Quest Journals
Journal of Architecture and Civil Engineering
Volume 11 ~ Issue 8 (August 2026) pp: 20-27
ISSN(Online): 2321-8193
www.questjournals.org

Research Paper

Measuring Service-User Satisfaction with Contractor Performance under E-Purchasing: A CSI–IPA–Gap Analysis at a District Highways Agency

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Abstract
Public construction procurement in Indonesia is moving from conventional tendering to e-purchasing through the LKPP Electronic Catalogue—a change that streamlines provider selection but leaves open whether faster procurement still preserves work quality and keeps service users satisfied. Taking district road works handled by the Bina Marga Division of the Dinas PUPR of Hulu Sungai Utara Regency as its case, this article gauges how satisfied government service users are with contractors engaged through e-purchasing and pinpoints the performance attributes that most warrant improvement. Evidence was drawn from a total-sampling survey of the 35 e-purchasing road packages executed in fiscal years 2024–2025, which produced 187 valid assessments scored on a paired importance–performance Likert scale across 25 attributes derived from the four evaluation aspects of LKPP Regulation No. 4 of 2021 (every item valid; Cronbach's α = 0.970). The Customer Satisfaction Index (CSI), Importance–Performance Analysis (IPA) and Gap Analysis were applied together and cross-checked against a thematic reading of open-ended answers. Aggregate satisfaction reached a CSI of 77.57%, placing users in the "satisfied" band; even so, every attribute recorded a negative importance–performance gap (mean −0.66) and six attributes fell into IPA Quadrant A, headed by the occupational health-and-safety system (gap −1.12). Because the two quantitative methods and the qualitative themes point to the same six priorities, the study contends that the decisive lever for satisfaction under e-purchasing is disciplined control during contract execution rather than the selection stage itself.

Keywords: *contractor performance; customer satisfaction index; e-purchasing; gap analysis; importance–performance analysis*

*Received 04 Aug., 2026; **R**evised 14 Aug., 2026; **A**ccepted 16 Aug., 2026 © The author(s) 2026.*
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I. INTRODUCTION

The construction-services sector plays a central role in achieving regional development targets because its output directly shapes infrastructure function, connectivity, public safety and budget absorption. In Indonesia, construction services are governed by Law No. 2 of 2017 on Construction Services and Government Regulation No. 22 of 2020 as amended, while government procurement operates under Presidential Regulation No. 16 of 2018 as amended by Presidential Regulations No. 12 of 2021 and No. 46 of 2025. At the operational level, LKPP Regulation No. 4 of 2021 requires the Commitment-Making Officer (PPK) to assess provider performance against four aspects—quality-and-quantity (30%), cost (20%), time (30%) and service/communication (20%). Yet this formal administrative assessment does not always coincide with the satisfaction that service users actually perceive in the field, which is precisely the academic justification for this study.

The local context of Hulu Sungai Utara Regency sharpens this urgency. Of a total 379.62 km of district road network, official 2025 data show that only 162.58 km (42.83%) are in good condition, whereas 107.48 km (28.31%) are severely damaged and 31.64 km (8.33%) damaged. More than one-third of the network is therefore in poor condition—a figure that reflects a tangible challenge in the delivery quality of road construction work. This condition is aggravated by a scarcity of empirical data on service-user satisfaction with contractor performance, without which the Dinas PUPR struggles to identify the performance attributes most in need of improvement, and quality-improvement efforts tend to be reactive rather than evidence-based.

At the same time, the procurement environment is being transformed toward digitalisation through the LKPP Electronic-Catalogue-based e-purchasing system, which the agency has begun to apply to construction work. The mechanism offers process efficiency, but a critical, unanswered question remains: does procurement efficiency through e-purchasing still yield adequate work quality and service-user satisfaction? Academically, earlier studies (Khasani, 2013; Yunita&Soekiman, 2016; Kurnia, 2023; Tiastiti, 2024) have measured construction service-user satisfaction using the Customer Satisfaction Index (CSI) and Importance–Performance Analysis (IPA), but all were conducted on conventional-tender or non-e-purchasing projects. No study has specifically measured service-user satisfaction with contractors selected through e-purchasing in a local-government Highways division, still less one that integrates LKPP-based evaluation indicators into a combined CSI–IPA–Gap Analysis framework.

