

ABSTRAK

KAJIAN MANAJEMEN PROYEK TERHADAP FAKTOR KETERLAMBATAN PENYELESAIAN PROYEK KONSTRUKSI DENGAN METODE *RELATIVE IMPORTANCE INDEX (RII)*

(*Studi Kasus : Pekerjaan Pembangunan Bendung Wanggar Dan Jaringan Irigasi Di Kabupaten Nabire*)

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Proyek pembangunan Bendung Wanggar dan jaringan irigasi di Kabupaten Nabire, Provinsi Papua merupakan proyek infrastruktur sumber daya air untuk mendukung penyediaan air irigasi bagi lahan pertanian seluas ± 3.200 Ha. Proyek mengalami keterlambatan dengan realisasi 93,03% dari target 100% (deviasi -6,97%) pada akhir masa kontrak. Penelitian ini bertujuan untuk mengidentifikasi faktor penyebab keterlambatan serta menentukan faktor yang paling dominan berdasarkan peringkat nilai *Relative Importance Index* (RII). Penelitian menggunakan pendekatan kuantitatif melalui survei kuesioner skala Likert (1–5) kepada 35 responden (kontraktor, konsultan perencana, konsultan pengawas, dan owner), dengan 46 sub-variabel dalam tujuh kelompok variabel dianalisis menggunakan metode RII. Hasil analisis menunjukkan bahwa keterlambatan dipengaruhi oleh seluruh tujuh kelompok faktor, dengan rentang nilai RII 0,577–0,949 yang mengindikasikan bahwa keterlambatan merupakan kombinasi berbagai faktor yang saling memengaruhi. Sembilan sub-variabel berada pada kategori sangat tinggi (RII > 0,80), yaitu keterbatasan ketersediaan material di lokasi (X.3.3; RII = 0,949), kerusakan peralatan konstruksi (X.3.5; RII = 0,931), keterlambatan pengadaan material (X.3.1; RII = 0,869), fluktuasi harga material (X.3.4; RII = 0,863), kualitas material tidak sesuai spesifikasi (X.3.2; RII = 0,857), masalah logistik transportasi material (X.5.3; RII = 0,851), permasalahan pembebasan lahan (X.7.3; RII = 0,829), kondisi sosial masyarakat sekitar (X.5.4; RII = 0,829), dan kondisi sosio-kultural khusus Papua (X.7.4; RII = 0,817). Penelitian ini menyimpulkan bahwa keterlambatan proyek didominasi oleh tiga kelompok variabel utama, yaitu faktor material dan peralatan (X.3), faktor geografis dan permasalahan lahan (X.7), dan faktor lingkungan dan eksternal (X.5). Pengendalian perlu diprioritaskan pada perencanaan pengadaan dan ketersediaan material secara lebih awal, peningkatan keandalan dan pemeliharaan peralatan konstruksi, perbaikan sistem distribusi dan transportasi logistik ke lokasi proyek, serta pendekatan pengelolaan lahan dan pemangku kepentingan lokal yang adaptif terhadap karakteristik wilayah Papua.

Kata Kunci : *Manajemen Proyek, Keterlambatan Proyek, Bendung, Jaringan Irigasi, Relative Importance Index (RII), Nabire.*

ABSTRACT

A Project Management Assessment of Determinants Underpinning Construction Delays: A Relative Importance Index (RII) Approach (Case Study: Development of the Wanggar Weir and Irrigation Network, Nabire Regency)

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The Wanggar Weir and associated irrigation network in Nabire Regency, Papua Province, represents a critical hydraulic infrastructure endeavor designed to facilitate irrigation for approximately 3,200 hectares of arable land. Upon the conclusion of the contractual term, the project encountered a notable temporal deviation, attaining only 93.03% completion against the 100% target (a negative variance of 6.97%). This investigation seeks to delineate the causal factors of these delays and prioritize the most significant drivers through a Relative Importance Index (RII) framework. The study employed a quantitative method utilizing a five-point Likert scale instrument distributed to 35 strategic stakeholders, including contractors, design consultants, supervisory consultants, and the project owner. Forty-six sub-variables, categorized into seven overarching factor groups, were subjected to RII analysis. Analytical results demonstrated that all seven categories contribute to the schedule overruns, with RII values spanning 0.577 to 0.949, indicating that the delays stem from a confluence of interrelated systemic issues. Nine sub-variables were identified within the "critical" threshold ($RII > 0.80$), most notably: scarcity of on-site materials (X.3.3; $RII = 0.949$), mechanical failure of construction plant and machinery (X.3.5; $RII = 0.931$), procurement bottlenecks (X.3.1; $RII = 0.869$), material price volatility (X.3.4; $RII = 0.863$), and non-compliance of material quality with technical specifications (X.3.2; $RII = 0.857$). Furthermore, logistical and transportation impediments (X.5.3; $RII = 0.851$), land acquisition complexities (X.7.3; $RII = 0.829$), and the unique socio-cultural dynamics of the Papua region (X.7.4; $RII = 0.817$) were found to be major contributors. The study concludes that project delays are predominantly governed by three primary thematic clusters: material and equipment logistics (X.3), geographical and land-related constraints (X.7), and environmental-external factors (X.5). Consequently, strategic project control interventions should prioritize proactive procurement scheduling, robust equipment maintenance protocols, and the institutionalization of stakeholder engagement strategies that are responsive to the socio-cultural specificities of the Papua region to ensure future infrastructural resilience.

Keywords: project management, project delay, weir, irrigation network, Relative Importance Index (RII), Nabire.

