Analysis of the Existing Internal Tracking System and Designing and Implementation of New Tracking System in Medical Equipment Department

By

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This is to certify that Dr Kartik Gupta student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at Portea Medical Home Healthcare, Bangalore from 1 Mar 2016 to 25 May 2016.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfilment of the course requirements.

I wish him all success in all his future endeavours.

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The certificate is awarded to

Dr. Kartik Gupta

In recognition of having successfully completed his
Internship in the department of

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and has successfully completed his Project on

Analysis of the existing internal tracking system and designing and implementation of New tracking system.
25th May, 2016

Portea Medical, Bangalore

He comes across as a committed, sincere & diligent person who has a
Strong drive and zeal for learning

We wish him all the best for future endeavors

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CERTIFICATE BY SCHOLAR

This is to certify that the dissertation under the title: **Analysis of existing internal tracking system, Designing & Implementation of new tracking system in Equipment Department. Home healthcare services (Portea),** has been submitted by **Dr. Kartik Gupta,** Enrolment No: IIHMR-U/MBA-HM/2014-16/19-1560, under the supervision of Dean **Col (Dr.) Ashok Kaushik** This is for award of **MBA Hospital and Health Management** of the university carried out during the period from **March 1, 2016** to **May 25, 2016**.

It embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Dr Kartik Gupta

Signature: Kartik

Date: 27/5/16

1. ***<u>Executive Summery</u>*** **–**

Title – Analysis of the existing Internal Tracking system and designing and Implementation of New Tracking system In Medical equipment Department.

Author – Dr.Kartik Gupta
Advisor – Col. (Dr.) Ashok Kaushik,

<u>Background –</u>

While many organizations have well defined procedures in place to address paper-based document control like MIS, industry research shows many are neglecting to address the problem of electronic information management and storage. As the volume and range of this electronic information increases, so does the problem, and ultimately this increases the level of risk

Internal tracking system provides information for the managerial activities in an organization. It provides accurate and timely information necessary to facilitate the decision-making process and enable the organizations planning, control, and operational functions to be carried out effectively in absence of MIS. Internal tracking system is basically concerned and used in particular branch or department within the organization where compilation of data from different sources is required and later on convert the data into information and is then communicated to within and to other Department in an organization for appropriate decision-making. Internal tracking is a subset of the overall planning and control activities covering the application of humans, technologies, and procedures of the organization. . The Internal tracking system is the mechanism to ensure that information is available to the managers in the form they want it and when they need it.

<u>Objectives –</u>

This study was undertaken with the following objectives:

1. To Analyze existing Internal tracking system of Equipment Department
2. Designing and Implementation of New Tracking system.

***Methodology* -**

The techniques used to collect information regarding analysis of existing tracking system was done by focused group discussion (FGD),informal discussions, and it was done in phases. Initially focused group discussions were conducted with Head of the department, Equipment Head Quarter Team.

In the second phase Informal discussion and conference calls were conducted with the City Ops managers of all branches. The entire information was collated and the same was discussed with Head of department regarding the requirement of new Internal tracking system in absence of MIS for capturing major parameters required for smooth running of Equipment department in Portea.

Conclusion –

Analysis of existing Internal Tracking system in absence of MIS it was realized that there is a need of new tracking system for accurate and timely availability of information for planning, controlling and decision making process which was not possible with existing system.

New tracking system is been designed & developed and later on after a series of trainings and discussions New tracking system was successfully implemented for better compilation of data from different cities required for management and it also enable us to capture required parameters, revenue information's to evaluate Sources, performing parameters, Products lines and problems areas in different cities which is required to formulate and design various business developmental plans city wise for future growth of company.

ACKNOWLEDGEMENT

First and foremost, I would like to thank my parents for their unconditional love for me, their continual support to all my decisions, for understanding my objectives in life and allowing me to express myself freely.

It is my utmost privilege to be a part of INSTITUTE OF HEALTH MANAGEMENT AND RESEARCH (IIHMR), which stands as an institute of national importance and a centre of excellence in Healthcare education in India.

It is a pleasant duty to express my deep sense of gratitude and indebtedness to Mrs .Meena Ganesh (CEO, Portea Homecare), Mr Vaibhav Tewari (COO, Portea Homecare) & Mrs. Barnali (Head Human Resource, Portea Homecare) for providing me opportunity to work In Portea Homecare.

I express my sincere gratitude towards my mentor at Portea, Mr. Ashish Bhutada (Sr Vice President) and Mr Anoop Kodoli (General Manager, Clinical Head) for providing me with the necessary information, required resources, guidance and motivation during the entire project.

I take this opportunity to express my deep sense of gratitude to my guide and mentor Col (Dr) Ashok Kaushik, Dean Academics & Students Affairs, IHMR for his constant support and encouragement.

My dissertation at Portea, Bangalore has been an enriching experience and gave me the cordial environment and platform to learn and link our theoretical knowledge with practical knowledge.

Dr.Kartik Gupta

Abbreviation

B2B – Business to Business

B2C – Business to Customer

RM – Record Management

MIS-Management Information System

IP – In Patient

OP- Out Patient

IT – Information Technology

PR No – Payment Receipt Number

GRN No- Goods return Number

Table of content

List of Figures

2. Introduction

The last few years have seen an increase in new corporate rules, industry regulation and stricter legislation aimed at controlling the way organizations conduct business. Companies wishing to demonstrate greater levels of corporate responsibility and transparency are putting in place procedures to demonstrate control. Many are implementing Governance, Retention and Internal Tracking system to address these requirements. Proper Records Management (RM) by Internal Tracking system control, managing who can access and modify key document records, is an integral part of achieving compliance within these policies.

While many organizations have well defined procedures in place to address paper-based document control like MIS, industry research shows many are neglecting to address the problem of electronic information management and storage. As the volume and range of this electronic information increases, so does the problem, and ultimately this increases the level of risk.

Leading companies are moving away from relying on e-discovery service providers for a case-by-case fire drill, toward adapting their litigation response into a repeatable internal business process. The cost of external agencies to carry out these 'fire drills' on a case-by-case basis can be huge sometimes running into many millions of rupees. But by implementing corporate-wide Internal tracking solutions to address these requirements as part of a Governance, Retention and Compliance initiative, companies are hoping to proactively manage corporate information.

Internal tracking system also play an important role in managing business across different cities depend upon the network of company. Through this system companies can track performance at different steps during product or service delivery to customers. It makes easy job for managers to find out Loop holes and week areas in service delivery system.

