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**From Human-Human to Human-AI Delegation: A Leadership Theory Driven  
Investigation of Delegation**

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**ABSTRACT**

The emergence of generative AI (GenAI) has transformed work by enabling humans to delegate tasks like writing and coding to GenAI agents such as ChatGPT. While existing studies highlight AI capability awareness and perceived competence as drivers of delegation, they overlook parallels between human-AI and human-human delegation. Our ongoing research proposes that human-AI delegation can be understood through a leadership lens, with leadership experience and traits as key predictors. Hence, we investigate whether individuals with leadership experience demonstrate higher delegation levels than those without such experience. In an initial online experiment (n=48), participants were grouped by leadership experience and AI transparency to decide whether to delegate or personally perform image classification tasks. Preliminary findings indicate that under the low-transparency condition, leadership experience indicates higher delegation rates. However, leadership alone does not significantly predict delegation. Transparency in GenAI consistently leads to higher delegation, while greater domain knowledge corresponds to lower delegation rates. This ongoing research seeks to deepen understanding of delegation behavior and its predictors in the age of GenAI.

## INTRODUCTION

With the growing adoption of highly agentic information systems such as ChatGPT, employees are empowered to delegate tasks such as writing, coding, and problem-solving to GenAI (Jia, Luo, Fang, & Liao, 2024). The use of GenAI in today's mirrors supervisor-subordinate dynamics, where users delegate tasks to their GenAI subordinates, raising questions on the actual delegation behavior (Baird & Maruping, 2021). Prior literature focused on human-AI delegation by examining the technological characteristics of AI systems, driven by the assumption that understanding AI capabilities (Pinski, Adam, & Benlian, 2023) and the perception of competence (Fügener, Grahl, Gupta, & Ketter, 2022) determines delegation outcomes. This perception fails to explain the mechanisms behind delegation, highlighting the need for a deeper understanding of delegation behavior and its key predictors in the GenAI era.

We advocate that human-AI delegation can be viewed through the same lens as human-human delegation, with human supervisors delegating authority to agentic GenAI agents as subordinates. As leadership experience and characteristics have been predictors for delegation and subsequent performance (Leana, 1986), this paper aims to examine whether and how leadership experience impacts human-AI delegation behavior.

## RESEARCH QUESTIONS

Given the agentic nature of emerging GenAI systems, knowledge on human-to-human delegation in the management literature (e.g., Akinola, Martin, & Phillips, 2018; Leana, 1986) can help to explain the underlying mechanisms of human-AI delegation. In the following, we refer to GenAI as the *subordinate* and the user as the *delegator* in alignment with the literature on delegation.

Effective delegation, whether to humans or AI systems, requires the delegator to assess the subordinate's capabilities (Taudien, Fügener, Gupta, & Ketter, 2022). In traditional

human-to-human delegation, leaders assign tasks to subordinates they perceive as capable, responsible, and aligned with organizational goals (Leana, 1986). Similarly, human-AI delegation relies on evaluating the suitability of tasks based on AI's perceived capabilities and limitations (Pinski et al., 2023). As leaders are trained to assess capabilities and delegate tasks, this research explores how leadership experience impacts delegation.

*RQ1: How do leadership experience and delegator's characteristics impact human-AI delegation behavior?*

In addition to leadership experience and delegator's characteristics, transparency of subordinates' immediate decisions and reasoning impacts the perceptions of subordinates and the resulting delegation behavior. Research showed that visibility into AI processes, such as task outputs and reasoning, enhances transparency, reduces uncertainty, and fosters trust (Taudien et al., 2022; Guggenberger et al., 2023). Therefore, we aim to examine how AI transparency influences the relationship between leadership experience and collaborative outcomes.

*RQ2: How does AI transparency (i.e., displaying AI's decision) impact the relationship between leadership experience and human-AI delegation behavior*

## **METHODOLOGY**

We conducted a 2 (leadership experience vs. no leadership experience) x 2 (transparent AI vs. non-transparent AI) between-subjects online experiment via Prolific. Participants were grouped by leadership experience and further divided by whether AI responses were revealed post-delegation. They completed an image classification task with 12 randomly ordered images, choosing to either delegate to GenAI or classify the images themselves (Figure 1). The images were selected from the ImageNet dataset (Deng, Dong, Socher, Li, Li, & Fei-Fei, 2009).

