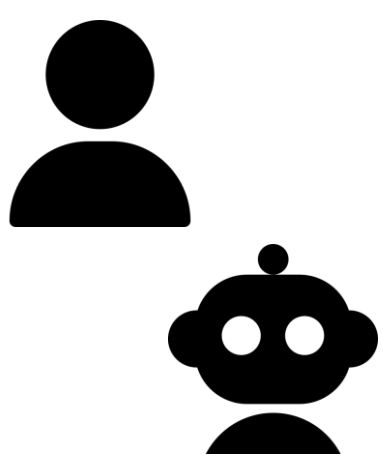# 3rd Edition
Data Research meetup by MagIC

Human or AI: How Perceived Advertising Authorship Influences Perceptions and Behaviors in Social Media - a PLS-SEM Study

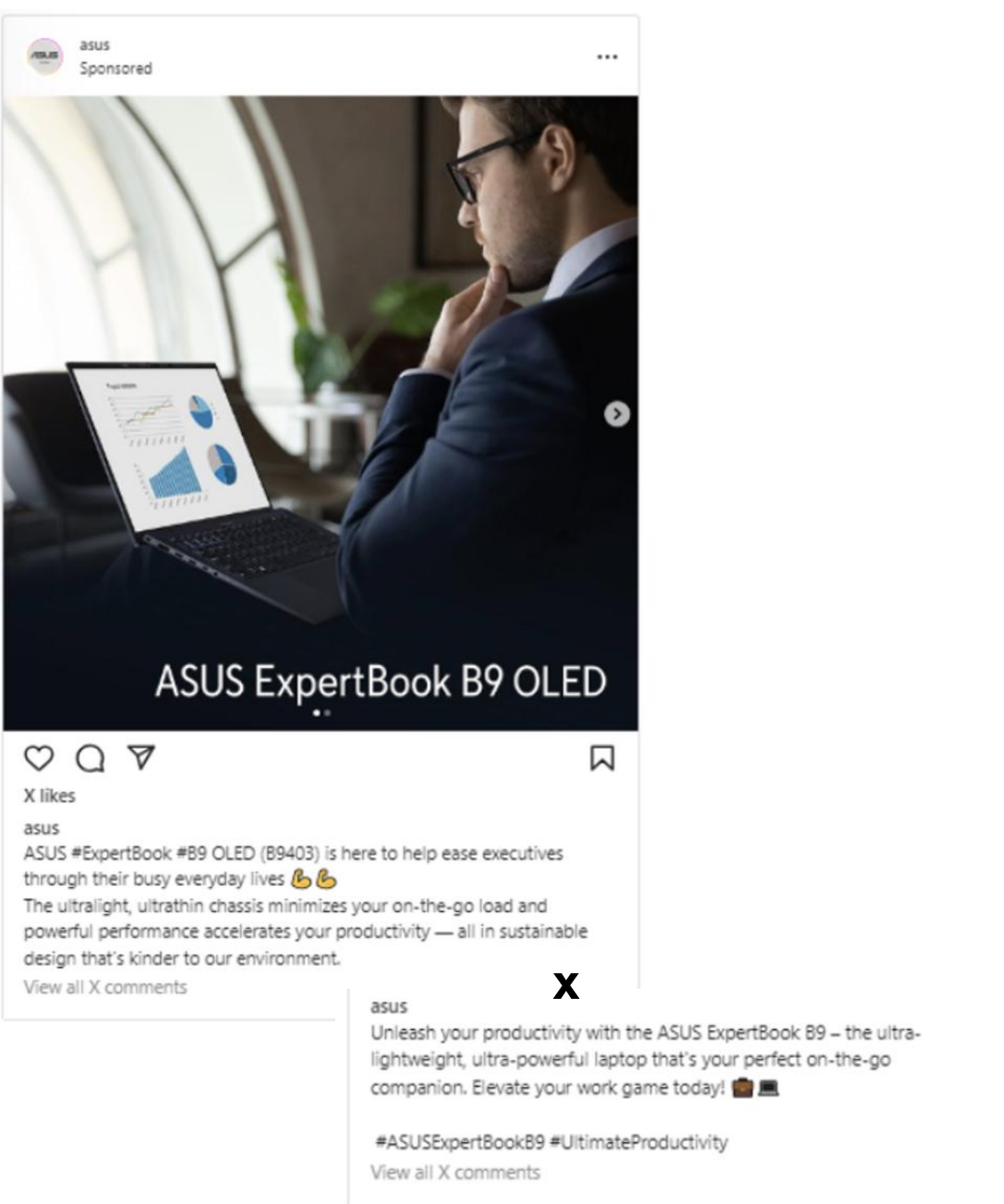**Diogo Diogo*** ✉ **ddiogo@novaims.unl.pt**

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INTRODUCTION

Marketers have long created advertisements using persuasion, narrative techniques, artistic expression, and emotional resonance. But what happens when brands begin using Artificial Intelligence to develop these same messages?