Businesses with branches in different cities are getting benefits through these tracking systems they act as standard template to run business, compile processes, data and compliance of performance in more structured way.

These tracking system also extract valuable information regarding various intradepartmental issues which cannot be visualize through Central MIS of the Organization. Tracking system also can act as substitute or backup in case of non availability of MIS, technical Glitches in system during functional hours.

Internal controls or tracking filter through the whole business to:

• **Help align objectives of the business** – to ensure thorough reporting procedures and that the activities carried out by the business are in line with the business's objectives.

• Safeguard assets – ensuring the business's physical and monetary assets are protected from fraud, theft and errors.

• Prevent and detect fraud and error – ensuring the systems quickly identify errors and fraud if and when they occur.

• Encourage good management – allowing the manager to receive timely and relevant information on performance against targets, as well as key figures that can indicate variances from target.

• Allow action to be taken against undesirable performance – authorising a formal method of dealing with fraud, dishonesty or incompetence when detected.

• Reduce exposure to risks – minimising the chance of unexpected events.

• Ensuring proper financial reporting – maintaining accurate and complete reports required by legislation and management, and minimising time lost correcting errors and ensuring resources are correctly and efficiently allocated.

Each internal control procedure is designed to fulfil at least one of these eight criteria:

• Completeness – that all records and transactions are included in the reports of business.

• **Accuracy** – the right amounts are recorded in the correct accounts.

• **Authorisation** – the correct levels of authorisation are in place to cover such things as approval, payments, data entry and computer access.

• **Validity -** that the invoice is for work performed or products received and the business has incurred the liability properly.

• Existence – of assets and liabilities. Has a purchase been recorded for goods or services that have not yet been received? Do all assets on the books actually exist? Is there correct documentation to support the item?

• Handling errors – that error in the system have been identified and processed.

• Segregation of duties – to ensure certain functions are kept separate. For example, the person taking cash receipts does not also do the banking.

• Presentation and disclosure – timely preparation of financial reports in conformity with generally accepted accounting principles

2.1 Rationale-

During my dissertation period in Portea I have found that there was absence of proper internal tracking system within Medical Equipment Department of portea. Equipment wing was functional in 18 Cities but there was no proper standardized tracking process for orders or lead in different cities.

There was no connecting link with existing internal tracking system and current MIS of Portea, which make it more difficult to track complete process and generate various reports through extracted(from existing tracking system) incomplete data from different cities.

After analyzing existing Internal tracking system it was quite visible that we were lacking in service delivery, data management & Implementation and governance of various processes in Equipment Department which are as follows:

- Record of revenue generation in different cities daily, weekly & monthly basis.
- Availability or non availability of particular equipment in different cities.
- Defined sources of revenue according to Product line.
- Defined Equipment category.
- Defined Lead category
- Calculation of revenue according to various Key accounts like B2B, B2C etc.
- Lack of Monitoring of various leads or orders in terms of accountability of assigned staff, timely delivery of equipment etc.

There was a urgent need of developing new tracking system to improve efficiency and better data coverage.

3. ***Review of Literature***

A study by G Satyanarayan reddy,rallbandi srinivasu(2009) Management Information system to help managers for providing decision making in an organization. It brings together the raw data collected by the various business areas of the organization, which while useful for specific functions such as accounting does not provide by itself information that can be used to make decisions. As organizations grows, MIS allows information to move between functional areas and departments instantly, reducing the need for face to face communications among employees thus responsiveness of the organization.

Dr Salman Afghani, Ayesha Sadique and Mohammed Ishfaq(2014) conducted a study to develop Employee tracking real time irregularity detection and warning system.

Since the very beginning of the industrial revolution the work-force (employees) is forced to perform repeated laborious tasks round the clock. To make things worse, most of the tasks are non-intellectual. With the passage of time while the employee is gaining experience and becoming more productive, he is losing human characteristics. And gradually transforming into a circus animal. Being inherently irregular and unpredictable employee (humans) require a system that can not only curb their irregularities but also, reminds them of their expected location via vocal announcements in real time. To meet these requirements, we present an efficient system that tracks the where about of employees in indoor environment. And keeps compact tempo-spatial track records of each employee.

It helps them to avoid irregularities in real time which otherwise may lead to accumulation of a considerable debt at the end of the month. The proposed system is both employee and organization friendly. The employee benefits because he/she is not deprived of human comfort level. And the organization benefits because the efficiency of employee is increase in real time.

Study by Ruth Stanat (2010) Developing International Information Data base:

With the unification of Europe and the rapidly changing political and economic events worldwide, research executives are currently faced with the need for translated, synthesized and analyzed information from the various countries within the European Economic Commission (EEC) and from other parts of the world. Under the new economic system of the EEC, several companies will plan to expand the marketing of their products and services. Consequently, they will have a need for the collection of published information as well as the need to collect quantitative data. During the 90s, senior management will seek answers to specific questions, such as "Is the Eastern Europe consumer ready for X,Y, or Z product?" rather than reading large market research reports which do not specifically answer their questions.

4. ***Methodology –***

4.1 Research Question –

How to improve existing internal tracking system in Medical equipment department in Portea homecare.

4.2 Objectives –

1. To identify the gaps in Existing Internal tracking system
2. Designing and Implementation of new internal tracking system

4.3 Research Design

4.3.1 **Study type** – Descriptive study

4.3.2 **Area of study-** Study will be conducted in Medical Equipment department in Portea Homecare

