

CHAPTER 7

CONCLUSION

7.1. Conclusion

Based on the research conducted, the text mining method is applicable for the research case. Sentiment analysis can gather customer responses related to positive and negative perceptions of service quality implemented in a specific aspect of the courier service business. The method can transform, analyze, and utilize secondary unstructured data of tweets that mention courier service official account as a voice of customers and detailed service quality requirements. The developed text mining method results in insights in the form of complex and uncategorized VOCs. To help create comprehensive insights, the CTQ tree is utilized to transform the VOCs into a categorized aspect of complaints with its requirement details divided by the requirement's driver. The text mining and its result are applicable to be used as input in implementing business process improvement methodology for all brands or industries that want to measure the service level performance and create better service quality or continuous improvement. The condition of the business did not affect the applicability of the proposed method.

From the result of text mining related to Pos Indonesia, there are five aspects of Pos Indonesia service quality that are still unsatisfactory to the customer: delivery procedure, customer service, agent, tracking system, and product. The validation related to the insight stated that many of the CTQ results were appropriate. However, some did not reflect that of an agent. Nevertheless, with the difference, it does not state that insight is wrong but applies to the agent or other aspects (not everything that does not fit is wrong insight) can even be new findings. Meanwhile, the validation related to the model and its performance measure stated that the type database for sentiment NLP training does not affect the results because the insights collected still reflect the problems that exist in Pos Indonesia. The effect of training database is on the sentiment classification accuracy, which affects the longer time spend for data analysis and reduced number of insights related to a customer complaint.

7.2. Suggestion

Based on the research conducted, when the company wants to implement the tools, further research is recommended to be conducted. The further research topics to complement this research for the sake of creating effective and efficient tool to achieve the research objective are:

- a. implementation of business process improvement framework as explained in chapter six section two to the problem that of highest importance to check problem formulation validity to the current customer's needs, wants, and expectations;
- b. database improvement for sentiment classification NLP by using database with the topic in accordance with the object of research.
- c. text mining model improvement using machine learning in order to create full automation of VOC extraction.



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