

ALY 6080 Module 10 Project — Individual Project Proposal Draft 1

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Assignment title: Module 5 Project — Individual Project Proposal Draft 1

Course number and title: ALY6080 71445 Integrated Experiential Learn SEC 12 Fall 2022 CPS

[TOR-1-OL]

Term: 202315_1 Fall 2022 CPS Quarter Full Term

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Nov 27, 2022,

APA-style project proposal

According to Paper format (2019), Readers can concentrate on a paper's substance rather than its presentation because of its sequence, structure, and form consistency. Writers often need to make minimal tweaks or utilize their word processing application's automated formatting features and default settings to prepare a paper in APA style.

Sponsor Problem

Eco-friendly business practices are currently a hot topic of debate. Around the world, 21% of businesses think sustainability is essential to long-term survival. However, changing to more sustainable practices can be challenging, and before beginning this journey, Danfoss should be ready to deal with some difficulties in the green supply chain. Slowing down operations to implement green initiatives can eventually reduce the company's overall cost of operations (TCOB). This is especially true if managers are ready to face and overcome the difficulties associated with implementing more environmentally friendly supply chain procedures (Team, 2019).

The supply chain is responsible for 80% of a business's greenhouse gas emissions. However, since the supply chain is a significant source of emissions (and waste in general), altering it has a distinct advantage that even a tiny improvement will have a considerable effect. The supply chain also contributes to a business's environmental footprint. Therefore, undertaking a comprehensive life cycle assessment of the supply chain is crucial (Team, 2019). Danfoss could more quickly and effectively achieve its environmental goals with the aid of this project.

Objectives and goals of the Project Proposal

In this project, I mainly focused on the APA style to write a proposal for our project sponsor, the Danfoss company. The following three articles show my proper use of the APA style in this paper. At the end of

each article, the importance of the article for the company is mentioned while maintaining proper APA formatting.

Danfoss, the project's sponsor, is searching for a green solution for the company after the COVID phase. The SMART guidelines—Specific, Measurable, Achievable, Realistic, and Timeframe- define the project's purpose.

The secondary focus of this project is creating a green supply chain strategy for Danfoss company leveraging big data and a six sigma mindset. This project can help Danfoss move toward its green goals faster and more efficiently.

Executive Summary

It's not simply proper and ethical to include ethical, environmental practices in supply chain management; it's also profitable. Green supply chain improvements, such as converting plastic pallet pooling and implementing better recycling procedures, help supply chains from start to finish. Among the many reasons businesses "go green" are reducing carbon emissions and protecting natural resources. The environment is the most visible factor in supply chain management's significance. Supply chain managers can lessen their influence on the environment by making their supply chains more sustainable.

Green supply chain management is crucial when considering how sustainable practices affect total business costs and the environment. A business that revamps the operations of a warehouse, distribution hub, or the entire supply chain to make it more efficient and environmentally friendly. Because of their strength, lightweight, extended lifespan, low maintenance, and recyclability, Danfoss increase the sustainability of pooling. By distributing products among customers in the most effective way possible, the circular economy is already putting the principles of the green economy into practice.

The cost-effectiveness of a green supply chain in the long term is the main incentive for Danfoss to invest in it.

Literature Review

Article 1: A hybrid model for analyzing the risks of the green supply chain in a fuzzy environment

According to the Journal of Industrial and Production Engineering. (2020), This study's objective is to suggest a novel method for ranking the hazards associated with green supply chains (GSC) in a hazy setting. The GSC is acknowledged as an organizational philosophy that aids businesses in improving ecological efficiency and minimizing adverse environmental impacts to increase their market share and financial capacity. Adopting and implementing green initiatives successfully is essential for companies to establish and keep a competitive edge. Numerous investigations have been made to assess the dangers of the green supply chain. Also, to address risk mitigation measures for GSCM, a Situation Actor Process-Learning Action Performance (SAP-LAP) based model was proposed.

