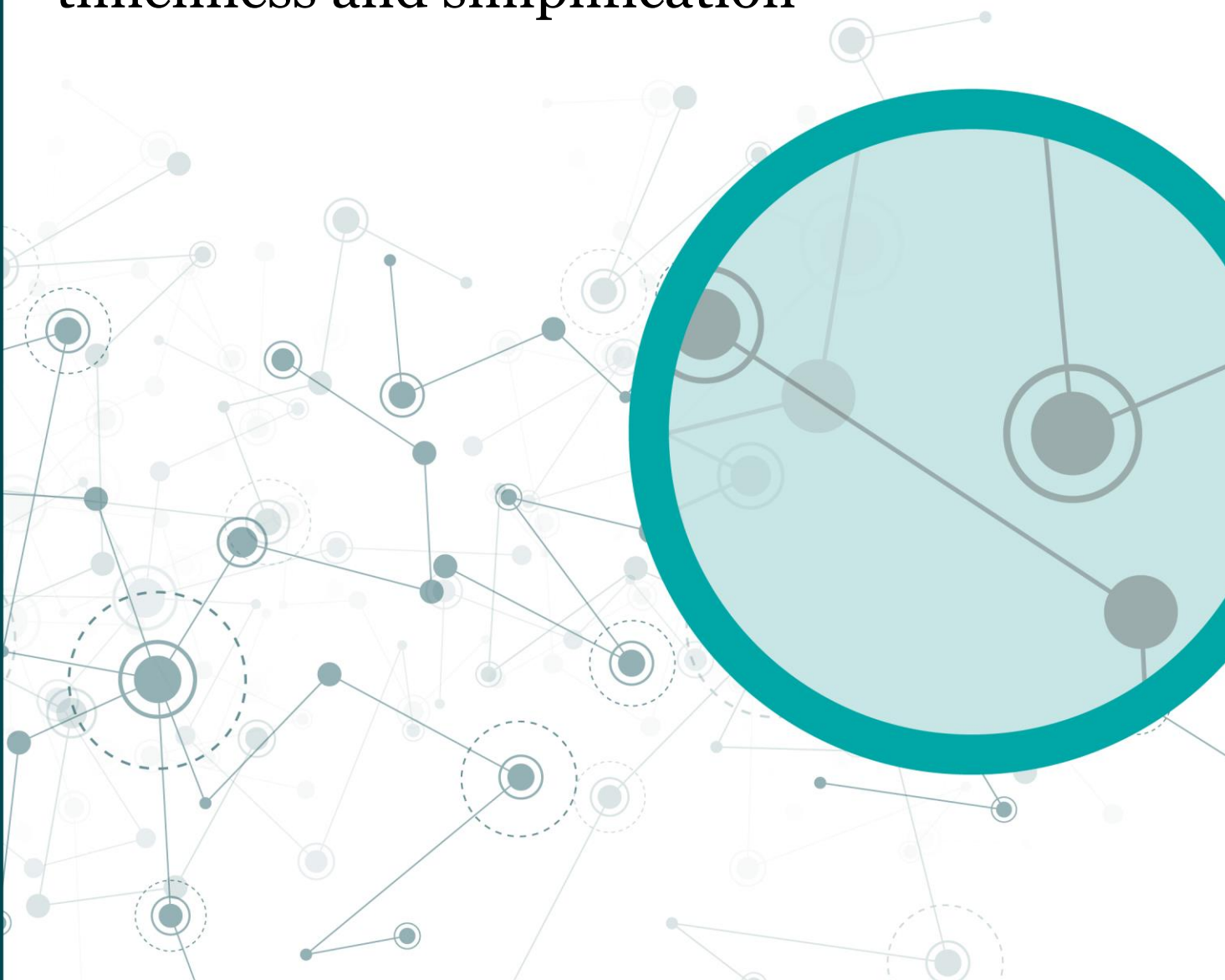


Research Note: Annex

31 July 2025

Annex. Digital design for financial products and services: Consumer impact of sludge, deceptive design, timeliness and simplification



