Appendix assumptions hypotheses

This appendix contains the key assumptions for all Mann-Whitney tests and all linear regressions per hypotheses. The linear regressions' assumptions are tested by the normality of the residuals in a normal P-plot and linearity and homoscedasticity in a scatterplot.

1 Hypotheses variable separated infrastructure

1.1 Women have a higher relative use of separated infrastructure compared to men

Applicable to all Mann-Whitney tests that have been performed in this research

Test Statistics[a]

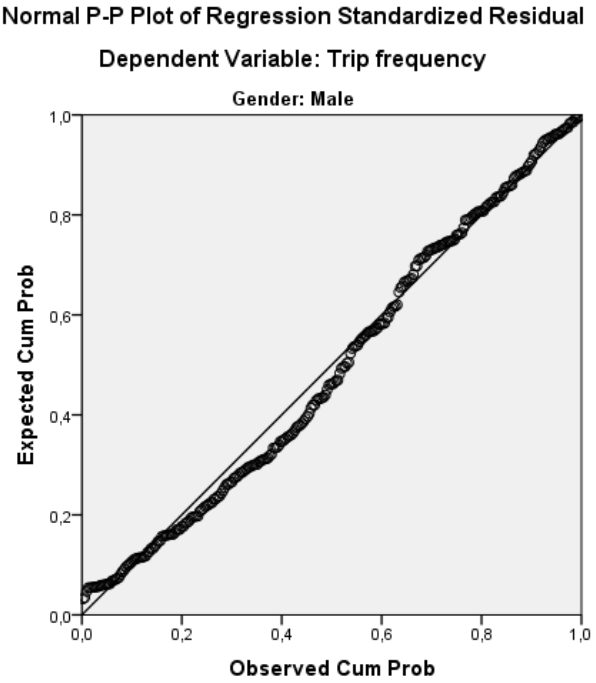
	Trip frequency	Average trip length	Average trip length separated cycle path	Average trip length on asphalt	Average trip length on crowded routes	Average trip length on routes in nature	Average trip length during the night
Mann-Whitney U	40567,500	36033,000	40779,000	38166,000	38050,000	40553,000	28254,000
Wilcoxon W	84820,500	80286,000	79560,000	82122,000	76553,000	79334,000	65929,000
Z	-,359	-2,637	-,253	-1,500	-1,488	-,298	-4,391
Asymp. Sig. (2-tailed)	,719	,008	,800	,134	,137	,766	,000

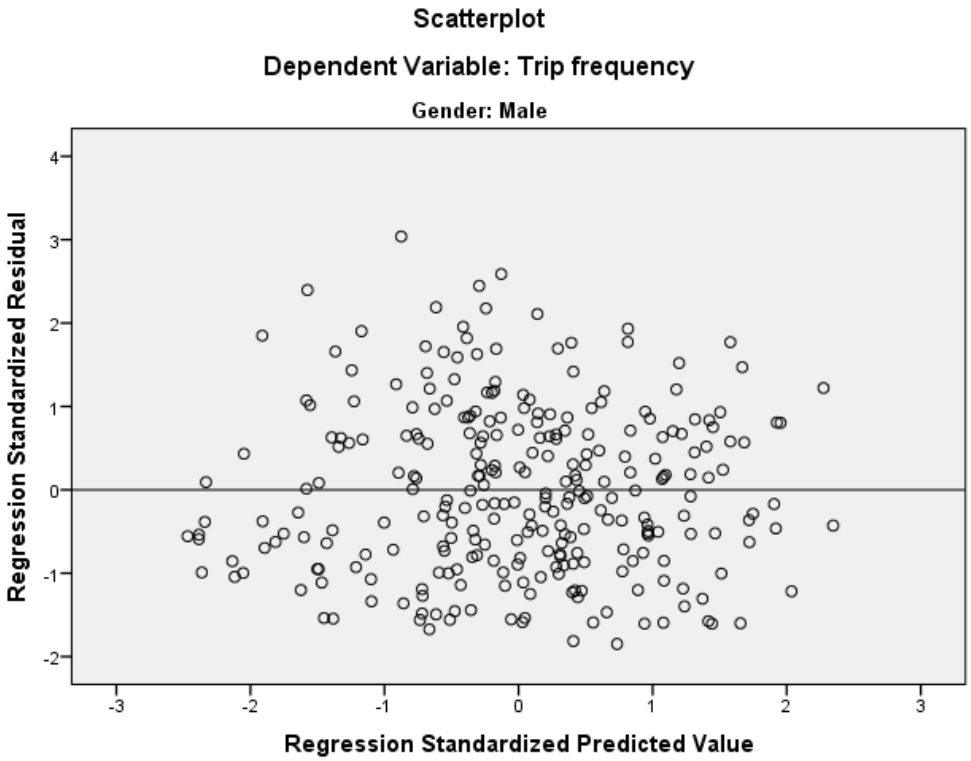
a. Grouping Variable: Gender

1.2 Women's trip frequency is higher when more separated infrastructure is used

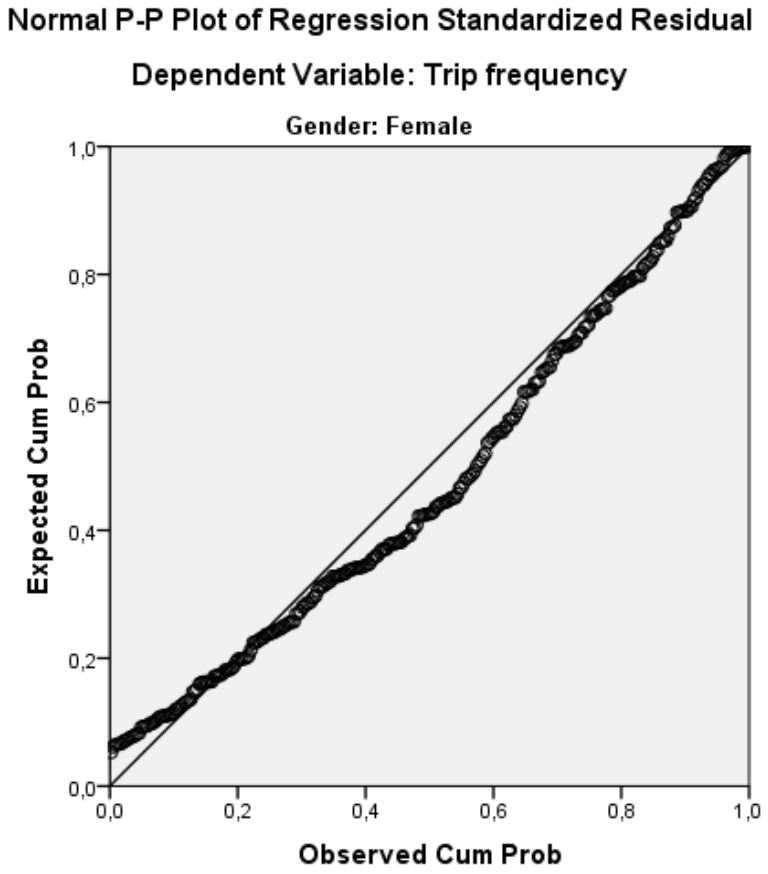
1.2.1 MALE

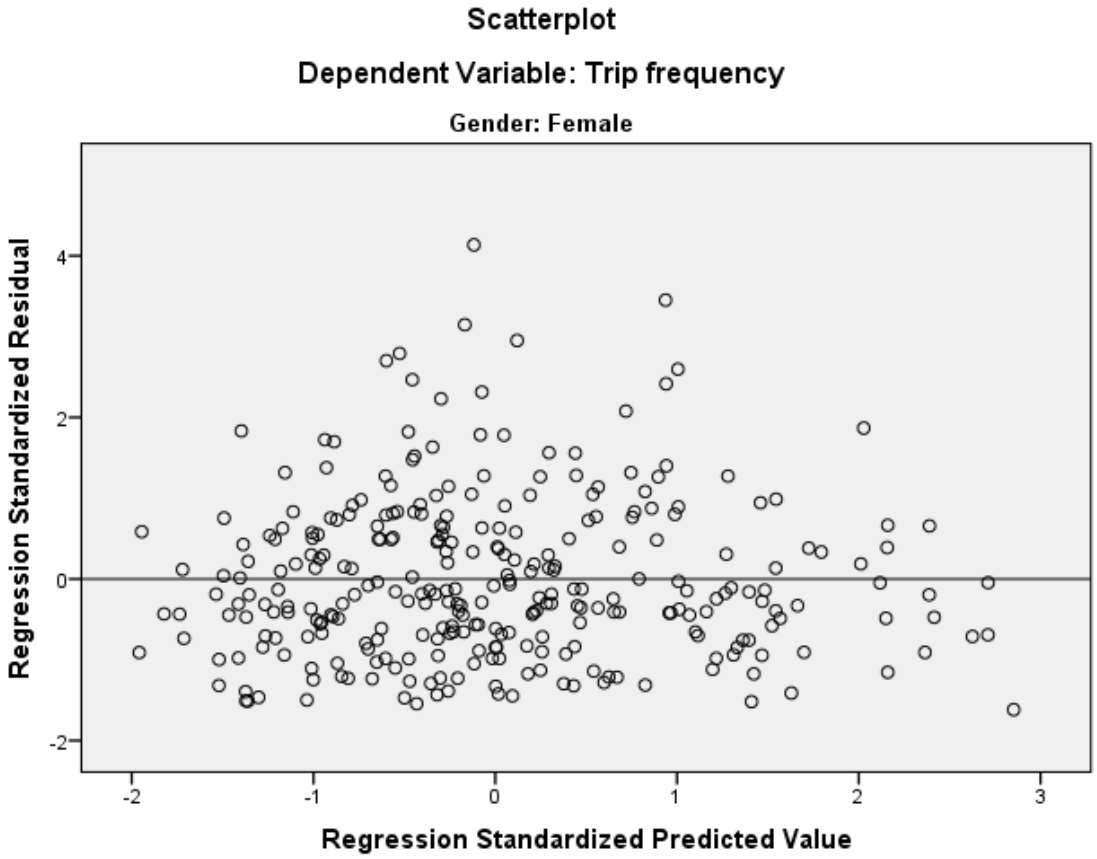
{normality of the residuals; [scatterplot with linearity and homoscedasticity]}





