Abstract− Assessing the quality level of companies where graduates are employed is crucial for understanding the impact of academic programs on career placements. The use of methodologies that do not match the research objectives may lead to inaccurate or irrelevant analysis. When company classification methods are not aligned with the nature of the data collected in a tracking study, the risk of misinterpretation and the formulation of invalid generalizations becomes apparent. This study utilizes the 2022 Tracer Study Data from Telkom University, encompassing responses from 4306 graduates working across Local, National, and Multinational companies. The research employs support vector machine (SVM) and XGBoost algorithms to analyze and classify the company levels of the surveyed graduates. The primary objective is to enhance the accuracy of company level classification, thereby facilitating a more precise analysis of the Tracer Study dataset. The SVM and XGBoost algorithms are rigorously tested, and the results indicate an accuracy improvement with the XGBoost method, yielding a 2% increase over the SVM method. The evaluation is conducted with a data separation of 20% test data and 80% training data. This research not only contributes to the refinement of company level classification in the context of Tracer Studies but also underscores the potential of machine learning algorithms, specifically SVM and XGBoost, in providing valuable insights into graduates' professional trajectories. The findings of this study pave the way for more informed decision-making processes in academic and career development initiatives.

Keywords: Classification; Company Level; Tracer Study; Support Vector Machine (SVM); XGBoost