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Article

The impact of female board members on ESG performance: An empirical analysis

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Online-Appendix

„The Impact of Female Board Members on ESG Performance: An Empirical Analysis“

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Appendix A: Definitions of Variables

Appendix Table 1: Definitions of Variables

Variable	Definition
<i>Dependent Variable</i>	
ESG	Refinitiv ESG score in year t+1 (scale 0-1)
EnvSocMean	Mean of the Refinitiv environmental and social score in year t+1 (scale 0-1)
<i>Independent Variables</i>	
MBGend	Percentage of female members in the management board
SBGend	Percentage of female members in the supervisory board
MBWomen	Number of female members in the management board
SBWomen	Number of female members in the supervisory board
Women0	Equal to one if there are no female members in the management board, and zero otherwise
Women1	Equal to one if there is at least one female members in the management board, and zero otherwise
Women2	Equal to one if there are at least two female members in the management board, and zero otherwise
Women3	Equal to one if there are at least three female members in the management board, and zero otherwise
CEO	Equal to one if the CEO is female, and zero otherwise
<i>Control Variables</i>	
MBSize	Size of the management board
SBSize	Size of the supervisory board
DebtRatio	Ratio of total debt to total assets
LogTA	Natural logarithm of total assets
ROA	Return on assets
SBMeetings	Number of supervisory board meetings
SBIndependence	Ratio of independent supervisory board members to total supervisory board size
CSRCommittee	Equal to one if the company has a CSR committee, and zero otherwise
SusCompIncen	Equal to one if the management board members' salary are linked to sustainability targets, and zero otherwise
LogMarketCap	Natural logarithm of the market capitalization

Appendix B: R Output

Descriptive Statistics

```
library(dplyr)
library(xlsx)
library(Hmisc)
corrsample <- subset(sample, select = c("ESG", "EnvSocMean", "MBGend",
"SBGend", "MBWomen", "SBWomen", "CEO", "MBSIZE", "SBSIZE", "DebtRatio",
"LogTA", "LogMarketCap", "ROA", "SBMeetings", "SBIndependence", "CSR
Committee", "SusCompIncen", "women0", "women1", "women2", "women3"))
corrsamplesummary <- data.frame(
  Mean = sapply(corrsample, mean),
  SD = sapply(corrsample, sd),
  Min = sapply(corrsample, min),
  Median = sapply(corrsample, median),
  Max = sapply(corrsample, max)
)
write.xlsx(corrsamplesummary, file="DescStat.xlsx")
```

	Mean	SD	Min	Median	Max
ESG	0.616913	0.175991	0.115559	0.633084	0.932294
EnvSocMea	0.608035	0.201971	0.01181	0.62289	0.93727
MBGend	0.103112	0.139795	0	0	0.5
SBGend	0.290071	0.134484	0	0.333333	0.666667
MBWomer	0.459016	0.617022	0	0	3
SBWomen	3.386885	2.348255	0	4	9
CEO	0.039344	0.194732	0	0	1
MBSIZE	4	1.562303	2	4	9
SBSIZE	10.74754	5.515994	2	12	24
DebtRatio	0.262046	0.166723	0.000071	0.245431	1.032898
LogTA	22.17338	1.71655	18.62	21.96	26.99
LogMarket	22.00541	1.492093	18.85149	21.83175	25.7511
ROA	0.029421	0.063983	-0.24325	0.036219	0.248724
SBMeeting	8.062295	4.947692	3	7	52
SBIndepen	0.528215	0.356121	0	0.5	1
CSRComm	0.783607	0.412462	0	1	1
SusCompli	0.442623	0.497513	0	0	1
Women0	0.596721	0.491362	0	1	1
Women1	0.403279	0.491362	0	0	1
Women2	0.045902	0.209616	0	0	1
Women3	0.009836	0.09885	0	0	1

Appendix Figure 2: Screenshot Descriptive Statistics

Pearson Correlation Matrix

```
corrsig<-rcorr(as.matrix(corrsample))
df.corrsig.r<-data.frame(corrsig$r)
df.corrsig.p<-data.frame(corrsig$p)
write.xlsx(df.corrsig.r, file="corrmat.xlsx", sheetName = "r", append =
TRUE)
write.xlsx(df.corrsig.p, file="corrmat.xlsx", sheetName = "p", append =
TRUE)
```

	ESG	EnvSocMe	MBGend	SBGend	MBWomer	SBWomer	CEO	MBSize	SBSize	DebtRatio
ESG	1	0.93451	0.212209	0.324744	0.326017	0.443583	-0.028367	0.365603	0.417666	0.077255
EnvSocMe	0.93451	1	0.196669	0.300267	0.315413	0.484688	-0.029427	0.383564	0.49009	0.053458
MBGend	0.212209	0.196669	1	0.032707	0.870375	0.159622	0.311674	0.213921	0.152338	0.138392
SBGend	0.324744	0.300267	0.032707	1	0.072141	0.701874	-0.100684	0.152667	0.367949	0.078804
MBWomer	0.326017	0.315413	0.870375	0.072141	1	0.297035	0.177727	0.545985	0.305747	0.188998
SBWomer	0.443583	0.484688	0.159622	0.701874	0.297035	1	-0.026203	0.420522	0.875331	0.112063
CEO	-0.028367	-0.029427	0.311674	-0.100684	0.177727	-0.026203	1	-0.064875	0.006215	-0.035329
MBSize	0.365603	0.383564	0.213921	0.152667	0.545985	0.420522	-0.064875	1	0.454621	0.050678
SBSize	0.417666	0.49009	0.152338	0.367949	0.305747	0.875331	0.006215	0.454621	1	0.106252
DebtRatio	0.077255	0.053458	0.138392	0.078804	0.188998	0.112063	-0.035329	0.050678	0.106252	1
LogTA	0.567628	0.567761	0.241667	0.289135	0.443464	0.613152	-0.032283	0.52192	0.665181	0.256827
LogMarket	0.584565	0.54174	0.176123	0.201348	0.382484	0.428909	-0.06129	0.492363	0.430958	0.05008
ROA	0.02651	0.02549	0.026687	-0.153423	0.031109	-0.16057	0.008875	0.055342	-0.149798	-0.266832
SBMeeting	0.075082	0.049443	0.080873	-0.076068	0.060641	-0.031243	0.004276	0.028087	-0.027265	0.154667
SBIndepen	0.341546	0.217526	-0.013091	0.081874	0.015005	0.00152	0.010216	0.023907	-0.05898	0.168457
CSRComm	0.4614	0.448774	0.148636	0.134344	0.184769	0.208985	0.106348	0.137829	0.234713	0.11965
SusCompli	0.253975	0.185201	0.23735	0.146898	0.268244	0.207711	0.057331	0.126963	0.177501	0.033416
Women0	-0.30913	-0.303777	-0.898697	-0.08246	-0.906408	-0.283415	-0.246173	-0.462789	-0.293772	-0.140597
Women1	0.30913	0.303777	0.898697	0.08246	0.906408	0.283415	0.246173	0.462789	0.293772	0.140597
Women2	0.167848	0.150149	0.363817	-0.021266	0.624991	0.117507	-0.044389	0.401788	0.135234	0.158918
Women3	0.14245	0.1404	0.194163	0.085511	0.411123	0.196119	-0.02017	0.255603	0.161424	0.143859

Appendix Figure 3: Screenshot 1 Correlation Matrix Coefficients

	LogTA	LogMarket	ROA	SBMeeting	SBIndepen	CSRComm	SusCompli	Women0	Women1	Women2	Women3
ESG	0.567628	0.584565	0.02651	0.075082	0.341546	0.4614	0.253975	-0.30913	0.30913	0.167848	0.14245
EnvSocMe	0.567761	0.54174	0.02549	0.049443	0.217526	0.448774	0.185201	-0.303777	0.303777	0.150149	0.1404
MBGend	0.241667	0.176123	0.026687	0.080873	-0.013091	0.148636	0.23735	-0.898697	0.898697	0.363817	0.194163
SBGend	0.289135	0.201348	-0.153423	-0.076068	0.081874	0.134344	0.146898	-0.08246	0.08246	-0.021266	0.085511
MBWomer	0.443464	0.382484	0.031109	0.060641	0.015005	0.184769	0.268244	-0.906408	0.906408	0.624991	0.411123
SBWomer	0.613152	0.428909	-0.16057	-0.031243	0.00152	0.208985	0.207711	-0.283415	0.283415	0.117507	0.196119
CEO	-0.032283	-0.06129	0.008875	0.004276	0.010216	0.106348	0.057331	-0.246173	0.246173	-0.044389	-0.02017
MBSize	0.52192	0.492363	0.055342	0.028087	0.023907	0.137829	0.126963	-0.462789	0.462789	0.401788	0.255603
SBSize	0.665181	0.430958	-0.149798	-0.027265	-0.05898	0.234713	0.177501	-0.293772	0.293772	0.135234	0.161424
DebtRatio	0.256827	0.05008	-0.266832	0.154667	0.168457	0.11965	0.033416	-0.140597	0.140597	0.158918	0.143859
LogTA	1	0.775329	-0.148025	0.13437	0.19083	0.339037	0.270837	-0.39513	0.39513	0.265603	0.240774
LogMarket	0.775329	1	0.131519	0.055347	0.246886	0.260634	0.286279	-0.33371	0.33371	0.247935	0.202908
ROA	-0.148025	0.131519	1	-0.252505	0.011166	-0.043307	-0.01042	-0.019058	0.019058	0.050998	-0.008692
SBMeeting	0.13437	0.055347	-0.252505	1	0.106056	0.140415	0.032861	-0.070817	0.070817	-0.00911	0.045824
SBIndepen	0.19083	0.246886	0.011166	0.106056	1	0.24945	0.091467	-0.000613	0.000613	0.010369	0.068626
CSRComm	0.339037	0.260634	-0.043307	0.140415	0.24945	1	0.099597	-0.221005	0.221005	0.001123	0.052376
SusCompli	0.270837	0.286279	-0.01042	0.032861	0.091467	0.099597	1	-0.236254	0.236254	0.183051	0.111845
Women0	-0.39513	-0.33371	-0.019058	-0.070817	-0.000613	-0.221005	-0.236254	1	-1	-0.266809	-0.121238
Women1	0.39513	0.33371	0.019058	0.070817	0.000613	0.221005	0.236254	-1	1	0.266809	0.121238
Women2	0.265603	0.247935	0.050998	-0.00911	0.010369	0.001123	0.183051	-0.266809	0.266809	1	0.454401
Women3	0.240774	0.202908	-0.008692	0.045824	0.068626	0.052376	0.111845	-0.121238	0.121238	0.454401	1

Appendix Figure 4: Screenshot 2 Correlation Matrix Coefficients

	ESG	EnvSocMez	MBGend	SBGend	MBWomer	SBWomen	CEO	MBSize	SBSize	DebtRatio
ESG	#NV	0	0.000189	6.39E-09	5.53E-09	4.44E-16	0.621681	4.45E-11	2.62E-14	0.178408
EnvSocMez	0	#NV	0.000552	8.98E-08	1.8E-08	0	0.608709	3.97E-12	0	0.352148
MBGend	0.000189	0.000552	#NV	0.569345	0	0.005203	2.7E-08	0.000167	0.007696	0.015578
SBGend	6.39E-09	8.98E-08	0.569345	#NV	0.208987	0	0.079156	0.007564	3.27E-11	0.169833
MBWomer	5.53E-09	1.8E-08	0	0.208987	#NV	1.25E-07	0.001833	0	5.07E-08	0.00091
SBWomen	4.44E-16	0	0.005203	0	1.25E-07	#NV	0.648518	1.69E-14	0	0.050556
CEO	0.621681	0.608709	2.7E-08	0.079156	0.001833	0.648518	#NV	0.258677	0.913917	0.538787
MBSize	4.45E-11	3.97E-12	0.000167	0.007564	0	1.69E-14	0.258677	#NV	0	0.377786
SBSize	2.62E-14	0	0.007696	3.27E-11	5.07E-08	0	0.913917	0	#NV	0.063848
DebtRatio	0.178408	0.352148	0.015578	0.169833	0.00091	0.050556	0.538787	0.377786	0.063848	#NV
LogTA	0	0	1.98E-05	2.76E-07	4.44E-16	0	0.574367	0	0	5.54E-06
LogMarket	0	0	0.002019	0.000403	4.61E-12	4.44E-15	0.285975	0	3.11E-15	0.383442
ROA	0.644685	0.657467	0.642477	0.007268	0.588371	0.004939	0.877325	0.335412	0.008788	2.28E-06
SBMeeting	0.190972	0.389531	0.158868	0.185192	0.291117	0.586765	0.940714	0.625127	0.635294	0.006803
SBInden	9.04E-10	0.000129	0.819882	0.153753	0.794097	0.978905	0.858975	0.677513	0.30456	0.003167
CSRComm	0	0	0.009333	0.018913	0.001189	0.000237	0.063607	0.016009	3.47E-05	0.03675
SusCompli	7.08E-06	0.001157	2.81E-05	0.010203	2.01E-06	0.00026	0.3183	0.02661	0.001859	0.561004
Women0	3.54E-08	6.24E-08	0	0.150823	0	4.83E-07	1.37E-05	0	1.74E-07	0.013989
Women1	3.54E-08	6.24E-08	0	0.150823	0	4.83E-07	1.37E-05	0	1.74E-07	0.013989
Women2	0.00328	0.00863	5.61E-11	0.711453	0	0.04028	0.439868	2.92E-13	0.018131	0.005408
Women3	0.012764	0.014124	0.000651	0.136231	7.19E-14	0.000572	0.725701	6.16E-06	0.004711	0.011897

