



Adoption of AI Tools and Its Perceived Impact on Sales Workforce Productivity: A Preliminary Exploratory Study

M Rafii Naufal 

PT Telkom Indonesia, Jakarta, Indonesia
rafii.naufal@telkom.co.id

Abstract. The rapid proliferation of generative AI tools such as ChatGPT, Google Gemini, and Microsoft Copilot has prompted growing interest in their practical impact on knowledge worker productivity. This paper presents findings from a preliminary exploratory study examining the adoption patterns and perceived productivity effects of AI tools among Account Managers (AM) and officers at Witel Jakarta Centrum, PT Telkom Indonesia. A purposive sample of 12 respondents was surveyed using a five-point Likert instrument across four dimensions: work efficiency, impact on business targets, learning behaviour, and risk perception. Results indicate that AI tools are perceived to substantially improve work efficiency (mean = 4.00/5.00), particularly in accelerating administrative documentation and client profiling. However, the perceived impact on direct revenue and KPI achievement remains moderate (mean = 3.35/5.00). Thematic analysis of open-ended responses reveals three dominant patterns: AI as a productivity accelerator, critical awareness of AI limitations, and a persistent need for an institutionally governed AI usage policy. Given the exploratory scope and small sample size, findings are not intended for statistical generalisation and should be regarded as a preliminary baseline warranting larger-scale investigation.

Keywords: Generative AI, Productivity, Account Manager, Telecommunications, Exploratory Study.

1 Introduction

The emergence of large language model (LLM)-based AI tools has introduced a new paradigm in knowledge work. Systems such as ChatGPT, Google Gemini, and Microsoft Copilot enable non-technical professionals to generate documents, conduct research, draft communications, and analyse data at speeds previously unattainable without specialised skills. Empirical evidence from controlled experiments confirms substantive productivity gains: Noy and Zhang [1] found a 40% average increase in task completion speed among knowledge workers using generative AI, while Brynjolfsson et al. [2] observed comparable effects in customer support settings, with the largest gains accruing to less experienced workers.

Within the telecommunications industry, Account Managers (AM) and sales officers operate under persistent productivity pressures: high documentation load, multi-

product proposal preparation, complex financial analysis requirements, and demanding response-time expectations from enterprise clients. PT Telkom Indonesia, as the nation's dominant telecommunications group, faces the dual imperative of sustaining revenue growth while maximising the productive capacity of its frontline workforce. Whether AI tools are substantively transforming the day-to-day output of this workforce remains, to the authors' knowledge, an empirically unexamined question.

This paper presents a preliminary exploratory study conducted at Witel Jakarta Centrum, one of Telkom Indonesia's strategic regional sales units, to document current AI tool adoption patterns and assess the perceived impact on productivity across four analytically distinct dimensions: work efficiency, business target achievement, learning behaviour, and risk perception. The study does not seek to establish causal relationships or produce generalisable statistical inferences; rather, it provides a structured baseline for subsequent, larger-scale investigation.

2 Related Work

2.1 AI Tools and Knowledge Worker Productivity

The productivity effects of AI tools on knowledge workers have attracted increasing empirical attention. Dell'Acqua et al. [3] introduced the concept of the 'jagged technological frontier,' demonstrating that AI tools are highly effective for certain task types while potentially degrading quality on tasks requiring deep contextual judgement. Brynjolfsson et al. [4] provide complementary field evidence from a large-scale deployment of generative AI among customer-support agents, showing that productivity gains are highly heterogeneous, benefiting less experienced workers disproportionately while yielding smaller gains for experts a pattern that reinforces the uneven, task-dependent nature of AI's value documented by Dell'Acqua et al. This finding is particularly relevant in sales contexts, where proposal quality and negotiation strategy depend on domain expertise that AI cannot fully replicate. Syam and Sharma [5] specifically examine AI's role in B2B sales cycles, identifying personalisation, lead scoring, and proposal generation as high-value AI application domains. Paschen et al. [6] extend this view by mapping AI contributions across each stage of the B2B sales funnel, underscoring that human judgement remains central at stages involving relationship-building and complex negotiation.

