

1. To introduce myself, my name is Megan Moore. I was born, raised and have lived in Texas most of my entire life. While I've spent a few summers out of the state living in other places such as my internship with Boeing in Washington and my study abroad semester in Italy, most of my life has been divided between Houston and then San Antonio. I'm currently working towards a Masters in Computer Information Systems and Business Analytics. I completed the Masters in Finance and Economics in 2019 and truly enjoyed my experience with West Texas A&M. The online setup combined with wonderful professors made a huge difference and a great impact on me. This encouraged me to consider coming back for the newer Computer Information Systems and Business Analytics program. Once I landed the opportunity with my current employer who provides education assistance funding, I jumped at the chance to reenroll for another degree. Currently I am employed with USAA as a Technology Business Analyst. I work with a Data Analytics and Insights team for the enterprise within the Chief Administrative Office. I enjoy the experience I'm getting in working with data to pull trends and insights from while helping to build useful dashboards. I also am gaining real time experience with how a corporation handles information and portfolio governance. My boss very much refers to it as building the background and visuals needed to aid executives in telling stories. Storytelling plays a major role in higher management decision making and I see this play out now almost on a daily basis. For this course, I hope to learn the functional knowledge for building models related to business processes and decision making as well as how to more effectively use data visualization features in aiding communications. I also hope to gain a better understanding of the efforts involved with developing a data pipeline for proper data extraction and transformation in order to complement the storytelling needed for decision making. I would say I am apprehensive regarding the sheer amount of knowledge I have needed to quickly acquire in setting up the backend infrastructure and python tooling coming from a background of never having done this before. While my background has brought me experience with coding various languages like C++ and C or doing queries, this is all very new and a lot to take in plus hopefully remember every step needed to repeat the exercises again. The amount of time working through the posted videos to complete the assignments (especially the BILC ones) does raise my concern regarding the Final Exam and if I will be able to complete it in time.
2. Starting with the basics, BI stands for Business Intelligence and DSS stands for Decision Support System. While seemingly similar, they are different things. BI is used to describe software programs which aid in the management of data and other valuable information within a company. Business intelligence data is typically stored in some type of a data warehouse built for an organization or smaller data marts holding subsets of BI for individual departments, which then often somehow link into an enterprise data warehouse. BI programs often incorporate forms of advanced analytics, such as data mining, predictive analytics and statistical analysis. The benefit BI provides is that it helps with automatic analysis and providing suggestions leaving only the need to act. A common example and current application of BI is predictive modeling which builds out what-if analysis for different business scenarios.

DSS on the other hand is a computerized system for information which then assists with the decision making for an organization. These decision-making activities all require judgement, determination

and a sequence of actions. The DSS helps by analyzing large volumes of unstructured data to gather information and insights to solve critical problems by incorporating numerous factors to create a result. There are several types of DSS but the most common five types are communication driven, document driven, knowledge driven, model driven and data driven. The main benefit of DSS differs from BI in that it is meant to aid the user in determining the errors that exist in a program and then analyze all the information in order to make a decision.

Going into detail on the five types of DSS, first is Communication driven DSS. This is also referred to as group decision support systems (GDSS). They emphasize the use of communications and decision models intended to determine solutions by decision makers working together as a group. This type of DSS supports electronic communication, scheduling, document sharing and other group productivity and decision enhancing activities such as email. Next, document driven DSS help managers pull and manage unstructured documents or web pages by integrating a variety of storage and processing technologies to provide complete document retrieval and analysis. Third, knowledge driven DSS are often referred to as management expert systems or intelligent DSS. They focus on knowledge and recommend actions to deciders based on analysis of a particular knowledge base. For the fourth type, with model driven DSS, the emphasis is on access to and manipulation of a model, rather than data, therefore it uses data parameters to support decision makers when analyzing a situation. Lastly, data driven DSS utilizes file drawer systems, data analysis systems, information systems and data warehousing. This type of DSS focuses on access to and manipulation of large databases of structured data. In summary, DSS are used primarily in sales orders, material requirements, tracking of inventory and financial types of data sets.

3. A case I am most interested in is how and why financial institutions are utilizing data and business intelligence. The massive influx of information brings opportunities for the banking industry to gain a deeper insight into customer needs, behaviors and the industry trends as a whole. Big data will be able to enhance every aspect of financial services by helping consumers make more intelligent decisions regarding spending and investments along with helping to reduce fraud. Banks should be very interested in gaining traction in using BI as this could aid in increasing customer retention and drive profitability which is always a concern based on the fierce competition widely available in the market. DSS could aid in the ways credit risk is scored and modeled as well. Typical scores are calculated using a number of factors but many more could be added to enhance this process making the determination of credit worthiness much more accurate. "Business intelligence in banking allows organizations to measure big data on their customers in quantities never seen before to help increase customer satisfaction. Banks can have a deeper understanding of their customers with banking BI, allowing them to address concerns proactively." (1) BI in banking could help lead to better KPI development and then in turn, efficient dashboard designs which capture operational business intelligence to aid in using predictive analysis for future trends.

## References

1. The Lab Consulting. "Business Intelligence in Banking: Optimize Data with BI." *The Lab Consulting*, 21 June 2021, [thelabconsulting.com/business-intelligence-in-banking/](https://thelabconsulting.com/business-intelligence-in-banking/).

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