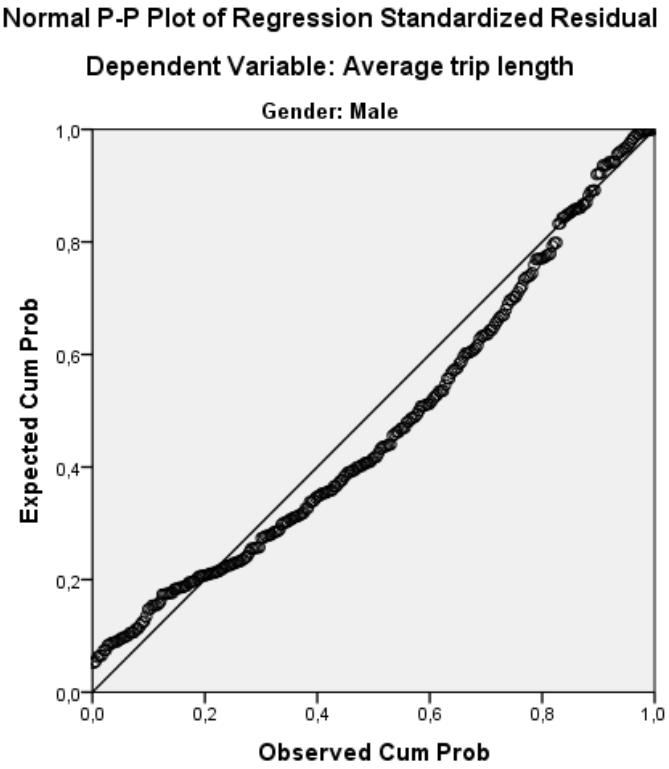
1.2.2 FEMALE

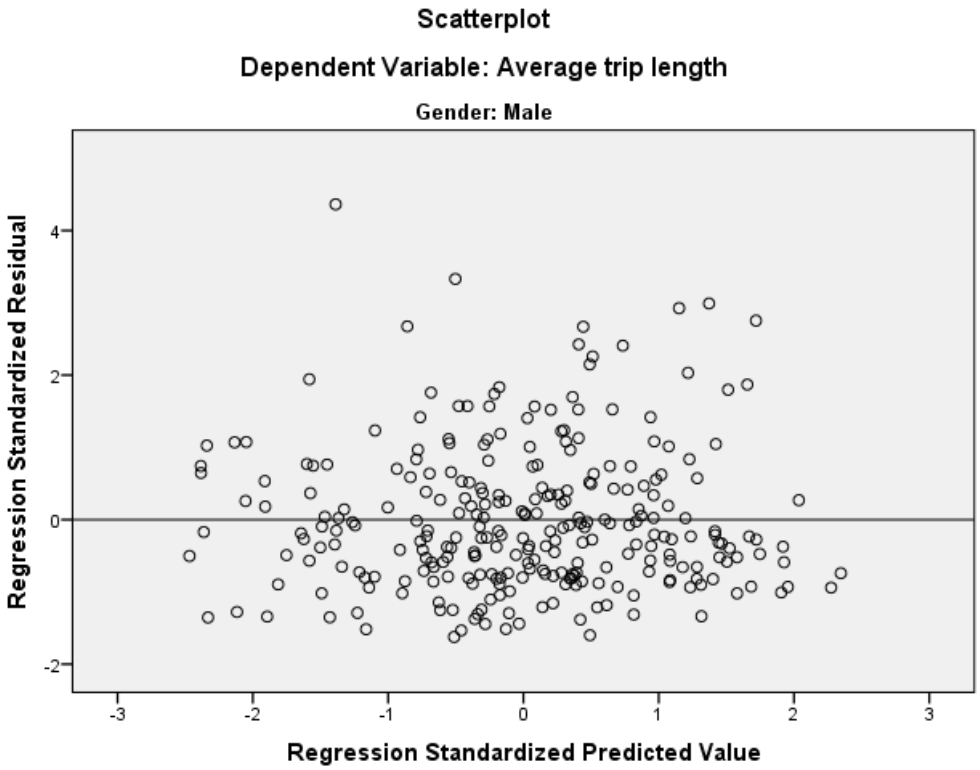

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Trip frequency
Gender: Female
Expected Cum Prob
Observed Cum Prob
0,0
0,2
0,4
0,6
0,8
1,0


Scatterplot
Dependent Variable: Trip frequency
Gender: Female
Regression Standardized Residual
Regression Standardized Predicted Value
-2
-1
0
1
2
3
4

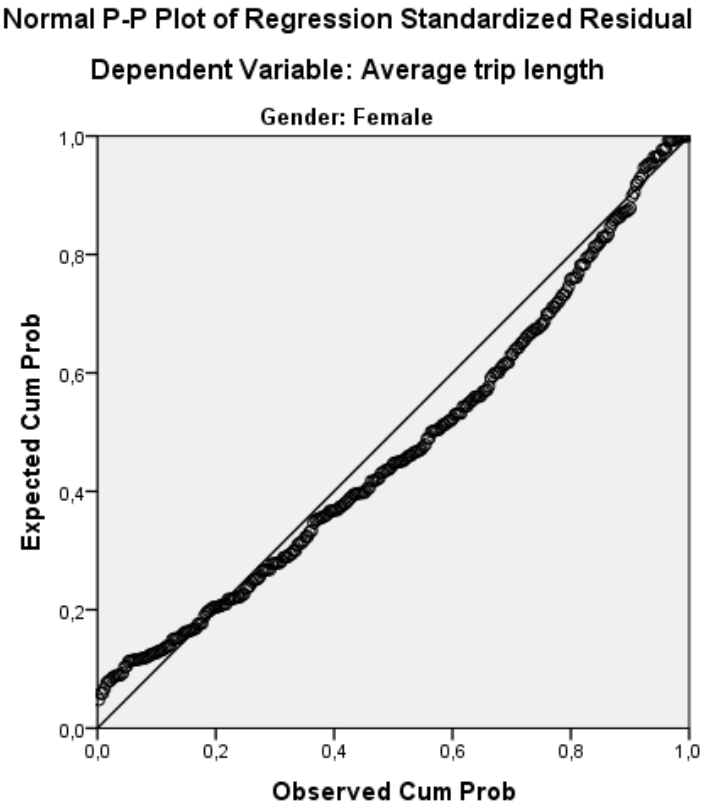
1.3 Women's average trip length is higher when more separated infrastructure is used

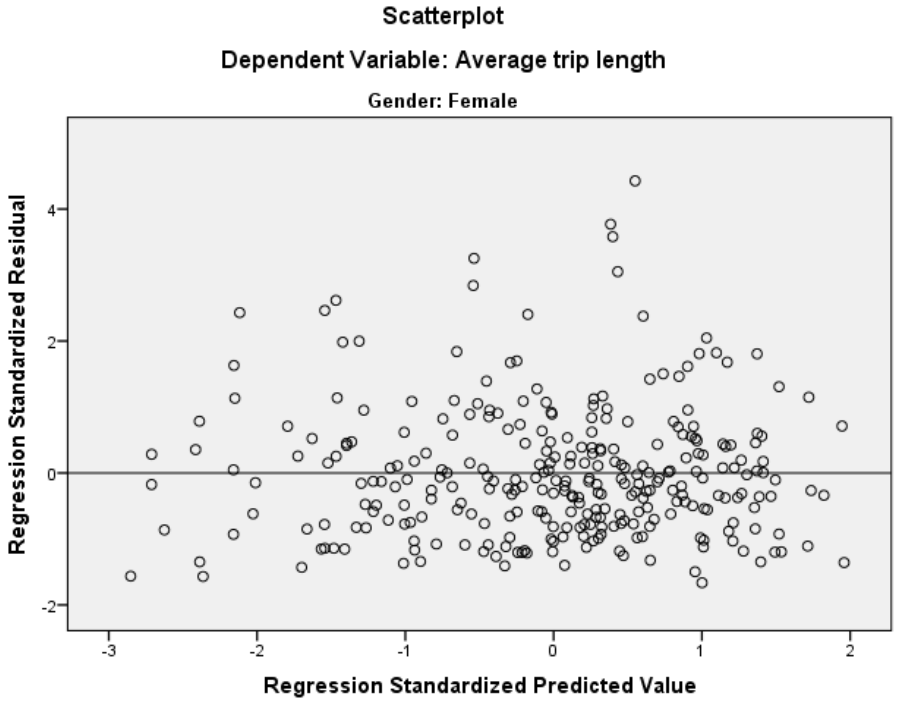
1.3.1 MALE





1.3.2 FEMALE


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Average trip length
Gender: Female
Expected Cum Prob
Observed Cum Prob
0,0
0,2
0,4
0,6
0,8
1,0


Scatterplot
Dependent Variable: Average trip length
Gender: Female
Regression Standardized Residual
Regression Standardized Predicted Value
-3
-2
-1
0
1
2
4

