

No. TA 1366/S1-TL/0826-P

**BUSINESS PLAN AND DEVELOPMENT STRATEGY FOR
THE UNIVERSITAS ANDALAS WATER SYSTEM (SPAM)
2027-2032: SWOT ANALYSIS AND
FULL COST RECOVERY**

UNDERGRADUATE THESIS



**UNDERGRADUATE STUDY PROGRAM OF
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ABSTRACT

The Universitas Andalas Water Supply System (SPAM) experiences production quality constraints caused by underperforming treatment units, alongside hydraulic vulnerabilities involving pipe burst risks and unmeasured water loss. This study aims to develop a 2027-2032 business plan for the Universitas Andalas SPAM, utilizing SWOT analysis and a Full Cost Recovery approach to transform the service unit into an independent, reliable, and sustainable management entity. The research methodology encompasses a technical and performance operational network audit, a Community Satisfaction Index survey of 380 respondents, strategic positioning analysis using the Internal Factor Analysis Summary (IFAS), External Factor Analysis Summary (EFAS), and Strategic Position and Action Evaluation (SPACE) matrices, and discounted cash flow financial projections. Evaluation results indicate a current Community Satisfaction Index score of 69.53, which falls into the Poor category. The SPACE matrix positions the unit within the competitive quadrant at vector coordinates (1.0, -1.2). Improvement programs target High-Density Polyethylene pipe replacement and integrated metering installation, requiring a capital expenditure of Rp19,100,000,000. Implementing a cross-subsidy tariff structure divides customers into social (Rp500/m³), basic (Rp1,500/m³), middle (Rp2,500/m³), and commercial (Rp6,000/m³) blocks, cumulatively covering the basic water production cost of Rp1,301.76. The study concludes the business plan is financially viable, demonstrating a Net Present Value of Rp7,254,008,663.80, an Internal Rate of Return of 15%, a Benefit-Cost Ratio of 1.22, and a payback period of 6.26 years. Sensitivity analysis confirms the financial model remains solvent and resilient against losses, even if the system absorbs a 10% escalation in cash operating costs during a complete tariff freeze.

Keywords: Business Plan, Drinking Water, Financial Feasibility, *SPAM* Universitas Andalas.



ABSTRAK

Sistem Penyediaan Air Minum (SPAM) Universitas Andalas menghadapi kendala kualitas air produksi akibat belum optimalnya fungsi unit pengolahan, serta kerentanan hidrolis berupa risiko pipa pecah dan kehilangan air yang belum terukur. Penelitian ini bertujuan menyusun rencana bisnis SPAM Universitas Andalas periode 2027-2032 dengan analisis SWOT dan pendekatan Full Cost Recovery untuk mengubah unit pelayanan ini menjadi entitas pengelola yang mandiri, andal, dan berkelanjutan. Metode penelitian yang digunakan meliputi audit teknis operasional jaringan, survei Indeks Kepuasan Masyarakat terhadap 380 responden, analisis posisi strategis dengan matriks Internal Factor Analysis Summary (IFAS), External Factor Analysis Summary (EFAS), dan Strategic Position and Action Evaluation (SPACE), serta proyeksi laporan keuangan arus kas terdiskonto. Hasil evaluasi menunjukkan nilai Indeks Kepuasan Masyarakat saat ini berada pada skor 69,53 dengan kategori Kurang Baik. Matriks SPACE menempatkan posisi unit pada kuadran kompetitif dengan koordinat vektor (1,0; -1,2). Program perbaikan difokuskan pada peremajaan Pipa High-Density Polyethylene dan metrisasi terpadu dengan kebutuhan biaya modal sebesar Rp19.100.000.000. Penerapan struktur tarif subsidi silang membagi pelanggan ke dalam blok sosial (Rp500/m³), dasar (Rp1.500/m³), menengah (Rp2.500/m³), dan komersial (Rp6.000/m³), yang secara akumulatif menutupi Harga Pokok Produksi air dasar sebesar Rp1.301,76. Penelitian ini menyimpulkan bahwa rencana bisnis ini layak secara finansial dengan perolehan Net Present Value sebesar Rp7.254.008.663,80, Internal Rate of Return 15%, Benefit-Cost Ratio 1,22, dan masa pengembalian modal selama 6,26 tahun. Analisis sensitivitas membuktikan rancangan keuangan tetap aman dan tangguh dari risiko kerugian meskipun sistem mengalami pembekuan tarif di tengah lonjakan eskalasi biaya operasional tunai sebesar 10%.

Kata Kunci: Air Minum, Kelayakan Finansial, Rencana Bisnis, SPAM Universitas Andalas.

