

# Technological acceptance of Moodle from the perspective of higher education faculty in Ecuador: a nationwide study based on the UTAUT2 model

G.G.M and P.N.H and R.S.R

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## Raw data

The used raw data can be found in the file *raw\_data.csv*.

```
summary(raw_data)
```

```
##          part_date          part_dec          teach_mod
## 2020-11-11: 56  Sí, deseo participar.:409  Ambas          :111
## 2020-11-23: 47          Presencial          :158
## 2020-11-04: 38          Virtual (a distancia):140
## 2020-11-10: 31
## 2020-10-30: 23
## 2020-12-07: 22
## (Other)      :192
##
##          hei
## Universidad Central Del Ecuador          : 37
## Universidad De Guayaquil                  : 34
## Pontificia Universidad Católica Del Ecuador : 32
## Universidad De Las Américas                : 21
## Universidad UTE                           : 19
## Universidad Católica De Santiago De Guayaquil: 18
## (Other)                                    :248
##
##          know_area          gender
## CIENCIAS DE LA EDUCACIÓN          : 62  Female:160
## ECONOMÍA Y NEGOCIOS                : 49  Male  :249
## COMPUTACIÓN Y CIENCIAS DE LA INFORMACIÓN : 33
## INGENIERÍA ELÉCTRICA, ELECTRÓNICA E INFORMÁTICA: 30
## OTRAS INGENIERÍAS Y TECNOLOGÍAS      : 25
## CIENCIAS DE LA SALUD                 : 22
## (Other)                             :188
##
##          age_group          mar_status  comp_home internet
## 18 años a 24 años: 18  Casado(a)      :230  No: 5    No: 3
## 25 años a 34 años: 44  Divorciado(a) : 49  Sí:404   Sí:406
## 35 años a 44 años:135  Soltero(a)   : 94
## 45 años a 54 años:139  Unión de hecho: 31
## Más de 54             : 73  Viudo(a)     : 5
##
##
##          ethnic          educ
## Afroecuatoriano: 13  Doctorado          : 85
```

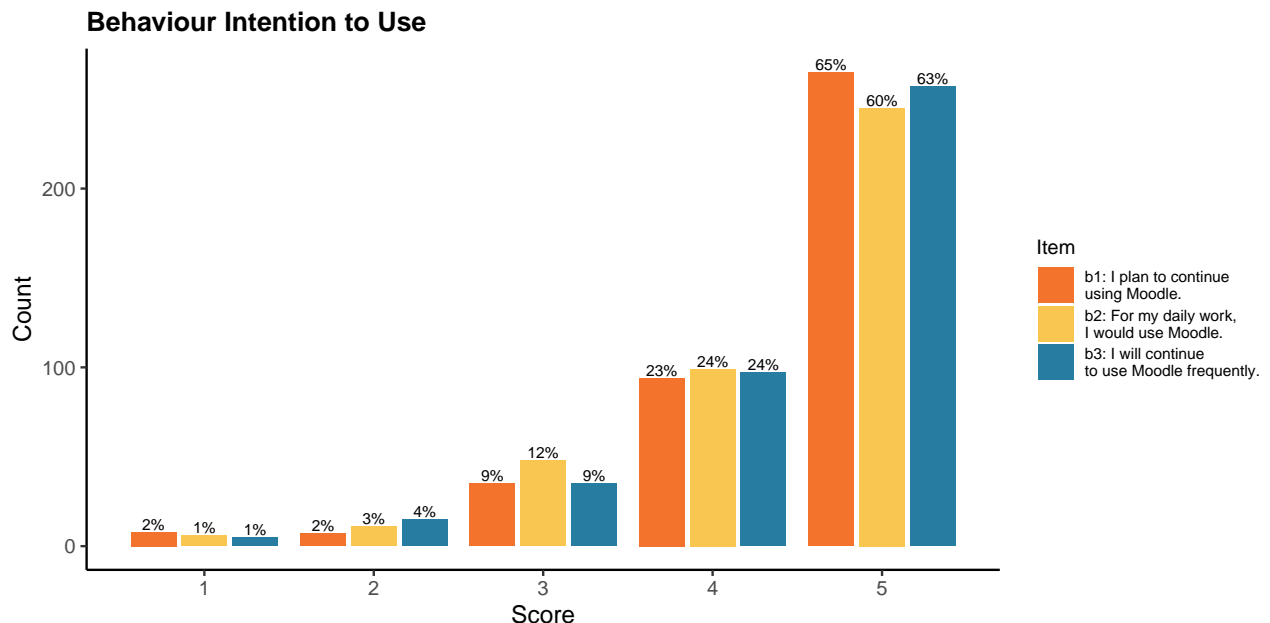
```

## Blanco          : 37  Maestría                      :294
## Indígena        : 6   Tercer Nivel (universitario): 30
## Mestizo         :353
##
##
##
##          income_home      children      family_size      prev_exp
## Entre 1500 y 5000:285  Min.    :0.000  Min.    : 1.000  Alta          : 72
## Mayor a 5000      : 9   1st Qu.:1.000  1st Qu.: 3.000  Baja          :101
## Menor a 1500      :115  Median :2.000  Median : 4.000  Muy alta     : 11
##                  Mean    :1.704  Mean    : 3.773  Ni alta ni baja:127
##                  3rd Qu.:3.000  3rd Qu.: 5.000  Nula         : 98
##                  Max.    :7.000  Max.    :10.000
##
##          pe1          pe2          pe3          ee1
## Min.    :1.000  Min.    :1.000  Min.    :1.000  Min.    :1.000
## 1st Qu.:4.000  1st Qu.:4.000  1st Qu.:4.000  1st Qu.:4.000
## Median :5.000  Median :5.000  Median :5.000  Median :5.000
## Mean    :4.499  Mean    :4.323  Mean    :4.215  Mean    :4.399
## 3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000  Max.    :5.000  Max.    :5.000
##
##          ee2          ee3          ee4          si1          si2
## Min.    :1.000  Min.    :1.000  Min.    :1.00  Min.    :1.000  Min.    :1.000
## 1st Qu.:4.000  1st Qu.:4.000  1st Qu.:4.00  1st Qu.:3.000  1st Qu.:3.000
## Median :5.000  Median :5.000  Median :5.00  Median :4.000  Median :4.000
## Mean    :4.416  Mean    :4.325  Mean    :4.33  Mean    :3.804  Mean    :3.653
## 3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.00  3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000  Max.    :5.00  Max.    :5.000  Max.    :5.000
##
##          si3          fc1          fc2          fc3          fc4
## Min.    :1.000  Min.    :1.000  Min.    :1.00  Min.    :1.000  Min.    :1.000
## 1st Qu.:3.000  1st Qu.:4.000  1st Qu.:4.00  1st Qu.:4.000  1st Qu.:3.000
## Median :4.000  Median :5.000  Median :5.00  Median :4.000  Median :4.000
## Mean    :3.773  Mean    :4.577  Mean    :4.34  Mean    :4.188  Mean    :3.907
## 3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.00  3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000  Max.    :5.00  Max.    :5.000  Max.    :5.000
##
##          hm1          hm2          hm3          ht1
## Min.    :1.000  Min.    :1.000  Min.    :1.000  Min.    :1.000
## 1st Qu.:3.000  1st Qu.:3.000  1st Qu.:3.000  1st Qu.:3.000
## Median :4.000  Median :4.000  Median :4.000  Median :5.000
## Mean    :3.914  Mean    :3.941  Mean    :3.888  Mean    :4.098
## 3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000  Max.    :5.000  Max.    :5.000
##
##          ht2          ht3          lv1          lv2
## Min.    :1.000  Min.    :1.000  Min.    :1.000  Min.    :1.000
## 1st Qu.:3.000  1st Qu.:3.000  1st Qu.:3.000  1st Qu.:3.000
## Median :3.000  Median :4.000  Median :4.000  Median :4.000
## Mean    :3.347  Mean    :3.572  Mean    :3.775  Mean    :4.117
## 3rd Qu.:4.000  3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000  Max.    :5.000  Max.    :5.000
##

```

```
##          lv3          ti1          ti2          ti3
## Min.    :1.000  Min.    :1.000  Min.    :1.000  Min.    :1.000
## 1st Qu.:4.000  1st Qu.:4.000  1st Qu.:3.000  1st Qu.:3.000
## Median :5.000  Median :5.000  Median :4.000  Median :4.000
## Mean    :4.242  Mean    :4.225  Mean    :3.469  Mean    :4.056
## 3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000  Max.    :5.000  Max.    :5.000
##
##          as1          as2          as3          bi1
## Min.    :1.000  Min.    :1.000  Min.    :1.000  Min.    :1.000
## 1st Qu.:3.000  1st Qu.:4.000  1st Qu.:4.000  1st Qu.:4.000
## Median :4.000  Median :4.000  Median :5.000  Median :5.000
## Mean    :3.826  Mean    :4.132  Mean    :4.306  Mean    :4.469
## 3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000  Max.    :5.000  Max.    :5.000
##
##          bi2          bi3
## Min.    :1.000  Min.    :1.000
## 1st Qu.:4.000  1st Qu.:4.000
## Median :5.000  Median :5.000
## Mean    :4.384  Mean    :4.433
## 3rd Qu.:5.000  3rd Qu.:5.000
## Max.    :5.000  Max.    :5.000
##
```

RQ1) What is the level of acceptance of Moodle by Ecuadorian higher education professors?



## RQ2) What are the determinants of Moodle's acceptance by Ecuadorian higher education professors?

You can also embed plots, for example:

```
library(lavaan)
```

```
## This is lavaan 0.6-8
```

```
## lavaan is FREE software! Please report any bugs.
```

```

model_sem <- '
performance.expectancy =~ pe1 + pe2 + pe3
effort.expectancy =~ ee1 + ee2 + ee3 + ee4
social.influence =~ si1 + si2 + si3
facilitating.conditions =~ fc1 + fc2 + fc3 + fc4
hedonic.motivation =~ hm1 + hm2 + hm3
habit =~ ht1 + ht2 + ht3
learning.value =~ lv1 + lv2 + lv3
technology.innovativeness =~ ti1 + ti2 + ti3
attitude.strength =~ as1 + as2 + as3
behavior.intention =~ bi1 + bi2 + bi3

performance.expectancy ~ attitude.strength
effort.expectancy ~ attitude.strength
social.influence ~ attitude.strength
facilitating.conditions ~ attitude.strength
hedonic.motivation ~ attitude.strength
habit ~ attitude.strength
learning.value ~ attitude.strength
technology.innovativeness ~ attitude.strength

behavior.intention ~ performance.expectancy + effort.expectancy + social.influence + facilitating.condi
'

model_fit <- lavaan::sem(
  model = model_sem,
  data = raw_data,
  estimator = "WLSMV",
  ordered = names(raw_data)
)

standardizedSolution(model_fit)

```

##		lhs	op		rhs	est.std	se
## 1	performance.expectancy	=~		pe1	0.915	0.018	
## 2	performance.expectancy	=~		pe2	0.927	0.012	
## 3	performance.expectancy	=~		pe3	0.937	0.015	
## 4	effort.expectancy	=~		ee1	0.870	0.021	
## 5	effort.expectancy	=~		ee2	0.941	0.013	
## 6	effort.expectancy	=~		ee3	0.904	0.014	
## 7	effort.expectancy	=~		ee4	0.920	0.013	
## 8	social.influence	=~		si1	0.922	0.011	
## 9	social.influence	=~		si2	0.961	0.008	
## 10	social.influence	=~		si3	0.968	0.007	
## 11	facilitating.conditions	=~		fc1	0.749	0.034	
## 12	facilitating.conditions	=~		fc2	0.828	0.025	
## 13	facilitating.conditions	=~		fc3	0.832	0.022	
## 14	facilitating.conditions	=~		fc4	0.644	0.037	
## 15	hedonic.motivation	=~		hm1	0.944	0.008	
## 16	hedonic.motivation	=~		hm2	0.982	0.005	
## 17	hedonic.motivation	=~		hm3	0.966	0.006	
## 18	habit	=~		ht1	0.935	0.016	
## 19	habit	=~		ht2	0.779	0.024	

## 20	habit	=~	ht3	0.861	0.018
## 21	learning.value	=~	lv1	0.760	0.028
## 22	learning.value	=~	lv2	0.918	0.013
## 23	learning.value	=~	lv3	0.943	0.010
## 24	technology.innovativeness	=~	ti1	0.920	0.016
## 25	technology.innovativeness	=~	ti2	0.783	0.024
## 26	technology.innovativeness	=~	ti3	0.886	0.016
## 27	attitude.strength	=~	as1	0.830	0.020
## 28	attitude.strength	=~	as2	0.862	0.017
## 29	attitude.strength	=~	as3	0.872	0.017
## 30	behavior.intention	=~	bi1	0.927	0.020
## 31	behavior.intention	=~	bi2	0.964	0.012
## 32	behavior.intention	=~	bi3	0.956	0.012
## 33	performance.expectancy	~	attitude.strength	0.874	0.018
## 34	effort.expectancy	~	attitude.strength	0.918	0.012
## 35	social.influence	~	attitude.strength	0.783	0.022
## 36	facilitating.conditions	~	attitude.strength	0.918	0.016
## 37	hedonic.motivation	~	attitude.strength	0.883	0.013
## 38	habit	~	attitude.strength	0.903	0.014
## 39	learning.value	~	attitude.strength	0.934	0.012
## 40	technology.innovativeness	~	attitude.strength	0.914	0.012
## 41	behavior.intention	~	performance.expectancy	-0.061	0.105
## 42	behavior.intention	~	effort.expectancy	0.202	0.130
## 43	behavior.intention	~	social.influence	-0.044	0.077
## 44	behavior.intention	~	facilitating.conditions	-0.067	0.142
## 45	behavior.intention	~	hedonic.motivation	0.318	0.095
## 46	behavior.intention	~	habit	0.242	0.109
## 47	behavior.intention	~	learning.value	0.123	0.131
## 48	behavior.intention	~	technology.innovativeness	0.032	0.130
## 49	pe1		t1	-2.014	0.138
## 50	pe1		t2	-1.761	0.113
## 51	pe1		t3	-1.117	0.078
## 52	pe1		t4	-0.501	0.065
## 53	pe2		t1	-2.063	0.144
## 54	pe2		t2	-1.680	0.107
## 55	pe2		t3	-0.893	0.072
## 56	pe2		t4	-0.188	0.062
## 57	pe3		t1	-2.117	0.151
## 58	pe3		t2	-1.566	0.099
## 59	pe3		t3	-0.692	0.068
## 60	pe3		t4	-0.089	0.062
## 61	ee1		t1	-2.335	0.186
## 62	ee1		t2	-1.761	0.113
## 63	ee1		t3	-1.061	0.077
## 64	ee1		t4	-0.232	0.063
## 65	ee2		t1	-2.335	0.186
## 66	ee2		t2	-1.680	0.107
## 67	ee2		t3	-1.164	0.080
## 68	ee2		t4	-0.238	0.063
## 69	ee3		t1	-2.440	0.208
## 70	ee3		t2	-1.822	0.119
## 71	ee3		t3	-0.979	0.074
## 72	ee3		t4	-0.077	0.062
## 73	ee4		t1	-2.335	0.186

