LOVELY PROFESSIONAL UNIVERSITY

INT217: INTRODUCTION TO DATA MANAGEMENT

Final End term 2020 REPORT

on

Sales, Expense and Revenue Computation Dashboard

Submitted by

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DECLARATION

I hereby declare that I have completed the project platform from October 10, 2020, to December 4, 2020, under the guidance of Ms. Ashu. I have declared that I have worked full dedication and my learning outcomes fulfill the requirements of training for the award of degree of B.Tech. CSE, Lovely Professional University, Phagwara.

Date– 4, December 2020 **Name of Student- Shivani Sharma**

Registration No- 11811289

CERTIFICATE

This is to certify that SHIVANI SHARMA bearing Registration no. 11811289 has completed INT217: INTRODUCTION TO DATA MANAGEMENT project titled, "*Sales, Expense and Revenue Computation Dashboard"* under my guidance and supervision. To the best of my knowledge, the present work is the result of her original development, effort and study.

SCHOOL OF COMPUTER SCIENCE AND TECHNOLOGY
Lovely Professional University
Phagwara, Punjab.

Date: 04, December, 2020

ACKNOWLEDGEMENT

I would like to express my gratitude towards my University for providing me the golden opportunity to do this wonderful project regarding Data Management, which also helped me in doing a lot of homework and learning. As a result, I came to know about so many new things. So, I am thankful to them.

Moreover I would like to thank my friends who helped me a lot whenever I got stuck in some problem related to my course. I am thankful to have such good support from them as they always have my back whenever I need it.

Also, I would like to mention the support system and consideration of my parents who have always been there in my life to make me choose the right thing and oppose the wrong. Without them, I could never have learned and become the person I am now.

I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organizations. I would like to extend my sincere thanks to all of them.

Table of content

Introduction

Data management refers to a wide range of activities researchers perform as they collect, arrange, describe, store, preserve, and often share materials generated by their research.

Many funding agencies and institutions require researchers to develop data management plans, or DMPs, that outline their data management activities, and to disseminate their data through repositories and archives.

- Data Management Plans links to the DMP Tool, a free web-based resources for writing a data management plan, as well as tools, guides, and best practices for writing DMPs.

- Data Repositories provides suggestions for selecting a repository and briefly discusses data-sharing concerns.

- Summary of Agency Requirements links to a table of federal agency's, their requirements to make research public.

- Statistical Methods & Data Sources is a Research Guide that links to EMU data subscriptions, free data sources, and more.

Data analysis is defined as a process of cleaning, transforming, and modeling data to discover useful information for business decision-making. The purpose of Data Analysis is to extract useful information from data and make the decision based upon the data analysis.

Types of Data Analysis: Techniques and Methods

There are several types of Data Analysis techniques that exist based on business and technology. However, the major types of data analysis are:

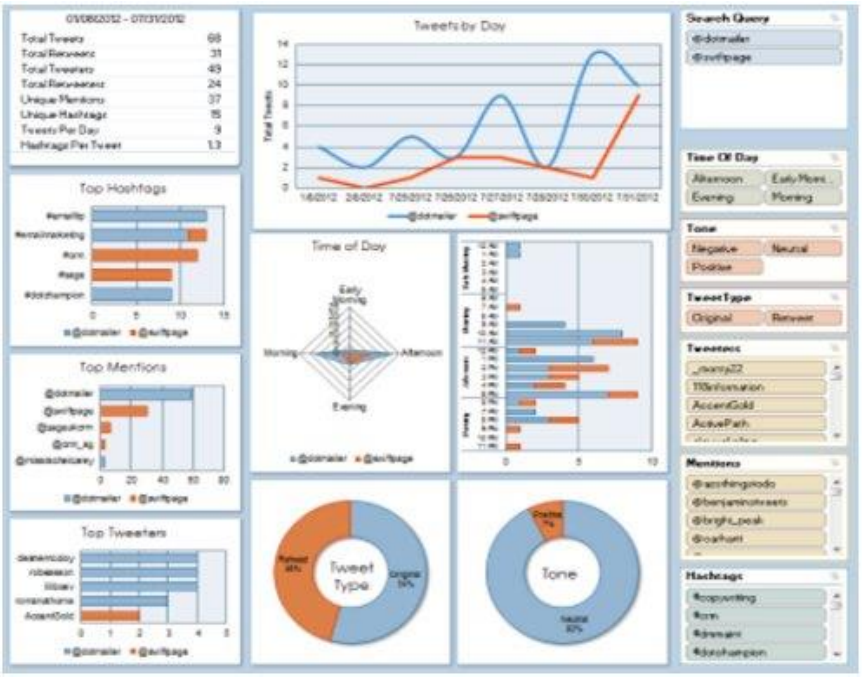
- Text Analysis
- Statistical Analysis
- Diagnostic Analysis
- Predictive Analysis
- Prescriptive Analysis

In this project, Statistical Analysis is done

Statistical Analysis shows "What happen?" by using past data in the form of dashboards. Statistical Analysis includes collection, analysis, interpretation, presentation, and modeling of data. It analyses a set of data or a sample of data. There are two categories of this type of Analysis - Descriptive Analysis and Inferential Analysis.

Tool used

Excel is a basic, popular, and widely used analytical tool almost in all industries. Whether one is an expert in SAS, R, or Tableau, will still need to use Excel. Excel becomes important when there is a requirement of analytics on the client's internal data. It analyzes the complex task that summarizes the data with a preview of pivot tables that helps in filtering the data as per client requirement. Excel has the advanced business analytics option which helps in modeling capabilities that have prebuilt options like automatic relationship detection, a creation of DAX measures, and time grouping.



What is Interactive Dashboard?

An interactive dashboard allows you to drill down and filter information so data can be viewed from different perspectives or in more detail. With a condensed and clear presentation of the business figures, dashboards enable data-driven company decisions. People don’t need to analyze the whole data set to tell them what's the matter - the headline information is there. People know the color in the chart needs to be green, not red, and so using the interactive features of the dashboard, can find out why this is the case.

In this project interactive dynamic dashboard will be used for data analysis Dynamic dashboards enable each user to see the data they have access to. With a dynamic dashboard, you can control data visibility without having to create a separate dashboard, with its running user and folder, for each level of data access.

Objectives/Scope of the Analysis

Whenever we take any decision in our day-to-day life is by thinking about what happened last time or what will happen by choosing that particular decision. This is nothing but analyzing our past or future and making decisions based on it. For that, we gather memories of our past or dreams of our future. So that is nothing but data analysis. Now the same thing an analyst does for business purposes is called Data Analysis.

In this data analysis project, I have chosen Sales, Expense, and Revenue Computation Dashboard to create a statistical analysis that is done using Microsoft Excel.

- Using data analysis and business intelligence to improve efficiency and streamline everyday operations in real-time.
- A subset of business analytics, operational analytics is supported by data mining, artificial intelligence, and machine learning. It requires a robust team of business and data analysts. And it also requires the right tools, As such, operational analytics is much better suited to large organizations than small businesses—at least for now.

Objectives and benefits of Sales, Expense, and Revenue Computation interactive dynamic Dashboard

1.Faster Decision-Making

Quite simply, businesses that can analyze and react to customer data in real-time can make much faster decisions.

Traditionally, businesses would make adjustments to their operations based on a quarterly or annual data review. In this reactive manner, they might miss out on serious revenue or glaring issues. They'd only become aware after the fact.