2.2 Technology Acceptance and Cognitive Effects

User acceptance of AI tools in organisational settings is theoretically grounded in the Technology Acceptance Model (TAM) [7] and its extension, UTAUT [8], which identify perceived usefulness and ease of use as primary adoption drivers. Of relevance to the learning behaviour dimension of this study is Risko and Gilbert's [9] framework of cognitive offloading, the tendency for individuals to delegate cognitive processing to external artefacts. While cognitive offloading enhances short-term efficiency, sustained over-reliance may erode the deep, non-routine expertise that Autor et al. [10] identify as the core comparative advantage of human workers in automated environments.

2.3 Research Gap

Despite these theoretical foundations and the expanding empirical literature on AI productivity effects, no published study has examined AI tool adoption and its perceived impact within the specific operational context of Indonesian telecommunications sales units. This study addresses that gap, while explicitly acknowledging the exploratory and preliminary nature of its contribution.

3 Methodology

3.1 Research Design

This study adopts a descriptive exploratory study design [11], appropriate for generating preliminary insights on a phenomenon that has not been previously studied in the target context. The design does not seek to test hypotheses or establish causal relationships; its purpose is to document current adoption patterns and map the perceived impact landscape as a foundation for future inquiry.

3.2 Sample and Data Collection

Participants were selected through purposive sampling from the AM and officer population at Witel Jakarta Centrum, PT Telkom Indonesia. The inclusion criterion was active use of at least one AI tool in work-related tasks for a minimum of three months before data collection. A total of 12 respondents participated, comprising 11 Account Managers or Senior Account Managers (SAM) and one officer. The majority held more than five years of tenure at Telkom (8 respondents, 67%), with the remainder distributed between two and five years (3 respondents, 25%) and under two years (1 respondent, 8%). Data were collected via a self-administered online questionnaire distributed through Google Forms during the period March–May 2026.

3.3 Instrument

The questionnaire comprised two parts. The first consisted of 17 closed items rated on a five-point Likert scale [10] (1 = Strongly Disagree to 5 = Strongly Agree), covering four dimensions: (B) work efficiency (5 items), (C) impact on business targets and KPIs (4 items), (D) learning behaviour and skill development (4 items), and (E) risk perception and data security (4 items). The second part contained three mandatory open-ended questions capturing concrete experiences, error-handling practices, and institutional recommendations. Given the sample size ($n = 12$), no inferential statistical tests were applied; data are reported through descriptive statistics (mean, frequency, percentage) supplemented by thematic analysis of open-ended responses.

4 Results

4.1 Adoption Profile

All 12 respondents reported active use of AI tools. ChatGPT was used by all respondents (100%), followed by Google Gemini (7 respondents, 58%), and Microsoft Copilot (1 respondent, 8%). Usage frequency was predominantly daily: 8 respondents (67%) reported using AI tools every day, 2 (17%) used them one to three times per week, and 2 (17%) reported infrequent use. The most supported tasks included commercial proposal drafting, client profiling and research, business case preparation, presentation materials, and notably legal document drafting, which one respondent identified as a capability not previously accessible without AI assistance.

4.2 Likert Scale Results by Dimension

Table 1 presents the mean scores and agreement rates (percentage of respondents selecting 4 or 5) for all 17 items, organised by dimension.

Table 1. Descriptive Results by Dimension and Item.

Dim.	Item	Statement (Abbreviated)	Mean	Agree (≥ 4)
B	B1	AI tools accelerate daily task completion	4.25	92% (11/12)
	B2	Easier to achieve monthly targets	4.00	83% (10/12)
	B3	Reduces time spent on administrative work	4.17	83% (10/12)
	B4	Improves quality of documents produced	3.92	58% (7/12)
	B5	Faster and more accurate client responses	3.67	50% (6/12)
C	C1	Directly contributes to revenue growth	3.08	17% (2/12)
	C2	Helps identify upsell/cross-sell opportunities	3.67	58% (7/12)
	C3	Enables management of more client accounts	3.33	42% (5/12)
	C4	Reduces prospect-to-closing cycle time	3.33	42% (5/12)
D	D1	Encourages exploration of new knowledge	4.33	83% (10/12)
	D2	No longer need to learn independently (*)	2.67	42% (5/12)
	D3	Always validate AI output before formal use	4.00	75% (9/12)
	D4	AI improves critical thinking ability	3.75	67% (8/12)
E	E1	Comfortable using AI for daily work	3.42	50% (6/12)
	E2	Understands AI limitations and when not to use it	4.25	83% (10/12)
	E3	Concerned about AI dependency (*)	3.08	25% (3/12)
	E4	Cautious about client data entered into AI platforms	3.83	58% (7/12)

