Thesis Project Portfolio

Streamlining Supply Chains: An Internship Journey with

Ernst and Young in SAP Implementation

(Technical Report)

Unwrapping the Challenges: A Case Study of The Hershey Company's

Failed SAP Implementation and Lessons Learned

(STS Research Paper)

An Undergraduate Thesis

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Bachelor of Science, School of Engineering

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Sociotechnical Synthesis

In my technical project, I presented a pioneering vision for a revamped Enterprise Resource Planning (ERP) system tailored to meet the specific needs of small businesses. To better understand the intricacies of existing ERP implementations and to identify potential shortcomings, my Science, Technology, and Society (STS) research delved into the complex network surrounding The Hershey Company's ill-fated SAP implementation. By examining the challenges and failures encountered in this high-profile case, I sought valuable insights into the practical realities of ERP deployment, aiming to inform and refine my proposed system for the benefit of small businesses navigating the technological landscape.

Additionally, to address inefficiencies in a dental supply company's supply chain, I collaborated with Ernst and Young to implement SAP solutions aimed at streamlining processes. Leveraging Azure for data requisition and project management, the goal was to enhance efficiency. The project successfully optimized supply chain processes, improving operational efficiency and cost-effectiveness. Moving forward, continued testing and evaluation are necessary for sustainability and scalability, with potential expansion to other areas within the company and further improvements for ongoing optimization.

ERP systems, like SAP, have become indispensable in managing complex business processes globally, yet their implementation poses significant challenges, as evidenced by The Hershey Company's costly SAP failure in 1999. Hershey's case underscores the risks of inadequate planning and poor execution, resulting in disruptions to the supply chain, lost sales, and damaged reputation. Effective change management and alignment with organizational goals are crucial for successful ERP adoption. Despite efforts to engage end users through training and communication, challenges persist due to cultural clashes and resistance to change. Recent studies emphasize proactive change management and ongoing support to address these issues. I

employed Actor-Network Theory (ANT) to analyze Hershey's failed implementation, highlighting the pivotal role of end users in shaping ERP adoption outcomes. By examining interactions among various actors, including management, IT personnel, consultants, and plant workers, I illustrated how end users' perspectives and actions influence ERP effectiveness, emphasizing the importance of actively engaging them to ensure successful integration and utilization of these systems.

Reflecting on the value of working on both projects simultaneously, the overlap between my technical project and STS research provided a holistic understanding of ERP implementation dynamics. Insights gained from Hershey's case informed my approach to designing and implementing ERP solutions for small businesses, emphasizing the importance of thorough planning, effective change management, and user engagement. Moving forward, I will apply these insights to future technical projects, ensuring a more comprehensive and informed approach to addressing challenges in ERP deployment within my field and profession.