Demand-Side Research and Implementation of Freemium Business Models: Case Study of HP Photo Creations

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ABSTRACT:

Freemium business models have been widely used, including by major companies such as Survey Monkey, Dropbox and Spotify and many start-ups. Essentially, this model uses a strategy of no-cost entry pricing to generate down-stream revenue. This study, examines the demand side of freemium pricing, specifically looking at consumer response and segmentation.

Keywords: Freemium Business Models, No-Cost Entry Pricing, Market Segmentation.

INTRODUCTION

Freemium business models are widely used. Typically, they utilize no-cost entry pricing to generate downstream profitability. This study evaluates the results from a consumer perspective and assesses the demand side view of a product from a national brand company using a survey of over 5,000 users.

BUSINESS MODELS

The past twenty years a chief development has been the rapid evolution of internet-based business models and Software-As-A-Service (SAAS). Gassmann et al. (2013) analyzed more than 300 case studies of companies that have been notably successful, including IKEA, Nespresso and Pixar. Their research examined their commonalities, identifying a set of 55 business model patterns. They define a business model pattern as a definite configuration of four core elements: Who are the customers? What is being sold? How is it produced? and, How is revenue earned? (Fleisch et al, 2014). Specifically, the nine basic elements of traditional business models are typically: key partners, key activities, key resources, value propositions, customer relationships, channels, customer segments, cost structure and revenue structure.

FREEMIUM BUSINESS MODEL

The freemium concept originated in the 1980's and with the advent of cloud computing, a new business model paradigm platform evolved as the freemium model. The basic concept behind this model is to give away free access to a subset of business services in the hopes of converting the user to an upgraded pricing level or to becoming a paid subscriber. This pricing model is possible because computers allow services or products to be replicated and provided at very low incremental costs. For example, use of basic functionalities of the business oriented social networking service LinkedIn, which include creating a profile and making connections are offered for free. However, users need to buy a premium subscription to have additional features such as more visibility into who has viewed their profile,

deeper search functionality and better e-mail capability (LinkedIn, 2017). Thus, the essential difference for freemium business models is conversion from free to paid. Freemium conversions leaders are Spotify (25%), Yousendit (10%), Skype (7%) and Dropbox (4%).

There are many alternatives, but three common freemium models that have evolved are offering of multi-tiered products, the no-advertising upgrade, and the full usage trial period. The multi-tiered product is the most popular of the freemium models, as well as the best representation of what freemium pricing implies. A lite version of the product is offered for free, with the option of a paid upgrade to access premium features. A common theme among products in this category is the benefit to small businesses. Examples include Survey Monkey (online surveys), Skype (VOIP), Dropbox (cloud storage) and Asana (project management). Dropbox, using this model, quickly ramped to 100 million users. For Survey Monkey, the conversion rate from free to paid is reported to be around 3% (Goldberg, 2016). The "no advertising upgrade" model is based on allowing users to sample most or the entire product with advertising included. Examples are Pandora (music), Spotify (music) and Flickr (photo sharing). Companies using a trial period model allow consumers to access the full product for a limited amount of time before requiring consumers to purchase the product for further use. Examples are IBM SPSS (data analysis), YouSendIt (large file sharing) and 37 Signals (office collaboration). Freemium is the number one pricing strategy for many apps available online. For example, for games, 90% are free with in-app purchases as the revenue generator. Gaming as a category is a $120 billion industry. One leader, Fortnite, with over 125 million players, generated $1.8 billion in sales in 2019. It is offered for free, but charges $10 for a seasonal "battle pass" and sells on-line clothes, weapons, dances, and reactions for players.

Many of the successful freemium models are cloud-based and designed to appeal to both consumer and to small business segments. It should be noted that offering mobile access is a factor that promotes conversion. Although the main source of revenue comes from the sales of premium functionality, freemium models can also draw revenue from advertising sales. (Seufert, 2014).

While much has been written about the operational (supply) side of freemium strategy, relatively little has been written about the consumer (demand side). Recently, Lee, Kumar, and Gupta (2017) conducted an empirical study to address how consumers decide whether and when to upgrade - if premium customers demonstrated usage behaviors different from free customers, how consumers trade-off upgrading to a premium plan compared to using other strategies and, most importantly, what is the value of a "free" customer? Empirical studies on actual freemium marketing demand side research are rare. Notably however, a recent study by Sciglimpaglia and Raafat (2020) shows how demand side research can be used to develop segmentation-based marketing strategy.

Following is a report of an actual case study of freemium model application. It examines the industry, competition, company objectives and consumer behavior in the context of the four key business model elements posed by Fleisch et al (2014).

