Chapter 2
Stakeholders of the Sources of Income and Expenditure

2.1 Introduction: Everything is Free of Charge!

Jack Andraka, a 15-year-old American recently shook the medical world, by inventing a dip stick style paper strip that can accurately and cheaply detect early-stage cancers. His invention could make a major change in the history of medical science. Incredibly, he has no medical background or education. He relied solely on Internet searches to acquire all the necessary knowledge, just like you use a search engine and click the mouse.

Web searches make it possible to find anything, and best of all, it is free! Imagine that if information obtained from searches was not free or low priced. How would that change things?

Who is paying for our search consumption? Why are the search engines willing to do so, how do they profit?

From the perspective of sources of income and expenditure of profit models, Google has two types of key customers. One is the internet users like us making information searches on Google. The other is the business customers with direct economic transactions with Google. Some examples are the suppliers purchasing software and hardware, mobile phone companies using the Android operating system, advertising agencies, and publishers of yellow pages. For users, Google provides search services free of charge but gains internet click rates. For enterprises, Google offers product technology or advertising promotional platforms in exchange for real economic gains, which is the funding source of their further development and sustained operations. Free information resources attract extensive internet users, and on this base, Google has built their unique branding, including steady search use rate, relatively high search matching rate and click through rate. These invisible effects have brought much greater business opportunities including the online advertising market.

Given the high development cost of search engines, online enterprises that require this technology, but have no capability or need to develop it independently have become customers of Google's Page Rank search technology. These include

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general web portals, online sales sites, and job search sites. And Google charges them licensing fees based on search frequency, which is also known as the road toll in pricing methods. Compared to the licensing of search technologies, online advertising is a more critical business segment. These advertising customers pay most of the bill for the search services. Google performs more than a billion user searches a month, and this popularity has created a huge online advertising market. Google can effortlessly earn service fees from advertisers, either in the form of road tolls according to the hits on display advertisements, or from parking fees according to the play time of video advertisements. For lower budget advertisers, paying by the click rate of online advertisements is obviously more economical and affordable than paying a slotting fee for print media advertisements (see Chap. IV for the definitions and descriptions of the road toll, slotting fee and parking fee, etc.)

In terms of search business, internet users, as the direct customers of Google, don't have to pay service fees, which are instead borne by third-party advertisers or those in need of relevant technologies. In terms of advertising business and technology licensing business, advertisers and web portals, among others, have turned into direct customers from a third-party role in the search business, and become the major income stream of Google's two businesses.

If we expand our perspective to cover Google's entire business model, it can be said that they determine the sources of income and expenditure of each business line by differentiating stakeholders. While establishing a solid profit model coalition by centering on the stakeholders of different businesses, the key enterprises obtain continuous profits in different transaction forms with each other while greatly ensuring their own interests. This is the true story behind Google's seemingly free, but successful profit model.

2.2 Treasure Map of Profit Models: From PM0 to PM11

Business models, by nature, are the transaction structure of stakeholders. In the business model theory, stakeholders fall into two categories: internal and external. Internal stakeholders mean the shareholders, entrepreneurs and employees of enterprises, which can either be individuals, or a specific group. Take Qualcomm for example, whose main business is formulating 3G communications standards. Their self-developed open-ended BREW platform can be deemed as an internal stakeholder. It specifically provides application, control platforms and port tools, among services, to technology developers, equipment manufacturers and telecom operators. Setting up a symbiotic and mutually prosperous ecosystem for their own CDMA technology is the key to Qualcomm's sustained profitability. However, external stakeholders refer to the customers, suppliers and other types of partners of enterprises, including direct sales stores, controlled and invested companies, and firms or institutions that they are purely cooperating with in different markets. These internal and external stakeholders are interconnected through various transactions under one business model framework to get what they need and create a unique business value system for each other.

So how shall we differentiate these stakeholders so as to bring out their potential value and make them contribute to the entire business model system? This requires us to design the profit model of an enterprise by considering how the sources of its income and expenditure are distributed among which stakeholders.

We can make an analysis matrix with two dimensions: expenditure and source of income. The horizontal direction indicates the stakeholders contributing income to the enterprise, including direct customers, direct customers and third-party customers. The vertical direction indicates the stakeholders bearing relevant costs, including the enterprise, enterprise and third-party partners, third-party partners, and zero variable cost. This gives us a profit model matrix containing 12 sub-areas, as shown below (in this matrix, we use PM0 to indicate "profit model 0", and so on). It is clear that the source of income does not necessarily come from direct customers or main business, but may derive from third parties or other stakeholders. Costs and expenses may not be borne by the enterprise itself, but could be transferred to other stakeholders.