On the other hand, companies that embrace an operational analytics platform can make adjustments to processes and workflows in real-time. Or at least close to it. As such, they are in a better position to increase profitability and reduce waste. They can also detect problems and inefficiencies quickly and respond to them rapidly.

One recent study found that improving operations can result in a $117 billion increase in profitability for global organizations.

2. Enhanced Customer Experiences

Businesses that react to situations in real-time can provide better customer experiences. It’s that simple.

For example, imagine an e-commerce company that runs operational analytics. After that, they find that a significant percentage of its users are adding items to their carts but not completing transactions. Armed with that information, they then investigate the issue. It quickly becomes apparent that their website is buggy and checking out is a nuisance.

After identifying what’s wrong and fixing it, the company improves the customer experience and drives more online sales.

3. Increased Productivity

Thanks to operational analytics, businesses can see the inefficiencies that exist in their workflows. Accordingly, they can then change their processes to streamline operations.

For example, a company might run analytics and realize that the process for approving a purchase order is too cumbersome. In this case, it requires too many signatures from too many people who are moving around constantly.

This data might encourage them to rethink the process entirely. They may either decide to reduce the number of signatures required to approve a PO.

Or they could opt to move to an online system that eliminates the need for having to track anyone down in person.

Now that you understand some of the benefits of operational analytics, let’s take a brief look at a real-world example.

Source of dataset

Kaggle, a subsidiary of Google LLC, is an online community of data scientists and machine learning practitioners. Kaggle allows users to find and publish data sets, explore and build models in a web-based data-science environment, work with other data scientists and machine learning engineers, and enter competitions to solve data science challenges**.**

Link of dataset: *https://www.kaggle.com/datatobe/operational-dataset*

ETL process

ETL is defined as a process that extracts the data from different RDBMS source systems, then transforms the data (like applying calculations, concatenations, etc.), and finally loads the data into the Data Warehouse system.

•**ETL** full-form is

•**Extract**

•**Transform**

•**Load**

Creating a Data warehouse is not simply extracting data from multiple sources and loading it into the database of a Data warehouse.

•This requires a complex ETL process.

•The ETL process requires active inputs from various stakeholders including developers, analysts, testers, top executives, and is technically challenging.

• To maintain its value as a tool for decision-makers, the Data warehouse system needs to change with business changes.

•ETL is a recurring activity (daily, weekly, monthly) of a Data warehouse system and needs to be agile, automated, and well documented.

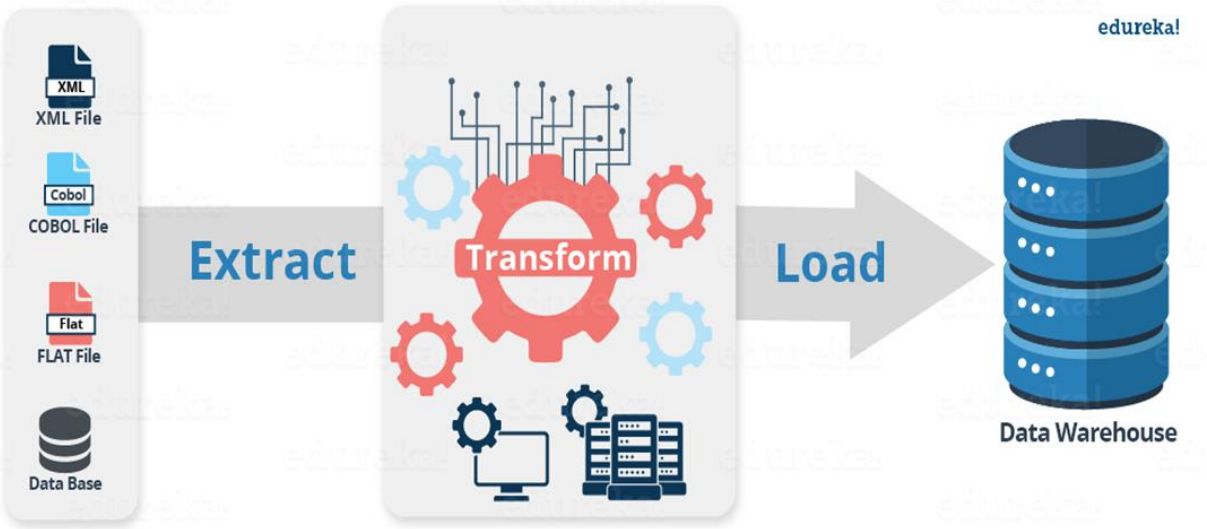
•ETL provides a method of moving the data from various sources into a data warehouse.

•In the first step extraction, data is extracted from the source system into the staging area.

•In the transformation step, the data extracted from the source is cleansed and transformed.

•Loading data into the target data warehouse is the last step of the ETL process.

ETL Process in Data Warehouses



There are many reasons for adopting ETL in the organization:

•It helps companies to analyze their business data for making critical business decisions.

•Transactional databases cannot answer complex business questions that can be answered by ETL.

•A Data Warehouse provides a common data repository

•ETL provides a method of moving the data from various sources into a data warehouse.

•As data sources change, the Data Warehouse will automatically update.

•Well-designed and documented ETL system is almost essential to the success of a Data Warehouse project.

•Allow verification of data transformation, aggregation, and calculation rules.

•ETL process allows sample data comparison between the source and the target system.

•ETL process can perform complex transformations and requires the extra area to store the data.

•ETL helps to Migrate data into a Data Warehouse. Convert to the various formats and types to adhere to one consistent system.

•ETL is a predefined process for accessing and manipulating source data into the target database.

•ETL offers deep historical context for the business.

•It helps to improve productivity because it codifies and reuses without a need for technical skills.

Step 1- Extraction

•In this step, data is extracted from the source system into the staging area.

•It is important to extract the data from various source systems and store it into the staging area first and not directly into the data warehouse because the extracted data is in various formats and can be corrupted also.

Three Data Extraction methods:

1.Full Extraction

2.Partial Extraction- without update notification.

3.Partial Extraction- with update notification

•Irrespective of the method used, extraction should not affect performance and response time of the source systems.

Some validations are done during Extraction:

•Reconcile records with the source data

•Make sure that no spam/unwanted data loaded

•Data type check

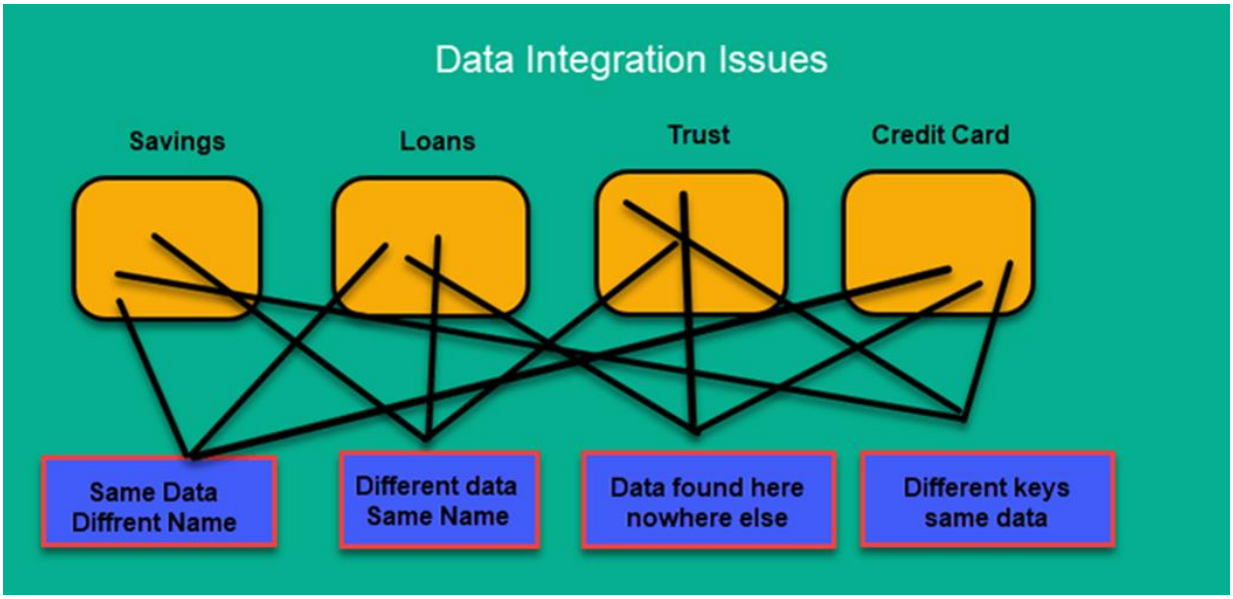
•Remove all types of duplicate/fragmented data

