

## 1. Introduction

They are the executive team of a small board game company, and they are looking for our assistance in launching our first Kickstarter campaign. The team has determined that a minimum of \$15,000 USD is required to get this initiative off the ground. They want to optimize our financing for this campaign since they want to expand the business. Here are our recommendations.

## 2. Preliminary Data Analysis

(a) The goals for dollars raised between campaigns that are successful and unsuccessful are significantly different based on two sample t-test below. The hypothesis is that the mean from successful campaign equals the mean from non-successful campaign. The t-test gives us the p-value is 0.0001415 that is less than 0.05, which means we have sufficient evidence to reject the null hypothesis and conclude that the goals for dollars raised between campaigns that are successful and unsuccessful are significantly different.

### Welch Two Sample t-test

data: success and unsuccess

t = -3.8071, df = 9687.4, p-value = 0.0001415

alternative hypothesis: true difference in means is not equal to 0

95 percent confidence interval:

-146976.99 -47067.37

sample estimates:

mean of x mean of y

9743.03 106765.21

(b) The top 3 categories with the most backers are food, games and music. The bottom 3 categories with the most backers are fashion, dance and technology.

	id	name	backers		id	name	backers
1	4	Food	218	1	9	Fashion	0
2	7	Games	45	2	14	Dance	2
3	3	Music	28	3	13	Technology	2

The top 3 subcategories with the most backers are community gardens, food trucks and vegan. The bottom 3 subcategories with the most backers are pet fashion, couture, footwear.

	category_id	name	backers
1	4	Community Gardens	218
2	4	Food Trucks	218
3	4	Vegan	218

	category_id	name	backers
1	9	Pet Fashion	0
2	9	Couture	0
3	9	Footwear	0

(c)

The top 3 categories with the most raised money are games, food, journalism. The bottom 3 categories with the most raised money are fashion, dance and design.

	id	name	pledged		id	name	pledged
1	7	Games	9316	1	9	Fashion	0
2	4	Food	8795	2	14	Dance	2
3	15	Journalism	2525	3	5	Design	2

The bottom 3 subcategories with the most raised money are video games, gaming hardware and puzzles. The bottom 3 subcategories with the most raised money are accessories, childrenswear and pet fashion.

	category_id	name	pledged
1	7	Video Games	9316
2	7	Gaming Hardware	9316
3	7	Puzzles	9316

	category_id	name	pledged
1	9	Accessories	0
2	9	Childrenswear	0
3	9	Pet Fashion	0

(d)

The amount the most successful board game company raised was 3999796 and they have 40642 backers.

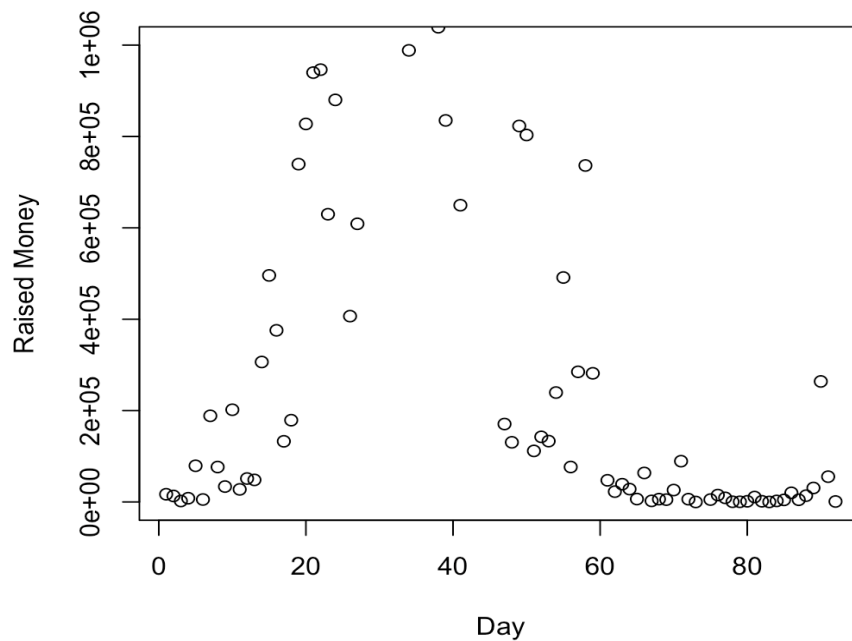
	name	pledged	backers
1	Gloomhaven (Second Printing)	3999796	40642

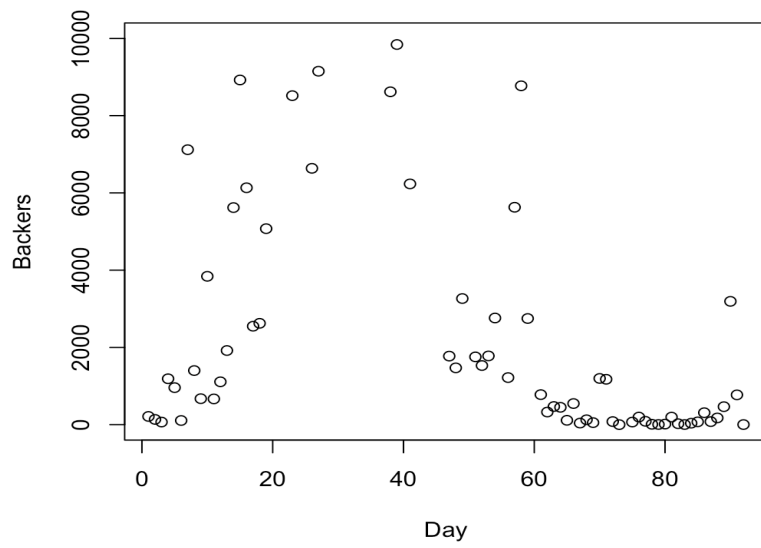
(e)

The top three countries with the most successful campaigns in terms of dollars (total amount pledged) are US, GB, CA and in terms of the number of campaigns backed are US, GB, AU.