Accordingly, this article pursues four objectives: (1) to measure overall service-user satisfaction with the performance of e-purchasing contractors using the CSI; (2) to identify the attributes that should be prioritised for improvement and those that should be maintained using the IPA cartesian diagram; (3) to quantify the gap between importance and performance for each attribute; and (4) to formulate an evidence-based, directly implementable priority-action matrix for the Dinas PUPR. The novelty of the study lies in being the first to measure e-purchasing contractor satisfaction in a local-government Highways setting, in operationalising the 25 official LKPP performance indicators within an integrated CSI–IPA–Gap framework, and in producing an implementable coaching strategy for providers listed in the Electronic Catalogue.

II. LITERATURE REVIEW

2.1 Expectancy Disconfirmation and Service-Quality Theory

The theoretical framework rests on the Expectancy Disconfirmation Theory (EDT) of Oliver (1980), whose core proposition is that a satisfied/dissatisfied judgement arises not from performance quality alone but from the difference between the standard formed in the user's mind before the service and what is actually experienced afterward. When actual experience exceeds that prior standard, positive disconfirmation occurs and the judgement moves toward very satisfied; experience that falls behind the standard produces negative disconfirmation, the source of dissatisfaction. For government-side service users this is decisive: their standard is pre-shaped by the contract, the Bina Marga technical specifications and prior packages, so contractor performance is judged relative to that reference rather than in absolute terms—explaining why a package may be administratively complete yet still leave a sub-optimal satisfaction judgement.

To read the source of such gaps in finer detail, the study adopts SERVQUAL (Parasuraman et al., 1985) as a supporting theory. Its central contribution is that service quality is relational—read from the distance between customer expectations and perceptions of the service actually received—across five dimensions: tangibles, reliability, responsiveness, assurance and empathy. These dimensions serve as a lens for locating each contractor-performance attribute within a specific quality dimension so that the source of a gap can be traced rather than merely recorded (Parasuraman et al., 1988).

2.2 Construction Customer Satisfaction and Project Management

Customer satisfaction is the level of a person's feeling after comparing perceived performance with expectations (Tse & Wilton, 1988; Tjiptono& Chandra, 2016). In construction, the process yields not only a physical product but also a continuing service component during execution; Idrus and Sodangi (2011) accordingly distinguish a product-quality dimension and a service-quality dimension of contractor performance. These dimensions can be mapped onto the project-management knowledge areas of the PMBOK Guide (PMI, 2021)—integration, scope, schedule, cost, quality, resources, communications, risk, procurement and stakeholders—so that satisfaction measurements can be translated into defined control processes. This mapping underpins the derivation of the 25 performance attributes used here.

2.3 Government Procurement, E-Purchasing and the LKPP Performance Assessment

E-purchasing is the purchase of goods/services through an electronic catalogue or online shop (Presidential Regulation No. 12 of 2021); its mechanism (LKPP Regulation No. 9 of 2021) proceeds from needs identification and catalogue-availability checking, provider selection by the PPK, price negotiation where the catalogue price exceeds the owner's estimate, issuance of a purchase order/contract, and execution. Its advantage over conventional tendering is a faster, administratively simpler process. However, because catalogue providers can be reselected repeatedly without a separate technical evaluation, the efficiency of e-purchasing may trade off against the depth of capacity evaluation on time management, safety and communication responsiveness (Maiyozzi et al., 2022; Santri, 2025; Croom & Brandon-Jones, 2007). LKPP Regulation No. 4 of 2021 further requires provider-performance assessment by the PPK after completion across the four weighted aspects, which is cumulative and affects a provider's eligibility in subsequent procurement—yet in practice this formal assessment needs to be complemented by scientific satisfaction measurement such as CSI, IPA and Gap Analysis (Khasani, 2013).

2.4 CSI, IPA and Gap Analysis

The three analytical methods perform different but complementary functions. CSI (Stratford, 2008; Simamora, 2005) translates satisfaction into a single aggregate index. IPA (Martilla & James, 1977; Slack, 1994; Azzopardi & Nash, 2013) maps each attribute by its importance and performance into four quadrants (A—top priority; B—keep up the good work; C—low priority; D—possible overkill). Gap Analysis (Parasuraman et al., 1985) quantifies, per attribute, the difference between performance and importance, where increasingly negative values flag the most urgent attributes. Placed in sequence, the output of one method sharpens the reading of the next, and their synthesis becomes the basis for a provider-coaching strategy.