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Annex 1: Balance Checks

Balance Checks

	Control	Navigation Bar Click	Link Click	Drip Information	Simplification	Timely Simplification	Summary	Drop outs
Participants	1027	966	998	969	1035	1050	6045	620
Age (mean)	36.26	36.31	35.75	35.65	35.55	35.42	35.82	33.61
Female	65.24%	63.87%	63.43%	62.54%	62.03%	60.19%	62.86%	68.17%
Low income brackets (< £24,000)	44.89%	47.83%	50.2%	49.64%	49.28%	48.76%	48.42%	58.12%
Medium income brackets	42.36%	40.37%	39.18%	39.42%	38.36%	38.48%	39.69%	30.49%
High income brackets (> £48,000)	10.81%	8.7%	8.22%	7.53%	9.28%	10.29%	9.16%	6.53%
Monthly income (median)	1650£	1560£	1500£	1500£	1500£	1600£	1600£	-
Monthly expenditures (median)	1200£	1100£	1000£	1100£	1100£	1100£	1100£	-
Difficulty managing finances	34.96%	31.26%	32.57%	34.47%	34.3%	33.71%	33.56%	-
Region: East Midlands	8.67%	7.66%	8.62%	8.98%	10.14%	8.19%	8.72%	-
Region: Greater London	13.05%	13.46%	12.02%	13.62%	11.4%	11.9%	12.56%	-
Region: North West England	10.81%	9.94%	11.22%	10.53%	13.33%	10.57%	11.08%	-
Region: Scotland	6.91%	9.42%	7.92%	8.57%	8.02%	10.19%	8.5%	-
Region: South East England	13.92%	14.91%	14.43%	13.83%	13.43%	12.48%	13.81%	-
Rented home	47.91%	45.24%	47.39%	47.37%	45.89%	44.57%	46.39%	-
Owned home (with mortgage)	29.99%	31.06%	28.96%	29.21%	30.14%	31.05%	30.07%	-
Married	33.98%	34.16%	28.56%	34.67%	32.17%	31.33%	32.46%	-
Single	39.73%	39.96%	43.09%	38.49%	42.03%	43.43%	41.16%	-

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No dependants	53.75%	56%	56.71%	56.35%	55.65%	56.48%	55.81%	-
Full-time employed	60.56%	55.28%	55.11%	54.08%	56.91%	56.67%	56.48%	-
Self-employed	7.3%	8.28%	8.22%	7.12%	7.15%	7.05%	7.51%	-
Unemployed	5.36%	5.59%	5.71%	7.22%	5.6%	7.33%	6.14%	-
Loan for 1 week	7.59%	5.18%	4.91%	4.75%	8.7%	7.81%	6.53%	-
Loan for 1 month	22.2%	18.22%	19.94%	18.99%	22.13%	23.33%	20.86%	-
Loan for 4 months or more	25.12%	28.67%	29.06%	30.34%	21.84%	23.24%	26.29%	-
Loan for Appliance/TV/Computer	29.11%	31.68%	31.66%	31.99%	29.47%	28.95%	30.44%	-
Loan for Holiday	9.74%	8.7%	8.62%	7.84%	7.44%	10.38%	8.8%	-
Financial literacy (0-3)	2.05	2.09	2.07	2.11	2.12	2.11	2.09	-
Accurate confidence	49.66%	47.93%	46.49%	47.99%	52.46%	52.67%	49.59%	-
Overconfident	15.48%	12.84%	14.33%	16.41%	14.11%	15.33%	14.76%	-
Completed on mobile	51.41%	45.96%	46.79%	46.75%	45.7%	45.71%	47.06%	64.66%
Time spent on instructions	46.59s	42.59s	45.96s	47.15s	45.54s	42.02s	44.92s	-
Time spent on landing page	49.53s	31.13s	29.84s	29.6s	48.38s	43.74s	36.73s	-
Time spent on comprehension questions	192.65s	191.55s	192.72s	243.12s	195.18s	203.91s	200.76s	-
Saw obscured information	0%	4.97%	14.53%	0%	0%	0%	3.19%	-
Attrition rate	9.44%	8.95%	10.77%	9.38%	8.89%	8.46%	9.3%	100%

