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1. Abstract

This report is released in order to provide data-driven decision for a board game company launching its campaign on KickStarter, a funding platform for creative projects. The board game company sets its pledging minimum at **\$15,000 USD**, the goal setting strategy and backers (donators) requirement are provided to serve the analysis purpose in **Section 4**.

The provided dataset records 15000 KickStarter campaigns from 23 different countries, 57 main categories and 159 different sub categories with duration between September 2009 and January 2018.

This report analyzed Board Game on KickStarter from the total **649 datasets** of two subcategories named *Tabletop Games* and *Playing Cards* according to the schema. And the average successful Board Game campaign goal is **\$10,039.9** which result in **\$55,849.5** average pledged fundings. The success ratio of all Board Game is **51%** (331 out of 649), and some guidances on Section 3 and 4 can be evaluated to launch the designated campaign more effectively.

In this report, MySQL and Tableau are used for data retrieving and visualization purpose, original files can be found as attachments to this report.

This analysis report is individual effort by the author, Zhenjie Zhou.

2. Problems Response

2.1.Average Pledge between successful and unsuccessful campaigns

The average pledged amount of successful campaigns is significantly larger than unsuccessful campaigns. It is noticed that the average of successful board games campaigns raised at 55,849.5 dollars with average goal setting at 10,039.9 dollars.

On the contrary, the failed campaigns only averaged at 2,956 dollars and cancelled pledged averaged at 3,539.5 dollars. Most of cancelled and failed projects are ceased without meeting its initial goal, which averages at \$16,529 and \$19,607 respectively.

However, the average duration of each campaign is around 30 days, which shows irrelative tendency on the success of each campaign. It is likely result from the rule of KickStart, the posted campaign is required to show in the time windows of 30-40 days, no matter if the pledging process in completed or not.

Figure.2 Origins of Board Game Campaigns shows that U.S. has largest accumulative fundraising among all those 23 countries, which is over \$16.3 millions, supporting 484 Board Games campaigns in past decade.

2.2.Categories with most and least backers and fundings

'Tabletop Games', 'Anthologies', 'Video Games', are the top 3 categories with most backers '247120', '221931' and '141052' respectively.

'Anthologies', 'Tabletop Games', 'Video Games' are the top 3 categories with most pledged money '\$21,111,581.59', '\$18,827,697.39' and '\$7,811,750.92' respectively.

'Glass', 'Photo', and 'Latin' are the bottom 3 categories with least backers '2', '12', '13' coordinately.

'Glass', 'Crochet', and 'Latin' are the bottom 3 categories with least pledged money '\$150', '\$210.99', '\$268' coordinately.

The average pledge duration remains around 30 days for most categories.

2.3.Board Game campaign

Figure.3 Popularity of Board Game on KickStarter shows that **Gloomhaven (Second Printing)** is the most popular Board Game, gathering 40,642 supporters with total funding of almost \$4 millions.

2.4. Countries with most and least backers and fundings

United States, United Kingdom, and Canada are the top 3 countries with most backers '1435673', '102446' and '34462' respectively, and those three countries have same order in sum of pledged fundings ranking.

Norway, Luxembourg, and Austria are the bottom 3 countries of 23 recorded countries with least backers '0', '98' and '682' respectively

Luxembourg, Norway, and Ireland are the bottom 3 countries of 23 recorded countries with least fundings '\$6,046.15', '\$101,022.29' and '\$104,459.49' respectively

3. Visualization

Figure.1 Board Game Campaigns Trend on Kickstarter
total amount of pledges donated on Kickstarter becomes stable since 2015, updated data is required

