

Optimizing Business Processes with the Business Process Simulator: An ERP System Example

Abstract

Understanding business processes and cross-functional process integration is important for college students pursuing business degrees because it provides the students with a holistic and comprehensive view of how modern businesses operate. Expertise in business processes enables students to understand how value is created throughout the organization, identify inefficiencies in workflows, and propose process improvements that would contribute to the success of the organization. Additionally, cross-functional process integration knowledge highlights the importance of collaboration and communication across the different departments in the organization that are traditionally used to working in silos and enhances the seamless flow of information and resources.

In this presentation, using an ERP system, more specifically the SAP S/4HANA system running Fiori UX, as an example, we will introduce an innovative tool named the "Business Process Simulator." This tool is designed specifically for educators to create large datasets that mimic real-world cross-functional business processes such as procurement, fulfillment, production, among others. The Business Process Simulator simplifies the creation of complex datasets, allowing instructors to tailor datasets to meet specific teaching or research objectives. For example, instructors can simulate various business process scenarios, across multiple iterations over multiple years. Each iteration represents a unique set of transactions, creating all business process data and documents from start to finish. This information enables students to analyze data patterns, identify trends over time and make informed business decisions that align with organizational objectives.

In addition, the Business Process Simulator provides immediate feedback by identifying process, transaction, and data errors and then generating a comprehensive report that can be reviewed by the instructors and students to facilitate further analysis and discussion. Incorporating data analytics and business intelligence insights enables students to understand how data can be leveraged to drive business process improvements and management.