## 74	ee4		t2	-1.791	0.116
## 75	ee4		t3	-0.950	0.073
## 76	ee4		t4	-0.120	0.062
## 77	si1		t1	-1.353	0.088
## 78	si1		t2	-1.094	0.078
## 79	si1		t3	-0.283	0.063
## 80	si1		t4	0.207	0.063
## 81	si2		t1	-1.240	0.083
## 82	si2		t2	-0.884	0.072
## 83	si2		t3	-0.207	0.063
## 84	si2		t4	0.340	0.063
## 85	si3		t1	-1.384	0.089
## 86	si3		t2	-1.019	0.075
## 87	si3		t3	-0.289	0.063
## 88	si3		t4	0.263	0.063
## 89	fc1		t1	-2.584	0.244
## 90	fc1		t2	-1.929	0.129
## 91	fc1		t3	-1.280	0.085
## 92	fc1		t4	-0.551	0.066
## 93	fc2		t1	-2.335	0.186
## 94	fc2		t2	-1.855	0.122
## 95	fc2		t3	-0.989	0.074
## 96	fc2		t4	-0.107	0.062
## 97	fc3		t1	-2.440	0.208
## 98	fc3		t2	-1.680	0.107
## 99	fc3		t3	-0.715	0.068
## 100	fc3		t4	0.052	0.062
## 101	fc4		t1	-1.353	0.088
## 102	fc4		t2	-0.969	0.074
## 103	fc4		t3	-0.481	0.065
## 104	fc4		t4	0.058	0.062
## 105	hm1		t1	-1.706	0.109
## 106	hm1		t2	-1.253	0.083
## 107	hm1		t3	-0.481	0.065
## 108	hm1		t4	0.308	0.063
## 109	hm2		t1	-1.791	0.116
## 110	hm2		t2	-1.294	0.085
## 111	hm2		t3	-0.467	0.065
## 112	hm2		t4	0.263	0.063
## 113	hm3		t1	-1.706	0.109
## 114	hm3		t2	-1.213	0.082
## 115	hm3		t3	-0.413	0.064
## 116	hm3		t4	0.295	0.063
## 117	ht1		t1	-1.656	0.105
## 118	ht1		t2	-1.308	0.086
## 119	ht1		t3	-0.646	0.067
## 120	ht1		t4	-0.003	0.062
## 121	ht2		t1	-1.176	0.080
## 122	ht2		t2	-0.692	0.068
## 123	ht2		t3	0.040	0.062
## 124	ht2		t4	0.747	0.069
## 125	ht3		t1	-1.266	0.084
## 126	ht3		t2	-0.857	0.071
## 127	ht3		t3	-0.169	0.062

## 128	ht3		t4	0.515	0.065
## 129	lv1		t1	-1.706	0.109
## 130	lv1		t2	-1.083	0.077
## 131	lv1		t3	-0.270	0.063
## 132	lv1		t4	0.380	0.064
## 133	lv2		t1	-1.791	0.116
## 134	lv2		t2	-1.451	0.093
## 135	lv2		t3	-0.631	0.067
## 136	lv2		t4	0.021	0.062
## 137	lv3		t1	-1.822	0.119
## 138	lv3		t2	-1.566	0.099
## 139	lv3		t3	-0.831	0.071
## 140	lv3		t4	-0.095	0.062
## 141	ti1		t1	-1.855	0.122
## 142	ti1		t2	-1.487	0.095
## 143	ti1		t3	-0.866	0.071
## 144	ti1		t4	-0.046	0.062
## 145	ti2		t1	-1.338	0.087
## 146	ti2		t2	-0.764	0.069
## 147	ti2		t3	-0.034	0.062
## 148	ti2		t4	0.616	0.067
## 149	ti3		t1	-1.822	0.119
## 150	ti3		t2	-1.338	0.087
## 151	ti3		t3	-0.594	0.066
## 152	ti3		t4	0.107	0.062
## 153	as1		t1	-1.891	0.125
## 154	as1		t2	-1.369	0.089
## 155	as1		t3	-0.334	0.063
## 156	as1		t4	0.494	0.065
## 157	as2		t1	-1.891	0.125
## 158	as2		t2	-1.417	0.091
## 159	as2		t3	-0.715	0.068
## 160	as2		t4	0.058	0.062
## 161	as3		t1	-2.179	0.160
## 162	as3		t2	-1.733	0.111
## 163	as3		t3	-0.931	0.073
## 164	as3		t4	-0.095	0.062
## 165	bi1		t1	-2.063	0.144
## 166	bi1		t2	-1.791	0.116
## 167	bi1		t3	-1.164	0.080
## 168	bi1		t4	-0.380	0.064
## 169	bi2		t1	-2.179	0.160
## 170	bi2		t2	-1.733	0.111
## 171	bi2		t3	-0.999	0.075
## 172	bi2		t4	-0.251	0.063
## 173	bi3		t1	-2.250	0.171
## 174	bi3		t2	-1.656	0.105
## 175	bi3		t3	-1.105	0.078
## 176	bi3		t4	-0.328	0.063
## 177	pe1	~~	pe1	0.162	0.034
## 178	pe2	~~	pe2	0.141	0.022
## 179	pe3	~~	pe3	0.122	0.028
## 180	ee1	~~	ee1	0.243	0.036
## 181	ee2	~~	ee2	0.115	0.025

## 182	ee3	~~	ee3	0.184	0.026
## 183	ee4	~~	ee4	0.154	0.023
## 184	si1	~~	si1	0.151	0.020
## 185	si2	~~	si2	0.076	0.016
## 186	si3	~~	si3	0.062	0.014
## 187	fc1	~~	fc1	0.439	0.050
## 188	fc2	~~	fc2	0.315	0.041
## 189	fc3	~~	fc3	0.307	0.037
## 190	fc4	~~	fc4	0.585	0.047
## 191	hm1	~~	hm1	0.108	0.016
## 192	hm2	~~	hm2	0.036	0.010
## 193	hm3	~~	hm3	0.066	0.012
## 194	ht1	~~	ht1	0.126	0.030
## 195	ht2	~~	ht2	0.393	0.038
## 196	ht3	~~	ht3	0.259	0.031
## 197	lv1	~~	lv1	0.422	0.042
## 198	lv2	~~	lv2	0.157	0.023
## 199	lv3	~~	lv3	0.110	0.019
## 200	ti1	~~	ti1	0.154	0.030
## 201	ti2	~~	ti2	0.387	0.037
## 202	ti3	~~	ti3	0.215	0.029
## 203	as1	~~	as1	0.311	0.033
## 204	as2	~~	as2	0.257	0.029
## 205	as3	~~	as3	0.240	0.030
## 206	bi1	~~	bi1	0.142	0.038
## 207	bi2	~~	bi2	0.071	0.023
## 208	bi3	~~	bi3	0.087	0.023
## 209	performance.expectancy	~~	performance.expectancy	0.235	0.032
## 210	effort.expectancy	~~	effort.expectancy	0.156	0.021
## 211	social.influence	~~	social.influence	0.386	0.035
## 212	facilitating.conditions	~~	facilitating.conditions	0.158	0.029
## 213	hedonic.motivation	~~	hedonic.motivation	0.220	0.023
## 214	habit	~~	habit	0.184	0.025
## 215	learning.value	~~	learning.value	0.128	0.022
## 216	technology.innovativeness	~~	technology.innovativeness	0.165	0.022
## 217	attitude.strength	~~	attitude.strength	1.000	0.000
## 218	behavior.intention	~~	behavior.intention	0.494	0.046
## 219	pe1	~*~	pe1	1.000	0.000
## 220	pe2	~*~	pe2	1.000	0.000
## 221	pe3	~*~	pe3	1.000	0.000
## 222	ee1	~*~	ee1	1.000	0.000
## 223	ee2	~*~	ee2	1.000	0.000
## 224	ee3	~*~	ee3	1.000	0.000
## 225	ee4	~*~	ee4	1.000	0.000
## 226	si1	~*~	si1	1.000	0.000
## 227	si2	~*~	si2	1.000	0.000
## 228	si3	~*~	si3	1.000	0.000
## 229	fc1	~*~	fc1	1.000	0.000
## 230	fc2	~*~	fc2	1.000	0.000
## 231	fc3	~*~	fc3	1.000	0.000
## 232	fc4	~*~	fc4	1.000	0.000
## 233	hm1	~*~	hm1	1.000	0.000
## 234	hm2	~*~	hm2	1.000	0.000
## 235	hm3	~*~	hm3	1.000	0.000



## 236	ht1 ~*~	ht1 1.000 0.000
## 237	ht2 ~*~	ht2 1.000 0.000
## 238	ht3 ~*~	ht3 1.000 0.000
## 239	lv1 ~*~	lv1 1.000 0.000
## 240	lv2 ~*~	lv2 1.000 0.000
## 241	lv3 ~*~	lv3 1.000 0.000
## 242	ti1 ~*~	ti1 1.000 0.000
## 243	ti2 ~*~	ti2 1.000 0.000
## 244	ti3 ~*~	ti3 1.000 0.000
## 245	as1 ~*~	as1 1.000 0.000
## 246	as2 ~*~	as2 1.000 0.000
## 247	as3 ~*~	as3 1.000 0.000
## 248	bi1 ~*~	bi1 1.000 0.000
## 249	bi2 ~*~	bi2 1.000 0.000
## 250	bi3 ~*~	bi3 1.000 0.000
## 251	pe1 ~1	0.000 0.000
## 252	pe2 ~1	0.000 0.000
## 253	pe3 ~1	0.000 0.000
## 254	ee1 ~1	0.000 0.000
## 255	ee2 ~1	0.000 0.000
## 256	ee3 ~1	0.000 0.000
## 257	ee4 ~1	0.000 0.000
## 258	si1 ~1	0.000 0.000
## 259	si2 ~1	0.000 0.000
## 260	si3 ~1	0.000 0.000
## 261	fc1 ~1	0.000 0.000
## 262	fc2 ~1	0.000 0.000
## 263	fc3 ~1	0.000 0.000
## 264	fc4 ~1	0.000 0.000
## 265	hm1 ~1	0.000 0.000
## 266	hm2 ~1	0.000 0.000
## 267	hm3 ~1	0.000 0.000
## 268	ht1 ~1	0.000 0.000
## 269	ht2 ~1	0.000 0.000
## 270	ht3 ~1	0.000 0.000
## 271	lv1 ~1	0.000 0.000
## 272	lv2 ~1	0.000 0.000
## 273	lv3 ~1	0.000 0.000
## 274	ti1 ~1	0.000 0.000
## 275	ti2 ~1	0.000 0.000
## 276	ti3 ~1	0.000 0.000
## 277	as1 ~1	0.000 0.000
## 278	as2 ~1	0.000 0.000
## 279	as3 ~1	0.000 0.000
## 280	bi1 ~1	0.000 0.000
## 281	bi2 ~1	0.000 0.000
## 282	bi3 ~1	0.000 0.000
## 283	performance.expectancy ~1	0.000 0.000
## 284	effort.expectancy ~1	0.000 0.000
## 285	social.influence ~1	0.000 0.000
## 286	facilitating.conditions ~1	0.000 0.000
## 287	hedonic.motivation ~1	0.000 0.000
## 288	habit ~1	0.000 0.000
## 289	learning.value ~1	0.000 0.000

## 290	technology.innovativeness	~1	0.000	0.000
## 291	attitude.strength	~1	0.000	0.000
## 292	behavior.intention	~1	0.000	0.000
##	z	pvalue	ci.lower	ci.upper
## 1	49.822	0.000	0.879	0.951
## 2	77.611	0.000	0.904	0.950
## 3	62.696	0.000	0.908	0.966
## 4	41.903	0.000	0.830	0.911
## 5	70.885	0.000	0.915	0.967
## 6	63.720	0.000	0.876	0.931
## 7	73.495	0.000	0.895	0.944
## 8	84.246	0.000	0.900	0.943
## 9	117.878	0.000	0.945	0.977
## 10	131.328	0.000	0.954	0.983
## 11	22.361	0.000	0.684	0.815
## 12	33.119	0.000	0.779	0.877
## 13	37.789	0.000	0.789	0.875
## 14	17.649	0.000	0.573	0.716
## 15	112.362	0.000	0.928	0.961
## 16	197.637	0.000	0.972	0.992
## 17	157.199	0.000	0.954	0.978
## 18	59.149	0.000	0.904	0.966
## 19	31.982	0.000	0.731	0.827
## 20	47.112	0.000	0.825	0.897
## 21	27.579	0.000	0.706	0.814
## 22	72.598	0.000	0.894	0.943
## 23	93.388	0.000	0.923	0.963
## 24	57.279	0.000	0.888	0.951
## 25	32.704	0.000	0.736	0.830
## 26	54.206	0.000	0.854	0.918
## 27	42.080	0.000	0.791	0.869
## 28	50.468	0.000	0.828	0.895
## 29	51.346	0.000	0.838	0.905
## 30	45.485	0.000	0.887	0.966
## 31	79.211	0.000	0.940	0.988
## 32	80.574	0.000	0.932	0.979
## 33	47.790	0.000	0.839	0.910
## 34	79.027	0.000	0.896	0.941
## 35	35.285	0.000	0.740	0.827
## 36	57.088	0.000	0.886	0.949
## 37	66.620	0.000	0.857	0.909
## 38	64.402	0.000	0.876	0.931
## 39	78.008	0.000	0.911	0.957
## 40	75.947	0.000	0.890	0.937
## 41	-0.585	0.559	-0.267	0.144
## 42	1.554	0.120	-0.053	0.457
## 43	-0.574	0.566	-0.194	0.106
## 44	-0.473	0.636	-0.346	0.212
## 45	3.338	0.001	0.131	0.505
## 46	2.225	0.026	0.029	0.455
## 47	0.943	0.346	-0.133	0.380
## 48	0.248	0.804	-0.222	0.287
## 49	-14.557	0.000	-2.285	-1.743
## 50	-15.526	0.000	-1.983	-1.539