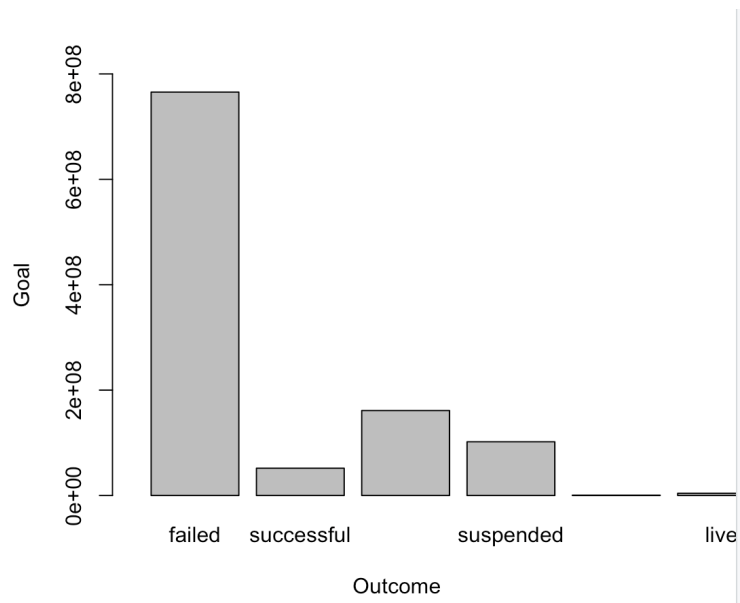
	name	sum(a.pledged)		name	sum(a.backers)
1	US	100971994	1	US	1295509
2	GB	8514817	2	GB	90729
3	CA	1804147	3	AU	29704
...	.				

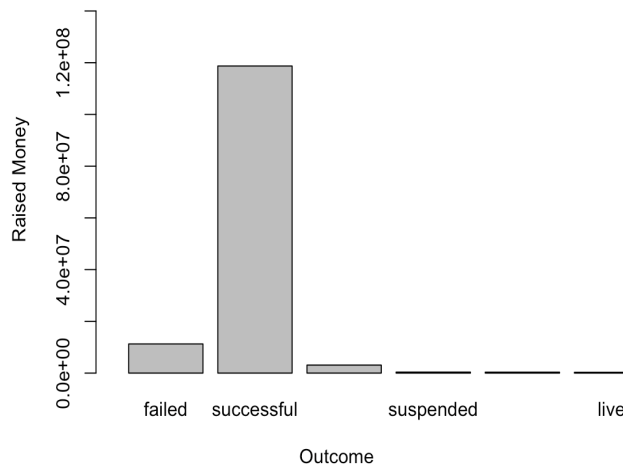
(f) From the picture below, we can see when the time length goes up from 0, the raised money increases. However, when time length exceeds 40 days, the raised money decreases because the backers follow the similar pattern.



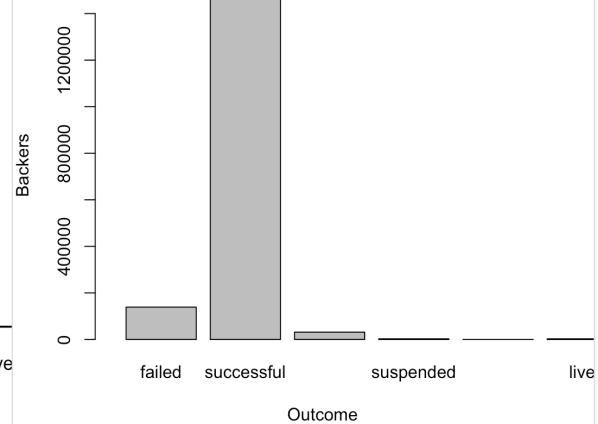
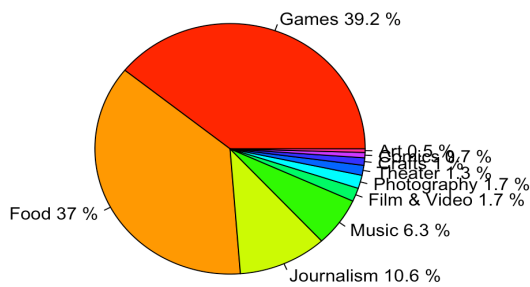


### 3. Data Visualization

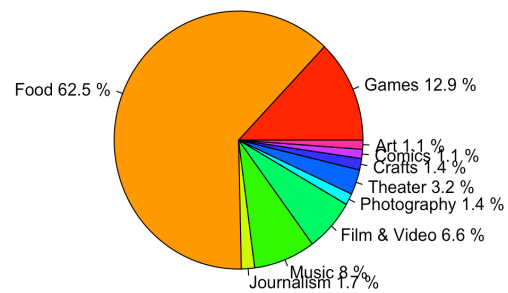




**Top 10 categories in raised money**



**Top 10 categories in backers**



**Top 10 subcategories in raised money**



**Top 10 subcategories in backers**



4. Based on the preliminary data analysis and data visualization, the successful campaigns raised money around 1200000000 with the largest number of backers. The failed campaigns for goal amount was the largest and pledged much less than that in successful campaigns.

Therefore, we recommend that a realistic Kickstarter campaign goal (in dollars) should the company aim to raise around 3999796 with large number backers that could be 40642.

As we can see, the top 3 categories in raised money are games, food and journalism. The top 3 categories with the largest backers are food, game and music.

The company can realistically expect, based on trends in their category 218, 45, 18 in food, games and music.