III. RESEARCH METHOD

This study uses a quantitative-descriptive approach with a survey method, conducted at the Bina Marga Division of the Dinas PUPR of Hulu Sungai Utara Regency, South Kalimantan Province. The object comprises road-construction packages executed by contractors selected through e-purchasing during fiscal years 2024–2025. Using total sampling of the 35 packages in that period, 188 assessment forms were collected via an online questionnaire (Google Forms); one duplicate was discarded, giving 187 valid assessments from 35 individual assessors across five job roles (PA/Head of Office, KPA/PPK, PPTK, internal supervisors and supervisory consultants). The relationship among the three quantities—35 packages (objects), 35 assessors (subjects) and 187 assessments (units of analysis)—is many-to-many: one package is assessed by several parties and one structural official may assess many packages, which is why 35 assessors over 35 packages generate 187 valid assessments.

The instrument consisted of 25 contractor-performance attributes derived from the four assessment aspects of LKPP Regulation No. 4 of 2021 and aligned with the construction quality dimensions of Idrus and Sodangi (2011) and the PMBOK knowledge areas (PMI, 2021). Each attribute was rated on a dual 1–5 Likert scale measuring importance and performance simultaneously, complemented by three open-ended questions for qualitative triangulation. The 25 attributes are listed in Table 1.

Table 1. Operational Definition of the 25 Contractor-Performance Attributes (by LKPP Assessment Aspect)

Code	Performance Attribute (operational definition)
A. Quality & quantity of work — weight 30%	
V1	Fulfilment of building/road function
V2	Quality conforming to technical specifications
V3	Neatness of the final work result
V4	Minimal rework (defect avoidance)
V5	Work scope in conformance with the contract
B. Cost accuracy — weight 20%	
V6	Project cost control
V7	Accuracy in selecting suppliers/subcontractors
C. Time accuracy — weight 30%	
V8	Timeliness of completion
V9	Realistic scheduling
V10	Scheduled monitoring and control
V11	Timely submission of shop drawings
D. Service & communication — weight 20%	
V12	Communication capability of the project manager
V13	Speed of responding to owner requests
V14	Handling of field problems
V15	Ease of service (cooperativeness)
V16	Consistency of reports with field conditions
V17	Occupational health-and-safety (OHS) system during construction
V18	Site cleanliness and orderliness
V19	Security handling and community outreach
V20	Completeness of the project organisation structure
V21	Competent human resources
V22	Communicating construction risks to the owner
V23	Contractor–subcontractor coordination
V24	Quality management during construction
V25	Attention to environmental issues

Source: adapted from LKPP Regulation No. 4/2021; Idrus&Sodangi (2011); PMI (2021).

3.1 Validity, Reliability and Analytical Steps

Item validity was tested with Pearson product-moment correlation against the dimension total; with n = 187 and df = 185 at α = 5%, the critical value is r-table = 0.1435. Reliability was assessed with Cronbach's alpha (threshold α ≥ 0.70). Analysis then proceeded through: (a) descriptive statistics; (b) CSI, computed as Mean Importance Score (MIS) → Weight Factor (WF) → Mean Satisfaction Score (MSS) → Weighted Score (WS) → Weighted Average Total (WAT) → CSI = WAT/5 × 100%; (c) IPA, plotting each attribute at coordinate (MSS, MIS) with cross-hairs at the grand means of the 25 attributes; and (d) Gap Analysis, Gap = MSS − MIS, ranked from the most negative. The CSI category scale follows Simamora (2005): 0–20% very dissatisfied, 21–40% dissatisfied, 41–60% fairly satisfied, 61–80% satisfied, 81–100% very satisfied.

IV. RESULTS AND DISCUSSION

4.1 Respondent Profile and Instrument Quality

The 187 valid assessments were provided by five job-role groups: supervisory consultants dominated the individual count (30 of 35 persons; 85.71%), followed by internal supervisors (2), and the PA/Head of Office, KPA/PPK and PPTK (one each). Because structural officials assess many packages, the assessment count differs from the person count (e.g., one PPTK and one KPA/PPK each produced 35 assessments). Most assessments concerned packages worth above IDR 1 billion (161 assessments; 86.1%), consistent with the medium-to-large district road works that form the agency's e-purchasing portfolio, and were distributed across FY 2024 (88; 47.1%) and FY 2025 (99; 52.9%). All 25 items were valid on both dimensions—importance r-values ranged 0.789–0.921 and performance r-values 0.478–0.790, all exceeding 0.1435 with Sig. = 0.000—and the 50-item combined instrument returned Cronbach's α = 0.970, indicating very high internal consistency. The instrument is therefore fit for the CSI, IPA and Gap analyses.