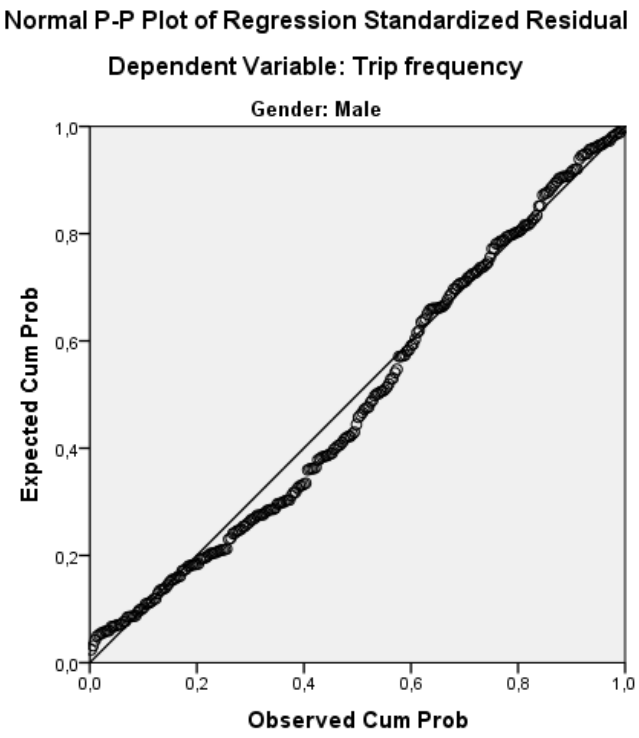
2. Hypotheses variable daylight & darkness

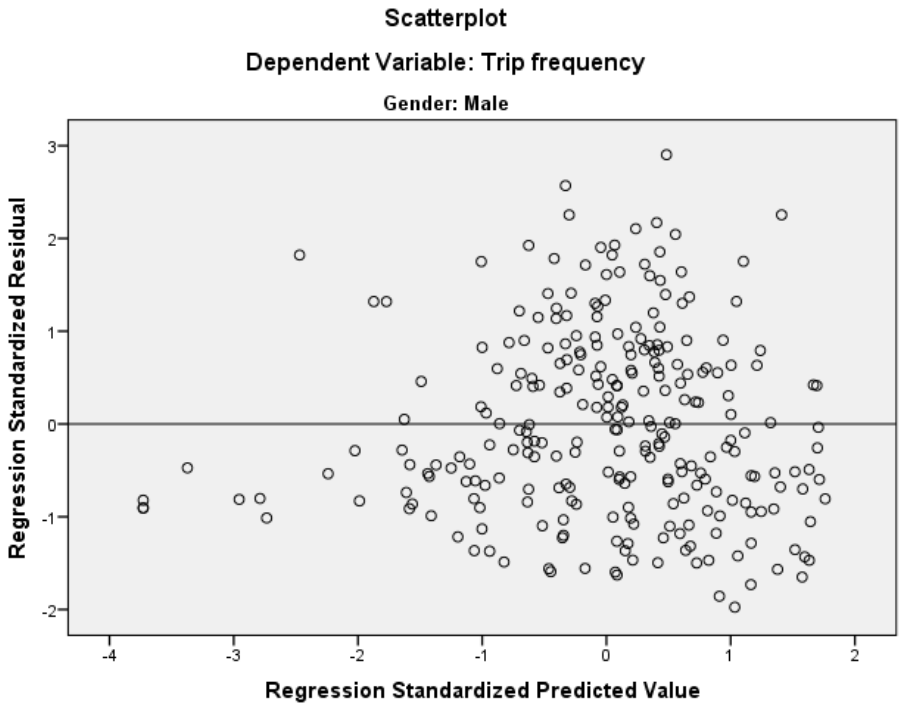
2.1 Women cycle less during dark hours compared to men

See table for hypothesis 1.1

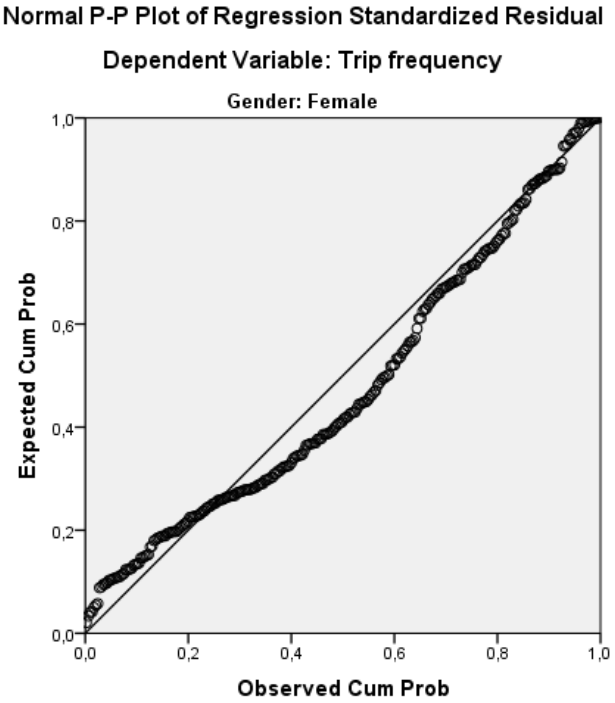
2.2 Women have a lower trip frequency when their average nightly trip length is higher

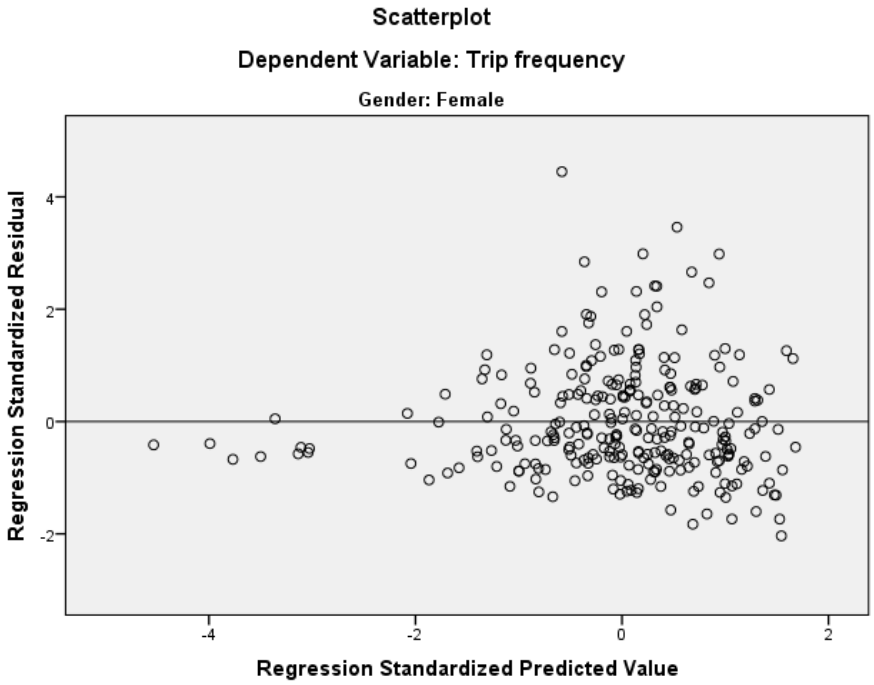
2.2.1. MALE




Scatterplot
Dependent Variable: Trip frequency
Gender: Male
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-4
-3
-2
-1
0
1
2

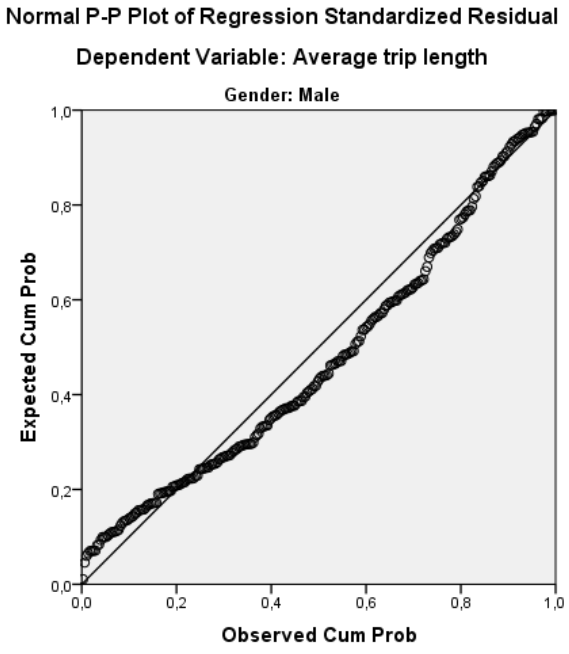
2.2.2 FEMALE

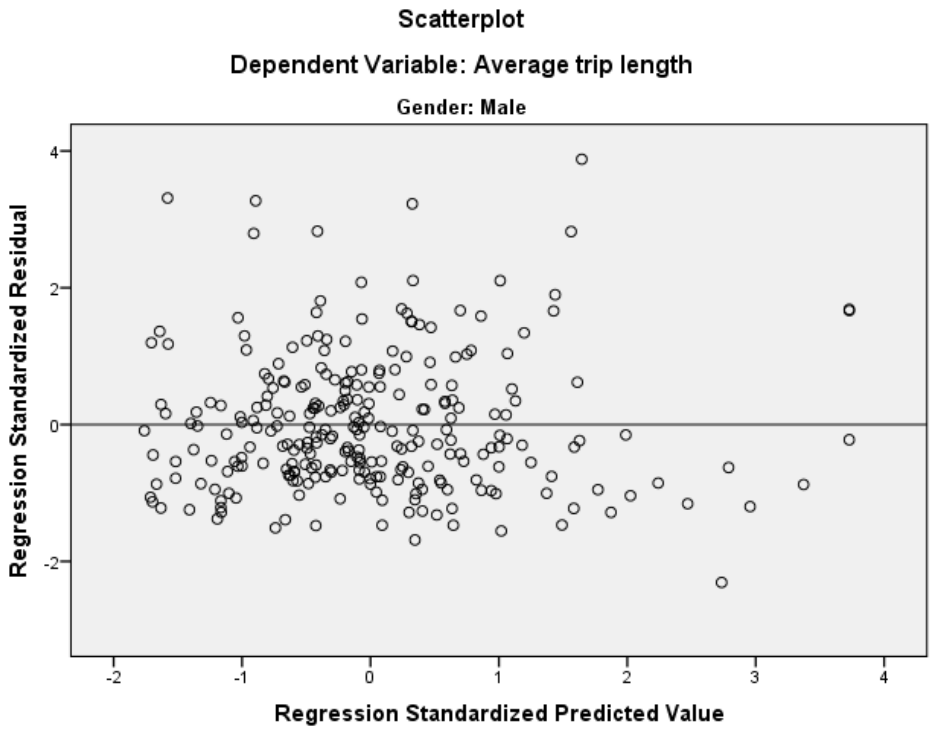

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Trip frequency
Gender: Female
Expected Cum Prob
Observed Cum Prob
1,0
0,8
0,6
0,4
0,2
0,0
0,0
0,2
0,4
0,6
0,8
1,0



