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**ALY 6060 – Decision Support and Business Intelligence**

**Prof. Susan Gracia**

**Introduction**

Many companies are focusing on using the Analytics, Data Science, Machine Learning, and AI models. As a result, we can see that there is an tremendous demand for the Analytics and Data-driven Decision-making skills. Business decisions can be taken with proper analytics so that it will help the companies and managers to understand the patterns and estimate their profits/ sales. These things are critical and necessary to mitigate the risks and manage them. Also, all the companies have to take Qualitative and Quantitate data before making a decision. This helps them to understand the upcoming scenarios.

Companies normally use data to personalize products and services and scale their platforms in respective markets. Data driven businesses have better operational efficiency, customer loyalty, and profit and revenue levels. All of them have access to the data, tools, and people and conduct descriptive, prescriptive, and predictive data analysis which employs sophisticated models to forecast and predict future events. Customer experiences can be digitized, resulting in massive amounts of data that can be used for products and services.

**Summary**

Small companies, I believe, are the ones that are most affected by research. It has become the pillar upon which all strategic business decisions are made. Finding the right audience is crucial for making informed choices in the future. So, I agree that, business analytics collects data from common social media platforms such as Facebook and Instagram, which is then used to construct a demographic of a brand's ideal customers. As a result of this profile, you will figure out what functionality your customers want or need from specific products. Today's companies must be aware of their customers' preferences. Normally, the companies were able to demonstrate a significant difference between the two groups in terms of team morale, employee satisfaction, and employee turnover using regression analysis. In conclusion, the teams led by better managers performed better, and their workers were happier and more likely to continue.

Data analytics is fast becoming a keystone in strategic business decision making, thanks to its wide variety of applications and use cases. Analytics is radically changing how businesses perceive the importance of data, from motivating them to make consumer-focused marketing decisions to assisting them in solving key organizational inefficiencies. Advanced statistical models are assisting in this effort by providing valuable insights from unique data sets and enabling companies to expand into new markets. The parts that follow dig into the vast and varied possibilities that data and analytics offer today's businesses. This is where the use of business analytics can be beneficial. Companies used a variety of methods to communicate these results to the appropriate parties, including a new manager correspondence that summarized the findings and goals. But simply sharing the data wasn't enough; so, the organizations felt the need to act on it. Predictive models use historical data to predict the probability of specific future outcomes, while descriptive models use historical data to predict how a community will respond to a collection of variables.

Predictive analysis is the name given to this operation, which employs four methods:

* **Segmentation:** This technique divides target customers into distinct groups based on demographics, actions, and attitudes
* **Forecasting:** Analyzes data to predict trends that enable businesses to operate more efficiently
* **Pricing:** It is the method of evaluating data from a variety of sources to decide how much a target consumer is willing to pay for a particular product or service
* **Customer satisfaction:** It is a term used to describe how satisfied a customer is with a product Improving the customer experience is critical

Big decisions can influence a company's future, but they often receive less attention than they should. Many decision-making sessions have an unhelpful dynamic. It's almost as though there's an unspoken agreement that the meeting will be structured like a three-act script. As a result, making cross-cutting decisions begins with a dedication to a well-coordinated process. This might imply drawing a clear line between the decision-making part of a meeting and the rest of the meeting. Many businesses are combining their Business Intelligence and Operation Research units on the common ground of predictive and advanced analytics as a result of these developments. The commitment to a well-coordinated method is the first step in making cross-cutting decisions.

**Conclusion**

Small companies must be able to spot potential opportunities as soon as they arise. Since data is such an important part of running a company, companies must remain focused on analytics. Leaders should make decisions that represent the company's strategy at all levels of the organization. According to the researchers, this low-quality result was caused by compartmentalized thinking and a selection of limited resources. According to them, a lack of clarity makes it impossible for colleagues to see through the silos and solve the issue.

To become a data-driven organization, you must put in a little more effort than simply deciding to use data to direct your business decisions one morning. It's not all about selecting the best analytical tools to aid in the extraction of insights from data, though getting the right technology infrastructure in place certainly helps. It's just about realigning the company's culture so that everyone knows the importance of what they're doing.

Data-driven decision making is a valuable skill for any professional, but it is especially important for those who work in data-driven roles. It's important for new data analysts who want to play a bigger role in their company's decision-making process to learn the ropes. Inexperienced data analysts who wish to take a more active role in their organization's decision-making process should understand what data driven means. It's all about re-aligning the company's culture so that everyone knows the value of data and how to use it effectively.

**References**

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