## 51	-14.249	0.000	-1.270	-0.963
## 52	-7.717	0.000	-0.629	-0.374
## 53	-14.296	0.000	-2.346	-1.780
## 54	-15.681	0.000	-1.890	-1.470
## 55	-12.418	0.000	-1.034	-0.752
## 56	-3.011	0.003	-0.310	-0.066
## 57	-13.982	0.000	-2.414	-1.821
## 58	-15.755	0.000	-1.761	-1.371
## 59	-10.211	0.000	-0.825	-0.559
## 60	-1.432	0.152	-0.211	0.033
## 61	-12.526	0.000	-2.700	-1.969
## 62	-15.526	0.000	-1.983	-1.539
## 63	-13.860	0.000	-1.211	-0.911
## 64	-3.701	0.000	-0.355	-0.109
## 65	-12.526	0.000	-2.700	-1.969
## 66	-15.681	0.000	-1.890	-1.470
## 67	-14.544	0.000	-1.321	-1.007
## 68	-3.799	0.000	-0.361	-0.115
## 69	-11.731	0.000	-2.848	-2.033
## 70	-15.357	0.000	-2.055	-1.589
## 71	-13.200	0.000	-1.124	-0.834
## 72	-1.235	0.217	-0.198	0.045
## 73	-12.526	0.000	-2.700	-1.969
## 74	-15.449	0.000	-2.018	-1.563
## 75	-12.943	0.000	-1.093	-0.806
## 76	-1.926	0.054	-0.242	0.002
## 77	-15.407	0.000	-1.525	-1.181
## 78	-14.096	0.000	-1.246	-0.942
## 79	-4.488	0.000	-0.406	-0.159
## 80	3.307	0.001	0.084	0.329
## 81	-14.953	0.000	-1.402	-1.077
## 82	-12.329	0.000	-1.025	-0.744
## 83	-3.307	0.001	-0.329	-0.084
## 84	5.373	0.000	0.216	0.465
## 85	-15.499	0.000	-1.559	-1.209
## 86	-13.535	0.000	-1.167	-0.872
## 87	-4.587	0.000	-0.412	-0.165
## 88	4.193	0.000	0.140	0.387
## 89	-10.605	0.000	-3.061	-2.106
## 90	-14.960	0.000	-2.181	-1.676
## 91	-15.137	0.000	-1.446	-1.114
## 92	-8.395	0.000	-0.679	-0.422
## 93	-12.526	0.000	-2.700	-1.969
## 94	-15.247	0.000	-2.094	-1.617
## 95	-13.284	0.000	-1.135	-0.843
## 96	-1.728	0.084	-0.229	0.014
## 97	-11.731	0.000	-2.848	-2.033
## 98	-15.681	0.000	-1.890	-1.470
## 99	-10.494	0.000	-0.849	-0.582
## 100	0.840	0.401	-0.070	0.174
## 101	-15.407	0.000	-1.525	-1.181
## 102	-13.115	0.000	-1.114	-0.824
## 103	-7.425	0.000	-0.607	-0.354
## 104	0.938	0.348	-0.063	0.180

## 105	-15.641	0.000	-1.920	-1.492
## 106	-15.016	0.000	-1.416	-1.089
## 107	-7.425	0.000	-0.607	-0.354
## 108	4.882	0.000	0.184	0.432
## 109	-15.449	0.000	-2.018	-1.563
## 110	-15.195	0.000	-1.461	-1.127
## 111	-7.231	0.000	-0.593	-0.340
## 112	4.193	0.000	0.140	0.387
## 113	-15.641	0.000	-1.920	-1.492
## 114	-14.822	0.000	-1.374	-1.053
## 115	-6.450	0.000	-0.538	-0.287
## 116	4.685	0.000	0.172	0.419
## 117	-15.712	0.000	-1.862	-1.449
## 118	-15.252	0.000	-1.477	-1.140
## 119	-9.642	0.000	-0.777	-0.515
## 120	-0.049	0.961	-0.125	0.119
## 121	-14.616	0.000	-1.334	-1.018
## 122	-10.211	0.000	-0.825	-0.559
## 123	0.642	0.521	-0.082	0.161
## 124	10.868	0.000	0.613	0.882
## 125	-15.077	0.000	-1.431	-1.102
## 126	-12.061	0.000	-0.997	-0.718
## 127	-2.715	0.007	-0.292	-0.047
## 128	7.911	0.000	0.388	0.643
## 129	-15.641	0.000	-1.920	-1.492
## 130	-14.018	0.000	-1.235	-0.932
## 131	-4.292	0.000	-0.393	-0.147
## 132	5.961	0.000	0.255	0.505
## 133	-15.449	0.000	-2.018	-1.563
## 134	-15.649	0.000	-1.633	-1.270
## 135	-9.451	0.000	-0.762	-0.500
## 136	0.346	0.730	-0.100	0.143
## 137	-15.357	0.000	-2.055	-1.589
## 138	-15.755	0.000	-1.761	-1.371
## 139	-11.789	0.000	-0.969	-0.693
## 140	-1.531	0.126	-0.217	0.027
## 141	-15.247	0.000	-2.094	-1.617
## 142	-15.702	0.000	-1.673	-1.302
## 143	-12.151	0.000	-1.006	-0.727
## 144	-0.741	0.459	-0.168	0.076
## 145	-15.358	0.000	-1.509	-1.167
## 146	-11.054	0.000	-0.899	-0.628
## 147	-0.543	0.587	-0.155	0.088
## 148	9.260	0.000	0.486	0.746
## 149	-15.357	0.000	-2.055	-1.589
## 150	-15.358	0.000	-1.509	-1.167
## 151	-8.972	0.000	-0.724	-0.464
## 152	1.728	0.084	-0.014	0.229
## 153	-15.115	0.000	-2.136	-1.645
## 154	-15.455	0.000	-1.542	-1.195
## 155	-5.274	0.000	-0.458	-0.210
## 156	7.620	0.000	0.367	0.622
## 157	-15.115	0.000	-2.136	-1.645
## 158	-15.580	0.000	-1.595	-1.239

## 159	-10.494	0.000	-0.849	-0.582
## 160	0.938	0.348	-0.063	0.180
## 161	-13.600	0.000	-2.493	-1.865
## 162	-15.590	0.000	-1.951	-1.515
## 163	-12.770	0.000	-1.073	-0.788
## 164	-1.531	0.126	-0.217	0.027
## 165	-14.296	0.000	-2.346	-1.780
## 166	-15.449	0.000	-2.018	-1.563
## 167	-14.544	0.000	-1.321	-1.007
## 168	-5.961	0.000	-0.505	-0.255
## 169	-13.600	0.000	-2.493	-1.865
## 170	-15.590	0.000	-1.951	-1.515
## 171	-13.368	0.000	-1.145	-0.852
## 172	-3.996	0.000	-0.374	-0.128
## 173	-13.127	0.000	-2.586	-1.914
## 174	-15.712	0.000	-1.862	-1.449
## 175	-14.173	0.000	-1.258	-0.953
## 176	-5.176	0.000	-0.452	-0.204
## 177	4.822	0.000	0.096	0.228
## 178	6.350	0.000	0.097	0.184
## 179	4.349	0.000	0.067	0.177
## 180	6.714	0.000	0.172	0.314
## 181	4.592	0.000	0.066	0.164
## 182	7.163	0.000	0.133	0.234
## 183	6.700	0.000	0.109	0.199
## 184	7.469	0.000	0.111	0.190
## 185	4.852	0.000	0.045	0.107
## 186	4.343	0.000	0.034	0.090
## 187	8.738	0.000	0.340	0.537
## 188	7.598	0.000	0.233	0.396
## 189	8.387	0.000	0.236	0.379
## 190	12.437	0.000	0.493	0.677
## 191	6.815	0.000	0.077	0.139
## 192	3.705	0.000	0.017	0.055
## 193	5.558	0.000	0.043	0.089
## 194	4.252	0.000	0.068	0.184
## 195	10.362	0.000	0.319	0.468
## 196	8.236	0.000	0.197	0.321
## 197	10.056	0.000	0.340	0.504
## 198	6.740	0.000	0.111	0.202
## 199	5.796	0.000	0.073	0.148
## 200	5.207	0.000	0.096	0.212
## 201	10.331	0.000	0.314	0.461
## 202	7.428	0.000	0.158	0.272
## 203	9.499	0.000	0.247	0.375
## 204	8.738	0.000	0.200	0.315
## 205	8.124	0.000	0.182	0.298
## 206	3.751	0.000	0.068	0.216
## 207	3.014	0.003	0.025	0.117
## 208	3.828	0.000	0.042	0.131
## 209	7.358	0.000	0.173	0.298
## 210	7.325	0.000	0.115	0.198
## 211	11.103	0.000	0.318	0.454
## 212	5.360	0.000	0.100	0.216

## 213	9.384	0.000	0.174	0.266
## 214	7.255	0.000	0.134	0.234
## 215	5.708	0.000	0.084	0.172
## 216	7.497	0.000	0.122	0.208
## 217	NA	NA	1.000	1.000
## 218	10.791	0.000	0.404	0.584
## 219	NA	NA	1.000	1.000
## 220	NA	NA	1.000	1.000
## 221	NA	NA	1.000	1.000
## 222	NA	NA	1.000	1.000
## 223	NA	NA	1.000	1.000
## 224	NA	NA	1.000	1.000
## 225	NA	NA	1.000	1.000
## 226	NA	NA	1.000	1.000
## 227	NA	NA	1.000	1.000
## 228	NA	NA	1.000	1.000
## 229	NA	NA	1.000	1.000
## 230	NA	NA	1.000	1.000
## 231	NA	NA	1.000	1.000
## 232	NA	NA	1.000	1.000
## 233	NA	NA	1.000	1.000
## 234	NA	NA	1.000	1.000
## 235	NA	NA	1.000	1.000
## 236	NA	NA	1.000	1.000
## 237	NA	NA	1.000	1.000
## 238	NA	NA	1.000	1.000
## 239	NA	NA	1.000	1.000
## 240	NA	NA	1.000	1.000
## 241	NA	NA	1.000	1.000
## 242	NA	NA	1.000	1.000
## 243	NA	NA	1.000	1.000
## 244	NA	NA	1.000	1.000
## 245	NA	NA	1.000	1.000
## 246	NA	NA	1.000	1.000
## 247	NA	NA	1.000	1.000
## 248	NA	NA	1.000	1.000
## 249	NA	NA	1.000	1.000
## 250	NA	NA	1.000	1.000
## 251	NA	NA	0.000	0.000
## 252	NA	NA	0.000	0.000
## 253	NA	NA	0.000	0.000
## 254	NA	NA	0.000	0.000
## 255	NA	NA	0.000	0.000
## 256	NA	NA	0.000	0.000
## 257	NA	NA	0.000	0.000
## 258	NA	NA	0.000	0.000
## 259	NA	NA	0.000	0.000
## 260	NA	NA	0.000	0.000
## 261	NA	NA	0.000	0.000
## 262	NA	NA	0.000	0.000
## 263	NA	NA	0.000	0.000
## 264	NA	NA	0.000	0.000
## 265	NA	NA	0.000	0.000
## 266	NA	NA	0.000	0.000

```
## 267      NA      NA      0.000      0.000
## 268      NA      NA      0.000      0.000
## 269      NA      NA      0.000      0.000
## 270      NA      NA      0.000      0.000
## 271      NA      NA      0.000      0.000
## 272      NA      NA      0.000      0.000
## 273      NA      NA      0.000      0.000
## 274      NA      NA      0.000      0.000
## 275      NA      NA      0.000      0.000
## 276      NA      NA      0.000      0.000
## 277      NA      NA      0.000      0.000
## 278      NA      NA      0.000      0.000
## 279      NA      NA      0.000      0.000
## 280      NA      NA      0.000      0.000
## 281      NA      NA      0.000      0.000
## 282      NA      NA      0.000      0.000
## 283      NA      NA      0.000      0.000
## 284      NA      NA      0.000      0.000
## 285      NA      NA      0.000      0.000
## 286      NA      NA      0.000      0.000
## 287      NA      NA      0.000      0.000
## 288      NA      NA      0.000      0.000
## 289      NA      NA      0.000      0.000
## 290      NA      NA      0.000      0.000
## 291      NA      NA      0.000      0.000
## 292      NA      NA      0.000      0.000
```

```
fitMeasures(model_fit,
             fit.measures = c("chisq",
                              "df",
                              "pvalue",
                              "cfi",
                              "rmsea",
                              "rmsea.ci.lower",
                              "rmsea.ci.upper"),
             output = "matrix")
```

```
##
## chisq      371.938
## df         448.000
## pvalue      0.996
## cfi         1.000
## rmsea       0.000
## rmsea.ci.lower 0.000
## rmsea.ci.upper 0.000
```

**RQ3) Is there any gender difference for the fitted model?**

```
make_mutation <- function(x){
  ifelse(x < 3, 1, ifelse(x > 3, 3, 2))
}

df_groups <- raw_data %>% mutate_at(c(17:48), make_mutation)
```

```

model_fit_groups <- lavaan::sem(
  model = model_sem,
  data = df_groups,
  estimator = "WLSMV",
  ordered = names(raw_data)
)

standardizedSolution(model_fit_groups)

