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CV. XYZ is a garment company located in West Java and has never measured supply chain performance, where the company only focuses on increasing profits based on financial reports. Another problem that occurred in CV. XYZ, namely production activities have not been able to manage solid and liquid waste from production. The aim of the research is to measure supply chain performance involving aspects of waste in order to improve overall performance. Measuring supply chain performance in this study uses the Green Supply Chain Operations Reference (GSCOR) and Value Chain Operation Reference (VCOR) methods. The process in the GSCOR model is based on 8 processes, namely plan, source, make, deliver, return, enable, reverse logistics, and green manufacturing. Each performance variable of the 8 processes is described by attributes and performance metrics which are presented in the form of Key Performance Indicators (KPI). Furthermore, the weighting of each metric is calculated using the fuzzy analytical hierarchy process (FAHP). Respondents to the FAHP questionnaire amounted to 5 people consisting of companies and experts from the field of supply chain. The results of the calculation of these metrics get the value of the performance indicators, performance indicators are evaluated using a traffic light system based on three colors (red, yellow and green). The traffic light system assists in the process of determining priority analysis for supply chain performance improvements, so that suggestions for improvements and steps to be taken to improve the company's supply chain performance can be given. From the results of data processing, 28 Key Performance Indicators (KPI) were obtained with a value of 74.576 on a scale of 100, where these figures fall into the fairly good category, but have not met the overall targets of the company so that more detailed improvements are needed. The KPIs that get the worst indicator values and need improvement are Average days per schedule change, Waste reduction, and recycling of materials. The analysis in this study was carried out using the VCOR model which consisted of value chain analysis and supply chain simulation at CV.XYZ. Value chain analysis consists of 5 main activities and 4 supporting activities which aim to help determine the actors of the supply chain activities in the SCOR model and provide descriptions of the actors from the elements in the VCOR model. The end result of this research is the improvement of business processes which are modeled in supply chain simulations with the VCOR model using the ARENA application. The purpose of the simulation is to determine the direction of movement of the company's supply chain. Then a monitoring system was created with the Microsoft Excel application to help review and monitor supply chain performance at CV.XYZ repeatedly.

Key Words : Performance Measurement, Green Supply Chain Operations Reference, Value Chain Anaysis, Value Chain Operations Reference, Key Performance Indicator, Traffic Light System, Fuzzy Analytical Hierarchy Process