

Social Media Business Model Analysis - Case Tencent, Facebook, and Myspace

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ABSTRACT

The term of social media is becoming increasingly popular presently, the amount of social media users is growing dramatically, and the monetization of social media has been discussed in publications but not in details. Nowadays, the most frequently used approach to make money for social media is online advertising. However, the successful company like Tencent proves other potentials of monetization. Because the business model is critical to make profit for a company, a company's financial performance could be better achieved when it has a good business model. This study will focus on business models analysis of social media companies.

The study is conducted based on three case companies, Tencent, Facebook, and Myspace. The objectives are to build the business model framework for social media services analysis, apply this framework into case companies to examine their business models and find out the best performed one, and finally to improve other two less well-performed companies' business models. Case study, observations, focus group are main methods for collecting data and empirical analysis.

Based on literature reviews of social media and business models, this paper formulates a new business model framework, it provides a structure for empirical case analysis. The framework is modified mainly based on Osterwalder's (2002) e-business model ontology, and other three attributes have also been added into. New framework components include customer relationship, infrastructure management, product innovation, market considerations, technologies, regulations, and financial aspects.

Through empirical studies on business models, Tencent emphasizes to focus on users' personalization and provides integrated solutions, it achieves high financial return mostly through virtual goods channel. Facebook offers young people a specific social networking platform, enable the communication and maintain people's relationships in a way of content sharing, it collects revenues mainly from online ads. Myspace gives users high personalized experiences through social entertaining platform, and also generate revenues from online ads. Tencent has been found to be the most successful in its business model and financial performance among three companies. To achieve better performance for other two companies, Facebook is suggested to improve its value proposition and provide more social media services based on young people's needs, to include new mechanisms that can maintain customer relationship, to have new revenue channels like increase virtual item sales and bind with telecommunication services. For Myspace, it is critical to enhance main music solution service in order to keep its competitive advantage. Real name registration policy should be applied to enhance users' strength of ties and environment safety. Customer relationship is the most important issue due to significant amount of lost users. The study recommends it to develop more features that keep users active on the site, to give them caring service, and to listen to their voices. Finally, Myspace can also try to add new revenue streams besides traditional ads approach.

Keywords: social media, business model, Tencent, Facebook, Myspace, business model framework, business model improvement

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1. Introduction

The introduction part shows the reasons of starting this research, illustrates the research objectives and research questions. Also, we will see the paper structure and research methodology in this chapter.

1.1 Motivation of Research

During recent years, millions of internet users have visited social media websites all over the world. No matter male, female, well-educated people, non-educated people, children, elders, or any others, they are using and talking about social media. Because they enjoy the advantages of free services of communication, content sharing, meeting new people, making friends, and retaining relationship with others through the social media services.

Social media services assist in many aspects of people's life from entertainment, communication, work, study, etc. In the recent devastating earthquake of Japan happened in March 2011, social media has played a vital role in reconnecting victims. With the earthquake cutting off the electricity supplies and breaking down certain telecommunication services, internet access remains working properly. In the message sent from the US embassy in Tokyo to US citizens in Japan, the embassy encouraged people "to continue your efforts to be in contact with your loved ones using social media such as Facebook, Myspace, Twitter, and so on that your loved ones may use"¹. In fact, the simplest method that people in Japan have turned to for connecting with loved ones throughout the emergency is posting to their social media accounts. It is said that the number of tweets (Twitter messages) from Tokyo has 1200 per minute less than one hour after the quake according to Tweet-o-Meter. Meanwhile, Facebook also showed related updates of Japan's activity were high too.

The most of social media sites nowadays like Facebook, Youtube, Twitter, Bebo, Myspace, LinkedIn, Orkut, etc are free of charge to registration. Presently, those services features are improving, and the amount of users is also growing dramatically. Nevertheless, because of the free services, the sites seem largely unable to generate satisfying revenue and profits commensurate with their popularity (Kim et al., 2010).

Monetization of social media has recently been discussed somewhat in publications but not in details. The most frequently used approach to make money for social media is online

¹ O'Dell, J. (2011). Online. Available at: <http://mashable.com/2011/01/17/facebook-ad-revenue-hit-1-86b-for-2010>, [1.3.2011].

advertising. Nonetheless, we believe that the potential of channels of making money has not been fully realized yet. On the other hand, a good business model is recognized as a crucial success factor for the company. The core of business model is to make money. Therefore, we believe that when social media sites find out the suitable business model, the monetization could be better realized and financial performance will be improved.

1.2 Objectives and Research problems

Tencent, Facebook, and Myspace are all social media sites, they provide different services and target different user groups. Also, they have distinct business models, and their financial performances vary a lot. One of our study objectives is to study these companies, and find out the best performed one.

To find out why a company is more successful than others, again because the goal of business model is to make money for the company, we should focus on its business model first. Therefore, we should examine the business models of three case companies for discovering the reasons of success and limitation. After finding out the most successful company, we will suggest to improve the less-well performed ones' business models. Meanwhile, we think that the less-well performed companies can get insights and try to learn from the most successful one.

Before studying their business models, we need a specific business model framework for social media business analysis. There are already some academic frameworks for business model analysis, but there is no such a framework for social media business. The most related framework is the e-business model ontology studied by Osterwalder (2002). We will do the modification based on Osterwalder's framework and create a new one that is specific to social media business analysis.

The study objectives can be summarized in three ones. The first is to create a business model framework for social media business analysis based on Osterwalder's e-business model ontology and other related literatures. The second is to examine Tencent, Facebook and Myspace business models, and determine which the most successful one is. The third is to find out what could be learnt from the most successful business model, and then to develop potential improvements to the less-well performed business models.

1.3 Thesis Structure

The thesis consists of six chapters. The first chapter gives the introduction of the research including the motivation and objectives of this study. It also tells about the paper structure and the overview to the methods used in this study.

Chapter two is the literature reviews of social media services. In this chapter, we will learn the basic of social media, the relationship between social media and the term Web 2.0, the categorization of different social media tools, relative usages in our life, possible network effects brought by social media, social media in marketing area utilization, the monetization problem, and finally the challenges and issues they are facing currently. This chapter not only reviews the knowledge in publications, but also helps to build business model framework in chapter 3 and supports to develop case companies' business models in chapter 5.4.

Chapter three is mainly about the business model framework. It reviews the definitions of business model and shows different views of what components are in the business model. Based on those existing business model components frameworks, a new framework will be created in order to analyze the business models of social media.

Research framework and methodology are illustrated in chapter four. A three-level research framework is adapted to our study in three levels. Qualitative method of case study, participant observation, and focus group are main methods for this research.

Chapter five is the empirical study focusing on three case companies Tencent, Facebook, and Myspace. In the beginning, there are case companies background introduction, and then comes the main part of empirical study done following by three-level research framework. First of all, their business models are analyzed and compared based on the framework modified in chapter 3.3. Second, company performances are measured and compared in four aspects. The most successful company will be identified at this phase. And third, we give the recommendations of business model development to the less well-performed case companies. Related risks concern to each innovation will be pointed out as well.

The last chapter concludes the whole study. It validates the applicability of modified business model framework and shows that it is both acceptable for case companies and usable in whole social media area. Then it summarized the key findings of the study and the theoretical and managerial contributions. At last, the chapter mentions limitations and possible further research.

1.4 Study Methods

The study is based on qualitative approach. The literature reviews have been conducted on chapter 2 (social media) and chapter 3 (business model). Case analysis is the main method in the empirical study part. The data collected in empirical part come from the researcher's observations and the focus group approach. In the case analysis part, the researcher observes the information through the case company's websites, publications, releases, news, books, public materials, etc. They are used in the companies' business models analysis and performance measurement part. In the business model innovation part, focus group is used. A focus group is basically a way to reach potential users for feedbacks and comments. It is used in planning, marketing, or evaluation, either to improve specific product or service, more globally, during the development of strategic plans.² The purpose of using focus group method in this study is to collect customers' opinions to improve case companies' business models.

The focus group is conducted in physical arrangement of group meeting. The researcher acts as the moderator to lead the group discussion, raise questions, encourage members to contribute, and keep discussion smoothly. I selected 8 participants, which are all the users of social media services, more specifically, case companies' active users. Moderator posts open-ended questions to participants to get the different opinions of social media services and case companies' services. The collected information provides the supports and suggestions to case companies' business model improvement. More details about using focus group will be discussed in chapter 4.2.

²Online. Available at: <http://www.cse.lehigh.edu/~glennb/mm/FocusGroups.htm>, [10.12.2010].

2. Literature Review of Social Media

This chapter is the literature review on social media services. It reviews the definitions of social media by different researchers and gives us the understanding from different point of views. It also illustrates the connections and differences between social media and Web 2.0. Furthermore, this chapter gives a big picture about how to incorporate social media tools in marketing business plan. At last, the issues and challenges will be discussed, and social media monetization approaches will be introduced. The knowledge and insights from literature review provide us a fundamental for later empirical study.

2.1 Definitions of Social Media

Social refers to the instinctual needs we human have to connect with other humans. We have a need to be around and included in groups of similar like-minded people with whom we can feel at home and comfortable sharing our thoughts, ideas, and experience. *Media* refers to the tool we use with which we make those connections with other humans. Whether they are drums, bells, the written word, the telegraph, the telephone, radio, television, e-mail, websites, photographs, audio, video, mobile phones, or text messaging, media are the technologies we use to make those connections. (Safko et al. 2009)

When talk about the terminology social media, Safko et al. (2009) consider it is a set of tools and technology that allow people connect with others and build relationships more efficiently. There in fact exist various definitions for it. For most straightforward saying, it is the medium for social activities. However, in this section, various definitions will be reviewed.

Kim et al. (2009) view social media from the perspective of three parties - people, community, and user-created content (UCC). They define social media sites as those websites which enable *people* to form online *communities* and share *UCC*. The people could be the individual users of the internet or particular organization. The community could be a network of friends, acquaintances, or some interest group. The UCC could be any photos, videos, website bookmarks, user profiles, activity updates, texts, etc.

Lietsala et al. (2008) think social media is a term for describing web service including contents sharing among users in sites. They also argue it is an umbrella term which users can find various practices to online contents and the ones involved in them. Meanwhile, they emphasize social media from the nature of the content sharing and social production and using, not the technology side.

Social media also is considered as an information channel by Lehtimäki et al. (2009), it is under the environment of internet and web 2.0 tools are applications for using this channel. With the combination of community, UGC, and web 2.0 tools, it brings the network effects, many-to-many communication and collective intelligence.

Furthermore, Kaplan and Haenlein (2009) define that “social media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content (UGC)”.

Finally, Mayfield (2008) summarizes five main characteristics of social media: (1) Participation - it encourages people to contribute freely, to create, and share their own contents. (2) Openness - most social media services are open to participation. It encourages people to join, select, use, and share contents. There are few barriers for accessing and making use of it. (3) Conversation - it is more than just transfer the information in a way of “broadcast” as traditional media, but many-to-many parties’ communication. (4) Community - it allows the people who share same interests, such as movie fans, political topic, IT experts, and classmates, to form a group quickly. (5) Connectedness - there usually are the links to other contents, reach to other networks. It is possible to have a profile page to reach to other people, contents, platform, or applications.

2.2 Social Media and Web 2.0

Both Lehtimäki et al. (2009) and Kaplan et al. (2009) mention the term “Web 2.0” when defining social media. Web 2.0 is considered as the platform of social media according to their concepts (Figure 1). However “Web 2.0” and “social media” have been loosely and widely used nowadays and even interchangeable in some literatures, while others argue they should be differentiated.

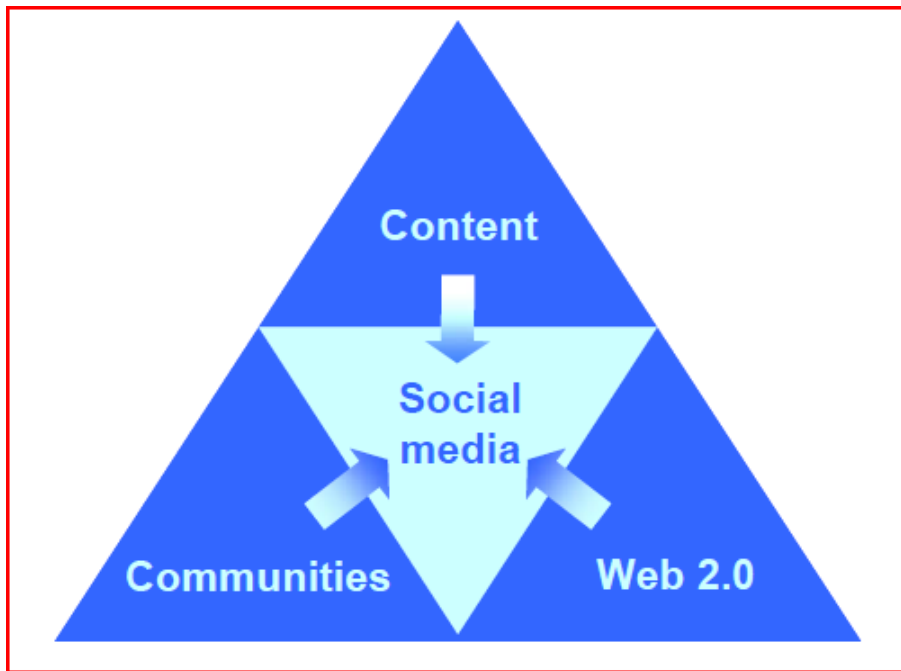


Figure 1 Core concepts of social media (Kangas et al., 2007)

Lehtimäki et al. (2009) indicate that Web 2.0 means the technologies that enable users to communicate, create, and organize content and share it with each other via communities, social networks, and virtual worlds. Kangas et al. (2007) simply refer it as a set of technologies that enable easy production and distribution of social media on the web.

Constantinides et al. (2007) mention that the term “Web 2.0” and “social media” are often used as interchangeable, however, it sometimes is associated mainly with online applications while social media with social aspects of Web 2.0 applications. They discuss Web 2.0 as an umbrella term of the web applications which it is a collection of open-source, interactive and user controlled online applications expanding the experiences, knowledge and market power of the users as participants in business and social processes. Web 2.0 applications support the creation of informal users’ networks facilitating the flow of ideas and knowledge by allowing the efficient generation, dissemination, sharing and editing/ refining of informational content.

Lietsala et al. (2008) suggests the term Web 2.0 should not be considered the same with social media, since Web 2.0 is a looser concept in reference to internet services and technologies which do not necessarily include media aspect or any social activity.

Tim O’Reilly (2005), who invented this concept in the brainstorming session of a conference, argues Web 2.0 has following main characteristics:

Web as platform. The web is treated as a platform for providing all kinds of services and features.

Embrace the power of the web to harness collective intelligence. For example, when users add new content in hyperlinks, they will be connected to other resources and discover new network by those links. As synapses in the brain, the associations become stronger through repetition or intensity, the web connections grows organically as the output of collective activities of all web users.

Database management is the core competency of Web 2.0. Nowadays each significant internet application has supported by a specialized database, such as Google's web crawl, Yahoo's directory, and Amazon's database of products. The one will get market control and financial returns when it can control over the database in internet area.

Servitization of software product. The characteristic of internet era software is that it should be delivered as a service, not as a product. And this leads to some fundamental changes in business models of the company. Operations must turn into the core competency in a company, and product development must be matched by the expertise in daily operations. Because the shift from software as artifact to software as service is fundamental, the software will cease to perform unless it is maintained on a daily basis.

