	Detail	Hint	Trả lời		
	Stakeholder Challenge	What are stakeholder want to solve ? What are their problems?	- Data may show that this month/quarter's sales have not achieved the set target, at which point it may be difficult for stakeholders to find the reason why so as to improve business performance. - Lack of detailed information: Company data may be scattered across tables, so stakeholders have difficulty tracking detailed information about the performance of sales channels and products., customer segments - Stakeholders may have difficulty tracking revenue progress against goals over time to motivate employees below.		
Step 1 - Empathize - Nhìn rộng	Dashboard Goal	Which is the target of the dashboard?	- Track sales: Dashboard helps track and compare sales by time, region, employee, product and other factors. The goal is to understand sales trends and identify sales strengths and weaknesses Product and customer analysis: Dashboard allows analyzing sales performance by product and customer Evaluate marketing campaign effectiveness: Dashboard allows tracking and evaluating the effectiveness of marketing campaigns, including advertising campaigns, promotions, and customer loyalty programs Evaluate sales performance: Dashboard provides metrics and performance indicators to evaluate the effectiveness of sales staff and sales teams. The goal is to identify excellent performers and areas for improvement to enhance sales performance.		
	Learn about report users	Who will directly use this dashboard	- Sales staff: can view individual sales, targets, achievement rates, as well as comments and feedback from management. Dashboards provide an overview of individual performance and help employees self-assess and track their progress Sales Manager: Direct manager of the company's sales performance.		
	Empathize dataset	What are dimension, measure - Dimension - Measure	Table: Sales.SalesOrderHeader, Sales.SalesOrderDetail, Sales.Customer, Sales.SalesTerritory, Purchasing. ShipMethod, Person.Person, Production.Product, Production. ProductCategory, Production.ProductSubcategory in Data Dictionary		
	Clean dataset	- Does it have null value? - What are outliners? - Are they in the right type?	All tables have many null values, but null values are mostly unused Have duplicate date -> need to remove Change all date type in right type		
Step 2: Define point of view - Nhin sâu	Top Down	Place yourself as stakeholder, us logic tree or brainstorming question list to list down important question you want to answer.	Stakeholder Question Product Insights Early Warning Signs of Problems Best Customers and Building Relationships Customer Issues Categorized by Demographics	Which Region have good performance What Product Is good? Best customers Customer Issues	Sales Target Total Year to date Total Sale Total Profit Total Cost Shipping Cost How many orders per category? Category sales performance over time Top product and subcategory Total sales Are customers still buying? Customer churn Sales history

		Bottom Up	From dataraw, decide key dimension, key measure and then create layer 0, layer 1, layer 2 in ideation.	- Sales Performance: Total Sales, Profit, Items, Orders, Customers, StandardCost - Product Details Key Dimension: Category, Subcategory, Product Sub Dimension: Region, Year Key Measure: Total Sales, Total Orders - Customer Details: Key Dimension: Customer name, Demographics Key Measure: Total Customers, Total New Customers, Customer Churn, Average Sales Per Customer, Total Sales		
	itep 3 - Ideate	List down Key metrics	- List down key metrics follow layers 0, 1, 2,			
			Layer 0 dimension: Scorecard	Average Sales Per Customer, Total Customer, Total New Customers, Customer Churn, Average Sales Per Customer, Avg Orders By Customer, "YTD Customer, "YTD Utlems, "YTD Orders, "YTD Profit, "YTD Sale, Total Customer YoY%, Total Items YoY%, Total Orders YoY%, Total Sale YoY%, Total Customer YoY%, Total Sale, Total Profit, Total Orders, Avg Items Per Order, Avg Amount Sales Per Order, Avg Profit Per Order		
S			Layer 1 dimension	Clustered bar chart: Avg Shipping time, Shipping cost, Donut chart: Sales by Method, Total Sale by Gender Stacked column chart: Total Sale By Product, Total Customer By Time Stacked bar chart: Total Profit by Category, Total Orders by Category		
			Layer 2 dimension	Line and clustered column chart: Total Sale and Profit Margin by Month Line chart: Total Customer and Total Orders by Year Clustered column chart: Total Sale by Occupation Scatter chart: Order and Discount Correlation KPI: Sales Target By Month		
			Table	Customer Sales Details, Sales By Continent		
		Divide page layout by layer from noteworth KPIs to more details	Divide page layout by layer from noteworth KPIs to more details. Each page should represent its purpose	Divide into 3 report pages: - Sales Performance - Product Details - Customer Details		
5	Step 4 - Prototype	Create complete dashboard	- Choose chart fit with question - Choose color for dashboard			
S	Step 5 - Review	Review and update	Always remember that next dashboard can better 10 times than the first one			