INFORMATION SYSTEM DEVELOPMENT USING SYSTEM DEVELOPMENT LIFE-CYCLE IN TB. PANJI JAYA

A THESIS

Submitted in Partial Fulfillment of the Requirements for the Degree of

Bachelor of Engineering in Industrial Engineering

MELIA PUTRI HANDAYANI

14 14 07822

INTERNATIONAL INDUSTRIAL ENGINEERING PROGRAM

DEPARTMENT OF INDUSTRIAL ENGINEERING

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IDENTIFICATION PAGE

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INFORMATION SYSTEM DEVELOPMENT USING SYSTEM DEVELOPMENT LIFE-CYCLE IN TB. PANJI JAYA

Submitted by

Melia Putri Handayani

14 14 07822

Was examined and approved on June 27th, 2018

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Faculty of Industrial Technology,

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Dr. A. Teguh Siswantoro, M.Sc.

DECLARATION OF ORIGINALITY OF RESEARCH

I certify that the research entitled "Information System Development Using System Development Life Cycle in TB. Panji Jaya" in this thesis has not already been submitted for any other degree.

I certify that to the best of my knowledge and belief, this thesis which I wrote does not contain the works of parts of the works of other people, except those cited in the quotations and bibliography, as a scientific paper should.

In addition, I certify that I understand and abide the rule stated by the Ministry of Education and Culture of The Republic of Indonesia, subject to the provisions of Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 17 Tahun 2010 tentang Pencegahan dan Penanggulangan Plagiat di Perguruan Tinggi.

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I hope this research can be useful for others, especially for TB. Panji Jaya and I am glad to receive any suggestions and critics to improve this kind of research.

DEDICATIONS

Matthew 25:20

"And he who had received the five talents came forward, bringing five talents more, saying, 'Master, you delivered to me five talents; here, I have made five talents more'."

This thesis entitled "Information System Development Life-Cycle in TB. Panji Jaya" was originally made as my dedication to my parents, the owner of TB. Panji Jaya who have been the best of the best 'support system' I have ever had in my life. There is nothing I can do to give any payback for all of their efforts to make me who I am now. For the last 18 years of my life, they have been struggling a lot to provide me with the very best education at the best school in my hometown. Graduated from Pangudi Luhur Kindergarten, Elementary School, Junior High School, and Senior High School, then have the chance to pursue the bachelor degree study at the International Class of Industrial Engineering, Universitas Atma Jaya Yogyakarta, it is all my parents' support. For life, I have always been that person who always wanted to be a good example for everyone who sees me and know me personally. And now, as the first-born in my family, I am levelling up as the oldest sister of Yuda, Farel, Vico, and all of my cousins and relatives. All of my efforts to study hard and get good qualifications as a bachelor is all for giving back what my parents have given to me, because that is all I can do, to make them proud parents, and make the whole family proud of me.

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Yogyakarta, July 14th, 2018

Respectfully yours with sincere gratitude,

MELIA

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Abstract

Information system is essential to provide necessary information in a business. Along with the development of information technology in this era, any kind of business including retail business has no other choice but to follow this development in order to compete with another competitors. Toko Besi Panji Jaya is one of retail business in Yogyakarta that sells building materials. Developing information system in this retailer is the aim of the research. This information system is used to support the decision making process in the retailer. The developed information system is on Management Information System (MIS) level.

The development of information system in Toko Besi Panji followed the System Development Life-Cycle method. The business process was identified by observing the activity in the retailer and interviewed the owner. From the observation and interviews, business process evaluation is done to support the information system development. The evaluation of the business process used SWOT Analysis method. The design phase used Data Flow Diagram and Entity Relationship Diagram as the documentation method on this information system modelling.

By implementing the information system, the retailer can track the records of any transaction happened in the whole business process and the data that is collected in the system is processed to calculate the amount of sales and purchases done in certain period of time. From the result of this process, the owner can make better consideration in decision-making process.

Keywords: *Information system, system development life-cycle, management information system, business process mapping, SWOT analysis*