```

##	lhs	op	rhs	est.std	se
## 1	performance.expectancy	=~	pe1	0.875	0.034
## 2	performance.expectancy	=~	pe2	0.940	0.018
## 3	performance.expectancy	=~	pe3	0.945	0.019
## 4	effort.expectancy	=~	ee1	0.880	0.030
## 5	effort.expectancy	=~	ee2	0.948	0.022
## 6	effort.expectancy	=~	ee3	0.920	0.021
## 7	effort.expectancy	=~	ee4	0.902	0.023
## 8	social.influence	=~	si1	0.918	0.015
## 9	social.influence	=~	si2	0.961	0.011
## 10	social.influence	=~	si3	0.977	0.010
## 11	facilitating.conditions	=~	fc1	0.796	0.050
## 12	facilitating.conditions	=~	fc2	0.858	0.040
## 13	facilitating.conditions	=~	fc3	0.751	0.043
## 14	facilitating.conditions	=~	fc4	0.602	0.055
## 15	hedonic.motivation	=~	hm1	0.951	0.010
## 16	hedonic.motivation	=~	hm2	0.981	0.007
## 17	hedonic.motivation	=~	hm3	0.967	0.010
## 18	habit	=~	ht1	0.952	0.021
## 19	habit	=~	ht2	0.811	0.030
## 20	habit	=~	ht3	0.888	0.024
## 21	learning.value	=~	lv1	0.737	0.040
## 22	learning.value	=~	lv2	0.930	0.018
## 23	learning.value	=~	lv3	0.943	0.018
## 24	technology.innovativeness	=~	ti1	0.920	0.024
## 25	technology.innovativeness	=~	ti2	0.806	0.030
## 26	technology.innovativeness	=~	ti3	0.903	0.024
## 27	attitude.strength	=~	as1	0.831	0.025
## 28	attitude.strength	=~	as2	0.848	0.026
## 29	attitude.strength	=~	as3	0.859	0.029
## 30	behavior.intention	=~	bi1	0.984	0.032
## 31	behavior.intention	=~	bi2	0.948	0.017
## 32	behavior.intention	=~	bi3	0.969	0.022
## 33	performance.expectancy	~	attitude.strength	0.873	0.028
## 34	effort.expectancy	~	attitude.strength	0.920	0.019
## 35	social.influence	~	attitude.strength	0.751	0.030
## 36	facilitating.conditions	~	attitude.strength	0.915	0.028
## 37	hedonic.motivation	~	attitude.strength	0.856	0.022
## 38	habit	~	attitude.strength	0.893	0.019
## 39	learning.value	~	attitude.strength	0.922	0.020
## 40	technology.innovativeness	~	attitude.strength	0.900	0.020
## 41	behavior.intention	~	performance.expectancy	0.093	0.139
## 42	behavior.intention	~	effort.expectancy	0.241	0.184
## 43	behavior.intention	~	social.influence	-0.027	0.091



## 44	behavior.intention	~	facilitating.conditions	-0.113	0.192
## 45	behavior.intention	~	hedonic.motivation	0.439	0.100
## 46	behavior.intention	~	habit	0.175	0.159
## 47	behavior.intention	~	learning.value	-0.022	0.157
## 48	behavior.intention	~	technology.innovativeness	0.071	0.157
## 49	pe1		t1	-1.761	0.113
## 50	pe1		t2	-1.117	0.078
## 51	pe2		t1	-1.680	0.107
## 52	pe2		t2	-0.893	0.072
## 53	pe3		t1	-1.566	0.099
## 54	pe3		t2	-0.692	0.068
## 55	ee1		t1	-1.761	0.113
## 56	ee1		t2	-1.061	0.077
## 57	ee2		t1	-1.680	0.107
## 58	ee2		t2	-1.164	0.080
## 59	ee3		t1	-1.822	0.119
## 60	ee3		t2	-0.979	0.074
## 61	ee4		t1	-1.791	0.116
## 62	ee4		t2	-0.950	0.073
## 63	si1		t1	-1.094	0.078
## 64	si1		t2	-0.283	0.063
## 65	si2		t1	-0.884	0.072
## 66	si2		t2	-0.207	0.063
## 67	si3		t1	-1.019	0.075
## 68	si3		t2	-0.289	0.063
## 69	fc1		t1	-1.929	0.129
## 70	fc1		t2	-1.280	0.085
## 71	fc2		t1	-1.855	0.122
## 72	fc2		t2	-0.989	0.074
## 73	fc3		t1	-1.680	0.107
## 74	fc3		t2	-0.715	0.068
## 75	fc4		t1	-0.969	0.074
## 76	fc4		t2	-0.481	0.065
## 77	hm1		t1	-1.253	0.083
## 78	hm1		t2	-0.481	0.065
## 79	hm2		t1	-1.294	0.085
## 80	hm2		t2	-0.467	0.065
## 81	hm3		t1	-1.213	0.082
## 82	hm3		t2	-0.413	0.064
## 83	ht1		t1	-1.308	0.086
## 84	ht1		t2	-0.646	0.067
## 85	ht2		t1	-0.692	0.068
## 86	ht2		t2	0.040	0.062
## 87	ht3		t1	-0.857	0.071
## 88	ht3		t2	-0.169	0.062
## 89	lv1		t1	-1.083	0.077
## 90	lv1		t2	-0.270	0.063
## 91	lv2		t1	-1.451	0.093
## 92	lv2		t2	-0.631	0.067
## 93	lv3		t1	-1.566	0.099
## 94	lv3		t2	-0.831	0.071
## 95	ti1		t1	-1.487	0.095
## 96	ti1		t2	-0.866	0.071
## 97	ti2		t1	-0.764	0.069

## 98	ti2		t2	-0.034	0.062
## 99	ti3		t1	-1.338	0.087
## 100	ti3		t2	-0.594	0.066
## 101	as1		t1	-1.369	0.089
## 102	as1		t2	-0.334	0.063
## 103	as2		t1	-1.417	0.091
## 104	as2		t2	-0.715	0.068
## 105	as3		t1	-1.733	0.111
## 106	as3		t2	-0.931	0.073
## 107	bi1		t1	-1.791	0.116
## 108	bi1		t2	-1.164	0.080
## 109	bi2		t1	-1.733	0.111
## 110	bi2		t2	-0.999	0.075
## 111	bi3		t1	-1.656	0.105
## 112	bi3		t2	-1.105	0.078
## 113	pe1	~~	pe1	0.235	0.059
## 114	pe2	~~	pe2	0.116	0.034
## 115	pe3	~~	pe3	0.107	0.036
## 116	ee1	~~	ee1	0.226	0.052
## 117	ee2	~~	ee2	0.102	0.042
## 118	ee3	~~	ee3	0.154	0.039
## 119	ee4	~~	ee4	0.187	0.041
## 120	si1	~~	si1	0.158	0.028
## 121	si2	~~	si2	0.076	0.022
## 122	si3	~~	si3	0.045	0.020
## 123	fc1	~~	fc1	0.366	0.080
## 124	fc2	~~	fc2	0.265	0.069
## 125	fc3	~~	fc3	0.436	0.065
## 126	fc4	~~	fc4	0.638	0.066
## 127	hm1	~~	hm1	0.095	0.018
## 128	hm2	~~	hm2	0.037	0.014
## 129	hm3	~~	hm3	0.065	0.019
## 130	ht1	~~	ht1	0.094	0.040
## 131	ht2	~~	ht2	0.342	0.048
## 132	ht3	~~	ht3	0.212	0.042
## 133	lv1	~~	lv1	0.457	0.060
## 134	lv2	~~	lv2	0.135	0.034
## 135	lv3	~~	lv3	0.111	0.034
## 136	ti1	~~	ti1	0.154	0.044
## 137	ti2	~~	ti2	0.350	0.048
## 138	ti3	~~	ti3	0.185	0.043
## 139	as1	~~	as1	0.310	0.041
## 140	as2	~~	as2	0.281	0.045
## 141	as3	~~	as3	0.263	0.050
## 142	bi1	~~	bi1	0.031	0.063
## 143	bi2	~~	bi2	0.102	0.033
## 144	bi3	~~	bi3	0.060	0.042
## 145	performance.expectancy	~~	performance.expectancy	0.238	0.050
## 146	effort.expectancy	~~	effort.expectancy	0.154	0.036
## 147	social.influence	~~	social.influence	0.436	0.045
## 148	facilitating.conditions	~~	facilitating.conditions	0.163	0.052
## 149	hedonic.motivation	~~	hedonic.motivation	0.267	0.038
## 150	habit	~~	habit	0.202	0.033
## 151	learning.value	~~	learning.value	0.151	0.036

## 152	technology.innovativeness	~~	technology.innovativeness	0.189	0.036
## 153	attitude.strength	~~	attitude.strength	1.000	0.000
## 154	behavior.intention	~~	behavior.intention	0.357	0.058
## 155	pe1	~*~	pe1	1.000	0.000
## 156	pe2	~*~	pe2	1.000	0.000
## 157	pe3	~*~	pe3	1.000	0.000
## 158	ee1	~*~	ee1	1.000	0.000
## 159	ee2	~*~	ee2	1.000	0.000
## 160	ee3	~*~	ee3	1.000	0.000
## 161	ee4	~*~	ee4	1.000	0.000
## 162	si1	~*~	si1	1.000	0.000
## 163	si2	~*~	si2	1.000	0.000
## 164	si3	~*~	si3	1.000	0.000
## 165	fc1	~*~	fc1	1.000	0.000
## 166	fc2	~*~	fc2	1.000	0.000
## 167	fc3	~*~	fc3	1.000	0.000
## 168	fc4	~*~	fc4	1.000	0.000
## 169	hm1	~*~	hm1	1.000	0.000
## 170	hm2	~*~	hm2	1.000	0.000
## 171	hm3	~*~	hm3	1.000	0.000
## 172	ht1	~*~	ht1	1.000	0.000
## 173	ht2	~*~	ht2	1.000	0.000
## 174	ht3	~*~	ht3	1.000	0.000
## 175	lv1	~*~	lv1	1.000	0.000
## 176	lv2	~*~	lv2	1.000	0.000
## 177	lv3	~*~	lv3	1.000	0.000
## 178	ti1	~*~	ti1	1.000	0.000
## 179	ti2	~*~	ti2	1.000	0.000
## 180	ti3	~*~	ti3	1.000	0.000
## 181	as1	~*~	as1	1.000	0.000
## 182	as2	~*~	as2	1.000	0.000
## 183	as3	~*~	as3	1.000	0.000
## 184	bi1	~*~	bi1	1.000	0.000
## 185	bi2	~*~	bi2	1.000	0.000
## 186	bi3	~*~	bi3	1.000	0.000
## 187	pe1	~1		0.000	0.000
## 188	pe2	~1		0.000	0.000
## 189	pe3	~1		0.000	0.000
## 190	ee1	~1		0.000	0.000
## 191	ee2	~1		0.000	0.000
## 192	ee3	~1		0.000	0.000
## 193	ee4	~1		0.000	0.000
## 194	si1	~1		0.000	0.000
## 195	si2	~1		0.000	0.000
## 196	si3	~1		0.000	0.000
## 197	fc1	~1		0.000	0.000
## 198	fc2	~1		0.000	0.000
## 199	fc3	~1		0.000	0.000
## 200	fc4	~1		0.000	0.000
## 201	hm1	~1		0.000	0.000
## 202	hm2	~1		0.000	0.000
## 203	hm3	~1		0.000	0.000
## 204	ht1	~1		0.000	0.000
## 205	ht2	~1		0.000	0.000

## 206	ht3	~1	0.000	0.000
## 207	lv1	~1	0.000	0.000
## 208	lv2	~1	0.000	0.000
## 209	lv3	~1	0.000	0.000
## 210	ti1	~1	0.000	0.000
## 211	ti2	~1	0.000	0.000
## 212	ti3	~1	0.000	0.000
## 213	as1	~1	0.000	0.000
## 214	as2	~1	0.000	0.000
## 215	as3	~1	0.000	0.000
## 216	bi1	~1	0.000	0.000
## 217	bi2	~1	0.000	0.000
## 218	bi3	~1	0.000	0.000
## 219	performance.expectancy	~1	0.000	0.000
## 220	effort.expectancy	~1	0.000	0.000
## 221	social.influence	~1	0.000	0.000
## 222	facilitating.conditions	~1	0.000	0.000
## 223	hedonic.motivation	~1	0.000	0.000
## 224	habit	~1	0.000	0.000
## 225	learning.value	~1	0.000	0.000
## 226	technology.innovativeness	~1	0.000	0.000
## 227	attitude.strength	~1	0.000	0.000
## 228	behavior.intention	~1	0.000	0.000
##	z	pvalue	ci.lower	ci.upper
## 1	25.947	0.000	0.808	0.941
## 2	52.650	0.000	0.905	0.975
## 3	49.251	0.000	0.907	0.982
## 4	29.576	0.000	0.821	0.938
## 5	43.131	0.000	0.905	0.991
## 6	43.104	0.000	0.878	0.962
## 7	39.442	0.000	0.857	0.946
## 8	60.688	0.000	0.888	0.947
## 9	83.798	0.000	0.939	0.984
## 10	95.580	0.000	0.957	0.997
## 11	15.861	0.000	0.698	0.895
## 12	21.194	0.000	0.778	0.937
## 13	17.339	0.000	0.666	0.836
## 14	10.934	0.000	0.494	0.710
## 15	99.444	0.000	0.933	0.970
## 16	136.827	0.000	0.967	0.995
## 17	97.493	0.000	0.947	0.986
## 18	45.596	0.000	0.911	0.993
## 19	27.131	0.000	0.752	0.870
## 20	37.570	0.000	0.842	0.934
## 21	18.233	0.000	0.658	0.816
## 22	50.833	0.000	0.894	0.966
## 23	51.879	0.000	0.907	0.978
## 24	38.256	0.000	0.873	0.967
## 25	26.884	0.000	0.747	0.865
## 26	37.821	0.000	0.856	0.949
## 27	33.302	0.000	0.782	0.880
## 28	32.315	0.000	0.797	0.899
## 29	29.780	0.000	0.802	0.915
## 30	30.979	0.000	0.922	1.047

## 31	54.200	0.000	0.914	0.982
## 32	44.908	0.000	0.927	1.012
## 33	30.705	0.000	0.817	0.929
## 34	47.462	0.000	0.882	0.958
## 35	24.835	0.000	0.691	0.810
## 36	32.270	0.000	0.859	0.970
## 37	38.215	0.000	0.812	0.900
## 38	48.092	0.000	0.857	0.930
## 39	47.221	0.000	0.883	0.960
## 40	45.146	0.000	0.861	0.939
## 41	0.671	0.502	-0.179	0.366
## 42	1.307	0.191	-0.120	0.602
## 43	-0.293	0.770	-0.205	0.152
## 44	-0.586	0.558	-0.490	0.264
## 45	4.384	0.000	0.243	0.635
## 46	1.098	0.272	-0.138	0.488
## 47	-0.141	0.888	-0.329	0.285
## 48	0.452	0.651	-0.237	0.379
## 49	-15.526	0.000	-1.983	-1.539
## 50	-14.249	0.000	-1.270	-0.963
## 51	-15.681	0.000	-1.890	-1.470
## 52	-12.418	0.000	-1.034	-0.752
## 53	-15.755	0.000	-1.761	-1.371
## 54	-10.211	0.000	-0.825	-0.559
## 55	-15.526	0.000	-1.983	-1.539
## 56	-13.860	0.000	-1.211	-0.911
## 57	-15.681	0.000	-1.890	-1.470
## 58	-14.544	0.000	-1.321	-1.007
## 59	-15.357	0.000	-2.055	-1.589
## 60	-13.200	0.000	-1.124	-0.834
## 61	-15.449	0.000	-2.018	-1.563
## 62	-12.943	0.000	-1.093	-0.806
## 63	-14.096	0.000	-1.246	-0.942
## 64	-4.488	0.000	-0.406	-0.159
## 65	-12.329	0.000	-1.025	-0.744
## 66	-3.307	0.001	-0.329	-0.084
## 67	-13.535	0.000	-1.167	-0.872
## 68	-4.587	0.000	-0.412	-0.165
## 69	-14.960	0.000	-2.181	-1.676
## 70	-15.137	0.000	-1.446	-1.114
## 71	-15.247	0.000	-2.094	-1.617
## 72	-13.284	0.000	-1.135	-0.843
## 73	-15.681	0.000	-1.890	-1.470
## 74	-10.494	0.000	-0.849	-0.582
## 75	-13.115	0.000	-1.114	-0.824
## 76	-7.425	0.000	-0.607	-0.354
## 77	-15.016	0.000	-1.416	-1.089
## 78	-7.425	0.000	-0.607	-0.354
## 79	-15.195	0.000	-1.461	-1.127
## 80	-7.231	0.000	-0.593	-0.340
## 81	-14.822	0.000	-1.374	-1.053
## 82	-6.450	0.000	-0.538	-0.287
## 83	-15.252	0.000	-1.477	-1.140
## 84	-9.642	0.000	-0.777	-0.515