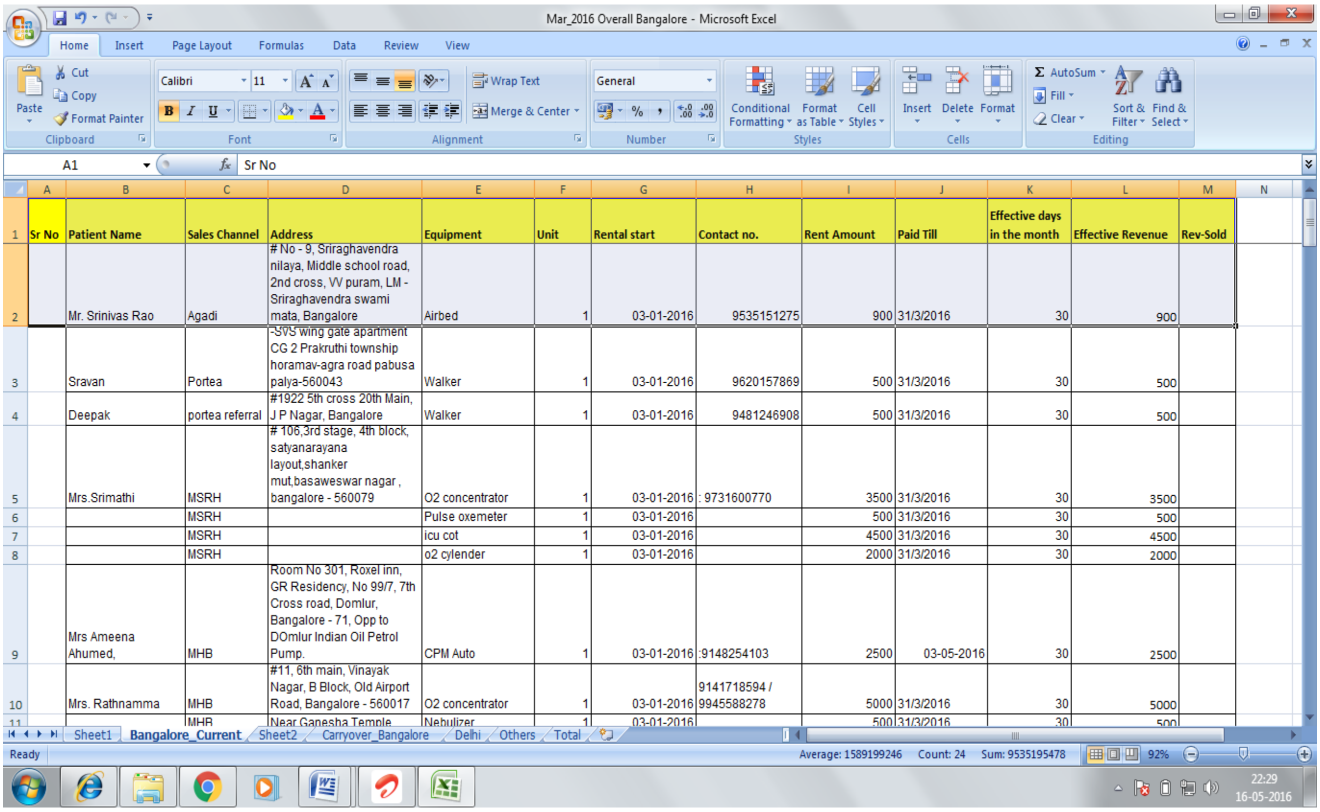
5. ***Tools and Techniques***

The techniques used to collect information regarding analysis of existing tracking system was done by focused group discussion (FGD and it was done in phases. Initially focused group discussions were conducted with Head of the department, Equipment Head Quarter Team.

In the second phase Informal discussion and conference calls were conducted with the City Ops managers of all branches. The entire information was collated and the same was discussed with Head of department regarding the requirement of new Internal tracking system in absence of MIS for capturing major parameters required for smooth running of Equipment department in Portea

6) Existing Internal tracking system –

Existing Internal tracking system was maintained on master Excel sheet maintained by equipment department.



	Sr No	Patient Name	Sales Channel	Address	Equipment	Unit	Rental start	Contact no.	Rent Amount	Paid Till	Effective days in the month	Effective Revenue	Rev-Sold
2		Mr. Srinivas Rao	Agadi	# No - 9, Sriraghavendra nilaya, Middle school road, 2nd cross, VV puram, LM - Sriraghavendra swami mata, Bangalore	Airbed	1	03-01-2016	9535151275	900	31/3/2016	30	900	
3		Sravan	Portea	-SVS wing gate apartment CG 2 Prakruthi township horamav-agra road pabusa palya-560043	Walker	1	03-01-2016	9620157869	500	31/3/2016	30	500	
4		Deepak	portea referral	#1922 5th cross 20th Main, J P Nagar, Bangalore	Walker	1	03-01-2016	9481246908	500	31/3/2016	30	500	
5		Mrs.Srimathi	MSRH	# 106,3rd stage, 4th block, satyanarayana layout,shanker mut,basaweswar nagar , bangalore - 560079	O2 concentrator	1	03-01-2016	: 9731600770	3500	31/3/2016	30	3500	
6			MSRH		Pulse oxemeter	1	03-01-2016		500	31/3/2016	30	500	
7			MSRH		icu cot	1	03-01-2016		4500	31/3/2016	30	4500	
8			MSRH		o2 cylender	1	03-01-2016		2000	31/3/2016	30	2000	
9		Mrs Ameena Ahumed,	MHB	Room No 301, Roxel inn, GR Residency, No 99/7, 7th Cross road, Domlur, Bangalore - 71, Opp to DOmlur Indian Oil Petrol Pump.	CPM Auto	1	03-01-2016	:9148254103	2500	03-05-2016	30	2500	
10		Mrs. Rathnamma	MHB	#11, 6th main, Vinayak Nagar, B Block, Old Airport Road, Bangalore - 560017	O2 concentrator	1	03-01-2016	9141718594 / 9945588278	5000	31/3/2016	30	5000	
11			MHB	Near Ganesha Temple	Nebulizer	1	03-01-2016		500	31/3/2016	30	500	

Figure-01: Existing Master tracker

Major tabs covered this master sheet are as follows:-

- S No
- Patient name
- Sales Channel: source from where lead has come.
- Address
- Equipment: Name of the equipment
- Unit: number of units
- Rental/Sales:
- Contact Number
- Rent amount :monthly rental amount
- Paid Till: rental end date
- Effective day in the month: number of rental days in particular month
- Effective revenue: calculated revenue in particular month
- Revenue Sold: revenue through sale

On weekly basis all cities send revenue data through excel sheet but there was no as such standard template which they need to share.

Existing tracking system was not compatible to capture below parameters:

- Record of revenue generation in different cities daily, weekly & monthly basis.
- Availability or non availability of particular equipment in different cities.
- Defined sources of revenue according to Product line.
- Defined Equipment category.
- Defined Lead category
- Calculation of revenue according to various Key accounts like B2B,B2C etc.
- Lack of Monitoring of various leads or orders in terms of accountability of assigned staff, timely delivery of equipment etc.

It was very difficult to compile complete data on daily basis even compilation on weekly basis was a big task through existing Tracking system.

Assessment or compliance of data compilation and validation was also very difficult to analyze due to non availability of standard template for sharing of data and no structured monitoring mechanism to track.

7.) *Designing and Development of New Tracking system*

After analyzing all reports and informal discussions we have started developing Tracking system on Google spreadsheets which can be shared by various end users regarding filling or editing of data.