Lightweight programming models. As web services become more and more popular, large amount of companies will jump the fray with complex web services stack designed to create highly reliable programming environments for distributed applications. However, the service like RSS is most welcomed web service due to its simplicity, and other complex company web services have not been accepted widely. Thus the simplicity is requested.

Software above the level of single device. The other feature of Web 2.0 is that it is no longer limited to the PC platform. For example iTunes connects PC platform with portable device iPod.

Rich user experiences. Web 2.0 enables various applications and features and provides rich user experience. For example, Gmail has provided some innovations in its email function. It combines the strengths of the web with user interfaces that approach PC interfaces, and IM has been integrated into email function.

Nonetheless, regarding to the term of social media or Web 2.0, they are actually interchangeable in many literatures when talking about their tools, technologies and relative practical applications. In next chapter when we categorize social media types, we take the identical view of social media categorization with Web 2.0 categorization.

2.3 Classification of Social Media

Social media has different forms of production. According to Constantinides and Fountain (2008) and Lehtimäki et al. (2009), social media could be divided into five main categorizations based on their application types: *Blogs and podcasts, social networks, communities, content aggregators, virtual worlds.* (Table 1)

Table 1 Five categories of social media and their related tools (Lehtimäki et al., 2009)

CATEGORY	TOOL	FOCUS	EXAMPLES
1. BLOGS AND PODCASTS	Traditional blogs, vlogs, podcasts, videocasts	Informing of current events and novelties	Blogs by Dell, podcasts from interviews
2. SOCIAL NETWORKS	Social networks	Content sharing, maintaining relationships, networking	MySpace, Facebook, IRC-Gallery, LinkedIn, ITToolbox
3. COMMUNITIES	<u>Online communities</u> Member-initiated	Members' mutual interests and reciprocal interaction	Communities formed around similar interests e.g. Aukea.net (photography)
	Organization-sponsored	Business transactions, brand building, interaction among organization and customers, co-creation of products	Communities by Mozilla, Fiscars, Dell and Salesforce.com
	Third-party established	Enable communication and transactions between buyers and sellers	eBay
	<u>Content communities</u> Content sharing sites, wikis	Content sharing	YouTube, Flickr, Picasa, Pikeo, dotPhoto, GoogleVideo, Wikipedia
	<u>Forums/bulletin boards</u>	Discussion of mutual interests	B2Bexchanges, Alibaba, Zentrada, Go4worldbusiness
4. CONTENT AGGREGATORS	RSS, widgets, bookmarks, tagging services etc.	Categorizing and customization of web content	Delicious, Yahoo! Widgets
5. VIRTUAL WORLDS	Virtual worlds	Substitute for the real world	Second Life, World of Warcraft, Kaneva, Universe, Habbo

Kaplan and Haenlein (2009) create a classification scheme in two dimensions with a systematic manner based on theories in field of media research and social processes, which are the two key components of social media (Table 2). Concerning to the media component of vertical classification, media will differ in the degree of “social presence” and “media richness”. The higher the social presence, the larger social influence has on each communicator’s behavior, and social presence will be influenced by medium intimacy and immediacy. Meanwhile, the better quality and amount of information transfer, the more effective the media is. Regarding to horizontal dimension of classification, social processes are discussed by self-presentation and self-disclosure concepts. Self-presentation indicates the desire to control impressions on other people, while self-disclosure is highly occurs during conversation between strangers.

Table 2 Classification by social presence/media richness and self-presentation/self-disclosure (Kaplan and Haenlein, 2009)

		Social presence/ Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

They take the example of blogs, from the self-presentation perspective, blogs are usually completely created by the users with their own minds, motivations and emotions, thus highly represent themselves. Since blogs are texted content based, it usually only gives simple text comments conversation, thus allows low level social presence.

Two sorts of classification above contain the most commonly used social media applications although certain types of it are named differently. For instance, Wikipedia is named as collaborative project by Kaplan et al., which enables to join and simultaneously create content by many users. However it can be categorized in to content aggregators by Lehtimäki et al. as well. By the definition of Lehtimäki et al. (2009), content aggregators are applications allow people to customize the content as they wish to. In next subsections, we will illustrate most popular social media applications as *blogs*, *social network sites*, *communities*, *content aggregators*, *virtual worlds*.

Blog is the first type of social media. According to McKinsey Global Survey (2007), over 30% companies are using or planning to use blogs in their business. Generally speaking, blogs are online journals, they are usually text-based, but may also include some photos or video casts. Blogs enable people to write in personal tone, and people are easy to add links to other websites as references to articles. Reader can comments on each post, and blogs can be subscribed via RSS often.

Mayfield (2008) put blogs into different types by personal, political, business, almost media, and mainstream media. People keep updating their daily lives usually in personal blogs, they are usually public accessible. In US and UK, some blogs are written about politics. They tend to comment on the news, give analysis to those issues they feel have been misrepresented and glossed over by mainstream media. Business blogs allow companies to communicate more easily with a less formal style than traditional newsletters, brochures and press releases. Almost media blogs are taking advertising and employing bloggers for media businesses in their own right. Their purpose is to build communities of readers in new subject areas, such as businesspundit.com. Finally, many national newspapers, such as BBC, now have mainstream media blogs for providing editors useful insights into news collecting and reporting.

Another big sub-type of blogs is micro-blog which emerges recent years. It differentiates from traditional blog by only allowing small size contents creation. They could be a simple sentence, a picture or a video, but the characters or file sizes are limited. Twitter.com is the best example.

Social networking sites are structures consisting of members (represented as nodes on a network graph) that share one or more specific types of special interests, such as values, visions, ideas, financial, exchange, friends, kinship, dislike, conflict, trade, web links, and so forth (represented as links on a network graph). (Westland, 2009)

Online social networks are built on the concept of tradition networks, but without relying on the face-to-face initial. Boyd and Ellison (2007) clearly define social network sites as web-based services that allow people: *firstly, construct a public or semi-public profile within a bounded system; secondly, articulate a list of other users with whom they share a connection; and thirdly, view and traverse their list of connections and those made by others within the system.*

Most social network sites provide a mechanism for users to leave messages on friends' pages. This feature typically involves leaving "comments", although sites may name different labels for this feature. Meanwhile, social network sites vary greatly in their features and user base. Some emphasize in photo sharing or video sharing capabilities; others have built-in blogging and instant messaging service. Some social network sites target people from specific geographical regions or linguistic groups, some others are designed with specific ethnic, religious, sexual orientation, political, or other identity-driven categories in mind. (Boyd et al., 2007) Table 3 compares the characteristics of four popular social networks.

Table 3 Comparison of popular social networks (Miltiadis et al., 2009)

	Main audience	End User Feature	General Features
MySpace	Teens, young people	Blog, video, photo, address book, bulletin calendar, email	Browse profiles, search, and invite new people, film/comedy/music forum, favorites, videos, classifieds, and events.
Orkut	Teens, young people	Photo, video, bookmarks, scrapbook, profile, testimonials	Friends (rank, best, good, acquaintances), search, communities, Orkut media, news
LinkedIn	Business professionals	Connections, network data, email list, recommendations	People search, jobs, hiring, categorized service providers recommendations, ask a question from professionals
Facebook	Students	Profile, friend finder, photos, myShares, notes, events, inbox	Browse profiles, search, invite new people

The purpose of social network sites vary as well, it may help to connect to classmates, establish friendship, find business partners, look for same interest buddies, or romantic relationships. For example, Classmates.com is a typical social network site designed for keeping contact with friends and acquaintances, LinkedIn is more business oriented which used to seek professional or business associates, Myspace is focusing on music service, and Facebook is much more used in peer-relationship and welcomed among college students.

However, not all websites started as a social network site, some may focus on instant messaging service (for example, Tencent), forum discussion or others, and implement social network features gradually.

According to the report of Global Faces and Networked Places in March 2009, there are two-thirds of world's internet population visit a social network sites and the sector now accounts for 10% of all internet time (Rubin, 2009). The statistics from Wikipedia shows that the largest social network site is Facebook which owns 500 million registered users. It is still growing at an unprecedented the rate of 250,000 new users per day (Powell, 2009). Social network sites are of such high popularity, specifically among younger internet users, that the term "Facebook addict" has been included in the Urban Dictionary, a collaborative project focused on developing a slang dictionary for English language (Kaplan et al., 2009).

According to Lehtimäki et al. (2009), **communities** can be divided into *online community*, *content community*, and *forums/ bulletin board*:

Lehtimäki et al. (2009) argue online communities as three types. Firstly, member-initiated online communities focus on users' mutual interests and interactions, people share the information and content, and this sort of community emphasizes members' individuality, such as Aukea.net; secondly, organization-sponsored communities offer an environment for their business activities, help to build their brands and interactions happen among the organization and customers, for instance Salesforce.com; thirdly, third-party established online communities, such as eBay, enable communication and transactions buyers and sellers since it provides a safe environment for business transactions.

Content communities sharing many types of content, including videos (e.g., YouTube), photos (e.g., Flickr), power point slide (e.g., Slideshare), knowledge content (Wikipedia), and so on. Kaplan et al. (2009) argue that content communities bear the risk of against intellectual property and copyright laws. It is hard to avoid popular videos, like most recent comedy dramas, being uploaded only hours after they have been aired on TV. However, with the hottest and timely updated video, it can attract more users to the community. And the high popularity of content communities make them attractive contact channel for many firms. Sharing resources can indeed be productive, especially for large corporations. However, if a relatively small company operating in extremely competitive markets to decides to share its expertise, it could very easily lose its competitive edge to larger players in the industry (Lehtimäki et al., 2009).

Forums or bulletin boards are the platforms for online discussions which people can have conversations to different posted topics or messages. They usually exist around specific topics and interests, for example music or digital products. Each topic discussion can be lively debate, suggestion seeking, ideas sharing, or simply chatting. A discussion is called a thread, and many different threads can be active existed simultaneously.

A **content aggregator** is a tool used for gathering web contents from different resources. According to Lehtimäki's categorization, it includes *RSS feeds*, *social bookmarking sites*, other *tagging services and widgets*.

RSS stands for "really simple syndication". It allows you to monitor the latest news from many different websites all in one place, without having to visit each web page to check if there is any update today. Readers can subscribe to RSS feeds to get updated information timely. RSS feeds are usually used to report news headlines and blog updates, also employed in press and stock exchange, and new products publishing. (Lehtimäki et al., 2009)

Social bookmarking sites help to organize and gather those interested bookmarks of online contents. It does not share the content itself, but bookmarks their links or reference.

A widget is a small application that can be easily installed in the webpage, computer desktop, blog, or software. It provides various services like clock, weather, notes, dictionary, or news bulletin and so on, for example, dashboard of Apple Macintosh system.

Virtual worlds provide a platform that replicates a three-dimensional environment in which users can appear in the form of personalized avatars and interact with each other as they would in real life (Kaplan et al., 2009). Virtual worlds can be viewed as substitutes for the real world. An its emphasis is mostly on the experience, enjoyment, excitement and only secondly on, for example, socializing, content publishing or network building (Lietsala et al., 2008).

Kaplan et al. (2009) suggest considering it in two forms. The first, virtual game world needs users to behave under the rules in context of massively multiplayer online role-playing game. According to Wikipedia, massively multiplayer online role-playing games commonly indicate a virtual world, with real world rules and real-time actions, and communication. Players are able to create a character to travel between buildings, towns, and even worlds to carry out

business or activities. Its communication usually focuses on texts³. The second form defined by Kaplan, virtual social worlds, allows inhabitants to choose their behavior more freely and experience the virtual life similar to their real life. For example, Second Life, the most famous virtual social world, besides doing everything that is possible in real life (speaking with other avatars, taking a walk, enjoying virtual sunshine), it also allows users to create the content such as designing virtual clothing and furniture items, and sell those for virtual currency.

Not only for entertainment purpose, on the other hand, business activities are also growing in virtual world. There are many companies now incorporating virtual worlds as a new way of advertising for commercialization. Apple uses this method to build an online store with Second Life, it provides a platform that allows users to browse its latest products. This new way of advertising under the virtual worlds firstly gives company chance for promoting the products, secondly it reduces cost and time constraints that could come into play in real world.

2.4 Use of Social Media

Social media tools are used for various purposes. You may need social networking sites for building and maintaining the peer relationships, instant messengers for communication, online forum for expressing your opinions, etc. Kim et al. (2009) summarize the usage of social media into three types: *individuals, government, and business*.

For individual users, first of all, social media creates *a new way of communication* beyond the traditional way of email, phone call, and text messaging. Secondly, with the UCCs made in social media sites, it provides a *new source of collective knowledge*, and user can seek answers to specific questions from those one-on-one or one-to-many dialogs within his network. Users also have opportunities to *join online communities* or different groups based on any interest or hobby to interact with others, keep up with the world, and seek advice between each other. On the other hand, more and more people view the social media as a *new entertainment*. They use it for entertainment purpose and enjoying the life, spend the idle time, and recharge themselves after the work. Furthermore, it shows that a large number of users have a strong desire for *self-expression and self-satisfaction*. They may post UCCs or update status, reply others, post photos and record their daily lives and thoughts to derive a sense of self-assurance and belonging from such self-expression. In addition, with the huge

³ Online. Available at: http://en.wikipedia.org/wiki/Virtual_world, [20.12.2010]

database since each site has gathered millions of members' information, it can be used as *online world wide directories of people*.

For government, they could easily reach a large number of people to disseminate information and receive feedback for *governance* purpose. *Law enforcement* agencies also use social websites, and they may search the profiles, updates and UCCs to collect required incriminating evidence of suspects. They can also post surveillance photos and related information for seeking help from other users. Moreover, there are more and more *election campaigns* utilize social media as their campaign strategies. Howard Dean and Barack Obama for US president election campaign in 2004 and 2008 used blogs and social websites to convey messages effectively to the public. And also, UCCs on social media are considered to be used in the future *legal proceedings*.

For business purpose, social media provides rich features for online networking and UCCs, which is essential for a *company intranet*. They could conduct everyday operations on the site. Meanwhile, business can also benefit from *external networks* their employees maintain on the open social webs. For example, they can use external social web for recruitment and information gathering. And the most significant utilization is in *marketing*. There are increasingly businesses now post their product release announcement, photos to such social media sites like YouTube, Facebook, Flickr for products promotion. They also monitor the comments replied by potential customers about their products. And about using social media as marketing tool, it will be discussed in detail latter section.

2.5 Networks Effects

In online world, traffic is a favorite thing. Positive network effects create the social media network platforms and contribute to the online hyper growth of networks such as Google, Wikipedia, Flickr, and Craigslist and so on (Shuen, 2008). Positive network effects increase the value of a product or a system when more people use it. For the simplest example of telephone service, more people would like to make calls, more valuable the telecommunication system has.

Online social media networks generate several types of positive network effects, including direct, indirect, cross-network, and social network effects (Shuen, 2008):

Direct network effects. The product value increases when the amount of users increases. Each new user improves the value of network and will enlarge the willingness of other users to pay for network service.

Indirect network effects. More usage of products spawns the production of increasingly valuable complementary goods, resulting in added value to the original product. For instance, there are some direct network effects are related with Windows or file compatibility, but indirect network effects that arise from the increased quality and availability of complementary applications software are probably more important.

Cross-network effects (two-side network). A rise in usage by one set of customers can increase the value of its complementary products to another set of customers, and vice versa. Hardware or software platforms, marketplaces, and matching services have this kind of network effect.

Social network effects. A user is influenced directly by the decisions of other customers in the instant messaging or a social networking site, for example, those who are connected to via an underlying social or business network. The extent and density of clustering in this network, as well as information access becomes significant in technology adoption and pricing choices.

