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Abstract: This pitching research letter presents a new angle to Faff’s (2015, 2016) pitch template. To better appreciate the research thrust underlying a scholarly paper, a reverse-engineered pitch can be created. This helps enhance one’s understanding of the finer aspects of an article and it is also an exercise to practice the pitching skills. A step by step guide for reverse-engineering is presented, followed by some tips and things to remember. The conclusion is that the pitch template has a real educational value, by offering a very structured and concise medium to extract core ideas from any paper.

Keywords: pitching research, template, reverse-engineer, computer games, freemium, revenue

JEL codes: G00

1. Introduction

This paper presents an application of the pitch template developed by Faff (2016). Ratiu (2015) and Beaumont (2015) illustrate the viability of this method by presenting research pitches in the fields of accounting and corporate governance. The new angle added by this pitching research letter is the reverse-engineered approach to an existing paper which has been written by a third party i.e. what Faff (2016) describes as a “third-party” reverse engineered pitch. One can view this as a very first step a new researcher can undertake in order to better understand an article and as an early exercise before attempting their first real pitch. This shows

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another useful feature of the pitch: as a learning tool. Starting researchers can follow this research letter and extract useful procedures and hints that would help with their work.

The paper is structured as follows: in section 2 I give some background information, in section 3 I take you through the step by step process, in section 4 I present some useful things and benefits, while in section 5 I conclude.

2. Background information

Why have I done this? Because I have no recent academic background, being a software engineer working for more than 10 years in the field of embedded software development. Having found an interest in academic work with Professor Faff as my mentor, I found this pitch as a very useful multipurpose tool.

We started to explore potential research topics, the idea was to find something that can be linked with software and finance. In the end we decided to spend some time analyzing the field of freemium computer/mobile games.

First of all, what is this freemium? It is a business model that offers basic functionality for free but charges users for more advanced features. The charging is usually done in the form of micro transactions i.e. transactions involving relatively small cost per unit of time. Some notable examples of freemium products are: Skype (the basic pc to pc call is free, but pc to landline is not), LinkedIn (basic functionality is free, but you need to pay for advanced features).

Why have I chosen to focus on freemium games? As a computer engineer and avid gamer for almost 30 years, I noticed that the freemium model is becoming the de facto standard for mobile games. According to Digi-Capital, this is a market that is worth around $29 billion and expanding rapidly, projected to exceed $45 billion by 2018.1 Somewhat surprisingly, given the significant financial stakes, I discovered that there is a scarcity of academic research done in this field. Hence, a paper on this subject seemed very appealing to me.

So after determining the field of research, the next important step is becoming fully conversant with it by reading relevant academic articles. One such highly relevant and very recent article is: Rietveld, Joost, Creating Value Through the Freemium Business Model: A Consumer Perspective (February 24, 2016), available at SSRN: http://ssrn.com/abstract=2737388. Rietveld (2016) covers the market for PC freemium games and compares the freemium game model to the classic or “premium game” counterpart, in terms of: adoption rates, usage rates and revenues. As a useful learning exercise, Professor Faff suggested that I reverse engineer
Rietveld (2016) into a research pitch. The related goals of this exercise are to better understand the paper, to better understand the research pitch format and to later apply this knowledge to produce my own research pitch.

3. The reverse engineering process

The full reverse engineered pitch can be seen in Table 1.

The entire process was completed in around 1 month during which the template was filled. Professor Faff and I chose an iterative approach in which I tried to fill in all the points in the template one by one. After each iteration, the work was reviewed and improved. The final step was to take a last look at the entire pitch and observe the structure and clarity as a whole. I also kept a changes log in which I briefly described all the changes added from one version to the next. This is useful in order to follow the progress later or and evaluate how the pitch changed over time.

The first thing I noticed is that even though I had read the paper before attempting this exercise I soon discovered that I could not easily fill in the pitch. I needed to re-read the paper at least a couple more times in order to have a much clearer understanding. So having the pitch structure in mind, a useful exercise after reading a paper could be to try and answer the pitch questions. Not being able to do that most likely means that the paper was not understood properly (though it might also reflect that the paper has been poorly executed/ written, thus reflecting a poor choice of paper). Also, even when first reading a paper, having the pitch structure in mind and trying to answer the pitch questions can lead to a better understanding. These are all things that I discovered after doing this exercise and would benefit me greatly in my future research endeavors.

Next I will follow Faff’s pitch template and provide some comments on how this reverse engineering differs from an original research pitch.

First, the title should be trivial since the paper which is being reversed engineered already has one. This is in contrast with the real approach, in which finding a suitable title is a complicated process.

Second, the “Basic Research Question” is not something that is very clear after reading a paper. Sometimes the question is stated, but in other cases only the answer to this question is found in the abstract or conclusion part. In such cases, it is up to the pitcher to try and best infer/guess the initial research question.

