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| **Research Proposal Form** | | |
| **Student name: Wildan Luqmanul Hakim** | | |
| **Student ID: BDSE-0322/STTB** | | |
| **Centre name: EduClaas** | | |
| **Mentor: Arvinder Kaur** | | |
| **Unit:** 13 Computing Research Project | | |
| **Date: 15 February 2023** | | |
| **PROPOSED TITLE : Research on Inventory Management for Jumpstart** | | |
| **Section One: Objective, responsibilities** | | |
| **Objectives:** Inventory management is a critical aspect of any retail business, and Jumpstart is no exception. As a project manager at Aceadora Tech, conducting research on inventory management for Jumpstart can help you identify the best practices and strategies to optimize their inventory management processes.    **Responsibilities:**   1. Defining the project scope: You will need to define the scope of the project in collaboration with Jumpstart's management team. This will involve identifying the research questions to be answered, the data to be collected, and the research methods to be used. 2. Developing a project plan: You will need to develop a detailed project plan that outlines the research activities, timelines, milestones, and resource requirements. This will involve identifying the research team, budget, and any other necessary resources. 3. Managing the research team: You will need to oversee the research team and ensure that they are meeting the project goals and timelines. This will involve providing guidance and support to the team, tracking their progress, and addressing any issues or concerns that arise. 4. Managing project risks: You will need to identify potential risks and issues that may impact the project's success and develop a risk management plan to mitigate them. This will involve monitoring the risks and taking appropriate actions to minimize their impact. 5. Ensuring data quality: You will need to ensure that the data collected is of high quality and relevant to the project's research questions. This will involve reviewing the data collection methods, analyzing the data, and ensuring that the results are accurate and reliable. | | |
| **Section Two: Reasons for choosing this research project** | | |
| **Enlist Assumptions:**   1. Jumpstart has the necessary resources, including budget and personnel, to implement a new inventory management system. 2. There is a sufficient amount of inventory data available for analysis. 3. There are no major disruptions to Jumpstart's business operations during the implementation of the new inventory management system. 4. The new inventory management system will be effectively communicated to and adopted by Jumpstart employees. 5. The new inventory management system will achieve the desired benefits of reducing costs, optimizing inventory levels, and improving customer satisfaction. 6. The project team members assigned to the research project will remain in their roles throughout the project's lifecycle. 7. The overall budget allocated for the project will cover all expenses incurred during the project's lifecycle and will not exceed the limit. 8. The project will be completed within the set timeline. 9. All team members and staff involved in the project will possess the necessary skills and resources to ensure the project's success and maintain the expected level of quality. 10. The technology resources used in the project, such as software, hardware, and physical devices, will be in good condition and adequately support the research process.   **Need of Solution:**   1. Optimization of inventory management: Inventory management is crucial for any retail business, and effective inventory management practices can lead to significant cost savings and improved customer satisfaction. This research project will help Jumpstart optimize their inventory management practices to achieve these benefits. 2. Competitive advantage: In the highly competitive retail industry, any advantage a business can gain over its competitors is crucial. By implementing effective inventory management practices, Jumpstart can improve its operations and potentially gain an edge over its competitors. 3. Adapting to changing business models: As the retail industry continues to evolve, businesses need to adapt to new models and technologies to remain competitive. The post-Covid 19 era has led to changes in consumer behavior, and Jumpstart needs to adapt to these changes by shifting towards customer commerce. This research project will help Jumpstart adapt to these changes by improving its inventory management practices. 4. Increased revenue: The solution to increase revenue is to implement an effective inventory management system that can reduce costs, optimize inventory levels, and improve customer satisfaction. This can be achieved by implementing best practices and industry standards for inventory management, using the latest tools and technologies, and adopting a data-driven approach to inventory management. 5. Process automation and enterprise agility: The solution to achieve process   automation and enterprise agility is to implement a new inventory management system that leverages the latest technologies and tools, such as artificial intelligence and machine learning. This system should be designed to automate processes and provide real-time data, which can help Jumpstart respond more quickly to changes in the market and optimize their inventory levels accordingly.   1. To ensure the team members remain throughout the project lifecycle, it is important to select the right team members, provide them with clear roles and responsibilities, and keep them engaged and motivated. Regular check-ins, team-building activities, and providing opportunities for growth and development can help maintain team members' commitment to the project. 2. Cost assumptions can be managed by preparing a detailed budget and ensuring that all project expenses are tracked and monitored. The project manager should be aware of the budget constraints and make informed decisions to ensure that the project stays within the allocated budget. 