2.6 Social Media as a Marketing Tool

Reports on social media trends indicate increased use rate among the population. According to Constantinides et al. (2008), there are many studies suggest people have already adopted online social media as an integral part of their life, over 90% of US teens go to a social network site at least once a week, and besides young people there are more than 50% professionals participate it as well. Bizreport.com said that there are over 78% of respondents to a recent survey conducted by Valued Opinions said they had shared their thoughts on a product or service via a social media site. As the use of social media increases, its potential to transform social marketing promotion may increase proportionately.

Thackeray et al. (2008) argue two reasons why Web 2.0 social media holds such potentials. Firstly, Web 2.0 applications directly engage consumers in creative process by both producing and distributing information through collaborative writing, content sharing, social networking, social bookmarking, and syndication. Secondly, it also enhances the power of viral marketing, which also known as word-of mouth or buzz marketing for facilitating and encouraging

people to pass along a marketing message or share information about a product, by increasing the speed at which consumers share experiences and ideas with larger audiences.

Shift in consumer attitudes

Social media is actually becoming a new source of consumer creativity, influence and empowerment. Constantinides et al. (2008) study the consequences of Web 2.0 phenomenon on the marketing practice, and they argue it brings a visible shift in consumer attitudes:

- There are growing needs for online service, customer interaction with both marketers and peer communities.
- The value perceptions are based on the feeling of achievement through personal gratification instead of traditional customer value approach.
- Consumer behavior is increasingly influenced by peer opinions.

In result, the customer decision making process regarding to their new buying attitudes has also turn into more complex one (Figure 2). Besides the traditional marketing Mix (A) and uncontrollable personal factors (B), two more influencers have to be considered in digital marketing environment: one is online controllable experiences given by websites (C), such as sites' usability, interactivity and so on, and another is online uncontrollable marketing factors (D), including weblogs writing, podcasts, forums, which created by customers themselves, are not controlled by marketers.

As the emerging of Web 2.0 technology becomes mature, the influencing consumer behavior by means of traditional marketing media and practices becomes less effective. Consumer preferences and experiences about products are increasingly based on inputs provided by element C and D. According to Constantinides et al. (2008), consumers do not trust traditional marketers as they used to, there are 70% people tune out ads much more and show a negative attitude to marketing than years ago. Consumers nowadays prefer to read peers online generated reviews which they consider more reliable before they decide which product to choose, and 80% of those consumers admit those reviews affect their buying decisions. After using the product, they can post the feedback and experience reviews online in the form of Weblogs, social networks, podcasts, forums (D), which influences more new consumers. And this will lead to customer advocacy which is the ways to enhance user experience and meet their informational needs, and it will be the key element to success for marketers.

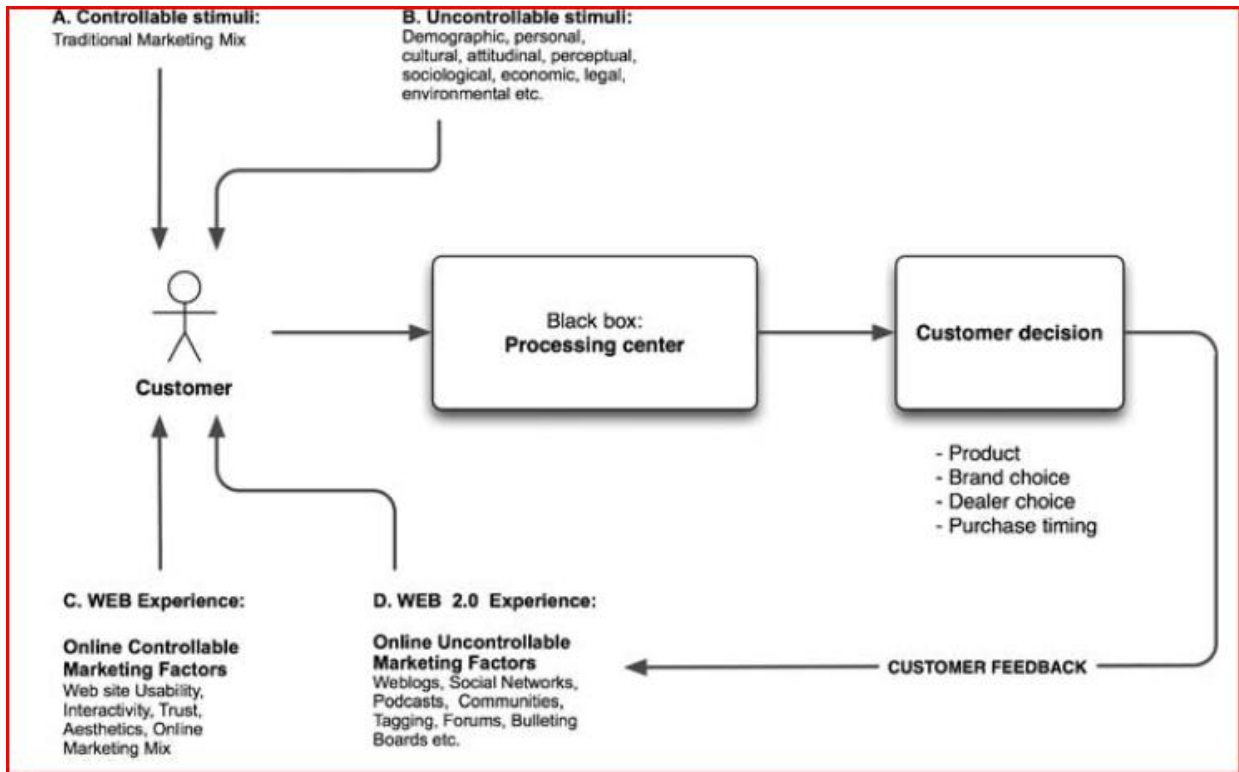


Figure 2 Factors influencing customer buying process in Web 2.0 environment (Constantinides et al., 2008)

Incorporating social media into marketing plans

Because the social media’s potential effectiveness, marketers would like to incorporate it into their marketing strategies. For companies, there are five ways to capitalize on social media utilization. (Constantinides et al., 2008)

First, understand how social media function and include them in PR arsenal. Target potential market, let PR reach the online customers and pass products messages to them within the market, which will save costs compared with traditional media. Second, engage social media by actively listen to customers’ voice. People like to exchange their expectation, experiences and opinions about new and used products or services in blogs, podcasts, forums or online communities. All this information is high quality and low cost market resource for the company. Third, utilize social media as direct and personalized one-to-one marketing tools. Companies can provide customers more interaction opportunities. For many brick and mortar companies such as Nike or Disney, they have already integrated social media sites and encouraged social networking and community functions for their direct marketing strategy. Fourth, launch corporate blogs and podcasts. Company itself could actively use its social media tools to encourage customers’ feedback and increase interactions with customers. Fifth,

offer customized or personalized products. Some companies allow customers to create and modify their own preferred products online. It might be the printing pictures on t-shirts or self-designed stamps from their photos (US postal service), etc.

Meanwhile, Thackeray et al. (2008) mention three key questions are required to be considered before launching social media promotional strategy. To understand priority population preference first is important. Promotion practitioners must be able to know who use the social media, and segment their priority populations, to identify and know the degree to which these populations use and access social media. They should be priority population-focused, consider about their media habit or behaviors. Cost-benefit analysis should also be conducted then. Costs associated with the media versus the benefits have to be measured. Corporate need to know can they afford the financial costs associated with social media approach. And the company has to consider that is it consistent with corporate goals and objectives? It requires to figure out does social media implementation enhance corporate strategy and make life easier or does it just make strategy becomes more difficult to implement. Will it really meet the priority population needs and reduce costs or barriers for them.

2.7 Social media issues and challenges

Social websites as we know them today have only several years' history. The growth of some of the sites, in terms of the number of users, the level of daily traffic, and the amount of UCCs stored, has been absolutely incredible. Nevertheless, various unforeseen issues and challenges have surfaced. (Kim et al., 2009) Although the characteristics of those sites differ from each other, in general, they all provide information of yourself and offer the communication tools which enables you interact with others. Natures of these sites due to online, interactive and open environment bring identity, privacy, legality, and profitability risks.

Generally, you need to create an identity in the online community, either with your real personal information or a pseudonymity. A user is also allowed to have different online identities. However, this freedom may bring a lot of malpractice. Users may use their identities to spread false rumors, information, or act in ways differ than he act in real life (Kim 2009). Meanwhile, identity theft is one of the major problems. People can steal someone's identity or create pseudo identity and carry out objectionable acts in that name without others knowing about the true identity of the perpetrator (Lytras et al., 2009). On the other hand, the more time a people spends in the virtual world and the more different the

virtual identities are from real life, the greater the risk of damage to one's own mind (Kangas, 2007).

Second is the privacy issue. Social media websites, especially social networking sites, are focusing on the communication and connection, and they are encouraging people to fill in their personal information. Since people would like to find friends, dates, or build any relationship with others on those sites, they willingly reveal their personal information to others who are assumed as potential friends. However, the information might be used in improper way by others. Lytras et al. (2009) mention the lack of face to face communication provides a false sense of security in online communities. And people actually do not exercise the same amount of caution in virtual communities as they do in real life. Privacy is not only limited to individuals, but also to the entire network. For instance, "friend of a friend" approach in social networking sites exposes the private information of a group of people connected with each other. Meanwhile, there are also many cases that information of a corporate has been revealed because that information is easily viewed and careless posted. It possibly will cause the lawsuit or financial damages for involved parties.

On the other hand, Lytras et al. (2009) point out that service account legalities, material legalities, contract issues with the provider, copyright and trademark issues, third party issues, different liabilities are all of elements of legal aspects of security that should be considered in Web 2.0 environment design. For example, two people may plan a crime on MySpace, it is hard to decide whether service provider or people is liable for this act. And similar issues are copyright and trademark issues of contents on the web.

There are thousands of videos uploaded on YouTube every day, however, it is difficult to determine are they really not against original producer's copyrights. Also in other social media sites, it is easy to distribute contents created by others but in his/ her name without asking producers' permission. And copyright issue might be raised then.

At last, some study suspect whether social websites are profitable businesses during past years. According to Kim et al. (2010), some business deals of social media sites are disappointed. In year 2007, Microsoft bought 1.6% shares of Facebook for 240 million dollars, but Facebook lost 150 million dollars in 2008. Google acquired YouTube for 1.6 billion dollars in 2006, while YouTube's revenue was small. Nevertheless, some sites such as Tencent (China), Mixi (Japan), etc, make profit. In order to increase the profitability, some social websites like Facebook, YouTube and Twitter are trying to encourage more people to

join the membership. However, there are difficulties in less developed countries, where there are high internet access fee with low as click rates. Thus some websites were just shut off due to non-profitability by unaffordable costs of extra servers and limited internet bandwidth. Kim et al. (2010) also argue the business strategy of social media sites should be modified over time with the consideration of demographics of members' needs and preferences.

Advertising would be the most obvious way of gathering revenues in social media websites. While the truth is many sites are incapable to generate online ads revenues commensurate with the huge popularity (Kim et al., 2010). Urstadt (2008) discusses about the ads are not best way for social websites revenues by four reasons. People first do not pay attention to ads at all since they are coming for UCCs not ads. There are only around 2% of Google users actually click on posted ads, and less than 0.04% user click for Facebook. Then, there is only 3% users are willing to have their friends become targets of online ads. Meanwhile, many users put fake personal data in their profiles that leads to inaccurate targeting advertising.

2.8 Monetizing Social Media

Academically, there are a lot of literatures discussing business respective of social media. Melakoski et al. (2007) state the term of “participatory economy”, which refers to commodities that are produced, distributed, shared and consumed in social media. Similarly, a new concept named “social commerce” refers to the monetization of social media with e-commerce. Other terms are “sharing economy”, “peer-to-peer economy”, “wikinomics”, “networked economy”, etc. The related concepts for them are also “crowd sourcing” and “synthetic economy” (Hintikka, 2008).

Practically, most of social media services are available to use without charge. The free service attracts users to come and join the network. However, as the user amount increases and the contents enrich, the desire for making business also grows. In order to make profits, companies holding substantial users base like Facebook, Twitter are starting to look for the ways for making money behind the free service. And marketers are already thought about the strategy to monetize the social media.

Each industry whatever for traditional business or internet commerce, the business model is crucial for the success. Social media tools provide businesses with the opportunity to do business model innovation, which creating new revenue streams by extracting value from social media content compared with traditional business. There are some basic categories of business model for online social media services discussed by Rappa (2010).

Table 4 Business models of online services (Rappa, 2010)

Business Model Types	
Brokerage	Brokers bring buyers and sellers together and facilitate transactions, they charge fees for each transaction.
Advertising	A website provides contents mixed with ads. The revenue of it might be the major source of incomes. This model works best when volume of user traffic is large or highly specialized.
Informediary	There are some valuable data about customers' information and their consumption behavior habits, and these data could be used for targeting marketing campaigns analysis. They bring the indirect benefits.
Merchant	Wholesalers and retailers of goods and services. Sales might be made based on list prices or through auction, for example, amazon.com.
Manufacturer	It is predicated on the power of the web to allow a manufacturer (a company that creates a product or service) to reach buyers directly and thus compress the distribution channel. The manufacturer model can be based on efficiency, improved customer service, and a better understanding of customer preferences, such as Dell computer.
Affiliate	This model provides purchase opportunities wherever people may be surfing by offering financial incentives (in the form of a percentage of revenue) to affiliated partner sites. The affiliates provide purchase-point click-through to the merchant. For example, those sites pay affiliates for a user click-through, or offers a certain commission based on clicks in which user subsequently buy products.
Community	Users have a high investment in both time and personal emotions. Revenue can be based on the sale of ancillary products and services or voluntary contributions; or revenue may be tied to contextual advertising and service subscriptions. For example, some open-source communities revenues rely on related services like system integration, tutorials and product support rather than their collaboratively developed program codes, and social networking services provides ability to connect to other individuals while provides opportunities for ads and premium services subscriptions.
Subscription	Subscription fees are collected by time. It incurs irrespective of actual usage rates.
Utility	Fees are charged based on actual usage of a service, or "pay as you go" approach.

2.9 Summary and Questions Raised by Literature Review

In this literature review part, we understand that there are five categorized social media tools have been utilized by individuals, business, and government. Our study will base on three case companies, and they are mainly designed for individual users and business purposes.

They all could be categorized into social networking sites, while they actually also contain other functions like blogs, communities, content aggregating, virtual worlds in their service contents. Increasing amount of people are looking for new communication and entertainment approaches, they also have strong desires of self-expression. Meanwhile companies are becoming more interested in marketing opportunities through the social media. In this way, we can conclude that a good social media site has to meet these expectations and provide desired services to users. These features could be the benchmark for all social media sites, also for our case companies.

Furthermore, social media networks generate positive network effects. The more users engaged in sites, the more positive effects it brings. Thus, social media sites should attract as many users as possible to maximize their value.

Based on above reviews of incorporating social media tools into marketing strategies, it argues that companies should consider social media's functions, listen to customers' voices before engaging tools, increase interaction between company and customers, and give users customized and personalized services. They can be considered as another criterion for a social media company's success. For our case companies, they should accomplish all these functions in order to offer high quality services.