Third, the “Three Key Papers” should be easier when reverse engineering. All the key papers are provided, but usually there is an extensive list. It is up to the researcher to go through the paper and identify the key statements and which are the papers supporting those statements. This exercise is very useful since it will introduce additional papers which can be beneficial when advancing the research further. One thing to keep in mind, as Faff (2016) suggests: try to have at least one key paper that is not more than 2 years old. Absence of such a paper could raise a question whether the topic is relevant or not. A red flag should be raised if the article is new, but it is not based on any recent papers.

Fourth, the “Motivation/Puzzle” is the thing that started the entire paper. It should be quite clear from the paper. The real challenge is presenting it as a short and meaningful paragraph. I would suggest visiting this many times and refining it. This would be a very useful exercise for when an original pitch will be created. This is the part that needs to convince the “pitchee” (mentor) that the research has merit.

Fifth, the “Idea” part should follow the puzzle. It needs to identify the actions taken in the paper that aim to solve the puzzle presented above. In this case it was the study based on a “consumer centric model” which compared the strengths and weaknesses of freemium games and premium games. Again, it proved tricky to find the essence and present it in a couple of sentences.

Sixth, the “Data” part follows the idea. In the case of reverse-engineering, one just needs to describe the data used in the paper. This should be explained quite clearly in the paper.

Seventh, the “Tools”. As Faff (2016) suggests, these tools go hand in hand with the data, since “without adequate tools/techniques, data and ideas are useless”. When reverse engineering, information about all these tools are not necessarily presented in the paper e.g. the particular econometric software used is often not mentioned. It is up to the reader to try and understand exactly how the tools work and how do they benefit the idea by extracting the relevant information from the “data”. Sometimes the tools can be very complicated and I do not believe that a 100% understanding of every detail is necessary since some of the tools can be computer generated statistics/graphs.

Eight is the big question: “What’s new?”. Depending on the paper, this can be very straightforward if explicitly highlighted or it could be much trickier if it is only implicit in the write-up. As suggested by Faff (2016), the novelty usually lies at the intersection of three research areas. In this case the areas were: the freemium business model, computer games and the increased revenue. This intersection is presented in “Figure 1. Mickey Mouse diagram characterizing novelty of research idea.”
Ninth, the “So what?” question. After the novelty was identified, any reader should ask themselves this question. In the article taken as an example here, this question was not answered explicitly. It was up to me to answer this question by putting myself in the author’s shoes and thinking about the “value” of the research. Some key questions that could be useful here are: “Who can benefit from this?”, “Can this be used to gain an advantage?”, “Is this part of a growing trend?”, “Does it complement something already established?”, “Does it offer a different perspective?”.

Tenth, is the “Contribution”. This was the trickiest when doing this reverse engineering exercise. It is the most important aspect and the one that brings together all the previous points described above. It should encompass the puzzle, idea, data, tools and present the addition to the research field that this paper brings. In the case of reverse engineering this is the ultimate goal: being able to extract the very essence of the paper and present it in a clear and concise form. In the article presented here, this part was by far the most difficult. It took many attempts and not even now can I say that I am fully satisfied with the outcome.

The last point in the research pitch is called “Other considerations”. In the case of reverse engineering there is no point in doing this, since the article is already written and published. Instead, as suggested by Faff (2016), three key findings should be presented. This gives more room to expand upon the “contribution” and present the main results of the paper.
4. Things to remember and benefits

While in this section I will talk about things which I consider to be useful to remember when reverse engineering a paper into a research pitch, most of the things can be applied to the process of writing a real research pitch as well.

First, at least in the process that I experienced, the entire process can be seen as a game of “ping-pong” between the pitcher and the “pitchee” (mentor). Keep in mind that this is an iterative process and that the work needs to be polished a few times before it becomes good. Microsoft word and other editing software offer really good reviewing tools which can be used for this purpose. Professor Faff and I have used these tools to engage in useful questioning and rephrasing of the relevant ideas presented in the final version.

Second, and following on the previous point: it is a good idea to keep a changes record. A table can be kept with relevant information about the things that changed in each iteration and who actioned these changes. This will be useful to follow the progress and observe how the pitch matures as more and more effort is invested. In Table 2 I report the real change log which shows the stages of this reverse-engineered work. The intermediate versions can also be saved and stored to offer the complete work history. One approach is to save the file with an increasing version number, each time a meaningful amount of effort has been devoted to working on any new draft.