Annex 2: Results Tables

Results Tables

Table B1. Primary Analysis – Comprehension of repayments

	Comprehension:			
	Likelihood of understanding repayments			
	(1)	(2)	(3)	(4)
<i>Obscured Information - Ref: Control</i>				
Navigation bar	-0.128*** (0.018)	-0.129*** (0.018)	-0.128*** (0.018)	-0.129*** (0.018)
Link	-0.112*** (0.018)	-0.109*** (0.018)	-0.112*** (0.018)	-0.109*** (0.018)
Drip information	0.004 (0.020)	0.003 (0.020)	0.004 (0.020)	0.003 (0.020)
Simplification	0.082*** (0.020)	0.079*** (0.020)	0.082*** (0.020)	0.079*** (0.020)
Timely simplification	0.135*** (0.020)	0.133*** (0.020)	0.135*** (0.020)	0.133*** (0.020)
Age		-0.001 (0.0005)		-0.001 (0.0005)
<i>Gender - Ref: Female</i>				
Male		-0.060*** (0.012)		-0.060*** (0.012)
Non-binary		0.065 (0.075)		0.065 (0.075)
Prefer not to say		0.218 (0.110)		0.218* (0.110)
<i>Income bracket - Ref: Less than £12,000</i>				
£12,000 - £24,000		-0.023 (0.016)		-0.023 (0.016)
£24,000 - £36,000		-0.034 (0.017)		-0.034* (0.017)
£36,000 - £48,000		0.003 (0.021)		0.003 (0.021)
£48,000 - £60,000		0.005 (0.027)		0.005 (0.027)
£60,000 - £72,000		0.006 (0.043)		0.006 (0.043)
More than £72,000		-0.026 (0.045)		-0.026 (0.045)
Prefer not to say		0.031 (0.037)		0.031 (0.037)
<i>Past financial difficulties - Ref: No</i>				
Yes		-0.006 (0.012)		-0.006 (0.012)
Don't know / Prefer not to say		-0.0004 (0.022)		-0.0004 (0.022)
Financial literacy		0.042*** (0.008)		0.042*** (0.008)
<i>Confidence in literacy - Ref: Accurate</i>				
Overconfident		-0.023 (0.018)		-0.023 (0.018)
Underconfident		-0.045** (0.013)		-0.045*** (0.013)
Constant	0.264*** (0.014)	0.254*** (0.029)	0.264*** (0.014)	0.254*** (0.029)

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Observations	6,045	6,045	6,045	6,045
R ²	0.046	0.059	0.046	0.059
Adjusted R ²	0.046	0.055	0.046	0.055
Residual Std. Error	0.430 (df = 6039)	0.428 (df = 6023)	0.430 (df = 6039)	0.428 (df = 6023)
F Statistic	58.867*** (df = 5; 6039)	17.868*** (df = 21; 6023)	58.867*** (df = 5; 6039)	17.868*** (df = 21; 6023)

Note:

* p<0.05; ** p<0.01; *** p<0.001

Models 1 and 2 use the Bonferroni adjusted p-values, whilst models 3 and 4 use the unadjusted p-values

Table B2. Primary Analysis – Comprehension of borrowing amount

	Comprehension:			
	Likelihood of understanding borrowing amount			
	(1)	(2)	(3)	(4)
<i>Obscured Information - Ref: Control</i>				
Navigation bar	-0.114*** (0.022)	-0.113*** (0.022)	-0.114*** (0.022)	-0.113*** (0.022)
Link	-0.060* (0.022)	-0.057* (0.022)	-0.060** (0.022)	-0.057** (0.022)
Drip information	0.085*** (0.022)	0.083*** (0.022)	0.085*** (0.022)	0.083*** (0.022)
Simplification	-0.006 (0.022)	-0.008 (0.022)	-0.006 (0.022)	-0.008 (0.022)
Timely simplification	0.025 (0.022)	0.023 (0.022)	0.025 (0.022)	0.023 (0.022)
Age		0.0004 (0.001)		0.0004 (0.001)
<i>Gender - Ref: Female</i>				
Male		-0.036* (0.014)		-0.036** (0.014)
Non-binary		-0.026 (0.083)		-0.026 (0.083)
Prefer not to say		-0.010 (0.117)		-0.010 (0.117)
<i>Income bracket - Ref: Less than £12,000</i>				
£12,000 - £24,000		-0.001 (0.019)		-0.001 (0.019)
£24,000 - £36,000		-0.003 (0.019)		-0.003 (0.019)
£36,000 - £48,000		-0.002 (0.024)		-0.002 (0.024)
£48,000 - £60,000		0.026 (0.031)		0.026 (0.031)
£60,000 - £72,000		-0.049 (0.048)		-0.049 (0.048)
More than £72,000		-0.014 (0.051)		-0.014 (0.051)
Prefer not to say		-0.001 (0.041)		-0.001 (0.041)
<i>Past financial difficulties - Ref: No</i>				
Yes		0.008 (0.014)		0.008 (0.014)
Don't know / Prefer not to say		-0.019 (0.026)		-0.019 (0.026)
Financial literacy		0.065*** (0.009)		0.065*** (0.009)
<i>Confidence in literacy - Ref: Accurate</i>				