Google Sheets is a spreadsheet app on steroids. It looks and functions much like any other spreadsheet tool, but because it's an online app, it offers much more than most spreadsheet tools. Here are some of the things that make it so much better:

- It's a web-based spreadsheet that you can use anywhere—no more forgetting your spreadsheet files at home.
- Google Sheets is free, and it's bundled with Google Drive the other Google Docs tools.
- It uses almost all of the same spreadsheet functions—if you know how to use Excel, you'll feel at home in Google Sheets.

- You can download add-ons, create your own, and write custom code.
- It's online, so you can gather data with your spreadsheet automatically and do almost anything you want.

Common Spreadsheet Terms

To kick things off, let's cover some spreadsheet terminology to help you understand this tutorial:

- **Cell**: A single data point or element in a spreadsheet.
- **Column**: A vertical set of cells.
- **Row**: A horizontal set of cells.
- **Range**: A selection of cells extending across a row, column, or both.
- **Function**: A built-in operation from the spreadsheet app, which can be used to calculate cell, row, column, or range values, manipulate data, and more.
- **Formula**: The combination of functions, cells, rows, columns, and ranges used to obtain a specific result.
- **Worksheet (Sheet)**: The named sets of rows and columns making up your spreadsheet; one spreadsheet can have multiple sheets
- **Spreadsheet**: The entire document containing your worksheets

Internal Tracking sheet is basically divided into different categories for Required Information which are as follow:

7.1) *Customer Basic Information*

- Sr No
- Date: date of request
- Time: time of request
- Patient name
- Address : Patient address
- Contact No
- Customer Id: Portea generated unique ID number

- Email address of patient: for future communications
- Bank details: regarding refund process

Customer Basic Information								
Sr No	Date	Time	Patient Name	Address	Contact no.	Customer Id	E mail	Customer Bank Details
1	5/2/2016	1:00	rajendra shroff	28, Asopalav baung	9824000463			

Figure 02: Customer Basic information

7.2) *Sales Information*

- Lead Source:

Lead source basically providing you information about sales channel involve for particular lead. Different sales channel are as follows:

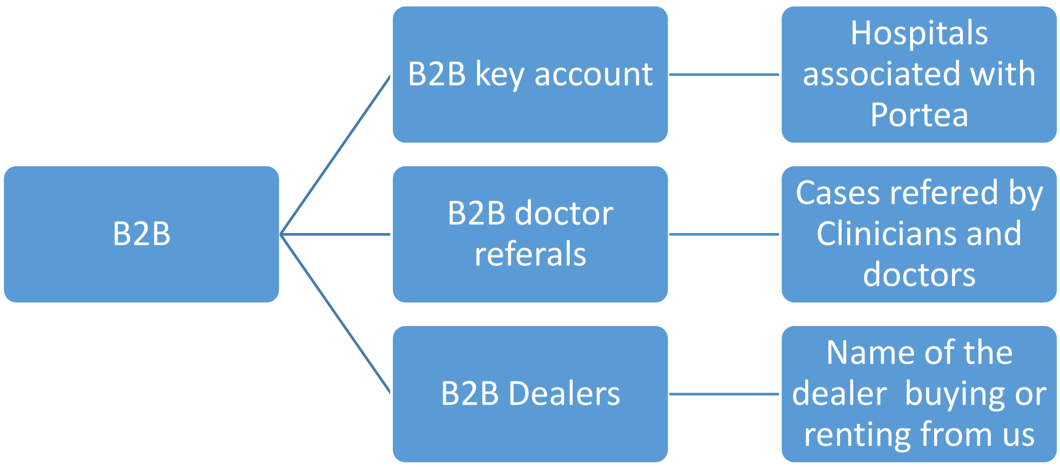


Figure 03: B2B Sales Channel

We have given drop down to avoid any mistakes in selection of lead source and make it mandatory to fill up.

- Key account/dealer/doctor referral name: name of particular source like name of hospital
- If B2B IP or OP: patient is IPD patient or OPD patient.

- Sales executive name: lead assigned by team member of sales team(For incentive calculation)
- Equipment requested: Name of the equipment requested by patient
- Rental/Sales, Carryover revenue: For rental, Sales or already running case(Rental carryover)
- Converted: yes/No – Lead converted or not
- Committed Delivery date: informed by sales person
- Committed Delivery time: informed by sales person

Sales Information								
Lead Source : B2B/B2C/Dealers (if B2B - Key account name or Doctor Referral or Dealer)	Key Account/Dealer/Doctor Refereal name	If B2B, IP /OP	Sales Excutive(name)	Equipment Requested	Rent/Sale/Rental carry over	Converted:yes/no	Committed Delivery Date	Committed Delivery Time

Figure 04:Sales Information

7.3) *Equipment Information*

Equipment Information										
Lead Status	Lead Category:Critical/semicritical/non crticial	Assigned to (Service Excutive/Equipement coordinator/SME)	Assigned to(name)	Equipment :Category	Product source :Third party/HVIPL/Medibiz	Third party vendor name	Product name	Brand	Model name/Number	Serial no/ID

Figure 05: Equipment Information

- Lead Status : Current status of lead in terms of Cancel/In process/Complete.(Drop down based)
- Lead category: Request of medical equipment or leads are broadly divided into three critical level which are as follows:
    - Non critical: wheel chair, walkers, beds etc.
    - Semi Critical: Oxygen Concentrator, suction apparatus, dvt pump etc.

- Critical: Ventilators, Bipap, Holter machine etc.

- Assigned to: service executive/Equipment coordinator/SME regarding delivery, demo & installations.

- Equipment Category: All equipments are broadly divided into two major Product lines which are as follows:(Drop down)

Respiratory & Sleep

- Oxygen Concentrator
- Portable Oxygen Conc
- BiPAP/Non Invasive Ventilator
- ICU Bed (Motorized)
- Syringe Pump
- Infusion Pump
- Suction Apparatus
- CPAP
- Masks , Accessories
- Sleep-Diagnostic test
- Snoring relief products
- Sleep Inducing Devices
- MAD/Oral appliances

Mobility & Geriatric

- Hospital Beds
- Air Mattresses
- Manual Wheelchair
- Commode Chair
- Scooter
- Over-bed Table
- shower chair
- Hearing aids
- 24-hr Ambulatory BP Monitor
- 24-hr Holter Recorder
- ICU Bed (Motorized)

Figure 06: List of equipments (Product line)

- Product Source: From our Inventory or from other vendor.
- Third party vendor: Vendor name
- Product name: Name of the equipment
- Brand: like Philips or Resmed.
- Model name: on equipment
- Serial No: on equipment