## 85	-10.211	0.000	-0.825	-0.559
## 86	0.642	0.521	-0.082	0.161
## 87	-12.061	0.000	-0.997	-0.718
## 88	-2.715	0.007	-0.292	-0.047
## 89	-14.018	0.000	-1.235	-0.932
## 90	-4.292	0.000	-0.393	-0.147
## 91	-15.649	0.000	-1.633	-1.270
## 92	-9.451	0.000	-0.762	-0.500
## 93	-15.755	0.000	-1.761	-1.371
## 94	-11.789	0.000	-0.969	-0.693
## 95	-15.702	0.000	-1.673	-1.302
## 96	-12.151	0.000	-1.006	-0.727
## 97	-11.054	0.000	-0.899	-0.628
## 98	-0.543	0.587	-0.155	0.088
## 99	-15.358	0.000	-1.509	-1.167
## 100	-8.972	0.000	-0.724	-0.464
## 101	-15.455	0.000	-1.542	-1.195
## 102	-5.274	0.000	-0.458	-0.210
## 103	-15.580	0.000	-1.595	-1.239
## 104	-10.494	0.000	-0.849	-0.582
## 105	-15.590	0.000	-1.951	-1.515
## 106	-12.770	0.000	-1.073	-0.788
## 107	-15.449	0.000	-2.018	-1.563
## 108	-14.544	0.000	-1.321	-1.007
## 109	-15.590	0.000	-1.951	-1.515
## 110	-13.368	0.000	-1.145	-0.852
## 111	-15.712	0.000	-1.862	-1.449
## 112	-14.173	0.000	-1.258	-0.953
## 113	3.991	0.000	0.120	0.351
## 114	3.457	0.001	0.050	0.182
## 115	2.956	0.003	0.036	0.178
## 116	4.329	0.000	0.124	0.329
## 117	2.449	0.014	0.020	0.184
## 118	3.918	0.000	0.077	0.231
## 119	4.545	0.000	0.107	0.268
## 120	5.696	0.000	0.104	0.212
## 121	3.452	0.001	0.033	0.119
## 122	2.251	0.024	0.006	0.084
## 123	4.572	0.000	0.209	0.522
## 124	3.814	0.000	0.129	0.401
## 125	6.709	0.000	0.309	0.564
## 126	9.620	0.000	0.508	0.768
## 127	5.226	0.000	0.059	0.131
## 128	2.634	0.008	0.009	0.065
## 129	3.408	0.001	0.028	0.103
## 130	2.361	0.018	0.016	0.172
## 131	7.059	0.000	0.247	0.437
## 132	5.047	0.000	0.130	0.294
## 133	7.665	0.000	0.340	0.574
## 134	3.965	0.000	0.068	0.202
## 135	3.239	0.001	0.044	0.178
## 136	3.471	0.001	0.067	0.240
## 137	7.239	0.000	0.255	0.445
## 138	4.301	0.000	0.101	0.270

## 139	7.481	0.000	0.229	0.391
## 140	6.312	0.000	0.194	0.368
## 141	5.304	0.000	0.166	0.360
## 142	0.494	0.621	-0.092	0.154
## 143	3.068	0.002	0.037	0.167
## 144	1.440	0.150	-0.022	0.142
## 145	4.792	0.000	0.141	0.335
## 146	4.321	0.000	0.084	0.224
## 147	9.618	0.000	0.348	0.525
## 148	3.145	0.002	0.061	0.265
## 149	6.952	0.000	0.192	0.342
## 150	6.089	0.000	0.137	0.267
## 151	4.185	0.000	0.080	0.221
## 152	5.270	0.000	0.119	0.260
## 153	NA	NA	1.000	1.000
## 154	6.191	0.000	0.244	0.470
## 155	NA	NA	1.000	1.000
## 156	NA	NA	1.000	1.000
## 157	NA	NA	1.000	1.000
## 158	NA	NA	1.000	1.000
## 159	NA	NA	1.000	1.000
## 160	NA	NA	1.000	1.000
## 161	NA	NA	1.000	1.000
## 162	NA	NA	1.000	1.000
## 163	NA	NA	1.000	1.000
## 164	NA	NA	1.000	1.000
## 165	NA	NA	1.000	1.000
## 166	NA	NA	1.000	1.000
## 167	NA	NA	1.000	1.000
## 168	NA	NA	1.000	1.000
## 169	NA	NA	1.000	1.000
## 170	NA	NA	1.000	1.000
## 171	NA	NA	1.000	1.000
## 172	NA	NA	1.000	1.000
## 173	NA	NA	1.000	1.000
## 174	NA	NA	1.000	1.000
## 175	NA	NA	1.000	1.000
## 176	NA	NA	1.000	1.000
## 177	NA	NA	1.000	1.000
## 178	NA	NA	1.000	1.000
## 179	NA	NA	1.000	1.000
## 180	NA	NA	1.000	1.000
## 181	NA	NA	1.000	1.000
## 182	NA	NA	1.000	1.000
## 183	NA	NA	1.000	1.000
## 184	NA	NA	1.000	1.000
## 185	NA	NA	1.000	1.000
## 186	NA	NA	1.000	1.000
## 187	NA	NA	0.000	0.000
## 188	NA	NA	0.000	0.000
## 189	NA	NA	0.000	0.000
## 190	NA	NA	0.000	0.000
## 191	NA	NA	0.000	0.000
## 192	NA	NA	0.000	0.000

```
## 193      NA      NA      0.000      0.000
## 194      NA      NA      0.000      0.000
## 195      NA      NA      0.000      0.000
## 196      NA      NA      0.000      0.000
## 197      NA      NA      0.000      0.000
## 198      NA      NA      0.000      0.000
## 199      NA      NA      0.000      0.000
## 200      NA      NA      0.000      0.000
## 201      NA      NA      0.000      0.000
## 202      NA      NA      0.000      0.000
## 203      NA      NA      0.000      0.000
## 204      NA      NA      0.000      0.000
## 205      NA      NA      0.000      0.000
## 206      NA      NA      0.000      0.000
## 207      NA      NA      0.000      0.000
## 208      NA      NA      0.000      0.000
## 209      NA      NA      0.000      0.000
## 210      NA      NA      0.000      0.000
## 211      NA      NA      0.000      0.000
## 212      NA      NA      0.000      0.000
## 213      NA      NA      0.000      0.000
## 214      NA      NA      0.000      0.000
## 215      NA      NA      0.000      0.000
## 216      NA      NA      0.000      0.000
## 217      NA      NA      0.000      0.000
## 218      NA      NA      0.000      0.000
## 219      NA      NA      0.000      0.000
## 220      NA      NA      0.000      0.000
## 221      NA      NA      0.000      0.000
## 222      NA      NA      0.000      0.000
## 223      NA      NA      0.000      0.000
## 224      NA      NA      0.000      0.000
## 225      NA      NA      0.000      0.000
## 226      NA      NA      0.000      0.000
## 227      NA      NA      0.000      0.000
## 228      NA      NA      0.000      0.000
```

```
fitMeasures(model_fit_groups,
             fit.measures = c("chisq",
                              "df",
                              "pvalue",
                              "cfi",
                              "rmsea",
                              "rmsea.ci.lower",
                              "rmsea.ci.upper"),
             output = "matrix")
```

```
##
## chisq      319.673
## df         448.000
## pvalue      1.000
## cfi         1.000
## rmsea       0.000
## rmsea.ci.lower 0.000
## rmsea.ci.upper 0.000
```



```
# Female
model_fit_groups_female <- lavaan::sem(
  model = model_sem,
  data = df_groups %>% filter(gender == "Female"),
  estimator = "WLSMV",
  ordered = names(raw_data)
)
```

```
## Warning in lav_object_post_check(object): lavaan WARNING: some estimated ov
## variances are negative
```

```
standardizedSolution(model_fit_groups_female)
```

##		lhs	op		rhs	est.	std	se
## 1		performance.expectancy	==		pe1	0.869	0.055	
## 2		performance.expectancy	==		pe2	0.942	0.028	
## 3		performance.expectancy	==		pe3	0.986	0.025	
## 4		effort.expectancy	==		ee1	0.945	0.026	
## 5		effort.expectancy	==		ee2	0.976	0.023	
## 6		effort.expectancy	==		ee3	0.923	0.031	
## 7		effort.expectancy	==		ee4	0.889	0.036	
## 8		social.influence	==		si1	0.933	0.022	
## 9		social.influence	==		si2	0.953	0.019	
## 10		social.influence	==		si3	0.986	0.014	
## 11		facilitating.conditions	==		fc1	0.906	0.056	
## 12		facilitating.conditions	==		fc2	0.947	0.048	
## 13		facilitating.conditions	==		fc3	0.765	0.068	
## 14		facilitating.conditions	==		fc4	0.568	0.087	
## 15		hedonic.motivation	==		hm1	0.970	0.014	
## 16		hedonic.motivation	==		hm2	0.973	0.012	
## 17		hedonic.motivation	==		hm3	0.987	0.012	
## 18		habit	==		ht1	0.945	0.040	
## 19		habit	==		ht2	0.736	0.058	
## 20		habit	==		ht3	0.929	0.038	
## 21		learning.value	==		lv1	0.630	0.079	
## 22		learning.value	==		lv2	0.898	0.040	
## 23		learning.value	==		lv3	0.942	0.031	
## 24		technology.innovativeness	==		ti1	0.945	0.032	
## 25		technology.innovativeness	==		ti2	0.786	0.049	
## 26		technology.innovativeness	==		ti3	0.890	0.037	
## 27		attitude.strength	==		as1	0.877	0.027	
## 28		attitude.strength	==		as2	0.830	0.047	
## 29		attitude.strength	==		as3	0.886	0.036	
## 30		behavior.intention	==		bi1	1.031	0.058	
## 31		behavior.intention	==		bi2	0.928	0.033	
## 32		behavior.intention	==		bi3	1.025	0.035	
## 33		performance.expectancy	~	attitude.strength		0.877	0.042	
## 34		effort.expectancy	~	attitude.strength		0.949	0.024	
## 35		social.influence	~	attitude.strength		0.786	0.045	
## 36		facilitating.conditions	~	attitude.strength		0.906	0.043	
## 37		hedonic.motivation	~	attitude.strength		0.849	0.037	
## 38		habit	~	attitude.strength		0.875	0.035	
## 39		learning.value	~	attitude.strength		0.937	0.033	
## 40		technology.innovativeness	~	attitude.strength		0.930	0.028	
## 41		behavior.intention	~	performance.expectancy		0.223	0.238	

## 42	behavior.intention	~	effort.expectancy	0.148	0.410
## 43	behavior.intention	~	social.influence	-0.237	0.160
## 44	behavior.intention	~	facilitating.conditions	0.493	0.281
## 45	behavior.intention	~	hedonic.motivation	0.425	0.162
## 46	behavior.intention	~	habit	0.266	0.289
## 47	behavior.intention	~	learning.value	-0.426	0.331
## 48	behavior.intention	~	technology.innovativeness	-0.132	0.406
## 49	pe1		t1	-1.709	0.175
## 50	pe1		t2	-1.181	0.129
## 51	pe2		t1	-2.080	0.235
## 52	pe2		t2	-0.911	0.116
## 53	pe3		t1	-1.709	0.175
## 54	pe3		t2	-0.674	0.108
## 55	ee1		t1	-1.645	0.168
## 56	ee1		t2	-1.036	0.121
## 57	ee2		t1	-1.587	0.161
## 58	ee2		t2	-1.181	0.129
## 59	ee3		t1	-1.645	0.168
## 60	ee3		t2	-1.036	0.121
## 61	ee4		t1	-1.780	0.184
## 62	ee4		t2	-0.935	0.117
## 63	si1		t1	-1.092	0.124
## 64	si1		t2	-0.419	0.103
## 65	si2		t1	-0.959	0.118
## 66	si2		t2	-0.335	0.101
## 67	si3		t1	-1.036	0.121
## 68	si3		t2	-0.471	0.104
## 69	fc1		t1	-2.080	0.235
## 70	fc1		t2	-1.282	0.136
## 71	fc2		t1	-1.780	0.184
## 72	fc2		t2	-1.121	0.126
## 73	fc3		t1	-1.780	0.184
## 74	fc3		t2	-0.864	0.114
## 75	fc4		t1	-1.121	0.126
## 76	fc4		t2	-0.561	0.105
## 77	hm1		t1	-1.318	0.138
## 78	hm1		t2	-0.402	0.102
## 79	hm2		t1	-1.318	0.138
## 80	hm2		t2	-0.507	0.104
## 81	hm3		t1	-1.181	0.129
## 82	hm3		t2	-0.471	0.104
## 83	ht1		t1	-1.534	0.156
## 84	ht1		t2	-0.755	0.110
## 85	ht2		t1	-0.735	0.110
## 86	ht2		t2	0.031	0.099
## 87	ht3		t1	-0.887	0.115
## 88	ht3		t2	-0.221	0.100
## 89	lv1		t1	-1.036	0.121
## 90	lv1		t2	-0.335	0.101
## 91	lv2		t1	-1.534	0.156
## 92	lv2		t2	-0.776	0.111
## 93	lv3		t1	-1.587	0.161
## 94	lv3		t2	-0.935	0.117
## 95	ti1		t1	-1.645	0.168