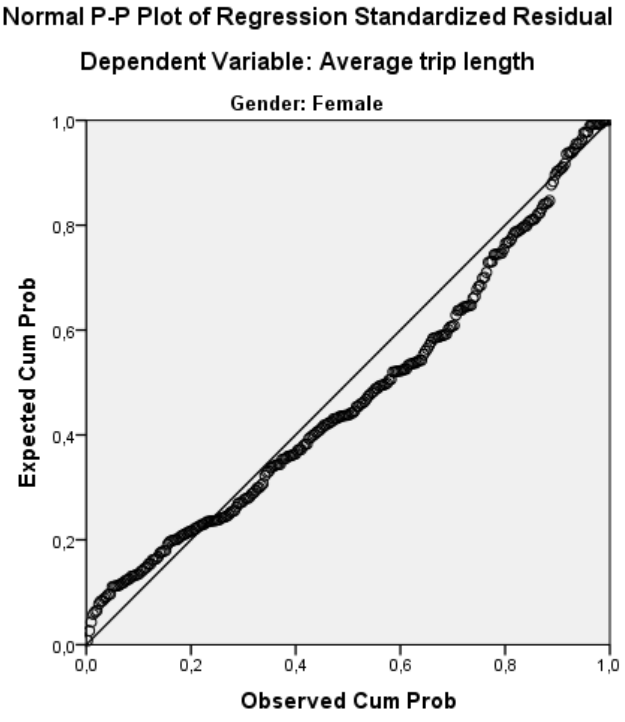
2.3 Women's average trip length is lower when the average nightly trip length is higher

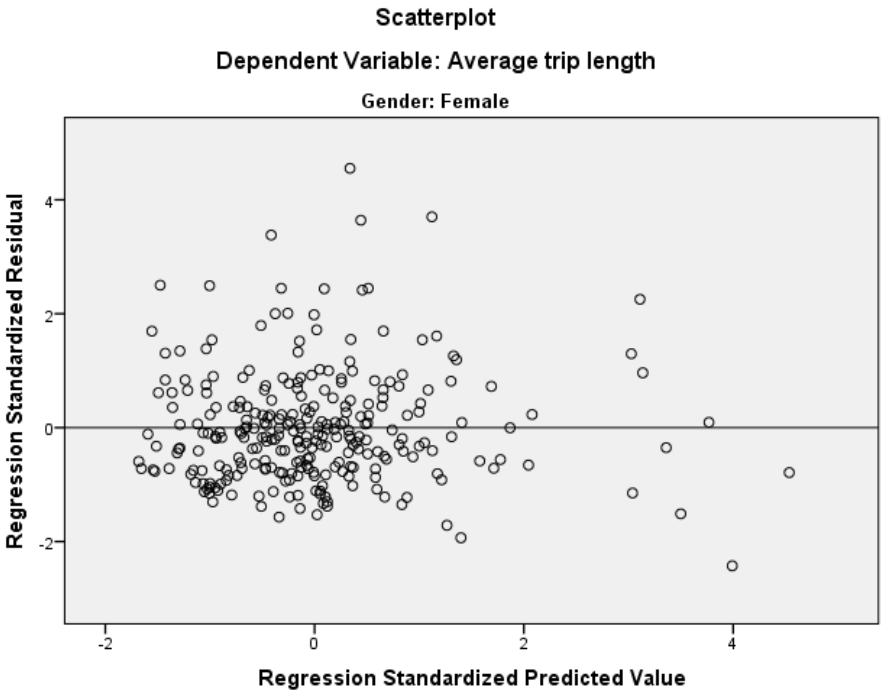
2.3.1. MALE




Scatterplot
Dependent Variable: Average trip length
Gender: Male
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-2
-1
0
1
2
3
4

2.3.2 FEMALE


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Average trip length
Gender: Female
Expected Cum Prob
Observed Cum Prob
1,0
0,8
0,6
0,4
0,2
0,0
0,0
0,2
0,4
0,6
0,8
1,0



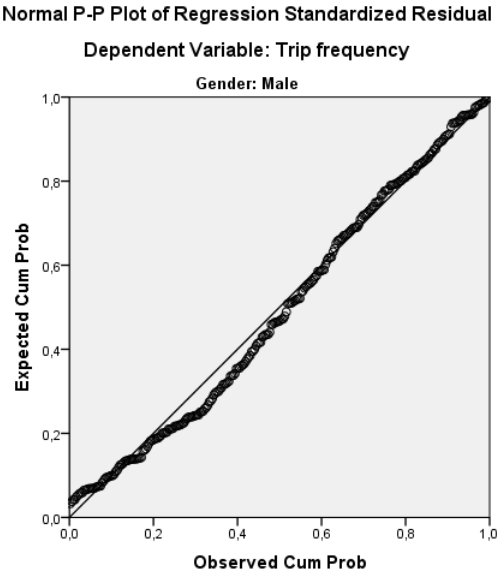
3. Hypotheses variable road surface

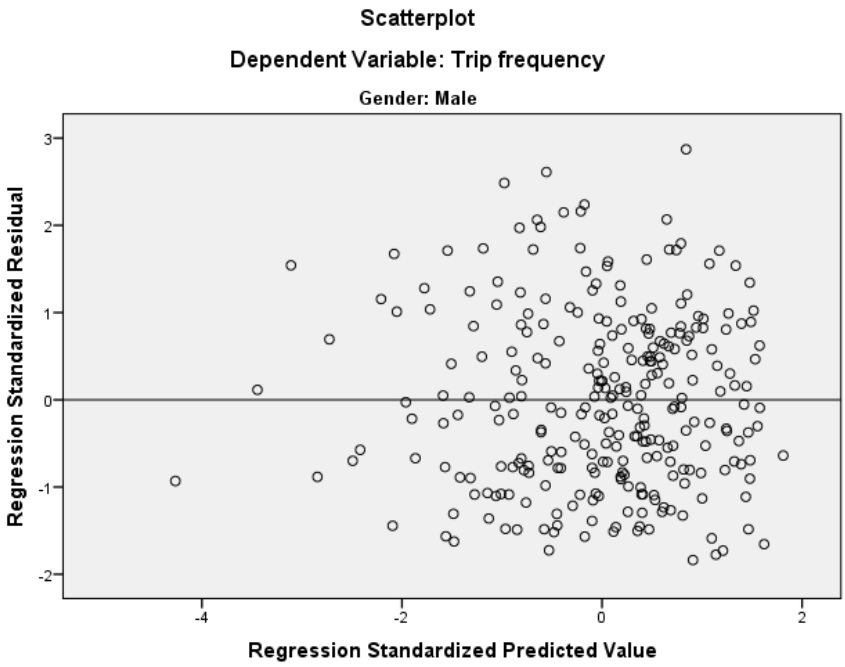
3.1. Women have a higher relative use of infrastructure with high quality road surface compared to men

See table for hypothesis 1.1

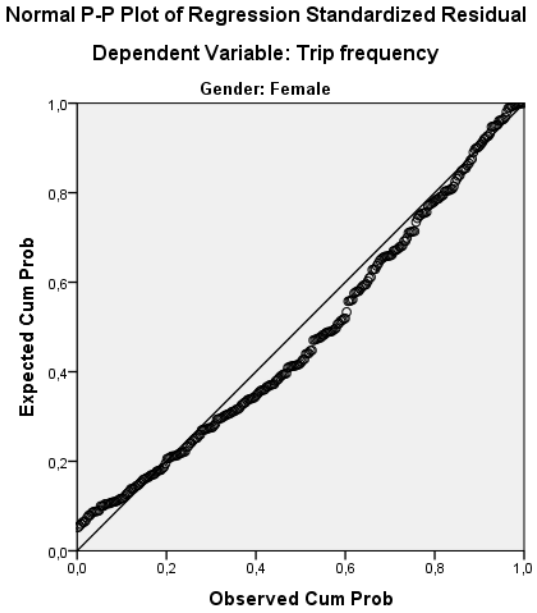
3.2 Women have a higher trip frequency when their average share of high quality road surface is higher

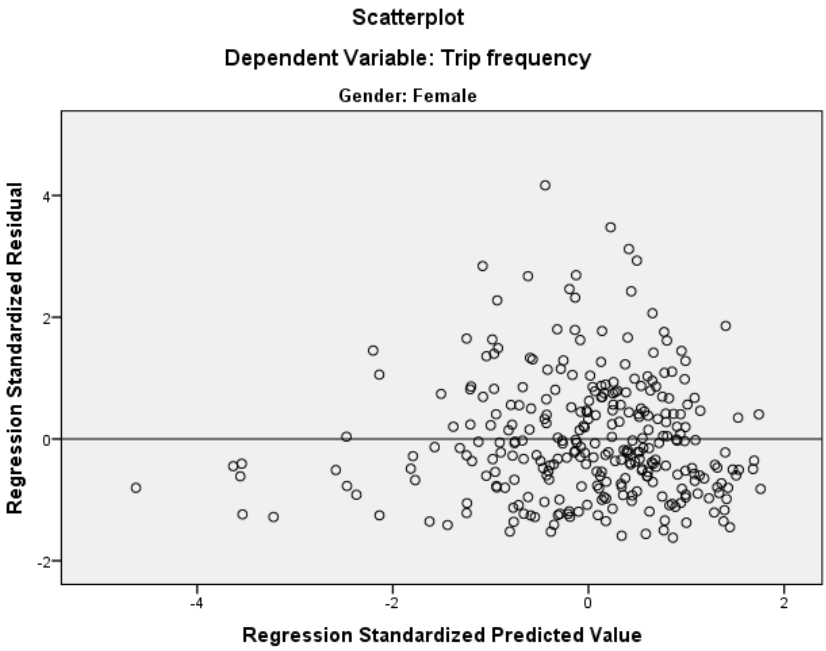
3.2.1 MALE




Scatterplot
Dependent Variable: Trip frequency
Gender: Male
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-4
-2
0
2

