

Appendix

A Extensions and Robustness

Table A.1: Conjoint Analysis

	AMCE				MM	
	Est.	SE (P-Value)	SE (P-Value)	SE (P-Value)	Est.	SE
<i>Personalization</i>						
No	—	—	—	—	4.123	0.068
Yes	0.410	0.107 (0.000)	0.105 (0.000)	0.075 (0.000)	4.610	0.096
<i>Authority</i>						
Low	—	—	—	—	4.319	0.116
High	0.164	0.101 (0.105)	0.101 (0.103)	0.076 (0.039)	4.539	0.125
<i>URL</i>						
Bottom	—	—	—	—	4.338	0.088
Top	0.099	0.102 (0.332)	0.101 (0.328)	0.083 (0.245)	4.533	0.136
<i>Data Protection</i>						
Unaccentuated	—	—	—	—	4.570	0.120
Emphasized	-0.180	0.103 (0.080)	0.102 (0.077)	0.081 (0.034)	4.273	0.088
<i>Message Frame</i>						
Offer	—	—	—	—	4.233	0.090
Plea	0.248	0.106 (0.020)	0.105 (0.018)	0.079 (0.004)	4.562	0.113
Clustered SE	—	No	Respondent	Message	—	Message
N	176,000	176,000	176,000	176,000	176,000	176,000

This table presents Average Marginal Component Effects (AMCEs) and Marginal Means (MMs) from conjoint analyses. The dependent variable is coded as 100 if a respondent, who has opened the invitation message, subsequently started answering the questionnaire (0 otherwise). For the AMCEs, we show non-clustered standard errors as well as standard errors that are clustered on the level of the respondents and the message alternatives.

Table A.2: Static Experiment vs. MAB Optimization

	Static			MAB	
	(II) Mean Start. Rate (in %, >Week4)	(III) Distribution Weight (in %)	(IV) Predicted Starts	(V) Distribution Weight (in %)	(VI) Realized Starts
P0A0U0D0M0	4.259	3.125	170.85	1.335	73
P0A0U0D0M1	3.726	3.125	149.45	1.840	88
P0A0U0D1M0	3.774	3.125	151.37	0.165	8
P0A0U0D1M1	3.803	3.125	152.55	1.106	54
P0A0U1D0M0	4.153	3.125	166.61	0.488	26
P0A0U1D0M1	3.534	3.125	141.77	0.970	44
P0A0U1D1M0	3.719	3.125	149.16	1.362	65
P0A0U1D1M1	4.224	3.125	169.45	4.334	235
P0A1U0D0M0	3.843	3.125	154.15	1.743	86
P0A1U0D0M1	4.451	3.125	178.55	2.625	150
P0A1U0D1M0	3.967	3.125	159.13	2.828	144
P0A1U0D1M1	3.528	3.125	141.53	0.707	32
P0A1U1D0M0	4.526	3.125	181.54	0.534	31
P0A1U1D0M1	4.408	3.125	176.83	3.146	178
P0A1U1D1M0	2.976	3.125	119.39	0.524	20
P0A1U1D1M1	4.245	3.125	170.28	2.734	149
P1A0U0D0M0	4.412	3.125	176.97	0.795	45
P1A0U0D0M1	4.680	3.125	187.73	4.894	294
P1A0U0D1M0	4.357	3.125	174.79	1.073	60
P1A0U0D1M1	4.180	3.125	167.69	3.056	164
P1A0U1D0M0	4.134	3.125	165.82	1.376	73
P1A0U1D0M1	4.777	3.125	191.62	8.660	531
P1A0U1D1M0	4.312	3.125	172.98	3.324	184
P1A0U1D1M1	4.592	3.125	184.20	1.832	108
P1A1U0D0M0	4.430	3.125	177.70	6.032	343
P1A1U0D0M1	3.706	3.125	148.67	2.354	112
P1A1U0D1M0	4.293	3.125	172.20	2.341	129
P1A1U0D1M1	4.732	3.125	189.83	6.634	403
P1A1U1D0M0	5.087	3.125	204.05	2.558	167
P1A1U1D0M1	4.813	3.125	193.08	24.051	1,486
P1A1U1D1M0	3.886	3.125	155.88	1.504	75
P1A1U1D1M1	4.507	3.125	180.81	3.076	178
		100.00	~5,377	100.00	5,735