Appendix Figure 5: Screenshot 1 Correlation Matrix Significance Levels

	LogTA	LogMarket	ROA	SBMeeting	SBInden	CSRComm	SusCompli	Women0	Women1	Women2	Women3
ESG	0	0	0.644685	0.190972	9.04E-10	0	7.08E-06	3.54E-08	3.54E-08	0.00328	0.012764
EnvSocMez	0	0	0.657467	0.389531	0.000129	0	0.001157	6.24E-08	6.24E-08	0.00863	0.014124
MBGend	1.98E-05	0.002019	0.642477	0.158868	0.819882	0.009333	2.81E-05	0	0	5.61E-11	0.000651
SBGend	2.76E-07	0.000403	0.007268	0.185192	0.153753	0.018913	0.010203	0.150823	0.150823	0.711453	0.136231
MBWomer	4.44E-16	4.61E-12	0.588371	0.291117	0.794097	0.001189	2.01E-06	0	0	0	7.19E-14
SBWomen	0	4.44E-15	0.004939	0.586765	0.978905	0.000237	0.00026	4.83E-07	4.83E-07	0.04028	0.000572
CEO	0.574367	0.285975	0.877325	0.940714	0.858975	0.063607	0.3183	1.37E-05	1.37E-05	0.439868	0.725701
MBSize	0	0	0.335412	0.625127	0.677513	0.016009	0.02661	0	0	2.92E-13	6.16E-06
SBSize	0	3.11E-15	0.008788	0.635294	0.30456	3.47E-05	0.001859	1.74E-07	1.74E-07	0.018131	0.004711
DebtRatio	5.54E-06	0.383442	2.28E-06	0.006803	0.003167	0.03675	0.561004	0.013989	0.013989	0.005408	0.011897
LogTA	#NV	0	0.009631	0.01889	0.000809	1.22E-09	1.58E-06	7.72E-13	7.72E-13	2.55E-06	2.13E-05
LogMarket	0	#NV	0.021594	0.335367	1.29E-05	3.97E-06	3.66E-07	2.28E-09	2.28E-09	1.18E-05	0.000362
ROA	0.009631	0.021594	#NV	8.03E-06	0.846005	0.451109	0.856183	0.740271	0.740271	0.37478	0.879838
SBMeeting	0.01889	0.335367	8.03E-06	#NV	0.064341	0.014114	0.567532	0.217488	0.217488	0.874107	0.425211
SBInden	0.000809	1.29E-05	0.846005	0.064341	#NV	1.04E-05	0.110894	0.991488	0.991488	0.85688	0.232093
CSRComm	1.22E-09	3.97E-06	0.451109	0.014114	1.04E-05	#NV	0.082464	9.94E-05	9.94E-05	0.984421	0.361994
SusCompli	1.58E-06	3.66E-07	0.856183	0.567532	0.110894	0.082464	#NV	3.07E-05	3.07E-05	0.001323	0.051011
Women0	7.72E-13	2.28E-09	0.740271	0.217488	0.991488	9.94E-05	3.07E-05	#NV	0	2.28E-06	0.034306
Women1	7.72E-13	2.28E-09	0.740271	0.217488	0.991488	9.94E-05	3.07E-05	0	#NV	2.28E-06	0.034306
Women2	2.55E-06	1.18E-05	0.37478	0.874107	0.85688	0.984421	0.001323	2.28E-06	2.28E-06	#NV	0
Women3	2.13E-05	0.000362	0.879838	0.425211	0.232093	0.361994	0.051011	0.034306	0.034306	0	#NV

Appendix Figure 6: Screenshot 2 Correlation Matrix Significance Levels

Main Regression Models

```
model1<-lm(ESG ~ MBGend + SBGend + MBSize + SBSize + DebtRatio + LogTA
+ ROA + SBMeetings + SBIIndependence + CSRCommittee + SusCompIncen + Y
ear + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry
_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=samp
le)
summary(model1)
```

```
call:
lm(formula = ESG ~ MBGend + SBGend + MBSize + SBSize + DebtRatio +
  LogTA + ROA + SBMeetings + SBIIndependence + CSRCommittee +
  SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
```

```

Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 + Industry_60, data = sample)

```

```

Residuals:
      Min       1Q   Median       3Q      Max
-0.47566 -0.07185  0.00890  0.07366  0.26433

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.4095650  0.1405997  -2.913  0.003865 **
MBGend       0.1136050  0.0532073   2.135  0.033608 *
SBGend       0.1802332  0.0585799   3.077  0.002298 **
MBSize       0.0053395  0.0055548   0.961  0.337253
SBSize       0.0023054  0.0019181   1.202  0.230389
DebtRatio    -0.0460920  0.0465218  -0.991  0.322648
LogTA        0.0396296  0.0067778   5.847  1.38e-08 ***
ROA          0.1205257  0.1230680   0.979  0.328247
SBMeetings   0.0009301  0.0015303   0.608  0.543818
SBIndependence 0.1236099  0.0218799   5.649  3.92e-08 ***
CSRCommittee 0.1068353  0.0183780   5.813  1.65e-08 ***
SusCompIncen 0.0288350  0.0150977   1.910  0.057158 .
Year        -0.0260241  0.0143221  -1.817  0.070266 .
Industry_15  -0.0798283  0.0678544  -1.176  0.240398
Industry_20  -0.1073269  0.0641101  -1.674  0.095215 .
Industry_25  -0.1540846  0.0666992  -2.310  0.021600 *
Industry_30  -0.0809458  0.0698526  -1.159  0.247511
Industry_35  -0.0701962  0.0658615  -1.066  0.287416
Industry_45  -0.0337640  0.0644957  -0.524  0.601030
Industry_50  -0.1842303  0.0674768  -2.730  0.006725 **
Industry_55  -0.2632906  0.0781004  -3.371  0.000853 ***
Industry_60  -0.1530325  0.0699016  -2.189  0.029395 *
---

```

```

signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Residual standard error: 0.1186 on 283 degrees of freedom
Multiple R-squared:  0.5774, Adjusted R-squared:  0.546
F-statistic: 18.41 on 21 and 283 DF, p-value: < 2.2e-16

```

```

model2.1<-lm(ESG ~ Women0 + SBGend + MBSize + SBSize + DebtRatio + Log
TA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen +
Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industr
y_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sam
ple)
summary(model2.1)

```

```

Call:
lm(formula = ESG ~ Women0 + SBGend + MBSize + SBSize + DebtRatio +
    LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee +
    SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 + Industry_60, data = sample)

```

```

Residuals:
      Min       1Q   Median       3Q      Max
-0.47624 -0.07411  0.01022  0.07471  0.26596

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.367914  0.145491  -2.529  0.011990 *
women0       -0.030813  0.017079  -1.804  0.072276 .
SBGend       0.180347  0.058761   3.069  0.002355 **
MBSize       0.003195  0.005850   0.546  0.585416
SBSize       0.002227  0.001922   1.159  0.247383
DebtRatio    -0.043644  0.046582  -0.937  0.349599
LogTA        0.039450  0.006807   5.795  1.81e-08 ***
ROA          0.129903  0.123101   1.055  0.292205
SBMeetings   0.001046  0.001533   0.683  0.495449
SBIndependence 0.122762  0.021923   5.600  5.08e-08 ***
CSRCommittee 0.105797  0.018497   5.720  2.71e-08 ***
SusCompIncen 0.030223  0.015084   2.004  0.046062 *

```

Year	-0.025574	0.014350	-1.782	0.075790	.
Industry_15	-0.079481	0.068074	-1.168	0.243964	.
Industry_20	-0.106456	0.064272	-1.656	0.098762	.
Industry_25	-0.153149	0.066926	-2.288	0.022854	*
Industry_30	-0.084780	0.070365	-1.205	0.229261	.
Industry_35	-0.068700	0.066000	-1.041	0.298802	.
Industry_45	-0.034518	0.064706	-0.533	0.594136	.
Industry_50	-0.182226	0.067608	-2.695	0.007453	**
Industry_55	-0.262945	0.078333	-3.357	0.000897	***
Industry_60	-0.154466	0.070198	-2.200	0.028583	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1188 on 283 degrees of freedom
Multiple R-squared: 0.5755, Adjusted R-squared: 0.5439
F-statistic: 18.27 on 21 and 283 DF, p-value: < 2.2e-16

```
model2.2<-lm(ESG ~ Women1 + SBGend + MBSIZE + SBSIZE + DebtRatio + Log
TA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen +
Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industr
y_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sam
ple)
summary(model2.2)
```

```
Call:
lm(formula = ESG ~ Women1 + SBGend + MBSIZE + SBSIZE + DebtRatio +
  LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee +
  SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
  Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
  Industry_60, data = sample)
```

Residuals:					
	Min	1Q	Median	3Q	Max
	-0.47624	-0.07411	0.01022	0.07471	0.26596

Coefficients:					
	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.398726	0.141936	-2.809	0.005313	**
Women1	0.030813	0.017079	1.804	0.072276	.
SBGend	0.180347	0.058761	3.069	0.002355	**
MBSIZE	0.003195	0.005850	0.546	0.585416	.
SBSIZE	0.002227	0.001922	1.159	0.247383	.
DebtRatio	-0.043644	0.046582	-0.937	0.349599	.
LogTA	0.039450	0.006807	5.795	1.81e-08	***
ROA	0.129903	0.123101	1.055	0.292205	.
SBMeetings	0.001046	0.001533	0.683	0.495449	.
SBIndependence	0.122762	0.021923	5.600	5.08e-08	***
CSRCommittee	0.105797	0.018497	5.720	2.71e-08	***
SusCompIncen	0.030223	0.015084	2.004	0.046062	*
Year	-0.025574	0.014350	-1.782	0.075790	.
Industry_15	-0.079481	0.068074	-1.168	0.243964	.
Industry_20	-0.106456	0.064272	-1.656	0.098762	.
Industry_25	-0.153149	0.066926	-2.288	0.022854	*
Industry_30	-0.084780	0.070365	-1.205	0.229261	.
Industry_35	-0.068700	0.066000	-1.041	0.298802	.
Industry_45	-0.034518	0.064706	-0.533	0.594136	.
Industry_50	-0.182226	0.067608	-2.695	0.007453	**
Industry_55	-0.262945	0.078333	-3.357	0.000897	***
Industry_60	-0.154466	0.070198	-2.200	0.028583	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1188 on 283 degrees of freedom
Multiple R-squared: 0.5755, Adjusted R-squared: 0.5439
F-statistic: 18.27 on 21 and 283 DF, p-value: < 2.2e-16

```
model2.3<-lm(ESG ~ Women2 + SBGend + MBSIZE + SBSIZE + DebtRatio + Log
TA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen +
Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industr
y_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sam
ple)
```

summary(model2.3)

Call:

```
lm(formula = ESG ~ Women2 + SBGend + MBSIZE + SBSIZE + DebtRatio +  
  LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee +  
  SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +  
  Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5  
  5 +  
  Industry_60, data = sample)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.48970	-0.07742	0.01030	0.07490	0.25076

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.412804	0.142431	-2.898	0.00405	**
Women2	0.043734	0.038394	1.139	0.25563	
SBGend	0.180756	0.059241	3.051	0.00250	**
MBSIZE	0.004432	0.005873	0.755	0.45111	
SBSIZE	0.002338	0.001933	1.210	0.22746	
DebtRatio	-0.042750	0.046977	-0.910	0.36359	
LogTA	0.039731	0.006841	5.808	1.70e-08	***
ROA	0.137277	0.123418	1.112	0.26696	
SBMeetings	0.001091	0.001539	0.709	0.47898	
SBIndependence	0.120324	0.021929	5.487	9.08e-08	***
CSRCommittee	0.110897	0.018465	6.006	5.83e-09	***
SusCompIncen	0.032569	0.015043	2.165	0.03122	*
Year	-0.024634	0.014383	-1.713	0.08787	.
Industry_15	-0.070252	0.068049	-1.032	0.30278	
Industry_20	-0.099558	0.064353	-1.547	0.12297	
Industry_25	-0.143016	0.066801	-2.141	0.03313	*
Industry_30	-0.066415	0.070001	-0.949	0.34355	
Industry_35	-0.068152	0.066292	-1.028	0.30480	
Industry_45	-0.029760	0.064838	-0.459	0.64659	
Industry_50	-0.182492	0.067989	-2.684	0.00770	**
Industry_55	-0.251876	0.078368	-3.214	0.00146	**
Industry_60	-0.142612	0.070130	-2.034	0.04293	*

signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1193 on 283 degrees of freedom

Multiple R-squared: 0.5725, Adjusted R-squared: 0.5408

F-statistic: 18.05 on 21 and 283 DF, p-value: < 2.2e-16

```
model2.4<-lm(ESG ~ Women3 + SBGend + MBSIZE + SBSIZE + DebtRatio + Log  
TA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen +  
Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industr  
y_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sam  
ple)
```

summary(model2.4)

Call:

```
lm(formula = ESG ~ Women3 + SBGend + MBSIZE + SBSIZE + DebtRatio +  
  LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee +  
  SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +  
  Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5  
  5 +  
  Industry_60, data = sample)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.49185	-0.07616	0.00691	0.07312	0.25543

