



**CALCULATION OF PENSION FUNDS USING ACCRUED
BENEFIT COST METHOD**

UNDERGRADUATE THESIS

**Submitted as one of the requirements to obtain
Sarjana Aktuaria (S.Aktr.)**

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ABSTRACT

This research aims to conduct a comprehensive study on the issues related to pension funds for civil servants in Indonesia, focusing on the Accrued Benefit Cost Method (ABCM) for calculating pension funds in terms of normal cost. The ABCM is utilized to determine termination plan liabilities and actuarial liabilities within the normal cost calculation process. The study reveals that pension fund calculations can be effectively executed using the ABCM, which considers variables such as the employee's age at appointment (y), current age (x), retirement age limit (r), work period (t), remaining length of service ($r-x$), and initial salary. The findings highlight the necessity for the government to review the employee pension payment system, considering factors such as interest rate, pension benefit size, pension benefit value, termination plan liability value, and interest rate to prevent overburdening the state budget. The study concludes with specific financial implications: the termination liabilities for an employee retiring at age 27 is Rp. 16,824,999, with additional costs of Rp. 361,1431 for retirement after 7 years of service. Moreover, if all employees resign and the pension fund faces a deficit, the total additional cost for the 34-employee period until 2030 is Rp. 57,901,678. The use of the ABCM is justified as it provides a systematic and actuarially sound approach to calculate pension liabilities, ensuring accuracy and reliability in financial planning. This method aligns the pension cost with the employee's period of service, offering a clear reflection of the actual financial obligation incurred over time.

Keywords: *Pension Fund, Accrued Benefit Cost Method (ABCM), Termination Plan Liabilities, Additional Cost*

ABSTRAK

Penelitian ini bertujuan untuk melakukan kajian komprehensif mengenai isu-isu terkait dana pensiun bagi pegawai negeri sipil di Indonesia, dengan fokus pada metode Accrued Benefit Cost (ABCM) dalam menghitung dana pensiun ditinjau dari biaya normal. ABCM digunakan untuk menentukan liabilitas program terminasi dan liabilitas aktuarial dalam proses perhitungan biaya normal. Hasil penelitian menunjukkan bahwa penghitungan dana pensiun dapat dilakukan secara efektif dengan menggunakan ABCM yang memperhitungkan variabel-variabel seperti usia karyawan saat diangkat (y), usia saat ini (x), batas usia pensiun (r), masa kerja (t), sisa masa kerja ($r-x$), dan gaji awal. Temuan-temuan ini menyoroti perlunya pemerintah meninjau kembali sistem pembayaran pensiun pegawai, dengan mempertimbangkan faktor-faktor seperti tingkat suku bunga, jumlah manfaat pensiun, nilai manfaat pensiun, nilai kewajiban program pemutusan hubungan kerja, dan tingkat suku bunga untuk mencegah beban anggaran negara yang berlebihan. Studi ini menyimpulkan implikasi keuangan yang spesifik: kewajiban pemutusan hubungan kerja bagi seorang karyawan yang pensiun pada usia 27 tahun adalah Rp. 16.824.999, dengan tambahan biaya sebesar Rp. 361.1431 untuk pensiun setelah 7 tahun mengabdikan diri. Apalagi jika seluruh pegawai mengundurkan diri dan dana pensiun mengalami defisit, maka total biaya tambahan untuk periode 34 pegawai sampai dengan tahun 2030 adalah sebesar Rp. 57.901.678. Penggunaan ABCM dibenarkan karena memberikan pendekatan yang sistematis dan aktuarial untuk menghitung kewajiban pensiun, memastikan keakuratan dan keandalan dalam perencanaan keuangan. Metode ini menyelaraskan biaya pensiun dengan masa kerja karyawan, sehingga memberikan gambaran yang jelas tentang kewajiban keuangan aktual yang timbul dari waktu ke waktu.

Kata Kunci: *Dana Pensiun, Accrued Benefit Cost Method (ABCM), Kewajiban Pemutusan Hubungan Kerja, Biaya Tambahan*

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