Medical Shops Drugs Sales Transactions Data Fact & Data Size Measurement

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Abstract:

The role of a medical shop even if the doctor is not present, still conventional medicines can be made available by a qualified pharmacist to the people. Each area of the world should have a Medical shop or pharmacy. There are a vast number of medicines and millions of different chemicals and compounds used for treating various health issues. Even the best of the pharmacist cannot remember everything. The software can make the life of a pharmacist much easier. This paper focuses on medical shops sales drugs as per the doctors prescribed template. And these drugs data are stored in medical shops. That data size and data fact is essential for business understanding and identifies what types of diseases are present. Therefore the researcher has discovered data size & data fact based on the total number of medical shops and considered per day average sales transaction in each medical shop.

Purpose: This paper understanding of drugs sales data size in medical shops sales transactions in medicinal shop stockiest relate drugs and actual sale out drug data size calculations. And this data size will help to use for investigation of drugs, patients, business analysis.

Methodology: The study based on secondary research data and sales data size of the retailer business insights.

Results: In this learning, it observed that medical shops drug sales data that data will discover all facts of drugs and real-time business situation and condition.

Originality: The sales data size and data fact. This present study will help to understand the real-time data size and data facts have in the medical shops business.

Keyword: Medical shop: sales Transactions, Data Size, sales Data fact, business analysis.

1. Introduction of medical shops sales transactions data

The patients or customers purchase drugs as doctors advised medicines, its details stored in systematical format is called a database of sales. Like as a customer name or patients name, address, medical shop name, doctor's name, qty, price, medicines name & drugs recommended details, this all above data is called as structured data. And presently the digital transformation is started through like the online shopping or advance selling system. and more information about digital products and data is generating in terms of text and PDF, Image of medicines, text information of drugs. And video, audio. This type of data is also called unstructured data. And log file, log history, excel data, XML, and HTML this data is called semi-structured data. Furthermore, that data is receiving the system like volume-wise, velocity wise and variety wise, and these 3V's is called Big data[8].

Therefore, the classification wise example is showed below of the medical shop's medicine or pharmacy drugs data size is approximately have measured based, on per day transactional data entry receiving in the system of medical shop retailer stockiest. India has around 8.5 lakh retailers, and Maharashtra has 85 thousand retailers; also, Pune city has approximately 15000 thousand retailers[1].

2. Data Unit of measurement in the computer system:

Data size has been calculated based on per day average transactions data received at the medical shops or pharmacy shops. Moreover, approximately considered the total number of medical shop available. Furthermore, the total number of transactions data stored at the medical shops. Also, that data has been converted into the in Kilobyte (KB), after Megabyte (MB), Gigabyte (GB), Terabyte (TB) & Petabyte (PB). Details data calculation has shown in various expected data size tables and with the help of data UOM table[9].

Data UOM in Computer system	
0-1	Bits
8 bits	1 Bytes
1024 bytes	1 KB
1024 KB	1MB
1024 MB	1 GB
1024 GB	1 TB
1024 TB	1 PB
1024 PB	1 EB
1024 EB	1 ZB
1024 ZB	1 YB

Table no: 1: Data UOM in Computer system

3. Example of Structures data in Medical Shop business Management system:

Sr. no.	Invoice/ Bill.& date	Medical shop name	Doctors Name	Doctor Address	Patient Name	Patient Address	Medicine/Drug name	Exp. Date	Qty.	MRP	Total Amt.
1.	101/25. Dec.19	Shree Ram Pharmacy store	Dr. Joshi	Sinhgad Road Pune-41	Mr. Rajesh Naik	Pune-41	Amoxycilling Capsules IP 250 mg	03/22	10 Nos.	150/-	150/-
2.	202/26.Dec.19	G.P Pharmacy Store	Dr. Patil	Sinhgad Road Pune-41	Mr. Mahesh Mane	Pune-41	Levocetirizine Tablets IP 5 mg	01/21	10 Nos.	60/-	60/-
3.	402/26.Dec.19	Ganesh Pharmacy Store	Dr. Sujay	Sinhgad Road Pune-41	Mr.Raju More	Pune-41	Medigrip Elastic Adhesive bandage	01/22	07 Nos.	170/-	170/-

Source: Researcher Contributions.

