

BAB 8

KESIMPULAN DAN SARAN

8.1. Kesimpulan

Berdasarkan pembahasan pada bab-bab sebelumnya maka dapat ditarik kesimpulan sebagai berikut:

- a. Penyusun struktur hierarki terdiri dari 3 kriteria, 8 sub kriteria, 2 alternatif dan 10 sub alternatif.
- b. Muncul faktor baru pada penelitian ini dimana faktor tersebut belum digunakan pada penelitian sebelumnya yaitu prosentase penurunan kualitas. Faktor ini menjadi sub kriteria probabilitas ketidaksesuaian.
- c. Urutan prioritas supplier dengan metode AHP adalah supplier D (besar), B (besar), H (besar), I (kecil), J (kecil), K(kecil), M (kecil), L (kecil),F (besar) dan E (besar) sedangkan urutan prioritas supplier dengan metode FAHP adalah supplier D (besar), B (besar), H (besar), I (kecil), K(kecil), J (kecil), M (kecil), L (kecil) dan E (besar), F (besar).
- d. Hasil metode AHP dapat memilih 10 supplier dengan urutan yang pasti sedangkan hasil metode FAHP hanya dapat memilih 8 supplier dengan urutan yang pasti.
- e. Metode yang terbaik diterapkan pada kasus penelitian ini adalah metode AHP.
- f. Dalam kasus penelitian ini, metode FAHP tidak perlu untuk diterapkan.
- g. Alokasi order bahan baku berdasarkan hasil dari metode AHP dan urutan prioritas supplier yang disesuaikan dengan kemampuan supply masing-masing supplier.

8.2. Saran

Pemenuhan kebutuhan bahan kulit kambing PT.ASA selama ini dilakukan berdasarkan kebiasaan. Oleh karena itu, PT. ASA perlu menentukan supplier dan alokasi order berdasarkan urutan prioritas supplier.

DAFTAR PUSTAKA

- Amin, S.H., dan Razmi, J. (2009). An integrated fuzzy model for supplier management: A case study of ISP selection and evaluation. *Expert Systems With Applications*, 36(4), 8639–8648.
- Ana, B. L., dan Charbel J.C. Jabbour. (2009). Are supplier selection criteria going green? case studies of companies in brazil. *Industrial Management & Data Systems*, 109(4), 477-495.
- Asamoah, D., Annan, J., dan Nyarko, S. (2012). AHP approach for supplier evaluation and selection in a pharmaceutical manufacturing firm in ghana. *International Journal of Business and Management*, 7(10), 49-62.
- Azizi, M., dan Modarres, M. (2010). A decision model to select facial tissue raw material: A case from iran. *OR Insight*, 23(4), 207-232.
- Basuki, Ari. (2011). Fuzzy Multi Criteria Decision Making (Fuzzy MCDM) untuk pemilihan lokasi gudang distribusi. Program Studi TI U.Trunojoyo Madura.
- Bhutta, K. S., dan Huq, F. (2002). Supplier selection problem: A comparison of the total cost of ownership and analytic hierarchy process approaches. *Supply Chain Management*, 7(3), 126-135.
- Cebi, F., dan Bayraktar, D. (2003). An integrated approach for supplies selection. *Logistics Information Management*, 16(6), 395-400.
- Chang, D. Y. (1996). Applications of the extent analysis method on fuzzy AHP. *European journal of operational research*, 95(3), 649-655.
- Gnanasekaran, S., Velappan, S., dan Manimaran, P. (2006). Application of analytical hierarchy process in supplier selection: An automobile industry case study. *South Asian Journal of Management*, 13(4), 89-100.
- Gonzales, M. E., Quesada, G., dan Mora Monge, C.,A. (2004). Determining the importance of the supplier selection process in manufacturing: A case study. *International Journal of Physical Distribution & Logistics Management*, 34(6), 492-504.
- Herbon, A., Moalem, S., Shnaiderman, H., dan Templeman, J. (2012). Dynamic weights approach for off-line sequencing of supplier selection over a finite planning horizon. *International Journal of Physical Distribution & Logistics Management*, 42(5), 434–463.