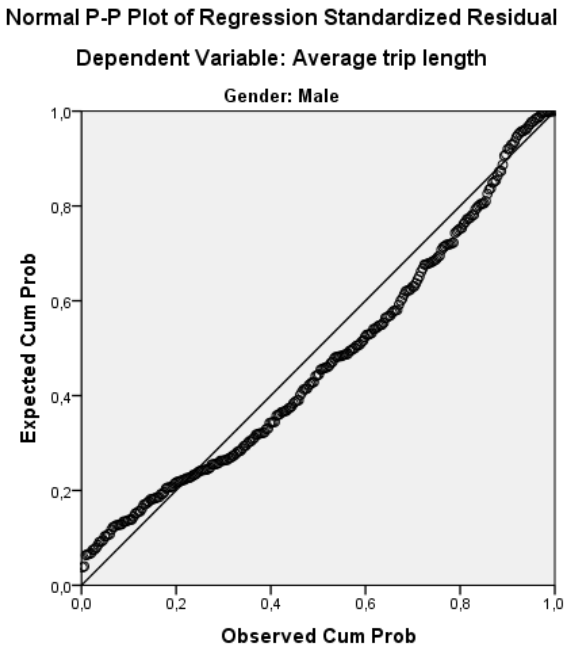
3.2.2 FEMALE

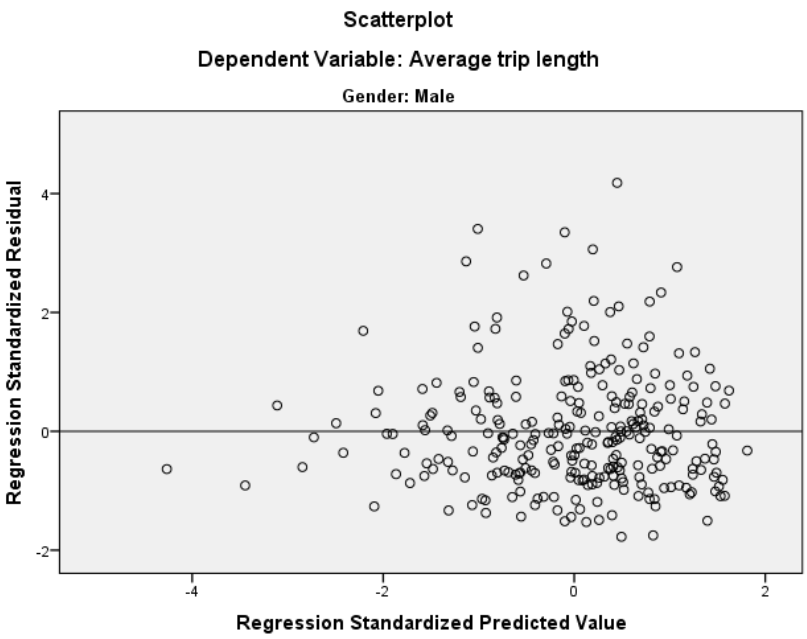

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Trip frequency
Gender: Female
Expected Cum Prob
Observed Cum Prob
1,0
0,8
0,6
0,4
0,2
0,0
0,0
0,2
0,4
0,6
0,8
1,0



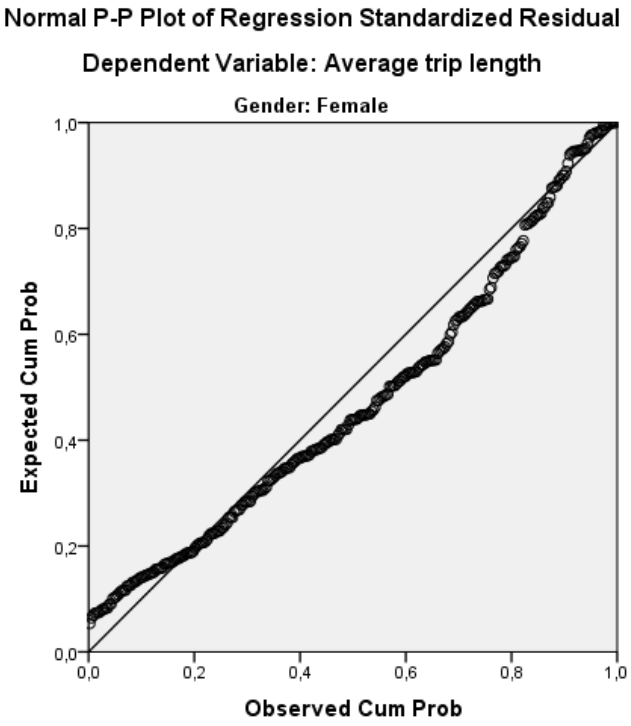
3.3 Women's average trip length is higher when more high quality infrastructure is used

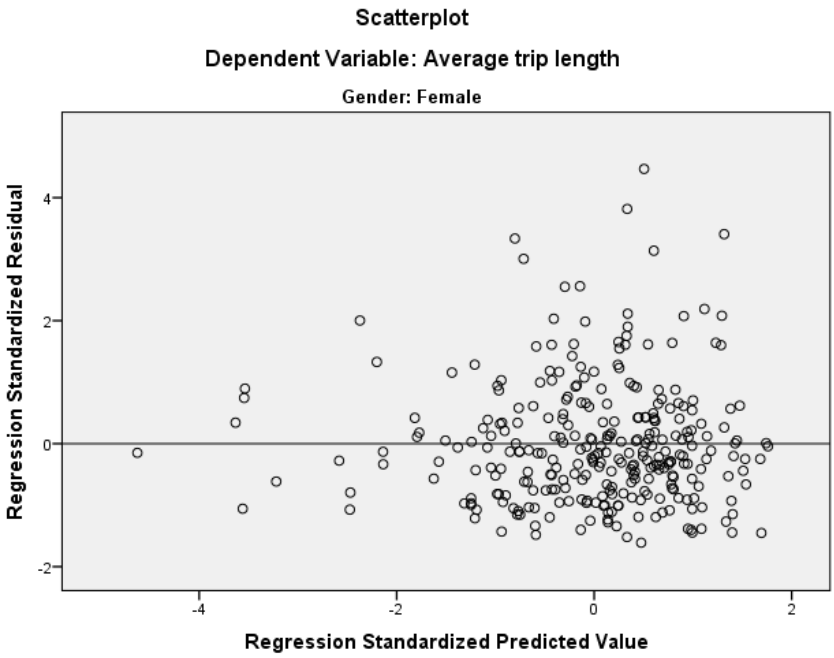
3.3.1 MALE




Scatterplot
Dependent Variable: Average trip length
Gender: Male
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4
-2
0
2

3.3.2 FEMALE


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Average trip length
Gender: Female
Expected Cum Prob
Observed Cum Prob
1,0
0,8
0,6
0,4
0,2
0,0
0,0
0,2
0,4
0,6
0,8
1,0



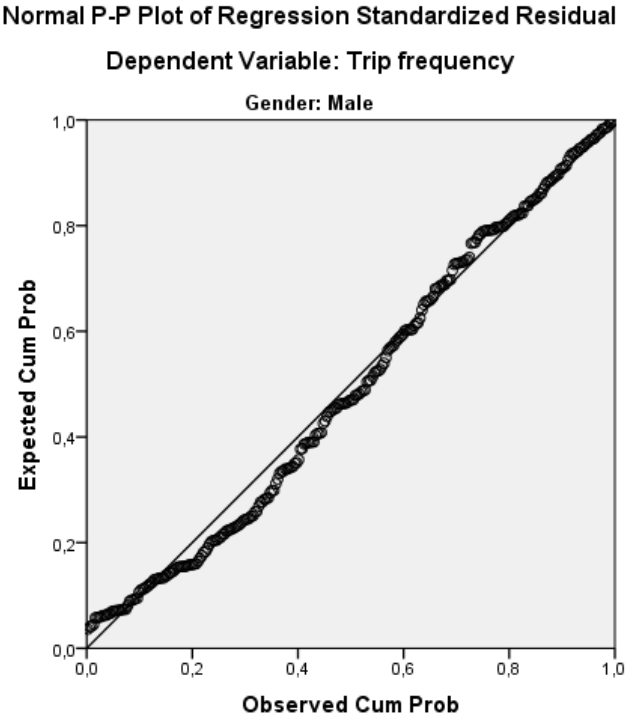
4. Hypotheses variable aesthetic quality and greenness

