satisfied with the overall service's provided by the He-Man robopark?

- a. ☐Extremely Satisfied
- b. ☐Very Satisfied
- c. ☐Moderately Satisfied
- d. ☐Not Very Satisfied
- e. ☐Dissatisfied

18. Is there any problem in the service in He-Man robopark that you have faced?

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