## Appendix B

### Experiment Pretest – Qualitative Evaluation

We conducted a qualitative evaluation with eight market experts to ensure our experiment was structured correctly. All panelists received an appraisal worksheet to assess the quality of the instrument through six judgment criteria: realism, clarity, technical language, grammar, fatigue, and qualification check. From the feedback received, it was possible to adjust a few items: (a) reduce the vignette length to prevent fatigue and attrition, (b) insert the concept of delegation (before the dependent variable question) to avoid misunderstandings regarding question wording or conceptualizations, (c) substitute the qualification check by a question to assess the degree of familiarity with AI tools of participants, and (d) insert the vignette in the *task complexity* manipulation section, so that participants could read the instructions and assess the job applicant information at the same time.

| **Quality Pretest Criteria** | **Panelists** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** |
| Realism | 100% | 100% | 75% *e* | 100% | 100% | 100% | 100% | 100% |
| *The vignette and the information about applicants reproduce a realistic business context.* | | | | | | | | |
| Clarity | 50% *a* | 100% | 50% *f* | 100% | 75% *i* | 100% | 100% | 100% |
| *The texts and questions are written clearly and without ambiguity.* | | | | | | | | |
| Technical Language | 25% *b* | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| *The technical terms used are common knowledge.* | | | | | | | | |
| Grammar | 100% | 100% | 100% | 100% | 100% | 100% | 75% *j* | 100% |
| *Texts are free from grammatical or spelling errors.* | | | | | | | | |
| Fatigue | 75% *c* | 75% *d* | 75% *g* | 100% | 100% | 100% | 100% | 100% |
| *The size of the questionnaire is adequate to avoid fatigue.* | | | | | | | | |
| Qualification Check | 100% | 100% | 100% | 75% h | 100% | 100% | 100% | 75% k |
| *The initial qualifying question is suitable for assessing the respondent's knowledge of autonomous decision making.* | | | | | | | | |

Observations:

*a. "The first questions were challenging to understand (difficult concepts)".*
*b. "I found it challenging to understand the wording of the delegation section".*
*c. "The density of the sections causes more fatigue than the survey size".*
*d. "The small font size makes reading on a cell phone tiring".*
*e. "Since just a few variables were presented to analyze, I do not think this task is complex".*
*f. "I found it difficult to understand the wording of the delegation section".*
*g. "I found it challenging to answer the form in the ten minutes estimated".*
*h. "Participants would be better qualified through a scale measuring their degree of familiarity with AI use".*
*i. "I found it difficult to understand the wording of the delegation section".*
*j. "In the gender section, there are words written in different fonts and sizes".*

Table B.1

## Introductory Vignette, Experimental Manipulation, and Questionnaire

*Every day, decision makers of different business units, across several industries, must make decisions that can affect organizational strategies, processes, or even individuals in the workplace (e.g., promoting people, discontinuing products, exploring new market niches, sharing bonuses, to specify a few).*

*More recently, advances in artificial intelligence (AI) have enabled companies to invest in AI-based applications to automate corporate decision making, in order to improve decision accuracy, speed, and effectiveness. Currently, AI-based apps can act as decision makers (i.e., autonomous agents), since they can perform cognitive functions as humans due to their learning and adjustment capabilities.*

*Considering this context, imagine that you work for an organization that has recently adopted AI applications to improve corporate decision making. Since the company has expanded its market share, this growth has made it possible to hire new professionals in different business units. As a decision maker, you must hire a new professional for your department from a list of job applicants gathered from the market. Your department, besides you, is formed by two female and two male professionals, and one of the job requirements is to visit a subsidiary twice a month, which could also be attended through virtual meetings. The average salary for this job position is $72k/year. To select the best candidate, you will find below a summary of the characteristics that compose each applicant's profile.*

**Random Assignment: Low Complexity (control)**

APPLICANT INFORMATION

| Item | Applicant 1 | Applicant 2 | Applicant 3 |
|---|---|---|---|
| *Age* | *28* | *30* | *38* |
| *Gender* | *Female* | *Male* | *Female* |
| *Education level* | *High school* | *High school* | *Postgraduate* |
| *Expertise* | *High* | *High* | *Very High* |
| *Travel facility* | *Yes* | *Yes* | *No* |
| *Expected salary* | *$48k/year* | *$76k/year* | *$ 116k/Year* |

After carefully analyzing the information on the job candidates at your disposal to make the requested hiring decision, please inform us of your three preferred hiring options (from the best to the worst), based on your analysis (e.g., applicant 3, applicant 1, and so on).