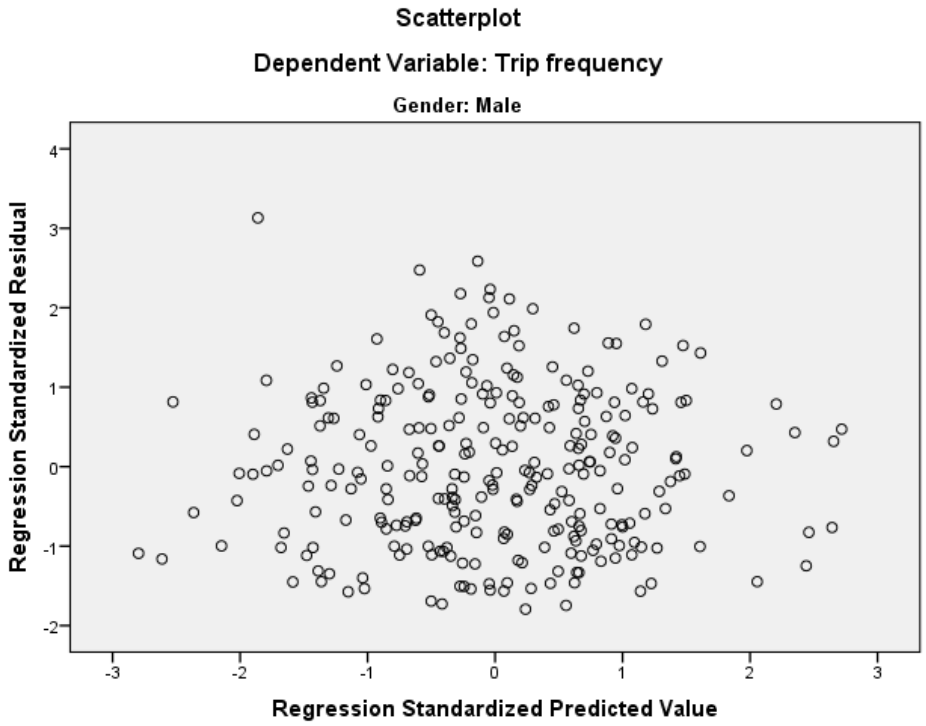
4.1. Women have a higher relative use of infrastructure with high aesthetic qualities and greenness compared to men

See table for hypothesis 1.1

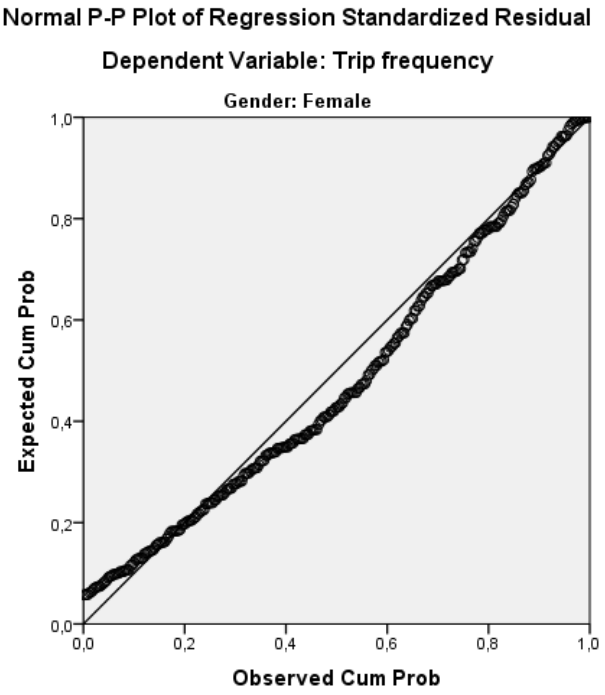
4.2 Women have a higher trip frequency when more infrastructure with high aesthetic qualities and greenness is used.

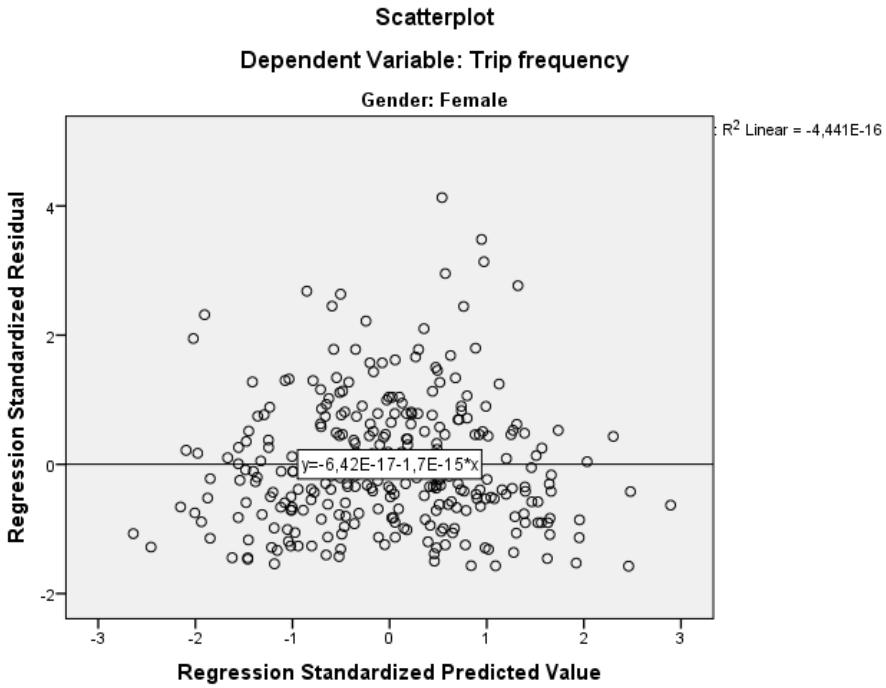
4.2.1 MALE




Scatterplot
Dependent Variable: Trip frequency
Gender: Male
Regression Standardized Residual
Regression Standardized Predicted Value
4
3
2
1
0
-1
-2
-3
-2
-1
0
1
2
3

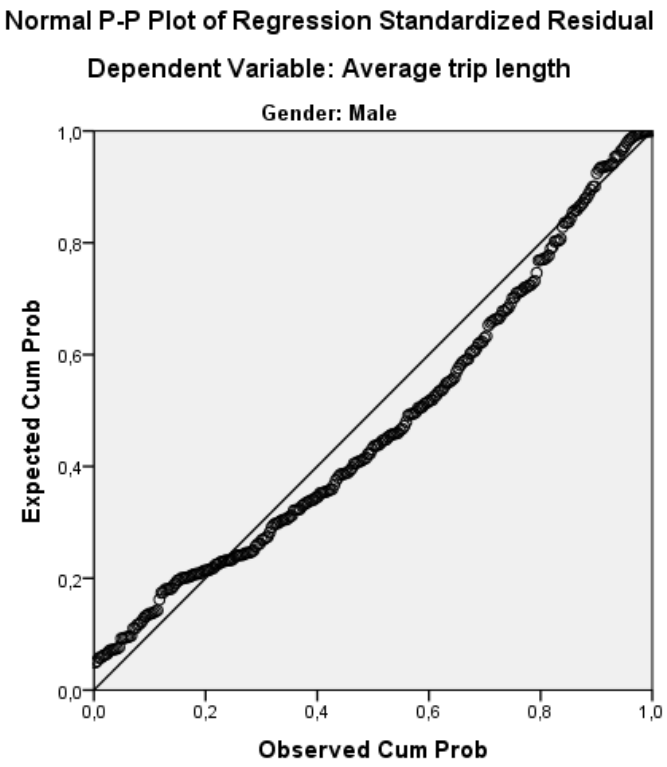
4.2.2 FEMALE

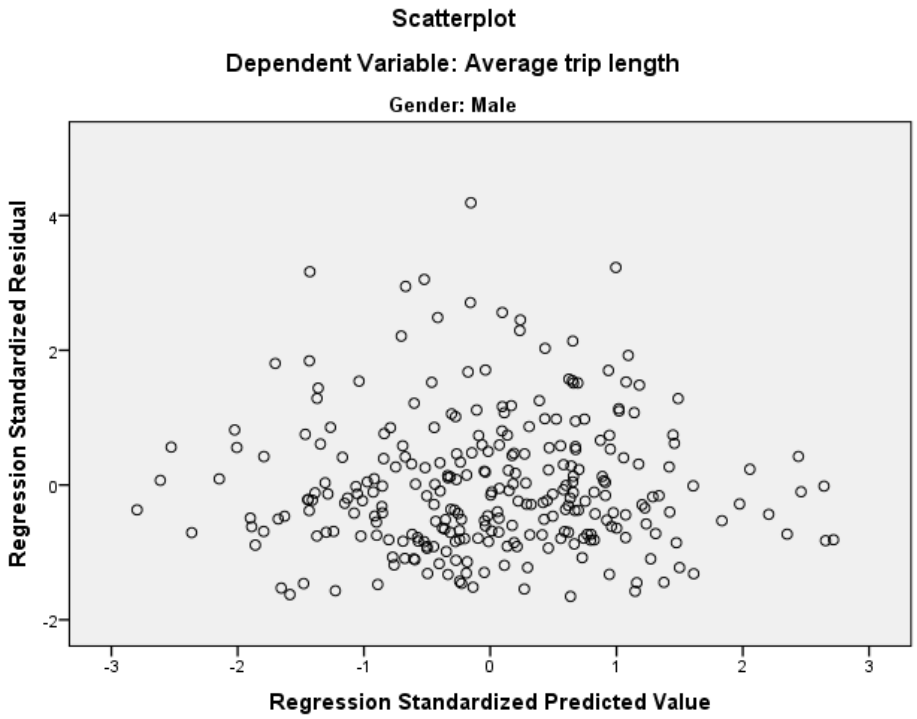

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Trip frequency
Gender: Female
Expected Cum Prob
Observed Cum Prob
1,0
0,8
0,6
0,4
0,2
0,0
0,0
0,2
0,4
0,6
0,8
1,0



