1. Operations Engineering & Management

IMPROVING FEASIBILITY OF CANTEEN X

A THESIS

Submitted in Partial Fulfillment of the Requirements for the Degree of

Bachelor of Engineering in Industrial Engineering

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UNIVERSITY OF ATMA JAYA YOGYAKARTA

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HALAMAN PENGESAHAN

Tugas Akhir Berjudul

IMPROVING FEASIBILITY OF CANTEEN X

yang disusun oleh

Clara Presilia Vijati

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dinyatakan telah memenuhi syarat pada tanggal 13 September 2022

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Yogyakarta, 13 September 2022

Universitas Atma Jaya Yogyakarta

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Dr. A. Teguh Siswantoro, M.Sc.

DECLARATION OF ORIGINALITY

I, the undersigned below:

Name :Clara Presilia Vijati

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Hereby declare that my final project entitled "Improving Feasibility of Canteen X" is the result of my research in the 2021/2022 Academic Year which is original and does not contain plagiarism from any work.

If in the future there is a discrepancy with this statement, then I am willing to be prosecuted and processed in accordance with the applicable provisions.

Thus this statement is made truthfully.

Pangkalan Kerinci, 26 August 2022

Clara Presilia Vijati

DEDICATION PAGE

"Sometimes in life, you do not always feel like you would make it, but that does not mean you cannot make it"

My Father and Mother

Who have provided moral and material support as well as endless prayers for my success. I may not always express my affection for you both, but I can assure that you two hold a special place in my heart. Thank you for everything you've done for me.

Pak The Jin Ai

Thank you for your dedication and guidance throughout the process of doing my final project, I am really grateful for having you as my supervisor.

Meldy and Laras

Having a friendship with you guys makes me happy every day. Thank you so much for enriching my life with so many pleasant memories and joyful moments.

TIKI 2018 Classmates

Thank you, Chika, Sean, Gurion, Adrian, Jacinta, David, and Carlo, for all the memories we've shared together. I wish you guys nothing but the best.

RESEARCH APPROVAL

Kepada:
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Dengan Hormat,

Sehubungan dengan adanya pengajuan penelitian mahasiswa dengan judul "Improving Feasibility of Canteen X" maka saya selaku pemilik kantin menerangkan bahwa mahasiswa berikut:

Nama Mahasiswa	: Clara Presilia Vijati
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Fakultas	: Teknologi Industri

Diperkenankan untuk melakukan penelitian di kantin saya.
Demikian surat keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Atas perhatiannya saya ucapkan terima kasih.

Pekanbaru, 8 September 2021

Damayanti S.

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Praise and gratitude to the presence of God, who has given His grace and gifts so that I can complete the final project. The preparation of this report aims to fulfill the requirements to obtain a bachelor's degree in Industrial Engineering from the University of Atma Jaya Yogyakarta.

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6. The Jin Ai, S.T., M.T., D.Eng. as my supervisor who has been so dedicated in guiding me in doing the final project.

Lastly, realizing that there are many mistakes made in this report, I am very expecting criticism and advice from the reader to complement all the shortcomings and mistakes of this final project. Besides, I hope readers can gain knowledge after reading this final project.

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ABSTRACT

Canteen X is currently facing problems related to its income. During the first year of opening, Canteen X managed to get the highest profit of Rp.30,000,000,.00 per month. However, as time goes by, many competitors show up, and the price of goods increases, making the profit gained by the Canteen decrease. These competitors also operate under the auspices of the company. Now Canteen X can only get a profit of around Rp.7,000,000.00. This canteen spent Hundreds of millions of rupiahs on the cost. Moreover, this canteen also experienced Rp.6,413,000 lost last September. The highest loss experienced by Canteen X was when they lost Rp.20,000,000.00. Because of this loss, the employees said that they did not get their salaries fully. The owner of the canteen was repeatedly attempting not to continue the business and switching to another business that might be more profitable. But at this time, the owner has not found another business that can be run and still hopes that this business can still be run. For that, improvement of Canteen X's feasibility to increase its profit will be conducted.

There are two alternatives that become considerations to solve the problem, which are labour management and inventory control. Further observation and interviews are conducted in advance. Multi-criteria decision analysis method is used to choose the best solution, and the result, inventory control, is the best solution. The methods used in this research are the Continuous Review Method and the Periodic Review Method, with the simulation done using Microsoft Excel software. These two methods are chosen because the methods can solve inventory problems for independent materials, whereas the materials are chicken and meat.

The results of this study are the quantity and period of the order of chicken and meat so that it can minimize the total inventory cost. Based on the simulation carried out for chicken, the best result is by applying the P model with six days period and TSL of 269 kg. Meanwhile, for meat, the best result is by applying the P model with six days order period and TSL of 40 kg. With the new inventory policy simulation, there is 21% of the money saved compared to the current inventory policy, and there is 45% of the money saved for meat.

Keywords: Periodic and Continuous Review, inventory control, simulation, inventory cost