Sources of Expenditure			
Zero variable cost	PM9	PM10	PM11
Third-party partners	PM6	PM7	PM8
Enterprise & third-party partners	PM3	PM4	PM5
Enterprise	PM0	PM1	PM2
Sources of Income	Direct customers	Direct & third-party customers	Third-party customers

PM0: The enterprise pays costs and receives income from its direct customers. This is the most common profit model, as adopted by many conventional production-to-marketing manufacturing enterprises. They pay the costs of purchasing raw materials, production & manufacturing and channel marketing, and get income from direct sales to customers. Their profit is simply income minus costs. Such a transaction structure is very simple. Apart from raw materials, there are only two stakeholders, the enterprise itself and direct customers.

From PM1 to PM11, their transaction structures are evidently more complex than PM0, and involve at least three stakeholders. This provides the room for profit model innovations.

PM1: The enterprise puts in costs to provide products or services, and receives income from direct and third-party customers. For instance, magazines charge subscription fees from readers and advertising fees from enterprises to publish their advertisements. Under this profit model, advertisers target the readers of magazines, and they are the third-party customers of these magazines, whereas readers are their direct customers. Tencent has also adopted this approach for internet value-added services, as they charge direct customers like gamers for virtual clothes, props, pets, etc., while the marginal cost of these products is close to nothing. Meanwhile, Tencent also charges service fees to the advertisers (third-party customers) that embed advertisements in their online games or other applications.

PM2: The enterprise puts in costs to provide products or services to be consumed by direct customers free of charge, while third parties pay relevant expenses. This is the business model adopted by Google's search business as mentioned above. The same is true with TV stations and free newspapers and magazines. Compared with PM1, PM2 reduces the income contribution by direct customers, but it is most likely to augment the customer scale and branding effect through free provision of products or services, so as to charge higher fees to third-party customers. The transaction structures of PM1 and PM2 are very similar, and convertible under many circumstances, except whether or not they charge direct customers.

PM5: The enterprise and third-party enterprises bear the production cost. Third-party customers pay the price and direct customers obtain products or services free of charge, whereby third-party enterprises could be third-party customers at the same time. Take for example the *Voice of China*, the hottest TV entertainment program in 2012. Zhejiang Satellite TV (ZJTV) and the producer of the show jointly made investments, and shared risks and profits as the enterprise and third-party enterprise. Jiaduobao (JDB) sponsored and provided publicity for the show. China Mobile, as a third-party enterprise and customer, provided download services for color ringback tones (CRBTs), and shared the profit with Zhejiang Satellite TV and the producer. Mobile phone users nationwide, as third-party customers, contributed income to the enterprise by downloading CRBTs, and TV viewers watched the show for free.

PM6: The enterprise puts in nothing while third-party enterprises provide the costs of products and services. Direct customers can obtain these products and services at a relatively low price. For instance, the organizer of many business forums is simply responsible for convening participants, while specific venue operations and provision of services are sponsored by enterprises; forum attendees may pay at different levels: high price for VIPs, and free or low price for ordinary seats.

PM11: The enterprises produce at zero marginal cost; third-party customers pay the price, while direct customers obtain products or services free of charge. PM9, PM10 and PM11 derive from PM0, PM1 and PM2 respectively, except that the marginal cost is zero. Therefore, they apply to internet or mobile internet-based enterprises in the real economy. For instance, PM2 turned into PM11 can be found in game software vendors providing advertisements in games. Compared with advertising in conventional media, internet or the mobile internet have brought marginal costs down to practically nil.

It is necessary to point out that the PM matrix provided herein only gives an example, while its application shall not be confined to the categorization here. Any

PM matrix based on a rational division of income and expenditure in two dimensions can be used to analyze the stakeholders of sources of income and expenditure, and help design new profit models.

Case study: Selling toothpaste and paper towels, from PM0–PM2!

The consumption of daily necessities is relatively stable, predictable, and on a large scale. They are scattered throughout the store and there is a huge variety of choices. Ordinary consumers can be put off shopping for them in supermarkets.

Alice.com is a website for buying daily necessities. Once you register, and give the number, gender and age of your family members, it will figure out your need for these necessities, and send them to you periodically, free of charge.