Several risk sources were examined to project evaluations for their management in GSC. It is seen as a glaring research gap in improving GSC performance. This study aims to identify hazards related to the GSC and rank practical actions to lessen the impact of the risks. Most studies have concentrated on assessing the risks, but there is no method for gauging risk reactions. For example, a quantitative approach was proposed to examine the risks associated with green components in terms of European Union criteria for decreasing the ecological impacts.

Several risk categories with varying degrees of importance have an impact on the issue of prioritizing responses to GSC threats. One of the most excellent techniques for locating the most crucial green criteria is the Decision-Making Trial and Evaluation Laboratory (DEMATEL). This study defines the main risk factors using a fuzzy DEMATEL. A sensitivity analysis is carried out to determine the value of risk criteria in ranking responses to GSC risks in the pipe industry. The primary contributions of the suggested strategy include identifying crucial risk criteria for evaluating responses, choosing the best

possible answers to implement green initiatives effectively, and assessing the impact of risk criticisms on response prioritization.

Findings and Conclusion

The suggested approach is verified through a case study in the Iranian pipe business (Kooshan Etesal Company). Specialists invited 15 academic experts and 15 supply chain specialists to assess the risk responses in light of the risk criteria. The case example's applicable risk remedies include "multiple supplier policy," "training employees to improve their competency with regards to the environment," and "increasing product recovery in the green supply chain." Using DEMATEL and TOPSIS in a fuzzy environment, a fuzzy MCDMCDM strategy was proposed for analyzing and choosing the optimum answers to risks related to the acceptance and successful implementation of green initiatives.

Although GSC plays a significant part in enhancing businesses' environmental performance, its effectiveness is jeopardized by the dangers posed by green efforts. A pipe business case study examining ten risk responses based on six risk categories and twelve risk criteria validated the suggested approach. Among the defined solutions to reduce the risks of GSC, "multiple supply policy" obtained the highest ranking. With improved GSC performance, several societal benefits can be realized, including increased environmental regulation compliance and supply chain green efficiency.

The Importance of this Article

Our sponsor is working on green solutions. Therefore, I choose to work on the green supply chain. This article indicates the importance of a green supply chain and goes into detail about it.

Article 2: The role of big data analytics in enabling green supply chain management

According to Liu, J., Chen, M., and Liu, H. (2020), Green supply chain management (GSCM) is increasingly made possible by big data analytics (BDA). Even though it is still mostly unexplored,

research on this developing topic is growing. This study maps four BDA technique types in GSCM: statistics, machine learning, data mining, and optimization. Big data analytics (BDA) is the application of analytical methods and the ability to rapidly analyze a wide range of large-scale data sets to produce insights for decision-making. In green supply chain management (GSCM), which is the application of complete environmental issues in supply-chain management, practitioners and scholars have acknowledged the relevance of BDA. Due to rising environmental consciousness, GSCM has become a crucial problem for managers, policymakers, and the general public. Businesses use ecological data to enhance their GSCM procedures throughout the supply chain. Despite the high hopes placed on BDA, many companies have been unable to reap its rewards in supporting GSCMs.

BDA's ineffectiveness in removing information asymmetry frequently makes it difficult to evaluate the greenness of suppliers. These BDA-enabled GSCM activities may lead to decreased carbon dioxide emissions, energy savings, improved collaboration for sustainable development, and higher levels of green customer satisfaction. This study makes two significant contributions. Combining recent GSCM research first aims to give researchers and practitioners a comprehensive grasp of BDA-enabled GSCM. Second, this study maps various BDA technique types in particular GSCMC regions and offers managerial recommendations on using the best BDA techniques to advance GSCM.

Finally, By examining probable patterns, learning relevant information, and foreseeing future trends, BDA can increase decision accuracy and promote the advancement of green practices. The literature review offers a comprehensive look at the development of the budding field of BDA-enabled GSCM research. Given that GSCM comprises highly interrelated activities, the study answers queries about the BDA approaches and the GSCM areas that BDA can enable. Future studies may offer a comprehensive framework for applying BDA to businesses' overall GSCM procedures.

The impotence of Article

This article points out the critical role of big data in enabling green supply chain management, which our sponsor, Danfoss, should consider if they want to move toward better green supply chain management.