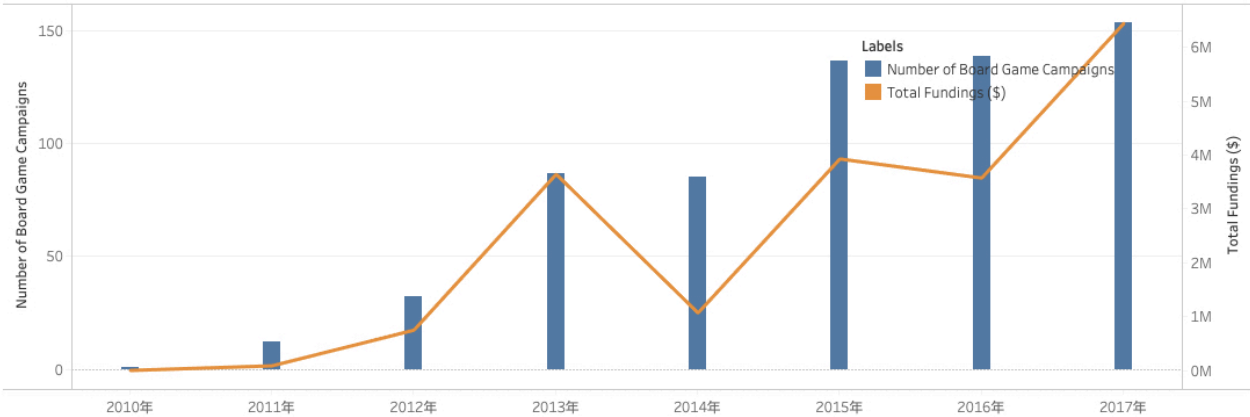


Figure.2 Origins of Board Game Campaigns
U.S. has largest board games initiatives with \$ 16.3M and 484 launched games



Figure.3 Popularity of Board Game on Kickstarter
'Gloomhaven (Second Printing)', 'Robot Turtles: The Board Game for Little Programmers', and 'Ghostbusters™: The Board Game' are the TOP3 Most Popular Board Games



Figure.4 Average Goal and Average Pledged in Outcomes
Initial Goal sets at \$10,000 has greater chance succeed

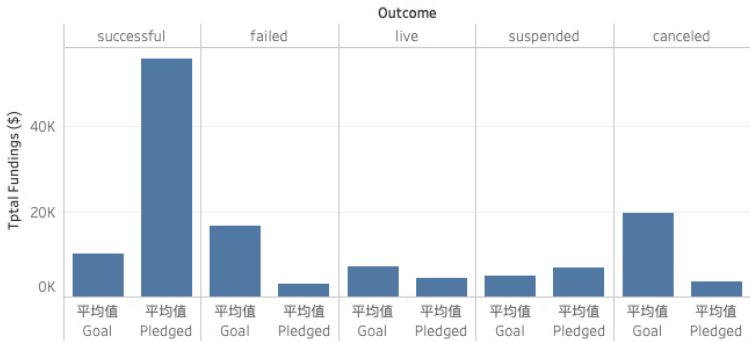
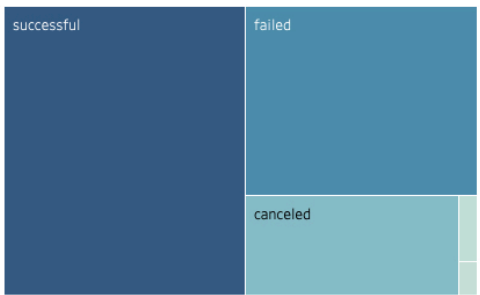


Figure.5 Board Game Campaigns in different outcomes
success comes higher chance with sweat



4. Recommendation

By analyzing the ratio of amount pledged by amount of goal SQL#6, it is hard to conclude that higher goal can lead to higher pledged money. The top 3 return of goal (ratio of pledged/goal) in Board Game are 'Endangered Orphans of Condyle Cove', 'THE TRAVELER DICE TOWER - Custom Options + Storage!' and 'DUNGEONS of the MOUNTAIN KING'. It shows the goal sets quite differently and backer numbers vary as well. It is advised that referring to its original posting page to conclude its digital marketing. And this strategy can be implemented into the designated project launch.

Figure.5 Board Game Campaigns in different outcomes and SQL#2 in Appendix shows that all the successful Board Games campaigns launched their average goal sets at \$10,039.9, generating \$55,849.5 in fund raising, so it is likely to set **initial goal to \$10,000** and risk is worthy to accomplish the minimum \$15,000 requirement.

After executing SQL#7 in Appendix , the donation efforts per backer is highly related to the project category, the **PB ratio** (average of backers to pledge ratio/ how many backers contributing one dollar) for Tabletop Games and Playing Cards are **0.0376** and **0.05** respectively, an estimation of the total backers can be further made by \$15,000 x BP ratio. For average pledged amount close to \$15,000, campaigns can expect **560-750 backers**.

5. Appendix

5.1. SQL source code

① Initial Digest

```
/*
campaign--> table a
category--> table b
category is not matched in campaign
sub_category--> table c
'Tabletop Games' id=14 and 'Playing Cards' id=70 are the sub category equivalent to 'Board Games'
country--> table d
currency--> table e

Saved file as board_games_649.csv
*/

SELECT a.ID, a.name, c.name as sub_category, d.name as country_name, a.launched,
a.deadline, a.goal, a.pledged, e.name as currency, a.backers, a.outcome FROM campaign as a
JOIN sub_category as c ON a.sub_category_id=c.id AND (c.name='Tabletop Games' OR
c.name='Playing Cards')
JOIN country as d ON a.country_id=d.id
JOIN currency as e ON a.currency_id=e.id

ORDER by a.pledged DESC
```