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.431999	0.142110	-3.040	0.00259	**
women3	0.023475	0.075129	0.312	0.75492	
SBGend	0.172070	0.058951	2.919	0.00380	**
MBSIZE	0.006332	0.005635	1.124	0.26208	
SBSIZE	0.002177	0.001932	1.126	0.26094	
DebtRatio	-0.036465	0.046785	-0.779	0.43639	

LogTA	0.040375	0.006843	5.900	1.03e-08	***
ROA	0.142942	0.123607	1.156	0.24848	
SBMeetings	0.001017	0.001542	0.660	0.51010	
SBIndependence	0.118685	0.021945	5.408	1.35e-07	***
CSRCommittee	0.109801	0.018477	5.943	8.23e-09	***
SusCompIncen	0.034332	0.014988	2.291	0.02272	*
Year	-0.024046	0.014404	-1.669	0.09615	.
Industry_15	-0.067483	0.068239	-0.989	0.32355	
Industry_20	-0.098116	0.064513	-1.521	0.12941	
Industry_25	-0.139164	0.066900	-2.080	0.03841	*
Industry_30	-0.067030	0.070204	-0.955	0.34050	
Industry_35	-0.062532	0.066360	-0.942	0.34684	
Industry_45	-0.026306	0.064912	-0.405	0.68559	
Industry_50	-0.177146	0.067989	-2.606	0.00966	**
Industry_55	-0.250990	0.078603	-3.193	0.00157	**
Industry_60	-0.141820	0.070326	-2.017	0.04468	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1195 on 283 degrees of freedom

Multiple R-squared: 0.5707, Adjusted R-squared: 0.5389

F-statistic: 17.92 on 21 and 283 DF, p-value: < 2.2e-16

```
model3<-lm(ESG ~ CEO + SBGend + MBSIZE + SBSIZE + DebtRatio + LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(model3)
```

Call:

```
lm(formula = ESG ~ CEO + SBGend + MBSIZE + SBSIZE + DebtRatio + LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.49199	-0.07708	0.00917	0.07358	0.25415

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.431595	0.141485	-3.050	0.00250	**
CEO	-0.018870	0.036504	-0.517	0.60561	
SBGend	0.169464	0.059218	2.862	0.00453	**
MBSIZE	0.006465	0.005571	1.160	0.24687	
SBSIZE	0.002258	0.001937	1.166	0.24475	
DebtRatio	-0.036269	0.046637	-0.778	0.43740	
LogTA	0.040303	0.006833	5.898	1.04e-08	***
ROA	0.143500	0.123497	1.162	0.24622	
SBMeetings	0.001025	0.001541	0.665	0.50648	
SBIndependence	0.118795	0.021931	5.417	1.30e-07	***
CSRCommittee	0.110788	0.018591	5.959	7.52e-09	***
SusCompIncen	0.034972	0.015013	2.329	0.02054	*
Year	-0.023550	0.014421	-1.633	0.10357	
Industry_15	-0.067382	0.068183	-0.988	0.32387	
Industry_20	-0.098039	0.064479	-1.520	0.12951	
Industry_25	-0.139752	0.066859	-2.090	0.03749	*
Industry_30	-0.068050	0.070114	-0.971	0.33260	
Industry_35	-0.062802	0.066292	-0.947	0.34427	
Industry_45	-0.026940	0.064898	-0.415	0.67837	
Industry_50	-0.174694	0.067926	-2.572	0.01063	*
Industry_55	-0.252350	0.078512	-3.214	0.00146	**
Industry_60	-0.140997	0.070328	-2.005	0.04593	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

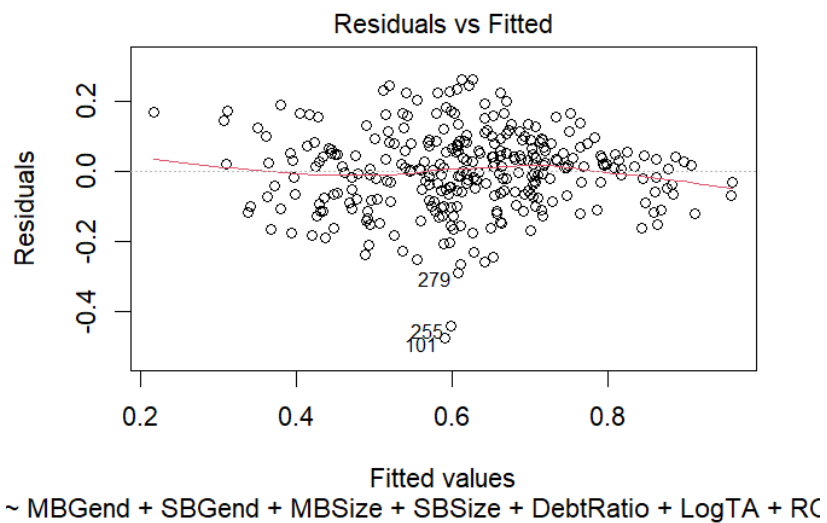
Residual standard error: 0.1195 on 283 degrees of freedom

Multiple R-squared: 0.571, Adjusted R-squared: 0.5391

F-statistic: 17.94 on 21 and 283 DF, p-value: < 2.2e-16

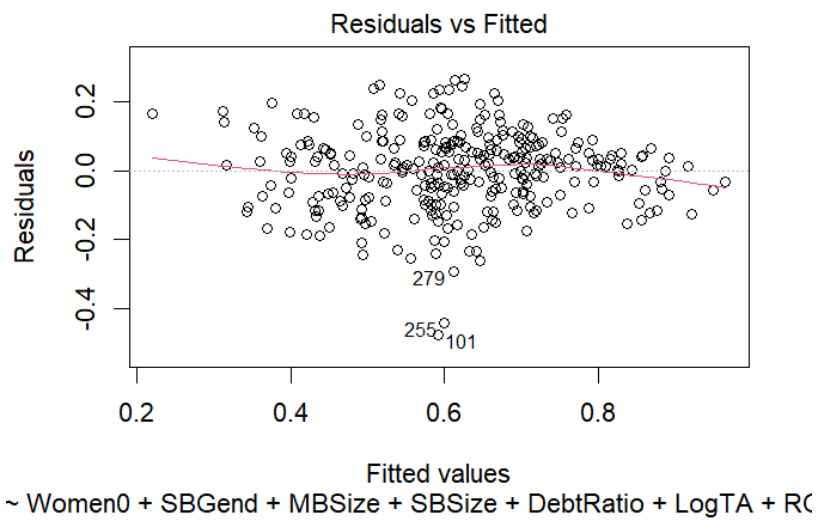
Regression Assumptions

```
plot(model1, 1)
```



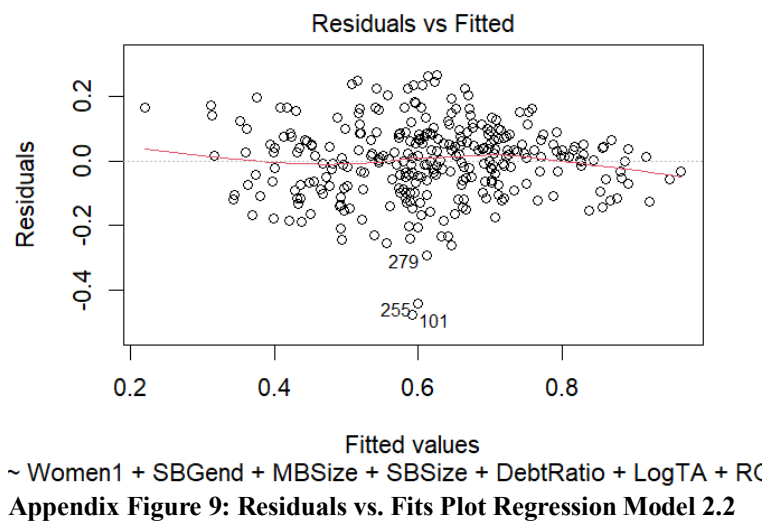
Appendix Figure 7: Residuals vs. Fits Plot Regression Model 1

```
plot(model2.1, 1)
```



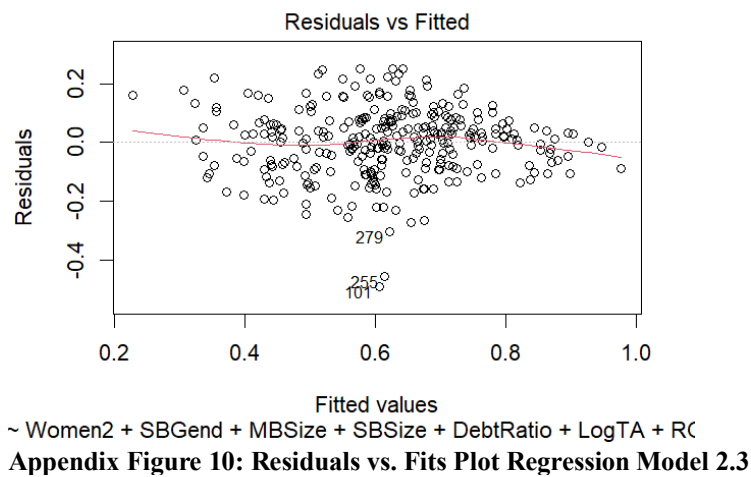
Appendix Figure 8: Residuals vs. Fits Plot Regression Model 2.1

```
plot(model2.2, 1)
```



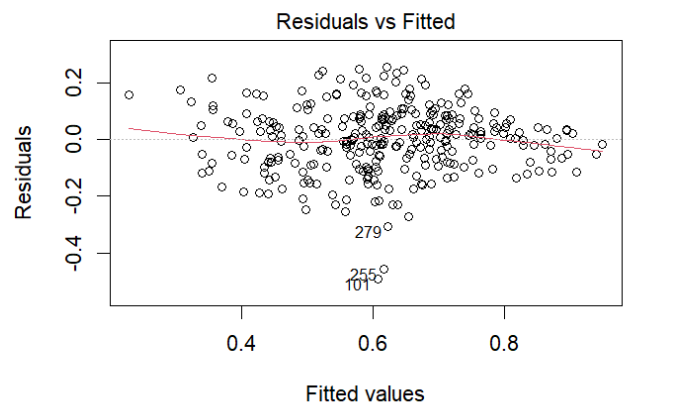
Appendix Figure 9: Residuals vs. Fits Plot Regression Model 2.2

```
plot(model2.3, 1)
```



Appendix Figure 10: Residuals vs. Fits Plot Regression Model 2.3

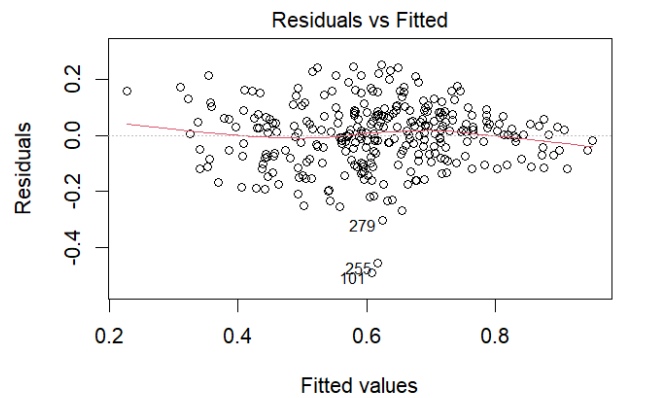
```
plot(model2.4, 1)
```



~ Women3 + SBGend + MBSIZE + SBSIZE + DebtRatio + LogTA + RC

Appendix Figure 11: Residuals vs. Fits Plot Regression Model 2.4

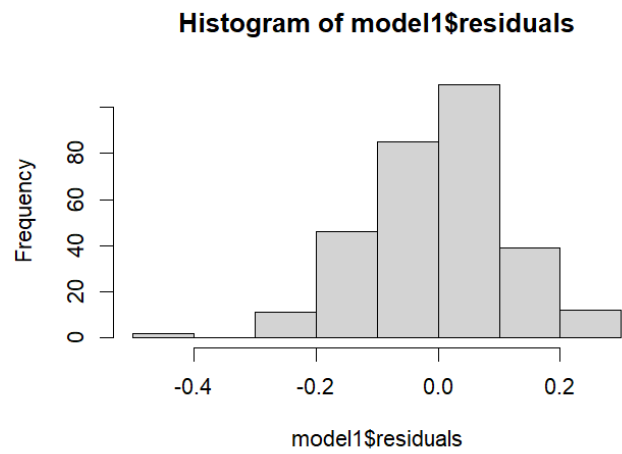
```
plot(model3, 1)
```



~ CEO + SBGend + MBSIZE + SBSIZE + DebtRatio + LogTA + ROA

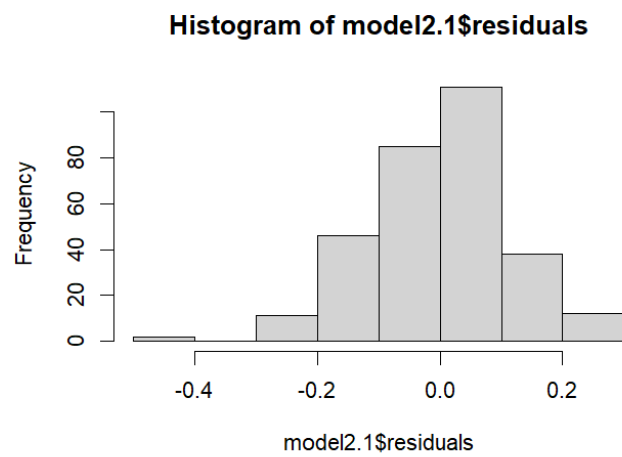
Appendix Figure 12: Residuals vs. Fits Plot Regression Model 3