Table no: 2: Structure data in medical shops system

4. Example of structures data size & fact, based on sales transaction in Medical Shop management system:

The above reference table no: 6.1 & 6.2 considered for the data size calculation of one transaction or the total numbers of word letter in one transaction has been considered & with the help of Characters to Bytes Conversion Tool. After that It also showed one-day data size in kb, then this data is converted into one-year data size, 2-years data size, 3-years data size, 4-years data size, 5-years data size and 6-years data size. Hence it is all above data size is expected in the system. Data size details are given below in the table[9].

Structures data size calculation chart of medical shops sales transactions												
Years	Days	Transactions	Tot. word letter per Transaction	Per Day medical transactions	Total Letter	1024 bytes =1kb	Total no. medical shops in Maharashtra	Total KB	1024kb = 1MB	1024MB = 1GB	1024GB =1TB	1024TB = 1PB
0	1 day	1 Transaction	100	200	20000	19.53125	850000	16601562.5	16212.4634	15.83248	0.01546141	1.5099E-05
1	365							6059570313	5917549.13	5778.857	5.64341462	0.00551115
2	730							12119140625	11835098.3	11557.71	11.2868292	0.01102229
3	1095							18178710938	17752647.4	17336.57	16.9302439	0.01653344
4	1460							24238281250	23670196.5	23115.43	22.5736585	0.02204459
5	1825							30297851563	29587745.7	28894.28	28.2170731	0.02755574

Source: Researcher Contributions.

Table no: 3: Structure data calculation based on sales transactions in medical shops system.

That is important to interpret the results from the above table correctly is that the Structures data size calculation-chart of medical shops sales transactions it is clear that medical shops business has real-time customers or patients data along with drugs details, doctors details. Furthermore, this data is very significant for business statistical analysis. It also seen that data received in large volume. Hence it needs to store & maintain for further to use for pattern analysis[9].

5. Example of Unstructured data size & fact, in medical shops business system:

The example of unstructured data like the image of the doctor's drugs recommendation template, product image, product video, product audio, CCTV footage. Data size details are showed below.

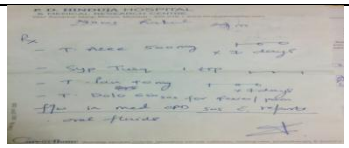
Sr. no.	Description of medicine	Medicine Product-Image/ Video/Audio/Text/PDF	Approximately Data size of Image
1.	Doctors Drugs recommendation Template		93.4 KB
2.	Amoxycilling Capsules IP 250 mg		42.7 KB
3.	Ofloxacin Otic Solution		5.52 KB
4.	Generic/ Allopathic- medicine information Video (4 minute)		13,251 KB
5.	Audio of Medical Microbiology (5 minute)		225 KB
6.	Medicine Collection Catalogue (50 pages)		1524 KB
7.	CCTV System: camera, lens, monitor and recorder.		2333MB (8 hours)= 2388992 KB

Table no: 4: Unstructured Data in medical Shop business Management system.

Here is significant to interpret the results from the above table correctly is that the Unstructured data size & fact, in medical shops business system or e-pharmacy. It is clear that medical shops business or e-pharmacy along with Doctors drugs recommendation template, drugs image, Drugs text information details. Besides, it also seems that this data is called Big data, and this data is very significant for business statistical analysis. Hence it needs to store & sustain for further to use for pattern exploration[8].

6. **Example of Semi Structures data size & fact, in medical shop business system:** The example of semi-structured data like product search logs, login logs, e-mail, & EID. Details are below.

Sr. no.	**Semi Structures data description**	**System evident**	**Approximately Data size**
1.	XML file, A CSV is a comma-separated value file Excel file, JavaScript Object Notation (JSON,HTML, NoSQL databases, Electronic data interchange (EDI),RDF	Product Search logs, Login logs, On line Transaction logs, Product purchase logs, E-mail, EDI, RDF.	1kb

Table no: 5: Semi Structures data in medical shop business management system.