4.2 Overall Satisfaction (CSI)

Table 2 reports the CSI computation across the 25 attributes. The Weighted Average Total is 3.88, giving CSI = 3.88/5 × 100% = 77.57%, which falls in the “satisfied” category (61–80%) per Simamora (2005). Service users are, on aggregate, satisfied with the performance of e-purchasing contractors, although not yet at the highest “very satisfied” level. In EDT terms this is a low-degree negative disconfirmation: perceived performance sits slightly below expectation, so users remain satisfied but not maximally so. A single index has a smoothing property—high-rated attributes offset low-rated ones (Maloney, 2002)—so the figure must be read together with the quadrant mapping and per-attribute gaps that follow.

Table 2. Customer Satisfaction Index (CSI) Computation for the 25 Attributes

Code	MIS (Importance)	MSS (Performance)	WF (%)	WS
V1	4.55	4.00	4.01	0.1604
V2	4.59	3.94	4.04	0.1593
V3	4.58	3.80	4.04	0.1533
V4	4.55	3.90	4.01	0.1565
V5	4.57	3.86	4.03	0.1553
V6	4.49	3.86	3.95	0.1526
V7	4.49	3.90	3.96	0.1543
V8	4.60	4.01	4.05	0.1623
V9	4.59	3.94	4.04	0.1593
V10	4.52	3.94	3.98	0.1567
V11	4.56	3.78	4.02	0.1518
V12	4.54	3.89	4.00	0.1558
V13	4.58	3.88	4.03	0.1566
V14	4.53	3.94	4.00	0.1573
V15	4.54	3.84	4.00	0.1536
V16	4.55	3.93	4.01	0.1574
V17	4.60	3.48	4.06	0.1412
V18	4.49	3.86	3.95	0.1526
V19	4.51	3.89	3.98	0.1546
V20	4.51	3.86	3.98	0.1533
V21	4.51	3.90	3.97	0.1551
V22	4.50	3.91	3.96	0.1549
V23	4.49	3.91	3.96	0.1549
V24	4.57	3.87	4.02	0.1556
V25	4.47	3.89	3.94	0.1532
Total	**113.48**	—	**100.00**	**WAT = 3.88**

Source: authors’ computation, 2026. CSI = WAT / HS × 100% = 3.88 / 5 × 100% = 77.57% (“satisfied”).

4.3 Priority Mapping (IPA)

With cross-hairs at the grand means $\bar{X}$ = 3.88 (performance) and $\bar{Y}$ = 4.54 (importance), the 25 attributes distribute across the four quadrants as shown in Figure 1 and Table 3: six attributes (24%) in Quadrant A, eight (32%) in Quadrant B, three (12%) in Quadrant C, and eight (32%) in Quadrant D. The six top-priority attributes in Quadrant A are V3 (neatness of the final work result), V5 (work scope conforming to the contract), V11 (timely shop-drawing submission), V15 (ease of service/cooperativeness), V17 (OHS system) and V24 (quality management during construction). Five of these six concern work quality and process quality control, and one concerns construction safety—whereas timeliness of completion (V8) and realistic scheduling (V9) sit comfortably in Quadrant B. This pattern differs from non-e-purchasing studies (Khasani, 2013; Yunita&Soekiman, 2016) that placed timeliness as the leading improvement priority, and is interpretable through the reliability and assurance dimensions of SERVQUAL. Quadrant D should be read cautiously: because the importance values are tightly clustered, mean-based cross-hairs may separate attributes that are in fact adjacent (Azzopardi & Nash, 2013), so Quadrant D attributes are not necessarily resource waste.