This chapter also mentions the challenges of social media. First people can create pseudo identity and do objectionable acts in the name of others, which brings the problem of identity theft. Second, users in Facebook, Myspace, Tencent like to reveal real personal information for looking for friends and building relationships. The provided information might be used in improper ways by others, thus users' privacy could be easily violated. Third, there are thousands of photos and videos upload everyday in those sites, it can easily meet legal problems, like copyright and trademark issues. Fourth, the profitability is another challenge they have. Therefore, companies have to enable imperative rules and regulations to prevent the issues of identity, privacy, and legal problems. Regulations should be made to ensure all activities happen inside and outside the company are secure and legal. Regulations will be the new element for new business model framework, it will be discussed more in chapter 3.3.

Finally, Kim et al. (2010) and Urstadt (2008) argue that most obvious ways of gathering revenues by ads are not the best way for social websites revenues anymore. It is acknowledged that social media companies have to work on other monetization approaches besides ads. In monetization part, Rappa (2010) has mentioned eight ways of monetizing

social media, brokerage, ads, merchant, manufacturer, affiliate, community, subscription, and utility. When we study business models of case companies, we have to notice that the revenue models should be improved and innovated besides traditional ads approach.

3. Business Model Framework

According to Osterwalder and Pigneur (2002), it is necessary to understand and use business model in current increasingly dynamic and uncertain business environment. First of all, the process of modeling business system helps to identify and understand relevant elements in a specific domain and the relationships between them (Ushold et al., 1995; Morecroft, 1994). Secondly, a formalized business model assist managers in communicating and sharing their understanding of business among stakeholders (Fensel, 2001). Additionally, it can be easily used as the foundation for facilitating changes (Petrovic et al., 2001). Meanwhile, a formalized business model also helps to identify the relevant measures to follow in its business, similarly to the balanced scorecard approach (Norton et al., 1992). Last but not least, business model can help managers simulate its business process and learn from them. It is a way of doing risk free experiment (Sternman, 2000).

This chapter will firstly review the different definitions of business models and several component frameworks studied by different researchers. Based on the most rigorous business model framework raised by Osterwalder (2002), a new framework for social media business will be created for business model analysis of case companies in empirical study.

3.1 Definitions of Business Model

Numbers of papers address the definition of business model. Rappa (2004) simply defines a business model as “the method of doing business by which a company can sustain itself”. Similarly, Magretta (2002) views it as “the story which explains how enterprises work”. And Linder and Cantrell (2000) state “the organization’s core logic for creating value”. Afuah (2004) defines the business model is the “framework for making money”. To be more specifically, he considers that it is a set of activities which a firm performs, how it performs them, and when it performs them so as to offer its customers benefits they want and finally make profits.

Most cited definition of business model is given by Timmers (1998), he argues a business model as the architecture for products, services and information flows, including a description

of various business actors and their roles; and a description of potential benefits for various business actors; and a description of sources of revenues.

Other researchers, Petrovic et al. (2001) consider it is the logic of a “business system” for creating value that lies behind the actual processes. Thus, Osterwalder and Pigneur (2002) understand it by interrelating it with the business strategy and business process. They illustrate a business model as the conceptual and architectural implementation of a business strategy and also as the foundation for implementation of business processes (Figure 3). They focus on the value approach, “the value a company offers to one or several segments of customers and the architecture of firm and its network of partner for creating, marketing and delivering this value and relationship capital, in order to generate profitable and sustainable revenue streams”.

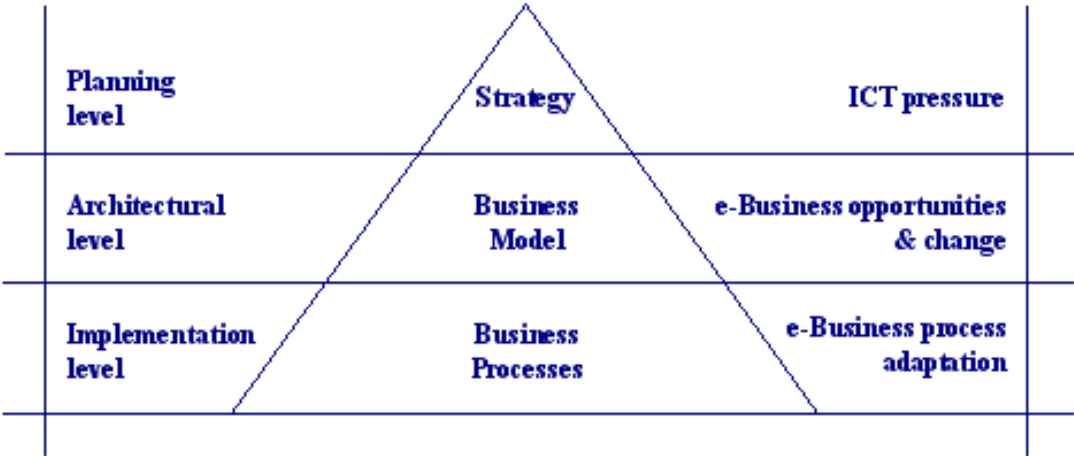


Figure 3 Business logic triangle (Osterwalder&Pigneur, 2002)

3.2 Business Model Components Framework

Many literatures discuss that the business model consists of different components. However, there is no a standard business model components framework for all business. Different industries should consider about different components in their business models.

Since organizations compete for customers and resources, a good business model highlights the distinctive activities and approaches that enable the firm to succeed – to attract customers, employees, and investors, and to deliver products and services profitably. Only the business model components which are part of the essential logic are included, so one company’s operating model may look dramatically different from another’s. (Linder & Cantrell, 2000)

Since our study is focusing on the field of social media, we will narrow the research direction to e-business model area then. In this part, we review the studies on e-business model components to give a more comprehensive understanding to the business model and provide the basis for our research framework.

Lee et al. (2006) identify five elements of a business model for e-business: (1) articulating the *value propositions* (customer benefits, target segment); (2) defining what can product or service *offer* to customer(customer decision process, product content); (3) identifying competitive *resource system* (resources and capabilities, logistics and delivery systems); (4) figuring out *revenue and growth models*; (5) formulating *competitive strategy* under the whole market (value chain positioning, generic strategy).

Laudon and Traver (2003) argue that in order to have a successful business model not only in e-commerce, but others as well, and eight key ingredients must be effectively addressed. Besides *value proposition*, *revenue model*, and *competitive strategy* mentioned as Lee et al. (2006), Laudon and Traver view other components of *market opportunity*, *competitive environment*, *organizational development*, and *management team* are also significant.

Based on the six generic elements of the business model proposed by Alt and Zimmermann (2001), Pateli and Giaglis (2003) revise and extend it by synthesizing a number of standard components identified by other research in this area (Figure 4). They construct framework with two dimensions. The horizontal dimension contains the primary elements: *mission*, *target market*, *value proposition*, *resources*, *key activities*, *revenue model*, and *value chain*. And all these elements need to be implemented under the certain environment, which refers to the vertical dimension, *market trends*, *regulation*, and *technology*.

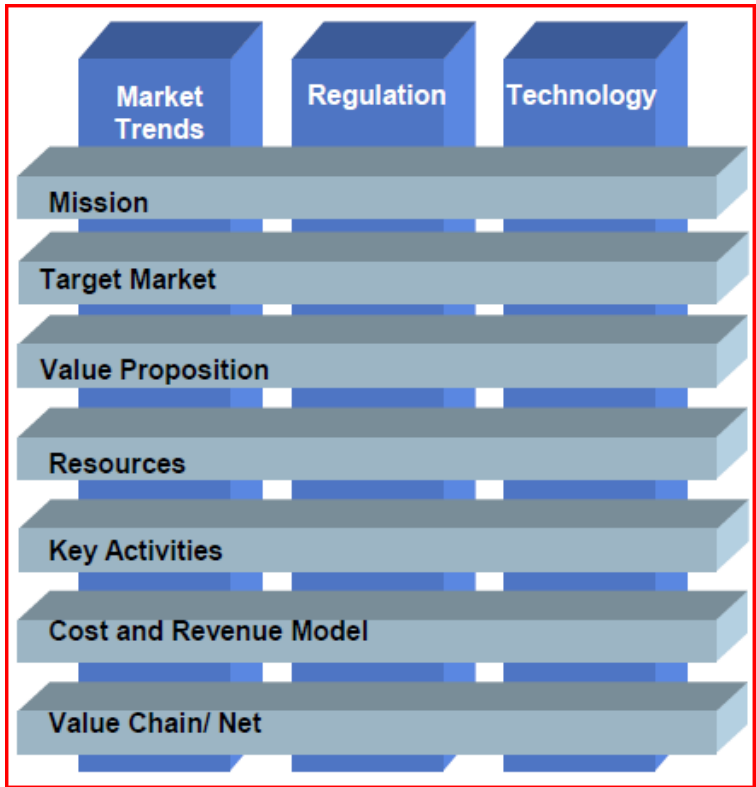


Figure 4 Two dimensions business model components framework (Pateli & Giaglis, 2003)

Meanwhile, Osterwalder (2002) gives a more thorough building-block-like methodology which not only gives a comprehensive understanding to its components (Figure 5).

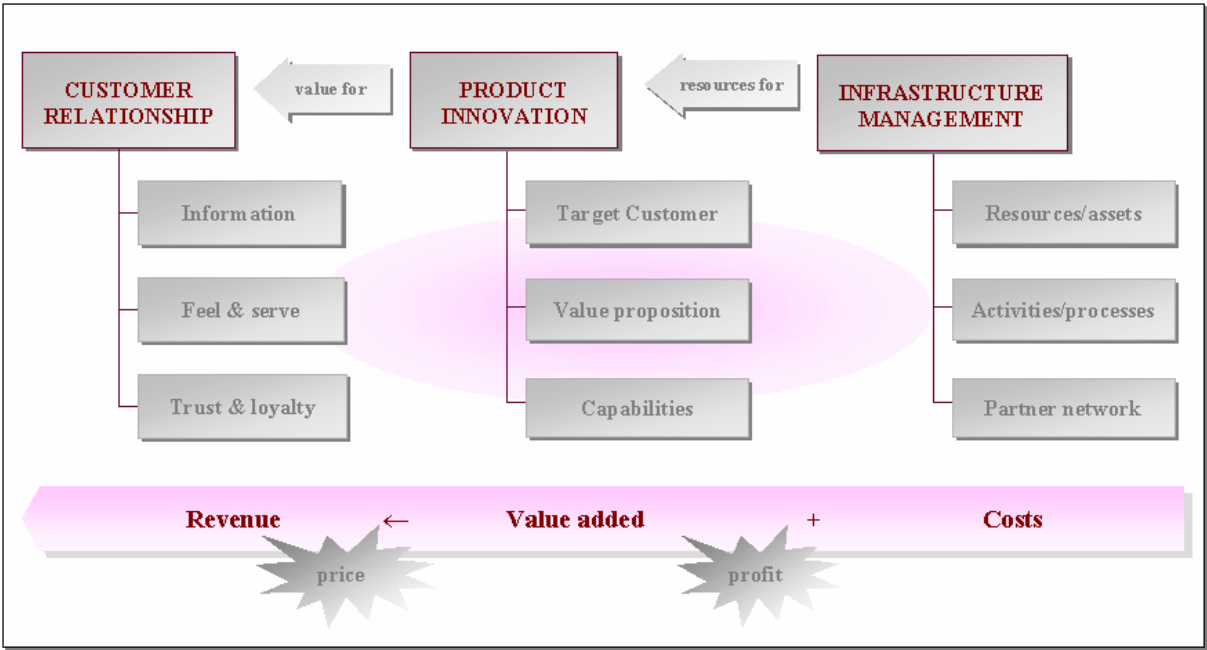


Figure 5 E-business model framework (Osterwalder & Pigneur, 2002)

Osterwalder's framework divides the business model into four main pillars: *customer relationship*, *product innovation*, *infrastructure management*, and *financial aspects*:

Customer relationship is reflected in how to use the customer *information* and exploit the best ways to deliver value proposition and expand reach by multiple *channels*. *Trust and loyalty* has also becoming increasingly significant in business world especially for virtual community business. Company needs to formulate the strategy to gather and manage customers' information, and to use information strategically for customer relationship retaining. That can exploit business opportunities through the customer information, and to improve their satisfaction. In order to go to market and reach to customers effectively and efficiently, make the right product and service available at the right place, right time to the right people, the company has to outline how to deliver its offering, either indirect or direct channels, operated by the company itself or outsourced by a third party. Further, when the business environment is becoming more virtual and the implicated parties do not necessarily know each other anymore before doing business, it is essential to establish the trust between business partners. Some mechanisms are used to build trust in e-business environment, such as performance history, mediation services, third party verification and authorization, and a clear and explicit privacy policy (Friedman, 2000; Dimitrakos, 2000). And customer loyalty can be viewed as the outcome of customer trust and satisfaction.

Product innovation covers all product-related aspects. It indicates the *value proposition* the company offers to its *target customers* and the *capabilities* the company needs to ensure to deliver it. Value proposition indicates the value company offers to customers. And the company offers value to a specific customer group, it defines which customers, which geographical areas, and what product segments it offers to. The company can either market to businesses or individuals, in other words, to business-to-business (B2B) and business-to-consumer (B2C). To deliver the value to target customers, the company has to ensure it has enough capabilities. The more capabilities it holds, the stronger competencies it owns.

Infrastructure management is the value system configuration (Gordijn et al., 2000) used to deliver the value proposition. It indicates how the organization's *activities* to deliver the value propositions by utilizing its *resources and assets*, and *partner network* under its network properties. The value delivered to customers is the outcome of the configuration of inside and outside activities and processes. The activity configuration happens among the partners of the company. This sort of strategic network is recognized as "Stable inter-organizational ties

which are strategically important to participating firms. They may take the form of strategic alliances, joint-ventures, long-term buyer-supplier partnerships, and other ties.” (Gulati et al., 2000) Meanwhile, there are tangible, intangible, and human assets for value creation. Tangible assets are such as machines, cash reserves. Intangible assets could be patents, copyrights, brands, and so on. Human assets are people capital the company needs to generate value with tangible and intangible resources.

Financial aspects refer to company’s *revenue* streams, *cost structure*, and then its *profits*. The revenue may come from multiple revenue streams, and a company can have different pricing models. For instance, an online media company sells contents and collect subscription fees from individual customers. It may also live from advertising and sponsoring fees from business customers. Cost structure includes all costs incurred for value creating, marketing, and delivery. The difference between revenue model and cost structure is the profit.

3.3 Modified Business Model Framework

One of our research purposes is to study business models of case companies, thus we need a framework for analysis. Since our case companies are social media sites, and there is no specific framework study conducted on social media business, we need create a suitable framework for our study. Reviewed frameworks in the last section are focusing on the e-business area, while social media is based on internet and network platform, it is obvious that the components discussed in e-business model framework also cover the most important attributes of social media business. Therefore, we will consider those e-business model framework’s attributes into the social media business.

Although different researchers discuss business model with distinct components and name each of those elements differently, however, many of these element attributes in different model hold same or overlapped features. For example, in the two-dimensional framework constructed by Pateli and Giaglis (2003), elements of *target market* and *value proposition* are categorized as *product innovation* in Osterwalder’s framework, and also *key activities* and *resources* are included into *infrastructure management* by Osterwalder. Meanwhile, Osterwalder’s ontology includes another important component *customer relationship*. Since Osterwalder’s ontology is the most concrete, systematic and rigorous, we would like to take their framework into our new one as the primary components and the foundation. Osterwalder’s framework is generally for all e-business, however, to analysis social media business, there are some other characteristics need to be considered into our study.