② Section 2.1

```
SELECT outcome,avg(goal) as target, avg(pledged) as raised, avg(datediff(deadline,launched))
as days
FROM campaign
WHERE sub_category_id=14 OR sub_category_id=70
Group by outcome
```

outcome	target	raised	days
successful	10039.855649546826	55849.49365558913	29.4773
failed	16528.979904306223	2956.022679425837	32.5933
suspended	5002.0199999999995	6789.986666666667	30.0000
canceled	19607.323099999998	3539.5245000000001	33.7100
live	7096.43	4375.93	29.0000

③ Section 2.1

```
SELECT d.name,avg(a.goal) as average_target, avg(a.pledged) as
average_raised,avg(datediff(a.deadline,a.launched)) as average_days
FROM campaign AS a
INNER JOIN country as d ON a.country_id=d.id
JOIN sub_category as c ON a.sub_category_id=c.id AND (c.name='Tabletop Games' OR
c.name='Playing Cards')
group by a.country_id
ORDER BY average_raised DESC
```

	name	average_target	average_raised	average_days
►	NO	9695.34	78277.99	29.0000
	DE	6054.64125	41087.581249999996	30.5000
	CH	5141.44	40375.74	20.0000
	US	14343.325773195877	33678.91259793815	31.3670
	GB	9593.186567164179	29213.01432835822	30.5075
	IE	22113.58	17558.566000000003	33.4000
	SE	14865.309999999998	15671.383333333333	27.3333
	AT	40869.53	14637.044999999998	41.5000
	IT	18067.212499999998	13868.302499999998	28.2500
	NL	6878.206	11264.720000000001	27.6000
	BE	55084.89	10407.74	32.0000
	ES	8471.00857142857	8503.211428571429	25.5714
	MX	6307.235	7270.355	35.0000
	HK	6614.169999999999	6847.106666666667	33.6667
	AU	11047.41909090909	6198.7	34.8182

④ Section 2.2

```
SELECT c.name,avg(a.backers) as average_backers, avg(a.goal) as average_target,
avg(a.pledged) as average_raised,avg(datediff(a.deadline,a.launched)) as average_days
FROM campaign AS a
JOIN sub_category as c ON a.sub_category_id=c.id AND (c.name='Tabletop Games' OR
c.name='Playing Cards')
group by a.sub_category_id
```

	name	average_backers	average_target	average_raised	average_days
	Tabletop Games	446.8716	14321.153128390595	34046.46905967451	31.3020
	Playing Cards	161.5729	9129.878020833334	7050.7472916666675	30.1458

⑤ Section 2.4

```
SELECT d.name,avg(a.backers) as average_backers, avg(a.goal) as average_target,
avg(a.pledged) as average_raised,avg(datediff(a.deadline,a.launches)) as average_days
FROM campaign AS a
INNER JOIN country as d ON a.country_id=d.id
JOIN sub_category as c ON a.sub_category_id=c.id AND (c.name='Tabletop Games' OR
c.name='Playing Cards')
group by a.country_id
ORDER BY average_backers DESC
```

	name	average_backers	average_target	average_raised	average_days
►	NO	963.0000	9695.34	78277.99	29.0000
	DE	654.5000	6054.64125	41087.581249999996	30.5000
	US	465.1608	14343.325773195877	33678.91259793815	31.3670
	SE	328.5000	14865.309999999998	15671.383333333333	27.3333
	GB	274.2388	9593.186567164179	29213.01432835822	30.5075
	CH	274.0000	5141.44	40375.74	20.0000
	BE	255.0000	55084.89	10407.74	32.0000
	IE	235.8000	22113.58	17558.566000000003	33.4000
	NL	205.0000	6878.206	11264.720000000001	27.6000
	ES	157.5714	8471.00857142857	8503.211428571429	25.5714
	HK	156.0000	6614.169999999999	6847.106666666667	33.6667
	IT	128.5000	18067.212499999998	13868.302499999998	28.2500
	AU	126.4545	11047.41909090909	6198.7	34.8182
	MX	107.0000	6307.235	7270.355	35.0000
	NZ	103.3333	3275.7583333333333	6069.391666666667	24.3333

⑥ Section 4

```
SELECT a.ID, a.name, c.name as sub_category, d.name as country_name, a.launches,
a.deadline, a.goal, a.pledged, e.name as currency, a.backers, a.outcome FROM campaign as a
JOIN sub_category as c ON a.sub_category_id=c.id AND (c.name='Tabletop Games' OR
c.name='Playing Cards')
JOIN country as d ON a.country_id=d.id
JOIN currency as e ON a.currency_id=e.id
WHERE a.pledged>15000

ORDER by a.pledged/a.goal DESC
```