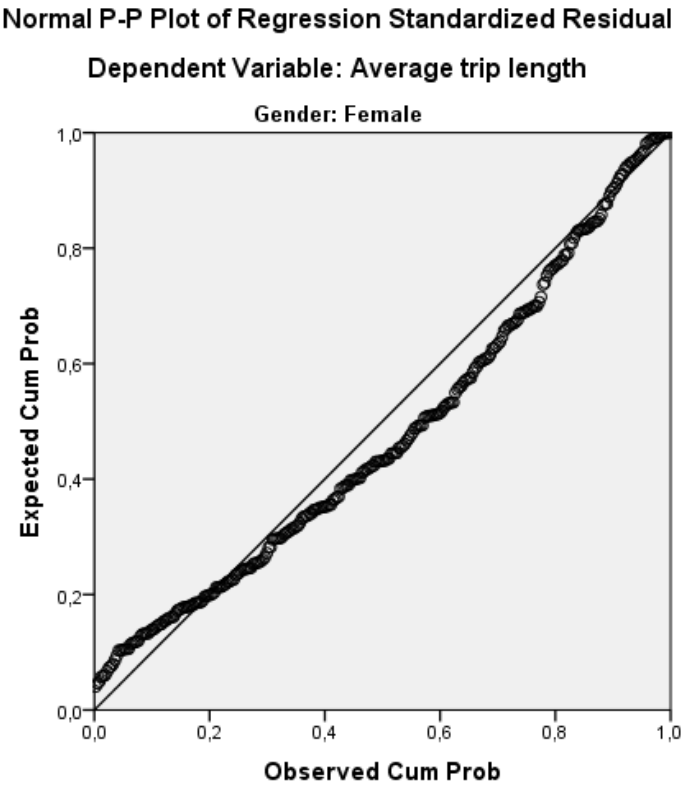
4.3 Women's average trip length is higher when more infrastructure with high aesthetic qualities and greenness is used

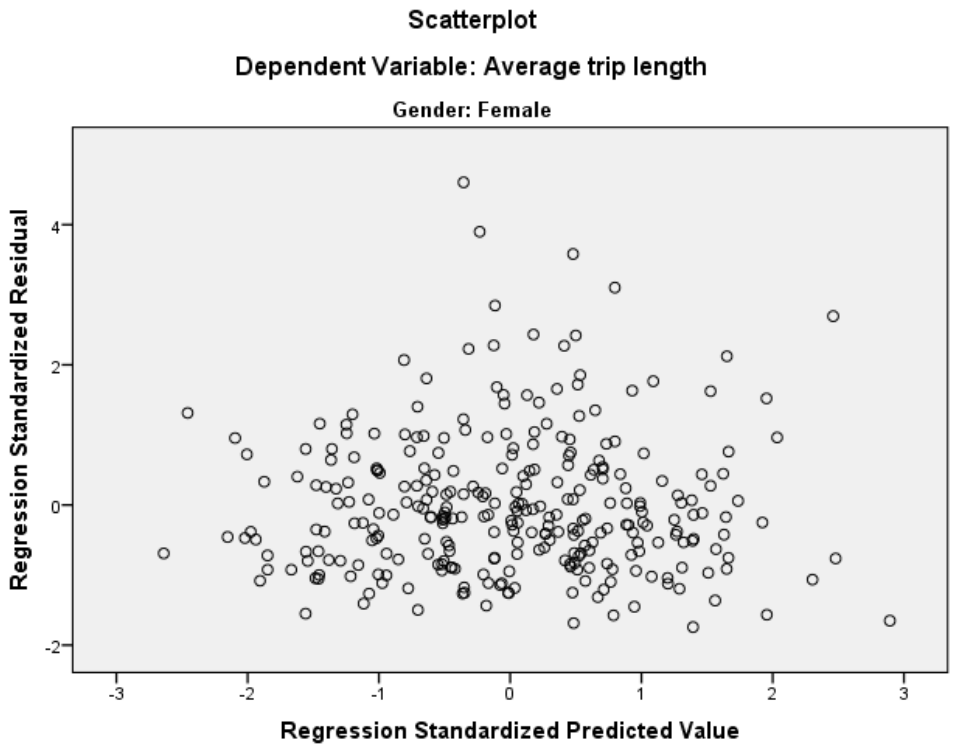
4.3.1 MALE




Scatterplot
Dependent Variable: Average trip length
Gender: Male
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-3
-2
-1
0
1
2
3

4.3.2 FEMALE


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Average trip length
Gender: Female
Expected Cum Prob
Observed Cum Prob
1,0
0,8
0,6
0,4
0,2
0,0


Scatterplot
Dependent Variable: Average trip length
Gender: Female
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-3
-2
-1
0
1
2
3

Appendix results hypotheses

1 Hypotheses variable separated infrastructure

1.2 Women have a higher relative use of separated infrastructure compared to men

Table below shows results for all Mann-Whitney tests performed in this research.

Variable	Total			Male			Female			Mann-Whitney	
	Mean	Median	SD	Mean	Median	SD	Mean	Median	SD	Z	Significance (2-t
Trip frequency	68.28	62.00	40.74	67.84	65.00	37.89	68.68	61.00	43.37	-0.36	0.72
Average trip length	7173.29	6495.12	3915.24	7658.02	6937.61	4210.78	6711.60	6201.69	3568.16	-2.64	0.01
Average trip length separated cycle path	0.54	0.55	0.18	0.54	0.54	0.18	0.54	0.56	0.18	-0.25	0.80
Average trip length on asphalt	0.68	0.70	0.14	0.69	0.71	0.14	0.68	0.70	0.13	-1.50	0.13
Average trip length on routes in nature	0.49	0.50	0.16	0.49	0.49	0.16	0.50	0.50	0.16	-0.30	0.77
Average trip length during the night	0.29	0.27	0.17	0.32	0.31	0.18	0.27	0.25	0.15	-4.39	0.00

1.2 Women's trip frequency is higher when more separated infrastructure is used

1.2.1 MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length separated cycle path[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,105[b]	,011	,007	37,745

a. Gender = Male

b. Predictors: (Constant), Average trip length separated cycle path

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4406,454	1	4406,454	3,093	,080[c]
	Residual	393221,262	276	1424,715		
	Total	397627,716	277			

a. Gender = Male

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length separated cycle path

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	56,214	6,987		8,046	,000
	Average trip length separated cycle path	21,609	12,287	,105	1,759	,080

a. Gender = Male

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	57,99	77,20	67,84	3,988	278
Residual	-69,768	114,653	,000	37,677	278
Std. Predicted Value	-2,468	2,346	,000	1,000	278
Std. Residual	-1,848	3,038	,000	,998	278

a. Gender = Male

b. Dependent Variable: Trip frequency

1.2.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length separated cycle path[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,037[b]	,001	-,002	43,412

a. Gender = Female

b. Predictors: (Constant), Average trip length separated cycle path

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	756,093	1	756,093	,401	,527[c]
	Residual	555960,156	295	1884,611		
	Total	556716,249	296			

a. Gender = Female

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length separated cycle path

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	73,384	7,837		9,364	,000
	Average trip length separated cycle path	-8,785	13,870	-,037	-,633	,527

a. Gender = Female

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	65,55	73,24	68,68	1,598	297
Residual	-70,243	179,504	,000	43,339	297
Std. Predicted Value	-1,959	2,853	,000	1,000	297
Std. Residual	-1,618	4,135	,000	,998	297

a. Gender = Female

b. Dependent Variable: Trip frequency

1.3 Women's average trip length is higher when more separated infrastructure is used

1.3.1 MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length separated cycle path[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,111[b]	,012	,009	4192,55146

a. Gender = Male

b. Predictors: (Constant), Average trip length separated cycle path

c. Dependent Variable: Average trip length

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60020067,124	1	60020067,124	3,415	,066[c]
	Residual	4851386609,663	276	17577487,716		
	Total	4911406676,787	277			

a. Gender = Male

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length separated cycle path

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6301,388	776,032		8,120	,000
	Average trip length separated cycle path	2521,927	1364,780	,111	1,848	,066

a. Gender = Male

b. Dependent Variable: Average trip length

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	6509,1343	8750,2256	7658,0247	465,48785	278
Residual	-6804,25244	18289,98828	,00000	4184,97683	278
Std. Predicted Value	-2,468	2,346	,000	1,000	278
Std. Residual	-1,623	4,362	,000	,998	278

a. Gender = Male

b. Dependent Variable: Average trip length

1.3.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length separated cycle path[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,095[b]	,009	,006	3558,04203

a. Gender = Female

b. Predictors: (Constant), Average trip length separated cycle path

c. Dependent Variable: Average trip length

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34008158,162	1	34008158,162	2,686	,102[c]
	Residual	3734600610,324	295	12659663,086		
	Total	3768608768,486	296			

a. Gender = Female

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length separated cycle path

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5714,683	642,332		8,897	,000
	Average trip length separated cycle path	1863,176	1136,772	,095	1,639	,102

a. Gender = Female

b. Dependent Variable: Average trip length

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5744,6982	7375,6460	6711,6042	338,95785	297
Residual	-5921,81885	15751,44727	,00000	3552,02674	297
Std. Predicted Value	-2,853	1,959	,000	1,000	297
Std. Residual	-1,664	4,427	,000	,998	297

a. Gender = Female

b. Dependent Variable: Average trip length

2. Hypotheses variable daylight & darkness

2.1 Women cycle less during dark hours compared to men

See table for hypothesis 1.1

2.2 Women have a lower trip frequency when their average nightly trip length is higher

2.2.1. MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length during the night[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,268[b]	,072	,068	35,761

a. Gender = Male

b. Predictors: (Constant), Average trip length during the night

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25894,468	1	25894,468	20,249	,000[c]
	Residual	335049,892	262	1278,816		
	Total	360944,360	263			

a. Gender = Male

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length during the night

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	88,174	4,525		19,486	,000
	Average trip length during the night	-54,787	12,175	-,268	-4,500	,000

a. Gender = Male

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	33,39	87,86	70,38	9,923	264
Residual	-70,634	103,820	,000	35,692	264
Std. Predicted Value	-3,728	1,761	,000	1,000	264
Std. Residual	-1,975	2,903	,000	,998	264

a. Gender = Male

b. Dependent Variable: Trip frequency

2.2.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length during the night[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,262[b]	,068	,065	40,777

a. Gender = Female

b. Predictors: (Constant), Average trip length during the night

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33208,846	1	33208,846	19,972	,000[c]
	Residual	452276,121	272	1662,780		
	Total	485484,967	273			

a. Gender = Female

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length during the night

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	91,901	4,892		18,785	,000
	Average trip length during the night	-71,262	15,946	-,262	-4,469	,000

a. Gender = Female

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	22,98	91,55	73,01	11,029	274
Residual	-83,036	181,407	,000	40,702	274
Std. Predicted Value	-4,536	1,681	,000	1,000	274
Std. Residual	-2,036	4,449	,000	,998	274

a. Gender = Female

b. Dependent Variable: Trip frequency

2.3 Women's average trip length is lower when the average nightly trip length is higher

2.3.1. MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length during the night[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,215[b]	,046	,043	4150,22469

a. Gender = Male

b. Predictors: (Constant), Average trip length during the night

c. Dependent Variable: Average trip length

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	218662910,505	1	218662910,505	12,695	,000[c]
	Residual	4512783628,817	262	17224364,995		