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Insert Figure 1 about here  
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We measured delegation rate as the number of images being delegated to AI. Additionally, we collected data on supervisor's characteristics (i.e., AI literacy), perceptions of subordinates (i.e., perception of ai accuracy), and situational characteristics (i.e., decision importance) through pre- and post-surveys. Here, we used an AI accuracy scale (Chua, Pal, & Banerjee, 2023) and the AI literacy subscale "Apply AI" proposed by Carolus, Koch, Straka, Latoschik, and Wienrich (2023). Furthermore, we assessed decision importance with a self-constructed scale to match our experimental tasks. Cronbach's alphas of all constructs exceed the threshold of 0.7 (AI accuracy:  $\alpha = .70$ ; AI literacy:  $\alpha = .96$ ; decision importance:  $\alpha = .91$ ).

In total, we recruited a sample with  $N = 60$  participants. We had to exclude  $n = 12$  participants due to failed attention checks, leaving us with a final sample size of  $n = 48$  ( $M_{\text{age}} = 35.92$ ;  $SD_{\text{age}} = 11.52$ ; male = 56.25 %) participants.

## PRELIMINARY RESULTS

To examine our research questions, we fitted one regression model with interactions (adjusted  $R^2 = .32$ ). While we did not find a significant effect of leadership experience on delegation rate, we found transparency positively predicted delegation rate ( $\beta = .36, p = .043$ ). However, the interaction effect of transparency on the relationship between leadership experience and delegation rate was insignificant. None of the effects of AI literacy, accuracy of AI, nor decision importance were significantly associated with delegation rate. Instead, domain knowledge was negatively associated with delegation rate ( $\beta = -.55, p < .001$ ), indicating low levels of delegation in case of domain expertise. All regression results are depicted in Table 2 and the interaction effect is depicted in Figure 2.

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 Insert Table 2 about here  
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A descriptive analysis revealed that under the low-transparency condition, leadership experience corresponds to a higher delegation rate (Figure 2). In contrast, when transparency is present, delegation rates remain consistent, regardless of leadership experience. For participants with leadership experience, delegation behavior remains consistent over time (Figure 3). In contrast, for those without leadership experience, transparency initially leads to higher delegation rates, but over time, these rates gradually converge with those observed in non-transparent conditions.

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## **DISCUSSION & NEXT STEPS**

Our ongoing study aims to advance the literature on human-AI delegation by adapting the predictors of human-human delegation to the context of task delegation to GenAI agents. We offer a more comprehensive examination of delegation behavior, laying the groundwork for future research on delegation in the era of GenAI.