ID	name	sub_category	countr...	launches	deadline	goal	pledged	currency	backers
► 5270	Endangered Orphans of Condyle Cove	Tabletop Games	US	2016-08-22 00:00:00	2016-10-06 00:00:00	4097	355970.82	USD	7305
1620	THE TRAVELER DICE TOWER - Custom Options + Storage!	Tabletop Games	US	2017-11-08 00:00:00	2017-12-06 00:00:00	1000	84356	USD	892
11603	DUNGEONS of the MOUNTAIN KING	Tabletop Games	US	2013-03-24 00:00:00	2013-04-29 00:00:00	500	32547	USD	416
13075	One Night Ultimate Alien	Tabletop Games	US	2016-08-29 00:00:00	2016-09-28 00:00:00	5000	320890	USD	3768
8617	Wamp Select Series Paintbrushes	Tabletop Games	GB	2015-03-13 00:00:00	2015-03-29 00:00:00	1258.27	63421.65	GBP	757
8733	Miniature Holders & Grips for painting and sculpting	Tabletop Games	DE	2016-09-02 00:00:00	2016-10-02 00:00:00	5569.98	253335.86	EUR	3638
5072	Shadows of Brimstone	Tabletop Games	US	2013-10-23 00:00:00	2013-11-25 00:00:00	30000	1341305.03	USD	4727
9960	Gloomhaven (Second Printing)	Tabletop Games	US	2017-04-04 00:00:00	2017-05-02 00:00:00	100000	3999795.77	USD	40642
9403	Mechanical Dice Towers	Tabletop Games	US	2016-05-24 00:00:00	2016-06-23 00:00:00	1000	34972	USD	747
14705	Star Patrol: Carrier Commander - \$3 sci-fi strategy nanogame	Tabletop Games	US	2015-09-05 00:00:00	2015-09-29 00:00:00	450	15415.1	USD	4015
14530	Cool Dice Bags...with dice inside!	Tabletop Games	US	2017-12-11 00:00:00	2017-12-31 00:00:00	500	17064	USD	685
991	Board Game Bowls upgraded	Tabletop Games	NZ	2017-11-06 00:00:00	2017-11-27 00:00:00	1027.61	26525.31	NZD	398
4379	Robot Turtles: The Board Game for Little Programmers	Tabletop Games	US	2013-09-03 00:00:00	2013-09-28 00:00:00	25000	631230.58	USD	13765
7679	Labyrinths: Customized Modular Dungeon Terrain	Tabletop Games	CA	2013-11-20 00:00:00	2013-12-20 00:00:00	2338.2	49264.87	CAD	184
13599	DAC: Dungeon Architect Cards	Tabletop Games	US	2015-02-25 00:00:00	2015-03-27 00:00:00	1000	20270	USD	916

⑦ Section 4

```
SELECT c.name,avg(a.backers) as average_backers, avg(a.goal) as average_target,
avg(a.pledged) as average_raised,avg(a.backers/a.pledged) as ratio_bp,
avg(datediff(a.deadline,a.launches)) as average_days
```

```
FROM campaign AS a
JOIN sub_category as c ON a.sub_category_id=c.id AND (c.name='Tabletop Games' OR
c.name='Playing Cards')
group by a.sub_category_id
```

	name	average_backers	average_target	average_raised	ratio_bp
►	Tabletop Games	446.8716	14321.153128390595	34046.46905967451	0.03757246009097806
	Playing Cards	161.5729	9129.878020833334	7050.7472916666675	0.05002193877422643

5.2. References

- [1] raw data: https://api.brainstation.io/content/link/1mKULpzSugp8pdursO0_NRs11r5CFKMXn
[2] BrainStation: <https://brainstation.io/>
[3] Kickstarter: <https://www.kickstarter.com/>

5.3. Data Dictionary

Below is a list of variables in the dataset, and some contextual descriptions to get you started in your analysis.

Schema of Table **campaign**

- **ID**: unique project ID
- **name**: project name
- **sub_category_id**: what industry/category was the project in?
- **country_id**: id number associated to country of origin
- **currency_id**: what currency funding was given in ?
- **launched**: date fundraising began
- **deadline**: when target amount must be raised by
- **goal**: desired amount of funding
- **pledged**: how much was promised (whether or not the goal was reached)
- **backers**: how many individuals contributed to the campaign?
- **outcome**: was the project funded or not?
-

Schema of Table **sub_category**

- **ID**: **sub_category_id** in **campaign**
- **name**: sub_category corresponding

Schema of Table **country**

- **ID**: **country_id** in **campaign**
- **name**: country name corresponding

Schema of Table **currency**

- **ID**: **currency_id** in **campaign**
- **name**: currency corresponding