**Random Assignment: High Complexity (treatment)**

APPLICANT INFORMATION

| *Item* | *Applicant 1* | *Applicant 2* | *Applicant 3* | *Aplicant 4* | *Aplicant 5* | *Aplicant 6* |
|---|---|---|---|---|---|---|
| *Age* | *28* | *45* | *38* | *50* | *36* | *30* |
| *Gender* | *Female* | *Male* | *Female* | *Male* | *Male* | *Female* |
| *Marital status* | *Single* | *Married* | *Married* | *Divorced* | *Single* | *Divorced* |
| *No. of children* | *0* | *2* | *2* | *3* | *0* | *1* |
| *Education level* | *High school* | *High school* | *Postgraduate* | *Graduate* | *Postgraduate* | *Graduate* |
| *Expertise* | *Average* | *High* | *Very high* | *Very high* | *High* | *High* |
| *Soft skills* | *High* | *Very high* | *High* | *Outstanding* | *Very high* | *Outstanding* |
| *Experience abroad* | *No* | *Yes* | *Yes* | *No* | *Yes* | *No* |
| *Languages spoken* | *1* | *2* | *3* | *3* | *1* | *2* |
| *Travel facility* | *Yes* | *Yes* | *No* | *No* | *Yes* | *Yes* |
| *Expected salary* | *$48k/year* | *$70k/year* | *$118k/year* | *$132k/year* | *$88k/year* | *$76k/year* |
| *Last job duration* | *2 years* | *9 years* | *10 years* | *12 years* | *4 years* | *5 years* |
| *Availability* | *immediate* | *immediate* | *1 week* | *1 week* | *immediate* | *1 week* |

**Random Assignment: High Complexity (treatment)**

APPLICANT INFORMATION

| *Item* | *Applicant 7* | *Applicant 8* | *Applicant 9* | *Aplicant 10* | *Aplicant 11* | *Aplicant 12* |
|---|---|---|---|---|---|---|
| *Age* | *32* | *42* | *36* | *48* | *34* | *29* |
| *Gender* | *Female* | *Male* | *Female* | *Male* | *Male* | *Female* |
| *Marital status* | *Single* | *Married* | *Divorced* | *Divorced* | *Single* | *Divorced* |
| *No. of children* | *0* | *1* | *4* | *2* | *0* | *2* |
| *Education level* | *High School* | *Graduate* | *Postgraduate* | *Graduate* | *High School* | *Graduate* |
| *Expertise* | *Good* | *High* | *Very High* | *Good* | *High* | *High* |
| *Soft skills* | *High* | *Very High* | *High* | *Outstanding* | *Very High* | *Outstanding* |
| *Experience abroad* | *Yes* | *Yes* | *No* | *No* | *Yes* | *Yes* |
| *Languages spoken* | *2* | *2* | *1* | *1* | *2* | *1* |
| *Travel facility* | *Yes* | *Yes* | *No* | *Yes* | *Yes* | *Yes* |
| *Expected salary* | *$ 54k/Year* | *$ 62k/Year* | *$ 45k/Year* | *$ 90k/Year* | *$ 82k/Year* | *$ 72k/Year* |
| *Last job duration* | *3 Years* | *5 Years* | *4 Years* | *7 Years* | *3 Years* | *3 Years* |
| *Availability* | *Immediate* | *10 Days* | *1 Week* | *2 Weeks* | *3 Days* | *Immediate* |

After carefully analyzing the information on the job candidates at your disposal to make the requested hiring decision, please inform us of your three preferred hiring options (from the best to the worst), based on your analysis (e.g., applicant 3, applicant 1, and so on).

**Manipulation Checks**

*How complex have you found making this hiring decision? (Far too simple → Far too complex).*

*In your opinion, how realistic is this hiring decision-making scenario? (Far too little → Far too much).*

**Intention to Delegate Decisions to AI**

Autonomous decision making means that AI-based applications can perform decision-making tasks as independent agents, without human supervision. This implies that humans must be willing to assign decision-making authority to AI, transfer decision power, grant decision control, or even empower AI to make a decision, thereby authorizing it to act on their behalf and abdicating involvement in the decision task execution. Examples of AI artifacts used for recruiting purposes are HireVue, Pymetrics, Xref, Eightfold, Jobvite, and ChatGPT, among others.