•Check whether all the keys are in place or not

Step 2) Transformation

•Data extracted from source server is raw and not usable in its original form. Therefore it needs to be cleansed, mapped, and transformed.

•In this step, you apply a set of functions on extracted data. Data that does not require any transformation is called as direct move or pass through data.



Step 3) Loading

•The third and final step of the ETL process is loading.

•In this step, the transformed data is finally loaded into the data warehouse.

•Sometimes the data is updated by loading into the data warehouse very frequently and sometimes it is done after longer but regular intervals.

•The rate and period of loading solely depends on the requirements and varies from system to system.

•Types of Loading:

•Initial Load — populating all the Data Warehouse tables

•Incremental Load — applying ongoing changes as when needed periodically.

•Full Refresh —erasing the contents of one or more tables and reloading with fresh data**.**

Best practices ETL process

•Never try to cleanse all the data:

Every organization would like to have all the data clean, but most of them are not ready to pay to wait or not ready to wait. To clean it all would simply take too long, so it is better not to try to cleanse all the data.

•Never cleanse Anything:

Always plan to clean something because the biggest reason for building the Data Warehouse is to offer cleaner and more reliable data.

•Determine the cost of cleansing the data:

Before cleansing all the dirty data, it is important for you to determine the cleansing cost for every dirty data element.

•To speed up query processing, have auxiliary views and indexes:

To reduce storage costs, store summarized data into disk tapes. Also, the trade-off between the volume of data to be stored and its detailed usage is required. Trade-off at the level of granularity of data to decrease the storage costs.

Analysis on dataset (for each analysis)

1.Finding the expense trend using the given dataset

Introduction and general description

Expense Trends Analysis (ETA) is designed specifically for individuals who want to look at summarized expense data over time. Its goal is to be easier than writing your own reports. ETA moves beyond reports to provide analysis. This means you don't have to start with a specific question.

Specific Requirements, functions and formulas

Using power pivot table with columns from Expense dataset and then creating line graph.

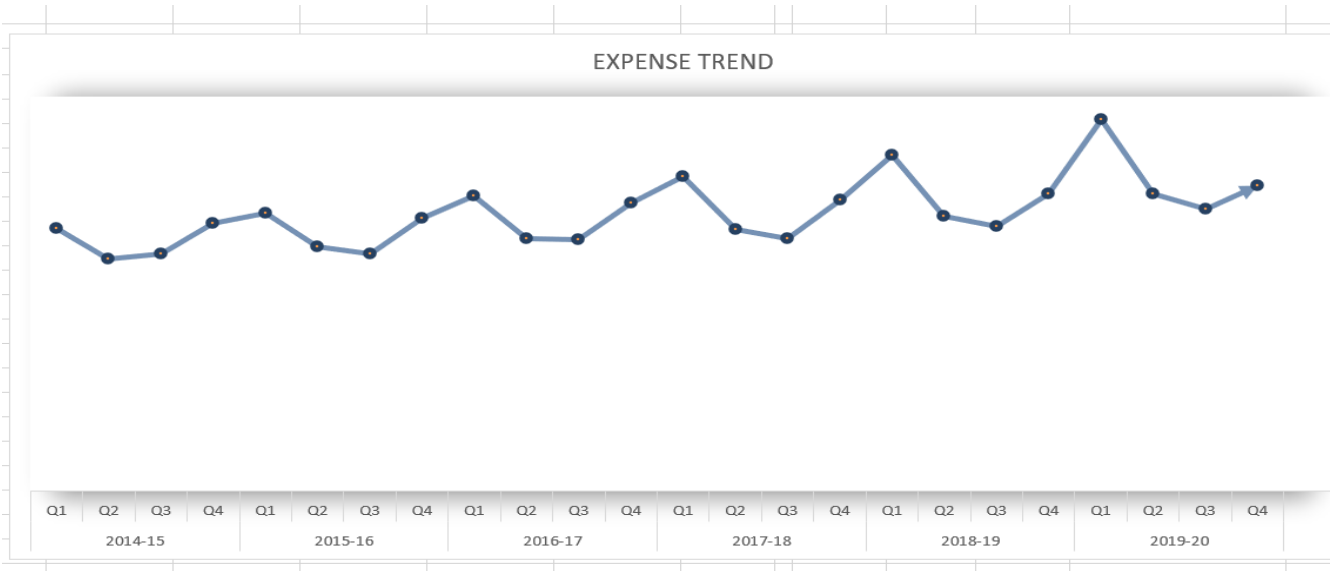
Creating Slicer from region using community (parent table) to connect all graphs and charts to end up with dynamic interactive dashboard.

Analysis results

Row Labels	Sum of Jul	Sum of Aug	Sum of Sep	Sum of Oct	Sum of Nov	Sum of Dec	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Apr	Sum of May	Sum of Jun
AsiaPac												
2014-15	107299550	99077838.5	126327191	90777469.9	64392742.9	139240089	65246101	84466746.9	150636291	77302671.7	103726744	158699686
2015-16	115375860	111323414	125076426	95555231.4	67781834.6	146568514	70157097.9	87079120.5	143463135	78083506.8	100705577	167052301
2016-17	117730469	115961890	140535311	98510547.9	73675907.2	148049004	72326905	100090943	146390954	75080295	111895086	177715213
2017-18	130811633	117133222	151113237	101557266	80082507.8	149544449	75340526	103186539	142127140	81609016.3	107591429	179510317
2018-19	139161311	128717826	157409622	111601391	82559286.4	154169535	77670645.4	110953268	146522824	80008839.5	120889246	175990507
2019-20	161815478	123767141	185187791	115052980	85999256.7	175192653	84424614.6	119304589	154234552	86966129.9	132845325	167610006
Grand Total	**772194302**	**695981331**	**885649577**	**613054887**	**454491536**	**912764244**	**445165890**	**605081207**	**883374896**	**479050459**	**677653406**	**1026578029**

Region	Year	Quarter	Total Expense
AsiaPac	2014-15	Q1	332704578.9
		Q2	294410301.3
		Q3	300349139.3
		Q4	339729101.8
	2015-16	Q1	351775700.4
		Q2	309905580.3
		Q3	300699353
		Q4	345841384.6
	2016-17	Q1	374227669.5
		Q2	320235459.3
		Q3	318808801.9
		Q4	364690594.1
	2017-18	Q1	399058091.6
		Q2	331184222.4
		Q3	320654204.9
		Q4	368710761.5
	2018-19	Q1	425288759.6
		Q2	348330212.3
		Q3	335146737.7
		Q4	376888591.6
	2019-20	Q1	470770409.5
		Q2	376244890.3
		Q3	357963755.7
		Q4	387421460.9

Visualization



2.Finding Operational Effectiveness by Department

Introduction and general description

Operational effectiveness is a core objective of enterprise and IT governance where organizations seek to maximize the efficient use of resources in their business operations and to improve quality, productivity, or competitive positioning in markets in which they participate.

