Explain how demands translates into capacity management, production scheduling an...

Introduction: Demand is the prime input required while anticipating the quantity of products to be produced for a particular time period. The current demand will be an input in the form of historical data to forecast the future demand, estimating which is important for planning other activities of the production cycle. Demand is an input that caters in outlining a production schedule to be followed for the smooth production of the required quantity of goods. The production schedule gives the production, planning, purchase and top management the information needed to plan and control the manufacturing operations. It drives the detailed material planning and capacity management requirements to fulfill the known or forecasted demand. Demand is the factor that contributes to the planning of the entire production cycle for a particular time of year. The production schedule gives a structure to depict as to how the manufacturing process has to be carried out. It plans out the inventory, capacity and staffing requirements for the company based on the projected demand. Based on demand as one of the inputs production schedule creates an output that is utilized for decision making. These outputs include the amount of products to be produced, the staffing quantities, the cushion required etc. This schedule helps the organizations in synchronizing their operations, in becoming more efficient and improving accuracy of company's manufacturing. It enables the different departments to plan their course of action accordingly based on the schedule. For instance it allows marketing department to make legitimate delivery commitments to warehouse and to the customers. Based on this demand the company may decide to utilize its existing capacity fully to meet the requirements. The capacity management is done to effectively make the most of the capacity that exists. However, with varying demand the company might decide to increase or decrease its capacity which has a cost associated to it. In case the company decides to increase its capacity to meet increasing demand it will have to make further investments. On the other hand if the demand fluctuation proposes a constant decrease in requirements the company might decide to reduce its capacity to save costs or to utilize it for some other purpose. These decisions that the company takes all depend on the demand projections made for that time period. The anticipated demand also drives the material requirement planning for the production cycle. On the basis of this forecasted demand the company decides the quantity of raw material it requires to fulfill the orders. This decision includes the exact quantity along with the buffer stock kept to deal with any errors in forecasts. Demand plays a vital role as huge costs are incurred by the company to fulfill it. Conclusion: Demand is the key factor that drives planning and scheduling activities of an organization. The above analysis proves that it plays a prominent role in devising Production, capacity and material requirements plan. A company plans its activities based on the forecasted demand to fulfill customer requirements and for profitability.