First of all, we will exam the factors of social media networks. According to Lytras et al. (2009), there are four critical factors that determine the effectiveness of these networks (Figure 6). First, they argue the **network properties** should be taken into consideration including *density* and *boundedness*, *range*, *exclusivity*, and *strength of ties* (Wellman, 1997):

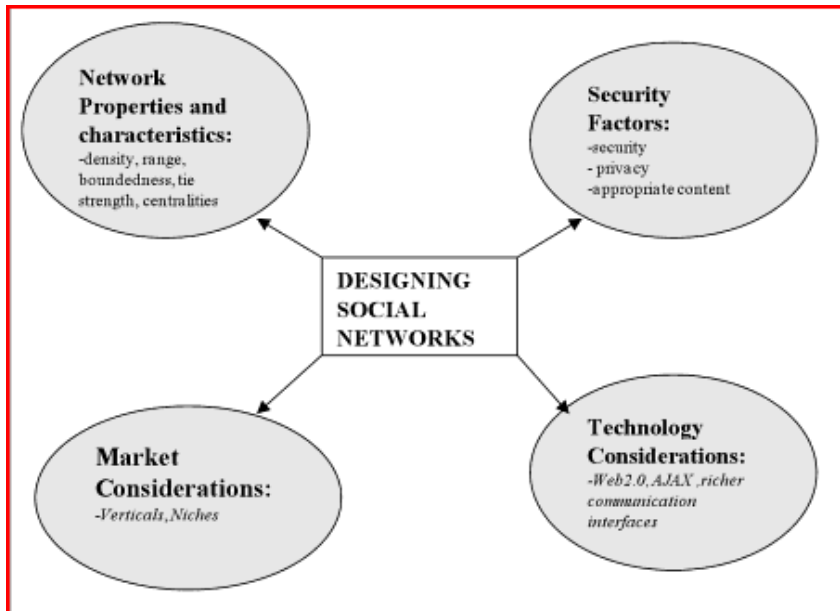


Figure 6 Design factors (Lytras et al., 2009)

Density indicates proportion of all possible ties (between two network members) that actually exist, such as how many network members have contact or communication with all others. In a dense network, members have considerable communications. Communication platforms for the desired density like online messaging should be denser whereas offline messaging should be sparse.

Boundedness refers to proportion of network members' ties that stay within boundaries of social network. In tightly-bounded networks all of relationships remain within the population, and by contrast, the members of loosely-bounded (or unbounded) networks have many ties with people who are not members of this particular network. For example, health related social networks will benefit if there is tight-binding among nodes whereas marketing social networks will best operate when unbounded.

The *range* of the network describes how large and diverse the population is within the boundaries. A network designed for a particular school will have limited range vis-à-vis one which is designed for many schools.

Exclusivity is determined by whether people interact primarily one-on-one or are their individual contacts available to wider group of people. The sites should be designed according to the type of interaction and address the level of exclusivity desired. For instance, supply chain partners will need a less exclusive network than C2C e-commerce.

Strength of ties is a multidimensional construct encompassing the usually correlated variables of a relationship's social closeness, voluntariness, frequency of contact. Strong ties provide more social support than weak ties in emotional aid, goods or services, companionship, and a sense of belonging. Network for friends should ensure more emotional interaction and strong ties whereas network like LinkedIn should be designed in weak ties.

In chapter two, we mentioned that when more people engage in sites, more positive network effects it brings. Also, a dense, unbounded and large range network leads the better positive network effects than a loose, bounded and small range network. Therefore, suitable network properties also bring more positive network effects.

Secondly, social media are the platform for extensive information exchange, and they are places where people make friends, develop relationships and communicate, thus, the chances of frauds, attacks and security breaches are very high, user's **security and privacy** issues need to be addressed with innovative features (Lytras et al., 2009). Security and privacy issues also have been addressed in literature review part of social media in last chapter, and we should consider about them seriously.

Thirdly, there are **market considerations**. Most of current social media sites and social networking sites are designed for young people, and they have specific target groups e.g. Facebook mostly for college students, LinkedIn for professional purpose. Some age groups' market is already mature and has competitors while other areas may remain unexplored. The company should identify existed *competitors*, pay attention to the *market trends* and discover the potential unexplored areas.

Finally, **technologies** are an important aspect. For example, nowadays Web 2.0 technology is the platform that can be exploited for implementation of social media sites. It enables self-evolution, collaboration and participation features. Currently, some websites limit the flexibility for end users in content creation, but Web 2.0 technology enable a platform where end users contribute content and collaborate further on social networks. (Lytras et al., 2009)

Above factors are crucial for designing social networking sites, we should adopt these four elements, *network properties, security and privacy, market considerations, technologies*, into our new framework for our case study.

Besides elements argued by Osterwalder et al. (2002) and Lytras et al. (2009), we know from literature review of chapter 2 that due to the issues of identity, privacy, and legal problems, social media sites require imperative laws and **regulations** to prevent those issues happening. In addition, Petrovic et al. (2001) also mention the issue of regulations and legal issues. Petrovic et al. (2001) think that each e-business operates in its specific relevant environment within given legal framework, technology, customers and competitors. Alt and Zimmermann (2001) give the understanding to indicated regulations, which are the legal issues and rules that influences decisions on structures of value creation system like value web, processes of value creation (e.g., privacy laws), and revenue models.

The next big question is to integrate and allocate these new elements into our new model. We will examine these new elements one by one. The first thing to be examined is network properties. In Osterwalder's framework, the infrastructure management component is described as the value system configuration, which is necessary to deliver the value. Additional, for organizations in general, their infrastructure management can be also regarded as the management of essential operation components, such as policies, processes, equipment, data, human resources, and so on, for overall effectiveness. Sometimes, it contains the system management, network management and storage management. On the other hand, the network properties identified above are actually sorts of network infrastructure which can support essential operations and processes more effectively, and facilitate value proposition delivery efficiently. For that reason, a company has to manage its network properties well and design its service according to desired properties. Therefore, we include element of network properties into the infrastructure management component of Osterwalder's framework for our new model. Now the infrastructure management block is extended to *activity configuration, partner network, resources and assets*, and *network properties* (Figure 7).

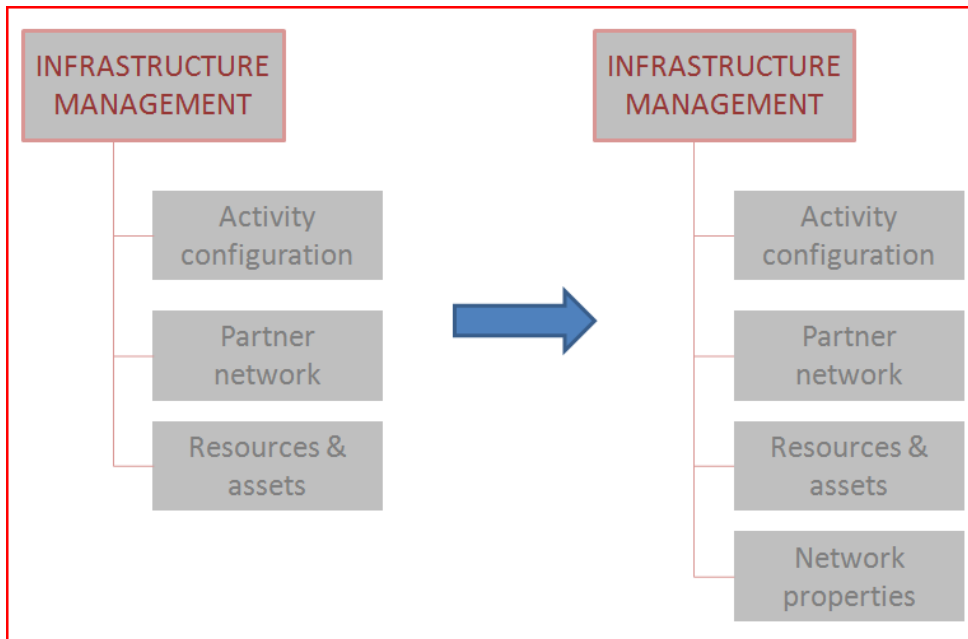


Figure 7 Extended infrastructure management block

For security and privacy, they are highly concerned by customers. Security and privacy easily affect users' user experiences and trusts to the brand. Based on Osterwalder's framework, in virtual community, users pay attentions to security and privacy protection, only with safe the secured services, customers will trust and loyal to you. Thus, the factor of security and privacy belongs to the feature of trust and loyalty sub-element indicated in customer relationship pillar.

Then, the left elements are technologies, markets trends and regulations, they could be considered as three single components because they do not belong to any pillars of Osterwalder's framework. Hereby, we now have seven pillars, including **customer relationship, product innovation, infrastructure management, financial aspects, market considerations, technologies, and regulations.**

To conclude, the newly founded framework will be based on these seven components. (1) **Customer relationship** that company creates and maintains with customers in order to satisfy them and to generate sustainable revenues. It includes customer *information strategy* for discovering profitable business opportunities and to enhance customer satisfaction, the *distribution channels* that a company delivers values and reaches customers, and the *trust and loyalty* resulted from the customers' satisfactions to trusted services and secure environment. (2) **Production innovation** represents a company offering, it creates the substantial value to customers and for what they are willing to pay for. It covers all products

and services aspects. The elements are the *value propositions* the company offer to specific *target customers* and the *capabilities* the company enables in order to deliver the value. (3) **Infrastructure management** is necessary for value creation. It comprises company's *activity configuration*, the activities to create and deliver values, the company's *resources and assets* used in value creation, the *partner network* that activities configuration are distributed among, and the *network properties* of social media sites that enable those activities. (4) **Market considerations** indicate the business environment the company needs to consider. The company has to identify existed *competitors* and potential threats in the market, explore business opportunities under the current and forecasted *market trends*. (5) **Technologies** provide the technological elements which support for social media services. (6) **Regulations** are the legal framework that imperative rules and laws the company follows for preventing illegal issues and assisting to enable a safe and secure environment. (7) **Financial aspects** are composed of the *revenue models* and *cost structures* of the company, and the *profit model* is simply the outcome of difference of revenue and cost.

Among these seven components, customer relationship, production innovation, and infrastructure management describe the underlying pillars of the business model, and they are also direct sources of financial income and expense. The other three components of market considerations, technologies, and regulations outline the wider business and social environment of a business model implementation. All activities taken place in underlying components have to be implemented in a proper way with the considerations of market and regulations, also supports of technologies. They are inter-related, and the changes in wider business and social environment will influence the decisions in company's products, infrastructure management, and customer relation strategies. At the same time, to get insights from the two-dimensional framework by Pateli and Giaglis (2003), we put our models into two dimensions also (Figure 8). Three underlying components are located in horizontal dimension: production innovation, infrastructure management, and customer relationship. Market considerations, technologies, and regulations act as the macro business environment and are crossed into underlying components. Finally, revenue is generated from customers and costs are resulted from value system configuration (infrastructure management). And they will bring the profits to the company.

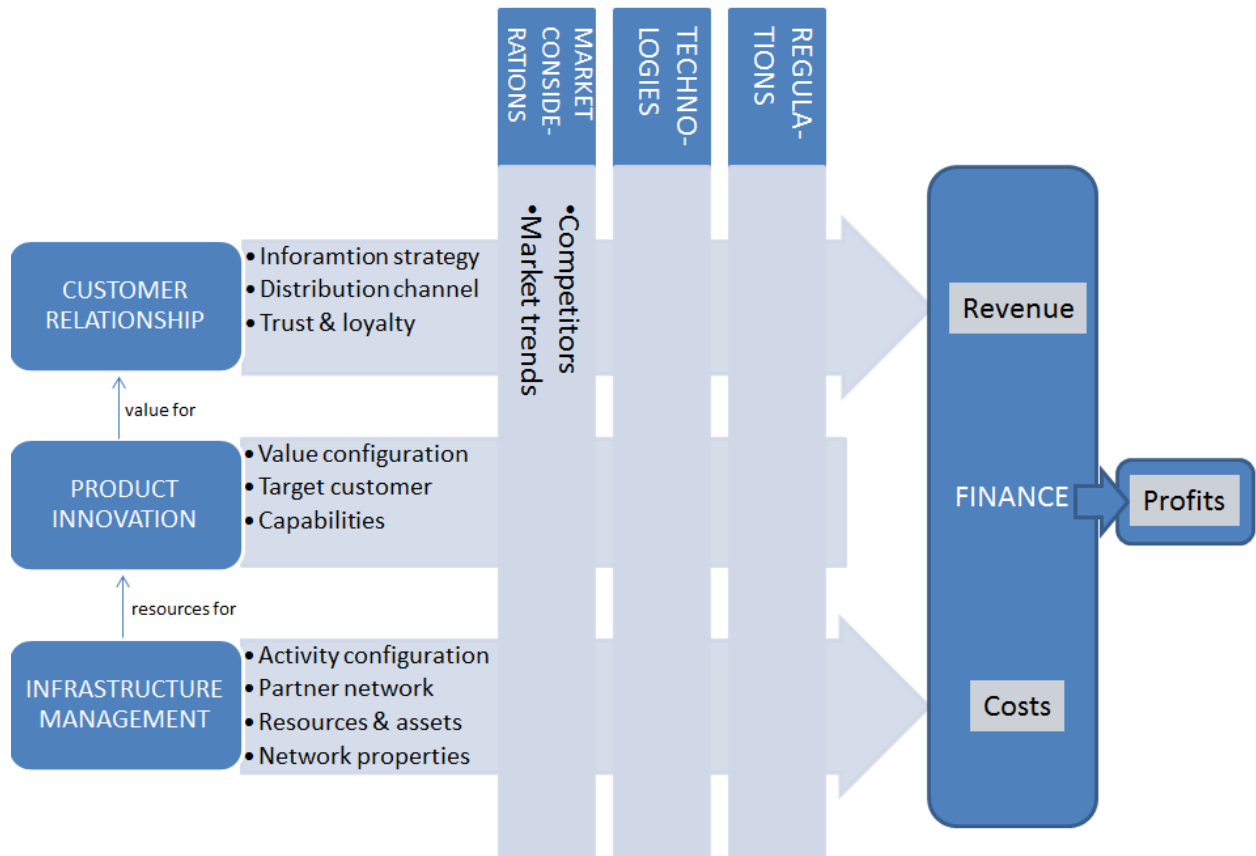


Figure 8 Modified business model framework

4. Research Methodology

This chapter introduces the research framework and the methodology utilized. The original research framework comes from Osterwalder's (2002) three level study for developing managerial tools in a company. In order to fit our study purpose, an adapted framework will be revised. Three levels are business model ontology analysis, company performance measurement, and business models innovation. Study will be accomplished by qualitative approach, refers to case study, participant observations, and focus group.

4.1 Research Framework

Osterwalder (2002) provides a research framework for developing a set of managerial tools that allow business people to react to an increasingly dynamic business environment. Follow his research framework, we conduct the study in three levels of the ontology, the measurement, and the dynamic level (Figure 9).