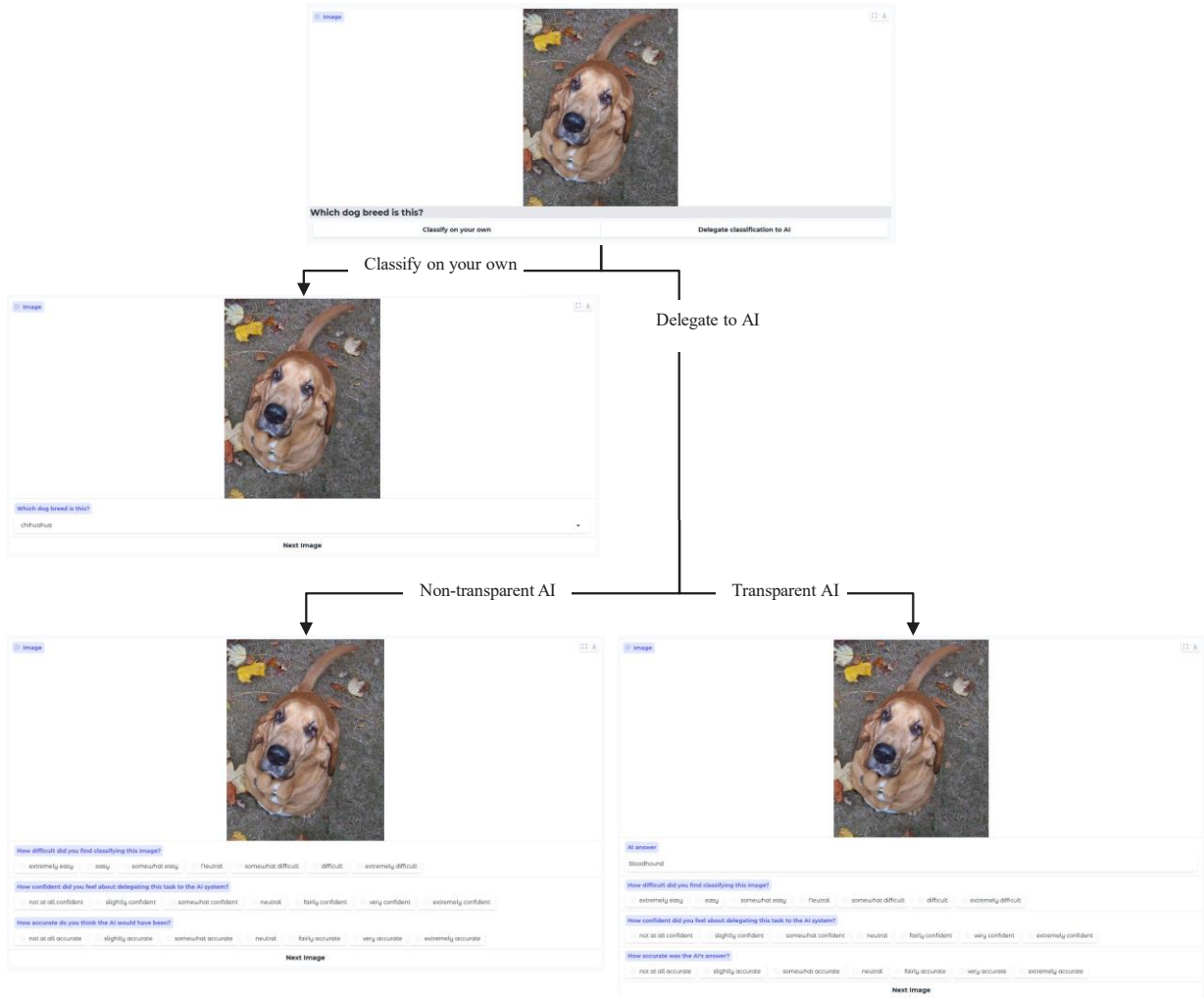
Interestingly, while leadership characteristics and AI perceptions did not have a significant impact on delegation rate, both transparency and domain knowledge did. However, our results suggest that leadership experience may result in higher delegation rates when GenAI systems lack transparency. Users without leadership experience may hesitate to

delegate when unfamiliar with GenAI behavior, while leaders are more comfortable delegating to “black box” systems. These findings contrast with prior research showing no link between delegation rates and AI transparency when GenAI outcomes were revealed (Taudien et al., 2022). The results on domain knowledge align with the concept of overreliance: novices delegate tasks to GenAI, while experts rely on their own experience rather than GenAI agents. Future research should explore how the interplay between domain expertise and leadership experience shapes delegation behavior.

Overall, this in-progress research has limitations. The sample size was small, treatment groups were slightly unbalanced, and AI accuracy remained relatively low. In the next steps, we plan to extend the number of participants and variety of tasks. For example, we plan to ask participants to create content (e.g., emails, news) utilizing ChatGPT. Thereby, we aim to understand the role of leadership experience and characteristics in instructing GenAI agents. As part of this, we plan to understand effective delegation by investigating the iterative interaction between humans and GenAI, the resulting prompt quality, and the task performance.