*When considering the decision to hire a job applicant, we would like to know your intention regarding allowing AI to make the hiring decision on your behalf, thereby transferring control of the decision-making process to it. Thus, please state the degree to which you agree with the following statements:*

*If I could transfer decision-making power to AI to find a solution for the hiring issue, I predict I would do it.*
*Considering I had the opportunity to grant decision control to AI to decide which applicant is the best choice, I would do it.*
*Given that I could empower AI to perform this decision task, I would do it.*
*Presuming I had the opportunity to concede decision authority to AI to find the best hiring option, I foresee that I would do it.*
*If I had the opportunity to grant AI decision-making authority to perform this hiring task, I would do it.*

**Motivation for Cognitive Effort**

*Now, we would like to know your motivation to exert cognitive effort to make this hiring decision. Thus, you would say that:*

*Right now, I would really enjoy making this hiring decision that involves coming up with solutions to problems.*
*Right now, I would rather do something that requires little thought than undertake this hiring decision task, which is sure to challenge my thinking abilities. (R)*
*Right now, I would like to avoid making this hiring decision where there is a likely chance I will have to think in depth. (R)*
*Right now, I would prefer complex to simple problems.*
*Right now, I would like to be responsible for handling this hiring decision task that requires a lot of thinking.*

**Purpose of the Experiment:** "*Please indicate what this research is about, according to your opinion".*

**Demographics:** *age, gender, education level, market sector, job title, and familiarity with AI.*

Table B.2

**Summary of Sample Descriptives**

| **Market Sector** | **%** | **Education Level** | **%** |
|---|---|---|---|
| Technology | 23.1 | Master's Degree | 46.2 |
| Education | 12.4 | Bachelor's Degree | 44.6 |
| Business Administration | 9.1 | PhD | 5.9 |
| Finance and Insurance | 9.1 | Other | 2.7 |
| Consulting | 6.5 | High School | 0.5 |
| Healthcare | 6.5 | | |
| Retail | 4.3 | **Job Title** | **%** |
| Government | 3.8 | Manager | 22.7 |
| Legal Services | 2.7 | Specialist | 14.0 |
| Manufacturing | 2.7 | Director | 11.3 |
| Marketing & Advertising | 2.7 | Supervisor | 10.8 |
| Professional Business Services | 2.7 | Consultant | 10.8 |
| Real Estate | 2.2 | Coordinator | 8.1 |
| Construction | 2.2 | Analyst | 8.1 |
| Arts & Entertainment | 1.6 | Other | 7.5 |
| Nonprofit | 1.6 | Assistant | 3.8 |
| Hospitality | 1.6 | Technician | 2.2 |
| Banking | 1.1 | | |
| Consumer Goods | 1.1 | **Familiarity with AI** | **%** |
| Energy | 0.5 | Intermediate User | 55.4 |
| Engineering | 0.5 | Basic User | 23.1 |
| Fashion & Apparel | 0.5 | Advanced User | 18.3 |
| Logistics | 0.5 | Beginner | 3.2 |
| Utilities | 0.5 | Expert | 0.0 |
| Pharmaceuticals | 0.5 | | |
| | | **Gender** | % |
| **Age** | **Years** | Female | 57.5 |
| Mean | 35.2 | Male | 41.4 |
| Standard Deviation | 10.7 | Other | 1.1 |

**Note.** The sample comprised 186 participants.

Table B.3

**Results of Scale Reliability and Internal Consistency**

| Latent Variable | No. of Items | Cronbach's Alpha | *M* | *SD* | N |
|---|---|---|---|---|---|
| Motivation for Cognitive Effort | 5 | .901 | | | |
| MOCE_1 | | | 3.93 | 1.024 | 186 |
| MOCE_2 | | | 3.46 | 1.167 | 186 |
| MOCE_3 | | | 3.65 | 1.154 | 186 |
| MOCE_4 | | | 3.42 | 1.108 | 186 |
| MOCE_5 | | | 3.58 | 1.123 | 186 |
| Intention to Delegate Decisions to AI | 5 | .955 | | | |
| IDAI_1 | | | 3.07 | 1.257 | 186 |
| IDAI_2 | | | 2.99 | 1.340 | 186 |
| IDAI_3 | | | 2.82 | 1.367 | 186 |
| IDAI_4 | | | 2.92 | 1.284 | 186 |
| IDAI_5 | | | 2.78 | 1.318 | 186 |

**Note.** *M* = Mean, *SD* = Standard Deviation, N = Number of Cases. MOCE = Motivation for Cognitive Effort, IDAI = Intention to Delegate Decisions to AI.