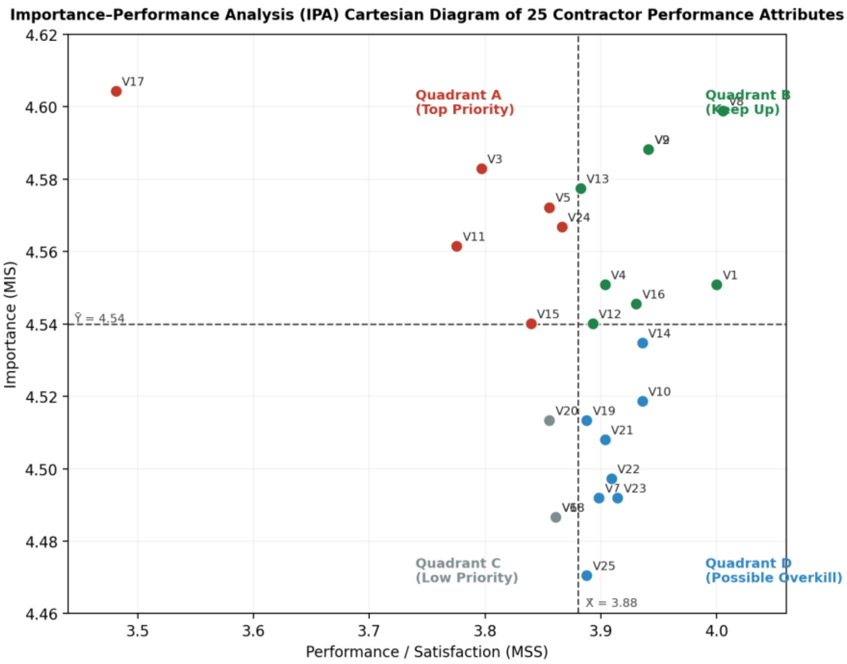

Figure 1. IPA cartesian diagram of the 25 contractor-performance attributes (cross-hairs at $\bar{X}$ = 3.88, $\bar{Y}$ = 4.54).

Table 3. Quadrant Classification of Contractor-Performance Attributes (IPA)

Code	Attribute	X (MSS)	Y (MIS)	Quadrant
V1	Fulfilment of function	4.00	4.55	B – Keep up
V2	Conformance to specifications	3.94	4.59	B – Keep up
V3	**Neatness of final result**	**3.80**	**4.58**	**A – Top priority**
V4	Minimal rework	3.90	4.55	B – Keep up
V5	**Scope conforming to contract**	**3.86**	**4.57**	**A – Top priority**
V6	Cost control	3.86	4.49	C – Low priority
V7	Supplier/subcontractor selection	3.90	4.49	D – Possible overkill
V8	Timeliness of completion	4.01	4.60	B – Keep up
V9	Realistic scheduling	3.94	4.59	B – Keep up
V10	Scheduled monitoring & control	3.94	4.52	D – Possible overkill
V11	**Timely shop drawings**	**3.78**	**4.56**	**A – Top priority**
V12	PM communication capability	3.89	4.54	B – Keep up
V13	Response speed to owner	3.88	4.58	B – Keep up
V14	Handling of field problems	3.94	4.53	D – Possible overkill
V15	**Ease of service (cooperative)**	**3.84**	**4.54**	**A – Top priority**
V16	Reports match field conditions	3.93	4.55	B – Keep up
V17	**OHS system during construction**	**3.48**	**4.60**	**A – Top priority**
V18	Site cleanliness & orderliness	3.86	4.49	C – Low priority
V19	Security & community outreach	3.89	4.51	D – Possible overkill
V20	Complete project organisation	3.86	4.51	C – Low priority
V21	Competent human resources	3.90	4.51	D – Possible overkill
V22	Communicating risks	3.91	4.50	D – Possible overkill
V23	Contractor–subcontractor coord.	3.91	4.49	D – Possible overkill

Code	Attribute	X (MSS)	Y (MIS)	Quadrant
V24	**Quality management in execution**	**3.87**	**4.57**	**A – Top priority**
V25	Attention to environment	3.89	4.47	D – Possible overkill

Source: authors' computation, 2026. Bold rows = Quadrant A (top priority).

4.4 Magnitude of the Gaps

All 25 attributes carry a negative gap (mean −0.66), meaning perceived performance lies below importance on every attribute, though by differing degrees (Figure 2, Table 4). Universally negative gaps are not unusual in dual-scale service-quality measurement, because importance tends to be rated uniformly high (Cronin & Taylor, 1992; Kärnä, 2004); what matters is the relative magnitude. The widest gap by far is the OHS system at −1.12—almost twice the mean and well ahead of the next attribute at −0.79—marking safety as the attribute most detached from user expectations rather than merely low-performing, consistent with Silvana et al. (2024). The next tier—neatness of final result, timely shop drawings, scope conformance, cooperativeness and quality management (−0.79 to −0.70)—forms a single cluster of process-quality-control issues best addressed together (Torbica & Stroh, 2001; PMI, 2021).