Its success lies in the products. How does it manage to source directly from manufacturers and secure prices for less than half of their competitors by skirting all the resellers?

The truth is that Alice.com profits from advertising fees rather than the price differences of products. Many of the manufacturers are OEM suppliers of large chain department stores like Wal-Mart. When sales reach a certain scale, they're willing to launch products with their own branding. If online shopping traffic is adequate, they may even consider stopping distribution to Wal-Mart. Alice.com is merely helping these manufacturers expand their customer bases by advertising for them and charging them relevant fees. Don't forget the packaging and containers for daily necessities are big, and can also serve as a perfect media for advertising.

Under the PM0 model, the enterprise makes profit by relying on sales price differences while bearing the cost; and direct customers contribute to its income. Alice.com however, adopts PM2, under which it bears the cost, while third parties (manufacturers of daily necessities) contribute to income.

Sources of Expenditure

Zero variable cost	PM9	PM10	PM11	
Third-party partners	PM6	PM7	PM8	
Enterprise & third-party partners	PM3	PM4	PM5	
Enterprise	PM0	~~PM1~~	PM2	
	Direct customers	Direct & third-party customers	Third-party customers	**Sources of Income**

By upgrading from the conventional PM0 to the innovative PM2, Alice.com has substantially developed. In less than one year, it went from startup to selling 6000 types of products.

Case study: By turning customers into their salespeople, Medifast realized an average annual growth rate of over 40 %

Medifast sells weight-loss products. Their meals, usually eaten six times a day, every two or three hours, contain high-protein and low-carbohydrate foods. Medifast states that the safety and effectiveness of their products have all passed medical certifications, and are absolutely healthy and safe. In spite of that, their performance for the first twenty years of business remained lackluster. Around 2005, the company changed the profit model and restructured sources of income and expenditure before making any really significant progress. Revenue in 2005 was just US$ 4 million, but kept on rising ever since. In 2009, revenue increased 40 times to US$ 170 million, with an average annual growth rate of over 40 % and a return on equity of 17 %.

How did the company make it? The answer is very simple: turning customers into salespeople and letting successful weight-losers persuade overweight potential customers.

As we all know, losing weight can be quite painful. Once a person succeeds in slimming down, that sense of achievement is beyond words and they are desperate to show it off. Losing weight is bound to be hard and lonely at times for overweight people, and it is helpful to have someone offer advice based on their own experience, provide supervision and accomplish the weight loss together. Birds of a feather, flock together and overweight people also tend to as well. Medifast has built a mutually beneficial profit model for them.

Successful dieters can register as the fitness coaches of the company. Once they pass the qualification exam, they will have an ID number and a private personal web page where they can show off their success stories. If a potential overweight customer believes in the fitness coach and purchases Medifast products from the coaches' web page, they can get a commission. The company receives payments for products and the fitness coach directly gets his/her commission without making any advance purchase of product. Coaches don't need to punch the clock and Medifast saves a lot of expenses while achieving much better results.

Sources of Expenditure				
Zero variable cost	PM9	PM10	PM11	
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Enterprise	PM0	PM1	PM2	
	Direct customers	Direct & third-party customers	Third-party customers	**Sources of Income**

If a fitness coach is doing very well, he/she may be promoted to business coach or business executive, and profit from training lower-level employees. Medifast provides virtual offices for these coaches so that they can process orders, and have chats or other communications. The company has also established a health research institute composed of professional doctors and nurses to provide training and telephone consultation for these coaches on a weekly basis.

Obviously, the initial profit model of Medifast was PM0, under which the enterprise cultivated its salespeople and sales performance, paid relevant costs, and received income from direct customers. Then the profit model was upgraded to PM6, in which sales were performed by third-party partners (people who successfully lost weight). This greatly lowered the office overhead and achieved a remarkable effect.

Ever since changing the profit model, Medifast has rapidly developed. According to *Forbes*, in the five years after changing the profit model, the number of Medifast's fitness coaches reached 8000 in September 2010, with an average sales volume of $ 15,000.

2.3 Mutualism: Seeking Relevance Among Stakeholders

Putting profit models in perspective for the stakeholders is to seek the relevance among stakeholders. We need to ask the following questions: What are their interests? Who can influence them? Under what conditions will they join this business model etc.?[1] As long as all the stakeholders form a closed value loop, with their respective demands to be met by each other, costs are affordable, profits ensured and advantages exerted. This is a complete profit model cycle.