```
hist(model1$residuals)
```



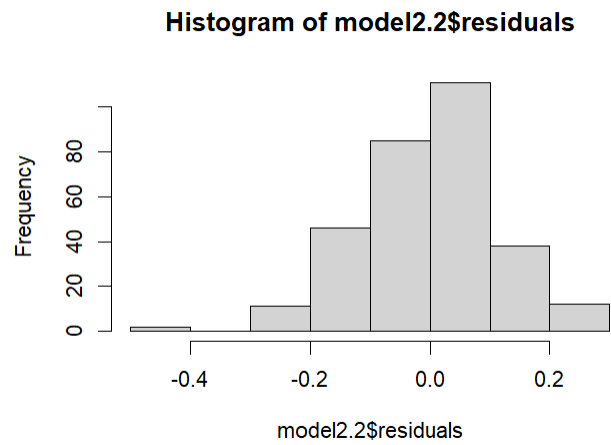
Appendix Figure 13: Histogram of Residuals Regression Model 1

```
hist(model2.1$residuals)
```



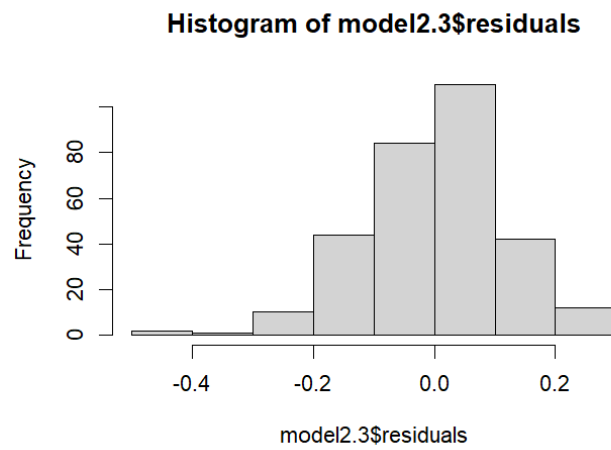
Appendix Figure 14: Histogram of Residuals Regression Model 2.1

```
hist(model2.2$residuals)
```



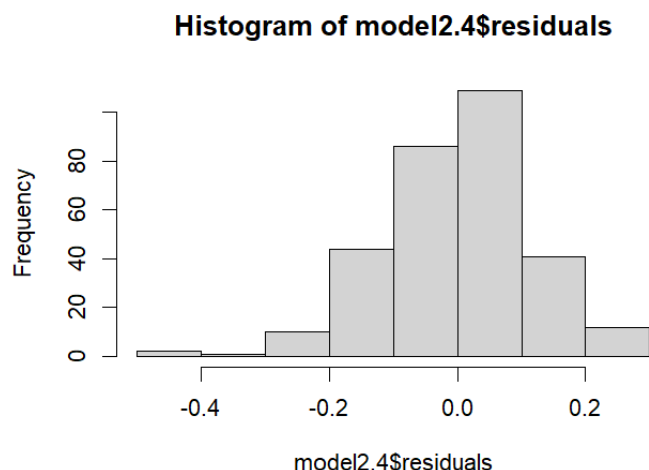
Appendix Figure 15: Histogram of Residuals Regression Model 2.2

```
hist(model2.3$residuals)
```



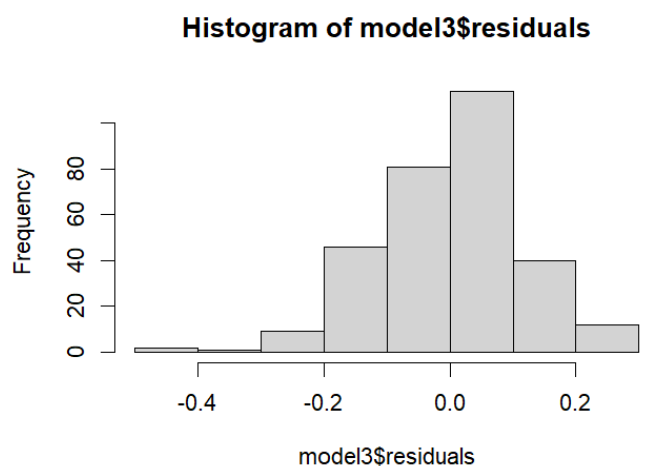
Appendix Figure 16: Histogram of Residuals Regression Model 2.3

```
hist(model2.4$residuals)
```



Appendix Figure 17: Histogram of Residuals Regression Model 2.4

```
hist(model3$residuals)
```



Appendix Figure 18: Histogram of Residuals of Regression Model 3

```
library(car)
vif_model1<-vif(model1)
vif_model1
```

	MBGend	SBGend	MBSIZE	SBSIZE
	1.196138	1.341821	1.628242	2.420038
	DebtRatio	LogTA	ROA	SBMeetings
	1.300647	2.926488	1.340538	1.239418
SBIndependence	CSRCommittee	SusCompIncen		Year
	1.312625	1.242278	1.219793	1.112322
Industry_15	Industry_20	Industry_25		Industry_30
	7.787770	17.921491	13.012370	4.635177
Industry_35	Industry_45	Industry_50		Industry_55
	9.078757	10.062083	7.431683	3.379342
Industry_60				
	7.093542			

```
vif_model2.1<-vif(model2.1)
vif_model2.1
```

	women0	SBGend	MBSIZE	SBSIZE
	1.515690	1.344016	1.797546	2.418245
	DebtRatio	LogTA	ROA	SBMeetings
	1.298118	2.938393	1.335164	1.238200
SBIndependence	CSRCommittee	SusCompIncen		Year
	1.311820	1.252729	1.212031	1.111571
Industry_15	Industry_20	Industry_25		Industry_30
	7.802803	17.930491	13.041446	4.682046
Industry_35	Industry_45	Industry_50		Industry_55

```

9.075530      10.081815      7.426771      3.384127
Industry_60
7.121295
vif_model2.2<-vif(model2.2)
vif_model2.2
  women1      SBGend      MBSIZE      SBSIZE
1.515690      1.344016      1.797546      2.418245
DebtRatio      LogTA      ROA      SBMeetings
1.298118      2.938393      1.335164      1.238200
SBIndependence CSRCommittee SusCompIncen      Year
1.311820      1.252729      1.212031      1.111571
Industry_15      Industry_20      Industry_25      Industry_30
7.802803      17.930491      13.041446      4.682046
Industry_35      Industry_45      Industry_50      Industry_55
9.075530      10.081815      7.426771      3.384127
Industry_60
7.121295
vif_model2.3<-vif(model2.3)
vif_model2.3
  women2      SBGend      MBSIZE      SBSIZE
1.384414      1.356736      1.799772      2.430140
DebtRatio      LogTA      ROA      SBMeetings
1.311198      2.947711      1.332893      1.239504
SBIndependence CSRCommittee SusCompIncen      Year
1.303531      1.239853      1.197204      1.109125
Industry_15      Industry_20      Industry_25      Industry_30
7.743773      17.852868      12.904106      4.602098
Industry_35      Industry_45      Industry_50      Industry_55
9.093485      10.053851      7.459453      3.363916
Industry_60
7.059061
vif_model2.4<-vif(model2.4)
vif_model2.4
  women3      SBGend      MBSIZE      SBSIZE
1.173909      1.337788      1.649682      2.417965
DebtRatio      LogTA      ROA      SBMeetings
1.294975      2.936458      1.331324      1.239605
SBIndependence CSRCommittee SusCompIncen      Year
1.299927      1.236236      1.183538      1.107611
Industry_15      Industry_20      Industry_25      Industry_30
7.754108      17.866052      12.887856      4.609348
Industry_35      Industry_45      Industry_50      Industry_55
9.073816      10.034335      7.427844      3.369842
Industry_60
7.068585
vif_model3<-vif(model3)
vif_model3
  CEO      SBGend      MBSIZE      SBSIZE
1.076176      1.350730      1.613558      2.432167
DebtRatio      LogTA      ROA      SBMeetings
1.287581      2.929852      1.329745      1.238314
SBIndependence CSRCommittee SusCompIncen      Year
1.299108      1.252251      1.188202      1.110863
Industry_15      Industry_20      Industry_25      Industry_30
7.746019      17.857745      12.879562      4.600279
Industry_35      Industry_45      Industry_50      Industry_55
9.060448      10.035832      7.418529      3.364128
Industry_60
7.073284
library(lmtest)
bptest(model1)

```

studentized Breusch-Pagan test

```

data: model1
BP = 58.163, df = 21, p-value = 2.413e-05

```

```
bptest(model2.1)
```

studentized Breusch-Pagan test

```
data: model2.1
```

BP = 59.376, df = 21, p-value = 1.587e-05

`bptest(model2.2)`

studentized Breusch-Pagan test

data: model2.2

BP = 59.376, df = 21, p-value = 1.587e-05

`bptest(model2.3)`

studentized Breusch-Pagan test

data: model2.3

BP = 52.781, df = 21, p-value = 0.0001478

`bptest(model2.4)`

studentized Breusch-Pagan test

data: model2.4

BP = 52.606, df = 21, p-value = 0.0001566

`bptest(model3)`

studentized Breusch-Pagan test

data: model3

BP = 52.689, df = 21, p-value = 0.0001523

Robustness Tests

```
robustness1<-lm(EnvSocMean ~ MBGend + SBGend + MBSIZE + SBSIZE + DebtR
atio + LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + Sus
CompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_
30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_
60, data=sample)
summary(robustness1)
```

Call:

```
lm(formula = EnvSocMean ~ MBGend + SBGend + MBSIZE + SBSIZE +
DebtRatio + LogTA + ROA + SBMeetings + SBIndependence + CSRCommitt
ee +
SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
Industry_60, data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.60180	-0.08237	0.00057	0.09376	0.34676

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.3409933	0.1697678	-2.009	0.045531	*
MBGend	0.1069463	0.0642454	1.665	0.097089	.
SBGend	0.1586550	0.0707326	2.243	0.025669	*
MBSIZE	0.0066247	0.0067072	0.988	0.324143	
SBSIZE	0.0069885	0.0023160	3.018	0.002780	**
DebtRatio	-0.0659941	0.0561729	-1.175	0.241047	
LogTA	0.0387841	0.0081839	4.739	3.40e-06	***
ROA	0.1502015	0.1485990	1.011	0.312983	
SBMeetings	0.0002342	0.0018478	0.127	0.899225	
SBIndependence	0.0802140	0.0264190	3.036	0.002619	**
CSRCommittee	0.1268488	0.0221906	5.716	2.76e-08	***
SusCompIncen	0.0116939	0.0182298	0.641	0.521737	
Year	-0.0252257	0.0172933	-1.459	0.145758	
Industry_15	-0.1488138	0.0819311	-1.816	0.070378	.
Industry_20	-0.1872785	0.0774100	-2.419	0.016181	*
Industry_25	-0.2411688	0.0805362	-2.995	0.002992	**

```

Industry_30    -0.1553732  0.0843439  -1.842  0.066501 .
Industry_35    -0.1488077  0.0795248  -1.871  0.062348 .
Industry_45    -0.1494338  0.0778756  -1.919  0.056006 .
Industry_50    -0.2888505  0.0814752  -3.545  0.000459 ***
Industry_55    -0.3510060  0.0943026  -3.722  0.000238 ***
Industry_60    -0.1960754  0.0844030  -2.323  0.020883 *
---

```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1432 on 283 degrees of freedom
Multiple R-squared: 0.5322, Adjusted R-squared: 0.4974
F-statistic: 15.33 on 21 and 283 DF, p-value: < 2.2e-16

```

robustness2<-lm(ESG ~ MBWomen + SBWomen + MBSIZE + SBSIZE + DebtRatio +
LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompInc
en + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + In
dustry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, dat
a=sample)
summary(robustness2)

```

```

Call:
lm(formula = ESG ~ MBWomen + SBWomen + MBSIZE + SBSIZE + DebtRatio +
LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee +
SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
Industry_60, data = sample)

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.49254 -0.07481  0.01081  0.07208  0.27111

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  -0.3485038   0.1455096   -2.395   0.01727 *
MBWomen        0.0245865   0.0145330    1.692   0.09179 .
SBWomen        0.0118751   0.0064198    1.850   0.06539 .
MBSIZE         0.0013296   0.0061284    0.217   0.82839
SBSIZE        -0.0006712   0.0029769   -0.225   0.82178
DebtRatio     -0.0471128   0.0473549   -0.995   0.32064
LogTA          0.0393239   0.0069065    5.694 3.11e-08 ***
ROA            0.1011814   0.1241223    0.815   0.41566
SBMeetings     0.0006362   0.0015393    0.413   0.67971
SBIndependence 0.1256721   0.0221919    5.663 3.65e-08 ***
CSRCommittee   0.1096344   0.0186130    5.890 1.09e-08 ***
SusCompIncen   0.0300779   0.0152926    1.967   0.05018 .
Year          -0.0241355   0.0144779   -1.667   0.09661 .
Industry_15    -0.0699645   0.0685815   -1.020   0.30852
Industry_20    -0.1036306   0.0648562   -1.598   0.11119
Industry_25    -0.1424415   0.0673847   -2.114   0.03540 *
Industry_30    -0.0746046   0.0707626   -1.054   0.29265
Industry_35    -0.0634297   0.0666107   -0.952   0.34179
Industry_45    -0.0340802   0.0653586   -0.521   0.60247
Industry_50    -0.1841644   0.0684139   -2.692   0.00753 **
Industry_55    -0.2614541   0.0791190   -3.305   0.00107 **
Industry_60    -0.1545246   0.0707712   -2.183   0.02982 *
---