Generative AI is already used by 42% of marketing teams (Singla et al., 2025), with 80% of digital advertisers employing it to produce content (Beis, 2025). As adoption grows, so does the tension between human creativity and machine intelligence, fueling debate about how consumers interpret AI-generated advertising.

While prior research has examined ads where AI authorship is explicitly disclosed (Wu et al., 2025), no studies have explored how consumers respond when AI is used to generate advertisement copy *without* disclosure and if there is any influence based on the experience the user already has with the technology. This raises important questions about how perceived authorship influences instrumental variables linked to purchase intention, such as relevance and credibility.

Understanding these dynamics is crucial for advertisers seeking to integrate AI tools without compromising message effectiveness or consumer trust.

Example with Nespresso Ad

METHODS AND MATERIALS
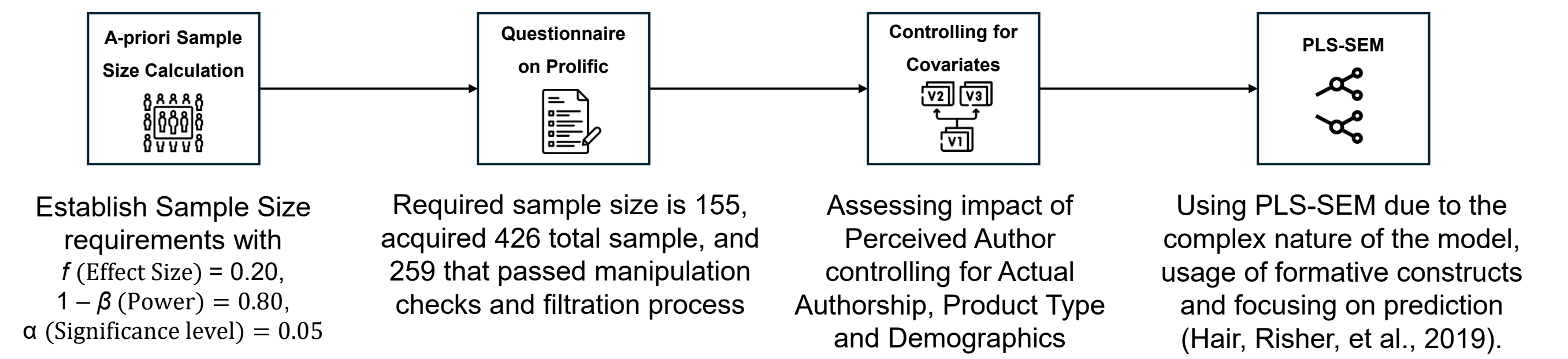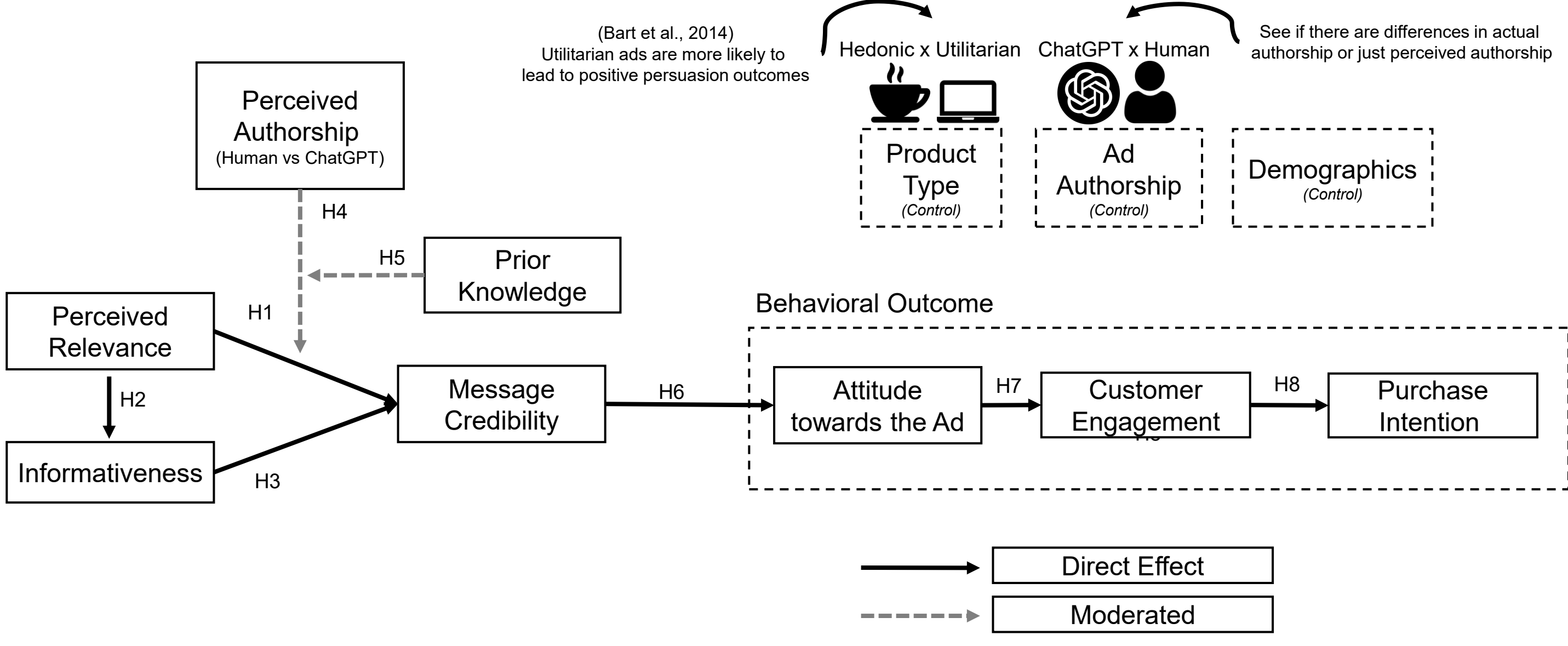
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RESULTS & DISCUSSION