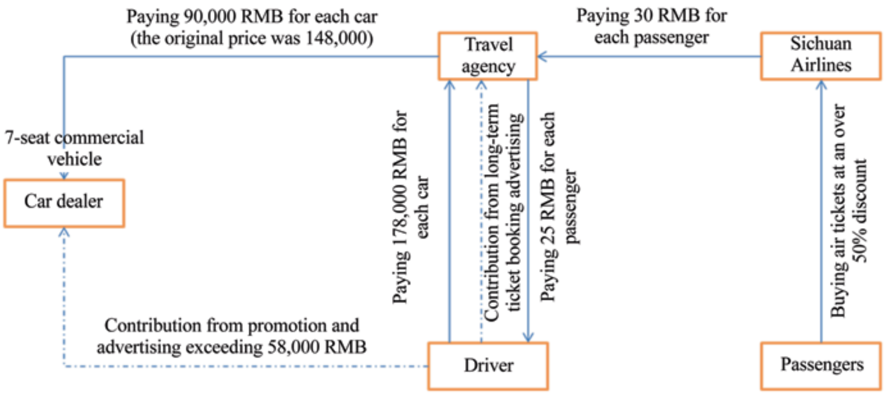
Suppose there is an airline company, a bus operator, a travel agency and a car dealer; how can they profit? The answers could be numerous. For instance, the travel agency bears the cost of tourist services, and collects tour fees and commission from its partners. The airline company sells air tickets and pays the operating cost. The bus operator earns service fees by taking passengers. Finally, the car dealer profits from buying and selling cars. Sichuan Airlines offered an amazing answer.

Case study: The "dual-cycle" profit model of Sichuan Airlines

If you take a Sichuan Airlines flight, before landing, there is an announcement, "Dear passengers, if you've purchased your tickets for Sichuan Airlines even at a discount of over 50 %, we'll provide you free shuttle services after landing." While on their special shuttle bus, you will definitely see at least three kinds of promotions: car order hotline, ticket sales hotline and free shuttle advertising. The shuttle buses do not belong to Sichuan Airlines, but to local travel agencies, and the bus drivers are independent operators.

Then how do they set the price among themselves? That is where the essence of this profit model lies. The travel agency buys a car originally worth 148,000 RMB from a car dealer for 90,000 RMB, and then resells it to the driver for 178,000 RMB. The trick lies in the fact that the travel agency has woven a mutually-dependent and value-incrementing ecological value web, as shown below.

[1] Wei et al. (2013).



It contains two value cycles here: one is the cycle of carrying passengers. The other is the cycle of buying and selling cars.

In the first cycle, passengers enjoy free rides, and for each passenger, Sichuan Airlines pays 30 RMB to the travel agency, of which 25 RMB is given to the bus driver. The driver earns 175 RMB for carrying 7 passengers (full capacity) per trip.

Each passenger can save upwards of 150 RMB in taxi fare, and get free rides and convenient services. The airline company pays 30 RMB to the travel agency but earns more profit from the air tickets at over 50 % discount. At the same time, it gets the branding effect of providing quality services, and secures a number of middle and high-end customers. The travel agency has net earnings of 5 RMB per passenger by getting 30 RMB from the airline company and paying 25 RMB to the driver. The driver earns 175 RMB in total for a single trip (25 RMB × 7 passengers), earning 25 RMB more than the 150 RMB taxi fare, and the shuttle operator gets a steady passenger volume.

Next let's take a look at the cycle of buying and selling cars. A car at an original price of 148,000 RMB is sold by the car dealer to the travel agency for a price of 90,000 RMB, and then is resold to the driver for a price of 178,000 RMB. In return, the driver gets a 5-year right to operate on the route.

The car dealer appears to suffer losses, but that's not true. The travel agency charges the car dealer 10,000 RMB per year for publicity, and gets a total of 50,000 RMB for five years. Then the driver will serve as a salesperson and distribute advertising materials for the car dealer to customers, and actively introduce the good performance of the car he/she is driving. The majority of the passengers are mid and high-end commercial accounts who have sufficient needs to buy cars. In addition, the charge for advertising on the car and hotline advertising is 100 RMB per month or 6000 RMB for five years, coupled with the publicity fee of 56,000 RMB, which is the difference of the original price of 148,000 RMB and the discounted price of 90,000 RMB. In fact, the driver's promotion and advertising on the car contributes far more than 58,000 RMB.

