

Beyond Productivity: How Professional Identity Shapes Generative AI Adoption Among Medical Writing Professionals

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P. Čuk, A. Wiehe and F. Woeste.
Pharos Labs, Germany

Introduction

Generative AI (GenAI) adoption in medical writing remains understudied in regulated environments. German market access consulting presents unique challenges where GDPR/EU AI Act compliance intersects with professional identity concerns among AMNOG specialists.

Objective

To investigate determinants of GenAI acceptance among German market access medical writers using Technology Acceptance Model (Sohn & Kwon, 2020) and Professional Identity frameworks (Ackerhans et al., 2025), examining whether trust-identity threat dynamics observed in clinical decision support contexts apply to documentation workflows within AMNOG regulatory requirements.

Methods

An online survey recruited 27 medical writing professionals from a German market access consultancy with 6+ months GenAI experience. The instrument combined Sohn & Kwon's (2020) German AI-adapted TAM scales—Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Enjoyment (ENJ), Subjective Norms (SN), and Behavioral Intention (BI)—with Ackerhans et al's (2025) Professional Identity framework measuring Trust in AI (Panicker et al., 2016) and Professional Identity Threat (Glikson & Woolley, 2020). Additional items assessed regulatory compliance, hybrid workflows, and organizational support.

Statistical analysis employed Cronbach's alpha for reliability testing. Path coefficients and linear regression tested hypothesized relationships, with effect sizes interpreted following Gignac & Szodorai (2016) guidelines.

Results

Technology Acceptance Model

High GenAI Adoption: Medical writers demonstrated strong behavioral intention (M=5.84/7) with 96% using Regulaido and 59% using it daily. The majority (85%) states that their organization strongly encourages GenAI use.

Perceived Usefulness Drives Adoption: PLS-SEM analysis revealed that Perceived Usefulness (PU) is the primary significant predictor of Behavioral Intention ($\beta=0.522$, $p=0.028$), explaining 38.9% of variance. Perceived Ease of Use significantly predicted PU ($\beta=0.536$, $p=0.003$), but not directly BI. Enjoyment and Subjective Norms showed non-significant effects.

Professional Context Matters: Unlike consumer-focused TAM studies where enjoyment plays a major role, medical writers prioritize practical utility — consistent with professional tool adoption patterns.

Professional Identity Analysis

Trust in AI did not significantly predict professional identity threat ($\beta=-0.032$, $p=0.901$, $R^2=0.001$). Medical writers reported moderate trust (M=3.37/5) and low perceived threat (M=2.10/5), but these constructs operated independently. Professional Identity scales showed acceptable-to-good reliability ($\alpha=0.784-0.863$).

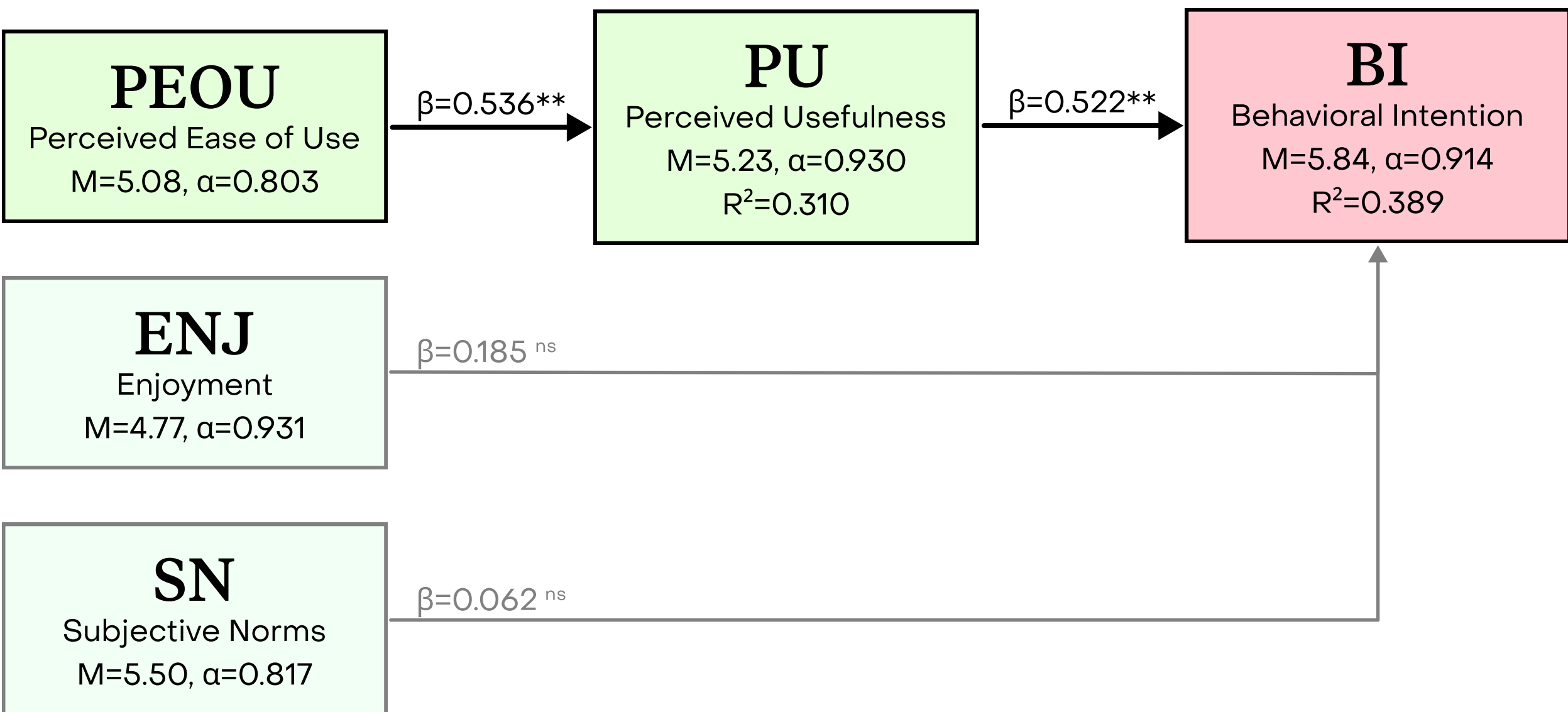
Contextual Difference from Literature: This contrasts with Ackerhans et al. (2025) findings in clinical decision support contexts. The difference may reflect:

- Documentation vs. patient care workflows: Medical writing involves quality assurance rather than patient safety stakes
- Assistance vs. decision autonomy: GenAI supports routine tasks without replacing strategic judgment
- Organizational integration: Strong organizational support may normalize GenAI as a collaborative tool rather than a threat

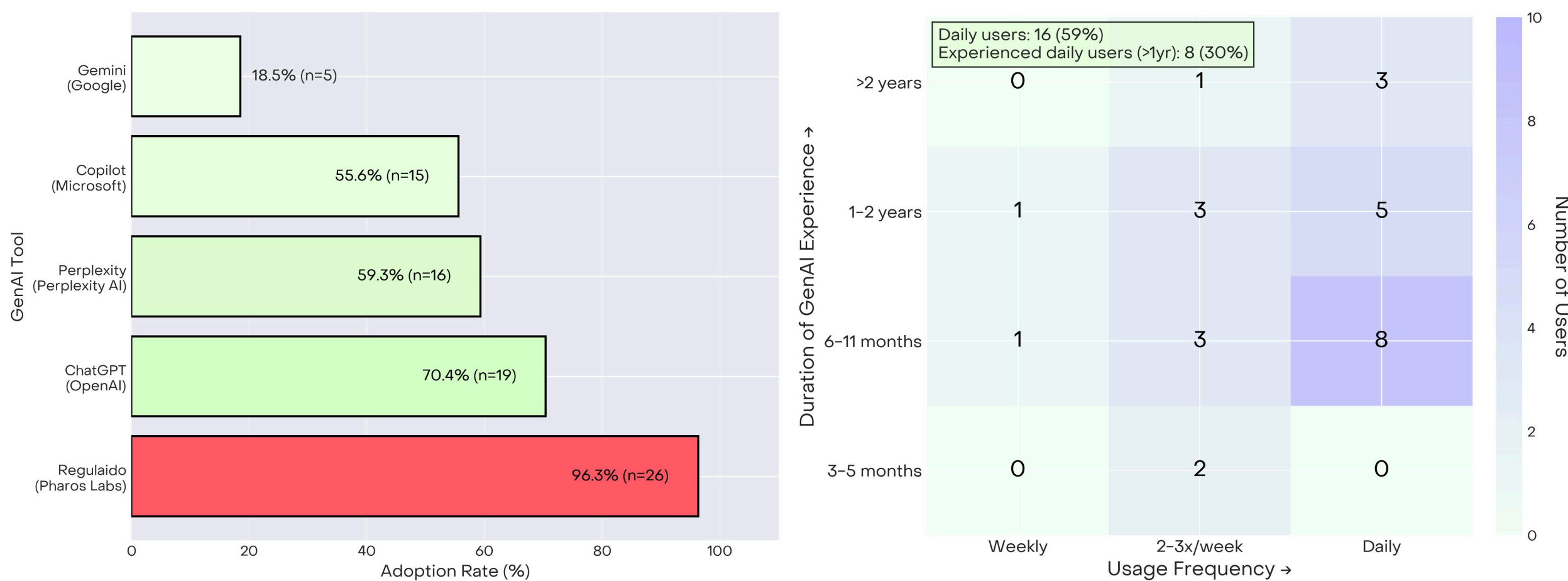
A New Way to Work

Hybrid Workflows & Regulatory Compliance: Writers demonstrated strong GenAI-human oversight confidence (M=5.48/7) and regulatory compliance (M=6.22/7), with adequate organizational training support (M=5.78/7) facilitating responsible integration within GDPR and EU AI Act frameworks.