Through the development of this study and by using PLS-SEM that allows to test the path relationships found in the literature and assess the predictive capabilities of the model, it was possible to understand that:

- Perceived Relevance **does not** have a significant effect on Message Credibility;
- **However,** there is a conditional effect driven by **Advertisement Authorship**, the Perceived Relevance → Message Credibility path becomes significant only when the ad was created by AI and also perceived as AI-authored.
  - This suggests **that consumers rely on relevance** to **assess the credibility** in contexts of uncertainty, such as when **dealing** with **AI-generated advertisements**.
  - Whereas **Human developed ads have a higher baseline of credibility**, for AI, the higher the relevance, the bigger the impact it will have on credibility
- Even though Perceived Authorship affects Message Credibility, **when it comes to Actual Authorship, there are no significant differences in the path relationships**
- The model shows **weak-to-moderate explainability** but **medium-to-strong predictive relevance.**
  - RMSE indicates the model **predicts better than Indicator Averages**, but with **higher prediction error than a Linear Model**, meaning it **has predictive relevance but low predictive power.**
- There are no meaningful differences between the controlled variables (utilitarian vs hedonic products and demographics of the audience)
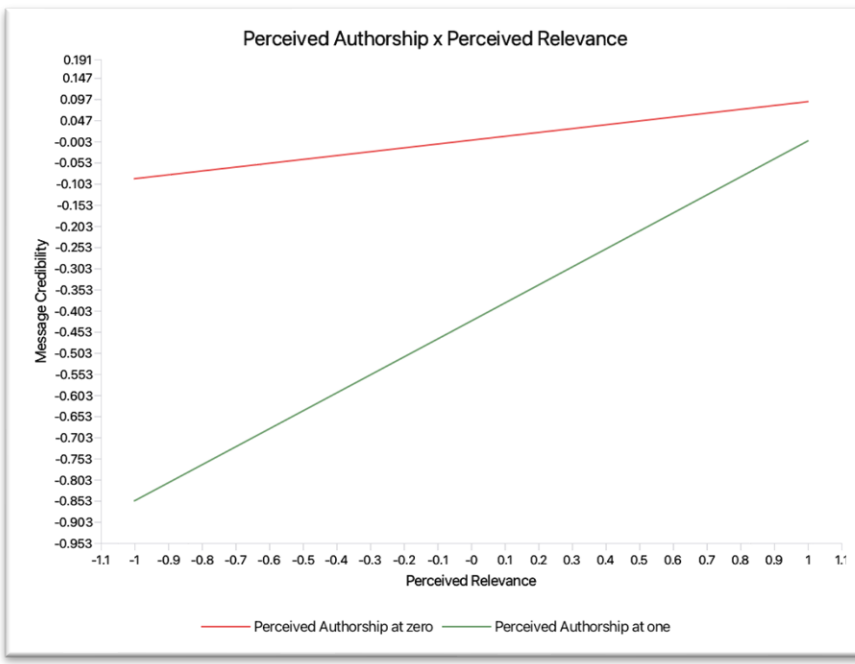

