TEXT MINING TO GAIN BUSINESS, MARKET, AND COMPETITIVE INSIGHTS IN COURIER SERVICE INDUSTRY

A THESIS

Submitted in Partial Fulfillment of the Requirement for the Degree of Bachelor of Engineering in Industrial Engineering

EUNIKE ANNICE ARIELLA

17 14 09215

INTERNATIONAL INDUSTRIAL ENGINEERING PROGRAM

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FACULTY OF INDUSTRIAL TECHNOLOGY

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HALAMAN PENGESAHAN

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EUNIKE ANNICE ARIELLA

171409215

dinyatakan telah memenuhi syarat pada tanggal 10 Juni 2021

		Keterangan
Dosen Pembimbing 1	: Ririn Diar Astanti, D.Eng.	Telah menyetujui
Dosen Pembimbing 2	: Ririn Diar Astanti, D.Eng.	Telah menyetujui
Tim Penguji		
Penguji 1	: Ririn Diar Astanti, D.Eng.	Telah menyetujui
Penguji 2	: Yosef Daryanto, S.T., M.Sc., Ph.D.	Telah menyetujui
Penguji 3	: The Jin Ai, D.Eng.	Telah menyetujui

Yogyakarta, 10 Juni 2021
Universitas Atma Jaya Yogyakarta
Fakultas Teknologi Industri
Dekan

ttd

Dr. A. Teguh Siswantoro, M.Sc

IDENTIFICATION PAGE

A THESIS ON

SENTIMENT ANALYSIS TO GAIN BUSINESS, MARKET, AND COMPETITIVE INSIGHTS IN DELIVERY SERVICE INDUSTRY

submitted by

Eunike Annice Ariella

17 14 09215

was examined and approved on June 10, 2021

Faculty Supervisor,

Ririn Diar Astanti, S.T., M.MT., D.Eng., IPM

Broad of Examiners,

Chair,

Ririn Diar Astanti, S.T., M.MT., D.Eng., IPM

Member,   Member,

Yosef Daryanto, S.T., M.Sc., Ph.D.   The Jin Ai, D.Eng.

Yogyakarta, June 10, 2021

Universitas Atma Jaya Yogyakarta

Faculty of Industrial Technology,

Dean,

Dr. A. Teguh Siswantoro, M.Sc

DECLARATION OF ORIGINALITY OF RESEARCH

I certify that the research entitled "Sentiment Analysis to Gain Business, Market, And Competitive Insights in Courier Service Industry" is 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 scientific paper should.

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

Signature   :

Student name   : Eunike Annice Ariella

Student ID   : 171409215

Date   : June 4, 2021

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ABSTRACT

The increasing use of e-commerce has led to the emergence of many couriers' service brands. The increased number of courier services has caused fierce market competition that affects experienced courier brands, POS Indonesia. To maintain the position and win the competition as one of Indonesia's top courier service brands, it is important always to evaluate the company's performance. If the company cannot meet the customers' needs, wants, and expectations, the percentage of market coverage will decrease, which will result in the company being unable to compete.

Analyzing feedback/reviews from customers through social media can be utilized to compare POS Indonesia's performance with other brands, which can later become valuable insights for improvement. The conventional method such as interview, survey, a focus group was preferred as a method to collect data in the past. However, with technological and data developments, text mining methods can be used to collect data effectively and efficiently.

This study aims to use text mining sentiment analysis to process secondary unstructured data from Twitter into valuable insights that contributed to the process to satisfy the customers. The secondary unstructured data was processed through Knowledge Discovery in Textual Database (KDT), resulting in complex and uncategorized Voice of Customers (VOCs). The result then transformed into Critical to Quality (CTQ) Trees to create comprehensive insight that the general reader can easily understand.

The result of text mining stated that there are five aspects that still unsatisfactory to the customer: delivery procedure, customer service, agent, tracking system, and product. The results are already reflecting the real customer feedback that enters the overall system of POS Indonesia.

Keywords: Courier Service Industry, Customer Feedback, Improvement, Sentiment Analysis, Social Media Data.