- Ho, C. K. C. C. H. (2010). Global supplier selection using fuzzy analytic hierarchy, 623–640.
- Ho, J., dan Sik, Y. (2006). A two-phased semantic optimization modeling approach on supplier selection in eProcurement, 31, 137–144.
- Hsu, C. W., Kuo, R. J., dan Chiou, C. Y. (2014). A multi-criteria decision-making approach for evaluating carbon performance of suppliers in the electronics industry. *International Journal of Environmental Science and Technology : (IJEST)*, 11(3), 775-784.
- Huang, S., Wang, C., dan Chiou, C. (2014). FAHP application for green supplier selection in electronic industry. *The Journal of Human Resource and Adult Learning*, 10(2), 49-60.
- Jayaraman, V., Srivastava, R., dan Benton, W. C. (1999). Supplier selection and order quantity allocation: A comprehensive model. *Journal of Supply Chain Management*, 35(2), 50-58.
- Jounio, C. (2013). Supplier Selection Based On AHP Method- Supplier from China for Suomen Koristetuonti. Helsinki Metropolia University of Applied Sciences.
- Kabir, G., dan Hasin, A. (2011). Comparative Analysis Of Ahp And Fuzzy Ahp Models For Multicriteria Inventory, 1(1), 1–16.
- Kahraman, C., Cebeci, U., dan Ulukan, Z. (2003). Multi-criteria supplier selection using fuzzy AHP. *Logistics Information Management*, 16(6), 382-394.
- Kang, H.-Y., dan Lee, A. H. I. (2010). A new supplier performance evaluation model: A case study of integrated circuit (IC) packaging companies. *Kybernetes*, 39(1), 37–54.
- Kannan, D., Khodaverdi, R., Olfat, L., Jafarian, A., dan Diabat, A. (2013). Integrated fuzzy multi criteria decision making method and multi-objective programming approach for supplier selection and order allocation in a green supply chain. *Journal of Cleaner Production*, 47, 355-367.
- Kar, A. K., dan Pani, A. K. (2014). Exploring the importance of different supplier selection criteria. *Management Research Review*, 37(1), 89-105.
- Karsak, E. E., dan Ece, M. (2012). An Integrated Methodology for Supplier Evaluation and Selection Using QFD and DEA, 5(1).
- Kaur, P., Verma, R., dan Mahanti, N. C. (2010). Selection of vendor using analytical hierarchy process based on fuzzy preference programming. *Opsearch*, 47(1), 16-34.

- Koul, S., dan Verma, R. (2011). Dynamic vendor selection based on fuzzy AHP. *Journal of Manufacturing Technology Management*, 22(8), 963-971.
- Kumar, S., Hong, Q. S., dan Haggerty, L. N. (2011). A global supplier selection process for food packaging. *Journal of Manufacturing Technology Management*, 22(2), 241-260.
- Li, Z., Wong, W. K., dan Kwong, C. K. (2013). An integrated model of material supplier selection and order allocation using fuzzy extended AHP and multiobjective programming. *Mathematical Problems in Engineering*, 2013.
- Mafakheri, F., Breton, M., dan Ghoniem, A. (2011). Supplier selection-order allocation: a two-stage multiple criteria dynamic programming approach. *International Journal of Production Economics*, 132(1), 52-57.
- Meixner, O. (2009). Fuzzy AHP group decision analysis and its application for the evaluation of energy sources. The Energy crisis and the need for a change in global energy strategies.
- Mendoza, A. (2007). Effective Methodologies For Supplier Selection And Order Quantity Allocation. The Pennsylvania State University.
- Micheli, G. (2008). A decision-maker-centred supplier selection approach for critical supplies. *Management Decision*, 46(6), 918-932.
- Mirabi, M., Ghomi, S. M. T. F., dan Jolai, F. (2010). A hybrid electromagnetism-like algorithm for supplier selection in make-to-order planning. *Scientia Iranica. Transaction E, Industrial Engineering*, 17(1), 1-11.
- Nayak, J. K., Sinha, G., dan Guin, K. K. (2011). Impact of supplier management on a firm's performance. *Decision*, 38(1), 77-90.
- Nazari-shirkouhi, S., Shakouri, H., Javadi, B., dan Keramati, A. (2013). Supplier selection and order allocation problem using a two-phase fuzzy multi-objective linear programming. *Applied Mathematical Modelling*, 37(22), 9308-9323.
- Paksoy, T., Āzceylan, E., dan Weber, G. (2013). Profit oriented supply chain network optimization. *Central European Journal of Operations Research*, 21(2), 455-478.
- Patil, A. N. (2014). Modern Evolution In Supplier Selection Criteria And Methods. *International Journal of Management Research and Reviews*, 4(5), 616-623.