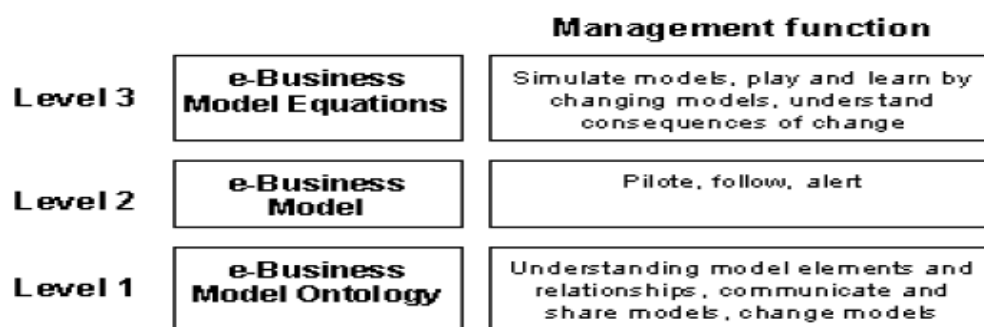


Figure 9 Research framework by Osterwalder & Pigneur (2002)

The first ontology research level stated by Osterwalder is the foundation for the upper two levels and represents the core of the business model research. By defining relevant business model components and their relationships on this ontology level, one can better understand organization's business model. A systematic and rigorous approach enables organizations to share and communicate models among actors in different formats for different situation. Osterwalder uses its own e-business model ontology in level one as the basic framework for analyzing the company business model. To fit our study purpose, we will use the modified framework from chapter 3.3 into our study (Figure 11). Therefore, the business models of each case company will be analyzed based on seven components framework in the first research level.

According to Osterwalder (2002), after understanding company's business model, relevant indicators should be identified for measure its business model and organization' performance. To measure whether social media assist to achieve the business goals, Owyang (2010) developed a social media ROI pyramid framework. It consists of the engagement data metric, social media metric, and business metric. Engagement data measure data of fans, followers, or users' situation. Social media metric reflects features related to the site itself, in this study we indicates the sites contents and services provided. However, the number of users is not the goal of the business, but the financial target is, thus the financial performance needs to be compared. In this way, our case companies performance will be measured in a way of their user engagement, social media sites features, and financial profits. In this level, we will find out which company is most successful and which ones are less well-performed.

In third dynamic equation level, Osterwalder (2002) think that managers should gain insights and learn about their business models by simulating, changing, and experimenting with them in a risk-free environment. Based on the previous measurement level of company

performances, we can identify the less well-performed companies, and find out their limitations and improvable areas. Upon these analyses and other knowledge from researcher’s observation and focus group meeting information (describe in next section), we will give the managerial suggestions to less well-performed companies in their business models. Meanwhile, we will identify their risks by pursuing the innovation for the last level of research, namely “innovation”. (Figure 10)

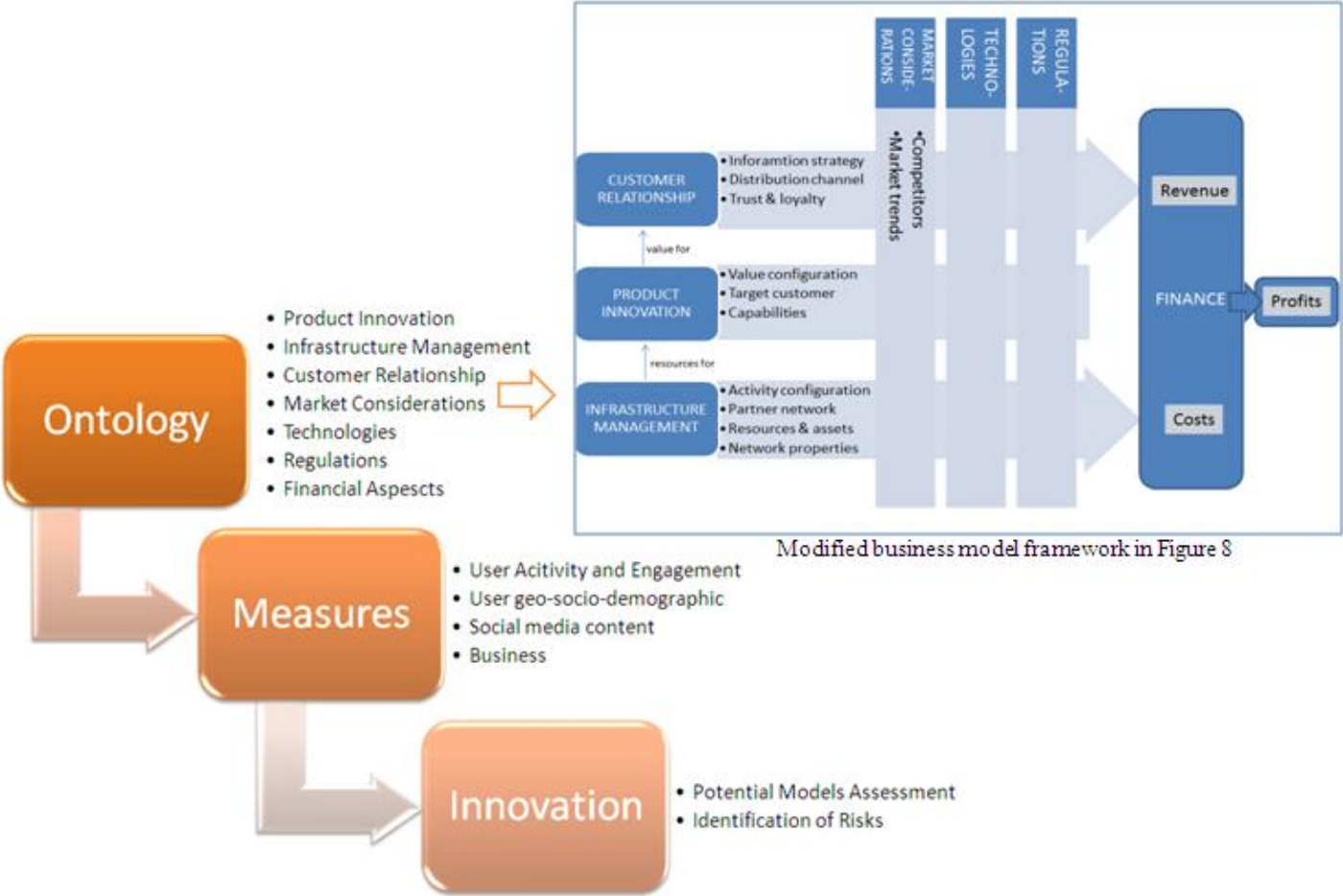


Figure 10 Revised research framework

4.2 Research Methods

The objectives of our research is to study business models of case companies and recommend to their business model innovation, thereby we will mainly give the descriptive analysis and qualitative study would be the best option for the research.

Qualitative study is able to provide complex textual descriptions of how people experience a give research issue, give the information about human side of an issue, which means the often

contradictory behaviors, beliefs, opinions, emotions, and relationships of individuals. It is also effective in identifying intangible factors, such as social norms, socioeconomic status, gender roles, ethnicity, and religion. Findings from qualitative data can be often extended to people with characteristics similar to those in the study population, gaining a rich and complex understanding of a specific social context or phenomenon typically takes precedence over eliciting data that can be generalized to other geographical areas or populations. (Mack et al., 2005)

There are two advantages of qualitative methods. One advantage is that use of open-ended questions gives participants the opportunity to respond in their own words, rather than forcing them to choose from fixed responses as in quantitative methods. Another advantage is that they allow the researcher the flexibility to probe initial participant responses – that is, to ask why or how. The researcher must listen carefully to what participants say, engage with them according to their individual personalities and styles, and use “probes” to encourage them to elaborate on their answers. (Mack et al., 2005)

There are several qualitative research methods including case study, participant observation, interviews, questionnaires or surveys, focus group, etc. In this study, case study, participant observation, and focus group will be utilized.

Case study

Case study is the major methodology of the research due to the descriptive objectives of our study. By case study, it can give an understanding of a complex issue and extend experience or add strength to what is already known through previous research. Case study emphasizes detailed contextual analysis of a limited number of events or conditions and their relationships (Palmquist, 1997). Yin (1984) defines case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used.

Our case study will be conducted following Yin’s (1984) proposed research framework process. Firstly, to determine and define the research questions; secondly, to determine data gathering and analysis techniques; Thirdly, to collect data in the field, fourthly, evaluate and analyze the data, and finally prepare the report. The study data come from participant observation and focus group methods, the case analysis will based on research framework.

Participant observation

Participant observation is another method. According to Mack et al. (2005), the objective of participant observation is to help researchers learn the perspectives held by study populations. This method is accomplished through observation alone or by both observing and participating, to varying degrees, in the study community's daily activities. It takes place in community setting believed to have some relevance to research questions. And generally speaking, the researcher engaged in participant observation tries to learn what life is like for an "insider" while remaining, inevitably, an "outsider". To collect data, researcher make careful, objective notes about what they see, recording observations as notes. The data could be textual or such data like maps and diagrams, kinship or organizational charts.

Participant observation is useful for gaining the understanding to the physical, social, cultural, and economic contexts in which study participants live; the relationship among people and contexts. In addition, it enables researchers to develop a familiarity with cultural milieu that will prove invaluable throughout the project and give a nuanced understanding of context that can only from personal experience. Further, researchers can also uncover factors important for a thorough understanding of research problems but were unknown when study was designed. Observation method will be utilized in our analysis part of case companies' services and business models.

The researcher is personally using and engaging case companies' products and services. She understands and is familiar with case companies' services, and collects data by her own observations through all related materials of companies, including company websites, releases, news, statistics data, own knowledge, and all public business and academic literatures. They are used for business model analysis part and company performance measurement part.

Focus group

Focus group also will be utilized in this study. Based on Mack et al. (2005), focus group is another way to collect qualitative data effective in learning social norms of a community. It is often used to determine what service or product a particular population wants or would like to have, such as in marketing study. Focus group method is especially well suited for develop and measure services that meet needs of given population.

According to Morgan (1998), focus group could be applied under seven situations: first, the study goal is to listen and learn from others; second, we can explore the topic through the conversations among the participants; third, we can obtain deep knowledge by listening participants when they share and compare their experiences, feelings, and opinions; fourth, we can pursue interpretive questions “how and why” through the discussion; fifth, the purpose is to identify problems that we need to address; sixth, we want to plan for programs, survey questions, quality initiatives, and so on; seventh, the objective is to improve the project implementation. Stewart et al. (2007) point out the advantages of this method. The method first collects data from group of people much more quickly and less cost than many other approaches, also allows the researcher to interact directly with respondents, and obtains abundant opinions of respondents due to open-response discussion, which enable respondents to react with each other. Additionally, focus group could be very flexible in examining a wide range of topics with a variety of individuals in different settings, also the results of discussion are extremely user friendly and easy to understand.

Based on Morgan (1998) and Steward et al. (2007), focus group is considered as an appropriate method for our study. On the one hand, one of our study goals is to improve case companies’ business models and give the recommendations. Through the focus group, we can know users’ opinions on the services of case companies by asking possible questions, such as how they feel about certain feature or what they desire from the service, etc. The questions were posted in an open-ended way. The questions are concerned to products usage, satisfactory level, experiences, attitudes to different products, comments, and expectations to them. Within the discussion, various experiences and opinions can be shared and collected. By exploring their conversations, we can interpret the answers and discover user needs and suggestions to products, and their needs and suggestions will be related to each component of business model framework, therefore we can find out what and how to improve their business models in which areas.

The researcher acted as a moderator to host the meeting, to make group discussion smoothly and encourage every participant to contribute as much as possible. The moderator organized eight participants mainly in the form of physical environment meeting and auxiliary online communication. Since the intent of focus group is to draw some conclusions about a population of interest, so the group must consist of representative members of the larger population (Stewart et al., 2007), we therefore tried to select participants who are have been using all three companies’ products. Because Tencent is mainly used by Chinese, we chose of

which five Chinese as participants, two are Finnish and the other one is American. Their ages are between 17 and 26. They are selected because young people are the key customers of the services, and they were in different education levels. We defined four different levels according to their login frequency per week. Over 7 times login per week indicates a high engagement rate to the site, named as frequently, 4 to 7 times means often use the service, 1 to 3 times refers to sometimes log into the site, and 0 means never use it before. (Table 5)

Table 5 Participants background in focus group

Participants	Nationality	Age	Education Level	Tencent (login times/week)	Facebook (login times/week)	Myspace (login times/week)
A	Chinese	23	Graduate	frequently	often	sometimes
B	Chinese	24	Graduate	often	frequently	never
C	Chinese	21	Undergraduate	often	often	often
D	Chinese	26	Undergraduate	often	sometimes	sometimes
E	Chinese	17	No college	frequently	often	often
F	Finnish	26	Graduate	never	often	never
G	Finnish	17	No college	never	often	sometimes
H	American	22	Undergraduate	never	frequently	often

5. Empirical Study

Tencent, Facebook and Myspace are selected as the case companies. The reasons to choose them are first they are all global aware brand in social networking services, and own hundreds millions of active users. Secondly, they provide other functions besides social networking like entertainment. Furthermore, Tencent is the largest social sites in China whereas Facebook is ranked in top position globally, and MySpace was once the most popular social sites in US. Tencent offers comprehensive one-stop services, while Facebook provide a general social platform mainly for students, and MySpace gives more music and entertaining services to users. They have some features in common but also differ with each other.

This chapter will focus on empirical study about these three case companies. First, the study gives the introduction on companies' background, and then study will follow the three-level research framework, which consists of examining each company's business model ontology, measuring and comparing their performance, and giving the recommendations to their business models.

5.1 Background of Case Companies

5.1.1 Tencent

Tencent founded in November 1998, it started as an Instant Messaging tool named as QQ, and has grown into one of China's largest and most widely used Internet service portal now. It has kept steady growth under the user oriented operating strategies. Tencent Holdings Limited went public on main board of Hong Kong stock exchange in 2004.

Tencent's goal is to enrich the interactive online experience of China's Internet users by providing a comprehensive Internet and wireless mobile value-added services - one-stop online lifestyle services. Through the multiple online platforms, Tencent serves as the largest online community in China and meets users' needs for communication, information, entertainment, and e-commerce on web.⁴

Until September 2010, active QQ users account for QQ IM amounted to 636.6 million while its peak concurrent users reached 118.7 million, and it takes account for 76.2% IM market share in terms of frequency of use. There are 67.3 million people paying subscriptions of Internet value-added services and 25.3 million paying subscription of mobile value-added services⁵. Tencent is deeply influencing the ways of communication and lifestyles of millions of Internet users.

Total revenues were USD 1,821.9 million in 2009, an increase of 73.9% over the year ended December 31, 2008, while revenues for first three quarters of 2010 were USD 2,144.9 million. The gross profits for 2009 were USD 1,252.2 million, an increase of 71.6% over year of 2008, while the gross profits for first three quarters of 2010 were USD 1,463.3 million⁶.

The key services of Tencent are *instant messaging service, online media, wireless value-added service, interactive entertainment service, internet value-added service, e-commerce, and online advertising*.

The main IM platform QQ provides total solution for Internet users, which is also the most essential application of Tencent. It has comprehensive basic online communication functions, such as text messaging, video and voice chat as well as files transmission and so on (Figure 11, 12). It meanwhile has various extension versions, for example, QQ Enterprise is an IM service tailored to connect business entities, Tencent Messenger (TM) is designed for the

⁴ Tencent (2011), Online. Available at: <http://tencent.com/en-us/index.shtml>, [25.2.2011].

⁵ Tencent Facesheet (2010), Online. Available at: <http://tencent.com/en-us/ir/factsheet.shtml>, [25.2.2011].

⁶ Tencent Announcement (2011), Online. Available at: <http://tencent.com/en-us/ir/an/2011.shtml>, [25.2.2011].

office environment, QQ Doctor is a free security software that helps IM users to protect and optimize their system, and effectively detect any kinds of virus, QQMail is embedded in IM service for users to receive and send email, and so many others. Meanwhile, all other services buttons are integrated in the QQ platform.