Overconfident		0.033 (0.021)		0.033 (0.021)
Underconfident		-0.042* (0.015)		-0.042** (0.015)
Constant	0.477*** (0.016)	0.350*** (0.034)	0.477*** (0.016)	0.350*** (0.034)
Observations	6,045	6,045	6,045	6,045
R ²	0.015	0.025	0.015	0.025
Adjusted R ²	0.015	0.022	0.015	0.022
Residual Std. Error	0.495	0.493	0.495	0.493
	(df = 6039)	(df = 6023)	(df = 6039)	(df = 6023)
F Statistic	18.848***	7.418***	18.848***	7.418***
	(df = 5; 6039)	(df = 21; 6023)	(df = 5; 6039)	(df = 21; 6023)

Note:

*p<0.05; **p<0.01; ***p<0.001

Models 1 and 2 use the Bonferroni adjusted p-values, whilst models 3 and 4 use the unadjusted p-values

Table B3. Primary Analysis – Likelihood of calculating interest correctly

	Comprehension:			
	Likelihood of calculating interest correctly			
	(1)	(2)	(3)	(4)
<i>Obscured Information - Ref: Control</i>				
Navigation bar	-0.011 (0.022)	-0.011 (0.021)	-0.011 (0.022)	-0.011 (0.021)
Link	-0.019 (0.022)	-0.012 (0.021)	-0.019 (0.022)	-0.012 (0.021)
Drip information	0.039 (0.022)	0.029 (0.021)	0.039 (0.022)	0.029 (0.021)
Simplification	0.059* (0.022)	0.043 (0.021)	0.059** (0.022)	0.043* (0.021)
Timely simplification	0.058* (0.022)	0.040 (0.020)	0.058** (0.022)	0.040* (0.020)
Age		-0.001 (0.001)		-0.001* (0.001)
<i>Gender - Ref: Female</i>				
Male		-0.035* (0.013)		-0.035** (0.013)
Non-binary		0.122 (0.080)		0.122 (0.080)
Prefer not to say		0.040 (0.117)		0.040 (0.117)
<i>Income bracket - Ref: Less than £12,000</i>				
£12,000 - £24,000		-0.067*** (0.018)		-0.067*** (0.018)
£24,000 - £36,000		-0.045 (0.018)		-0.045* (0.018)
£36,000 - £48,000		-0.046 (0.023)		-0.046* (0.023)
£48,000 - £60,000		0.001 (0.030)		0.001 (0.030)
£60,000 - £72,000		0.008 (0.046)		0.008 (0.046)
More than £72,000		-0.069 (0.050)		-0.069 (0.050)
Prefer not to say		-0.033 (0.038)		-0.033 (0.038)

Past financial difficulties - Ref: No

Yes		-0.023 (0.013)		-0.023 (0.013)
Don't know /		-0.027 (0.024)		-0.027 (0.024)
Prefer not to say				
<i>Financial literacy</i>		0.198*** (0.008)		0.198*** (0.008)
<i>Confidence in literacy - Ref: Accurate</i>				
Overconfident		0.013 (0.019)		0.013 (0.019)
Underconfident		-0.194*** (0.014)		-0.194*** (0.014)
<i>Constant</i>	0.415*** (0.015)	0.176*** (0.031)	0.415*** (0.015)	0.176*** (0.031)
Observations	6,045	6,045	6,045	6,045
R ²	0.004	0.117	0.004	0.117
Adjusted R ²	0.003	0.114	0.003	0.114
Residual Std. Error	0.495 (df = 6039)	0.467 (df = 6023)	0.495 (df = 6039)	0.467 (df = 6023)
F Statistic	5.089*** (df = 5; 6039)	37.879*** (df = 21; 6023)	5.089*** (df = 5; 6039)	37.879*** (df = 21; 6023)