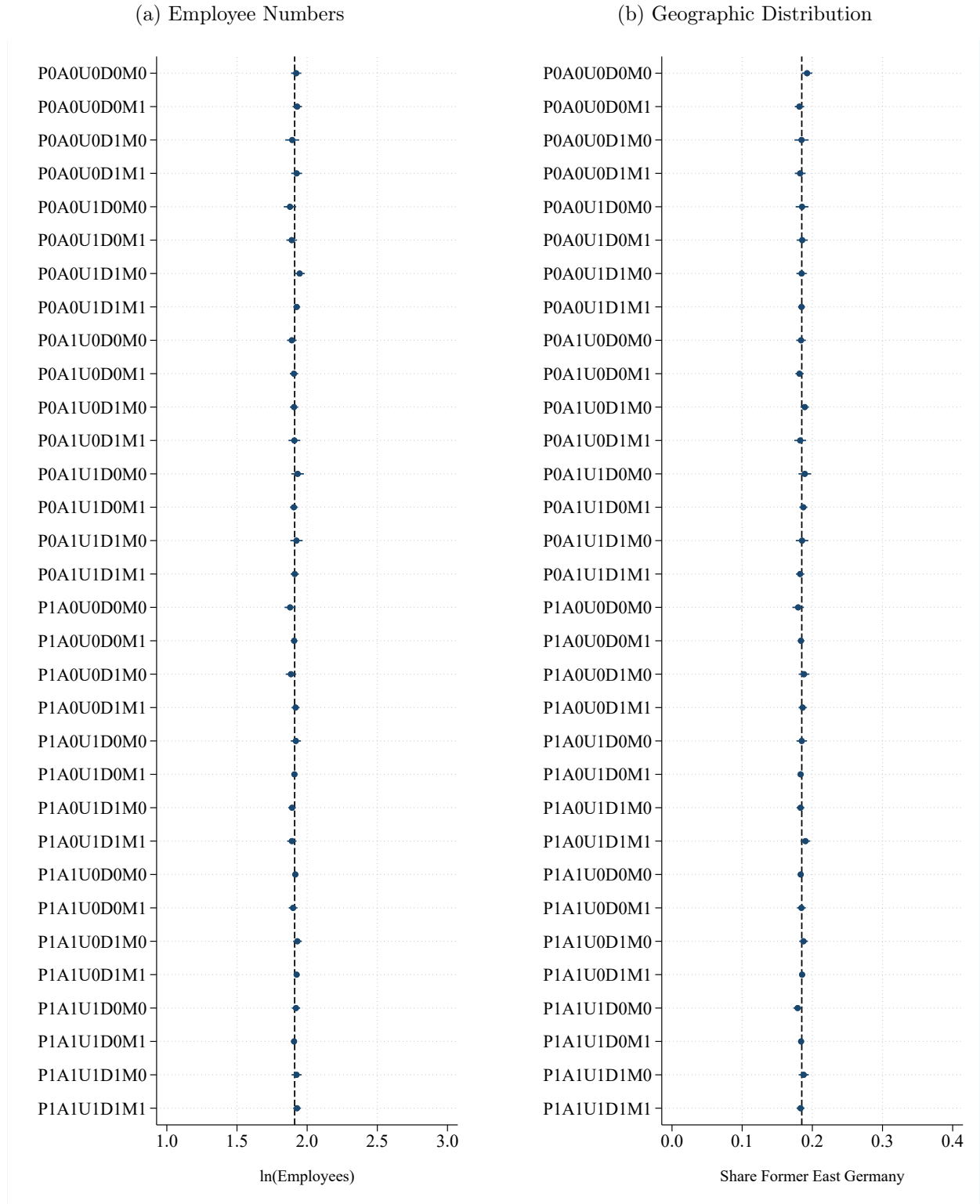
This table provides an approximation of the survey starts that have been gathered through MAB optimization relative to a static experiment with fixed and balanced randomization. Column (II) presents the mean starting rates per message alternative during the optimization phase of the experiment (week five to 15). Column (III) contains the distribution weights in a static experiment, which are constant per assumption ($\frac{1}{32}$). By contrast, column (V) shows the cumulative distribution weights that were realized through reinforcement learning following the burn-in phase, i.e., week 4. The predicted starts in column (IV) are calculated as the product of the mean starting rate (II), the distribution weight (III), and the number of opened invitation messages after the burn-in phase of the experiment (128,364).