7.4) *Rental/Sales Delivery Process*

Rental/Sales Delivery Process													
Gate pass no	Date of Delivery	Time of Delivery	Delivery Note No	PR No	Mode of payement cash/Cheque/DD/NEFT	Rent rate-(Days/month)	Rent Start Date	Paid Till/End date	Collected rental amount	Security Deposit	Sales amount	Manufacturer'sWarranty(in months/years)	Total amount

Figure 07: Rental sales delivery process

- Gate pass No:
- Date of Delivery:
- Time of Delivery
- Delivery Note no:
- PR No: Payment receipt No
- Mode of payment(cash/cheque/NEFT):
- Rental Start Date
- Paid till/End date
- Collected rental amount
- Security Deposit
- Sales Amount
- Manufacturer's Warranty (For sales)
- Total Amount:

7.5) Return & Refund Process

Equipment Return & Refund Process							
Pick up Request Date	Assigned to	Pick up Date	GRN No	Refund Amount	Mode of payement cash/Cheque/DD/NEFT	Payement Reference No	Remarks

Figure 08: Return & Refund process

- Pick up Request date: Requested by Patient
- Assigned to: assigned to which staff(service executive)
- Pick up Date: Date when staff went for pick up.
- GRN No: Goods return Note No
- Refund amount: Refund amount to patient(Security amount)
- Mode of payment(cash/cheque/NEFT): for refund
- Payment reference No: Reference number for tracking of refund amount
- Remarks: Any particular information about lead to share.

8 *Implementation and results*

After completion of designing and development of standard tracker template, it was shared with all City wise Ops managers and training sessions were conducted regarding how to fill up the tracker and related queries through Conference calls.

Finally lead/Order tracker is launched on April 01 2016 and data filling and compilation started from respective equipment teams city wise.

Data is been captured on the basis of leads from different cities which is as follows:

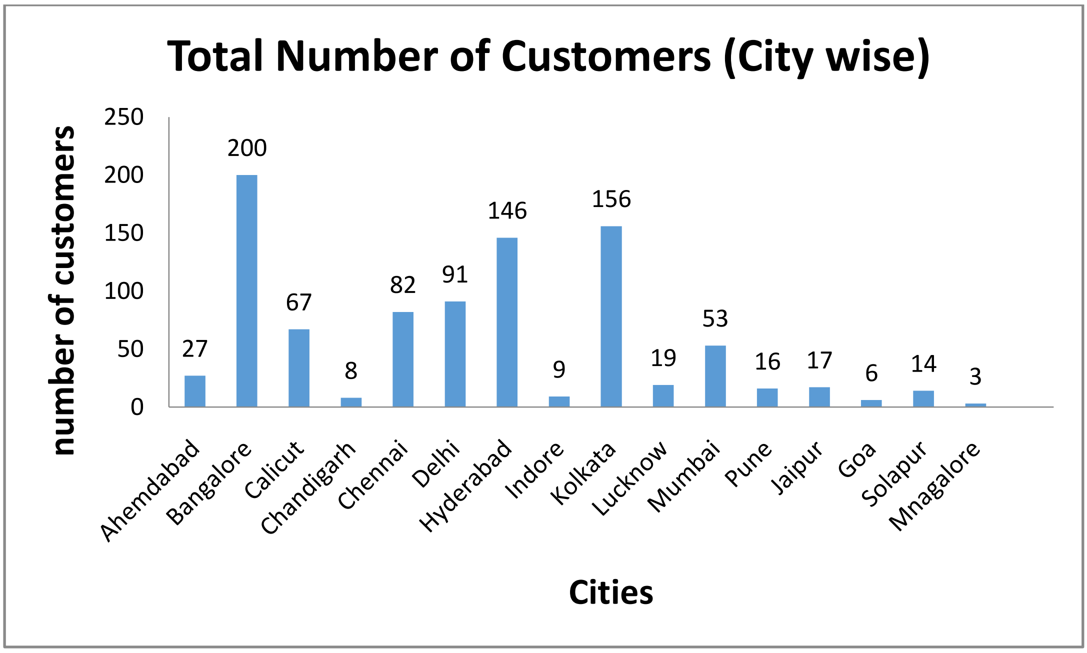


Figure 09: Total number of customers (City wise)

On the basis of data compilation for 45 days from 1-Apr-16 to 15-May-16 data is been captured for total 914 patients pan India and we were able to capture various reports as it was required from Internal Tracking system which is as follows:

8.1Total revenue generation:

Total revenue generated from different cities through different medium (Rental/Sales):

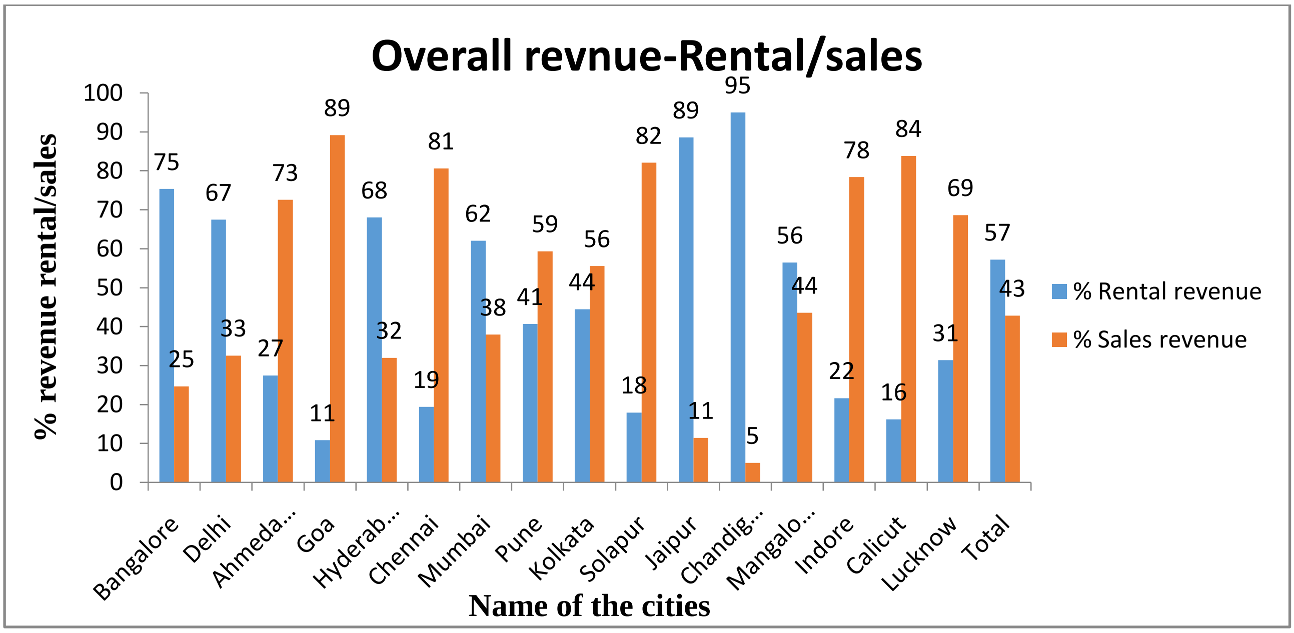


Figure -10: Overall revenue-Pan India

Figure 10 shows majority of the cities rental revenue is more than sales revenue and out of total revenue 57% is rental revenue and 43% is sales revenue.