Table B.4

**Results of the t-tests for Manipulation - Covariates**

| Variable | Group | n | *M* | *SD* | *t* | *df* | *p* |
|---|---|---|---|---|---|---|---|
| Age | 0 | 91 | 35.505 | 10.365 | 0.328 | 184 | .743 |
| | 1 | 95 | 34.989 | 11.042 | | | |
| Gender | 0 | 91 | 1.407 | 0.516 | -0.743 | 184 | .458 |
| | 1 | 95 | 1.463 | 0.522 | | | |
| Education Level | 0 | 91 | 3.549 | 0.582 | -1.989 | 184 | .048* |
| | 1 | 95 | 3.758 | 0.821 | | | |
| Familiarity with AI | 0 | 91 | 2.802 | 0.734 | -1.558 | 184 | .121 |
| | 1 | 95 | 2.968 | 0.721 | | | |

**Note.** Data analysis conducted with SPSS.
Group 0 = control group exposed to low complexity, Group 1 = treatment group exposed to high complexity, n = sample size, *M* = mean, *SD* = standard deviation, *t* = Student's t-test statistic, *df* = degrees of freedom.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table B.5

**Results of Regression Analysis with Covariates**

| Type of Effect | β | 95% CI | *t* | *p* | $R^2$ |
|---|---|---|---|---|---|
| Direct: TCOM → MCEF | .015 | [-.252, .282] | 0.110 | .912 | .107 |
| AGE → MCEF | .011 | [-.013, .023] | 1.769 | .079 | .107 |
| GEND → MCEF | .053 | [-.203, ,310] | 0.411 | .682 | .107 |
| EDUC → MCEF | -.158 | [-.344, .027] | -1.685 | .094 | .107 |
| FAMI → MCEF | .318 | [.133, .502] | 3.392 | .001** | .107 |
| Direct: MCEF → IDAI | .119 | [-.077, .315] | 1.201 | .232 | .038 |
| AGE → IDAI | -.003 | [-.019, .014] | -0.316 | .752 | .038 |
| GEND → IDAI | -.085 | [-.426, .256] | -0.494 | .622 | .038 |
| EDUC → IDAI | .029 | [-.220, .278] | 0.230 | .819 | .038 |
| FAMI → IDAI | -.090 | [-.344, .163] | -0.702 | .484 | .038 |
| Direct: TCOM → IDAI | .410 | [.055, .766] | 2.276 | .024* | .038 |
| AGE → IDAI | -.003 | [-.019, .014] | -0.316 | .752 | .038 |
| GEND → IDAI | -.085 | [-.426, .256] | -0.494 | .622 | .038 |
| EDUC → IDAI | .029 | [-.220, .278] | 0.230 | .819 | .038 |
| FAMI → IDAI | -.090 | [-.344, .163] | -0.702 | .484 | .038 |
| Total: TCOM → IDAI | .412 | [.056, .767] | 2.284 | .024* | .030 |
| AGE → IDAI | -.001 | [-.018, .015] | -0.160 | .873 | .030 |
| GEND → IDAI | -.079 | [-.420, .262] | -0.457 | .649 | .030 |
| EDUC → IDAI | .010 | [-.237, .257] | 0.081 | .936 | .030 |
| FAMI → IDAI | -.052 | [-.298, .194] | -0.420 | .675 | .030 |
| Indirect: TCOM → MCEF → IDAI | .002 | [-.041, .049] | - | - | - |

**Note.** Regression analysis (PROCESS model 4 developed by Hayes) was conducted with SPSS 29.
TCOM = Task Complexity; MCEF = Motivation for Cognitive Effort; IDAI = Intention to Delegate Decisions to AI.
β = beta coefficient, 95% CI = confidence interval, *t* = Student's t-test statistic.
*$p < .05$. **$p < .01$. ***$p < .001$.