Table A.3: Number of Employees by Response Status

	Starters			Non-Starters			Mean Diff.	
	N	Mean	SE	N	Mean	SE	T-Stat. Abs. Empl.	T-Stat. ln(Empl.)
P=1: Personalized	4,071	40.62	24.68	89,106	23.29	3.77	-0.694	-1.549
A=1: High Authority	3,573	45.32	28.13	79,036	25.43	4.57	-0.698	-0.003
U=1: Top	3,460	15.99	1.08	76,341	19.54	0.99	2.411**	-0.854
D=1: Emphasized	2,256	18.40	2.30	53,440	22.84	2.94	1.189	0.393
M=1: Plea	3,984	43.98	25.28	87,684	20.84	1.78	-0.913	-1.090

This table presents results from two-sample t-tests comparing firms that started the survey to those that did not. Employee data is available for 138,380 of the 176,000 firms that opened the invitation message. Significant differences in absolute staffing numbers between starters and non-starters are observed only when the URL is displayed at the top of the invitation message, as indicated by ** (significant at the 5% level). Since staffing numbers are highly skewed, we also log-transform the variable. In this transformed scale, no significant differences between starters and non-starters are detected. These findings suggest that the experiment did not induce a systematic selection of survey respondents.

Figure A.1: Balancing Checks



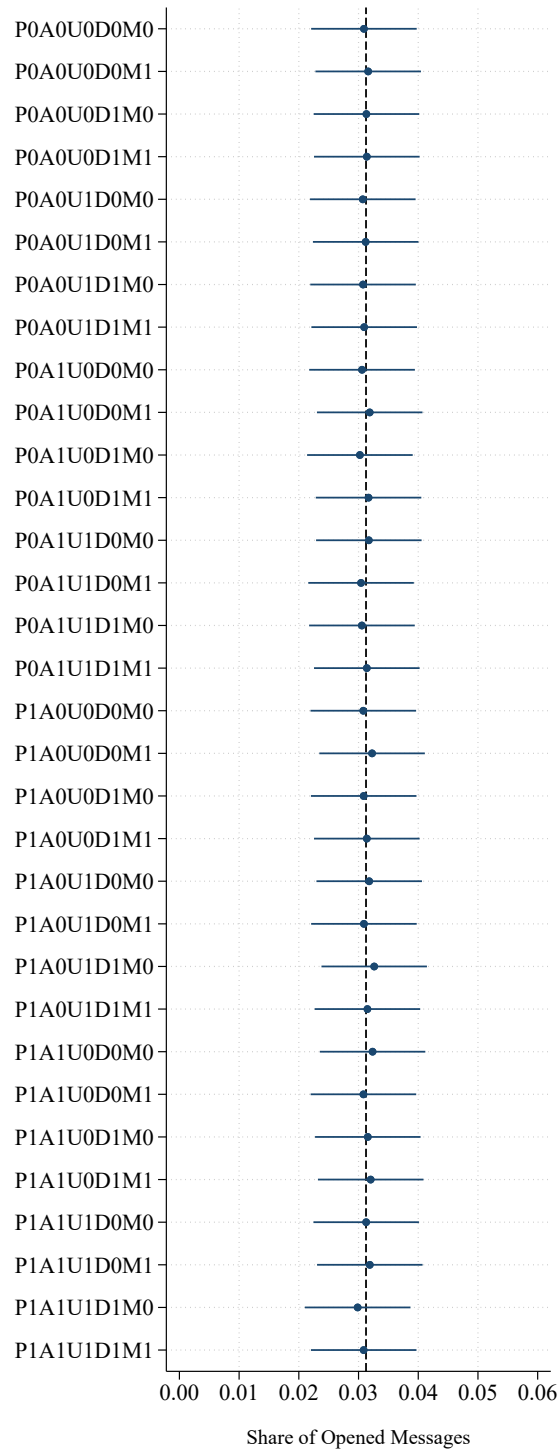
This figure evaluates the success of the randomization procedure in balancing key firm characteristics across invitation message alternatives during the experiment. The panels display (a) the average logged number of employees and (b) the proportion of invitations sent to firms located in the former East Germany for each message version. Whiskers represent 95% confidence intervals, and the black dashed line indicates the equally-weighted average across all message versions. Employee numbers are presented in logarithms to account for the high skewness in firm size across the sample, which includes both private and public firms. Statistical tests reveal no significant differences in staffing numbers or geographic distribution across the 32 message versions, supporting the validity of the randomization procedure.