From these outcomes, it is explicit that the above table is that the Semi Structures data size & fact, in medical shop business system or e-pharmacy. It means that medical shops business or e-pharmacy system along with login logs, XML file, JSON, & HTML. Moreover, it also found that this data is called semi-structured, and this data is essential for investigation. Hence it needs to accumulate & maintain for further to use for pattern discovery[3].

7. **Unstructured data and Semi Structures:**

Approximately considered data size based on the above example of unstructured data and Semi-structures data in medical shops business management system or e-pharmacy system.

Sr. no.	Unstructured data + Semi Structures data	Considered Data size
1	Suppose Data size per transaction stored = Doctor's Prescription template, product image, video, audio, text, CCTV Footage, HTML, XML, logs etc.	= 280kb (Doctor Prescription template image, Drugs image & text, etc.)

Table no: 6: Total data size of unstructured data and Semi Structures data in medical Shop business system.

Together, the present findings confirm from the above table is the total data size of unstructured data and Semi Structures data in medical Shop business system or e-pharmacy system. Suppose per day transactions stored with data product image, video, audio, text, CCTV Footage, HTML, XML, & logs. Moreover, suppose approximately data size considered per transaction is 280kb (Doctor's prescription template, Drugs image & text) [10].

8. **The final data size of structured Data, Unstructured data and Semi Structures:** Final data size expected based on the above example of structured data, Semi-Structured data and unstructured data (Table no: 2, 3, 4 & 5) in medical shops business management system, data size detail is given below in the table.

Sr. no.	Structured data + Unstructured data + Semi Structures data	Final Data Size
1	Suppose per day transaction stored = like Name of medicine, Name of Patients, Doctors name, rates, Qty, total amount, product image, video, audio, text, CCTV Footage, HTML, XML, logs, etc	Data Size=(Structured+ Unstructured+ Semi Structures) Data Size = (19.53+280+1) **Final Data Size = 300kb**

Source: Researcher Contributions.

Table no: 7: The final data size of structured data, semi-structured data and unstructured data in the medical shop's system.

Another promising finding was that from the above table is the final data size of unstructured data, semi-structured data and structured data in the medical shop's system or e-pharmacy system. Suppose per day transactions stored with data Name of patients, name of medicine, Doctors name, rates, Qty, & product image, video, audio, text, CCTV Footage, HTML, XML, & logs. (Table no: 1, 2, 3 & 7) & therefore, the final data size considered per transaction is 300kb[8].

9. Considered per transaction data size, & average sales transactions per day of medical shops of India based data size chart.

The above reference table no. 1 chart used for conversion of data size and. Moreover, the total number of Medical shops available in India has considered. Based on the calculation and data is converted into KB to PB is that details data has shown in the following table. (Table no: 3, 4, 5 & 6)

Considered Expected Per Day Data Size & Converted into KB to PB.	
Total Medical Shops in India	8.5 lakh (approximately.)
Avg. Per Day Transactions in a medical shop	100 (approximately.)
Data Size per transaction	300kb
1-day Transactions	85000000
Total. Size Per Day in KB	25500000000
Total Size in MB	24902343.75
Total. Size in GB	24318.69507
Total Size in TB	23.74872565
Total Size in PB	0.023192115

Source: Researcher Contributions.

Table no: 8: Total medical shops in India, 1-day transactions data converted into KB to PB.

The above table researcher has considered a total number of medical shops in India are 8.5 lakh. Moreover, the average per day transactions is 100 nos. have been considered. Also, approximately data size per transaction is 300kb has considered. Base on total medical shops available data and multiply with an average per day transactions number. Finally, get a one-day transactions data size, after that this data size also converted into the total data size in KB and PB[9].

10. Day one to 5 years of data expectations in India:

Based on the above table data is converted into a one-year data size to five-year data size.