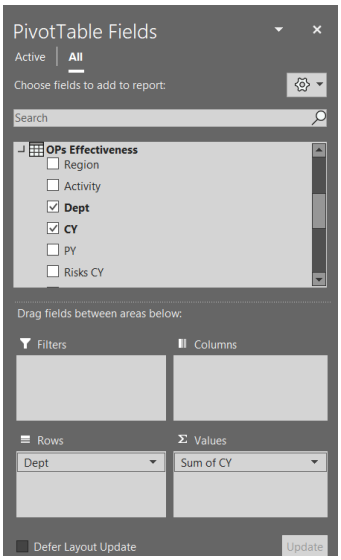
Several financial ratios allow business leaders to analyze their operational efficiency. The basic efficiency ratio is operating expenses divided by revenues, with a lower result indicating a greater level of efficiency.

Specific Requirements, functions and formulas

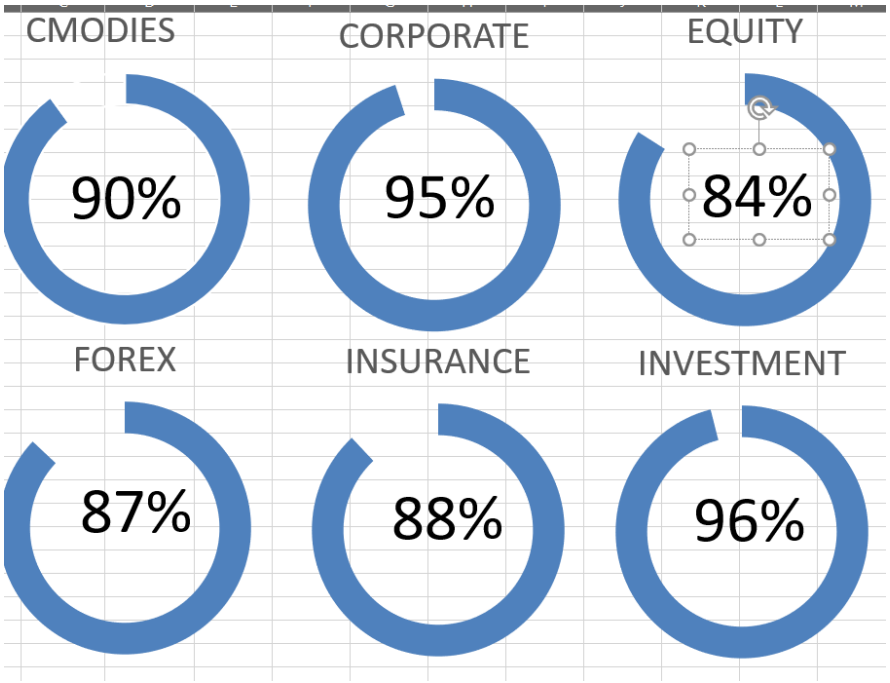
Using power pivot table, selecting following columns from Ops Effectiveness, creating doughnut chart. Also using functions like SUM().

Analysis results

Row Labels	Sum of CY	Remaining
Cmodies	90%	10%
Corporate	95%	5%
Equity	84%	16%
FOREX	87%	13%
Insurance	88%	12%
Invtment	96%	4%
Grand Total	**540%**	



Visualization



3.Finding change in Sales Volumes FY (Fiscal Year)

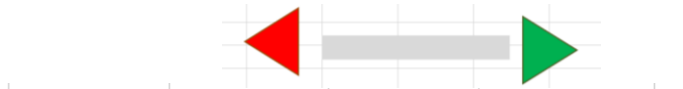
Introduction and general description

A company's fiscal year is its financial year; it is any 12-month period that the company uses for accounting purposes. The fiscal year is expressed by stating the year-end date. A fiscal year-end is usually the end of any quarter, such as March 31, June 30, September 30, or December 31.

Sales volume is the number of units that are sold in a given time period. This is not to be confused with total sales, which are usually quantified as a monetary value. Sales volume is measured differently: Let's say a cosmetics brand sells 500 units of mascara in Q1. Their sales volume is 500.

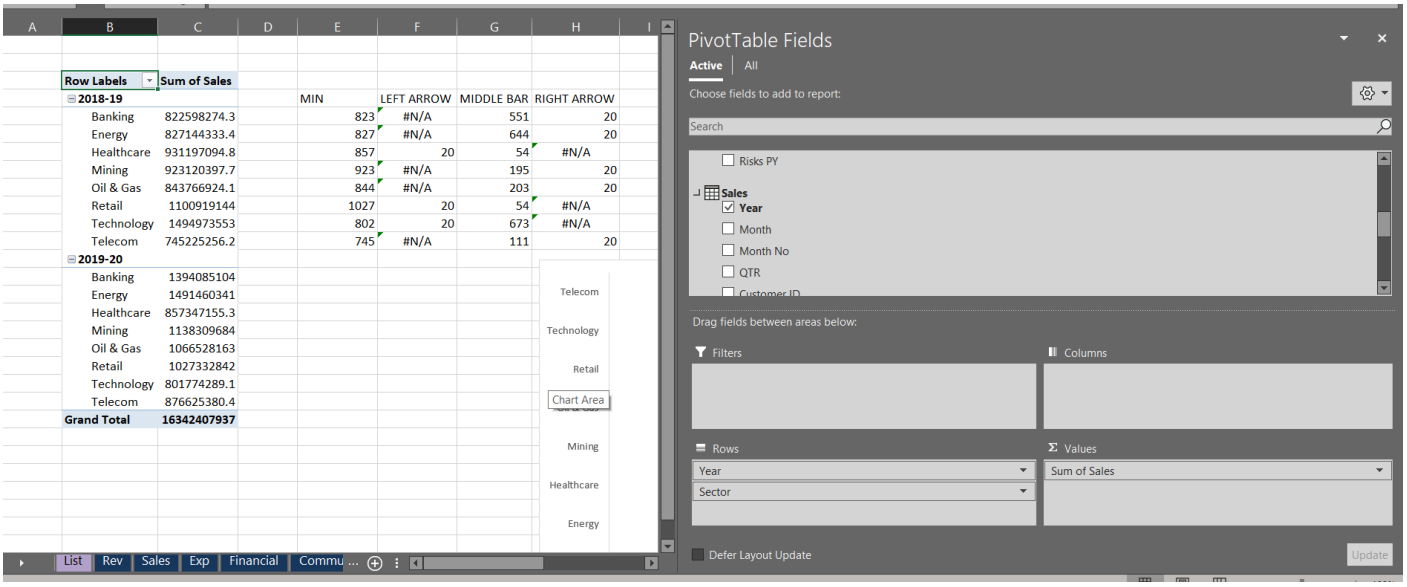
Specific Requirements, functions and formulas