FIGURE 1

Experimental Setup





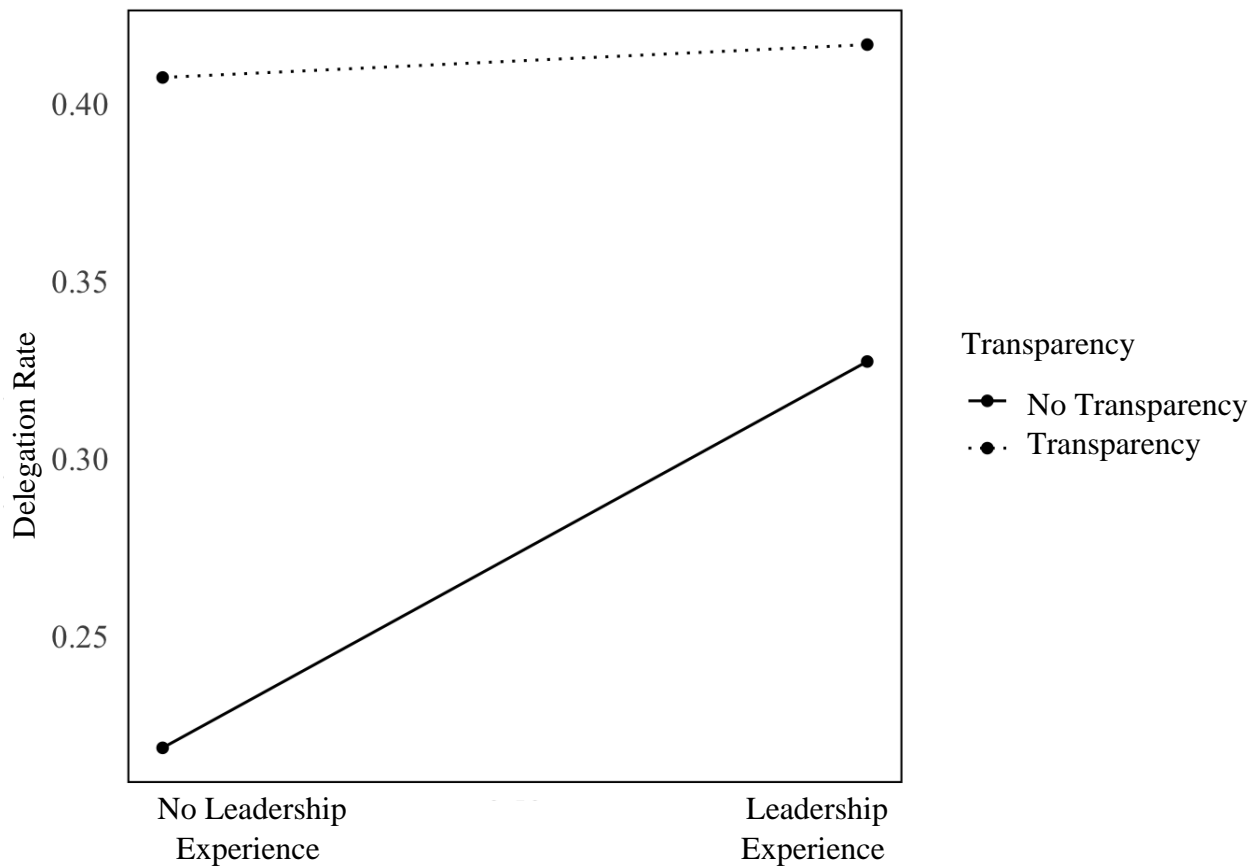
**TABLE 1**  
**Regression Results**

Predictors	B	$\beta$	p-value
Dependent Variable: Delegation Rate			
Intercept	.60		<.01
Leadership Experience	.07	.17	.29
Transparency	.15	.36*	.04
Leadership Experience x Transparency	-.03	-.05	.81
Perceived Accuracy of AI	.01	.06	.68
AI Literacy	.03	.14	.40
Decision Importance	.01	.03	.68
Domain Knowledge	-.19	-.55**	<.001

*Note.* B = unstandardized effect,  $\beta$  = standardized effect. Reference group leadership = no leadership experience. Reference group transparency = no transparency. \* Indicates  $p < .05$ . \*\* indicates  $p < .001$ . Adjusted  $R^2 = .32$ .