```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.12 on 283 degrees of freedom
Multiple R-squared: 0.5672, Adjusted R-squared: 0.5351
F-statistic: 17.66 on 21 and 283 DF, p-value: < 2.2e-16

```

robustness3.1<-lm(ESG ~ MBGend + SBGend, data=sample)
summary(robustness3.1)

```

```

Call:
lm(formula = ESG ~ MBGend + SBGend, data = sample)

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.40433 -0.11048  0.02921  0.11942  0.28419

```

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	0.46995	0.02310	20.343	< 2e-16 ***
MBGend	0.25405	0.06698	3.793	0.00018 ***
SBGend	0.41633	0.06962	5.980	6.29e-09 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1632 on 302 degrees of freedom
Multiple R-squared: 0.1461, Adjusted R-squared: 0.1405
F-statistic: 25.84 on 2 and 302 DF, p-value: 4.359e-11

```
robustness3.2<-lm(ESG ~ MBGend + SBGend + MBSIZE + SBSIZE + DebtRatio +
LogMarketCap + ROA + SBMeetings + SBIndependence + CSRCommittee + Sus
CompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_
30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_
60, data=sample)
summary(robustness3.2)
```

Call:

```
lm(formula = ESG ~ MBGend + SBGend + MBSIZE + SBSIZE + DebtRatio +
LogMarketCap + ROA + SBMeetings + SBIndependence + CSRCommittee +
SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
Industry_60, data = sample)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.41312	-0.07175	0.01374	0.07173	0.28225

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	-0.4224694	0.1326922	-3.184	0.00162 **
MBGend	0.1256555	0.0525610	2.391	0.01747 *
SBGend	0.1889063	0.0578960	3.263	0.00124 **
MBSIZE	0.0054172	0.0054455	0.995	0.32068
SBSIZE	0.0049999	0.0017002	2.941	0.00354 **
DebtRatio	-0.0002691	0.0455727	-0.006	0.99529
LogMarketCap	0.0396671	0.0062046	6.393	6.68e-10 ***
ROA	-0.0634857	0.1241514	-0.511	0.60950
SBMeetings	0.0008296	0.0015149	0.548	0.58440
SBIndependence	0.1100761	0.0220205	4.999	1.01e-06 ***
CSRCommittee	0.1111334	0.0180688	6.151	2.62e-09 ***
SusCompIncen	0.0232790	0.0150682	1.545	0.12349
Year	-0.0217087	0.0141819	-1.531	0.12695
Industry_15	-0.0836308	0.0671462	-1.246	0.21398
Industry_20	-0.1205021	0.0633658	-1.902	0.05823 .
Industry_25	-0.1648993	0.0659743	-2.499	0.01301 *
Industry_30	-0.1179652	0.0691461	-1.706	0.08910 .
Industry_35	-0.1034516	0.0653447	-1.583	0.11450
Industry_45	-0.0713536	0.0636149	-1.122	0.26296
Industry_50	-0.2024168	0.0668035	-3.030	0.00267 **
Industry_55	-0.2553378	0.0771189	-3.311	0.00105 **
Industry_60	-0.1373255	0.0691136	-1.987	0.04789 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1173 on 283 degrees of freedom
Multiple R-squared: 0.5861, Adjusted R-squared: 0.5554
F-statistic: 19.08 on 21 and 283 DF, p-value: < 2.2e-16

```
robustness3.3<-lm(ESG ~ MBGend + MBSIZE + DebtRatio + LogTA + ROA + S
usCompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industr
y_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industr
y_60, data=sample)
summary(robustness3.3)
```

Call:

```
lm(formula = ESG ~ MBGend + MBSIZE + DebtRatio + LogTA + ROA +
SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
```

```

5 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 + Industry_60, data = sample)

```

```

Residuals:
      Min       1Q   Median       3Q      Max
-0.59309 -0.07176  0.00789  0.08120  0.32224

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.765074   0.138819  -5.511 7.91e-08 ***
MBGend       0.088975   0.060749   1.465  0.1441
MBSIZE       0.003699   0.006305   0.587  0.5579
DebtRatio    -0.016434   0.053529  -0.307  0.7591
LogTA        0.060437   0.006370   9.488 < 2e-16 ***
ROA          0.141497   0.137502   1.029  0.3043
SusCompIncen 0.033638   0.017376   1.936  0.0539 .
Year        -0.016148   0.016377  -0.986  0.3249
Industry_15  0.057719   0.076015   0.759  0.4483
Industry_20  0.012771   0.072061   0.177  0.8595
Industry_25 -0.016822   0.074860  -0.225  0.8224
Industry_30  0.026176   0.079338   0.330  0.7417
Industry_35  0.054454   0.074370   0.732  0.4646
Industry_45  0.077359   0.072949   1.060  0.2898
Industry_50 -0.075658   0.076557  -0.988  0.3239
Industry_55 -0.155640   0.088312  -1.762  0.0791 .
Industry_60 -0.017386   0.077854  -0.223  0.8235
---

```

```

Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Residual standard error: 0.1368 on 288 degrees of freedom
Multiple R-squared:  0.4274, Adjusted R-squared:  0.3955
F-statistic: 13.43 on 16 and 288 DF, p-value: < 2.2e-16

```

Interaction Effects

```

interaction1<-lm(ESG ~ MBGend*SBGend + MBSIZE + SBSIZE + DebtRatio + L
ogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen
+ Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction1)

```

```

Call:
lm(formula = ESG ~ MBGend * SBGend + MBSIZE + SBSIZE + DebtRatio +
    LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee +
    SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 + Industry_60, data = sample)

```

```

Residuals:
      Min       1Q   Median       3Q      Max
-0.47569 -0.07358  0.00654  0.07354  0.26438

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.4264572   0.1435045  -2.972 0.003217 **
MBGend       0.1702869   0.1078379   1.579 0.115434
SBGend       0.2003421   0.0674228   2.971 0.003220 **
MBSIZE       0.0050511   0.0055814   0.905 0.366245
SBSIZE       0.0022880   0.0019204   1.191 0.234498
DebtRatio    -0.0463086   0.0465754  -0.994 0.320943
LogTA        0.0403324   0.0068843   5.859 1.30e-08 ***
ROA          0.1234112   0.1232986   1.001 0.317727
SBMeetings   0.0009688   0.0015334   0.632 0.528028
SBIndependence 0.1232430   0.0219129   5.624 4.48e-08 ***
CSRCommittee 0.1068483   0.0183987   5.807 1.71e-08 ***
SusCompIncen 0.0284648   0.0151271   1.882 0.060905 .
Year        -0.0261719   0.0143403  -1.825 0.069050 .

```

Industry_15	-0.0815271	0.0679887	-1.199	0.231485	
Industry_20	-0.1100088	0.0643352	-1.710	0.088379	.
Industry_25	-0.1556755	0.0668259	-2.330	0.020535	*
Industry_30	-0.0828216	0.0699999	-1.183	0.237739	
Industry_35	-0.0754023	0.0664955	-1.134	0.257781	
Industry_45	-0.0354786	0.0646304	-0.549	0.583477	
Industry_50	-0.1865253	0.0676592	-2.757	0.006217	**
Industry_55	-0.2662250	0.0783386	-3.398	0.000776	***
Industry_60	-0.1578765	0.0704374	-2.241	0.025780	*
MBGend:SBGend	-0.2069193	0.3422874	-0.605	0.545985	

Signif. codes:

0 '***' 0.001 '**' 0.01 '.' 0.1 ' ' 1

Residual standard error: 0.1187 on 282 degrees of freedom

Multiple R-squared: 0.5779, Adjusted R-squared: 0.545

F-statistic: 17.55 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction2<-lm(ESG ~ MBGend*MBSIZE + SBGend + SBSIZE + DebtRatio + L
ogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen
+ Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction2)
```

Call:

```
lm(formula = ESG ~ MBGend * MBSIZE + SBGend + SBSIZE + DebtRatio +
    LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee +
    SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
    Industry_60, data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47534	-0.07126	0.00977	0.07311	0.26577

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.4023588	0.1476675	-2.725	0.006837	**
MBGend	0.0934401	0.1351298	0.691	0.489830	
MBSIZE	0.0045395	0.0074318	0.611	0.541815	
SBGend	0.1813621	0.0590913	3.069	0.002355	**
SBSIZE	0.0023124	0.0019219	1.203	0.229894	
DebtRatio	-0.0471478	0.0470534	-1.002	0.317199	
LogTA	0.0394205	0.0069106	5.704	2.95e-08	***
ROA	0.1206333	0.1232820	0.979	0.328658	
SBMeetings	0.0009546	0.0015404	0.620	0.535938	
SBIndependence	0.1236750	0.0219213	5.642	4.09e-08	***
CSRCommittee	0.1067846	0.0184124	5.800	1.78e-08	***
SusCompIncen	0.0287294	0.0151378	1.898	0.058736	.
Year	-0.0260786	0.0143508	-1.817	0.070244	.
Industry_15	-0.0799560	0.0679760	-1.176	0.240491	
Industry_20	-0.1072587	0.0642220	-1.670	0.096005	.
Industry_25	-0.1544476	0.0668516	-2.310	0.021593	*
Industry_30	-0.0814273	0.0700359	-1.163	0.245954	
Industry_35	-0.0704374	0.0659919	-1.067	0.286720	
Industry_45	-0.0344353	0.0647391	-0.532	0.595207	
Industry_50	-0.1851315	0.0678206	-2.730	0.006738	**
Industry_55	-0.2631200	0.0782421	-3.363	0.000878	***
Industry_60	-0.1532667	0.0700370	-2.188	0.029463	*
MBGend:MBSIZE	0.0059541	0.0366653	0.162	0.871114	

Signif. codes:

0 '***' 0.001 '**' 0.01 '.' 0.1 ' ' 1

Residual standard error: 0.1188 on 282 degrees of freedom

Multiple R-squared: 0.5774, Adjusted R-squared: 0.5445

F-statistic: 17.51 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction3<-lm(ESG ~ MBGend*SBSIZE + MBSIZE + SBGend + DebtRatio + L
ogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen
```

```
+ Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(interaction3)
```

Call:

```
lm(formula = ESG ~ MBGend * SBSIZE + MBSIZE + SBGend + DebtRatio + LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.48099	-0.07363	0.00885	0.07167	0.26723

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.446318	0.143686	-3.106	0.00209	**
MBGend	0.225093	0.105869	2.126	0.03436	*
SBSIZE	0.003654	0.002214	1.651	0.09987	.
MBSIZE	0.005349	0.005550	0.964	0.33595	
SBGend	0.181404	0.058538	3.099	0.00214	**
DebtRatio	-0.049619	0.046572	-1.065	0.28760	
LogTA	0.041097	0.006878	5.975	6.93e-09	***
ROA	0.116845	0.123000	0.950	0.34295	
SBMeetings	0.001072	0.001533	0.699	0.48519	
SBIndependence	0.126125	0.021959	5.744	2.40e-08	***
CSRCommittee	0.108406	0.018408	5.889	1.10e-08	***
SusCompIncen	0.027424	0.015129	1.813	0.07096	.
Year	-0.025248	0.014324	-1.763	0.07904	.
Industry_15	-0.092173	0.068550	-1.345	0.17983	
Industry_20	-0.118710	0.064734	-1.834	0.06774	.
Industry_25	-0.163849	0.067123	-2.441	0.01526	*
Industry_30	-0.091171	0.070296	-1.297	0.19571	
Industry_35	-0.083785	0.066745	-1.255	0.21041	
Industry_45	-0.041591	0.064760	-0.642	0.52125	
Industry_50	-0.191200	0.067662	-2.826	0.00505	**
Industry_55	-0.273016	0.078441	-3.481	0.00058	***
Industry_60	-0.165487	0.070587	-2.344	0.01975	*
MBGend:SBSIZE	-0.011526	0.009465	-1.218	0.22434	

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1185 on 282 degrees of freedom

Multiple R-squared: 0.5796, Adjusted R-squared: 0.5468

F-statistic: 17.67 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction4<-lm(ESG ~ MBGend*DebtRatio + SBSIZE + MBSIZE + SBGend + LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(interaction4)
```