Using power pivot table and creating stack bar graph using shapes and clustered bar graph, also using functions like MIN, MAX,IF functions

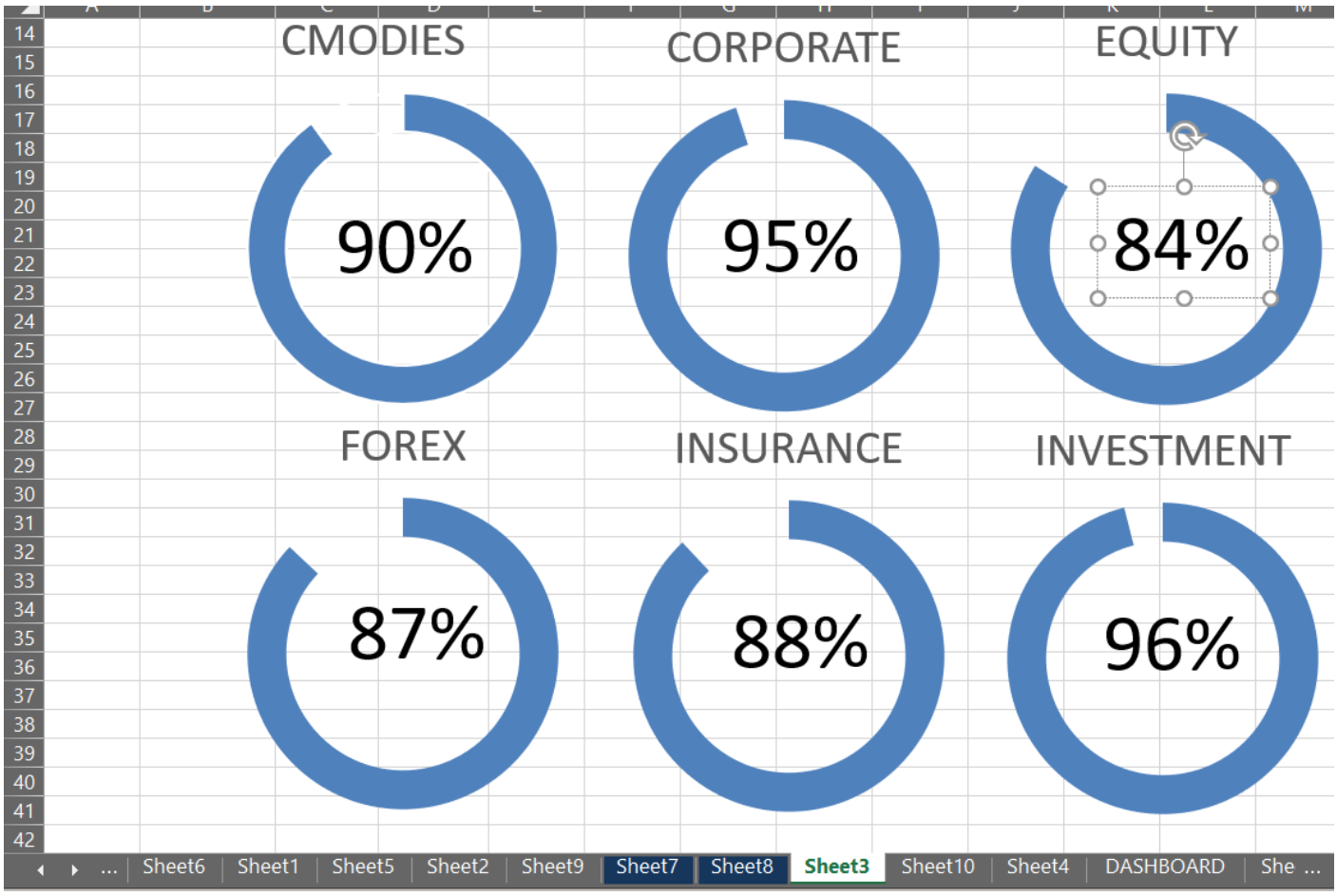


MIN	LEFT ARROW	MIDDLE BAR	RIGHT ARROW
823	#N/A	551	20
827	#N/A	644	20
857	20	54	#N/A
923	#N/A	195	20
844	#N/A	203	20
1027	20	54	#N/A
802	20	673	#N/A
745	#N/A	111	20

Analysis results



Visualization



4.Finding Sales Volumes FY Data CY v PY

Introduction and general description

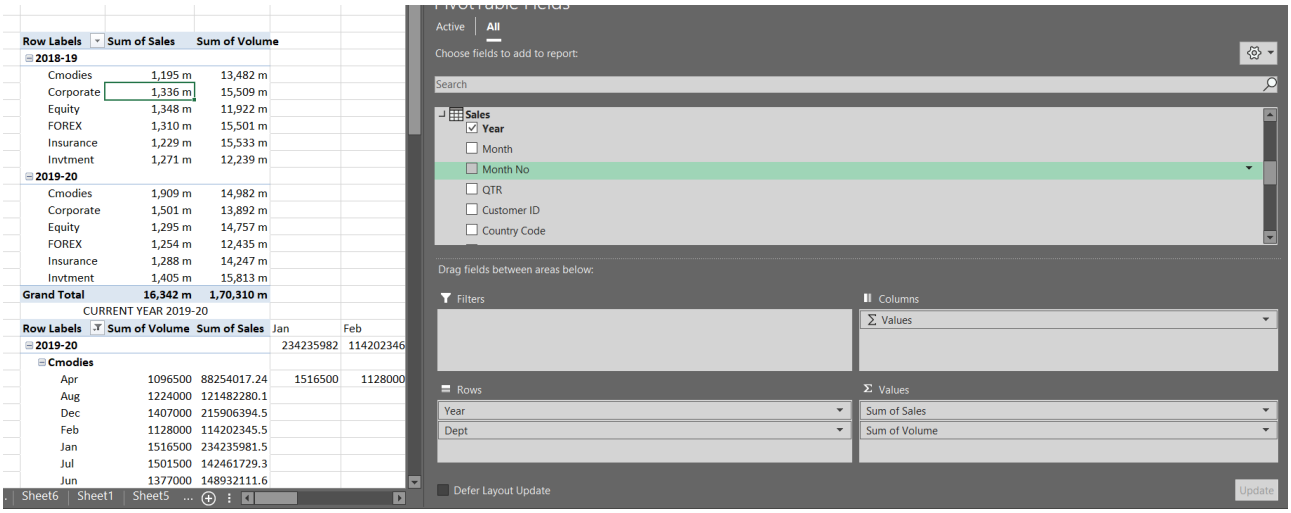
Sales volume is the number of units that are sold in a given time period. Here comparing current year sales volume with previous year sales volume.

Specific Requirements, functions and formulas

Using power pivot table, from Sales selecting columns and using function IF(logical_test,[Value_if_true],[Value_if_false]) for comparing Previous Year and Current Year Sales Volume.

Using symbols for up and down values for representing in the chart. Also used sparkline for trend.

