

## ABSTRAK

Permasalahan pengalokasian *order* kepada pihak ketiga memerlukan penilaian kinerja pada pihak ketiga secara tepat. UMKM Mebel DH merupakan salah satu pelaku industri pada bidang mebel yang juga mengalami permasalahan pada timbulnya *lost sale* akibat tidak adanya penilaian pada vendor penggergajian secara tepat. Tidak adanya penilaian kinerja vendor dengan mempertimbangkan beberapa faktor mengakibatkan timbulnya keterlambatan penyelesaian penggergajian sehingga menimbulkan *lost sale* yang menyebabkan kerugian sebesar Rp.6.500.000. Belum adanya penilaian vendor dengan mempertimbangkan beberapa faktor penting sebagai parameter penilaian, menyebabkan pengalokasian *order* untuk tiap-tiap vendor juga menjadi tidak optimal. Oleh karena itu, diperlukan adanya penilaian vendor dengan mempertimbangkan beberapa faktor untuk kemudian dapat ditentukkan alokasi *order* pada tiap-tiap vendor berdasarkan penilaian yang telah dilakukan.

Penentuan alokasi *order* berdasarkan penilaian vendor dilakukan dengan menggunakan metode *Analytical Hierarchy Process* (AHP) dan *Goal Programming*. Metode AHP digunakan untuk menentukan preferensi bobot penilaian tiap vendor berdasarkan beberapa faktor kriteria. Metode *Goal Programming* digunakan untuk menentukan alokasi *order* yang optimal guna mencapai target yang dikehendaki yaitu meminimalkan biaya subkontrak, memaksimalkan pengalokasian berdasarkan preferensi bobot vendor, dan meminimalkan keterlambatan vendor.

Hasil pengalokasian *order* didapatkan pembagian alokasi untuk vendor 1 sebanyak 4 *order*, vendor 2 sebanyak 1 *order*, dan vendor 3 sebanyak 3 *order*. Pembagian alokasi tersebut berhasil mencapai ketiga tujuan dan target yang diharapkan tanpa adanya penyimpangan besar di tiap targetnya. Target meminimalkan biaya subkontrak berhasil tepat pada target sebesar Rp. 3.712.000, target memaksimalkan *order* berdasarkan preferensi bobot vendor mampu menghasilkan alokasi *order* dengan jumlah *order* terbanyak pada vendor terbaik, dan target meminimalkan keterlambatan mampu mencapai target keterlambatan dengan keterlambatan minimal turun 10% dari rata-rata keterlambatan tiap vendor pada tiap *order*.

**Kata kunci :** AHP, *Goal Programming*, *lost sale*, alokasi *order*.

## ABSTRACT

The problem of allocating orders to third parties requires an accurate performance assessment of the third party. DH Furniture MSME is one of the industry players in the furniture sector that also experiences problems in the emergence of lost sales due to the lack of an accurate assessment of sawing vendors. The absence of a vendor performance assessment that takes into account several factors resulted in delays in the completion of sawing, resulting in lost sales that caused a loss of Rp. 6,500,000. The absence of a vendor assessment that takes into account several important factors as assessment parameters, causes the allocation of orders to each vendor to be suboptimal. Therefore, a vendor assessment is needed by considering several factors to then be able to determine the order allocation to each vendor based on the assessment that has been carried out.

Determination of order allocation based on vendor assessment is carried out using the Analytical Hierarchy Process (AHP) and Goal Programming methods. The AHP method is used to determine the weight preference of each vendor's assessment based on several criteria factors. The Goal Programming method is used to determine the optimal order allocation to achieve the desired targets, namely minimizing subcontracting costs, maximizing allocation based on vendor weight preference, and minimizing vendor delays.

The results of the order allocation obtained allocation distribution for vendor 1 as many as 4 orders, vendor 2 as many as 1 order, and vendor 3 as many as 3 orders. The allocation distribution succeeded in achieving the three expected goals and targets without any deviations in each target. The target of minimizing subcontracting costs succeeded exactly on target of Rp. 3,712,000, the target of maximizing orders based on vendor weight preferences was able to produce order allocation with the largest number of orders to the best vendor, and the target of minimizing delays was able to achieve the delay target with a minimum delay of 10% from the average delay of each vendor in each order.

**Keywords:** AHP, Goal Programming, lost sale, order allocation.