Call:

```
lm(formula = ESG ~ MBGend * DebtRatio + SBSIZE + MBSIZE + SBGend + LogTA + ROA + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.48097	-0.07123	0.00632	0.07122	0.26857

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.3985479	0.1409441	-2.828	0.00502	**

MBGend	0.0249064	0.0986914	0.252	0.80094	
DebtRatio	-0.0767009	0.0546457	-1.404	0.16154	
SBSize	0.0022889	0.0019176	1.194	0.23364	
MBSize	0.0048312	0.0055738	0.867	0.38681	
SBGend	0.1806965	0.0585672	3.085	0.00224	**
LogTA	0.0393303	0.0067820	5.799	1.78e-08	***
ROA	0.1013077	0.1243492	0.815	0.41593	
SBMeetings	0.0009337	0.0015299	0.610	0.54217	
SBIndependence	0.1253465	0.0219350	5.714	2.80e-08	***
CSRCommittee	0.1083204	0.0184262	5.879	1.17e-08	***
SusCompIncen	0.0272359	0.0151683	1.796	0.07363	.
Year	-0.0253358	0.0143332	-1.768	0.07820	.
Industry_15	-0.0729625	0.0681423	-1.071	0.28520	
Industry_20	-0.1027393	0.0642385	-1.599	0.11086	
Industry_25	-0.1511383	0.0667400	-2.265	0.02430	*
Industry_30	-0.0744704	0.0700987	-1.062	0.28898	
Industry_35	-0.0678245	0.0658829	-1.029	0.30414	
Industry_45	-0.0306988	0.0645439	-0.476	0.63471	
Industry_50	-0.1816089	0.0675051	-2.690	0.00756	**
Industry_55	-0.2526286	0.0787180	-3.209	0.00148	**
Industry_60	-0.1516449	0.0698966	-2.170	0.03088	*
MBGend:DebtRatio	0.3242890	0.3039245	1.067	0.28688	

Signif. codes:

0 '***' 0.001 '**' 0.01 '.' 0.1 ' ' 1

Residual standard error: 0.1186 on 282 degrees of freedom

Multiple R-squared: 0.5791, Adjusted R-squared: 0.5462

F-statistic: 17.63 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction5<-lm(ESG ~ MBGend*LogTA + DebtRatio + ROA + SBSize + MBSiz
e + SBGend + SBMeetings + SBIndependence + CSRCommittee + SusCompIncen
+ Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction5)
```

Call:

```
lm(formula = ESG ~ MBGend * LogTA + DebtRatio + ROA + SBSize +
    MBSize + SBGend + SBMeetings + SBIndependence + CSRCommittee +
    SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
    Industry_60, data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47246	-0.06927	0.00813	0.07405	0.26611

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.3707847	0.1646751	-2.252	0.02512	*
MBGend	-0.1932856	0.6779540	-0.285	0.77578	
LogTA	0.0378292	0.0078606	4.812	2.43e-06	***
DebtRatio	-0.0460471	0.0465873	-0.988	0.32380	
ROA	0.1191953	0.1232758	0.967	0.33442	
SBSize	0.0021862	0.0019386	1.128	0.26041	
MBSize	0.0050412	0.0056012	0.900	0.36888	
SBGend	0.1786979	0.0587596	3.041	0.00258	**
SBMeetings	0.0009339	0.0015325	0.609	0.54275	
SBIndependence	0.1226611	0.0220101	5.573	5.85e-08	***
CSRCommittee	0.1074341	0.0184510	5.823	1.57e-08	***
SusCompIncen	0.0290565	0.0151268	1.921	0.05576	.
Year	-0.0262758	0.0143530	-1.831	0.06820	.
Industry_15	-0.0766061	0.0683193	-1.121	0.26312	
Industry_20	-0.1039408	0.0646318	-1.608	0.10891	
Industry_25	-0.1504969	0.0672586	-2.238	0.02603	*
Industry_30	-0.0771767	0.0704416	-1.096	0.27418	
Industry_35	-0.0669831	0.0663326	-1.010	0.31345	
Industry_45	-0.0318729	0.0647205	-0.492	0.62277	
Industry_50	-0.1822301	0.0677151	-2.691	0.00755	**
Industry_55	-0.2607350	0.0784124	-3.325	0.00100	**

```
Industry_60      -0.1508783  0.0701604  -2.150  0.03237 *
MBGend:LogTA     0.0139997  0.0308311   0.454  0.65012
```

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1187 on 282 degrees of freedom
Multiple R-squared: 0.5777, Adjusted R-squared: 0.5447
F-statistic: 17.53 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction6<-lm(ESG ~ MBGend*ROA + LogTA + DebtRatio + ROA + SBSsize +
MBSsize + SBGend + SBMeetings + SBIndependence + CSRCommittee + SusComp
Incen + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 +
Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, d
ata=sample)
summary(interaction6)
```

Call:

```
lm(formula = ESG ~ MBGend * ROA + LogTA + DebtRatio + ROA + SBSsize +
    MBSsize + SBGend + SBMeetings + SBIndependence + CSRCommittee +
    SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 + Industry_60, data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47574	-0.06898	0.00745	0.07099	0.26290

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.4166890	0.1407080	-2.961	0.00332	**
MBGend	0.1458425	0.0609095	2.394	0.01730	*
ROA	0.1786545	0.1341630	1.332	0.18406	
LogTA	0.0396468	0.0067757	5.851	1.35e-08	***
DebtRatio	-0.0415485	0.0466947	-0.890	0.37434	
SBSsize	0.0020616	0.0019305	1.068	0.28648	
MBSsize	0.0056604	0.0055609	1.018	0.30960	
SBGend	0.1778484	0.0586024	3.035	0.00263	**
SBMeetings	0.0008457	0.0015318	0.552	0.58132	
SBIndependence	0.1245826	0.0218913	5.691	3.16e-08	***
CSRCommittee	0.1064874	0.0183750	5.795	1.82e-08	***
SusCompIncen	0.0287309	0.0150932	1.904	0.05799	.
Year	-0.0250588	0.0143451	-1.747	0.08175	.
Industry_15	-0.0730752	0.0681171	-1.073	0.28428	
Industry_20	-0.1012819	0.0643309	-1.574	0.11652	
Industry_25	-0.1489562	0.0668449	-2.228	0.02664	*
Industry_30	-0.0779804	0.0698838	-1.116	0.26543	
Industry_35	-0.0628068	0.0661911	-0.949	0.34350	
Industry_45	-0.0293439	0.0646035	-0.454	0.65002	
Industry_50	-0.1774528	0.0677433	-2.619	0.00928	**
Industry_55	-0.2585195	0.0781990	-3.306	0.00107	**
Industry_60	-0.1463712	0.0701479	-2.087	0.03782	*
MBGend:ROA	-0.9770183	0.8994309	-1.086	0.27829	

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1185 on 282 degrees of freedom
Multiple R-squared: 0.5791, Adjusted R-squared: 0.5463
F-statistic: 17.64 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction7<-lm(ESG ~ MBGend*SBMeetings + LogTA + ROA + DebtRatio + S
BSize + MBSsize + SBGend + SBIndependence + CSRCommittee + SusCompIncen
+ Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction7)
```

Call:

```
lm(formula = ESG ~ MBGend * SBMeetings + LogTA + ROA + DebtRatio +
    SBSsize + MBSsize + SBGend + SBIndependence + CSRCommittee +
```

```

    SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
    Industry_60, data = sample)

```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47740	-0.06932	0.00732	0.07540	0.26432

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.413726	0.140842	-2.938	0.00358	**
MBGend	0.046396	0.108172	0.429	0.66832	
SBMeetings	0.000209	0.001835	0.114	0.90941	
LogTA	0.039984	0.006802	5.878	1.17e-08	***
ROA	0.115052	0.123413	0.932	0.35201	
DebtRatio	-0.045750	0.046565	-0.983	0.32669	
SBSize	0.002095	0.001942	1.078	0.28179	
MBSIZE	0.005807	0.005598	1.037	0.30045	
SBGend	0.179253	0.058647	3.056	0.00245	**
SBIndependence	0.121681	0.022065	5.515	7.90e-08	***
CSRCommittee	0.105729	0.018459	5.728	2.61e-08	***
SusCompIncen	0.029397	0.015131	1.943	0.05304	.
Year	-0.025143	0.014388	-1.748	0.08163	.
Industry_15	-0.074283	0.068356	-1.087	0.27809	
Industry_20	-0.103167	0.064430	-1.601	0.11044	
Industry_25	-0.149262	0.067098	-2.225	0.02690	*
Industry_30	-0.076733	0.070162	-1.094	0.27504	
Industry_35	-0.065130	0.066300	-0.982	0.32677	
Industry_45	-0.030257	0.064738	-0.467	0.64059	
Industry_50	-0.182046	0.067605	-2.693	0.00751	**
Industry_55	-0.258273	0.078484	-3.291	0.00113	**
Industry_60	-0.146669	0.070528	-2.080	0.03847	*
MBGend:SBMeetings	0.007472	0.010468	0.714	0.47593	

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1187 on 282 degrees of freedom
Multiple R-squared: 0.5781, Adjusted R-squared: 0.5452
F-statistic: 17.57 on 22 and 282 DF, p-value: < 2.2e-16

```

interaction8<-lm(ESG ~ MBGend*SBIndependence + SBMeetings + LogTA + RO
A + DebtRatio + SBSize + MBSIZE + SBGend + CSRCommittee + SusCompIncen
+ Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction8)

```

Call:

```

lm(formula = ESG ~ MBGend * SBIndependence + SBMeetings + LogTA +
    ROA + DebtRatio + SBSize + MBSIZE + SBGend + CSRCommittee +
    SusCompIncen + Year + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
    Industry_60, data = sample)

```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47381	-0.07094	0.00955	0.07019	0.26249

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.4156654	0.1411346	-2.945	0.003497	**
MBGend	0.1567110	0.0900020	1.741	0.082740	.
SBIndependence	0.1315338	0.0256450	5.129	5.42e-07	***
SBMeetings	0.0009888	0.0015352	0.644	0.520066	
LogTA	0.0398775	0.0067984	5.866	1.25e-08	***
ROA	0.1281984	0.1238837	1.035	0.301636	
DebtRatio	-0.0480928	0.0466966	-1.030	0.303940	
SBSize	0.0024062	0.0019277	1.248	0.212988	
MBSIZE	0.0053085	0.0055614	0.955	0.340639	

XXX

SBGend	0.1785945	0.0587118	3.042	0.002572	**
CSRCommittee	0.1066264	0.0184024	5.794	1.83e-08	***
SusCompIncen	0.0291217	0.0151227	1.926	0.055148	.
Year	-0.0260397	0.0143386	-1.816	0.070423	.
Industry_15	-0.0833340	0.0681878	-1.222	0.222681	.
Industry_20	-0.1111754	0.0645095	-1.723	0.085913	.
Industry_25	-0.1581639	0.0671275	-2.356	0.019149	*
Industry_30	-0.0866847	0.0705964	-1.228	0.220512	.
Industry_35	-0.0752320	0.0664794	-1.132	0.258739	.
Industry_45	-0.0386180	0.0650843	-0.593	0.553420	.
Industry_50	-0.1876547	0.0677995	-2.768	0.006017	**
Industry_55	-0.2674114	0.0784967	-3.407	0.000753	***
Industry_60	-0.1552332	0.0700796	-2.215	0.027552	*
MBGend:SBIndependence	-0.0861632	0.1450091	-0.594	0.552860	.

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1187 on 282 degrees of freedom

Multiple R-squared: 0.5779, Adjusted R-squared: 0.545

F-statistic: 17.55 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction9<-lm(ESG ~ MBGend*CSRCommittee + SBIndependence + SBMeetin
gs + LogTA + ROA + DebtRatio + SBSsize + MBSsize + SBGend + SusCompIncen
+ Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction9)
```

Call:

```
lm(formula = ESG ~ MBGend * CSRCommittee + SBIndependence + SBMeetings
+
  LogTA + ROA + DebtRatio + SBSsize + MBSsize + SBGend + SusCompIncen +
  Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 +
  Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_6
0,
  data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47602	-0.07215	0.00885	0.07147	0.26338

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.408398	0.140853	-2.899	0.004032	**
MBGend	0.150309	0.114789	1.309	0.191451	.
CSRCommittee	0.109903	0.020273	5.421	1.27e-07	***
SBIndependence	0.124461	0.022040	5.647	3.98e-08	***
SBMeetings	0.001008	0.001548	0.651	0.515454	.
LogTA	0.039471	0.006802	5.803	1.75e-08	***
ROA	0.122620	0.123394	0.994	0.321206	.
DebtRatio	-0.048243	0.046973	-1.027	0.305282	.
SBSsize	0.002474	0.001977	1.251	0.211825	.
MBSsize	0.005317	0.005564	0.956	0.340094	.
SBGend	0.181479	0.058772	3.088	0.002217	**
SusCompIncen	0.028684	0.015127	1.896	0.058947	.
Year	-0.026121	0.014347	-1.821	0.069715	.
Industry_15	-0.083122	0.068568	-1.212	0.226434	.
Industry_20	-0.109295	0.064440	-1.696	0.090975	.
Industry_25	-0.156630	0.067173	-2.332	0.020419	*
Industry_30	-0.083099	0.070214	-1.184	0.237602	.
Industry_35	-0.073225	0.066494	-1.101	0.271741	.
Industry_45	-0.036321	0.064982	-0.559	0.576647	.
Industry_50	-0.185279	0.067643	-2.739	0.006554	**
Industry_55	-0.265355	0.078429	-3.383	0.000817	***
Industry_60	-0.154205	0.070085	-2.200	0.028599	*
MBGend:CSRCommittee	-0.046628	0.129160	-0.361	0.718362	.