Article 3: Impact of lean practices on organizational sustainability through green supply chain management

According to the impact of lean practices on organizational sustainability through green supply chain management – an empirical investigation | Emerald Insight. (2013), with The green paradigm, environmental hazards and harm to the environment decrease while enhancing ecological effectiveness and eliminating business waste. According to earlier studies, implementing a green supply chain management (GSCM) strategy improves organizational performance and gives the business a competitive edge. The question of whether these environmental sustainability initiatives will ultimately result in increased market share and profitability remains. This research was carried out among academics and professionals in industry In northern India. Through GSCM as a mediating variable, kaizen and innovation management's contribution to organizational sustainability is evaluated. The paper is divided into four sections: a literature review in the first section, methodology and the research tool in the second section, results and discussion of the findings in the third section, and conclusions and study limitations in the fourth part. The study makes use of a variety of statistical techniques to identify essential elements that have a direct impact on organizational sustainability.

The report discusses the importance of GSCM for organizational sustainability in India through competitive, economic, and environmental performance. There have been studies on several facets of lean (Kaizen and innovation management) and green (green supply chain practices) strategies. Investigations have been done into the combined impact of government policies, innovative management, and Kaizen. The study's findings indicate that to maintain an organization, top management commitment, leadership motivation, trust and collaboration among employees, communication and integration among employees,

and time allotted for innovation management initiatives are necessary. The study contributes to the body of knowledge regarding the significance of GSCM practices as a factor in organizational sustainability. KAIZEN and innovation seek to enhance the organization's competitive image by achieving corporate objectives. It is determined how much people are aware of the negative impacts of pollution on human life. The manufacturing processes of the Indian sector should emphasize lean thinking to increase productivity, quality, cost competitiveness, and financial success. By incorporating environmental review into the supply chain, this project aims to raise public awareness of the significance of GSCM in society. The academics and professionals in business were pleased with how well these techniques performed in their organizations and could accurately forecast organizational sustainability.

The Importance of this article

The study's findings can help the Danfoss company to initiate a six sigma initiative to implant the green supply chain culture in the company.

Conclusion

In conclusion, I used the proper APA style for paragraphs and headers in this project proposal. I also paid attention to the spacing between lines to keep them double and used the Times new roman font for the entire paper. Also, I mentioned the Danfoss company and pointed out the importance of a green supply chain, big data, and six sigma for the company.

Proposed solution

Technology, human skills, top management, and finances are recognized as the main obstacles to implementing BDA in the manufacturing supply chain. The dimensions or components of the BDA concept were taken from the literature for the proposal. Managers are given a likely checklist of BDA dimensions to verify they have implemented an efficient BDA system. Targeting non-value-added

production and eliminating it seeks to decrease the number of products that do not contribute value to the commodity or user. Lean streamlines production to improve supply chain efficiency.

The success of the proposal

There are various choices for performance measurements. Making the appropriate decisions to follow might be challenging, but doing so is crucial. Ensure the metrics reflect the most recent information and are communicated quickly within the organization. The limit for the number of KPIs per department is four, so it can be manageable for the workers (How to Measure the Success of Your Strategic Plan, 2020).

Possible data analytic techniques

I briefly detail the EDA portion of the project for each level in this section. Exploratory data analysis is the critical process of performing early analyses of data to find patterns, identify anomalies, test hypotheses, and confirm assumptions using summary statistics and graphical representations (Patil, 2018).

For this project, probably using survey data and doing basic analytics would be enough