## 96	ti1		t2	-0.887	0.115
## 97	ti2		t1	-0.842	0.113
## 98	ti2		t2	-0.189	0.100
## 99	ti3		t1	-1.485	0.152
## 100	ti3		t2	-0.617	0.107
## 101	as1		t1	-1.534	0.156
## 102	as1		t2	-0.436	0.103
## 103	as2		t1	-1.587	0.161
## 104	as2		t2	-0.755	0.110
## 105	as3		t1	-1.709	0.175
## 106	as3		t2	-0.959	0.118
## 107	bi1		t1	-1.863	0.196
## 108	bi1		t2	-1.318	0.138
## 109	bi2		t1	-1.709	0.175
## 110	bi2		t2	-0.911	0.116
## 111	bi3		t1	-1.485	0.152
## 112	bi3		t2	-1.150	0.127
## 113	pe1	~~	pe1	0.245	0.095
## 114	pe2	~~	pe2	0.113	0.053
## 115	pe3	~~	pe3	0.028	0.049
## 116	ee1	~~	ee1	0.107	0.049
## 117	ee2	~~	ee2	0.048	0.045
## 118	ee3	~~	ee3	0.148	0.057
## 119	ee4	~~	ee4	0.209	0.064
## 120	si1	~~	si1	0.129	0.041
## 121	si2	~~	si2	0.092	0.036
## 122	si3	~~	si3	0.029	0.028
## 123	fc1	~~	fc1	0.178	0.101
## 124	fc2	~~	fc2	0.103	0.090
## 125	fc3	~~	fc3	0.414	0.103
## 126	fc4	~~	fc4	0.678	0.099
## 127	hm1	~~	hm1	0.059	0.027
## 128	hm2	~~	hm2	0.053	0.024
## 129	hm3	~~	hm3	0.026	0.023
## 130	ht1	~~	ht1	0.108	0.075
## 131	ht2	~~	ht2	0.459	0.085
## 132	ht3	~~	ht3	0.136	0.070
## 133	lv1	~~	lv1	0.602	0.099
## 134	lv2	~~	lv2	0.194	0.071
## 135	lv3	~~	lv3	0.112	0.059
## 136	ti1	~~	ti1	0.107	0.061
## 137	ti2	~~	ti2	0.382	0.077
## 138	ti3	~~	ti3	0.207	0.066
## 139	as1	~~	as1	0.232	0.048
## 140	as2	~~	as2	0.312	0.079
## 141	as3	~~	as3	0.215	0.064
## 142	bi1	~~	bi1	-0.063	0.119
## 143	bi2	~~	bi2	0.139	0.062
## 144	bi3	~~	bi3	-0.051	0.072
## 145	performance.expectancy	~~	performance.expectancy	0.231	0.073
## 146	effort.expectancy	~~	effort.expectancy	0.099	0.045
## 147	social.influence	~~	social.influence	0.382	0.070
## 148	facilitating.conditions	~~	facilitating.conditions	0.179	0.077
## 149	hedonic.motivation	~~	hedonic.motivation	0.279	0.063

## 150	habit	~~	habit	0.234	0.062
## 151	learning.value	~~	learning.value	0.122	0.062
## 152	technology.innovativeness	~~	technology.innovativeness	0.136	0.052
## 153	attitude.strength	~~	attitude.strength	1.000	0.000
## 154	behavior.intention	~~	behavior.intention	0.382	0.111
## 155	pe1	~~~	pe1	1.000	0.000
## 156	pe2	~~~	pe2	1.000	0.000
## 157	pe3	~~~	pe3	1.000	0.000
## 158	ee1	~~~	ee1	1.000	0.000
## 159	ee2	~~~	ee2	1.000	0.000
## 160	ee3	~~~	ee3	1.000	0.000
## 161	ee4	~~~	ee4	1.000	0.000
## 162	si1	~~~	si1	1.000	0.000
## 163	si2	~~~	si2	1.000	0.000
## 164	si3	~~~	si3	1.000	0.000
## 165	fc1	~~~	fc1	1.000	0.000
## 166	fc2	~~~	fc2	1.000	0.000
## 167	fc3	~~~	fc3	1.000	0.000
## 168	fc4	~~~	fc4	1.000	0.000
## 169	hm1	~~~	hm1	1.000	0.000
## 170	hm2	~~~	hm2	1.000	0.000
## 171	hm3	~~~	hm3	1.000	0.000
## 172	ht1	~~~	ht1	1.000	0.000
## 173	ht2	~~~	ht2	1.000	0.000
## 174	ht3	~~~	ht3	1.000	0.000
## 175	lv1	~~~	lv1	1.000	0.000
## 176	lv2	~~~	lv2	1.000	0.000
## 177	lv3	~~~	lv3	1.000	0.000
## 178	ti1	~~~	ti1	1.000	0.000
## 179	ti2	~~~	ti2	1.000	0.000
## 180	ti3	~~~	ti3	1.000	0.000
## 181	as1	~~~	as1	1.000	0.000
## 182	as2	~~~	as2	1.000	0.000
## 183	as3	~~~	as3	1.000	0.000
## 184	bi1	~~~	bi1	1.000	0.000
## 185	bi2	~~~	bi2	1.000	0.000
## 186	bi3	~~~	bi3	1.000	0.000
## 187	pe1	~1		0.000	0.000
## 188	pe2	~1		0.000	0.000
## 189	pe3	~1		0.000	0.000
## 190	ee1	~1		0.000	0.000
## 191	ee2	~1		0.000	0.000
## 192	ee3	~1		0.000	0.000
## 193	ee4	~1		0.000	0.000
## 194	si1	~1		0.000	0.000
## 195	si2	~1		0.000	0.000
## 196	si3	~1		0.000	0.000
## 197	fc1	~1		0.000	0.000
## 198	fc2	~1		0.000	0.000
## 199	fc3	~1		0.000	0.000
## 200	fc4	~1		0.000	0.000
## 201	hm1	~1		0.000	0.000
## 202	hm2	~1		0.000	0.000
## 203	hm3	~1		0.000	0.000

## 204	ht1	~1	0.000	0.000
## 205	ht2	~1	0.000	0.000
## 206	ht3	~1	0.000	0.000
## 207	lv1	~1	0.000	0.000
## 208	lv2	~1	0.000	0.000
## 209	lv3	~1	0.000	0.000
## 210	ti1	~1	0.000	0.000
## 211	ti2	~1	0.000	0.000
## 212	ti3	~1	0.000	0.000
## 213	as1	~1	0.000	0.000
## 214	as2	~1	0.000	0.000
## 215	as3	~1	0.000	0.000
## 216	bi1	~1	0.000	0.000
## 217	bi2	~1	0.000	0.000
## 218	bi3	~1	0.000	0.000
## 219	performance.expectancy	~1	0.000	0.000
## 220	effort.expectancy	~1	0.000	0.000
## 221	social.influence	~1	0.000	0.000
## 222	facilitating.conditions	~1	0.000	0.000
## 223	hedonic.motivation	~1	0.000	0.000
## 224	habit	~1	0.000	0.000
## 225	learning.value	~1	0.000	0.000
## 226	technology.innovativeness	~1	0.000	0.000
## 227	attitude.strength	~1	0.000	0.000
## 228	behavior.intention	~1	0.000	0.000
##	z	pvalue	ci.lower	ci.upper
## 1	15.835	0.000	0.762	0.977
## 2	33.208	0.000	0.886	0.997
## 3	39.400	0.000	0.937	1.035
## 4	36.471	0.000	0.894	0.996
## 5	42.131	0.000	0.930	1.021
## 6	29.671	0.000	0.862	0.984
## 7	24.736	0.000	0.819	0.960
## 8	42.741	0.000	0.890	0.976
## 9	49.984	0.000	0.915	0.990
## 10	68.324	0.000	0.957	1.014
## 11	16.296	0.000	0.797	1.015
## 12	19.874	0.000	0.854	1.040
## 13	11.326	0.000	0.633	0.898
## 14	6.500	0.000	0.396	0.739
## 15	70.679	0.000	0.943	0.997
## 16	78.484	0.000	0.949	0.998
## 17	84.859	0.000	0.964	1.010
## 18	23.763	0.000	0.867	1.023
## 19	12.699	0.000	0.622	0.849
## 20	24.570	0.000	0.855	1.004
## 21	8.000	0.000	0.476	0.785
## 22	22.689	0.000	0.820	0.976
## 23	30.228	0.000	0.881	1.004
## 24	29.245	0.000	0.882	1.009
## 25	16.074	0.000	0.690	0.882
## 26	23.931	0.000	0.817	0.963
## 27	32.058	0.000	0.823	0.930
## 28	17.494	0.000	0.737	0.923

## 29	24.478	0.000	0.815	0.957
## 30	17.911	0.000	0.918	1.144
## 31	27.763	0.000	0.862	0.993
## 32	29.400	0.000	0.957	1.094
## 33	20.948	0.000	0.795	0.959
## 34	39.769	0.000	0.903	0.996
## 35	17.529	0.000	0.698	0.874
## 36	21.221	0.000	0.822	0.990
## 37	22.977	0.000	0.777	0.922
## 38	24.849	0.000	0.806	0.944
## 39	28.446	0.000	0.872	1.002
## 40	32.972	0.000	0.874	0.985
## 41	0.934	0.350	-0.245	0.690
## 42	0.361	0.718	-0.656	0.951
## 43	-1.479	0.139	-0.551	0.077
## 44	1.754	0.079	-0.058	1.045
## 45	2.618	0.009	0.107	0.743
## 46	0.921	0.357	-0.301	0.833
## 47	-1.286	0.198	-1.075	0.223
## 48	-0.325	0.745	-0.928	0.664
## 49	-9.761	0.000	-2.052	-1.366
## 50	-9.143	0.000	-1.434	-0.928
## 51	-8.864	0.000	-2.540	-1.620
## 52	-7.855	0.000	-1.138	-0.683
## 53	-9.761	0.000	-2.052	-1.366
## 54	-6.242	0.000	-0.886	-0.463
## 55	-9.815	0.000	-1.973	-1.316
## 56	-8.534	0.000	-1.274	-0.798
## 57	-9.835	0.000	-1.903	-1.271
## 58	-9.143	0.000	-1.434	-0.928
## 59	-9.815	0.000	-1.973	-1.316
## 60	-8.534	0.000	-1.274	-0.798
## 61	-9.662	0.000	-2.142	-1.419
## 62	-7.995	0.000	-1.164	-0.705
## 63	-8.788	0.000	-1.335	-0.848
## 64	-4.085	0.000	-0.620	-0.218
## 65	-8.133	0.000	-1.190	-0.728
## 66	-3.304	0.001	-0.534	-0.136
## 67	-8.534	0.000	-1.274	-0.798
## 68	-4.552	0.000	-0.674	-0.268
## 69	-8.864	0.000	-2.540	-1.620
## 70	-9.453	0.000	-1.547	-1.016
## 71	-9.662	0.000	-2.142	-1.419
## 72	-8.910	0.000	-1.367	-0.874
## 73	-9.662	0.000	-2.142	-1.419
## 74	-7.572	0.000	-1.088	-0.640
## 75	-8.910	0.000	-1.367	-0.874
## 76	-5.326	0.000	-0.767	-0.354
## 77	-9.543	0.000	-1.589	-1.047
## 78	-3.929	0.000	-0.603	-0.202
## 79	-9.543	0.000	-1.589	-1.047
## 80	-4.862	0.000	-0.711	-0.302
## 81	-9.143	0.000	-1.434	-0.928
## 82	-4.552	0.000	-0.674	-0.268

## 83	-9.828	0.000	-1.840	-1.228
## 84	-6.841	0.000	-0.972	-0.539
## 85	-6.692	0.000	-0.950	-0.520
## 86	0.315	0.753	-0.164	0.226
## 87	-7.714	0.000	-1.113	-0.662
## 88	-2.205	0.027	-0.418	-0.025
## 89	-8.534	0.000	-1.274	-0.798
## 90	-3.304	0.001	-0.534	-0.136
## 91	-9.828	0.000	-1.840	-1.228
## 92	-6.989	0.000	-0.994	-0.559
## 93	-9.835	0.000	-1.903	-1.271
## 94	-7.995	0.000	-1.164	-0.705
## 95	-9.815	0.000	-1.973	-1.316
## 96	-7.714	0.000	-1.113	-0.662
## 97	-7.428	0.000	-1.064	-0.620
## 98	-1.890	0.059	-0.385	0.007
## 99	-9.801	0.000	-1.782	-1.188
## 100	-5.786	0.000	-0.825	-0.408
## 101	-9.828	0.000	-1.840	-1.228
## 102	-4.241	0.000	-0.638	-0.235
## 103	-9.835	0.000	-1.903	-1.271
## 104	-6.841	0.000	-0.972	-0.539
## 105	-9.761	0.000	-2.052	-1.366
## 106	-8.133	0.000	-1.190	-0.728
## 107	-9.501	0.000	-2.247	-1.478
## 108	-9.543	0.000	-1.589	-1.047
## 109	-9.761	0.000	-2.052	-1.366
## 110	-7.855	0.000	-1.138	-0.683
## 111	-9.801	0.000	-1.782	-1.188
## 112	-9.029	0.000	-1.400	-0.901
## 113	2.565	0.010	0.058	0.432
## 114	2.113	0.035	0.008	0.218
## 115	0.559	0.576	-0.069	0.124
## 116	2.181	0.029	0.011	0.203
## 117	1.058	0.290	-0.041	0.136
## 118	2.569	0.010	0.035	0.260
## 119	3.275	0.001	0.084	0.335
## 120	3.171	0.002	0.049	0.209
## 121	2.544	0.011	0.021	0.164
## 122	1.011	0.312	-0.027	0.084
## 123	1.769	0.077	-0.019	0.376
## 124	1.146	0.252	-0.073	0.280
## 125	4.002	0.000	0.211	0.617
## 126	6.839	0.000	0.484	0.872
## 127	2.222	0.026	0.007	0.111
## 128	2.180	0.029	0.005	0.100
## 129	1.112	0.266	-0.019	0.071
## 130	1.433	0.152	-0.040	0.255
## 131	5.381	0.000	0.292	0.626
## 132	1.935	0.053	-0.002	0.274
## 133	6.063	0.000	0.408	0.797
## 134	2.724	0.006	0.054	0.333
## 135	1.903	0.057	-0.003	0.227
## 136	1.745	0.081	-0.013	0.226