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1188 on 282 degrees of freedom

Multiple R-squared: 0.5776, Adjusted R-squared: 0.5446

F-statistic: 17.53 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction10<-lm(ESG ~ MBGend*SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize + SBGend + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(interaction10)
```

```
Call:
lm(formula = ESG ~ MBGend * SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize + SBGend + Year + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.47681 -0.07067  0.00804  0.07354  0.26627
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.4096629   0.1408333  -2.909 0.003916 **
MBGend       0.1000071   0.0756645   1.322 0.187334
SusCompIncen 0.0260831   0.0186238   1.401 0.162456
CSRCommittee 0.1070190   0.0184228   5.809 1.69e-08 ***
SBIndependence 0.1233915   0.0219332   5.626 4.45e-08 ***
SBMeetings   0.0009487   0.0015346   0.618 0.536945
LogTA        0.0396347   0.0067891   5.838 1.45e-08 ***
ROA          0.1201176   0.1232826   0.974 0.330729
DebtRatio    -0.0471713   0.0467935  -1.008 0.314283
SBSsize      0.0023083   0.0019213   1.201 0.230581
MBSsize      0.0053006   0.0055661   0.952 0.341761
SBGend       0.1804326   0.0586823   3.075 0.002313 **
Year        -0.0258903   0.0143556  -1.803 0.072378 .
Industry_15  -0.0783978   0.0682013  -1.150 0.251321
Industry_20  -0.1059896   0.0644333  -1.645 0.101094
Industry_25  -0.1531609   0.0669093  -2.289 0.022814 *
Industry_30  -0.0795641   0.0701809  -1.134 0.257883
Industry_35  -0.0692536   0.0660757  -1.048 0.295492
Industry_45  -0.0327618   0.0647238  -0.506 0.613127
Industry_50  -0.1834178   0.0676649  -2.711 0.007126 **
Industry_55  -0.2625285   0.0782877  -3.353 0.000908 ***
Industry_60  -0.1518393   0.0701759  -2.164 0.031328 *
MBGend:SusCompIncen 0.0259714   0.1025835   0.253 0.800319
---
```

```
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1188 on 282 degrees of freedom
Multiple R-squared:  0.5775, Adjusted R-squared:  0.5445
F-statistic: 17.52 on 22 and 282 DF, p-value: < 2.2e-16
```

```
interaction11<-lm(ESG ~ MBGend*Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize + SBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(interaction11)
```

```
Call:
lm(formula = ESG ~ MBGend * Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize + SBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.47607 -0.07138  0.00834  0.07397  0.26475
```

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.4088864	0.1410782	-2.898	0.004047	**
MBGend	0.1087128	0.0789160	1.378	0.169426	
Year	-0.0268838	0.0176191	-1.526	0.128172	
SusCompIncen	0.0288919	0.0151394	1.908	0.057356	.
CSRCommittee	0.1069314	0.0184458	5.797	1.80e-08	***
SBIndependence	0.1235444	0.0219323	5.633	4.28e-08	***
SBMeetings	0.0009366	0.0015350	0.610	0.542229	
LogTA	0.0396091	0.0067941	5.830	1.51e-08	***
ROA	0.1207059	0.1233031	0.979	0.328450	
DebtRatio	-0.0460882	0.0466036	-0.989	0.323540	
SBSize	0.0023044	0.0019215	1.199	0.231419	
MBSIZE	0.0053578	0.0055688	0.962	0.336822	
SBGend	0.1803821	0.0587097	3.072	0.002331	**
Industry_15	-0.0798607	0.0679748	-1.175	0.241043	
Industry_20	-0.1073758	0.0642255	-1.672	0.095662	.
Industry_25	-0.1540630	0.0668170	-2.306	0.021850	*
Industry_30	-0.0809696	0.0699761	-1.157	0.248209	
Industry_35	-0.0702236	0.0659782	-1.064	0.288083	
Industry_45	-0.0338157	0.0646121	-0.523	0.601131	
Industry_50	-0.1841685	0.0675995	-2.724	0.006844	**
Industry_55	-0.2634168	0.0782521	-3.366	0.000868	***
Industry_60	-0.1530015	0.0700255	-2.185	0.029716	*
MBGend:Year	0.0084014	0.0999394	0.084	0.933065	

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1188 on 282 degrees of freedom
Multiple R-squared: 0.5774, Adjusted R-squared: 0.5444
F-statistic: 17.51 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction12<-lm(ESG ~ SBGend*MBSIZE + Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSize + MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(interaction12)
```

Call:

```
lm(formula = ESG ~ SBGend * MBSIZE + Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSize + MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

Residuals:

Min	1Q	Median	3Q	Max
-0.46917	-0.07285	0.00980	0.06900	0.27191

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.465013	0.147734	-3.148	0.001822	**
SBGend	0.358715	0.158368	2.265	0.024267	*
MBSIZE	0.020189	0.013442	1.502	0.134244	
Year	-0.025905	0.014311	-1.810	0.071333	.
SusCompIncen	0.027990	0.015101	1.853	0.064859	.
CSRCommittee	0.107159	0.018365	5.835	1.47e-08	***
SBIndependence	0.124577	0.021876	5.695	3.10e-08	***
SBMeetings	0.001050	0.001532	0.686	0.493584	
LogTA	0.039789	0.006773	5.874	1.19e-08	***
ROA	0.139235	0.123929	1.124	0.262180	
DebtRatio	-0.045281	0.046488	-0.974	0.330868	
SBSize	0.002476	0.001922	1.289	0.198567	
MBGend	0.112799	0.053167	2.122	0.034744	*
Industry_15	-0.084696	0.067917	-1.247	0.213409	
Industry_20	-0.112197	0.064183	-1.748	0.081535	.
Industry_25	-0.161125	0.066896	-2.409	0.016656	*
Industry_30	-0.084595	0.069859	-1.211	0.226935	

```

Industry_35      -0.076294    0.065999   -1.156  0.248660
Industry_45      -0.037155    0.064503   -0.576  0.565065
Industry_50      -0.187557    0.067477   -2.780  0.005809 **
Industry_55      -0.266402    0.078078   -3.412  0.000739 ***
Industry_60      -0.161444    0.070187   -2.300  0.022167 *
SBGend:MBSIZE    -0.048707    0.040158   -1.213  0.226187

```

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1185 on 282 degrees of freedom
Multiple R-squared: 0.5796, Adjusted R-squared: 0.5468
F-statistic: 17.67 on 22 and 282 DF, p-value: < 2.2e-16

```

interaction13<-lm(ESG ~ SBGend*SBSIZE + MBSIZE + Year + SusCompIncen +
CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio +
MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction13)

```

Call:

```

lm(formula = ESG ~ SBGend * SBSIZE + MBSIZE + Year + SusCompIncen +
CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA +
DebtRatio + MBGend + Industry_15 + Industry_20 + Industry_25 +
Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
Industry_60, data = sample)

```

Residuals:

```

      Min       1Q   Median       3Q      Max
-0.48206 -0.07141  0.01120  0.07347  0.27272

```

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.453908	0.143464	-3.164	0.001727	**
SBGend	0.316693	0.109130	2.902	0.004001	**
SBSIZE	0.007657	0.004090	1.872	0.062197	.
MBSIZE	0.005819	0.005553	1.048	0.295542	.
Year	-0.026612	0.014298	-1.861	0.063747	.
SusCompIncen	0.029680	0.015077	1.969	0.049980	*
CSRCommittee	0.103972	0.018441	5.638	4.17e-08	***
SBIndependence	0.125675	0.021878	5.744	2.39e-08	***
SBMeetings	0.001145	0.001534	0.746	0.456117	.
LogTA	0.039890	0.006766	5.896	1.06e-08	***
ROA	0.124016	0.122832	1.010	0.313535	.
DebtRatio	-0.046173	0.046424	-0.995	0.320788	.
MBGend	0.124589	0.053611	2.324	0.020840	*
Industry_15	-0.085537	0.067822	-1.261	0.208276	.
Industry_20	-0.110435	0.064010	-1.725	0.085573	.
Industry_25	-0.159814	0.066671	-2.397	0.017179	*
Industry_30	-0.077962	0.069735	-1.118	0.264527	.
Industry_35	-0.073270	0.065756	-1.114	0.266114	.
Industry_45	-0.032509	0.064366	-0.505	0.613903	.
Industry_50	-0.186480	0.067352	-2.769	0.006000	**
Industry_55	-0.271039	0.078112	-3.470	0.000602	***
Industry_60	-0.154947	0.069767	-2.221	0.027150	*
SBGend:SBSIZE	-0.017548	0.011850	-1.481	0.139777	.

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1183 on 282 degrees of freedom
Multiple R-squared: 0.5806, Adjusted R-squared: 0.5479
F-statistic: 17.75 on 22 and 282 DF, p-value: < 2.2e-16

```

interaction14<-lm(ESG ~ SBGend*DebtRatio + SBSIZE + MBSIZE + Year + Su
sCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA +
MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction14)

```

```
Call:
lm(formula = ESG ~ SBGend * DebtRatio + SBSsize + MBSsize + Year +
    SusCompIncen + CSRCommittee + SBIndependence + SBMeetings +
    LogTA + ROA + MBGend + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
    Industry_60, data = sample)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.45334 -0.07113  0.00492  0.07148  0.27106
```

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.4295208	0.1404975	-3.057	0.002449	**
SBGend	0.3146493	0.0950782	3.309	0.001057	**
DebtRatio	0.1115293	0.0994778	1.121	0.263179	
SBSsize	0.0027531	0.0019269	1.429	0.154184	
MBSsize	0.0042332	0.0055676	0.760	0.447702	
Year	-0.0270333	0.0142778	-1.893	0.059330	.
SusCompIncen	0.0297850	0.0150486	1.979	0.048760	*
CSRCommittee	0.1006465	0.0186302	5.402	1.40e-07	***
SBIndependence	0.1333946	0.0224697	5.937	8.53e-09	***
SBMeetings	0.0009425	0.0015244	0.618	0.536886	
LogTA	0.0397089	0.0067517	5.881	1.15e-08	***
ROA	0.1275917	0.1226545	1.040	0.299114	
MBGend	0.1154421	0.0530110	2.178	0.030257	*
Industry_15	-0.1041296	0.0689404	-1.510	0.132054	
Industry_20	-0.1270470	0.0648042	-1.960	0.050925	.
Industry_25	-0.1684743	0.0669249	-2.517	0.012378	*
Industry_30	-0.0940142	0.0699636	-1.344	0.180107	
Industry_35	-0.0907173	0.0665997	-1.362	0.174245	
Industry_45	-0.0516012	0.0650134	-0.794	0.428037	
Industry_50	-0.1991807	0.0677319	-2.941	0.003546	**
Industry_55	-0.2970132	0.0800446	-3.711	0.000249	***
Industry_60	-0.1793425	0.0711640	-2.520	0.012283	*
SBGend:DebtRatio	-0.5686874	0.3175862	-1.791	0.074421	.

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1181 on 282 degrees of freedom
Multiple R-squared: 0.5821, Adjusted R-squared: 0.5495
F-statistic: 17.86 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction15<-lm(ESG ~ SBGend*LogTA + DebtRatio + ROA + SBSsize + MBSi
ze + Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeetings +
MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction15)
```

Call:

```
lm(formula = ESG ~ SBGend * LogTA + DebtRatio + ROA + SBSsize +
    MBSsize + Year + SusCompIncen + CSRCommittee + SBIndependence +
    SBMeetings + MBGend + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
    Industry_60, data = sample)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.46209 -0.07179  0.00762  0.07461  0.26243
```

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.2396048	0.2877850	-0.833	0.40578	
SBGend	-0.4046312	0.8658141	-0.467	0.64062	
LogTA	0.0315430	0.0137360	2.296	0.02239	*
DebtRatio	-0.0443069	0.0466409	-0.950	0.34295	
ROA	0.1257231	0.1234249	1.019	0.30926	

SBSize	0.0021573	0.0019323	1.116	0.26518	
MBSize	0.0052592	0.0055614	0.946	0.34513	
Year	-0.0254820	0.0143582	-1.775	0.07702	.
SusCompIncen	0.0287391	0.0151129	1.902	0.05824	.
CSRCommittee	0.1087649	0.0186151	5.843	1.41e-08	***
SBIndependence	0.1200879	0.0225102	5.335	1.97e-07	***
SBMeetings	0.0008525	0.0015361	0.555	0.57933	
MBGend	0.1051096	0.0547164	1.921	0.05574	.
Industry_15	-0.0756807	0.0681951	-1.110	0.26804	
Industry_20	-0.1032736	0.0644502	-1.602	0.11019	
Industry_25	-0.1488413	0.0672107	-2.215	0.02759	*
Industry_30	-0.0798679	0.0699377	-1.142	0.25443	
Industry_35	-0.0657895	0.0662452	-0.993	0.32150	
Industry_45	-0.0332964	0.0645612	-0.516	0.60644	
Industry_50	-0.1810236	0.0677073	-2.674	0.00794	**
Industry_55	-0.2574158	0.0786553	-3.273	0.00120	**
Industry_60	-0.1454521	0.0708587	-2.053	0.04102	*
SBGend:LogTA	0.0273972	0.0404648	0.677	0.49892	

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1187 on 282 degrees of freedom
Multiple R-squared: 0.5781, Adjusted R-squared: 0.5451
F-statistic: 17.56 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction16<-lm(ESG ~ SBGend*ROA + LogTA + DebtRatio + ROA + SBSize +
MBSize + Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeeti
ngs + MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 +
Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, d
ata=sample)
summary(interaction16)
```

Call:

```
lm(formula = ESG ~ SBGend * ROA + LogTA + DebtRatio + ROA + SBSize +
MBSize + Year + SusCompIncen + CSRCommittee + SBIndependence +
SBMeetings + MBGend + Industry_15 + Industry_20 + Industry_25 +
Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
Industry_60, data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47592	-0.07292	0.00849	0.07287	0.26470