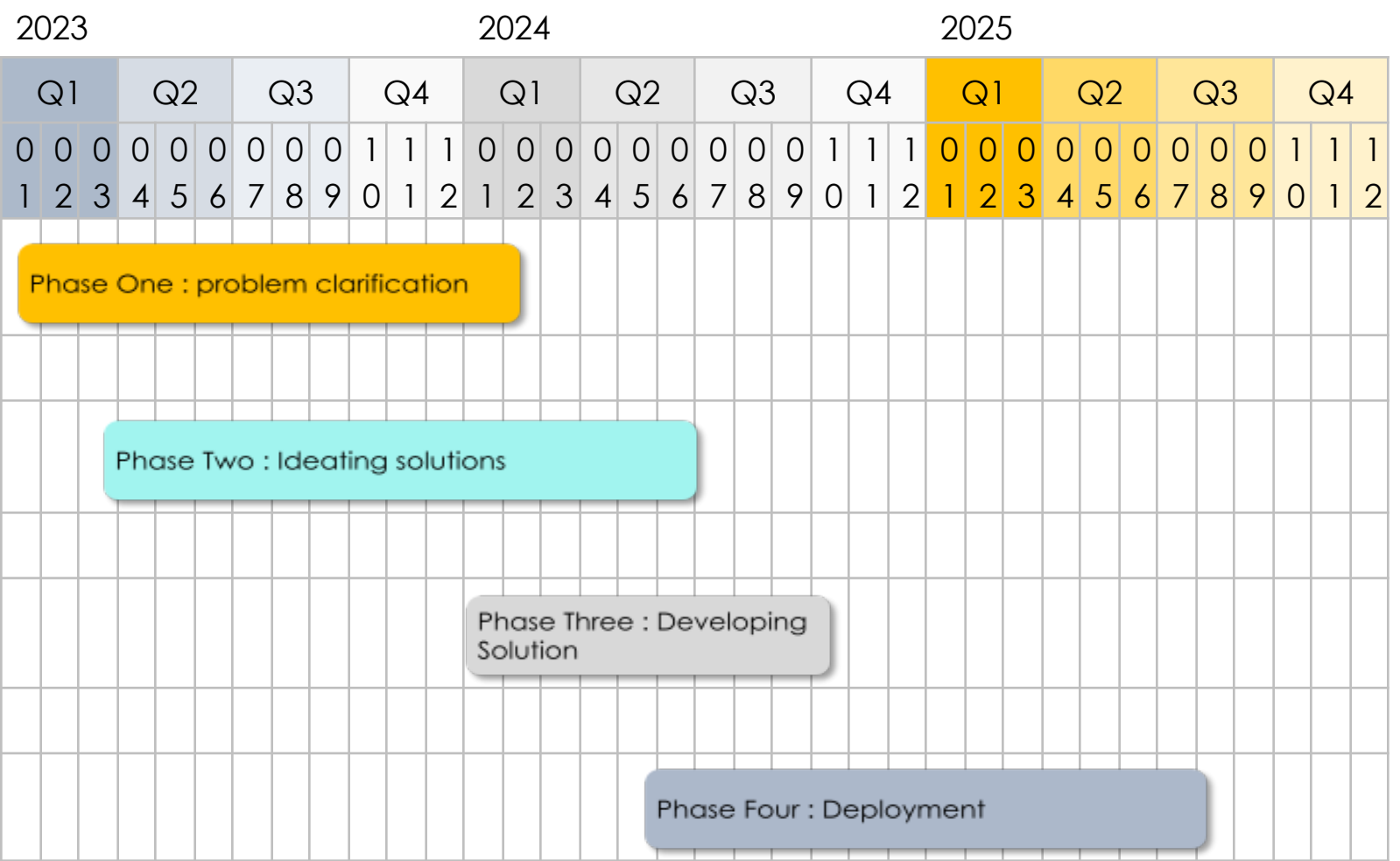
Next step

Data collection is an essential stage in exploratory data analysis. It discusses how data is located and loaded into our system. You can find reliable information on numerous public websites or buy it from private businesses. The Machine Learning Repository, Github, and other reputable websites are reliable sources for data collecting (Avijeet Biswal, 2021).

Data collection the necessary next step in this project. And can be done in various ways.

Schedule of the project

The Chart below shows the schedule of the project.



Requirements

The crucial component is developing a requirements model to define a use case at the start of analytics. The amount of daily data extracted from a source application and added to the data lake is known as the data volume. Removing the older, rarely utilized data from the data lake is necessary.

For this project, we need management reports, sales data, and a diagram of the current supply chain. Also, there should be a will for a change in the company.

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