Expected in total medical shop data calculation have been shown following table. Also, understand medical shops transaction data necessary for business insights & example wise data has been shown in the following table. (Table no. 6.8)

Day one to 5 years of data size expectation chart of India. (300kb)					
Years	Total no. Days	Tot. data in MB	Tot. data in GB	Tot. data in TB	Tot. data in PB
0	1	24902343.75	24318.69507	23.74872565	0.0231921
1	365	9089355469	8876323.701	8668.284862	8.465122
2	730	18178710938	17752647.4	17336.56972	16.930244
3	1095	27268066406	26628971.1	26004.85459	25.395366
4	1460	36357421875	35505294.8	34673.13945	33.860488
5	1825	45446777344	44381618.5	43341.42431	42.32561

Source: Researcher Contributions.

Table no: 9: **Day one to 5 years, data size expected chart of India**.

The following Graph is showing How exactly data is exponential is growing from 1 day one to 5 years of data size in PB.

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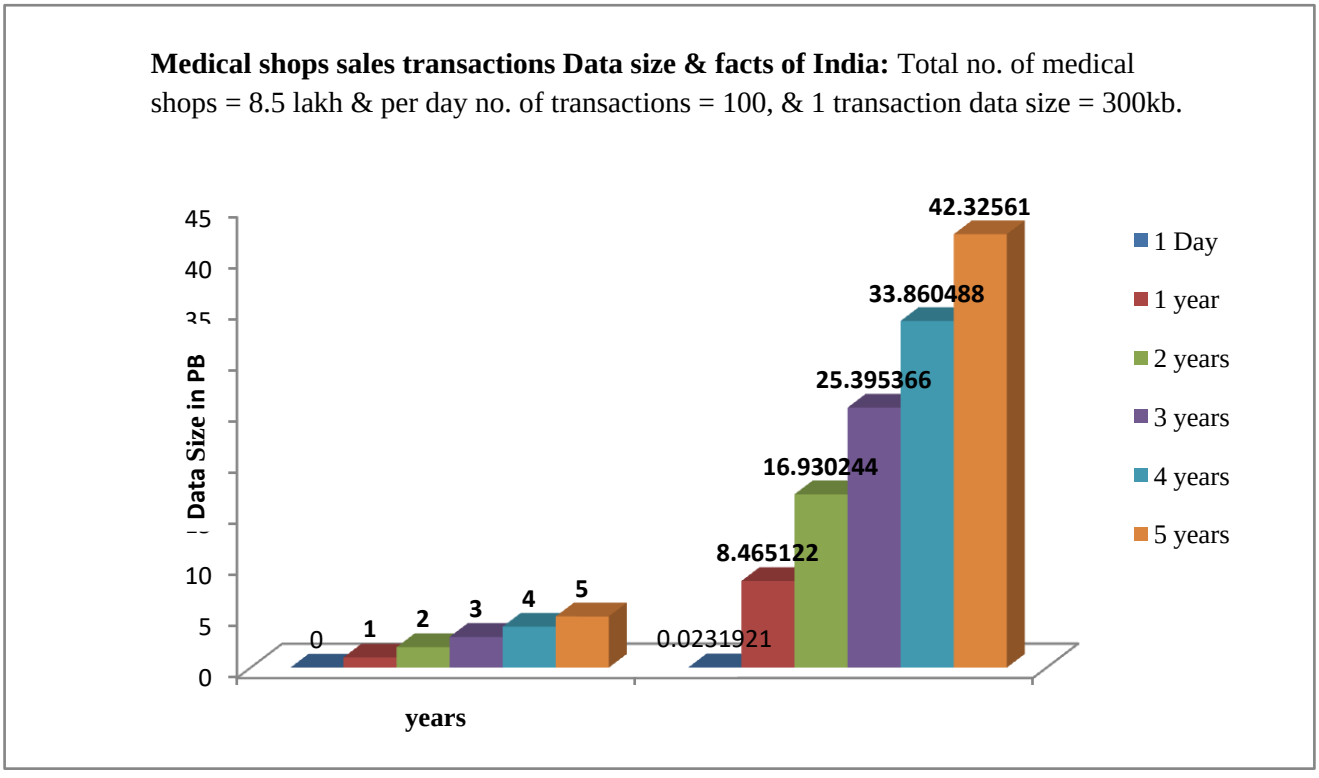


Source: Researcher Contributions.

Graphic no: 1: Medical shops in India, 1-day to 5 year's transactions data size & facts in PB.