For the driver, the advantage is quite apparent. Getting a car for 178,000 RMB, a 5-year operation right for a travel route and steady passenger volume is much more cost-effective than buying a taxi license or directly buying a car from the dealer.

For the travel agency, the benefit is self-evident. The difference between the purchase and selling prices of each car gives it a net gain of 88,000 RMB, or 10 million RMB (US$ 1.7 million) for 120 cars. Meanwhile, the low cost of car/hotline advertising also brings in considerable income. According to statistics, during the 2008 Wenchuan earthquake period, one travel agency sold an average of 5000–10,000 air tickets per day.

The seemingly complicated but lucrative transaction structure among stakeholders makes it possible to derive diverse and highly-efficient pricing models for key enterprises. According to the income and expenditure matrix, most of the stakeholders in this profit model network are not using the conventional PM0 (except Sichuan Airlines), which shows that income comes from direct customers and costs are borne by the enterprise. The driver's income is from a third-party customer (the travel agency), and he/she bears the cost themselves, which points to PM2. The income of the car dealer comes from a direct customer (the travel agency directly buying cars) and third-party customers (invisible income from the driver's promotion and advertising), while the costs are borne by itself, which represents PM1. The income of the travel agency comes from third-party customers (Sichuan Airlines and the driver), and costs (car purchase price) are borne together by third-party partners (the car dealer provides a portion of the purchase price), which belongs to PM5.

Sources of Expenditure

Zero variable cost	PM9	PM10	PM11
Third-party partners	PM6	PM7	PM8
Enterprise & third-party partners	PM3	PM4	PM5
Enterprise	PM0	PM1	PM2
	Direct customers	Direct & third-party customers	Third-party customers

Sources of Income

The travel agency plays a leading role in this profit model, and achieves reasonable pricing while ensuring the respective interests of related parties by dividing up and reorganizing the stakeholders, and tactfully designed a cyclical and sustainable ecological value web.

We have introduced in detail the theoretical framework of the PM diagram and the related cases. Next, several cases will be used to strengthen your understanding and application of it. When you are designing an actual profit model, the PM diagram can be used for analysis and restructuring, and weave a web for relevant stakeholders.

2.4 The Issue is not Free of Charge—It is Charging

In recent years, with the rise of the Internet and the mobile internet, the free of charge model has been well received among many entrepreneurs and investors. For a period of time, the free of charge model became the most popular in the Internet world.

Indeed, with the popularization of the internet, free of charge has become the most common profit model among most internet enterprises. Up to now, three free of charge and charging wars have broken out in the domestic internet industry. The first one was between 263.com's paid mailbox service and NetEase's free mailbox service. The second war was between the free trading practice of Taobao and the service fee collected by eBay in the C2C e-commerce industry. The third was between 360's free antivirus software and paid antivirus software. And every time the free of charge side prevailed. Hal R. Varian, chief economist with Google and professor at the University of California at Berkeley, once said that the prevalence of the free of charge strategy is the direct consequence of the boom in low-cost digital media enterprises. The free profit model, as shown in our PM diagram, points to the column of PM2 and PM5.

But we must keep in mind that the free-of-charge profit model cannot solve all the problems when enterprises or products are dealing with the impact of the Internet. It will only lead to malicious price wars in a disguised form.

Enterprises live on profit, so the question is not simply about free, but about how to collect fees from free and make a profit. This is the fundamental issue entrepreneurs need to deal with.

For entrepreneurs, the ultimate purpose is not to give it away, but to make money. For consumers, if the products or services consumed are free, that means that the consumer themselves have become the product or service for sale.

The key to the problem lies in how to weave a web among various stakeholders, where free of charge is just a stable and pragmatic approach adopted to connect with certain types of stakeholders like direct consumers.

The two cases below, from the enormous health care industry, may bring some inspiration to entrepreneurs. With an aging population and a rising level of consumption in China, a number of outstanding enterprises will emerge in the health care industry. Although the two cases talk about foreign enterprises, the management of medical records and verification of prescriptions mentioned may be imitated by Chinese enterprises in the future. Their design of profit models in this context proves useful.

Case study: How to make money from keeping medical records free of charge.

PatientsLikeMe is a membership-based social networking site specifically for patients. Once you register as a member, you can fill in your own medical record including medical history, diagnosis, medications, treatments, etc. The information can be so detailed as to include self-perception, start time and end time of medication, dosage, frequency, operations, etc. With guidance on the site, the filling-in process is quite simple. Members can also see other patients with the same disease, and communicate with each other about their medical records.

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