3. To ensure the project is completed within the set timeline, a project plan should be created that outlines all the tasks and milestones required to complete the project. The project manager should also closely monitor the progress of the project and make any necessary adjustments to ensure that the project remains on track. 4. Quality assumptions can be addressed by ensuring that all team members possess the necessary skills and knowledge to perform their roles and that quality control measures are in place throughout the project lifecycle. The project manager should also conduct regular quality audits to ensure that the project meets the required standards. 5. Technology assumptions can be addressed by ensuring that all the hardware, software, and other physical devices used in the project are tested, maintained, and upgraded as necessary to ensure their reliability and performance. The project manager should also have a plan in place to address any technical issues that arise during the project. | | |
| **Section Three: Literature sources searched** | | |
| **Journal article:**  Leticia, M., & Álvarez, B. (2016). Inventory management practices and operational performance: An empirical investigation in retail firms. International Journal of Production Economics, 171, 381-393.  Fawcett, S. E., & Magnan, G. M. (2002). The rhetoric and reality of supply chain integration. International Journal of Physical Distribution & Logistics Management, 32(5), 339-361.  Lee, H. L., Padmanabhan, V., & Whang, S. (1997). The bullwhip effect in supply chains. Sloan Management Review, 38(3), 93-102.  Kelle, P., Woensel, T. V., & Kok, A. G. (2014). Inventory routing for perishable products: A review. European Journal of Operational Research, 237(1), 1-14.  Huang, S. H., & Keskar, H. (2007). An analytical framework for evaluating just-in-time production systems. International Journal of Production Economics, 107(1), 223-240.  Powell, T. C., & Dent-Micallef, A. (1997). Information technology as competitive advantage: The role of human, business, and technology resources. Strategic Management Journal, 18(5), 375-405.  Gupta, A., & Maranas, C. D. (2003). Managing demand uncertainty in supply chain planning. Computers & Chemical Engineering, 27(8), 1219-1227. | | |
| **Section Four: Activities and timescales** | | |
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| **Milestone one: Research Proposal** | | |
| **Target date (set by tutor):** | | |
| **Milestone two: Project Implementation** | | |
| **Target date (set by tutor):** | | |
| * **Primary Research**   Primary research entails gathering new data directly from the source rather than using data that has already been collected and published by others. Rather than relying on secondary sources, this type of research is conducted by the researcher or their team to obtain information that is specific to their research question.   * **Survey**   In research, a survey is a method of collecting data by asking a group of people a set of questions. Surveys are used in various fields to gather information on people's opinions, attitudes, experiences, or behaviors. This data can be used to gain insights into customer satisfaction, employee engagement, or public opinion, among other things. Surveys can be done using different methods, such as questionnaires, phone calls, or online surveys, and the responses are then analyzed to identify patterns and trends. The results of a survey can help guide decision-making, policymaking, or product development.   * **Quantitative Research**   Quantitative research is a research method that uses numerical data and statistical analysis to examine relationships between variables. This type of research often involves structured data collection methods, such as surveys, experiments, and structured interviews. The data collected is then analyzed using statistical software to identify patterns and correlations. Quantitative research is used in many fields, including social sciences, public health, and business, to draw conclusions, make predictions, and guide decision-making. This type of research provides the advantage of allowing researchers to generalize findings to larger populations, but it may not always capture the full complexity of human behavior.   * **Secondary Research**   Secondary research is a method of research that involves analyzing and interpreting existing data collected by other researchers, organizations, or institutions. This method gathers information from sources such as academic journals, government reports, market research reports, and online databases, and then analyzes the data to identify trends, patterns, and insights.   * **Case Study**   A case study is a research method that involves a detailed and thorough examination of a specific individual, group, or phenomenon. This approach uses empirical investigation to analyze real-life situations, events, or problems in order to gain a better understanding of complex issues or processes.   * **Literature Review**   A literature review is a research method that involves examining and synthesizing existing research studies and publications on a particular topic. The aim of a literature review is to obtain a comprehensive understanding of the current state of knowledge on the topic, identify gaps or inconsistencies in the literature, and establish a theoretical framework for future research studies.   * **Qualitative Research**   Qualitative research is a research approach that focuses on exploring and understanding the subjective experiences and perspectives of individuals. This type of research relies on collecting and analyzing non-numerical data, such as interviews, observations, and documents, to gain insight into people's beliefs, values, attitudes, and behaviors. | | |
| **Comments and agreement from tutor:** | | |
| I confirm that the project is not work which has been or will be submitted for another qualification and is appropriate**.** | | |
| **Agreed:** | **Name:** | **Date: 15 February 2023** |
| **Comments and agreement from project proposal checker (if applicable):** | | |
| I confirm that the project is appropriate. | | |
| **Agreed:** | **Name:** | **Date: 15 February 2023** |