The above data expectation chart and bar graphic review that a total of 8.5 lakh medical shop in India, we have considered per day average number of transaction is 100, and also one transaction data size is 300kb considered. After that whole one-day data size is received 0.0232PB, & 1-year data size is received 8.5PB, two years data size is received 16.93PB, and three years data size is received 25.4PB, four years data size is received 33.7PB, & 5 years data size is received 42.33PB[10].

Hence it is concluded that from the above data expectation chart and bar graphic review shows massive data have in Indian medical shops retail business. It can use this data for business analysis and find out the various fact-finding, real-time case studies, real-time consumer fact. & this purpose data need to store and maintain.

11. Day one to 5 years, data size expected chart of Maharashtra State medical shops.:

Considered data size per transaction is 300 kb, and per day minimum 100 patients or customers buying the drug from medical shops and approximately 85000 in a total number of the medical shop have in Maharashtra state, and that data size is converted data into MB, after GB, TB and PB and this data size shown into one year to 5 years. Actual data size and fact showed in the below table and graphic wise data size of medical shops in Maharashtra state[10].

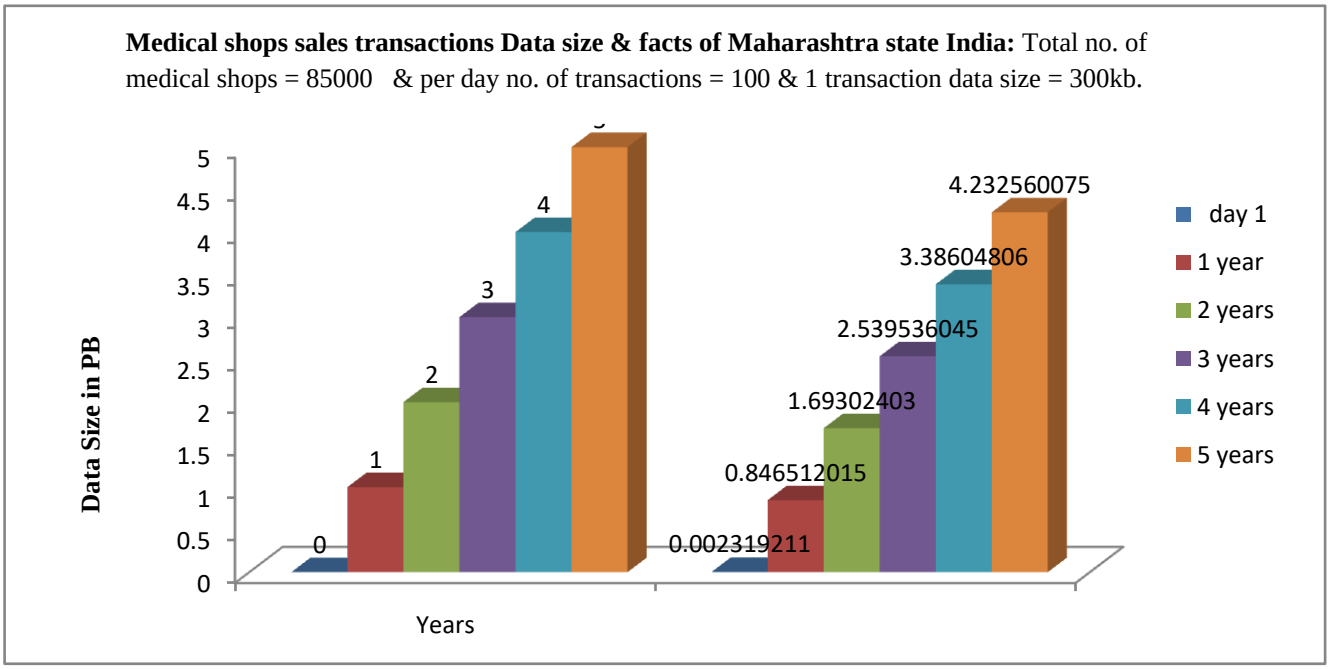
Day one to 5 years, Data size expected chart of Maharashtra State:

Total no. of medical shop=85000, & per day no. of transactions= 100, transaction size =300kb.