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.4031735	0.1408551	-2.862	0.004521	**
SBGend	0.1412994	0.0738522	1.913	0.056726	.
ROA	-0.0930658	0.2755710	-0.338	0.735826	
LogTA	0.0402386	0.0068171	5.903	1.03e-08	***
DebtRatio	-0.0471923	0.0465596	-1.014	0.311648	
SBSize	0.0023669	0.0019202	1.233	0.218751	
MBSize	0.0042763	0.0056911	0.751	0.453035	
Year	-0.0259444	0.0143287	-1.811	0.071259	.
SusCompIncen	0.0295456	0.0151266	1.953	0.051783	.
CSRCommittee	0.1051905	0.0184839	5.691	3.16e-08	***
SBIndependence	0.1267239	0.0221827	5.713	2.82e-08	***
SBMeetings	0.0009716	0.0015317	0.634	0.526392	
MBGend	0.1156656	0.0532839	2.171	0.030785	*
Industry_15	-0.0867411	0.0683516	-1.269	0.205472	
Industry_20	-0.1123849	0.0644035	-1.745	0.082072	.
Industry_25	-0.1576545	0.0668557	-2.358	0.019050	*
Industry_30	-0.0848295	0.0700271	-1.211	0.226763	
Industry_35	-0.0739374	0.0660319	-1.120	0.263785	
Industry_45	-0.0388624	0.0647920	-0.600	0.549119	
Industry_50	-0.1914719	0.0680221	-2.815	0.005224	**
Industry_55	-0.2720512	0.0787864	-3.453	0.000639	***
Industry_60	-0.1620712	0.0707063	-2.292	0.022632	*
SBGend:ROA	0.7742362	0.8936568	0.866	0.387025	

Signif. codes:

0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1186 on 282 degrees of freedom
Multiple R-squared: 0.5785, Adjusted R-squared: 0.5456
F-statistic: 17.59 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction17<-lm(ESG ~ SBGend*SBMeetings + LogTA + ROA + DebtRatio + S
BSize + MBSIZE + Year + SusCompIncen + CSRCommittee + SBIndependence +
MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction17)
```

```
Call:
lm(formula = ESG ~ SBGend * SBMeetings + LogTA + ROA + DebtRatio +
    SBSIZE + MBSIZE + Year + SusCompIncen + CSRCommittee + SBIndepende
nce +
    MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 +
    Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_6
0,
    data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47635	-0.07322	0.00677	0.07395	0.26809

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-4.002e-01	1.418e-01	-2.823	0.00510	**
SBGend	1.435e-01	8.842e-02	1.623	0.10569	
SBMeetings	-8.962e-05	2.392e-03	-0.037	0.97014	
LogTA	3.939e-02	6.800e-03	5.793	1.84e-08	***
ROA	1.285e-01	1.241e-01	1.036	0.30113	
DebtRatio	-4.645e-02	4.658e-02	-0.997	0.31956	
SBSIZE	2.282e-03	1.921e-03	1.188	0.23575	
MBSIZE	5.578e-03	5.578e-03	1.000	0.31821	
Year	-2.581e-02	1.434e-02	-1.800	0.07300	.
SusCompIncen	2.799e-02	1.519e-02	1.842	0.06649	.
CSRCommittee	1.075e-01	1.843e-02	5.829	1.52e-08	***
SBIndependence	1.209e-01	2.243e-02	5.393	1.47e-07	***
MBGend	1.118e-01	5.337e-02	2.095	0.03703	*
Industry_15	-7.509e-02	6.847e-02	-1.097	0.27372	
Industry_20	-1.030e-01	6.466e-02	-1.593	0.11239	
Industry_25	-1.510e-01	6.702e-02	-2.253	0.02506	*
Industry_30	-7.775e-02	7.017e-02	-1.108	0.26884	
Industry_35	-6.641e-02	6.629e-02	-1.002	0.31734	
Industry_45	-2.993e-02	6.494e-02	-0.461	0.64526	
Industry_50	-1.800e-01	6.799e-02	-2.648	0.00856	**
Industry_55	-2.584e-01	7.869e-02	-3.284	0.00115	**
Industry_60	-1.449e-01	7.149e-02	-2.027	0.04357	*
SBGend:SBMeetings	4.857e-03	8.751e-03	0.555	0.57935	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1187 on 282 degrees of freedom
Multiple R-squared: 0.5778, Adjusted R-squared: 0.5449
F-statistic: 17.55 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction18<-lm(ESG ~ SBGend*SBIndependence + SBMeetings + LogTA + R
OA + DebtRatio + SBSIZE + MBSIZE + Year + SusCompIncen + CSRCommittee +
MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction18)
```

```
Call:
lm(formula = ESG ~ SBGend * SBIndependence + SBMeetings + LogTA +
    ROA + DebtRatio + SBSIZE + MBSIZE + Year + SusCompIncen +
    CSRCommittee + MBGend + Industry_15 + Industry_20 + Industry_25 +
    Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_5
5 +
```

```

Industry_60, data = sample)

Residuals:
    Min       1Q   Median       3Q      Max
-0.48636 -0.07552  0.01024  0.07320  0.26005

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.3851628   0.1428112  -2.697  0.00742 **
SBGend       0.1035210   0.0979533   1.057  0.29149
SBIndependence 0.0823936   0.0475167   1.734  0.08401 .
SBMeetings   0.0007106   0.0015468   0.459  0.64630
LogTA        0.0390211   0.0068069   5.733 2.54e-08 ***
ROA          0.1273470   0.1232756   1.033  0.30248
DebtRatio    -0.0513946   0.0468409  -1.097  0.27348
SBSize       0.0023872   0.0019200   1.243  0.21479
MBSize       0.0055214   0.0055584   0.993  0.32139
Year         -0.0263120   0.0143263  -1.837  0.06732 .
SusCompIncen 0.0290756   0.0151009   1.925  0.05518 .
CSRCommittee 0.1082674   0.0184378   5.872 1.21e-08 ***
MBGend       0.1164192   0.0532894   2.185  0.02974 *
Industry_15  -0.0702214   0.0685682  -1.024  0.30666
Industry_20  -0.0956737   0.0652148  -1.467  0.14348
Industry_25  -0.1444225   0.0674333  -2.142  0.03307 *
Industry_30  -0.0704625   0.0706771  -0.997  0.31964
Industry_35  -0.0625365   0.0663316  -0.943  0.34660
Industry_45  -0.0262258   0.0649605  -0.404  0.68673
Industry_50  -0.1736033   0.0683529  -2.540  0.01163 *
Industry_55  -0.2549436   0.0785723  -3.245  0.00132 **
Industry_60  -0.1402695   0.0711168  -1.972  0.04954 *
SBGend:SBIndependence 0.1475723   0.1510172   0.977  0.32931
---

```

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1186 on 282 degrees of freedom
Multiple R-squared: 0.5788, Adjusted R-squared: 0.5459
F-statistic: 17.61 on 22 and 282 DF, p-value: < 2.2e-16

```

interaction19<-lm(ESG ~ SBGend*CSRCommittee + SBIndependence + SBMeeti
ngs + LogTA + ROA + DebtRatio + SBSize + MBSize + Year + SusCompIncen +
MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Indus
try_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=s
ample)
summary(interaction19)

```

```

Call:
lm(formula = ESG ~ SBGend * CSRCommittee + SBIndependence + SBMeetings
+
    LogTA + ROA + DebtRatio + SBSize + MBSize + Year + SusCompIncen +
    MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 +
    Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_6
0,
    data = sample)

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-0.45611 -0.07364  0.00880  0.06765  0.25611

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.387680   0.140280  -2.764  0.00609 **
SBGend       0.045021   0.089111   0.505  0.61380
CSRCommittee 0.046859   0.035050   1.337  0.18233
SBIndependence 0.121555   0.021788   5.579 5.67e-08 ***
SBMeetings   0.001138   0.001526   0.746  0.45639
LogTA        0.039395   0.006743   5.842 1.42e-08 ***
ROA          0.129527   0.122498   1.057  0.29124
DebtRatio    -0.037294   0.046483  -0.802  0.42305
SBSize       0.002201   0.001909   1.153  0.24985
MBSize       0.005090   0.005527   0.921  0.35786
Year         -0.023707   0.014293  -1.659  0.09829 .
SusCompIncen 0.029225   0.015019   1.946  0.05266 .

```

MBGend	0.106009	0.053061	1.998	0.04669	*
Industry_15	-0.064921	0.067903	-0.956	0.33985	
Industry_20	-0.089028	0.064420	-1.382	0.16807	
Industry_25	-0.138375	0.066807	-2.071	0.03924	*
Industry_30	-0.070239	0.069687	-1.008	0.31436	
Industry_35	-0.052108	0.066131	-0.788	0.43138	
Industry_45	-0.019440	0.064550	-0.301	0.76351	
Industry_50	-0.166706	0.067686	-2.463	0.01438	*
Industry_55	-0.246409	0.078141	-3.153	0.00179	**
Industry_60	-0.133841	0.070187	-1.907	0.05755	.
SBGend:CSRCommittee	0.219514	0.109455	2.006	0.04586	*

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.118 on 282 degrees of freedom
 Multiple R-squared: 0.5833, Adjusted R-squared: 0.5508
 F-statistic: 17.94 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction20<-lm(ESG ~ SBGend*SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize + Year + MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(interaction20)
```

```
Call:
lm(formula = ESG ~ SBGend * SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize + Year + MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

Residuals:

	Min	1Q	Median	3Q	Max
	-0.47200	-0.06867	0.00872	0.07310	0.26888

Coefficients:

	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-0.414434	0.141165	-2.936	0.003601	**
SBGend	0.196476	0.067899	2.894	0.004105	**
SusCompIncen	0.045234	0.037687	1.200	0.231045	
CSRCommittee	0.106047	0.018478	5.739	2.45e-08	***
SBIndependence	0.123740	0.021912	5.647	3.98e-08	***
SBMeetings	0.001032	0.001547	0.667	0.505452	
LogTA	0.039720	0.006790	5.850	1.36e-08	***
ROA	0.117679	0.123382	0.954	0.341013	
DebtRatio	-0.045611	0.046597	-0.979	0.328491	
SBSsize	0.002397	0.001930	1.242	0.215366	
MBSsize	0.005244	0.005566	0.942	0.346910	
Year	-0.025379	0.014406	-1.762	0.079205	.
MBGend	0.113191	0.053287	2.124	0.034527	*
Industry_15	-0.082732	0.068222	-1.213	0.226261	
Industry_20	-0.109818	0.064412	-1.705	0.089308	.
Industry_25	-0.157074	0.067086	-2.341	0.019910	*
Industry_30	-0.084778	0.070412	-1.204	0.229591	
Industry_35	-0.073111	0.066237	-1.104	0.270626	
Industry_45	-0.035710	0.064714	-0.552	0.581512	
Industry_50	-0.187683	0.067959	-2.762	0.006128	**
Industry_55	-0.265992	0.078414	-3.392	0.000793	***
Industry_60	-0.155192	0.070145	-2.212	0.027737	*
SBGend:SusCompIncen	-0.055276	0.116360	-0.475	0.635127	

 Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.1187 on 282 degrees of freedom
 Multiple R-squared: 0.5777, Adjusted R-squared: 0.5448
 F-statistic: 17.54 on 22 and 282 DF, p-value: < 2.2e-16

```
interaction21<-lm(ESG ~ SBGend*Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize +
```

```
MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data=sample)
summary(interaction21)
```

```
Call:
lm(formula = ESG ~ SBGend * Year + SusCompIncen + CSRCommittee + SBIndependence + SBMeetings + LogTA + ROA + DebtRatio + SBSsize + MBSsize + MBGend + Industry_15 + Industry_20 + Industry_25 + Industry_30 + Industry_35 + Industry_45 + Industry_50 + Industry_55 + Industry_60, data = sample)
```

```
Residuals:
    Min       1Q   Median       3Q      Max
-0.47724 -0.07031  0.01013  0.07451  0.26404
```

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.4083489  0.1410758  -2.895 0.004094 **
SBGend       0.1731667  0.0752214   2.302 0.022058 *
Year        -0.0305715  0.0335108  -0.912 0.362397
SusCompIncen  0.0286703  0.0151636   1.891 0.059685 .
CSRCommittee  0.1071040  0.0184966   5.790 1.87e-08 ***
SBIndependence 0.1236149  0.0219178   5.640 4.13e-08 ***
SBMeetings    0.0009189  0.0015348   0.599 0.549852
LogTA         0.0396800  0.0067979   5.837 1.46e-08 ***
ROA           0.1211464  0.1233504   0.982 0.326877
DebtRatio     -0.0459907  0.0466072  -0.987 0.324600
SBSsize       0.0023008  0.0019216   1.197 0.232192
MBSsize       0.0052997  0.0055707   0.951 0.342247
MBGend        0.1138499  0.0533244   2.135 0.033619 *
Industry_15   -0.0801011  0.0679961  -1.178 0.239780
Industry_20   -0.1075494  0.0642382  -1.674 0.095194 .
Industry_25   -0.1543158  0.0668324  -2.309 0.021667 *
Industry_30   -0.0813760  0.0700322  -1.162 0.246226
Industry_35   -0.0703841  0.0659874  -1.067 0.287052
Industry_45   -0.0340080  0.0646278  -0.526 0.599154
Industry_50   -0.1844673  0.0676121  -2.728 0.006766 **
Industry_55   -0.2635865  0.0782604  -3.368 0.000862 ***
Industry_60   -0.1534838  0.0700871  -2.190 0.029351 *
SBGend:Year    0.0155551  0.1035932   0.150 0.880749
```

```
---
Signif. codes:
  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 0.1188 on 282 degrees of freedom
Multiple R-squared:  0.5774,    Adjusted R-squared:  0.5444
F-statistic: 17.51 on 22 and 282 DF,  p-value: < 2.2e-16
```