8.2) ***Total revenue through Lead sources***

Total revenue generated through different Lead Sources in pan India:

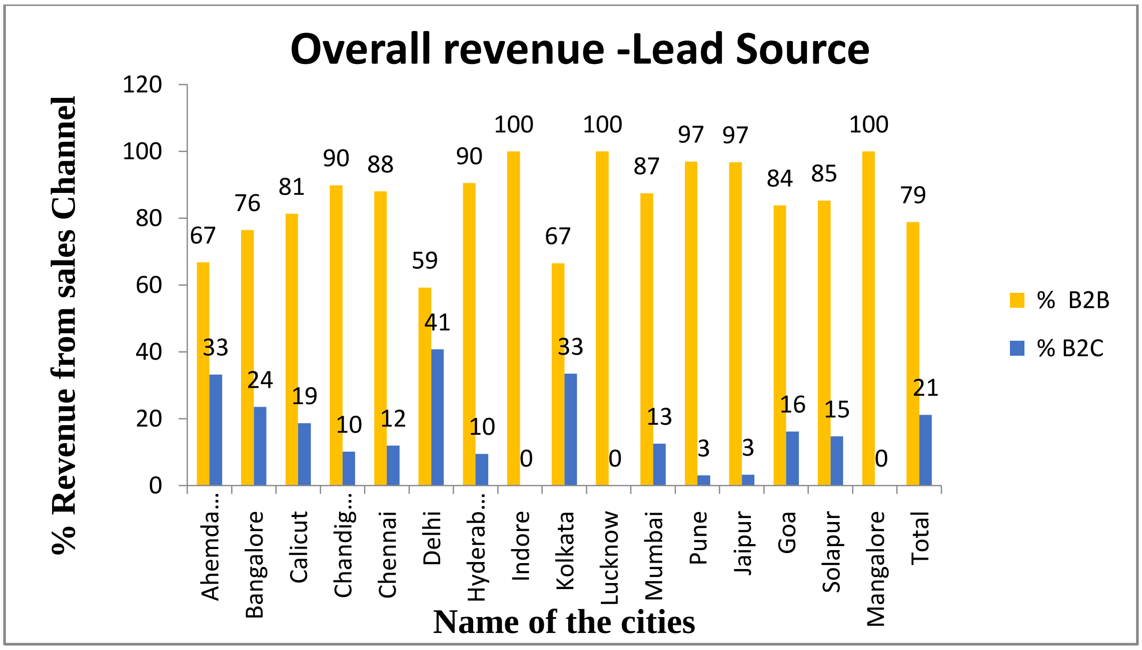


Figure 11: Overall revenue –Lead source

Above graph clearly visualizing % revenue through B2B and B2C in different cities, in all cities revenue through B2B is leading as compare to B2C and overall 79% revenue is coming from B2B and rest 21% from B2C.

8.3) ***Revenue from Various B2B Channels***

Internal tracking system also made us compatible to analysis total B2B revenue through various Channels like Key accounts, Doctor Referrals and Dealers:

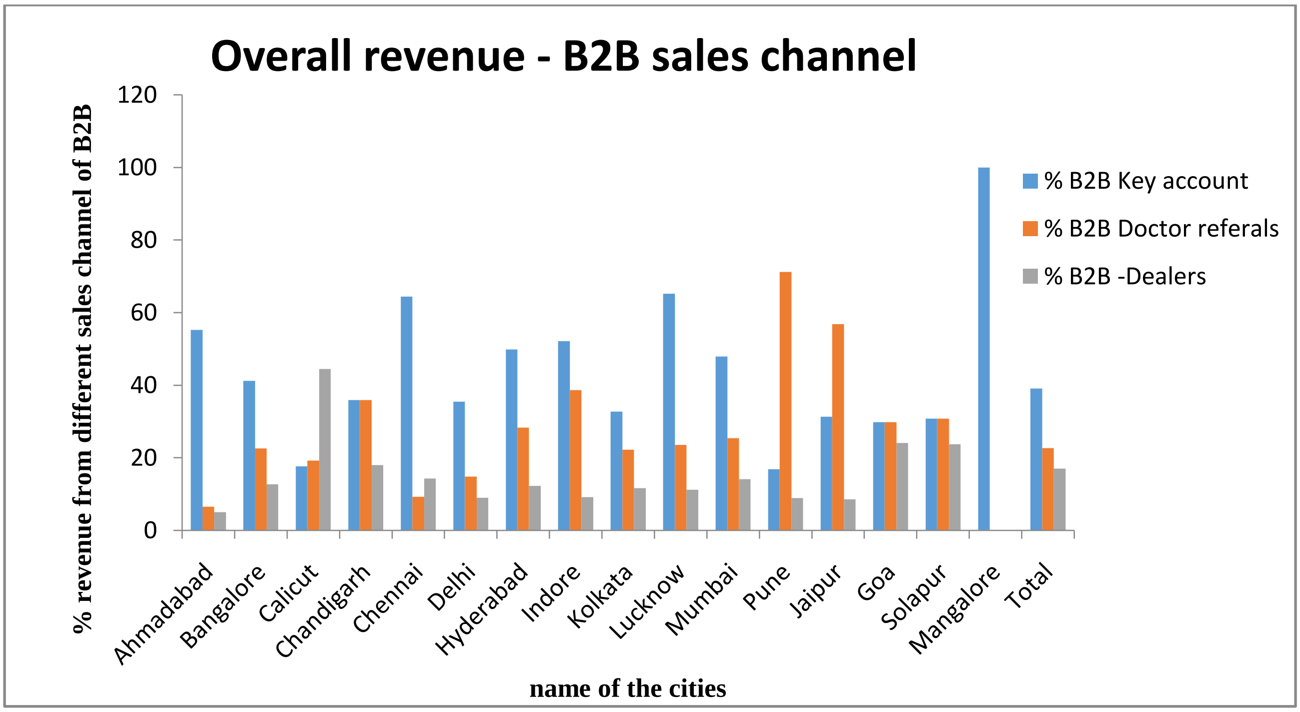


Figure 12: Overall revenue- B2B Sales channels

City wise	% B2B Key account	% B2B Doctor referrals	% B2B– Dealers
Ahmadabad	55	7	5
Bangalore	41	23	13
Calicut	18	19	44
Chandigarh	36	36	18
Chennai	64	9	14
Delhi	35	15	9
Hyderabad	50	28	12
Indore	52	39	9
Kolkata	33	22	12
Lucknow	65	24	11
Mumbai	48	25	14
Pune	17	71	9
Jaipur	31	57	9
Goa	30	30	24