(*) Items D2 and E3 are negatively worded; a low mean indicates a favourable (non-dependent) orientation.

Table 2. Mean Scores by Dimension.

Dimension	Mean (out of 5.00)	Interpretation
B — Work Efficiency	4.00	Highest — most consistently perceived benefit
D — Learning Behaviour	3.69	Moderate-high — AI augments, not substitutes
E — Risk Perception	3.65	Moderate — awareness present, policy lacking
C — Business Target Impact	3.35	Lowest — efficiency not yet converting to KPIs

4.3 Thematic Analysis of Open-Ended Responses

Four themes emerged consistently from the 36 open-ended responses (3 questions × 12 respondents).

Theme 1 — AI as a productivity accelerator. Nearly all respondents reported significant time savings on routine tasks. Representative quotes include: *"I used to spend one hour researching a client profile. With AI, it takes 15 minutes"* (R11), and *"The process of preparing proposals and business cases that used to take 1–2 hours can now be shortened significantly"* (R10). Notably, one respondent reported that AI enabled the production of legal contract clauses, a document type previously beyond their individual capability (R12).

Theme 2 — Critical validation practice. Despite high efficiency gains, the majority of respondents demonstrated critical awareness of AI limitations. R11 articulated a sophisticated approach: *"AI sometimes provides answers based on assumptions. Prompts must instruct AI to flag assumption-based answers, and users must verify before use."* R4 described iterative prompting strategies to prevent AI agreement bias.

Theme 3 — Demand for internal AI governance. Three respondents independently identified the same institutional need: a Telkom-owned AI platform integrated with internal data systems to eliminate data leakage risk associated with public AI tools. R7 and R8 independently stated: *"Telkom should have its own AI so information does not leak to the public."* R11 specifically named Telkom GPT, Telkom's internal AI assistant, as an initiative requiring broader promotion and further development.

Theme 4 — Need for structured AI literacy training. Five respondents explicitly requested formal AI training and usage guidelines from the company, indicating that the current organic adoption model is perceived as insufficient for systematic, safe, and optimally effective use.

5 Discussion

The most prominent finding of this study is the asymmetry between perceived process efficiency and perceived business outcome impact. While the efficiency dimension achieved the highest mean score across all dimensions (B = 4.00), the business target dimension recorded the lowest (C = 3.35), with only 17% of respondents agreeing that AI directly contributes to revenue growth (C1). This pattern is consistent with

Dell'Acqua et al.'s [3] 'jagged frontier' observation: AI performs well on bounded, well-defined tasks (document generation, information retrieval) but falls short on complex, judgement-intensive activities (enterprise negotiation, strategic account planning) that are the primary revenue-generating functions of an AM.

The learning behaviour dimension reveals a nuanced picture that contradicts simple deskilling narratives. Item D2 (negatively worded: 'I no longer need to learn independently because AI can answer everything') achieved the lowest mean in its dimension (2.67), indicating that respondents generally disagree with the substitution framing. Item D1 ('AI encourages exploration of new knowledge') simultaneously achieved the second-highest mean across all items (4.33). This pattern aligns with Autor et al.'s [12] task-based framework: experienced workers appear to use AI as a complement to existing non-routine expertise rather than as a substitute, consistent with the augmentative pattern that Paschen et al. [6] associate with effective AI adoption in B2B sales contexts. Raisch and Krakowski [13] similarly argue that augmentation and automation are not mutually exclusive pathways but interdependent organisational choices, and that firms achieving the strongest outcomes are those that deliberately position AI to extend, rather than replace, employee judgement a framing that fits the exploration-oriented behaviour observed here.

