Supplementary Materials

Pro tip: Screen-based payment methods increase negative feelings in consumers but do not increase tip sizes

Francine W. Goh, Alexandria C. Jungck, & Jeffrey R. Stevens University of Nebraska-Lincoln

Table S1. Participant Demographic Information

		Study 1		Study 2
	N	$Mean \pm SD$	N	Mean \pm SD
Gender				
Women	177		26	
Men	56		34	
Unspecified	3		-	
Age	236	19.32 ± 1.77	60	39.87 ± 13.10
Ethnicity				
American Indian/Alaskan Native	2		-	
Asian	15		5	
Black/African American	5		7	
Hispanic	17		2	
White/European American	177		44	
Biracial/Multiracial	17		2	
Unspecified	3		-	

Table S2. Bayes Factor Interpretations According to Wagenmakers et al. (2018)

Bayes factor	Interpretation
> 100	Extreme evidence for H ₁
30 - 100	Very strong evidence for H ₁
10 - 30	Strong evidence for H ₁
3 - 10	Moderate evidence for H ₁
1 - 3	Anecdotal evidence for H ₁
1/3 - 1	Anecdotal evidence for H ₀
1/10 - 1/3	Moderate evidence for H ₀
1/30 - 1/10	Strong evidence for H ₀
1/100 - 1/30	Very strong evidence for H ₀
< 1/100	Extreme evidence for H ₀

Table S3. Descriptive Statistics for Tip Sizes

	S	Study 1		tudy 2
	N	$Mean \pm SD$	N	$Mean \pm SD$
Barista Condition				
Absent	235	0.33 ± 0.33	32	0.47 ± 0.38
Present	233	0.47 ± 0.36	28	0.43 ± 0.43
Payment Method				
Tip Screen	231	0.43 ± 0.35	21	0.42 ± 0.30
Receipt	234	0.39 ± 0.38	20	0.46 ± 0.45
Cash	235	0.38 ± 0.39	19	0.47 ± 0.45
Mean Empathy Score	213	2.73 ± 0.57	60	3.10 ± 0.73

 $Table \ S4. \ Payment \ Method \ and \ Barista \ Presence \ Model \ Comparison \ for \ Study \ 1$

			Model fit			Likelihood ratio tests				
Model specification	Random effects	Fixed effects	AIC	BIC	logLik	df	v^2	df	p-value	BF
Random effect models										
Participant	(1 subject_nr)	-	1034.31	1049.95	-514.15	3				
Participant + barista presence slope	(1 + barista subject_nr)	-	1026.44	1052.51	-508.22	5	11.87	2	0.003	
Participant + payment type slope	(1 + payment_type subject_nr)	-	995.53	1037.24	-489.77	8	36.91	3	0.000	
Participant + barista presence slope + payment type slope	(1 + barista subject_nr) + (1 + payment_type subject_nr)	-	957.44	1014.79	-467.72	11	44.09	3	0.000	
Fixed effect models										
RE only	(1 + barista subject_nr) + (1 + payment_type subject_nr)	-	957.44	1014.79	-467.72	11				
Barista presence	(1 + barista subject_nr) + (1 + payment_type subject_nr)	barista	899.30	961.86	-437.65	12	60.14	1	0.000	> 100
Payment type	(1 + barista subject_nr) + (1 + payment_type subject_nr)	payment_type	961.13	1028.91	-467.57	13	0.00	1	1.000	0.000
Barista presence * payment type	(1 + barista subject_nr) + (1 + payment_type subject_nr)	barista * payment_type	906.43	989.85	-437.21	16	60.71	3	0.000	> 100

Table S5. Empathy and Barista Presence Model Comparison for Study 1

			Model fit			Likelihood ratio tests				
Model specification	Random effects	Fixed effects	AIC	BIC	logLik	df	v^2	df	p-value	BF
Random effect models										
Empty	1	-	297.51	305.62	-146.76	2				
Participant	(1 subject_nr)	-	176.27	188.44	-85.14	3	123.24	1	0.000	
Participant + EQ	(1 subject_nr) + (1 EQ mean)	-	178.27	194.49	-85.14	4	0	1	1.000	
Fixed effect models										
RE only	(1 subject_nr)	-	176.27	188.44	-85.14	3				
Barista presence	(1 subject_nr)	barista	122.21	138.43	-57.11	4	56.06	1	0.000	> 100
EQ	(1 subject_nr)	EQ_mean	176.38	192.60	-84.19	4	0	0	1.000	0.125
Barista presence + EQ	(1 subject_nr)	barista + EQ_mean	122.32	142.59	-56.16	5	56.06	1	0.000	> 100
Barista presence * EQ	(1 subject_nr)	barista * EQ_mean	123.92	148.24	-55.96	6	0.40	1	0.525	> 100

Table S6. Within-subjects ANOVA results for Study 1

	ANOVA test of the effects of barista presence and payment type on tip size						
	\overline{F}	df	p				
Barista presence	5.40	(1, 1346)	0.02				
Payment type	0.02	(2, 1346)	0.98				
Barista presence * payment type	0.05	(2, 1346)	0.95				

Table S7. Between-subjects ANOVA results for Study 1 (single tipping condition)

	ANOVA test of the effects of barista presence and payment type on tip size					
	\overline{F}	df	p			
Barista presence	0.28	(1, 221)	0.60			
Payment type	1.44	(2, 221)	0.24			
Barista presence * payment type	1.92	(2, 221)	0.15			

Table S8. Between-subjects ANOVA results for Study 2

	ANOVA test of the effects of barista presence and payment type on tip size					
	\overline{F}	df	p			
Barista presence	0.20	(1, 54)	0.66			
Payment type	0.07	(2, 54)	0.93			
Barista presence * payment type	5.02	(2, 54)	0.01			