## 137	4.976	0.000	0.232	0.533
## 138	3.131	0.002	0.078	0.337
## 139	4.829	0.000	0.138	0.325
## 140	3.959	0.000	0.157	0.466
## 141	3.352	0.001	0.089	0.341
## 142	-0.532	0.595	-0.296	0.170
## 143	2.246	0.025	0.018	0.261
## 144	-0.719	0.472	-0.192	0.089
## 145	3.139	0.002	0.087	0.375
## 146	2.176	0.030	0.010	0.187
## 147	5.425	0.000	0.244	0.520
## 148	2.311	0.021	0.027	0.331
## 149	4.437	0.000	0.156	0.402
## 150	3.793	0.000	0.113	0.355
## 151	1.975	0.048	0.001	0.243
## 152	2.591	0.010	0.033	0.239
## 153	NA	NA	1.000	1.000
## 154	3.440	0.001	0.164	0.600
## 155	NA	NA	1.000	1.000
## 156	NA	NA	1.000	1.000
## 157	NA	NA	1.000	1.000
## 158	NA	NA	1.000	1.000
## 159	NA	NA	1.000	1.000
## 160	NA	NA	1.000	1.000
## 161	NA	NA	1.000	1.000
## 162	NA	NA	1.000	1.000
## 163	NA	NA	1.000	1.000
## 164	NA	NA	1.000	1.000
## 165	NA	NA	1.000	1.000
## 166	NA	NA	1.000	1.000
## 167	NA	NA	1.000	1.000
## 168	NA	NA	1.000	1.000
## 169	NA	NA	1.000	1.000
## 170	NA	NA	1.000	1.000
## 171	NA	NA	1.000	1.000
## 172	NA	NA	1.000	1.000
## 173	NA	NA	1.000	1.000
## 174	NA	NA	1.000	1.000
## 175	NA	NA	1.000	1.000
## 176	NA	NA	1.000	1.000
## 177	NA	NA	1.000	1.000
## 178	NA	NA	1.000	1.000
## 179	NA	NA	1.000	1.000
## 180	NA	NA	1.000	1.000
## 181	NA	NA	1.000	1.000
## 182	NA	NA	1.000	1.000
## 183	NA	NA	1.000	1.000
## 184	NA	NA	1.000	1.000
## 185	NA	NA	1.000	1.000
## 186	NA	NA	1.000	1.000
## 187	NA	NA	0.000	0.000
## 188	NA	NA	0.000	0.000
## 189	NA	NA	0.000	0.000
## 190	NA	NA	0.000	0.000



```

## 191      NA      NA      0.000      0.000
## 192      NA      NA      0.000      0.000
## 193      NA      NA      0.000      0.000
## 194      NA      NA      0.000      0.000
## 195      NA      NA      0.000      0.000
## 196      NA      NA      0.000      0.000
## 197      NA      NA      0.000      0.000
## 198      NA      NA      0.000      0.000
## 199      NA      NA      0.000      0.000
## 200      NA      NA      0.000      0.000
## 201      NA      NA      0.000      0.000
## 202      NA      NA      0.000      0.000
## 203      NA      NA      0.000      0.000
## 204      NA      NA      0.000      0.000
## 205      NA      NA      0.000      0.000
## 206      NA      NA      0.000      0.000
## 207      NA      NA      0.000      0.000
## 208      NA      NA      0.000      0.000
## 209      NA      NA      0.000      0.000
## 210      NA      NA      0.000      0.000
## 211      NA      NA      0.000      0.000
## 212      NA      NA      0.000      0.000
## 213      NA      NA      0.000      0.000
## 214      NA      NA      0.000      0.000
## 215      NA      NA      0.000      0.000
## 216      NA      NA      0.000      0.000
## 217      NA      NA      0.000      0.000
## 218      NA      NA      0.000      0.000
## 219      NA      NA      0.000      0.000
## 220      NA      NA      0.000      0.000
## 221      NA      NA      0.000      0.000
## 222      NA      NA      0.000      0.000
## 223      NA      NA      0.000      0.000
## 224      NA      NA      0.000      0.000
## 225      NA      NA      0.000      0.000
## 226      NA      NA      0.000      0.000
## 227      NA      NA      0.000      0.000
## 228      NA      NA      0.000      0.000

```

```

fitMeasures(model_fit_groups_female,
  fit.measures = c("chisq",
    "df",
    "pvalue",
    "cfi",
    "rmsea",
    "rmsea.ci.lower",
    "rmsea.ci.upper",
    "srmr"),
  output = "matrix")

```

```

##
## chisq      248.200
## df        448.000
## pvalue      1.000
## cfi        1.000

```

```
## rmsea          0.000
## rmsea.ci.lower 0.000
## rmsea.ci.upper 0.000
## srmr           0.061
```

```
# Male
model_fit_groups_male <- lavaan::sem(
  model = model_sem,
  data = df_groups %>% filter(gender == "Male"),
  estimator = "WLSMV",
  ordered = names(raw_data),
  group = "gender"
)
```

```
standardizedSolution(model_fit_groups_male)
```

##		lhs	op		rhs	est.std	se
## 1	performance.expectancy	=~		pe1	0.891	0.037	
## 2	performance.expectancy	=~		pe2	0.953	0.022	
## 3	performance.expectancy	=~		pe3	0.928	0.029	
## 4	effort.expectancy	=~		ee1	0.837	0.047	
## 5	effort.expectancy	=~		ee2	0.924	0.034	
## 6	effort.expectancy	=~		ee3	0.920	0.027	
## 7	effort.expectancy	=~		ee4	0.906	0.029	
## 8	social.influence	=~		si1	0.908	0.020	
## 9	social.influence	=~		si2	0.968	0.013	
## 10	social.influence	=~		si3	0.974	0.014	
## 11	facilitating.conditions	=~		fc1	0.726	0.073	
## 12	facilitating.conditions	=~		fc2	0.802	0.055	
## 13	facilitating.conditions	=~		fc3	0.736	0.057	
## 14	facilitating.conditions	=~		fc4	0.620	0.070	
## 15	hedonic.motivation	=~		hm1	0.950	0.012	
## 16	hedonic.motivation	=~		hm2	0.981	0.008	
## 17	hedonic.motivation	=~		hm3	0.958	0.014	
## 18	habit	=~		ht1	0.958	0.024	
## 19	habit	=~		ht2	0.857	0.030	
## 20	habit	=~		ht3	0.867	0.030	
## 21	learning.value	=~		lv1	0.801	0.042	
## 22	learning.value	=~		lv2	0.951	0.018	
## 23	learning.value	=~		lv3	0.939	0.023	
## 24	technology.innovativeness	=~		ti1	0.908	0.034	
## 25	technology.innovativeness	=~		ti2	0.824	0.036	
## 26	technology.innovativeness	=~		ti3	0.919	0.028	
## 27	attitude.strength	=~		as1	0.813	0.035	
## 28	attitude.strength	=~		as2	0.860	0.030	
## 29	attitude.strength	=~		as3	0.847	0.039	
## 30	behavior.intention	=~		bi1	0.951	0.034	
## 31	behavior.intention	=~		bi2	0.970	0.016	
## 32	behavior.intention	=~		bi3	0.945	0.025	
## 33	performance.expectancy	~	attitude.strength		0.864	0.037	
## 34	effort.expectancy	~	attitude.strength		0.913	0.026	
## 35	social.influence	~	attitude.strength		0.727	0.040	
## 36	facilitating.conditions	~	attitude.strength		0.930	0.037	
## 37	hedonic.motivation	~	attitude.strength		0.864	0.027	
## 38	habit	~	attitude.strength		0.907	0.020	

## 39	learning.value	~	attitude.strength	0.916	0.023
## 40	technology.innovativeness	~	attitude.strength	0.880	0.026
## 41	behavior.intention	~	performance.expectancy	0.041	0.178
## 42	behavior.intention	~	effort.expectancy	0.378	0.204
## 43	behavior.intention	~	social.influence	0.103	0.116
## 44	behavior.intention	~	facilitating.conditions	-0.484	0.336
## 45	behavior.intention	~	hedonic.motivation	0.459	0.131
## 46	behavior.intention	~	habit	0.131	0.204
## 47	behavior.intention	~	learning.value	0.153	0.184
## 48	behavior.intention	~	technology.innovativeness	0.170	0.164
## 49	pe1		t1	-1.797	0.149
## 50	pe1		t2	-1.078	0.099
## 51	pe2		t1	-1.520	0.124
## 52	pe2		t2	-0.882	0.092
## 53	pe3		t1	-1.489	0.122
## 54	pe3		t2	-0.703	0.087
## 55	ee1		t1	-1.850	0.155
## 56	ee1		t2	-1.078	0.099
## 57	ee2		t1	-1.749	0.144
## 58	ee2		t2	-1.153	0.102
## 59	ee3		t1	-1.976	0.172
## 60	ee3		t2	-0.944	0.094
## 61	ee4		t1	-1.797	0.149
## 62	ee4		t2	-0.959	0.094
## 63	si1		t1	-1.096	0.100
## 64	si1		t2	-0.198	0.080
## 65	si2		t1	-0.839	0.091
## 66	si2		t2	-0.126	0.080
## 67	si3		t1	-1.008	0.096
## 68	si3		t2	-0.177	0.080
## 69	fc1		t1	-1.850	0.155
## 70	fc1		t2	-1.279	0.108
## 71	fc2		t1	-1.909	0.163
## 72	fc2		t2	-0.913	0.093
## 73	fc3		t1	-1.624	0.132
## 74	fc3		t2	-0.628	0.086
## 75	fc4		t1	-0.882	0.092
## 76	fc4		t2	-0.431	0.082
## 77	hm1		t1	-1.214	0.105
## 78	hm1		t2	-0.533	0.084
## 79	hm2		t1	-1.279	0.108
## 80	hm2		t2	-0.442	0.082
## 81	hm3		t1	-1.235	0.106
## 82	hm3		t2	-0.376	0.082
## 83	ht1		t1	-1.193	0.104
## 84	ht1		t2	-0.580	0.085
## 85	ht2		t1	-0.665	0.086
## 86	ht2		t2	0.045	0.080
## 87	ht3		t1	-0.839	0.091
## 88	ht3		t2	-0.136	0.080
## 89	lv1		t1	-1.115	0.100
## 90	lv1		t2	-0.228	0.080
## 91	lv2		t1	-1.403	0.116
## 92	lv2		t2	-0.544	0.084

## 93	lv3		t1	-1.553	0.126
## 94	lv3		t2	-0.769	0.089
## 95	ti1		t1	-1.403	0.116
## 96	ti1		t2	-0.853	0.091
## 97	ti2		t1	-0.716	0.087
## 98	ti2		t2	0.065	0.080
## 99	ti3		t1	-1.257	0.107
## 100	ti3		t2	-0.580	0.085
## 101	as1		t1	-1.279	0.108
## 102	as1		t2	-0.270	0.081
## 103	as2		t1	-1.326	0.111
## 104	as2		t2	-0.690	0.087
## 105	as3		t1	-1.749	0.144
## 106	as3		t2	-0.913	0.093
## 107	bi1		t1	-1.749	0.144
## 108	bi1		t2	-1.078	0.099
## 109	bi2		t1	-1.749	0.144
## 110	bi2		t2	-1.060	0.098
## 111	bi3		t1	-1.797	0.149
## 112	bi3		t2	-1.078	0.099
## 113	pe1	~~	pe1	0.207	0.067
## 114	pe2	~~	pe2	0.091	0.043
## 115	pe3	~~	pe3	0.139	0.053
## 116	ee1	~~	ee1	0.300	0.079
## 117	ee2	~~	ee2	0.146	0.063
## 118	ee3	~~	ee3	0.153	0.050
## 119	ee4	~~	ee4	0.178	0.052
## 120	si1	~~	si1	0.176	0.037
## 121	si2	~~	si2	0.062	0.025
## 122	si3	~~	si3	0.052	0.027
## 123	fc1	~~	fc1	0.473	0.106
## 124	fc2	~~	fc2	0.357	0.089
## 125	fc3	~~	fc3	0.459	0.084
## 126	fc4	~~	fc4	0.615	0.086
## 127	hm1	~~	hm1	0.097	0.023
## 128	hm2	~~	hm2	0.037	0.016
## 129	hm3	~~	hm3	0.082	0.026
## 130	ht1	~~	ht1	0.083	0.046
## 131	ht2	~~	ht2	0.266	0.052
## 132	ht3	~~	ht3	0.249	0.053
## 133	lv1	~~	lv1	0.358	0.067
## 134	lv2	~~	lv2	0.096	0.034
## 135	lv3	~~	lv3	0.118	0.043
## 136	ti1	~~	ti1	0.176	0.061
## 137	ti2	~~	ti2	0.321	0.060
## 138	ti3	~~	ti3	0.156	0.052
## 139	as1	~~	as1	0.339	0.057
## 140	as2	~~	as2	0.260	0.052
## 141	as3	~~	as3	0.283	0.066
## 142	bi1	~~	bi1	0.096	0.065
## 143	bi2	~~	bi2	0.059	0.032
## 144	bi3	~~	bi3	0.106	0.048
## 145	performance.expectancy	~~	performance.expectancy	0.253	0.063
## 146	effort.expectancy	~~	effort.expectancy	0.167	0.048

## 147	social.influence	~~	social.influence	0.471	0.058
## 148	facilitating.conditions	~~	facilitating.conditions	0.135	0.069
## 149	hedonic.motivation	~~	hedonic.motivation	0.254	0.047
## 150	habit	~~	habit	0.177	0.037
## 151	learning.value	~~	learning.value	0.160	0.043
## 152	technology.innovativeness	~~	technology.innovativeness	0.225	0.047
## 153	attitude.strength	~~	attitude.strength	1.000	0.000
## 154	behavior.intention	~~	behavior.intention	0.216	0.075
## 155	pe1	~~~	pe1	1.000	0.000
## 156	pe2	~~~	pe2	1.000	0.000
## 157	pe3	~~~	pe3	1.000	0.000
## 158	ee1	~~~	ee1	1.000	0.000
## 159	ee2	~~~	ee2	1.000	0.000
## 160	ee3	~~~	ee3	1.000	0.000
## 161	ee4	~~~	ee4	1.000	0.000
## 162	si1	~~~	si1	1.000	0.000
## 163	si2	~~~	si2	1.000	0.000
## 164	si3	~~~	si3	1.000	0.000
## 165	fc1	~~~	fc1	1.000	0.000
## 166	fc2	~~~	fc2	1.000	0.000
## 167	fc3	~~~	fc3	1.000	0.000
## 168	fc4	~~~	fc4	1.000	0.000
## 169	hm1	~~~	hm1	1.000	0.000
## 170	hm2	~~~	hm2	1.000	0.000
## 171	hm3	~~~	hm3	1.000	0.000
## 172	ht1	~~~	ht1	1.000	0.000
## 173	ht2	~~~	ht2	1.000	0.000
## 174	ht3	~~~	ht3	1.000	0.000
## 175	lv1	~~~	lv1	1.000	0.000
## 176	lv2	~~~	lv2	1.000	0.000
## 177	lv3	~~~	lv3	1.000	0.000
## 178	ti1	~~~	ti1	1.000	0.000
## 179	ti2	~~~	ti2	1.000	0.000
## 180	ti3	~~~	ti3	1.000	0.000
## 181	as1	~~~	as1	1.000	0.000
## 182	as2	~~~	as2	1.000	0.000
## 183	as3	~~~	as3	1.000	0.000
## 184	bi1	~~~	bi1	1.000	0.000
## 185	bi2	~~~	bi2	1.000	0.000
## 186	bi3	~~~	bi3	1.000	0.000
## 187	pe1	~1		0.000	0.000
## 188	pe2	~1		0.000	0.000
## 189	pe3	~1		0.000	0.000
## 190	ee1	~1		0.000	0.000
## 191	ee2	~1		0.000	0.000
## 192	ee3	~1		0.000	0.000
## 193	ee4	~1		0.000	0.000
## 194	si1	~1		0.000	0.000
## 195	si2	~1		0.000	0.000
## 196	si3	~1		0.000	0.000
## 197	fc1	~1		0.000	0.000
## 198	fc2	~1		0.000	0.000
## 199	fc3	~1		0.000	0.000
## 200	fc4	~1		0.000	0.000

