Question 1- Movie Profitability

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Abstract

This paper attempts to investigate the claims made by one of the authors school friends, at a braai, that reviews by movie critics are near perfect predictors of movies' popularity and profitability among moviegoers.

Introduction

This paper attempts to address four statements, posited by a friend at a braai. The first is whether movie critics are 'near perfect' predictors of movies' profitability and popularity among audiences. The second relates to the review platform 'Rotten Tomatoes', which is claimed to be a consistently good review platform. Whether Disney movies are the most profitable, and finally whether audiences are drawn to the highest grossing films.

Summary Statistics

The dataset used to investigate the above claims is sourced from an associate at Mr Video, and contains info on movie critic and grossing data; with 74 observations in 8 variables. Detailed summary statistics for the dataset can be seen below:

```
## df_mov
##
##  8  Variables      74  Observations
## --------------------------------------------------------------------------------
## Film
##        n  missing distinct
##       74        0       74
##
## lowest : (500) Days of Summer              27 Dresses                    A Dangerous Method
## highest: What Happens in Vegas             When in Rome                  You Will Meet a Tall
## --------------------------------------------------------------------------------
## Genre
##        n  missing distinct
##       74        0        6
##
## lowest : Action    Animation Comedy    Drama     Fantasy
## highest: Animation Comedy    Drama     Fantasy   Romance
##
## Value          Action Animation   Comedy    Drama  Fantasy  Romance
## Frequency           1         3       41       13        1       15
## Proportion      0.014     0.041    0.554    0.176    0.014    0.203
## --------------------------------------------------------------------------------
## Lead.Studio
##        n  missing distinct
##       73        1       13
##
```

```
## lowest : 20th Century Fox       CBS                       Disney                  Fox                     Ind
## highest: Sony                    Summit                    The Weinstein Company Universal                 Wan
##
## 20th Century Fox (2, 0.027), CBS (1, 0.014), Disney (7, 0.096), Fox (6, 0.082),
## Independent (19, 0.260), Lionsgate (2, 0.027), New Line (1, 0.014), Paramount
## (4, 0.055), Sony (4, 0.055), Summit (5, 0.068), The Weinstein Company (3,
## 0.041), Universal (7, 0.096), Warner Bros. (12, 0.164)
## -------------------------------------------------------------------------------
## Audience..score..
##        n  missing distinct      Info      Mean       Gmd      .05      .10
##       73        1       40     0.999     64.14     15.81     44.6     47.0
##      .25      .50      .75      .90      .95
##     52.0     64.0     76.0     82.0     84.0
##
## lowest : 35 40 41 44 45, highest: 82 83 84 88 89
## -------------------------------------------------------------------------------
## Profitability
##        n  missing distinct      Info      Mean       Gmd      .05      .10
##       71        3       71         1     4.742     5.009   0.7392   1.2453
##      .25      .50      .75      .90      .95
##   1.7907   2.6424   4.8510   8.0960  10.6349
##
## lowest :  0.0050000  0.2528949  0.4486447  0.6526032  0.8258000
## highest: 10.1800270 11.0897415 14.1964000 22.9131365 66.9340000
## -------------------------------------------------------------------------------
## Rotten.Tomatoes..
##        n  missing distinct      Info      Mean       Gmd      .05      .10
##       73        1       49     0.999     47.36     30.34      9.8     14.2
##      .25      .50      .75      .90      .95
##     27.0     45.0     65.0     86.6     89.8
##
## lowest :  3  6  8 11 13, highest: 87 89 91 93 96
## -------------------------------------------------------------------------------
## Worldwide.Gross
##        n  missing distinct      Info      Mean       Gmd      .05      .10
##       74        0       74         1     136.4     151.8    13.05    19.76
##      .25      .50      .75      .90      .95
##    32.45    73.20   190.19   332.75   452.36
##
## lowest :   0.025000    8.258000    8.972895   10.700000   14.310000
## highest: 415.253258 521.283432 609.473955 702.170000 709.820000
## -------------------------------------------------------------------------------
## Year
##        n  missing distinct      Info      Mean       Gmd
##       74        0        5     0.953      2009     1.536
##
## lowest : 2007 2008 2009 2010 2011, highest: 2007 2008 2009 2010 2011
##
## Value        2007  2008  2009  2010  2011
## Frequency      11    19    12    19    13
## Proportion 0.149 0.257 0.162 0.257 0.176
## -------------------------------------------------------------------------------
```