	Total	4731446539,321	263			

a. Gender = Male

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length during the night

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	6067,445	525,163		11,553	,000
	Average trip length during the night	5034,541	1413,006	,215	3,563	,000

a. Gender = Male

b. Dependent Variable: Average trip length

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	6096,6382	11101,9863	7702,3652	911,82121	264
Residual	-9580,54004	16099,58008	,00000	4142,32702	264
Std. Predicted Value	-1,761	3,728	,000	1,000	264
Std. Residual	-2,308	3,879	,000	,998	264

a. Gender = Male

b. Dependent Variable: Average trip length

2.3.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length during the night[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,196[b]	,038	,035	3442,42940

a. Gender = Female

b. Predictors: (Constant), Average trip length during the night

c. Dependent Variable: Average trip length

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	128200867,547	1	128200867,547	10,818	,001[c]
	Residual	3223287078,700	272	11850320,142		
	Total	3351487946,247	273			

a. Gender = Female

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length during the night

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5572,277	413,012		13,492	,000
	Average trip length during the night	4427,677	1346,156	,196	3,289	,001

a. Gender = Female

b. Dependent Variable: Average trip length

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	5594,2993	9854,3623	6745,9453	685,27385	274
Residual	-8351,63867	15671,96191	,00000	3436,11880	274
Std. Predicted Value	-1,681	4,536	,000	1,000	274
Std. Residual	-2,426	4,553	,000	,998	274

a. Gender = Female

b. Dependent Variable: Average trip length

3. Hypotheses variable road surface

3.1. Women have a higher relative use of infrastructure with high quality road surface compared to men

See table for hypothesis 1.1

3.2 Women have a higher trip frequency when their average share of high quality road surface is higher

3.2.1 MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on asphalt[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,078[b]	,006	,002	37,841

a. Gender = Male

b. Predictors: (Constant), Average trip length on asphalt

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2418,823	1	2418,823	1,689	,195[c]
	Residual	395208,893	276	1431,916		
	Total	397627,716	277			

a. Gender = Male

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length on asphalt

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	53,232	11,465		4,643	,000
	Average trip length on asphalt	21,100	16,234	,078	1,300	,195

a. Gender = Male

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	55,23	73,19	67,84	2,955	278
Residual	-69,524	108,679	,000	37,772	278
Std. Predicted Value	-4,266	1,812	,000	1,000	278
Std. Residual	-1,837	2,872	,000	,998	278

a. Gender = Male

b. Dependent Variable: Trip frequency

3.2.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on asphalt[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,061[b]	,004	,000	43,266

a. Gender = Female

b. Predictors: (Constant), Average trip length on asphalt

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2044,966	1	2044,966	1,092	,297[c]
	Residual	550342,385	294	1871,913		
	Total	552387,351	295			

a. Gender = Female

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length on asphalt

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	55,516	13,055		4,252	,000
	Average trip length on asphalt	19,771	18,916	,061	1,045	,297

a. Gender = Female

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	56,72	73,54	68,91	2,633	296
Residual	-70,178	180,259	,000	43,192	296
Std. Predicted Value	-4,626	1,759	,000	1,000	296
Std. Residual	-1,622	4,166	,000	,998	296

a. Gender = Female

b. Dependent Variable: Trip frequency

3.3 Women's average trip length is higher when more high quality infrastructure is used

3.3.1 MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on asphalt[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,207[b]	,043	,039	4126,93415

a. Gender = Male

b. Predictors: (Constant), Average trip length on asphalt

c. Dependent Variable: Average trip length

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	210689074,706	1	210689074,706	12,370	,001[c]
	Residual	4700717602,080	276	17031585,515		
	Total	4911406676,787	277			

a. Gender = Male

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length on asphalt

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3347,122	1250,416		2,677	,008
	Average trip length on asphalt	6227,231	1770,523	,207	3,517	,001

a. Gender = Male

b. Dependent Variable: Average trip length

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3937,7593	9238,0273	7658,0247	872,12979	278
Residual	-7325,97754	17252,42383	,00000	4119,47808	278
Std. Predicted Value	-4,266	1,812	,000	1,000	278
Std. Residual	-1,775	4,180	,000	,998	278

a. Gender = Male

b. Dependent Variable: Average trip length

3.3.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on asphalt[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,215[b]	,046	,043	3476,32439

a. Gender = Female

b. Predictors: (Constant), Average trip length on asphalt

c. Dependent Variable: Average trip length

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	172882282,025	1	172882282,025	14,306	,000[c]
	Residual	3552940388,062	294	12084831,252		
	Total	3725822670,087	295			

a. Gender = Female

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length on asphalt

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2840,448	1048,972		2,708	,007
	Average trip length on asphalt	5748,577	1519,866	,215	3,782	,000

a. Gender = Female

b. Dependent Variable: Average trip length

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3192,0361	8080,5996	6733,6653	765,53356	296
Residual	-5600,38525	15529,15332	,00000	3470,42731	296
Std. Predicted Value	-4,626	1,759	,000	1,000	296
Std. Residual	-1,611	4,467	,000	,998	296

a. Gender = Female

b. Dependent Variable: Average trip length

4. Hypotheses variable aesthetic quality and greenness

4.1. Women have a higher relative use of infrastructure with high aesthetic qualities and greenness compared to men

See table for hypothesis 1.1

4.2 Women have a higher trip frequency when more infrastructure with high aesthetic qualities and greenness is used.

4.2.1 MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on routes in nature[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,101[b]	,010	,007	37,764

a. Gender = Male

b. Predictors: (Constant), Average trip length on routes in nature

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4020,412	1	4020,412	2,819	,094[c]
	Residual	393607,304	276	1426,113		
	Total	397627,716	277			

a. Gender = Male

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length on routes in nature

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	55,925	7,448		7,509	,000
	Average trip length on routes in nature	24,235	14,434	,101	1,679	,094

a. Gender = Male

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	57,18	78,20	67,84	3,810	278
Residual	-67,747	118,250	,000	37,696	278
Std. Predicted Value	-2,797	2,719	,000	1,000	278
Std. Residual	-1,794	3,131	,000	,998	278

a. Gender = Male

b. Dependent Variable: Trip frequency

4.2.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on routes in nature[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Trip frequency

c. All requested variables entered.

Model Summary[a,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,004[b]	,000	-,003	43,346

a. Gender = Female

b. Predictors: (Constant), Average trip length on routes in nature

c. Dependent Variable: Trip frequency

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7,318	1	7,318	,004	,950[c]
	Residual	552380,033	294	1878,844		
	Total	552387,351	295			

a. Gender = Female

b. Dependent Variable: Trip frequency

c. Predictors: (Constant), Average trip length on routes in nature

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	68,405	8,402		8,142	,000
	Average trip length on routes in nature	1,008	16,146	,004	,062	,950

a. Gender = Female

b. Dependent Variable: Trip frequency

Residuals Statistics[a,b]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	68,49	69,36	68,91	,158	296
Residual	-68,293	179,010	,000	43,272	296
Std. Predicted Value	-2,639	2,893	,000	1,000	296
Std. Residual	-1,576	4,130	,000	,998	296

a. Gender = Female

b. Dependent Variable: Trip frequency

4.3 Women's average trip length is higher when more infrastructure with high aesthetic qualities and greenness is used

4.3.1 MALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on routes in nature[c]	.	Enter

a. Gender = Male

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,028[b]	,001	-,003	4216,74890

a. Gender = Male

b. Predictors: (Constant), Average trip length on routes in nature

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3858593,656	1	3858593,656	,217	,642[c]
	Residual	4907548083,131	276	17780971,316		
	Total	4911406676,787	277			

a. Gender = Male

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length on routes in nature

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7288,969	831,625		8,765	,000

	Average trip length on routes in nature	750,812	1611,738	,028	,466	,642

a. Gender = Male

b. Dependent Variable: Average trip length

4.3.2 FEMALE

Variables Entered/Removed[a,b]

Model	Variables Entered	Variables Removed	Method
1	Average trip length on routes in nature[c]	.	Enter

a. Gender = Female

b. Dependent Variable: Average trip length

c. All requested variables entered.

Model Summary[a]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,175[b]	,031	,027	3504,75544

a. Gender = Female

b. Predictors: (Constant), Average trip length on routes in nature

ANOVA[a,b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	114529316,874	1	114529316,874	9,324	,002[c]
	Residual	3611293353,214	294	12283310,725		
	Total	3725822670,087	295			

a. Gender = Female

b. Dependent Variable: Average trip length

c. Predictors: (Constant), Average trip length on routes in nature

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4754,740	679,342		6,999	,000
	Average trip length on routes in nature	3986,272	1305,468	,175	3,054	,002

a. Gender = Female

b. Dependent Variable: Average trip length