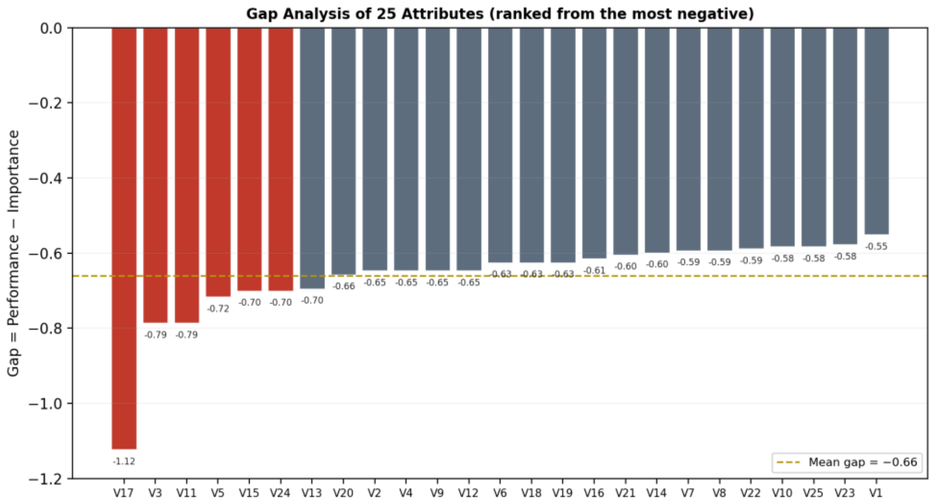

Figure 2. Gap Analysis of the 25 attributes, ranked from the most negative; dashed line = mean gap (−0.66); dark bars = Quadrant-A attributes.

Table 4. Gap Analysis — Ranking of Attributes (most negative first)

Rank	Code	Attribute	MIS	MSS	Gap
1	V17	OHS system during construction	4.60	3.48	−1.12
2	V3	Neatness of final work result	4.58	3.80	−0.79
3	V11	Timely shop-drawing submission	4.56	3.78	−0.79
4	V5	Work scope conforming to contract	4.57	3.86	−0.72
5	V15	Ease of service (cooperativeness)	4.54	3.84	−0.70
6	V24	Quality management during construction	4.57	3.87	−0.70
7	V13	Response speed to owner requests	4.58	3.88	−0.70
…	…	(attributes V20, V2, V4, V9, V12 …)	…	…	−0.66 to −0.62
25	V1	Fulfilment of building/road function	4.55	4.00	−0.55

Source: authors' computation, 2026. Mean gap across all 25 attributes = −0.66.

4.5 Convergence and Qualitative Triangulation

The six Quadrant-A attributes are exactly the six attributes with the largest negative gaps. This full agreement between two methods that operate on different logics—IPA on relative position to the mean, Gap Analysis on absolute distance from expectation—makes the priority list robust and independent of the analytical tool chosen. A thematic content analysis of the open-ended responses reinforces the finding from a different data source: "work quality" was the most frequent theme (41.5% of responses on attributes needing improvement and 47.9% on improvement suggestions), followed by occupational safety (30.3%). One theme appeared only in the qualitative data—weather and field conditions (28.2% of responses on execution constraints)—an external factor outside the contractor's control, suggesting that fair performance assessment should account for site conditions.

4.6 Comparison with Prior Studies

Table 5 situates the result against comparable studies, all of which reported “satisfied”-category indices on non-e-purchasing projects. The present CSI (77.57%) is the highest among them, plausibly because evaluation used the official LKPP Regulation No. 4/2021 indicators and because e-purchasing selects pre-verified catalogue providers. The comparison is indicative only—objects, locations, attribute sets and instruments differ, and Kärnä (2004) cautions that cross-project index comparison is meaningful only under equivalent attribute frames—so it cannot be read as proof that one procurement method outperforms another.

Table 5. Comparison of CSI with Prior Studies

Study	CSI value	Category
Khasani (2013)	70.61%	Satisfied
Yunita&Soekiman (2016)	68.15%	Satisfied
Asyiah et al. (2020)	64.99%	Satisfied
Kurnia (2023)	73.10%	Satisfied
This study (e-purchasing)	**77.57%**	**Satisfied**

Source: authors' compilation, 2026.