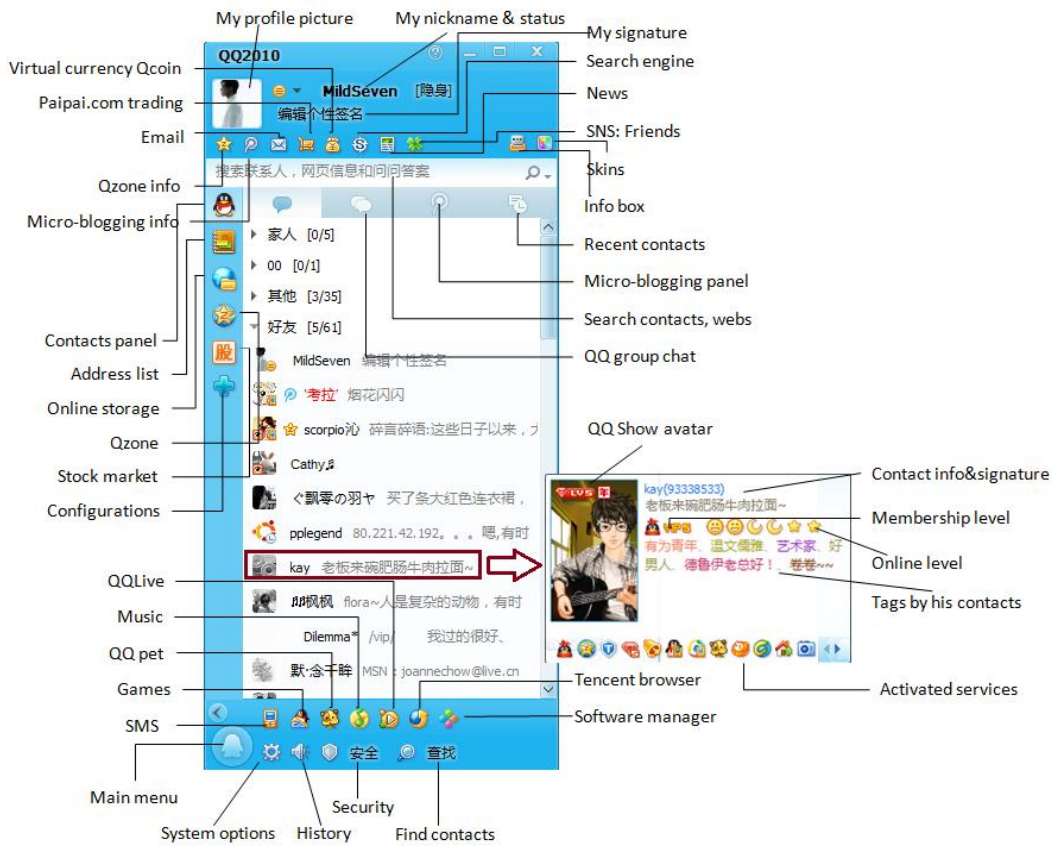


Figure 11 QQ IM platform

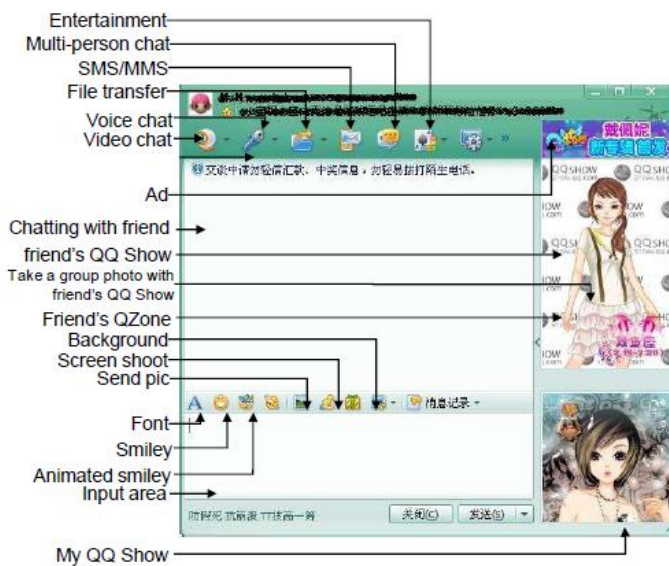


Figure 12 QQ IM chatting window

QQ.com is the largest online media portal in integrating news, interactive communities, entertainment products and other popular used services in China. Meanwhile, wireless Internet is a booming industry nowadays. Tencent has covered whole wireless services ranging from short messaging service (SMS), multimedia messaging service (MMS), interactive voice response (IVR) service, WAP, mobile QQ IM service to mobile games. It integrates most of its internet value-added service into the mobile wireless applications. Tencent interactive game service is a world level online game operator and the largest game community in China. It sets benchmarks in online game markets and achieves great success.

Internet value-added services include user membership (QQMembership), avatar (QQShow), personal spaces, microblogging (QZone), and communities (Friends, similar to Facebook), online music (QQMusic) and dating services etc. Based on the huge IM user group, Tencent leverages the social networks of IM users, the Internet value-added services offer the platforms to users for fun, communication, interaction with friends and families and also make new friends. This sort of service requires users to personalize themselves, thus ask for purchase of virtual commodities. Because of the strong brand recognition of QQ in China and the vast user group, the Internet value added services are growing rapidly nowadays. Not only for individual users, it also attracts traditional media seeking for online collaborations, and makes advertisers realize the market potential within the platform.

Tencent also offers users online trading and payment services. Paipai.com is Tencent's online trading platform which contains the common channels as other online shopping sites, such as digital products, online games, mobile phone, sports, and special offers and so on. Tenpay is the leading platform for online payment application in China. It dedicates to offer individuals and corporate users with secure, convenient and professional online payment methods.

Taking the advantages of brand of Tencent in China and the massive users group, Tencent has great targeting ability and high interactivity, and reach to users effectively and efficiently. Thus Tencent has been partnering with many multinational and local companies for providing them effective online advertising platform. Partners come from various industries like IBM , BMW, Nike clothing, Cocacola and so on 700 clients.

5.1.2 Facebook

Facebook is a SNS site that launched in February of 2004 in US. It is currently the second most popular site in the world just after search site Google according to Alexa traffic rankings. And according to official statistics of Facebook, it now has over 500 million active

users, more than 70 translations available on the site, about 70% of Facebook users are outside US, entrepreneurs and developers from more than 190 countries build with Facebook platform, and more than 2.5 million websites have integrated with Facebook.

As a SNS site, Facebook is used as the social utility that connects people, keeps up with friends, and uploads photos, share links and videos, and exchange messages. Users can also join common interest user groups organized by workplace, school, college, or other communities. Fundamental features to the experience on Facebook are a person's Homepage and Profile. Facebook also has numbers of core features with which users can interact. They include "The Wall", the message board on the user's profile page that allows friends to post messages which other users can see; "Gift", the user can send virtual gifts to friends; "Pokes", users can "poke" each other by sending a poke icon for interaction; "Status", shows friends about the user's whereabouts and actions; "Events", the function that informs users activities will happen online and offline. In 2007, Facebook open its platform to third party application developers. It appeals a great amount of brilliant applications' integration with Facebook's platform, which extends Facebook's core functionalities and features tremendously. Nowadays, Facebook runs over 24,000 applications, there are about 400,000 experts develop applications all over the world, and around 140 applications are published daily.⁷

5.1.3 Myspace

Myspace is the leading social entertainment destination powered by passions of fans. It drives social interaction by providing a highly personalized experience around entertainment and connecting people to the music, celebrities, TV, movies, and games they love. These entertainment experiences are available through multiple platforms, including online and mobile devices. Myspace is also the home of Myspace Music, which offers an ever-growing catalogue of freely streamable audio and video content to users and provides major, independent, and unsigned artists alike with the tools to reach new audience.

Myspace has more than 100 million users worldwide, and half of them are in US. They are catching up on the favorite celebs and celeb gossip, playing games, listening music, watching music videos, movie clips and TV shows, creating the own music playing lists, and commenting on contents and following others. People get rich personalized experiences for their social networking and entertainment needs.

⁷ Facebook Press (2011), Online. Available at: <http://www.facebook.com/#!/press.php>, [25.2.2011].

People use Myspace to discover broad contents, express, collect and show their creations and interests on their profiles, and connect to other users with same interests. Myspace Music is the world's NO.3 popular music network. Millions of creators and over 70 million music lovers come to discover, listen and share music. There are about 500 new artists, 25 new albums are added per week, which bring more than 50 live shows to the enthusiastic music fans. Over 30 million users watched videos in the recent month on the site.⁸

The site is localized in 30 countries and translated into 16 languages. It was once the most popular social networking site in US in 2006, but according to comScore, Myspace was overtaken internationally by its rival Facebook in 2008. In June 2009, Myspace laid off 30% human capitals to 1000 employees left.⁹

5.2 Business Model Ontology

Based on our research framework in section 4, business models of two case companies will be analyzed in ontology part. The analysis will be done in the order of the ontology components of customer relationship, production innovation, infrastructure management, market considerations, technologies, and financial aspects. We will analyze Tencent, Facebook, and Myspace separately and finally compare each component of their business models.

5.2.1 Tencent business model

Customer relationship

Regarding to Tencent's *Information strategy*, Tencent has a rather large user base that provide a base to collect personal information. The useful information includes personal profiles, IP addresses, the personalized spaces, click streams, purchasing history, etc. Tencent can exploit the precious information, identify the key customers and study their internet behaviors for future services development and innovation.

The services are delivered through multiple *distribution channels*, including internet and mobile platform. On the internet, there are basically two channels you can access Tencent's services. One is IM platform, the other is web portal. Through the IM client-end, you will first log into the messenger, and then be able to link to other services by clicking buttons embedded in the messenger. Recently, Tencent has also developed its web-messenger version which you can use its messenger services without installing IM platform. At the same time,

⁸ Myspace Press (2011), Online. Available at: <http://www.myspace.com/pressroom>, [25.2.2011].

⁹ Online. Available at: <http://en.wikipedia.org/wiki/Myspace>, [25.2.2011].

through the web portal, you can find all Tencent's other services easily. For mobile channel, Tencent developed related mobile applications as well.

We can look at Tencent's strategies of building customers' *trust and loyalty* from three perspectives: products and services, customers' needs, and the social responsibility efforts. First of all, Tencent has excellent research and develop team to constant innovate in its products, always providing users the fancy and popular products on the current market. For instance, membership is the one solution for retaining users. Secondly, Tencent enhances their service quality according to users' needs, ensures a safe internet environment under its security protection applications embedded in each application, guarantees network safety and users' privacy by strictly following relevant rules and laws. Thirdly, Tencent participates in charity donations actively and calls on users to join into it to build brand image.

Product innovation

In order to differentiate itself in competitive internet market, Tencent offers distinct *value propositions* to its customers by providing one-stop services, emphasizing users' personalities, and distinguishing customers with membership approach.

Firstly, Tencent satisfies different users' needs by offering one-stop services from entertainment to social networking. Almost any popular internet services you want can be found in Tencent. Its services range is comprehensive enough, including instant messaging, blogging, social networking, online music, casual games, massive multiplayer online games, virtual pet, search engine, mobile portal, mobile client, mobile browser, e-commerce platform, payment system, online storage, anti-virus software, input method, downloader, etc. All services are embedded and connected via IM platform, hereby easily link to users' desired services.

Secondly, users have opportunities to show their personalities and express themselves by personalization services. This can be found by users' avatars (QQshow) and personal spaces (Qzone). Each user has an avatar image showing on his/her QQ account, by purchasing virtual clothing and accessories, one can make his/her avatar as he desires to for reflecting their uniqueness and characteristics, and users can also customize their personal spaces by arranging their preferred decorations. Since most of users are young people, they do care about how they are looked at by others and pay more attention to personalities than elder people.

Thirdly, different membership levels provide different services (value-added service). Tencent encourages people to join its community by free registration and providing some basic services. However, it offers different “diamond” level memberships. By purchasing different color diamond memberships, Tencent gives users various advanced and additional functions and experiences. For example, you may watch more recent videos or use more pretty avatars and decorations than common users.

Tencent basically *targets all users* who use internet, especially the young people who look for entertainment and social functions. It also targets business partners for partnership and advertising services.

In order to deliver one-stop service required by customers, Tencent needs *capabilities* to be sensitive to customers’ needs, and know exactly who the users are and what they want. Tencent has the abilities to figure out what the current markets trends are, what kind of social media people mostly pay attention to, what those young people like to do on internet. On the other hand, it has the tough IT infrastructure to support all activities within the network.

Infrastructure management

Tencent delivers its value through different *activity configurations*. The major strategy of Tencent is to focus on users’ needs, thereby Tencent’s first job is to analyze market trends and the most popular application in the market, figure out what the customers want and need from the internet service. Tencent will design the relevant services and products for satisfying users’ needs. Then it delivers the services directly to users through its web portal, mobile portal, and QQ IM client-end platform, while some services are free of charge while advanced services need to pay.

Tencent’s *partnerships* consist of company strategic partners that consist of media, movies, TV, content, and brands co-operations, IM product or platform partners, mobile value-added service partners, online game licensing, co-publishing, co-development, and project investment partners, Tenpan service partners, high school partners, advertisement partners, and channel partners (Qcoin&Qzone service). Tencent has attracted many prominent companies nationally and internationally for co-operations.

Resources and assets of Tencent are crucial for a company. Tencent’s human capital can be considered as the most precious assets in the company. There is over 10,000 people work for Tencent. They are working to enhancing its development and innovation capabilities while

strengthening its nationwide branding for the long term development. More than 50 % of Tencent employees are research and development staff. In 2007, Tencent invested more than RMB 100 million in setting up the Tencent Research Institute, China's first internet research institute, with campuses in three big main cities of China.¹⁰ The institute focuses on the self-development of core internet technologies, in the pursuit of its development and innovation for the industry.

Tencent also owns prominent reputation and brands in China. Meanwhile, it has obtained over 400 patents relating to technologies in various areas: IM, e-commerce, online payment services, search engine, information security, gaming, and many others. Moreover, Tencent is also very active in social development projects and has made a lot contribution to social and community services to fulfill its corporate social responsibilities by proactively participating in public charity programs. It now has Tencent Charity Fund, which is the first charity foundation set up by Chinese Internet Company. This foundation focuses on youth education, assisting impoverished communities, care for disadvantaged and disaster relief. It helps to build a harmonious society and accumulate respectable reputation for itself.

To consider Tencent *network properties*, we concentrate on its social networking services: QQ IM service, personal space (QZone), micro-blogging, and community (Friends). Since Tencent is open for everyone from anywhere and almost every Chinese netizen use it. The network range is rather wide. With the one's IM account, people can add him/her as contact, access his/her QZone, blogs, Friends, thereby browse one's personal information, photos, updates, friend's list, friend's friends, games playing, and any content shared with you. Tencent's social network could be a dense and bounded network since there are considerable communications and a large proportion of network members' ties stay within this social network. Tencent's network is tightly-bounded because of the high popularity of its social networking services, and almost every Chinese netizen uses it. The strength of ties is stronger than the network like LinkedIn due to Tencent's SNS is more designed for people's emotional interaction and dialogues, for people who share the same interests, and for friends, classmates, colleagues, relatives' relationship maintaining. The exclusivity level is distinct by different services. QQ IM is mostly designed for one-to-one private conversation although it also enables the group chatting now. QZone and Friends are more designed for social communication among large members.

¹⁰ Tencent (2011). Online. Available at: <http://tencent.com/en-us>, [25.2.2011].