Figure A.2: Spatial Distribution of Sent Invitations



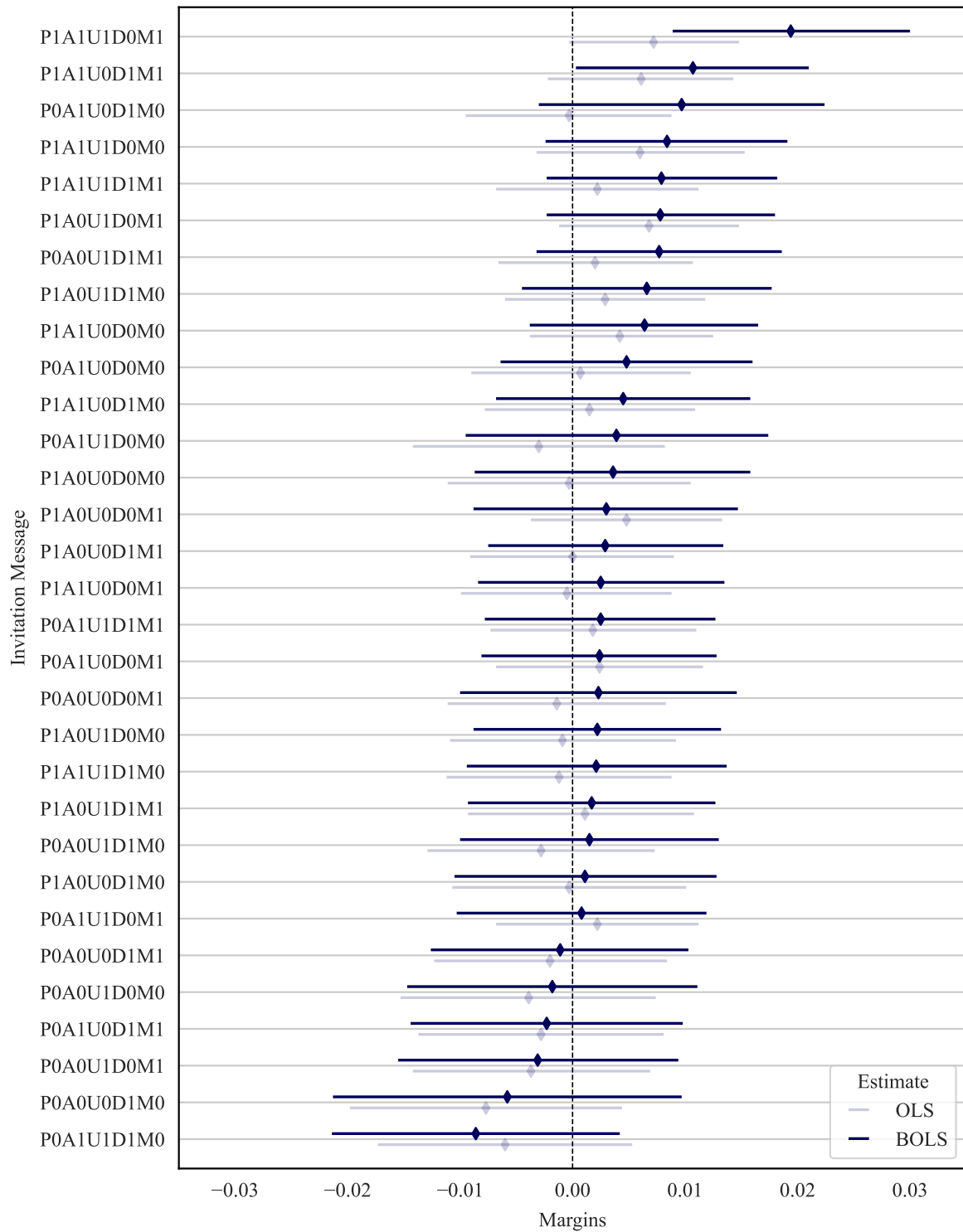
The maps in this figure display the spatial distributions of survey invitations sent to businesses located in Germany for nine selected message variants. The message versions are ranked by their cumulative distribution share in the experiment and shown in increments of four, also mapping out the lowest-ranked version (P0A0U0D1M0). Each blue dot represents a firm that received a particular invitation message. As the cumulative distribution share increases, more firms are reached, particularly in densely populated areas. However, the spatial pattern remains consistent, indicating no specific geographic clustering for any message variant.