## 201	hm1	~1	0.000	0.000
## 202	hm2	~1	0.000	0.000
## 203	hm3	~1	0.000	0.000
## 204	ht1	~1	0.000	0.000
## 205	ht2	~1	0.000	0.000
## 206	ht3	~1	0.000	0.000
## 207	lv1	~1	0.000	0.000
## 208	lv2	~1	0.000	0.000
## 209	lv3	~1	0.000	0.000
## 210	ti1	~1	0.000	0.000
## 211	ti2	~1	0.000	0.000
## 212	ti3	~1	0.000	0.000
## 213	as1	~1	0.000	0.000
## 214	as2	~1	0.000	0.000
## 215	as3	~1	0.000	0.000
## 216	bi1	~1	0.000	0.000
## 217	bi2	~1	0.000	0.000
## 218	bi3	~1	0.000	0.000
## 219	performance.expectancy	~1	0.000	0.000
## 220	effort.expectancy	~1	0.000	0.000
## 221	social.influence	~1	0.000	0.000
## 222	facilitating.conditions	~1	0.000	0.000
## 223	hedonic.motivation	~1	0.000	0.000
## 224	habit	~1	0.000	0.000
## 225	learning.value	~1	0.000	0.000
## 226	technology.innovativeness	~1	0.000	0.000
## 227	attitude.strength	~1	0.000	0.000
## 228	behavior.intention	~1	0.000	0.000
##	z	pvalue	ci.lower	ci.upper
## 1	23.824	0.000	0.817	0.964
## 2	42.646	0.000	0.909	0.997
## 3	32.240	0.000	0.871	0.984
## 4	17.665	0.000	0.744	0.930
## 5	27.277	0.000	0.858	0.991
## 6	33.702	0.000	0.867	0.974
## 7	31.593	0.000	0.850	0.963
## 8	44.628	0.000	0.868	0.948
## 9	73.569	0.000	0.943	0.994
## 10	70.629	0.000	0.947	1.001
## 11	9.972	0.000	0.583	0.869
## 12	14.495	0.000	0.693	0.910
## 13	12.833	0.000	0.623	0.848
## 14	8.917	0.000	0.484	0.756
## 15	80.218	0.000	0.927	0.973
## 16	118.213	0.000	0.965	0.998
## 17	70.122	0.000	0.931	0.985
## 18	39.994	0.000	0.911	1.004
## 19	28.221	0.000	0.797	0.916
## 20	28.420	0.000	0.807	0.926
## 21	19.107	0.000	0.719	0.884
## 22	52.821	0.000	0.916	0.986
## 23	41.068	0.000	0.894	0.984
## 24	26.925	0.000	0.842	0.974
## 25	22.629	0.000	0.753	0.895

## 26	32.342	0.000	0.863	0.974
## 27	23.364	0.000	0.745	0.881
## 28	28.320	0.000	0.801	0.920
## 29	21.812	0.000	0.771	0.923
## 30	28.008	0.000	0.884	1.017
## 31	59.174	0.000	0.938	1.002
## 32	37.280	0.000	0.896	0.995
## 33	23.576	0.000	0.792	0.936
## 34	35.071	0.000	0.862	0.964
## 35	18.324	0.000	0.650	0.805
## 36	25.084	0.000	0.858	1.003
## 37	31.486	0.000	0.810	0.918
## 38	44.549	0.000	0.867	0.947
## 39	39.364	0.000	0.871	0.962
## 40	33.295	0.000	0.829	0.932
## 41	0.229	0.819	-0.308	0.389
## 42	1.850	0.064	-0.023	0.779
## 43	0.882	0.378	-0.126	0.331
## 44	-1.440	0.150	-1.144	0.175
## 45	3.510	0.000	0.203	0.716
## 46	0.642	0.521	-0.269	0.531
## 47	0.831	0.406	-0.208	0.514
## 48	1.041	0.298	-0.150	0.491
## 49	-12.031	0.000	-2.090	-1.504
## 50	-10.899	0.000	-1.272	-0.884
## 51	-12.267	0.000	-1.763	-1.277
## 52	-9.599	0.000	-1.063	-0.702
## 53	-12.243	0.000	-1.727	-1.250
## 54	-8.067	0.000	-0.874	-0.532
## 55	-11.900	0.000	-2.155	-1.546
## 56	-10.899	0.000	-1.272	-0.884
## 57	-12.127	0.000	-2.031	-1.466
## 58	-11.288	0.000	-1.353	-0.953
## 59	-11.497	0.000	-2.312	-1.639
## 60	-10.049	0.000	-1.128	-0.760
## 61	-12.031	0.000	-2.090	-1.504
## 62	-10.159	0.000	-1.145	-0.774
## 63	-10.999	0.000	-1.291	-0.901
## 64	-2.465	0.014	-0.355	-0.040
## 65	-9.253	0.000	-1.016	-0.661
## 66	-1.581	0.114	-0.283	0.030
## 67	-10.484	0.000	-1.197	-0.820
## 68	-2.212	0.027	-0.334	-0.020
## 69	-11.900	0.000	-2.155	-1.546
## 70	-11.799	0.000	-1.492	-1.067
## 71	-11.726	0.000	-2.228	-1.590
## 72	-9.825	0.000	-1.095	-0.731
## 73	-12.271	0.000	-1.883	-1.364
## 74	-7.338	0.000	-0.796	-0.460
## 75	-9.599	0.000	-1.063	-0.702
## 76	-5.232	0.000	-0.592	-0.269
## 77	-11.556	0.000	-1.419	-1.008
## 78	-6.353	0.000	-0.697	-0.368
## 79	-11.799	0.000	-1.492	-1.067

## 80	-5.357	0.000	-0.603	-0.280
## 81	-11.640	0.000	-1.443	-1.027
## 82	-4.606	0.000	-0.536	-0.216
## 83	-11.469	0.000	-1.397	-0.989
## 84	-6.847	0.000	-0.745	-0.414
## 85	-7.704	0.000	-0.834	-0.496
## 86	0.569	0.569	-0.111	0.201
## 87	-9.253	0.000	-1.016	-0.661
## 88	-1.707	0.088	-0.293	0.020
## 89	-11.097	0.000	-1.311	-0.918
## 90	-2.844	0.004	-0.386	-0.071
## 91	-12.121	0.000	-1.630	-1.176
## 92	-6.476	0.000	-0.709	-0.379
## 93	-12.281	0.000	-1.801	-1.305
## 94	-8.666	0.000	-0.943	-0.595
## 95	-12.121	0.000	-1.630	-1.176
## 96	-9.369	0.000	-1.032	-0.675
## 97	-8.188	0.000	-0.888	-0.545
## 98	0.822	0.411	-0.091	0.222
## 99	-11.721	0.000	-1.467	-1.047
## 100	-6.847	0.000	-0.745	-0.414
## 101	-11.799	0.000	-1.492	-1.067
## 102	-3.348	0.001	-0.428	-0.112
## 103	-11.942	0.000	-1.544	-1.109
## 104	-7.947	0.000	-0.861	-0.520
## 105	-12.127	0.000	-2.031	-1.466
## 106	-9.825	0.000	-1.095	-0.731
## 107	-12.127	0.000	-2.031	-1.466
## 108	-10.899	0.000	-1.272	-0.884
## 109	-12.127	0.000	-2.031	-1.466
## 110	-10.797	0.000	-1.252	-0.868
## 111	-12.031	0.000	-2.090	-1.504
## 112	-10.899	0.000	-1.272	-0.884
## 113	3.102	0.002	0.076	0.337
## 114	2.145	0.032	0.008	0.175
## 115	2.604	0.009	0.034	0.244
## 116	3.779	0.000	0.144	0.455
## 117	2.329	0.020	0.023	0.269
## 118	3.042	0.002	0.054	0.251
## 119	3.428	0.001	0.076	0.280
## 120	4.758	0.000	0.103	0.248
## 121	2.442	0.015	0.012	0.112
## 122	1.935	0.053	-0.001	0.105
## 123	4.471	0.000	0.265	0.680
## 124	4.027	0.000	0.183	0.531
## 125	5.434	0.000	0.293	0.624
## 126	7.134	0.000	0.446	0.784
## 127	4.311	0.000	0.053	0.141
## 128	2.262	0.024	0.005	0.069
## 129	3.137	0.002	0.031	0.133
## 130	1.814	0.070	-0.007	0.173
## 131	5.122	0.000	0.164	0.368
## 132	4.711	0.000	0.145	0.353
## 133	5.319	0.000	0.226	0.489



## 134	2.793	0.005	0.029	0.163
## 135	2.739	0.006	0.033	0.202
## 136	2.875	0.004	0.056	0.296
## 137	5.347	0.000	0.203	0.439
## 138	2.992	0.003	0.054	0.258
## 139	5.994	0.000	0.228	0.450
## 140	4.968	0.000	0.157	0.362
## 141	4.295	0.000	0.154	0.411
## 142	1.486	0.137	-0.031	0.222
## 143	1.845	0.065	-0.004	0.121
## 144	2.211	0.027	0.012	0.200
## 145	4.001	0.000	0.129	0.378
## 146	3.509	0.000	0.074	0.260
## 147	8.150	0.000	0.358	0.584
## 148	1.949	0.051	-0.001	0.270
## 149	5.351	0.000	0.161	0.347
## 150	4.793	0.000	0.105	0.249
## 151	3.750	0.000	0.076	0.244
## 152	4.826	0.000	0.133	0.316
## 153	NA	NA	1.000	1.000
## 154	2.871	0.004	0.068	0.363
## 155	NA	NA	1.000	1.000
## 156	NA	NA	1.000	1.000
## 157	NA	NA	1.000	1.000
## 158	NA	NA	1.000	1.000
## 159	NA	NA	1.000	1.000
## 160	NA	NA	1.000	1.000
## 161	NA	NA	1.000	1.000
## 162	NA	NA	1.000	1.000
## 163	NA	NA	1.000	1.000
## 164	NA	NA	1.000	1.000
## 165	NA	NA	1.000	1.000
## 166	NA	NA	1.000	1.000
## 167	NA	NA	1.000	1.000
## 168	NA	NA	1.000	1.000
## 169	NA	NA	1.000	1.000
## 170	NA	NA	1.000	1.000
## 171	NA	NA	1.000	1.000
## 172	NA	NA	1.000	1.000
## 173	NA	NA	1.000	1.000
## 174	NA	NA	1.000	1.000
## 175	NA	NA	1.000	1.000
## 176	NA	NA	1.000	1.000
## 177	NA	NA	1.000	1.000
## 178	NA	NA	1.000	1.000
## 179	NA	NA	1.000	1.000
## 180	NA	NA	1.000	1.000
## 181	NA	NA	1.000	1.000
## 182	NA	NA	1.000	1.000
## 183	NA	NA	1.000	1.000
## 184	NA	NA	1.000	1.000
## 185	NA	NA	1.000	1.000
## 186	NA	NA	1.000	1.000
## 187	NA	NA	0.000	0.000

```
## 188      NA      NA      0.000      0.000
## 189      NA      NA      0.000      0.000
## 190      NA      NA      0.000      0.000
## 191      NA      NA      0.000      0.000
## 192      NA      NA      0.000      0.000
## 193      NA      NA      0.000      0.000
## 194      NA      NA      0.000      0.000
## 195      NA      NA      0.000      0.000
## 196      NA      NA      0.000      0.000
## 197      NA      NA      0.000      0.000
## 198      NA      NA      0.000      0.000
## 199      NA      NA      0.000      0.000
## 200      NA      NA      0.000      0.000
## 201      NA      NA      0.000      0.000
## 202      NA      NA      0.000      0.000
## 203      NA      NA      0.000      0.000
## 204      NA      NA      0.000      0.000
## 205      NA      NA      0.000      0.000
## 206      NA      NA      0.000      0.000
## 207      NA      NA      0.000      0.000
## 208      NA      NA      0.000      0.000
## 209      NA      NA      0.000      0.000
## 210      NA      NA      0.000      0.000
## 211      NA      NA      0.000      0.000
## 212      NA      NA      0.000      0.000
## 213      NA      NA      0.000      0.000
## 214      NA      NA      0.000      0.000
## 215      NA      NA      0.000      0.000
## 216      NA      NA      0.000      0.000
## 217      NA      NA      0.000      0.000
## 218      NA      NA      0.000      0.000
## 219      NA      NA      0.000      0.000
## 220      NA      NA      0.000      0.000
## 221      NA      NA      0.000      0.000
## 222      NA      NA      0.000      0.000
## 223      NA      NA      0.000      0.000
## 224      NA      NA      0.000      0.000
## 225      NA      NA      0.000      0.000
## 226      NA      NA      0.000      0.000
## 227      NA      NA      0.000      0.000
## 228      NA      NA      0.000      0.000
```

```
fitMeasures(model_fit_groups_male,
  fit.measures = c("chisq",
    "df",
    "pvalue",
    "cfi",
    "rmsea",
    "rmsea.ci.lower",
    "rmsea.ci.upper",
    "srmr"),
  output = "matrix")
```

```
##
## chisq      296.490
```

```
## df          448.000
## pvalue      1.000
## cfi         1.000
## rmsea       0.000
## rmsea.ci.lower 0.000
## rmsea.ci.upper 0.000
## srmr        0.056
```