Analysis results



Row Labels	Sum of Sales	Sum of Volume
2018-19		
Cmodies	1,195 m	13,482 m
Corporate	1,336 m	15,509 m
Equity	1,348 m	11,922 m
FOREX	1,310 m	15,501 m
Insurance	1,229 m	15,533 m
Invtment	1,271 m	12,239 m
2019-20		
Cmodies	1,909 m	14,982 m
Corporate	1,501 m	13,892 m
Equity	1,295 m	14,757 m
FOREX	1,254 m	12,435 m
Insurance	1,288 m	14,247 m
Invtment	1,405 m	15,813 m
Grand Total	16,342 m	1,70,310 m

CURRENT YEAR 2019-20

Row Labels	Sum of Volume	Sum of Sales	Jan	Feb
2019-20			234235982	114202346
Cmodies				
Apr	1096500	88254017.24	1516500	1128000
Aug	1224000	121482280.1		
Dec	1407000	215906394.5		
Feb	1128000	114202345.5		
Jan	1516500	234235981.5		
Jul	1501500	142461729.3		
Jun	1377000	148932111.6		

Sheet6 | Sheet1 | Sheet5

Active | All

Choose fields to add to report:

Search

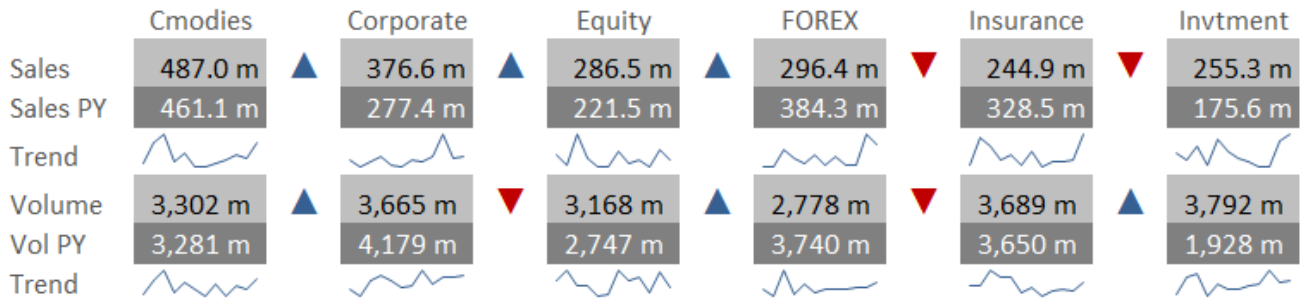
Sales
- Year
- Month
- Month No
- QTR
- Customer ID
- Country Code

Drag fields between areas below:

Filters | Columns (Σ Values) | Rows (Year, Dept) | Values (Sum of Sales, Sum of Volume)

Defer Layout Update | Update

Visualization



5.Finding the revenue trend using dataset

Introduction and general description

Revenue growth is the increase, or decrease, in a company's sales between two periods. Communicated as a percentage, revenue growth demonstrates the degree to which your company's revenue has grown (or shrunk) over time.

For example, if a company generated $50 million in revenue during one business year and $75 million in revenue the next, it saw a 50% revenue growth. If the same company generated $50 million in annual revenue one year but only $42 million the next, then it saw a 16% reduction in revenue growth (and might need to think about a new approach to how they coach their sales team!)

Specific Requirements, functions and formulas

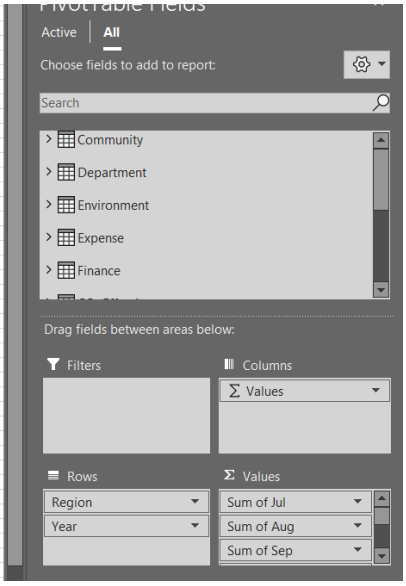
Using power pivot table and creating line graph using Revenue dataset.

