```
## Residual standard error: 10.58 on 351 degrees of freedom
## Multiple R-squared:  0.7257, Adjusted R-squared:  0.7249
## F-statistic: 928.4 on 1 and 351 DF,  p-value: < 2.2e-16
```

```
BIC(model_imdb)
```

```
## [1] 2682.923
```

Bayesian Model Averaging

The code below uses the BAS library to enumerate and evaluate all possible models. With 16 variables, there are 2^{16} or roughly 64K models to test. We use BIC for the prior distribution of regression coefficients, and we use the uniform distribution as the prior distribution for all possible models. The model rank image shows that, according to the resulting posterior probability distribution, the most probable model uses 2 variables: `imdb_rating` and `critics_score`.

```
movie_bas <- bas.lm(audience_score ~ . -audience_score,
                    prior="BIC",
                    modelprior = uniform(),
                    data = movies %>% select(-title))
image(movie_bas,rotate=F)
```