CONCLUSION
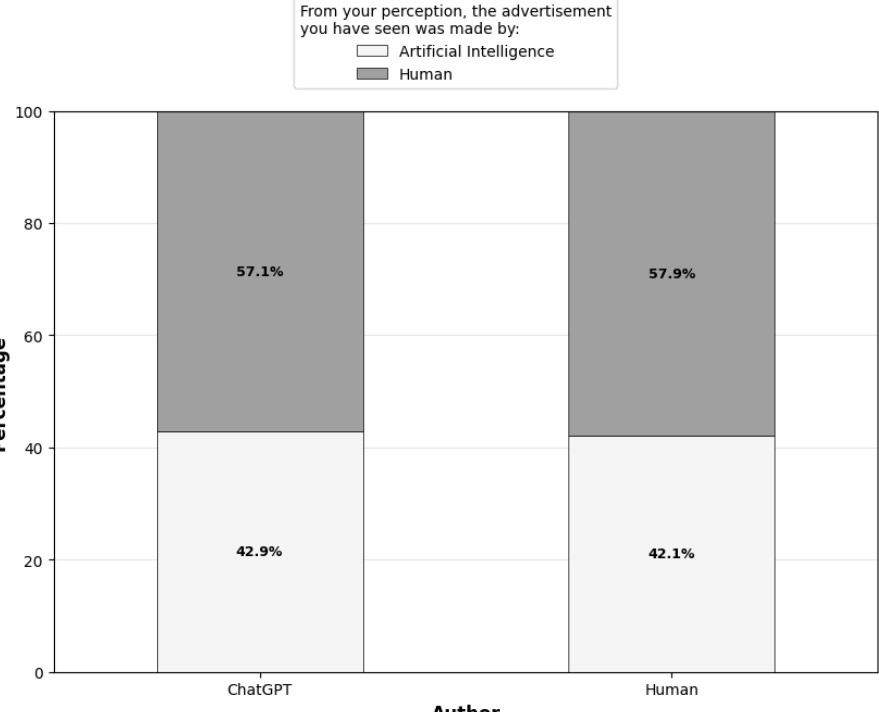
Ads made by AI or Humans have both tested for significance on all hypothesis, except for H1, meaning that **marketeers can safely invest on using AI** to become more **time and cost efficient**, **due to users not being able to differentiate the authors as the writing capabilities of AI are so good that they cannot tell the two versions apart or that they do not care very much about who is the author** (Dwivedi et al., 2023)

However, there is an exception regarding baseline credibility of AI generated ads if perceived to have been made by AI is lower, therefore **brands need to guarantee that the ads created by Generative AI are highly relevant to enhance message credibility**, which goes in line with what the literature suggests that consumers prefer human efforts and even ChatGPT itself when asked states that it cannot meet the expertise in writing as a human does.

Message Credibility
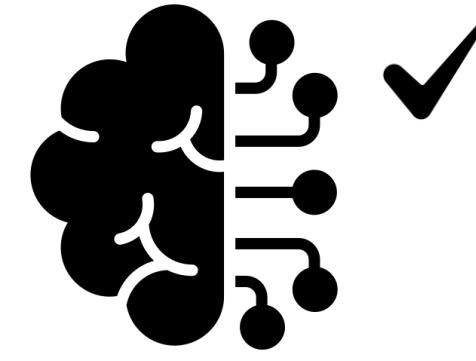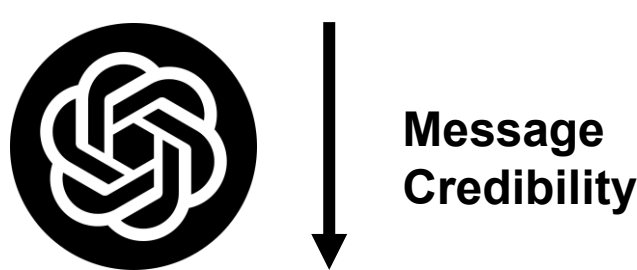
Advertisers should also be aware that tech-savvy audiences with more experience using AI do not show meaningful differences in how perceived relevance influences message credibility. Therefore, companies whose target or Ideal Customer Profile uses these users can be confident that **AI experience does not alter how their messages are evaluated**, even if they perceive the ad to have been made by AI, and now additional adjustments are required for this audience.

Future studies should replicate the model across industries or use neutral stimuli (unbranded) to reduce familiarity effects. Testing on different social media platforms and expanding the construct set, for example, including belief in AI ability could enhance the validity of the study. Furthermore, researchers should compare the impact of perceived authorship on ads deployed on the platforms and observe differences in performance and compare with backend data (behavioural data such as engagement, actual purchases, subscription, among other relevant metrics for the business).

ACKNOWLEDGEMENTS

ONLINE VERSION