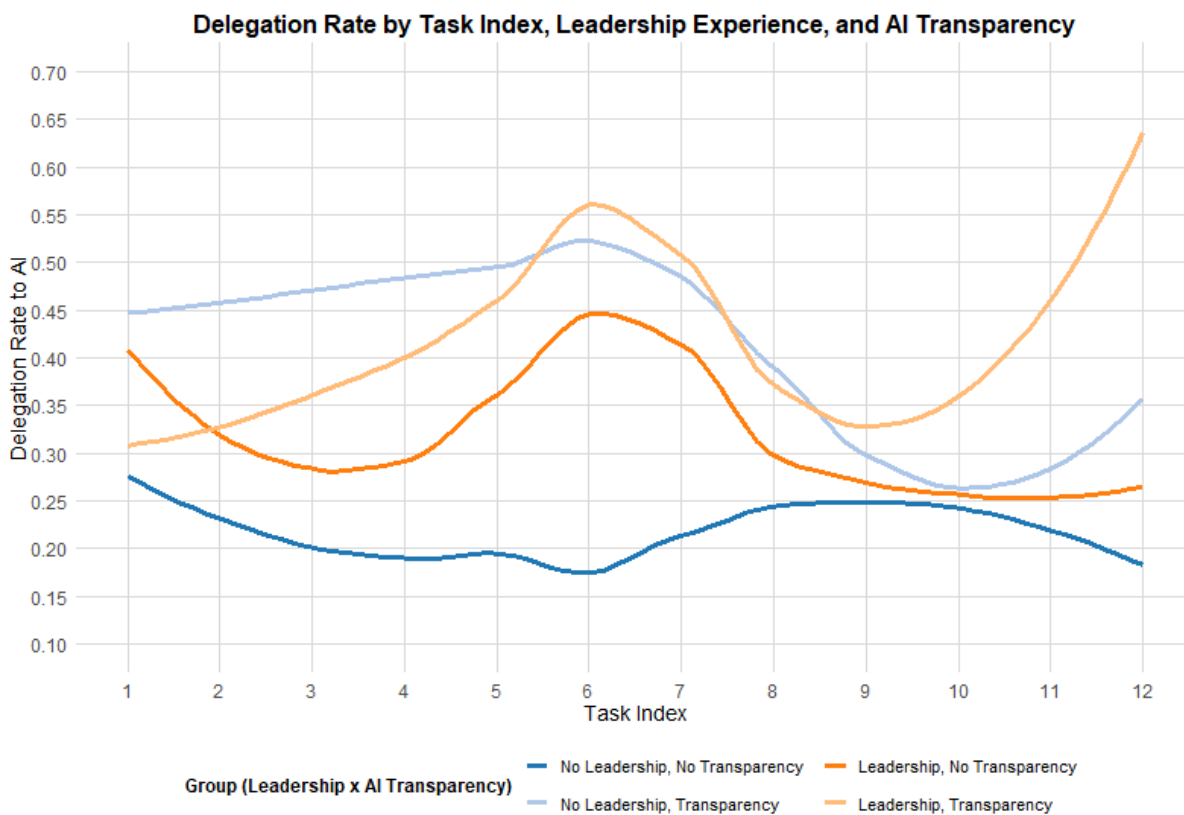
FIGURE 2

**Interaction Effect of Transparency on the Relationship between Leadership Experience and Delegation Rate**



**FIGURE 3**

**Development of Delegation Behavior Over Time**



## REFERENCES

- Akinola, M., Martin, A. E., & Phillips, K. W. 2018. To delegate or not to delegate: Gender differences in affective associations and behavioral responses to delegation. *Academy of Management Journal*, 61(4): 1467–1491.
- Baird, A., & Maruping, L. M. 2021. The next generation of research on IS use: A theoretical framework of delegation to and from agentic IS artifacts. *MIS Quarterly*, 45(1): 315–341.
- Carolus, A., Koch, M. J., Straka, S., Latoschik, M. E., & Wienrich, C. 2023. MAILS-Meta AI literacy scale: Development and testing of an AI literacy questionnaire based on well-founded competency models and psychological change-and meta-competencies. *Computers in Human Behavior: Artificial Humans*, 1(2): 100014.
- Chua, A. Y. K., Pal, A., & Banerjee, S. 2023. AI-enabled investment advice: Will users buy it? *Computers in Human Behavior*, 138: 107481.
- Deng, J., Dong, W., Socher, R., Li, L.-J., Li, K., & Fei-Fei, L. 2009. ImageNet: A large-scale hierarchical image database. *2009 IEEE Conference on Computer Vision and Pattern Recognition*: 248–255.
- Fügener, A., Grahl, J., Gupta, A., & Ketter, W. 2022. Cognitive challenges in human–artificial intelligence collaboration: Investigating the path toward productive delegation. *Information Systems Research*, 33(2): 678–696.
- Jia, N., Luo, X., Fang, Z., & Liao, C. 2024. When and how artificial intelligence augments employee creativity. *Academy of Management Journal*, 67(1): 5–32.
- Leana, C. R. 1986. Predictors and consequences of delegation. *Academy of Management Journal*, 29(4): 754–774.
- Pinski, M., Adam, M., & Benlian, A. 2023. AI Knowledge: Improving AI Delegation through Human Enablement. *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*: 1–17.
- Taudien, A., Fügener, A., Gupta, A., & Ketter, W. 2022. Calibrating Users’ Mental Models for Delegation to AI, forthcoming.