Sholapur	31	31	24
Mangalore	100	0	0
Total	39	23	17

Figure 13: City wise % Share of revenue of B2B Channels

Above figure clearly shows % revenue through various different channels of B2B in Pan India, in most of the cities revenue from B2B-Key account is maximum. Overall revenue through B2B key account is 39% followed by 23 % and 17 % for B2B Doctor Referrals and B2B Dealers respectively.

To analyze these numbers are very important to find out in which cities we need to work more or different measures are required for more business development.

8.4) ***Total revenue through Different Product line***

Analysis of revenue through Equipment category in Pan India:

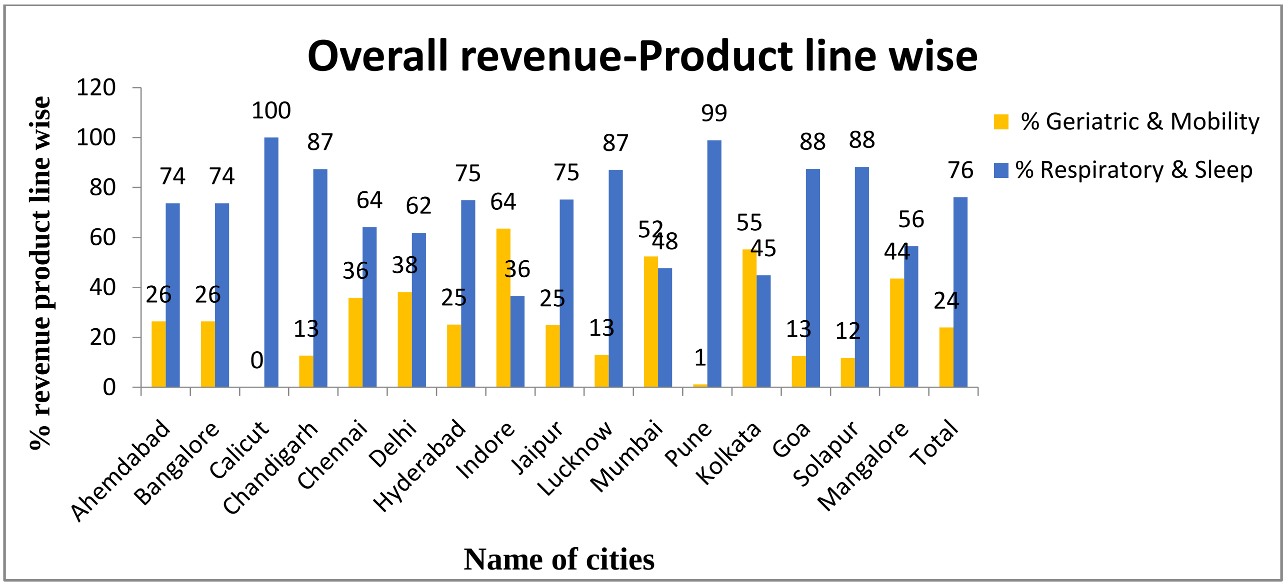


Figure 13: Overall revenue-Product line

From above figure it is clearly showing data regarding % revenue we are generating from different Product line in Pan India level, Almost all cities revenue through Respiratory & Sleep product line is far ahead as compare to Geriatric & Mobility.

Overall also 76% of revenue from pan India is coming from Respiratory & Sleep product line as compare to 24 % from Geriatric & Mobility.

Revenue according to product line is also important to analyze which city is showing more potential in which product line and according to that we can modify our marketing strategies city wise to increase revenue.

9) ***Data Compliance of Internal tracking system:***

For better quality of data compilation it is also necessary to monitor Compliance of data filling in internal tracker from different cities Ops team.

To evaluate that we are also doing compliance check after every 15 days to find out which cities are providing or filling data with good compliance and which are not than we publish this report to all city Ops team.

Through this compliance check we are able to diagnose problem areas, negligence and performance of all cities in terms of service delivery, Data filling &validation.

Compliance check is been performed in below Approach:

9.1) Qualitative Approach :

In this city wise gap analysis is been performed to check :

a) data provided by city ops team in internal tracker
b) Tabs which are not been filled up by city wise equipment team.
c) Data is been provided: complete/incomplete/partial.
d) Frequency of filling up data in internal tracker daily/weekly.

Qualitative Compliance is been check and informed to respective cities in below format:

City	Order Tracker Performance	Action required
Delhi	No entry from April 1	**URGENTLY Need to fill up complete data of this month including carryover cases in Order tracker.** **From May 1 on daily basis**.
Indore	Updated upto 22 Apr. No customer Id	Compulsory filling of customer Id and carry over cases data for this month. From May 1 daily basis updates are mandatory