Note:

*p<0.05; **p<0.01; ***p<0.001

Models 1 and 2 use the Bonferroni adjusted p-values, whilst models 3 and 4 use the unadjusted p-values

Table B4. Secondary Analysis – Likelihood of accepting the credit quote

	Accepting quote:	
	Likelihood of accepting the credit quote	
	(1)	(2)
<i>Obscured Information - Ref: Control</i>		
Navigation bar	-0.028 (0.022)	-0.025 (0.022)
Link	-0.014 (0.022)	-0.020 (0.022)
Drip information	-0.048* (0.022)	-0.049* (0.022)
Simplification	0.016 (0.022)	0.016 (0.021)
Timely simplification	0.036 (0.022)	0.032 (0.021)
Age		-0.005*** (0.001)
<i>Gender - Ref: Female</i>		
Male		0.122*** (0.014)
Non-binary		-0.066 (0.087)
Prefer not to say		-0.075 (0.102)
<i>Income bracket - Ref: Less than £12,000</i>		
£12,000 - £24,000		0.063*** (0.018)
£24,000 - £36,000		0.038* (0.019)
£36,000 - £48,000		0.016 (0.023)

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£48,000 - £60,000		0.044 (0.031)
£60,000 - £72,000		0.075 (0.047)
More than £72,000		0.064 (0.050)
Prefer not to say		0.004 (0.041)
<i>Past financial difficulties - Ref: No</i>		
Yes		0.052*** (0.014)
Don't know / Prefer not to say		-0.026 (0.026)
<i>Financial literacy</i>		
<i>Confidence in literacy - Ref: Accurate</i>		-0.073*** (0.009)
Overconfident		0.028 (0.021)
Underconfident		0.065*** (0.014)
Constant	0.544*** (0.016)	0.770*** (0.033)
Observations	6,045	6,045
R ²	0.003	0.049
Adjusted R ²	0.002	0.045
Residual Std. Error	0.498 (df = 6039)	0.487 (df = 6023)
F Statistic	3.704** (df = 5; 6039)	14.664*** (df = 21; 6023)
Note: *p<0.05; **p<0.01; ***p<0.001		

Table B5. Secondary Analysis – Borrowing Amount Applied For

	Borrowing amount:	
	Borrowing amount applied for (1)	(2)
<i>Obscured Information - Ref: Control</i>		
Navigation bar	4.415 (6.578)	5.055 (6.544)
Link	9.584 (6.364)	10.490 (6.349)
Drip information	6.015 (6.513)	7.324 (6.487)
Simplification	-7.887 (6.504)	-7.140 (6.466)
Timely simplification	-16.850** (6.453)	-16.476* (6.418)
Age		0.453** (0.166)
<i>Gender - Ref: Female</i>		
Male		4.884 (4.075)
Non-binary		-47.124 (24.352)
Prefer not to say		-74.484 (40.192)
<i>Income bracket - Ref: Less than £12,000</i>		
£12,000 - £24,000		16.172** (5.498)
£24,000 - £36,000		19.651*** (5.627)
£36,000 - £48,000		20.754** (7.087)

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£48,000 - £60,000		25.805** (9.054)
£60,000 - £72,000		34.779* (13.602)
More than £72,000		29.269 (15.617)
Prefer not to say		-2.346 (11.984)
<i>Past financial difficulties - Ref: No</i>		
Yes		-4.715 (4.051)
Don't know / Prefer not to say		-32.941*** (7.847)
<i>Financial literacy</i>		
<i>Confidence in literacy - Ref: Accurate</i>		6.167* (2.679)
Overconfident		0.370 (6.233)
Underconfident		-5.579 (4.243)
Constant	345.326*** (4.610)	304.858*** (9.898)
Observations	6,045	6,045
R ²	0.004	0.018
Adjusted R ²	0.003	0.015
Residual Std. Error	145.043 (df = 6039)	144.181 (df = 6023)
F Statistic	4.770*** (df = 5; 6039)	5.357*** (df = 21; 6023)
<i>Note:</i>		*p<0.05; **p<0.01; ***p<0.001