Years	Total no. Days	Tot. data in MB	Tot. data in GB	Tot. data in TB	Tot. data in PB
0	1	2490234.375	2431.869507	2.374872565	0.002319211
1	365	908935546.9	887632.3701	866.8284862	0.846512015
2	730	1817871094	1775264.74	1733.656972	1.69302403
3	1095	2726806641	2662897.11	2600.485459	2.539536045
4	1460	3635742188	3550529.48	3467.313945	3.38604806
5	1825	4544677734	4438161.85	4334.142431	4.232560075

Source: Researcher Contributions.

Table no: 10: Day one to 5 years, data size expected chart of Maharashtra state.



Source: Researcher Contributions.

Graph no: 2: Medical shops in Maharashtra state, 1-day to 5 years transactions data size & facts in PB.

The above data expectation chart and bar graphic review that a total of 85000K medical shop in Maharashtra, we have considered per day average number of transaction is 100, and also one transaction data size is 300kb considered. After that total one-day data size is received 0.0023PB, & 1-year data size is received 0.846PB, two years data size is received 1.69PB, and three years data size is received 2.54PB, four years data size is received 3.38PB, & 5 years data size is received 4.233PB[9].

Hence it is concluded that from the above data expectation chart and bar graphic review shows massive data have in Maharashtra state medical shops retail business. It can use this data for business investigation and discover a variety of insides related to real-time consumer fact.

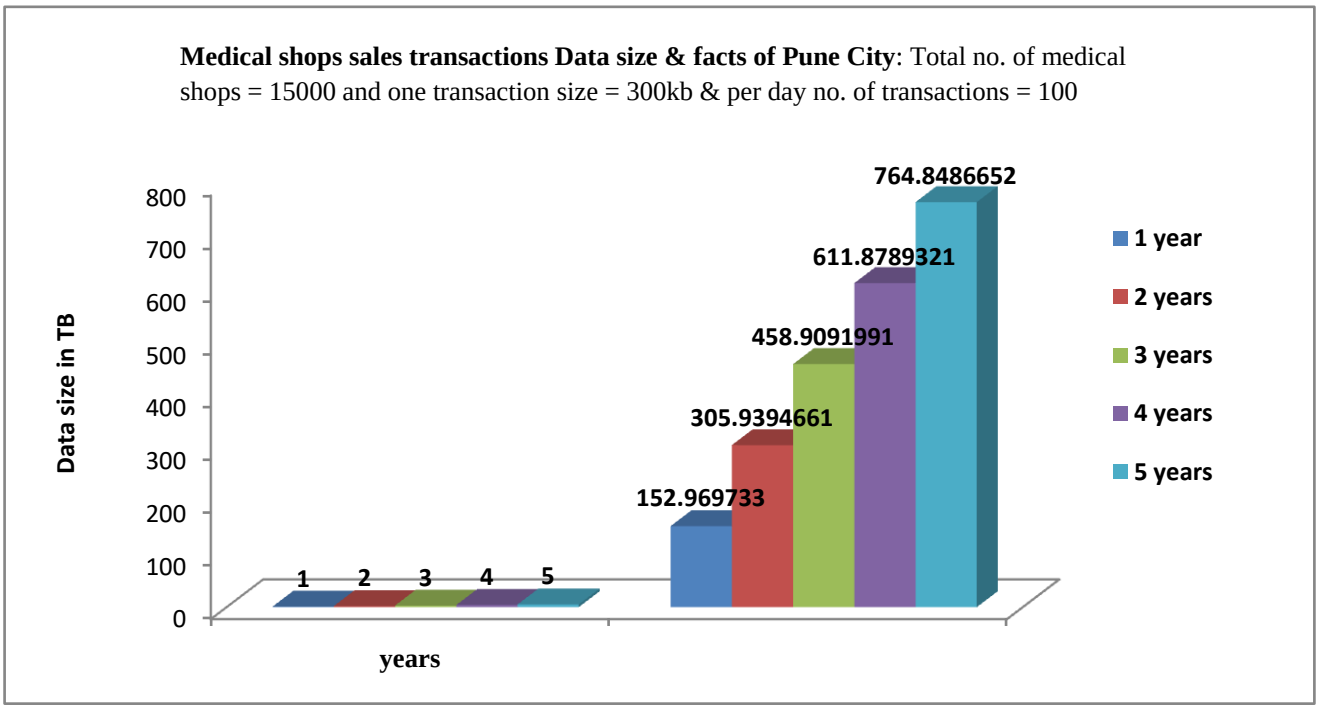
12. Day one to 5 years, data size expected chart of Pune City medical shops:

Considered data per transaction is 300 kb, and per day minimum 100 patients or customers buying the drug from medical shops and approximately 15000 in the total number of medical shops in Pune City and this data size converted data into MB, after GB, TB and PB and this data size shown into one year to 5 years. Actual data size and fact showed in the below table and graphic wise of medical shops in Pune City[10].

Day one to 5 years, Data size expected chart of Pune City : Total no. of medical shops=15000 and one transaction size =300kb. Per day no. of transactions= 100.					
Years	Total no. Days	Tot. data in MB	Tot. data in GB	Tot. data in TB	Tot. data in PB
0	1	439453.125	429.1534424	0.419095159	0.000409273
1	365	160400390.6	156641.0065	152.969733	0.149384645
2	730	320800781.3	313282.013	305.9394661	0.29876929
3	1095	481201171.9	469923.0194	458.9091991	0.448153935
4	1460	641601562.5	626564.0259	611.8789321	0.59753858
5	1825	802001953.1	783205.0324	764.8486652	0.746923225

Source: Researcher Contributions.

Table no: 11: Day one to 5 years, data size expected chart of Pune City.



Source: Researcher Contributions.

Graphic no: 3: Medical shops in Pune City, 1-day to 5 years of transactions data size & facts in TB.

The above data expectation chart and bar graphic review that a total of 15000K medical shop in Pune City, we have considered per day average number of transaction is 100, and also one transaction data size is 300kb considered. After that total one-day data size is received 0.41TB, & 1-year data size is received 153TB, two

years data size is received 306TB, and three years data size is received 459TB, four years data size is received 612TB, & 5 years data size is received 765TB[9].

Hence it is concluded that from the above data expectation chart and bar graphic review shows enormous data have in Pune City medical shops retail business. It can use this data for business exploration and determine the diversity of insides related to real-time patient's fact, medicine fact, and doctor's facts. & data is a core part of business analysis[5].

13. PROBLEM STATEMENT:

To study of the medical shops sales transaction data size and data fact is very significant to the business understanding to find which disease present and which drug is utilized.

14. OBJECTIVE:

To study sales data size and data fact in medical shops drug sales transactions.

15. FINDING:

It observed that from the above data expectation chart and bar graphic review shows massive data have in india, Maharashtra state & Pune City medical shops retail business. It can use this data for business investigation and discover a variety of insides related to real-time consumer fact, real-time case studies and various fact-finding.

16. CONTRIBUTION TO BODY OF KNOWLEDGE:

Explored and analyzed current practices of medical shops business system increase the daily performance medical shops retail business.

This study model will give real-time drug consumed data by patients, it will be a help to future research, and for patients, analysis based on diseases, & pattern analysis of drug mining.

Pharmacy industry will help this model to check competitor's medicines market demand and current situation in the market expectations, or market issue in any drug required for the pandemic situation.

17. SCOPE OF FUTURE RESEARCH:

The study on drug sales fact in area wise and its impact on medical shop business this assumption might address in future studies

Future analysis should additional develop and verify these initial findings by the study of data preprocessing and central data storage of the medical shops business management.

Future analysis should additional develop and verify these initial findings by the study of data preprocessing and central data storage of the medical shops business management.

18. CONCLUSION:

Thus, keeping these facts in mind the researcher has attempted, through this research, to study the impact of the use of data size and data fact in performance wholesale stockiest and retailers of pharmaceuticals in Pune PMC region of the state of Maharashtra in India. It will help to understand Deep business insights, drugs recommendation fact, & diseases level and current situation.

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