

**CONFIDENTIAL - FOR PEER-REVIEW ONLY****Managers Survey May-June 2024 (#176722)**

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**1) Have any data been collected for this study already?**

No, no data have been collected for this study yet.

**2) What's the main question being asked or hypothesis being tested in this study?**

We continue collecting data for the project "Will Artificial Intelligence get in the way of gender equality?". This study examines the following hypothesis: whether generative AI skills (e.g., ChatGPT) are valued in the labor market, with the aim of examining the labor market consequences of a gender gap in use of generative AI. We conduct a survey on managers in the industries that hire students from our earlier sample (NHH students) and assess whether they value: (i) applicants to jobs showcasing generative AI skills, (ii) workers with increased productivity using generative AI skills. We use the following survey methods to study this question:

1. Conjoint study with managers evaluating hypothetical applicant profiles in the present and their expected answers in three years.
2. Vignette experiment where managers make a career advancing decision between two candidates.
3. Survey questions on usage and perceptions over the use of ChatGPT in the workplace.

**3) Describe the key dependent variable(s) specifying how they will be measured.**

We have three main dependent variables.

Y\_1: Score given by managers to a current hypothetical candidate represented by a profile card (conjoint study). This is collected by presenting two randomly selected profiles to the manager and asking to give a score to each. 5 types of profiles are being evaluated: (1) Woman - High grades - ChatGPT expertise (WHC), (2) Woman - High grades - No ChatGPT expertise (WHN), (3) Man - High grades - ChatGPT expertise (MHC), (4) Man - High grades - No ChatGPT expertise (MHN), (5) Man - Average grades - ChatGPT expertise (MLC).

Y\_2: Score given by managers to a future hypothetical candidate, applying in three years, represented by a profile card. This is collected by presenting to the manager one out of two possible profiles, and asking to give a score (possible profiles: WHN-MLC).

Y\_3: Binary variable with value 1 if a manager selected for a "promotion track" the fastest candidate out of two to finish a task (hypothetical scenario).

**4) How many and which conditions will participants be assigned to?**

For dependent variables:

Y\_1: participants will be presented two profiles randomly assigned from a set of 10 possible profiles, representing the five types.

Y\_2: participants will be presented one out of two possible types of profiles: WHN and MLC.

Y\_3: there are 2 main conditions, which are (1) the managers are explicitly told which candidate used ChatGPT for performing the task (2) the managers are not told who used ChatGPT. A second layer of randomization corresponds to variations in the gender of the two possible candidates.

**5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.**

Y\_1: using linear regression, we will estimate the differences between average scores across the following comparison of types: (1) WHC-WHN, (2) MHC-MHN, (3) WHN-MLC.

Y\_2: using linear regression, we will estimate the differences between average scores across the types: WHN and MLC.

Y\_3: using linear regression we estimate differences between selecting the fastest candidate across the two main specifications: whether the use of ChatGPT was explicit or not (Explicit). We are also interested in the interaction term of Explicit and Female, which is a binary variable that takes value 1 if the fastest candidate was a woman.

**6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.**

Any incomplete survey or surveys answered in less than 30 seconds will be discarded.

**7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.**

Survey will be implemented until 1000 managers have completed the survey.

**8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)**

As secondary outcomes in the manager's hiring tasks (Y\_1 and Y\_2) we also obtain decisions of whether a candidate is called for an interview or not, and whether they are able to negotiate salary. In addition, we collect answers for a series of questions over perceptions and attitudes towards generative AI and other questions capturing the value of generative AI in the workplace.