Chandigarh	No entry from April 1	**URGENTLY Need to fill up complete data of this month including carryover cases in Order tracker.** **From May 1 on daily basis**.
Lucknow	Updated upto 23 Apr.Need to start filling customer Id	Compulsory filling of customer Id and carry over cases data for this month. From May 1 daily basis updates are mandatory
Jaipur	Updated upto 22 Apr.	Compulsory filling of customer Id and carry over cases data for this month. From May 1 daily basis updates are mandatory
Mumbai	Updated upto 22 Apr. .Need to start filling customer Id,Doctor referral,Key account information	Compulsory filling of customer Id,doctor referral key account informaton and carry over cases data for this month. From May 1 daily basis updates are mandatory
Pune	Updated upto 19 Apr.No information about Equipment category,customer Id,Rent start and Close date.	Compulsory filling of customer Id,doctor referral key account information and carry over cases data for this month. From May 1 daily basis updates are mandatory
Solapur	No entry from April 1	URGENTLY Need to fill up complete data of this month including carryover cases in Order tracker and from May 1 on daily basis.
Goa	Updated upto 4 Apr.No info about lead category, Equipment category,customer Id,Rent start and close date.	URGENTLY Need to fill up complete data of this month including carryover cases in Order tracker and from May 1 on daily basis.
Ahmadabad	Updated up to 25 Apr. No customer Id,Doctor referral, Key account information,	Compulsory filling of customer Id,doctor referral key account informaton and carry over cases data for this month. From May 1 daily basis updates are mandatory
Bangalore	Updated up to 26 Apr (On daily basis) no customer Id	Compulsory filling of customer Id, carry over cases data for this month. From May 1 daily basis updates are mandatory **(Already performing)**
Mangalore	Updated upto 26Apr.maximum tabs are blank.	Compulsory filling of customer Id, carry over cases data for this month. From May 1 daily basis updates are mandatory
Calicut	Updated upto 22 Apr no customer Id	Compulsory filling of customer Id, carry over cases data for this month. From May 1 daily basis updates are mandatory.

Chennai	Updated upto 22 Apr No customer Id,Doctor referral,Key account information.	Compulsory filling of customer Id, carry over cases data for this month. From May 1 daily basis updates are mandatory.
Hyderabad	Updated upto 26 Apr (On daily basis) no customer Id,key account,referral info.	Compulsory filling of customer Id, carry over cases data for this month. From May 1 daily basis updates are mandatory. **(Already performing)**
Kolkata	Updated upto 22 Apr. Already started filling customer Id.	Compulsory filling of carry over cases data for this month. From May 1 daily basis updates are mandatory

Figure 14: Gap analysis of internal tracker city wise

9.2) Quantitative Approach :

Performance of all cities is also analyzed through quantitative approach which is as follows:

a) All categories of Internal tracker is been divided into different tabs which are suppose to be filled by city wise Ops team so utilization or efficiency of these tabs are calculated on the basis of their inputs.

b) Regularity Index:weightage score is given on the basis of how frequently they are filling up information in tracker like:

Daily – 100

Thrice in a week – 75

Twice in a week – 50

Once in a week – 25

No update – 00

City	Tabs	No of patient	Tabs	No of coumns	Filled columns	Complete filling of data	Average	Regularity ndex	Weightage	Total score
Hyderabad	Customer Basic Information	77	8	616	461	74.8	66.8	daily	100	83
	Sales Information		9	693	635	91.6				
	Equipment Information		9	693	634	91.5				
	Rental/Sales Delivery Process		14	1078	732	67.9				
	Equipment Return & Refund Process		9	693	58	8.4				

Figure 15: Quantitative approach for compliance calculation

On the basis of this Compliance we are able to track top performing and least performing cities like below:

City	Compliance of data filling and validaton	Regular Updation	Weightage	Total %
Hyderabad	66.8	daily	100	83
Bangalore	64.6	daily	100	82
Ahmadabad	74.1	twice in a week	50	62
Indore	85.9	once in a week	25	55
Mumbai	69.6	once in a week	25	47
Chennai	43.0	twice in a week	50	47

City	Compliance of data filling and validaton	Regular Updation	Weightage	Total %
Delhi	**0.0**	**no update**	**0.0**	**0.0**
Chandigarh	**0.0**	**no update**	**0.0**	**0.0**
Solapur	**0.0**	**no update**	**0.0**	**0.0**
Goa	**35.9**	**no update**	**0.0**	**18**
Kolkata	**44.2**	**once in a week**	**25.0**	**35**

Figure 16: Top and least performing cities on the basis of compliance report

On the basis of implementation and generation of various reports from newly integrated Tracking system we are able to work on various different aspects required for Business development on different parameters for Pan India level which are as follows:-

i. ***We can design performance table for each particular city to cover various parameters to analyze their growth in terms of various parameters like:***
   - Number of patients/Customer served:
     1. Number of patient /Customer served on daily/weekly/monthly basis.
     2. Performance compliance on the basis of service delivery against fixed parameters like delivery time etc.

ii. ***Revenue generated : (Sales/Rental)***

1. Revenue generation sales/rental on daily/weekly/monthly basis.
2. Revenue compliance against Set targets for various B2B and B2C Business managers.
3. In B2B again categorization of targets like Key account,Doctor referrals/Dealers.

iii. ***Revenue Growth:***

1. Revenue generation for particular week/Month and comparison with previous month performance.
2. Analyze growth rate shown by different cities over a period of time.
3. Analyze various growth factors associated with good performing cities and how to implement these factors in other low performing cities.
4. Analyze reasons and problem areas for low performing cities and how to tackle them and improve the performance.

iv. ***Revenue through various Sales Channels:***

1. Revenue generation from Different Sales Channels for particular city on daily/weekly/monthly basis
2. Analyze different revenue generating channels like Key account,doctor referral, Dealers & Call centers.
3. Formulate various business strategies for various low and high performing channels to increase revenue. Like for B2B develope new marketing strategies and contracts for existing and new Hospital,Doctors and dealers.
4. Analyze various sales channels for different cities on the basis of scanning the environment to evaluate or select particular channel which need to be more emphasized in terms business development .

v. ***Revenue through Different Product line:***

1. Evaluate revenue in different cities according to particular product line.
2. Analyze requirement of equipment of particular category in different cities on the basis of demand and revenue generation.
3. Evaluate cities according to revenue generation on the basis of different equipment categories and develop various Business plan and Product launches to grow more business as per demand.

vi. ***City wise Ops and Sales Compliance:***

1. Analyze the performance of various Ops team in different cities in term of numbers of patients/ customers served.
2. Revenue generated from different cities
3. Number of escalations/complaints from different cities
4. Number of operational issues recorded for different cities
5. Development of Incentive plan for various Ops and sales team.

10) Conclusions:-

Analysis of existing Internal Tracking system in absence of MIS it was realized that there is a need of new tracking system for accurate and timely availability of information for planning, controlling and decision making process which was not possible with existing system.

New tracking system is been designed & developed and after a series of trainings and discussions finally tracking system was successfully implemented for better compilation of data from different cities required for management and it also enable us to capture required parameters, revenue information's to evaluate Sources, performing parameters, Products lines and problems areas in different cities which is required to formulate and design various business developmental plans city wise for future growth of company.

11.) Limitations –

1. Execution of new tracking system at all India level
2. Data compliance and validation at pan India level
3. Dependency of Ops team for complete information.

12.) References

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