And also connecting with slicer with Region

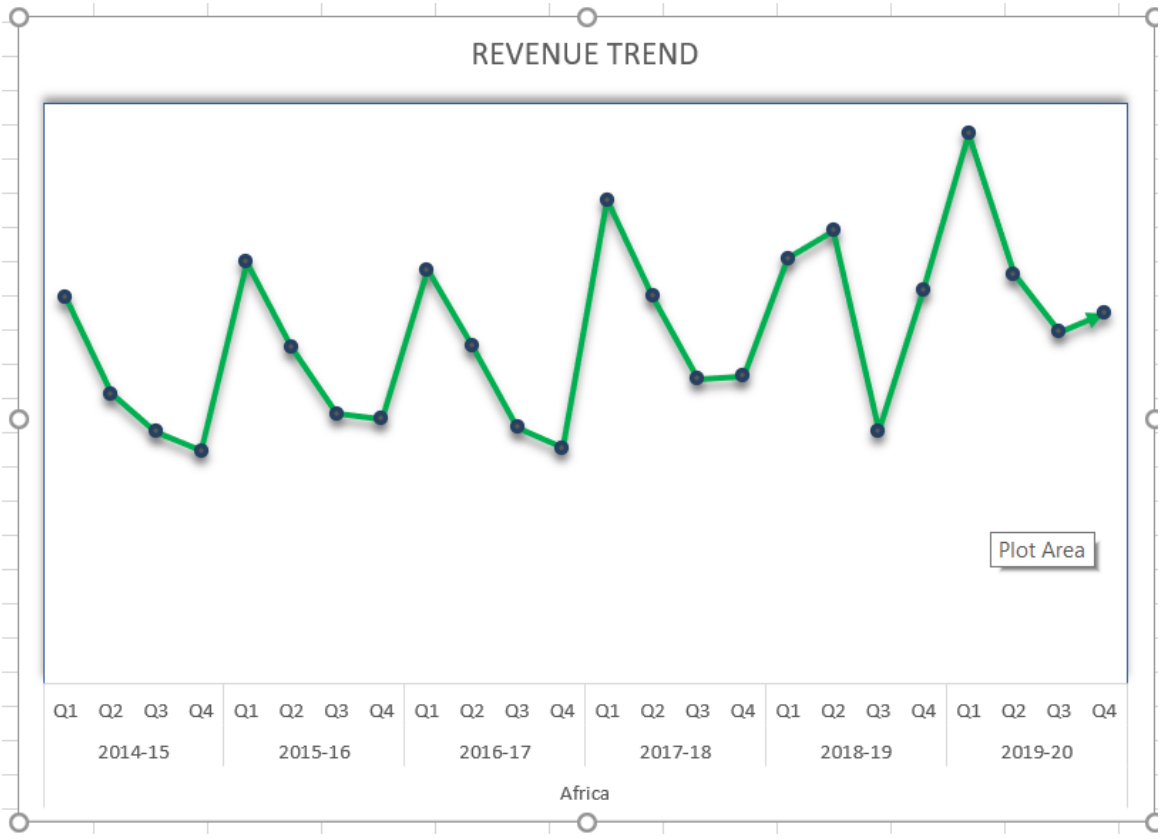
Analysis results

Row Labels	Sum of Jul	Sum of Aug	Sum of Sep	Sum of Oct	Sum of Nov	Sum of Dec	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Apr	Sum of May	Sum of Jun
Africa												
2014-15	47483872.4	52074073.4	233197692	107204047	55842656	86784250.4	72183547.1	21912694.9	123138045	97938366.5	37477529.9	65126961.2
2015-16	53352665.6	69432097.9	240409992	116526138	66479352.4	107141050	77616717.3	25479877.8	129618995	112572835	39869712.6	75729024.7
2016-17	45559579.6	59403017.1	251591852	119204899	65002033.4	107141050	80422140.8	26079404.3	114287716	98339488.1	37924848.6	67024539.1
2017-18	59946815.2	77146775.4	279546502	133938089	73865947.1	126048294	93514117.2	29976326.8	139375264	129394063	48621600.8	87044856
2018-19	138029489	98765081.7	129864397	199564597	106520964	84352124.1	59919647.8	103022404	55118404.2	54374358.4	92099130.5	192437763
2019-20	71365256.2	95242932.6	307193958	144019451	80289072.9	128620708	118372300	35266266.8	149865875	157797638	56536745.1	104873320
AsiaPac												
2014-15	119784049	122185443	52004840.6	66451752.8	52146774.8	61218189.7	120418982	109659201	195782674	53583303.6	69168109.8	165736182
2015-16	149730061	150846226	68427421.8	83064691	53759561.7	64440199.6	146852417	132119519	212807254	59537004	86460137.2	180148024
2016-17	142426156	122854143	75847262.7	78598847.4	58060326.6	79702352.2	176594678	151454083	206292746	64888644.8	81188177.6	178053280
2017-18	182597636	155511573	82442676.9	89316872	71679415.6	84789736.4	185889135	161121365	217150259	66895510.1	105439192	209474447
2018-19	208347780	127466922	341753969	148424715	116684268	315733712	41332394	111348034	95062179.5	141397700	217505495	123447172
2019-20	186324118	167216746	109923569	113059332	78768588.5	111565443	199880791	166104500	255470893	76017625.1	114607817	275624272
Europe												
2014-15	70534326	58766901.3	56267508	96077754.8	180086141	214468161	60570646.3	94209843.8	244785299	78498926.9	71973410.8	39777156.1
2015-16	84981115.7	72551730	68618912.2	117167994	211866048	243713819	68056906	123960321	252355978	100639650	89966763.5	49107600.2
2016-17	84981115.7	56844654.4	74786904.3	128461294	175415975	225755959	59549792.7	110032195	221512470	107348960	94909992.3	47909853.8
2017-18	113308154	74795597.9	77099901.4	141166257	227812955	256540862	77337393.1	139281259	280395532	111821833	98864575.3	59887317.3
2018-19	207633475	201366016	67432879.9	177126415	162755650	65594938.9	100124251	237741521	60232883.5	241723496	132149118	169396263
2019-20	116812530	83106219.9	98846027.4	172153972	242354208	298303328	85930436.8	160093402	333804204	127070265	130084967	73033313.7
NthAmerica												
2014-15	76499840.7	102351500	175427845	133540662	127152979	130667245	92142655.6	49754063.5	123735621	126295570	238348737	191666835
2015-16	80526148.1	132924025	216577586	157106661	144492022	157430416	122856874	58534192.4	135973210	161917397	277149695	230923898
2016-17	81496342.6	139740642	242671271	130077558	128256963	157430416	132307403	55842965.2	134462396	187277953	265601791	235837172
2017-18	97019455.5	170415417	260936851	168931893	162350587	180954501	135007554	67280680.9	151081344	195081201	288697599	245663721
2018-19	99187142.2	160988519	160748263	152007715	114141792	64214232.7	148332708	216444962	238452551	114139286	224099330	46683832.4
2019-20	100020057	177516060	274670369	213837840	205507072	223400618	173086608	81061061.4	166023455	207533193	335694882	255899710
SthAmerica												
2014-15	86641885.5	41285068.7	19860803.8	15021471.9	38677518.1	73749428	47936680.9	4889328.65	130694824	53236705.7	50365548.2	120988492
2015-16	99588374.1	43920285.9	26481071.8	16878058.3	43457885.5	84769457.5	53861439.3	5432587.39	153758616	54883201.7	51923245.6	147546941
2016-17	95258444.8	40142196.7	27788779	14744050.9	37633632.8	69758199.4	50729960.2	5432587.39	153758616	58401355.7	47544176.7	141462531
2017-18	108248233	47226113.8	32692681.2	19400067	44801943.8	88301518.2	62629580.5	5904986.29	168965512	70363079.1	62558127.2	152110249
2018-19	32431499.5	63903763.7	65647391.6	112355267	80189508.5	104875582	68299023.4	59567937.6	54142651.6	38405936.2	47017978.9	71739795
2019-20	123009355	59032642.3	39869123.4	24871880.8	56002429.8	91032493	65925874.2	6634816.06	198782955	87953848.9	66551199.2	169011387
Grand Total	3163124973	3025022386	4158628303	3390300241	3262054271	4088498282	2977682654	2555642385	5096888422	3235328395	3560399634	4173365908

Region	Year	Quarter	Total Expense
Africa	2014-15	Q1	332755637.7
		Q2	249830953.1
		Q3	217234287.4
		Q4	200542857.6
	2015-16	Q1	363194755.2
		Q2	290146539.9
		Q3	232715590.3
		Q4	228171572.4
	2016-17	Q1	356554448.5
		Q2	291347982.8
		Q3	220789261.3
		Q4	203288875.8
	2017-18	Q1	416640092.7
		Q2	333852330.3
		Q3	262865707.7
		Q4	265060520
	2018-19	Q1	366658967.3
		Q2	390437685.3
		Q3	218060456.1
		Q4	338911251.5
	2019-20	Q1	473802147.1
		Q2	352929231.9
		Q3	303504442
		Q4	319207703.7

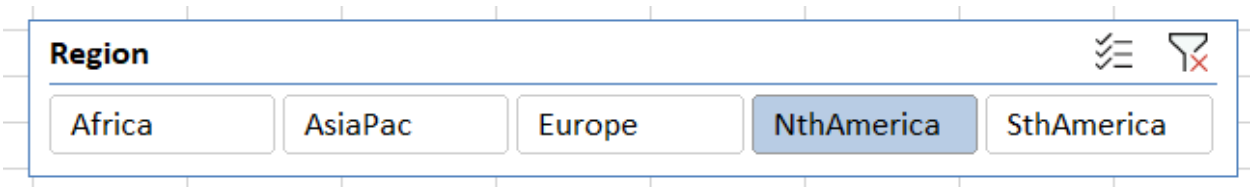


Visualization



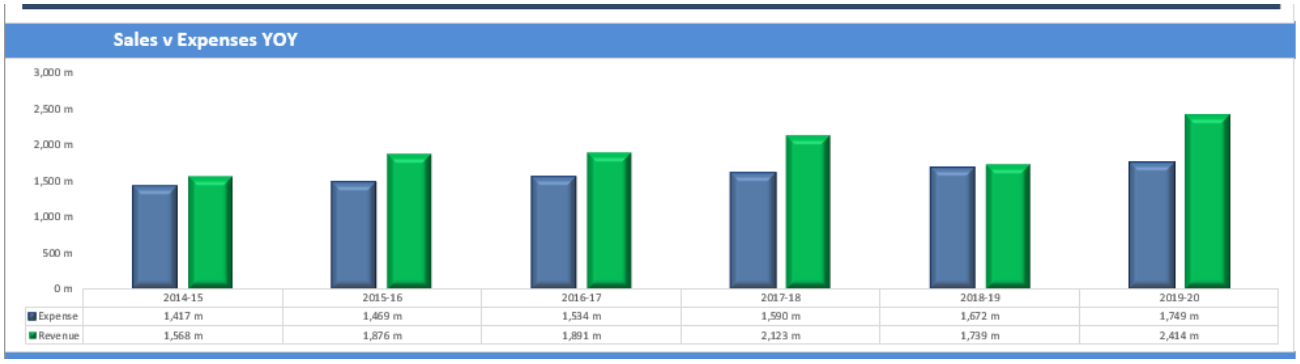
Slicer

Region slicer from main table Community connected with every table to make dashboard interactive