- Prasad, K. G. D., Subbaiah, K. V., Venu, C., Rao, G., dan Rao, K. N. (2010). Supplier Evaluation Through Data Envelopment Analysis, 1–12.
- Rizaputra, M. (2009). Penggunaan Metode Analytic Hierarchy Process (AHP) Dan Fuzzy Analytic Hierarchy Process (Fuzzy AHP) Dalam Menentukan Peringkat Prioritas Penanganan Gap Yang Dimiliki Suatu Perusahaan Agribisnis Dalam Rangka Sertifikasi Iso 22000 : 2005. Skripsi. *Fakultas Studi Teknik, Program Industri Teknik Universitas Indonesia*
- Ruiz-torres, A. J., Mahmoodi, F., dan Zeng, A. Z. (2013). Supplier Selection Model with Contingency Planning for Supplier Failures. *Computers & Industrial Engineering*, 66(2), 374–382.
- Saaty, T. L. (1986). Axiomatic foundation of the analytic hierarchy process. *Management Science* (1986-1998), 32(7), 741.
- Saaty, T. L. (1994). Fundamental of Decision Making & Priority Theory with the Analytical Hierarchy Process, University of Pittsburgh, Pittsburgh.
- Saaty, T.L. (1988). Multicriteria Decision Making The Analytic Hierarchy Process, Planing, Priority, Setting, Resource Allocation, United States of America, pp.21,49-51,54.
- Songhori, M. J., Tavana, M., dan Azadeh, A. (2011). A supplier selection and order allocation model with multiple transportation alternatives, 365–376.
- Thakkar, J., Kanda, A., dan Deshmukh, S. G. (2012). Supply chain issues in Indian manufacturing SMEs: insights from six case studies. *Journal of Manufacturing Technology Management*, 23(5), 634–664.
- Tuzkaya, G. (2013). An intuitionistic fuzzy Choquet integral operator based methodology for environmental criteria integrated supplier evaluation process. *International Journal of Environmental Science and Technology*, 10(3), 423–432.
- Vonderembse, M. A., dan Tracey, M. (1999). The impact of supplier selection criteria and supplier involvement on manufacturing performance. *Journal of Supply Chain Management*, 35(3), 33-39.
- Weber, C. A., dan Ellram, L. M. (1993). Supplier selection using multi-objective programming: A decision support system approach. *International Journal of Physical Distribution & Logistics Management*, 23(2), 3.
- Wilson, E. J. (1994). The relative importance of supplier selection criteria: A review and update. *International Journal of Purchasing and Materials Management*, 30(3), 35.
- Wind, Y., dan Saaty, T. L. (1980). Marketing applicatons of the analytic hierarchy process. *Management Science (Pre-1986)*, 26(7), 641.

Yanuar, M., Effendi, U., dan Ikasari, D. M. (2014). Evaluasi Kinerja Supplier Bahan Baku Menggunakan Metode Fuzzy Analytic Hierarchy Process (Studi Kasus di PT. Inti Luhur Fuja Abadi), pp. 1–6.

Yoo, H. (2003). A study on the efficiency evaluation of total quality management activities in Korean companies. Total Quality Management, Vol. 14 No. 1, pp. 119-28.