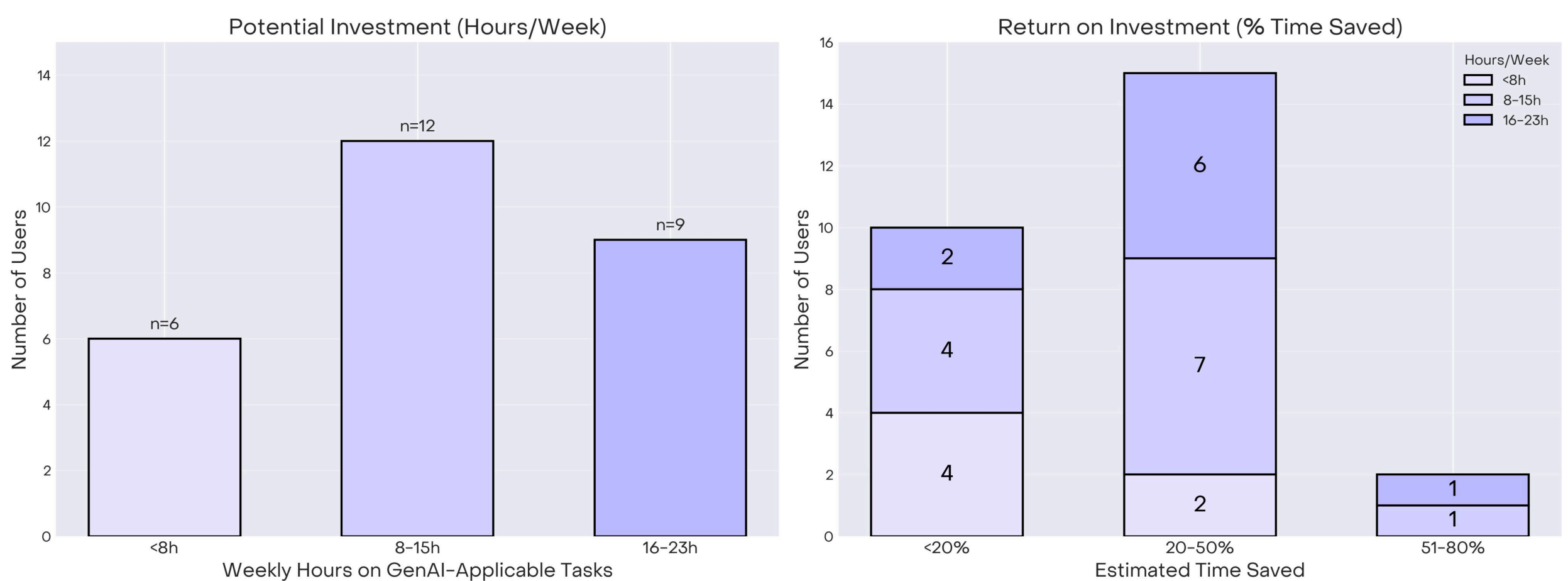
TAM: $BI = \beta_0 + \beta_1(PEOU) + \beta_2(PU) + \beta_3(ENJ) + \beta_4(SN) + \text{error} \Rightarrow \text{Model Fit } 38.9\%$



Adoption of GenAI Tools for Medical Writing



Estimate of Time Savings with GenAI



Conclusions

Perceived Usefulness ($\beta=0.522$, $p=0.028$) drives adoption, while trust and professional identity threat operate independently ($\beta=-0.032$, $p=0.901$). As one writer noted: "It saves time for strategic thinking, but it's dangerous to stop thinking—one has to read everything properly." GenAI implementation can create professional frustrations, but when integrated successfully with clear regulatory guidance, identity-preserving role redefinition, and hybrid workflow development, transforms work with positive effects on productivity and job satisfaction. Understanding these factors is essential for healthcare organizations adopting AI in regulated environments.

References

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Ackerhans, S., Wehkamp, K., Petzina, R., Dumitrescu, D., & Schultz, C. (2025). Perceived Trust and Professional Identity Threat in AI-Based Clinical Decision Support Systems: Scenario-Based Experimental Study on AI Process Design Features. JMIR Formative Research, 9, e64266.

The complete list of references can be found under pharos-labs.com/research

Contact

Pia A. Čuk, Head of Product
✉ pia.cuk@pharos-labs.com
🌐 linkedin.com/in/piacuk
🌐 pharos-labs.com

More information on the survey



PHAROS Labs GmbH · MD Florian Woeste & Timm Volmer
Alter Teichweg 25a · D-22081 Hamburg · Amtsgericht Hamburg HRB 151603