Figure A.3: Share of Opened Invitations per Message Variant



This figure shows the proportion of opened survey invitations attributed to each individual message alternative. The analysis is based on data from the burn-in phase of the experiment, during which all message variants were distributed at equal rates. If specific message characteristics had affected the likelihood of invitations being opened, notable differences in the share of opened invitations across message alternatives would be expected. However, visual inspection and a statistical test for equality of the number of observations across message alternatives indicate no such differences, alleviating concerns about imbalances in opening rates based on message attributes.

Figure A.4: Predicted Difference in Starting Rates using OLS and Batched OLS



This figure illustrates margins, i.e., the difference in expected starting rates between an invitation message alternative and the reference message (P0A0U0D0M0), estimated using Ordinary Least Squares (OLS) and batched OLS (BOLS) as proposed by Zhang et al. (2020) and implemented in Stata by Kemper and Rostam-Afschar (2024). OLS predictions are displayed in light blue, while BOLS predictions are shown in dark blue. Whiskers represent 95% confidence intervals. The starting rate reflects the percentage of firms that begin the survey after opening the invitation email. While results from OLS and BOLS are generally comparable, BOLS often suggests slightly higher rewards than OLS.

B Invitation Message Alternatives

Figure B.1: Invitation Message P0A0U0D0M0 (Original Language, German)

Sehr geehrte Damen und Herren,

wir möchten **Sie** herzlich zur Teilnahme an der aktuellen Unternehmensbefragung durch das [German Business Panel](#) einladen. Im Fokus der Erhebung stehen sowohl aktuelle Themen (z.B. die betriebswirtschaftlichen Folgen des Russland-Ukraine-Kriegs) als auch Fragen zu den Effekten von Regulierung in den Bereichen der Rechnungslegung und Unternehmensbesteuerung.

Ihre Sicht der Dinge ist ausgesprochen wichtig für die Forschung! Denn Ihre Angaben helfen, die Wirkungen und Nebenwirkungen politischer Maßnahmen auf Unternehmen in Deutschland zu verstehen. Die Bearbeitungszeit beträgt ca. 5 bis 15 Minuten.

Haben Sie noch Fragen?

Sie erreichen uns unter der Telefonnummer +49 (0) 621 181 3286 oder per Mail (gbpinfo@mail.uni-mannheim.de). Weitere Informationen sowie Ergebnisse bisheriger Befragungen finden Sie auf unserer Projektseite <https://gbpanel.org/>. Ihre Angaben werden vertraulich behandelt und die Forschungsergebnisse anonymisiert verwendet.

Sie können die Befragung unter folgendem Link starten:

[URL-LINK](#)

Wir danken Ihnen für Ihre Teilnahme!

Mit freundlichen Grüßen

Jannis Bischof, Dirk Simons, Caren Sureth-Sloane, Johannes Voget
Die wissenschaftliche Leitung des German Business Panels

Sollten Sie nicht teilnehmen wollen, klicken Sie bitte auf folgenden Link:

[URL-Link](#)

This figure shows the invitation message P0A0U0D0M0 in its original German form. The highlighted passages indicate treatment characteristics that are altered in other message variants. This version is unpersonalized (green), has a low-authority sender (yellow), provides the participation link at the bottom (red), does not emphasize data protection (purple), and offers the opportunity to share opinions (grey). The message containing the exact opposite treatment specifications is presented in Appendix B.2. The English translation of this message is provided in Appendix B.3.

Figure B.2: Invitation Message P1A1U1D1M1 (Original Language, German)

Sehr geehrte Damen und Herren,

wir bitten Sie – für Ihr Unternehmen [Unternehmensname] – um Ihre Teilnahme an der aktuellen Unternehmensbefragung durch das [German Business Panel](#). Im Fokus der Erhebung stehen sowohl aktuelle Themen (z.B. die betriebswirtschaftlichen Folgen des Russland-Ukraine-Kriegs) als auch Fragen zu den Effekten von Regulierung in den Bereichen der Rechnungslegung und Unternehmensbesteuerung.