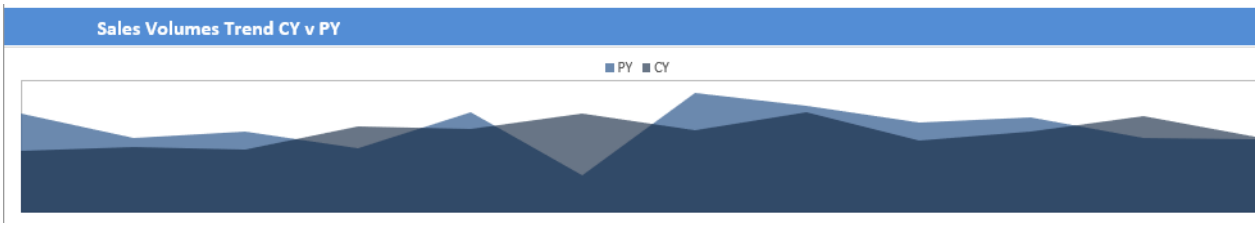


List of Analysis with results

SALES VS EXPENSE YOY



SALES VOLUME TREND CY V PY

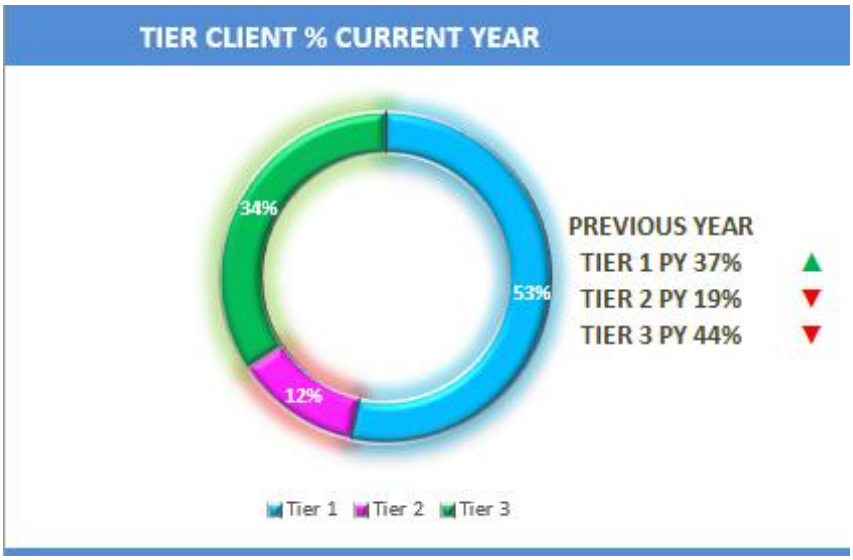


RISKS BY DEPARTMENT YOY

Risks by Department YOY

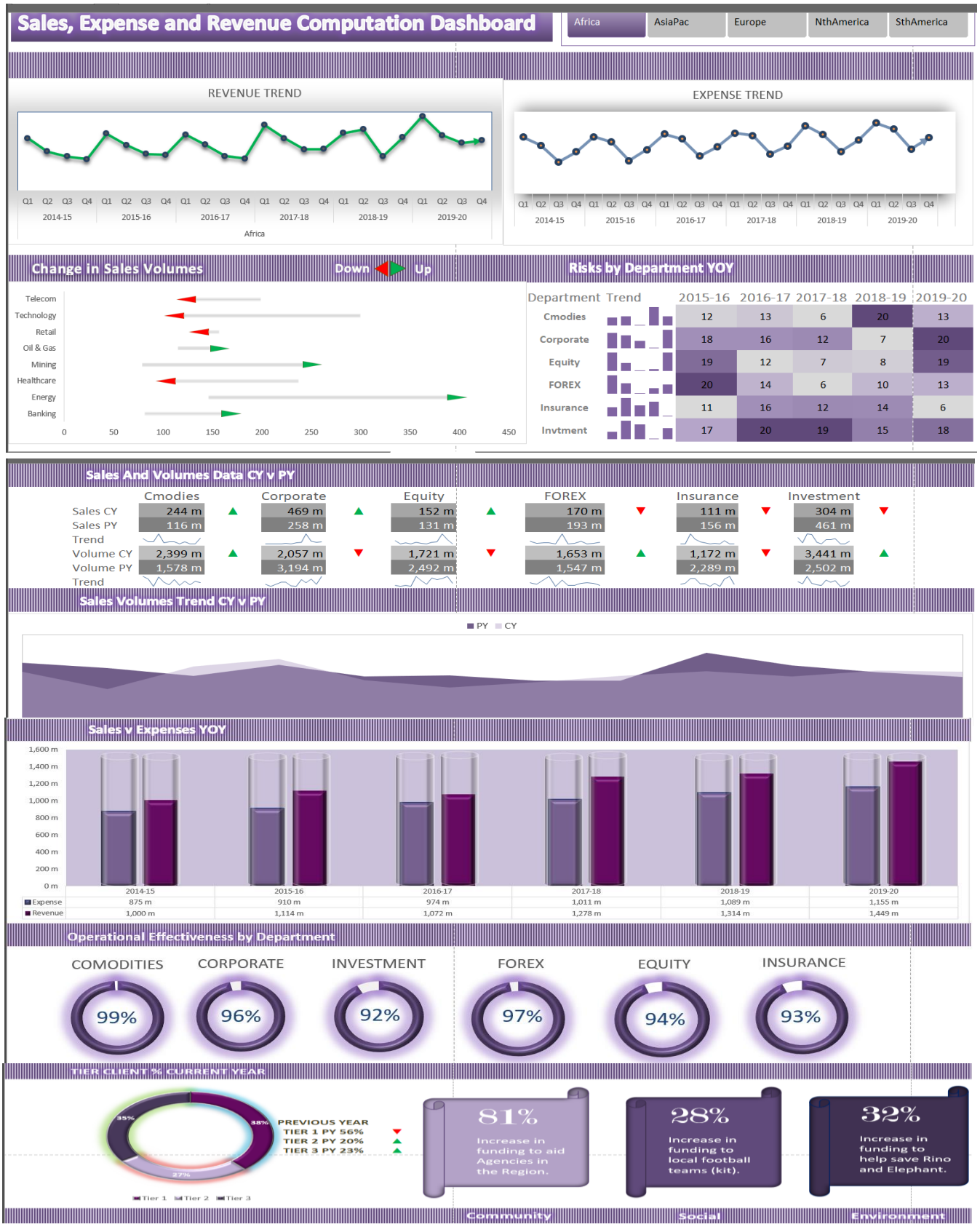
Department	Trend	2015-16	2016-17	2017-18	2018-19	2019-20
Cmodies		17	11	11	10	8
Corporate		17	15	19	10	9
Equity		17	13	20	6	17
FOREX		11	13	8	9	15
Insurance		16	12	21	17	18
Invtment		17	12	14	8	14

TIER 1 CLIENT % CY V PY



Community Social and Environment analysis region wise

SALES, EXPENSE AND REVENUE COMPUTATION DASHBOARD



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