Session 7

How MSMEs can Benefit from Data Analytics
Dr. Christopher D. Monterola, Asian Institute of Management

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Summary

- The session talked about how MSMEs can maximize the power of data analytics in various areas of business development.

Key Points

- **Data analytics matter.** The role of data science has been evident in setting up new businesses, knowing the customers' behaviors, increasing product lines and services, and improving customer relations.
- **Data is the new oil.** Data is likened to oil. For the oil to have value, people must first extract it, clean it, create models, look for patterns, produce actionable insights out of it, communicate these insights, and create meaningful decisions.
- **The heart of data science is artificial intelligence.** AI is a technique that enables computers to mimic human intelligence using various decision tools without biases. It has a substantial role in decision making because it can discern and recognize patterns unlike humans.
- **Success stories in using the power of data analytics.** Data analytics can be used in urban complexities by analyzing how smart cities' mobility and spaces look like at any point in time. This is crucial because it tells how people use energy and it describes people's aspirations. It gives businesses idea on what is trending and on what kinds of businesses should be put up.
- **The Philippine Story.** Using data science, Angat Dam's water level can now be predicted by only one person with the help of AI. This can also be applied to MSMEs especially when demands are high for their business products and services where AI can perform a similar or even higher level of performance.

Open Forum

- *How is self-fulfilling prophecy being factored in analyzing data?*

  "Self-fulfilling" happens when an individual who has a strong influence can predict that something is going to happen in the near future. It has been evident in the semiconductor industry where data scientists predicted that the computational power of technologies would double every two years. This illustrates how self-fulfilling prophecy is a factor in data analytics.

- *Singapore is good in terms of forming alliances among the government, academe, and industry. Do we have a real polytechnic university in the Philippines?*

  The Philippines do not have the same kind of collaboration that Singapore do. That is the reason for the creation of the AIM's School of Innovation and Entrepreneurship   --- to create a community where the government, academe, and industry can work together for a better nation.

- *Have we already thought of ways on how to conserve water so that there will be no shortage of water?*

    It is always a question of implementation. In Singapore, not a single drop of water is wasted even rainfall water. It is easier to convert rainfall water into drinking water compared to salt water.

    The question for the Philippines is what should be the level of implementation for this kinds of project. For instance, in Singapore, the problem was to reduce the overall travel time; however, in the Philippines, the problem is simply how to travel fast from one point to another. The country needs to solve the traffic problem, but it is not easy and is not resolvable at this point in time given the huge number of vehicles on the road. In Singapore, the total number of cars is 900,000 and it has not increased since 2008. They would reduce it to 300,000. In Metro Manila alone, there are 400,000 vehicles produced every year.

- *Can analytics be applied to the implementation of government projects?*

    That is the ideal practice. In Singapore, whenever government officials plan for projects, they consult scientists because if they fail, they have to resign. The Philippines needs to do the same especially when it comes to planning and executing projects for the public like roads, bridges, and highways because it would have implications on the economic growth of the country.

- *Does the Philippines have the fertile ground for data science applications? How can Filipino entrepreneurs help apply big data in making a smart nation?*

    While many companies in the Philippines are already shifting to the digital environment, many are still at the 2.0 to 3.0 industry stage. Data is not the most important thing because any data science starts with the question of goals. Any data can at least be an entrepreneur's starting point in analyzing bigger data that he or she needs for improving other aspects of his/her business.

- *Can we use data analytics to curve terrorisms and crimes?*

    Data analytics can predict human behavior. For instance, when a mafia leader is killed, the group will become stronger because the leader will be replaced by another who is as capable as the former leader. Based on analytics, the solution is to kill those members with unique roles in the group. Data analytics can also forecast what kinds of crime will happen at a particular place at any given time. In the case of the Philippines, these kinds of data can be found in the logbooks and not in the digital archives. Looking forward, if these can be encoded in computers then Filipino scientists can at least provide predictive analysis and the government can make actionable and proper decisions.