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Ihre Sicht der Dinge ist ausgesprochen wichtig für die Forschung! Nur mit Ihren Angaben können wir dazu beitragen, dass Wirkungen und Nebenwirkungen politischer Maßnahmen auf Unternehmen in Deutschland verstanden werden. Die Bearbeitungszeit beträgt ca. 5 bis 15 Minuten.

Informationen zum Datenschutz

Ihre Angaben werden streng vertraulich nach der EU-Datenschutz-Grundverordnung (DSGVO) behandelt. Die Forschungsergebnisse werden ausschließlich in anonymisierter Form verwendet.

Haben Sie noch Fragen?

Sie erreichen uns unter der Telefonnummer +49 (0) 621 181 3286 oder per Mail (gbpinfo@mail.uni-mannheim.de). Weitere Informationen sowie Ergebnisse bisheriger Befragungen finden Sie auf unserer Projektseite <https://gbpanel.org/>.

Bitte helfen Sie mit Ihrer Teilnahme!

Mit freundlichen Grüßen

Prof. Dr. Dr. h.c. Dr. h.c. Caren Sureth-Sloane (Universität Paderborn), Prof. Dr. Jannis Bischof, Prof. Dr. Dirk Simons, Prof. Dr. Johannes Voget (alle Universität Mannheim)

Die wissenschaftliche Leitung des German Business Panels

Sollten Sie nicht teilnehmen wollen, klicken Sie bitte auf folgenden Link:

[URL-Link](#)

This figure shows the invitation message P1A1U1D1M1 in its original German form. The highlighted passages indicate treatment characteristics that are altered in other message variants. This version is personalized (green), has a high-authority sender (yellow), provides the participation link near the top (red), emphasizes data protection (purple), and pleas for help (grey). The English translation of this message is provided in Appendix B.4.

Figure B.3: Invitation Message P0A0U0D0M0 (English Translation)

Dear Sir or Madam,

we would like to cordially invite you to participate in the current business survey conducted by the German Business Panel. The survey focuses both on current topics (e.g., the economic consequences of the Russia-Ukraine war) as well as on questions about the effects of regulation in the areas of accounting and corporate taxation.

Your perspective is extremely important for research! The information you provide helps us to understand the effects and side effects of political measures on businesses in Germany. The processing time is approx. 5 to 15 minutes.

Do you have any questions?

You can reach us by phone at +49 (0) 621 181 3286 or by email (gbpinfo@mail.uni-mannheim.de). Further information and the results of previous surveys can be found on our project page: <https://gbpanel.org/>. Your responses will be treated confidentially, and the research results will be used anonymously.

You can start the survey via the following link:

URL-LINK

Thank you for your participation!

Sincerely,

Jannis Bischof, Dirk Simons, Caren Sureth-Sloane, Johannes Voget
The scientific board of the German Business Panel

Should you not wish to participate, please click on the following link:

URL-Link

This figure shows the invitation message P0A0U0D0M0 in its English translation. The highlighted passages indicate treatment characteristics that are altered in other message variants. This version is unpersonalized (green), has a low-authority sender (yellow), provides the participation link at the bottom (red), does not emphasize data protection (purple), and offers the opportunity to share opinions (grey).

Figure B.4: Invitation Message P1A1U1D1M1 (English Translation)

Dear Sir or Madam,

we ask you – on behalf of your business [business name] – for participation in the current business survey conducted by the German Business Panel. The survey focuses both on current topics (e.g., the economic consequences of the Russia-Ukraine war) as well as on questions about the effects of regulation in the areas of accounting and corporate taxation.

You can start the survey via the following link:

URL-LINK

Your perspective is extremely important for research! Only with your information can we help to understand the effects and side effects of political measures on businesses in Germany. The processing time is approx. 5 to 15 minutes.

Do you have any questions?

You can reach us by phone at +49 (0) 621 181 3286 or by email (gbpinfo@mail.uni-mannheim.de). Further information and the results of previous surveys can be found on our project page: <https://gbpanel.org/>.

Information on data protection

Your information will be treated strictly confidentially in accordance with the EU General Data Protection Regulation (DSGVO). The research results will be used exclusively in anonymized form.

Please help by participating!

Sincerely,

Prof. Dr. Dr. h.c. Dr. h.c. Caren Sureth-Sloane (University of Paderborn), Prof. Dr. Jannis Bischof, Prof. Dr. Dirk Simons, Prof. Dr. Johannes Voget (all University of Mannheim)

The scientific board of the German Business Panel

Should you not wish to participate, please click on the following link:

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