4.7 Synthesis, PMBOK Reading and Recommendations

Read through the PMBOK knowledge areas, the priority attributes cluster in execution-stage controls rather than planning: the OHS gap spans project resource and risk management; neatness and quality management belong to Manage Quality and Control Quality; scope conformance to Control Scope and Validate Scope; timely shop drawings to integrated change control and communications; and cooperativeness to stakeholder and communications management. Crucially, none of the six priority attributes sits solely in the planning process group, which points to strengthening periodic, documented monitoring and control during execution—complementing the single end-of-contract assessment mandated by LKPP Regulation No. 4/2021. The e-purchasing pattern is thus explicable: catalogue price and delivery time are fixed early and remain controlled, but readiness of the quality-management system, technical documents and the construction-safety plan receives no separate technical-evaluation stage, so their assurance shifts entirely to contract execution (Croom & Brandon-Jones, 2007). Table 6 translates the synthesis into a priority-action matrix.

Table 6. Synthesis and Priority-Action Matrix for the Six Top-Priority Attributes

Code	Attribute	Gap	Recommended action (with PMBOK anchor)
V17	OHS system	−1.12	Apply a detailed Construction Safety Plan (RKK); intensify OHS inspections and PPE completeness; make OHS compliance a provider-evaluation requirement (PMBOK Resource & Risk Management).
V3	Neatness of final result	−0.79	Strengthen Control Quality via final inspection / punch-list before hand-over so the finish meets road technical standards.
V11	Timely shop drawings	−0.79	Mandate on-schedule shop-drawing submission as part of Scope & Quality Management, with administrative sanctions for late technical documents.
V5	Scope conforming to contract	−0.72	Tighten Control Scope through periodic verification of executed volumes and work types against the BoQ.
V15	Ease of service (cooperative)	−0.70	Raise cooperativeness and responsiveness through clear communication/coordination SOPs with PPK/PPTK/supervisors (Stakeholder & Communications Management).
V24	Quality management in execution	−0.70	Apply the Quality/Inspection-and-Test Plan consistently throughout execution (Manage Quality), not only at completion.

Source: authors' synthesis of CSI, IPA and Gap-Analysis results, 2026.

Institutionally, the agency can implement these through three levers: (1) embedding quality standards, the construction-safety plan (RKK) and technical-document obligations as evaluated key performance indicators in the Terms of Reference (KAK) and purchase orders of future e-purchasing; (2) strengthening field supervision with recorded progress reporting and periodic in-execution performance assessment; and (3) building a provider-performance database to guide continuous coaching of catalogue-listed providers, since a catalogue provider reselected repeatedly amplifies the benefit of targeted coaching across subsequent packages.

V. CONCLUSION

Service-user satisfaction with the performance of contractors selected through e-purchasing on the Bina Marga Division of the Dinas PUPR of Hulu Sungai Utara Regency is in the “satisfied” category, with a CSI of 77.57%—short of “very satisfied” and thus leaving room for improvement. IPA identifies six top-priority (Quadrant-A) attributes—neatness of the final result (V3), scope conformance (V5), timely shop drawings (V11), cooperativeness (V15), the OHS system (V17) and in-execution quality management (V24)—while timeliness (V8) and realistic scheduling (V9) belong in the keep-up quadrant. All 25 attributes show negative gaps (mean −0.66), the widest being the OHS system at −1.12; the Quadrant-A set coincides exactly with the six largest gaps, and the qualitative themes converge on the same issues, making the priority list robust.

The study answers its guiding question in a balanced way: procurement efficiency through e-purchasing does not by itself lower aggregate satisfaction—the index stays in the satisfied category—but neither does it guarantee that quality and safety expectations are met, because those depend on control during contract execution rather than on provider selection. Practically, the agency should embed quality, technical-document and construction-safety obligations as evaluated KPIs in e-purchasing Terms of Reference and purchase orders; the PPK and PPTK should conduct periodic in-execution performance assessment rather than only at contract end; and providers should apply a quality and inspection-and-test plan from the outset and enforce a construction-safety-management system consistently in the field. The study is limited to one Highways division and to the CSI–IPA–Gap frame; future research could extend the model across agencies and complement it with objective quality and safety records.

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