COMPANY AND INDUSTRY

The Hewlett-Packard Company (HP) develops and provides a wide variety of hardware components as well as software and related services to consumers, small- and medium-sized businesses and large enterprises. Printers and printer supplies, notably printer ink replacement cartridges, are very a significant part of HP's business. In 2017, total revenue of $52.1 billion included $11.9 billion from the sale of printer supplies and $1.3 billion from the sale of consumer printers. To spur overall printer and printer supply usage, HP Photo Creations (HPPC) is offered by Hewlett-Packard as free downloadable software that allows users to print their photo-based creations free of charge. In total,

over 30 million people have activated the software and in any given month, there are an average of about 1 million users. Since HP's profit margin for printer ink is relatively high, the significant value for the company is in accelerating the printing of projects. The freemium model employed at the time of the study was non-direct monetization. A major objective of the research was to determine how to convert that to a monetized business model and what strategies to employ. Many HPPC users employ the product for producing various items that they can design using built-in templates and then printing at home, including calendars, announcements, newsletters and greeting cards. These uses have come at the expense of existing industries.

Competitors abound in the consumer printing market. Direct competitors to HPPC include online photo creation and storage services, such as Winkflash and Shutterfly, as well as photo software programs, such as Adobe Creative Suite and Windows Live Gallery. Indirect competitors include Facebook and Instagram, where creations are shared virtually. Other competitors include retail printing services, like those found in Target, Wal-Mart, and various drugstores.

HPPC is currently the only completely free, downloadable software in the creative print-at-home market. No purchase is required, and consumers are able to create projects immediately. There is currently no direct revenue capture for HPPC. As consumer usage of HPPC increases, consumption of ink and paper are expected to increase.

THE STUDY

In order to determine a set of customer profiles and the appropriate dollar amounts recommended for a pricing model, a value-centric customer survey of new and existing HPPC users was conducted via Qualtrics. An incentive of a drawing for a $250 American Express gift card was offered to encourage feedback. The survey was designed to determine a consumer profile or set of profiles that represent frequent and target HPPC users and to understand their price sensitivity, their most valued product features, and their social sharing behaviors. Questions were also asked about at-home printing behavior, including projects or items printed at home, frequency, and brand of printer. Additionally, respondents were asked directly about competitor printing services and their recent past purchase behavior.

RESULTS

A total of 5,039 HPCC users responded to the survey. Of these, most reside in the United States. Results show that usage skews predominantly female (59% overall); and roughly two-thirds of users print photos at home once or more per month. The types of personalized photo projects include greeting cards (51% of all respondents), photo collages (36%), invitations (31%), calendars (29%) and newsletters (12%). In addition to HPCC, a wide variety of other software is used by respondents, including MS Word (30%), Photoshop (26%), MS Publisher (15%), Hallmark Card Studio, (14%), Snapfish (13%) and American Greetings (12%). Users regularly post photos on Facebook, Twitter, Instagram, Pinterest, Flickr and Tumblr. Nearly one quarter (23%) of user who had made a purchase subscribed to a photo project service in the prior year, led by Snapfish (16%) and Shuttterfly (14%). Users rated HPCC very highly - the top attributes were print at home capability (88.6 on a scale of 0 to 100), overall ease of use (88.4), ability to personalize projects (86.7) the variety of themed templates available (79.9) and variety of themed projects available (79.8).

SEGMENTATION: HOW TO IDENTIFY WHO IS MOST LIKELY TO UPGRADE

To introduce a freemium product, it is important consider who is most likely to convert. Two significant target groups are segmented primarily by age: current core users (aged 45-64) and target

users (aged 25-44). Although current usage is high among the core group, younger users present an attractive developmental segment. Core users have higher incomes than target users yet are less interested in upgrading to a premium version of the software. Conversely, target users spend more time with children at home making projects (which presents an attractive opportunity to involve children in craft or photo projects), are more likely to use a version of HPCC on a tablet or smartphone and are more likely to upgrade to a premium version of the software. Willingness to upgrade was assessed by asking respondents how they would prefer to pay for a premium service; 60% in the core segment and 70% in the target segment responded that they would be willing to pay for an upgraded service; willingness to pay for a premium service declined as age increased. Overall, these findings paint an optimistic forecast for the potential monetization of HPPC.

CONCLUSIONS

Few studies examine the demand side of freemium business models. This study takes a consumer view by focusing on the user. Specifically, it employed a survey of over 5,000 users of a freemium product, HP Photo Creations to assess the likelihood of conversion by two segments: core users and target users. It shows the ability of such analysis to help forecast downstream revenue enhancement.

REFERENCES

References are available upon request.