An empirical analysis of blockbuster video games

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Blockbusters

- Hollywood ‘blockbusters’
  - Harry Potter and the Deathly Hallows (Part 2) (2011): $169m in opening weekend
  - Avatar (2009): $1bn revenue in 17 days since release

- Video games ‘blockbusters’
  - Grand Theft Auto 4 (2008): highest revenue launch in entertainment history
  - Call of Duty: Modern Warfare 3 (2011): $750m in first five days, $1bn revenue in 16 days since release
  - Call of Duty franchise: lifetime sales revenues exceed Star Wars and Lord of the Rings

- Motivation for study: to better understand the phenomenon through statistical analysis of unit sales versus observable characteristics.
Literature

• Literature on blockbusters tends to focus on Hollywood movies, using a similar statistical approach to that used here.
  – See De Vany & Walls (1999); Collins et al. (2002).
  – Success determinants: star power, critical reception, budget, sequel, genre etc.

• Gallagher & Park (2002); Evans et al. (2005): ‘killer-apps’ more likely to be developed by hardware manufacturers themselves.
  – Gretz (2010) emphasises the wide variation in video games sales across titles and calls for further study into ‘killer-apps’.

• Clements & Ohashi (2004) – top 5% titles generate more than 50% of sales.
  – Shankar & Bayhus (2003) – only 10% of games earn a profit and half of all titles sell fewer than 10,000 copies.
Data

- Sep 2011 dataset consisting of 1770 titles.
  - Control for review score, platform, publisher, franchise, multi-platform, licenced, rating etc.
- Dependent variable: US unit sales (thousands).
- Modelling via OLS and binary logistic regression
Results

• Largest influence: metacritic review score.

• Higher sales associated with sequels and multi-platform titles.

• Passage of time only increases sales by a small amount.

• Hardware platforms: handheld titles associate on average with fewer sales than those for home consoles.

• Major publishers generally associate with higher sales, especially Nintendo, Sony and Microsoft.
Conclusions

• Findings broadly consistent with literature on movie blockbusters.
  – Critical reception, developer, sequels all found to increase sales.

• Magnitudes differ.
  – Review scores found to have a greater relative effect than Collins et al. (2002), while sequels reduced.

• Additional consideration: platform of release
  – Evidence suggests multi-platform releases increase the probability of sales success, but presumably can’t be ‘killer-apps’.

• Most influential publishers also console manufactures (Nintendo, Sony, Microsoft)
  – Consistent with Gallagher & Park (2002); Evans et al. (2005).