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INTELLIGENT LEARNING SERIES: DATA VISUALIZATION PART 3

VIDEO TRANSCRIPT

Hi! My name is Claire. I'm one of the Analytics Advisory Specialists for Accenture in the Philippines' Insights and Intelligence Team. I'm here to quickly discuss the basics of data visualization, along with the tools, techniques, and insights generation processes that we do for our clients.

Now we are here to talk about the Insights Generation Process. After all, the goal of data visualization is to easily present and identify business insight. But first things first, what are insights? A lot of people get confused as to what an insight really is. Some even think that an automation or a process improvement output is an insight.

An insight is a piece of information derived from understanding a data product, most often a visualization. When actionable insights are derived, that is where business value is realized. And so, let me walk you through on the most common insights generation processes that we do in Accenture.

First off, insights can be exploratory. Exploratory Analysis happens when you do not have a specific business question in mind yet. You are just rummaging around your data, checking if you can find something interesting. These are the two common forms of Exploratory Analysis:

Number 1 - Data Discovery.

Data Discovery is an iterative process used to detect patterns, outliers, and trends in the data. Business Intelligence tools that support Visual Analysis is one of the main drivers of data discovery. When something interesting is spotted, then there is a decision to explore further by going into more complex data techniques.

Number 2 - we have Data Mining.

Data Mining is the process of turning raw data into relevant and digestible information presented as visuals. I started my career as a Data Mining Analyst. There's big data scattered all around, and no one understands it. With some data engineering and querying techniques, we turn these complex records that no one understands and transform them. Once transformed, insights are then presented in dashboards and the like.

The second type of Insights Generation Process is the Investigative Analysis. Investigative Analysis is conducted when there is an existing problem, issue, or even just a simple question that you want to address. The most common used case for this in my experience at Accenture is the Root-Cause Analysis or the RCA. Root-Cause Analysis is the method of systematically identifying the root causes of a problem. The results are then summarized visually as workflow diagrams and relational models.

Lastly, the Insights Generation Process could be predictive in nature. Predictive Analysis is making use of historical behavioral patterns to make an intelligent guess on what may happen in the future. The most common form of Predictive Analysis is forecasting. Forecasting is the process of making predictions based on trends of past and present data visualized in line or bar charts. The insights generation processes that we do here at Accenture, vary from client to client, from simple to complex.

I'm really glad that I get to hone my data skills across multiple engagements, and I learn new techniques as well. After giving you an overview on techniques, best practices, and showcasing demos, let me now give you examples of the types of projects I have been involved in.

Our first example is about insights on Brand Satisfaction.

As you can see, the line chart shows a correlational relationship among two variables: Net Promoter Score and Survey Volume. At 92% correlation, there is a strong positive relationship between survey volume and Net Promoter Score.

Just by looking at the line chart and the correlation coefficient, the plausible action would be

- to increase survey instance by getting more customers to fill up the feedback from
- and the higher the survey volume, the higher the NPS which indicates that brand satisfaction is high

Our second example is a use case on Human Resource Analytics.

We have here a chart of Employee Company Satisfaction Scores averaged by departments. Just by looking at the charts, we can then rank teams in terms of dissatisfaction at work. The insight here is this:

- Teams with high average levels of dissatisfaction, as indicated by low CSAT scores, have employees that are most likely at risk of attrition.

Because of this, the business action could be to focus on preemptive strategies to mitigate risk of employee attrition from these teams.

Our last example is for the Network Industry. We have here a heat map of internet users in the Philippines. Just by looking at the hotspots, locations with the most netizens, business should focus on assigning hubs of technicians there for faster dispatch during downtimes.

The presence of many users poses a risk of network congestion which may lead to slow connection and even downtime. So, for faster technician dispatch, mapping service center hubs near the users is a sound strategy.

I hope you learned something from this video. By covering highlights of data visualization and insights generation, I hope these basics will be helpful to you. Since this is just the second part of the Intelligent Learning Series, stay tuned for more content on all things Data Analytics and how we do it in Accenture.

With that being said, this has been Claire, leaving you with this reminder from Garr Reynolds:

"You can achieve Simplicity in the design of effective charts, graphs and tables by remembering 3 Fundamental Principles: Restrain, Reduce, Emphasize."

Up next, we will talk about Data Science, its Techniques, Concepts, and Principles.