The risk dimension highlights a structural governance gap. While 83% of respondents claim to understand AI limitations (E2), only 58% report exercising caution about client data entered into public AI platforms (E4). This gap mirrors broader industry findings: a 2024 CybSafe and National Cybersecurity Alliance survey of over 7,000 workers found that around 38% admitted sharing sensitive work information with AI tools without their employer's knowledge [14], despite widespread awareness of the associated risks. Gartner's more recent analysis similarly reports that a majority of organisations now suspect or have direct evidence of employees using unsanctioned public generative AI tools, a trend it attributes largely to governance frameworks lagging behind adoption speed [15]. The convergent and independent identification of the same institutional solution, a Telkom-governed internal AI platform, by multiple respondents constitutes a market signal of practical significance: frontline employees are not only aware of the data risk but are actively calling for an institutional response.

6 Conclusion, Limitations and Future Research

6.1 Conclusion

This study documents that AI tool adoption among Account Managers at Witel Jakarta Centrum has reached a high intensity level (67% daily use) and is perceived to deliver substantive efficiency improvements, particularly on administrative and documentation tasks. The augmentative pattern of adoption, where experienced workers use AI as a thinking partner rather than a cognitive substitute, represents a healthy foundation for sustainable AI integration. However, a persistent gap between process efficiency and business outcome impact, combined with a structural data governance concern, points

to two actionable priorities: (1) the development of a formal AI usage policy governing data security, and (2) the acceleration of Telkom's internal AI platform (Telkom GPT) as a safe and contextually relevant alternative to public AI tools.

6.2 Limitations

This study carries several important limitations that require transparent acknowledgement.

First and most critically, the sample size of $n = 12$ constitutes a fundamental constraint on the scope and generalisability of all reported findings. This study is explicitly characterised as a preliminary exploratory investigation. The descriptive statistics presented mean: frequencies and percentages are reported as indicative patterns within the specific observed group, not as population-representative estimates. No inferential statistics, significance tests, correlation measures, or reliability coefficients (e.g., Cronbach's Alpha) have been computed or claimed, as the sample size renders such analyses statistically inappropriate and potentially misleading. Readers and reviewers are strongly cautioned against drawing generalisable conclusions from these findings.

Second, the study is geographically confined to a single Witel unit (Jakarta Centrum), which serves a specific urban, enterprise-oriented client portfolio. The AI adoption culture, task composition, and technological infrastructure at this unit may differ systematically from other Telkom regional units, particularly those serving rural or mixed-economy territories. Cross-Witel replication is therefore necessary before any Telkom-wide claims can be advanced.

Third, all outcome measures are based on self-reported perceptions rather than objective performance data. Social desirability bias and recall limitations inherent in survey instruments may inflate efficiency perceptions. Future studies should triangulate survey data with objective KPI records: proposal hit rates, revenue per AM, cycle time metrics, to validate whether perceived efficiency gains translate into measurable business outcomes.

Fourth, the cross-sectional design captures a single point in time and cannot account for temporal dynamics in AI adoption, skill development, or productivity trajectories.

6.3 Future Research Directions

Future studies should address the above limitations through: (1) a large-scale survey ($n \geq 50-80$) spanning multiple Telkom Witel units, enabling inferential analysis and cross-unit comparison; (2) a longitudinal design tracking the same respondents over 6–12 months to capture skill development trajectories and productivity evolution; (3) integration of objective KPI data to empirically validate the efficiency-to-outcome translation gap identified in this study; and (4) a quasi-experimental design exploiting natural variation in AI tool access across units to estimate causal effects.

Acknowledgments. The author thanks the Account Manager and officer colleagues at Witel Jakarta Centrum who voluntarily participated in this survey. This study was conducted independently and does not represent the official position of PT Telkom Indonesia (Persero) Tbk.

Disclosure of Interests. The author has no competing interests to declare that are relevant to the content of this article. The author is an employee of PT Telkom Indonesia (Persero) Tbk.; however, this study was conducted independently and without institutional funding or direction.

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