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Author</th>
<th>Changes</th>
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<tr>
<td>0.1</td>
<td>10 Apr 2016</td>
<td>Bogdan Ratiu</td>
<td>Initial draft, Filled in points A-D</td>
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<tr>
<td>0.2</td>
<td>11 Apr 2016</td>
<td>Robert Faff</td>
<td>Comments and feedback</td>
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<td>0.3</td>
<td>23 Apr 2016</td>
<td>Bogdan Ratiu</td>
<td>Continued work on points E-K</td>
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<tr>
<td>0.4</td>
<td>24 Apr 2016</td>
<td>Robert Faff</td>
<td>Comments and feedback</td>
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<td>0.5</td>
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<td>Continued work</td>
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<td>15 May 2016</td>
<td>Bogdan Ratiu</td>
<td>Final Draft</td>
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Third, read, improve as often as needed: The pitch needs to be short and easily understandable. These things are not easy to achieve when first writing something. That is why it is very important to review written paragraphs and try to improve them. Many times, while working on the pitch, I have revisited previous sections and found better ways to express the ideas inside them. Keep in mind that while you as the writer have a clear picture in your head, that picture might not be so evident for your reader.
Fourth, while going through this exercise I found certain aspects of the paper that I did not like or would have done differently. I kept a separate list of these items which would come in useful later, to help inform a plan for my own research. For example: there is no discussion of costs in the paper. Ultimately companies care about profit so comparing revenue and ignoring costs can provide a misleading message. Also, the sample size for freemium games is relatively small and, thus, might pose a challenge with regard to achieving statistical significance. One thing to remember further is that different data acquisition techniques should be investigated.

5. Conclusions

This pitching research letter expands the versatility of the pitching template presented by Faff (2016). Besides the original purpose which is to “sell” a research proposal, based on my own personal experience, I highlighted the “educational” aspect of it. Reverse engineering a paper can be a useful exercise when starting or considering a new research topic. Overall it is easier than creating an original research pitch, but it can be seen as a stepping stone upon which an original research pitch can be initiated. For many novice researchers, it is likely a better and easier way to embark on a new research topic, rather than “jumping in at the deep end” on an original pitch on a topic that the novice barely understands even the basics.

For all other researchers, just having the pitch template in mind while reading an article can be a great benefit. While often there is no need for a complete reverse engineering, just identifying some of the main points in the pitch can greatly help with understanding, provide better structure and even identify potential oversights as was shown above.

References


Table 1. Completed 2-page Pitch template on the Freemium Business Model

<table>
<thead>
<tr>
<th>Pitcher’s Name</th>
<th>B Ratiu</th>
<th>FoR category</th>
<th>Management/Marketing</th>
<th>Date Completed</th>
<th>April 10th 2016</th>
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<tbody>
<tr>
<td>(A) Working Title</td>
<td>Creating Value Through the Freemium Business Model: A Consumer Perspective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(B) Basic Research Question</td>
<td>Do freemium computer games yield higher revenues than premium games? How can be maximized the consumers’ willingness to pay in freemium games?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(D) Motivation/Puzzle</td>
<td>In the multi-billion dollar market of computer games, the freemium business model is becoming increasingly common. However, there is a certain lack of academic research regarding this model. While the increase of freemium games is certainly visible, the economic benefits need to be better understood. What are the strengths and weaknesses of freemium games? What factors can increase the revenue of freemium games? Puzzle about freemium games: On one hand their increase in popularity and availability is uncontested. On the other hand, studies so far have shown that they are perceived as having less quality and that they generate less revenue.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>(E) Idea?</td>
<td>Three core aspects of any empirical research project i.e. the “IDioTs” guide</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Given the puzzle above, assess/analyse the clear strengths and weaknesses of freemium games. Apply the “Consumer Theory” model which investigates how consumers make purchase decisions based on their income and the prices of the goods available. The key dependent variables are: number of players which determines the adoption rate, hours played per game which determines the use rate and the amount of dollars generated which determines the revenue.</td>
<td></td>
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</tr>
</tbody>
</table>

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## (F) Data?

1. Setting: 2014-2015 computer games found in Valve’s Steam database (Steam is leading distribution platform for digital PC games)
2. Sample size: Initially 400 titles from 276 companies (around 10% of all games released in 2014 on Steam), in the end revenue data was obtained for 48 titles
3. Data source: Valve data published on Arstechnica + research questionaries sent to game companies regarding revenue.
4. Data collection: mostly manual and quite tedious

## (G) Tools?

Online survey tool Qualtrix: to create an internet survey to gather revenue data from companies. Software: Apply Generalized Structural Equation Model (GSEM) in Stata 14

## (H) What’s New?

Study the revenue and the ways to increase revenue generated by computer games which are using the freemium business model

## (I) So What?

Given the magnitude of the computer games industry and the increase in freemium games, game developers as well as investors would be keenly interested in knowing the benefits and risks of adopting this model for future projects as well as ongoing ones.

## (J) Contribution?

The first empirical study on a large dataset of recent PC games aimed at determining revenue and ways to increase revenue for freemium games.

Analyse the freemium business model by using a consumer centric framework. Formulate 4 hypotheses, which explore consumer behaviour regarding freemium games adoption, usage, revenue and ways to increase revenue. This links the freemium model to demand-side thinking strategic management.

## (K) Other Considerations

Three key findings:
1. Freemium computer games have a 274% increase adoption rate compared to classical games.
2. Freemium computer games have lower use rate and generate significantly lower revenue.
3. Revenue can be increased by offering more options in the purchase menu of freemium games.