Market considerations

Because Tencent offers comprehensive range of services, its applications are widely ranged from entertainment to office software, from PCs to mobile portals, thus each single type of service of Tencent has related *competitors*. IM and online gaming services are most worth to be discussed due to their large market.

Tencent's first step in IM tool in China creates the first-mover advantage for itself in IM market. Nowadays, it has the monopoly of Chinese IM market. In order to compete with Tencent, it has to overcome two competitive advantages of Tencent: the first-mover advantage and the large user base.

Nationally, there are two competitors who may threaten the success of Tencent: Renren.com (the largest SNS of China, similar to Facebook) and Fetion (IM designed by Chinese mobile telecommunication). Renren is the largest and most successful SNS with targeted users on campus students. It owns a large number of college students users base and holds tremendous impact among students group, there is no second virtual community who can compete with Renren in China's SNS market. Because it is first SNS site in China and specifically designed for social networking function, Renren holds the first-mover advantage in Chinese SNS. Meanwhile, Renren has developed its own Renren-messenger. The messenger is easily accessed and used due to the simply user interface and without installation compared with Tencent IM tool.

Another key player Fetion is the only one who can compete with Tencent in user base. China Mobile has over 400 million customers. It is the most competitive wireless telecommunication company in China. Its IM service allows users to send and receive SMS free of charge between PCs and mobile phones. China Mobile intends to develop more comprehensive service of Fetion. Although it is the initial stage for Fetion in Internet industry, and the main purpose of Fetion is to enhance company's image and improve its service quality, China mobile does not put the main part into the IM services. However, Tencent still need to pay attention to this giant and figure out possible strategies before it grows larger.

For online gaming industry, according to Digitimes (2009), Tencent's online gaming revenue is ranked in first place in China market while account for 23.1% shares by the third quarter of 2009, and followed by Shanda of 20.8% shares, etc (Table 6). Shanda is the leading interactive entertainment media company in China. It offers diversified entertainment content

including some of the most popular massively multiplayer online role playing games and advanced casual online games, as well as online chess and board games, e-sports game platform and a variety of cartoons, literature works and music. Shanda’s interactive platform also attracts a large and loyal user base. It is the biggest competitor to Tencent’s online games.

Table 6 Online gaming market of 3Q09 in China (Digitimes, 2009)

China market: Online gaming revenues, 3Q09	
Tencent	23.1%
Shanda	20.8%
NetEase	12.9%
Perfect World	7.9%
ChangYou (subsidiary of Sohu)	7.3%
Giant (originally named ZhengTu)	5.4%
9You	4.9%
Kingsoft	4.1%
Gyyx.cn	3.8%
NetDragon	2.6%
The 9	1.0%
China.com	1.0%
Ourgame	0.7%

For *market trends* in China, there are limited alternatives for affordable entertainment since the media industry is still in its infancy and tightly controlled by government. In consequence, social networks, digital creations, interactive platform are all booming in China, which brings the excellent opportunity to the company like Tencent. And now Tencent is the biggest internet social media company by market value in China. It is still growing rapidly (Figure13, 14).

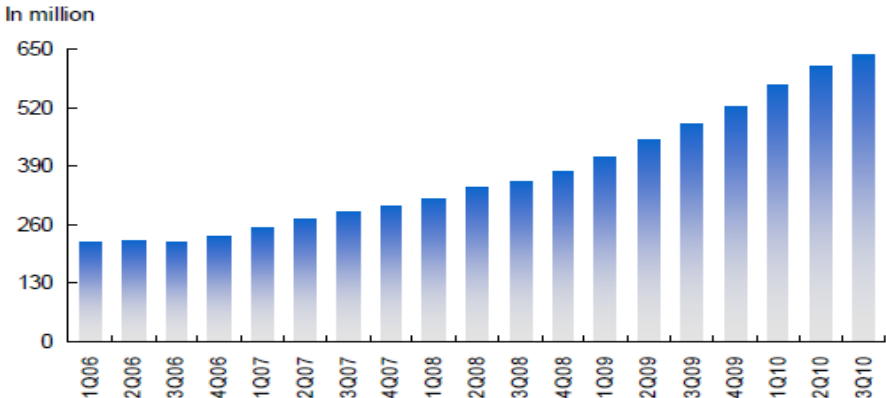


Figure 13 Active IM user accounts (Tencent Factsheet, 2010)

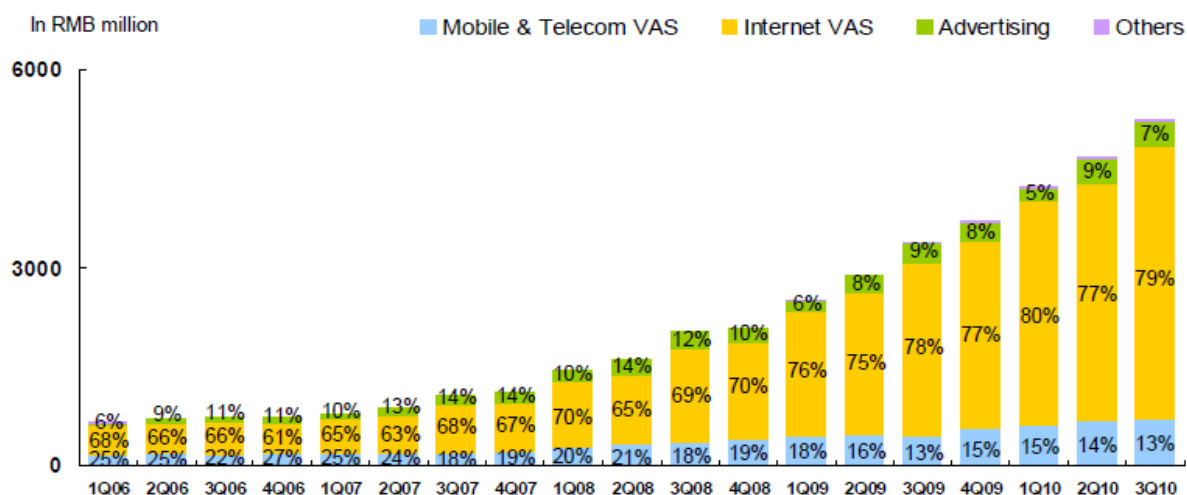


Figure 14 Quarterly revenues by segment (Tencent Factsheet, 2010)

Nowadays, the QQ international messaging service is now available in English, Japanese and French. And Tencent is putting more efforts on its social networking service, such as micro-blogging and Friends services. Tencent's CEO Ma plans to expand its business overseas and to look for more co-operations with international companies. Tencent and its largest shareholder, South Africa's Naspers Ltd, have made investments in internet portals, email and IM services in India, Russia and Thailand in past two years.¹¹ Recently, group-buying giant, Groupon, realized that it needs an experienced partner and China's largest internet behemoth Tencent is poised to be Groupon's helping hand in China. These two parties will set up a joint-venture group buying social site in China. Groupon think that Tencent's wide reach and knowledge in Chinese market will provide Groupon with strong backbone needed to succeed in China.

Technologies

A rather wide range of technologies are involved among diversified services in Tencent. For example, in mobile QQ, it uses various programming languages for different types of mobile phone. For example, Carbide C++ is used for Symbian system, C# for Windows mobile, Objective C for iPhone, Linux and Java for Android system. In WebQQ, it is built on the Web2.0 environment, and also allows cloud computing input methods. The newest technology adopted is WPF (windows presentation foundation) utilized in new product of Tencent, QQ Concept IM client-end, developed by Microsoft. It attempts to provide the multi-touch interactive operations. QQ Concept is the first NUI (natural user interface) product of

¹¹ Chinadaily (2010). Online. Available at: http://www.chinadaily.com.cn/bizchina/2010-12/17/content_11717298.htm, [1.3.2011].

Tencent, it enables multi-tab chatting windows, 3D interactions, desktop contacts, dynamic wallpapers and so on series features, leads to rather rich user experience.

Regulations

Tencent clearly presents its legal statements concerning to copyright, trademark, privacy, and states relevant laws of them. According to Tencent’s legal statement, all materials and products of Tencent are created and developed on the basis of Tencent copyright, they are the intellectual property of Tencent or its affiliated companies. The intellectual property is protected by Copyright Laws of the People’s Republic of China. And all trademarks, service marks, logo, and trade names are proprietary to Tencent and they are protected by Trademark Laws of the People’s Republic of China. Meanwhile, Tencent publishes its statement of committing to protecting users’ privacy concerning to personal information security, use of cookies, network security, use of third party ad networks, use of children’s personal information, and exemption of liability.

The relevant laws includes: Criminal Law of People’s Republic of China, Trademark Law, Decision in Relation to the Protection of Internet Safety Issued by People’s Congress, Administrative Rules of Computer Information Network Safety Protection, and Regulations of Computer Software Protection.

Financial aspects

Most of Tencent’s revenue is generated by sales of virtual goods delivered from its IM and social networking business (Alicia Ashby, 2010). And they can be categorized into two channels services: internet value-added service and wireless mobile value-added service, in addition, online advertising is the minor source of revenue (Table 7). The first two services present 90% of its revenues, and they are directly from 10% individuals of the total users. (Inside Tencent, 2009).

Table 7 Tencent revenues of 2008 and 2009

(1000 RMB)	Revenues 2008	Revenues 2009
Internet value-added services (IVAS)	4,914,974	9,530,711
Wireless mobile value-added services (WVAS)	1,398,984	1,905,599
Online Ads	826,049	962,171
Others	1,4537	4,1479

Primary drivers of revenue in IVAS are virtual items, diamond memberships, and e-commerce. Virtual items are sold in QQ Show, Qzone, QQ pet, and QQ Games. Tencent leverages its virtual currency Qcoin for online currency to purchase the items. 1 Qcoins equals to 1 RMB yuan. The user can use Qcoin to buy virtual clothing, jewelry or cosmetics for customizing his/her avatar in QQ Show and QQ games, purchase fancy wallpaper for decorating his/her personal space Qzone, obtain extra functions in QQ games, get foods for QQ pet, or send virtual gifts to friends. Tencent also sell different diamond memberships. With the memberships, the user can enjoy the services much cheaper than using Qcoin. For membership classifications, Red diamond is for QQ Show service, Yellow for Qzone, Blue for QQ Games, Pink for QQ pet, Green for QQ music, etc. Further, in e-commerce service, Tencent's online payment system TenPay plays a crucial role. Users need to top-up its account by Qcoin.

In WVAS, the revenue come from mobile QQ charging services including short messaging QQ, multimedia messaging, WAP, interactive voice response, and coloring ring back tone service. Simultaneously, many businesses are advertized in Tencent's IM client-end windows, web portal QQ.com, search engine, and SNS Qzone and Friends. The revenue by online ads are account for only less than 10% of total.

Summary

Tencent offers customers one-stop services, emphasizes their personalities and self-expressions, and provides differentiated membership levels to all Chinese netizens users. In order to deliver its value, the company focuses on users' needs and follows social media market trends, always offers the most popular things to people. To build and maintain customer relationship, Tencent offers best solutions, the secure and ease network environment, it participates social programs frequently for enhancing the brand image. Tencent delivers these values to customers through web portal, IM QQ client-end, and wireless mobile platform. The company partners with various enterprises in different areas and utilizes its own resources to design relevant services to meet people's needs. Under the fierce competition, Tencent is still in the leading place of Chinese social media market. To support its business, it has very tough technology infrastructure and also uses imperative rules to regulate all actions on the site. Tencent receives 90% of its revenue from IVAS and WVAS by 10% individual users through virtual items, and less than 10% revenue from online ads. Tencent's business model can be summarized in Figure 15.

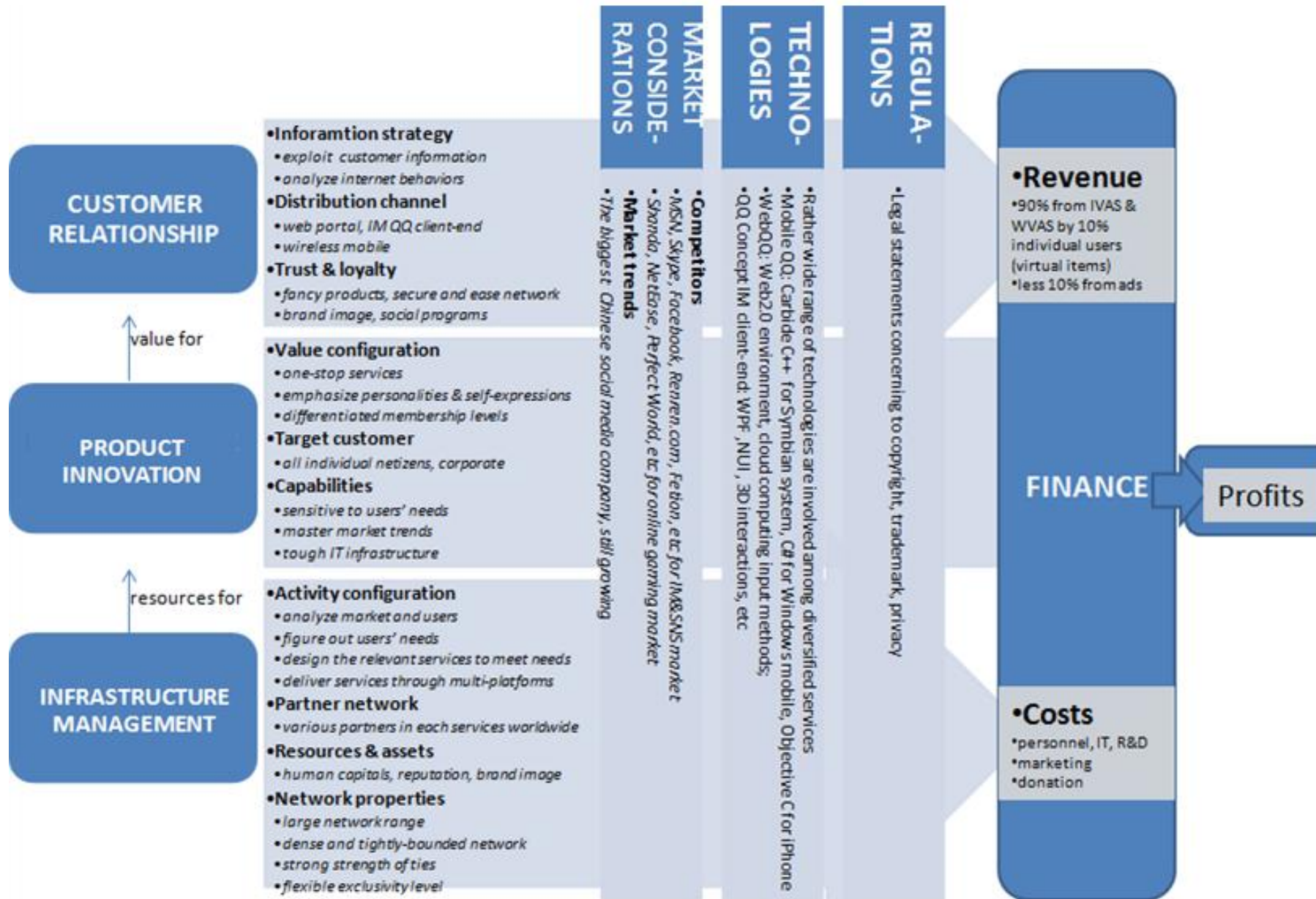


Figure 15 Tencent business model

5.2.1 Facebook business model

Customer relationship

Information strategy helps Facebook to provide a safe, efficient, and customized experience. Facebook collects the profile information about users; the contents they are sharing; details of transactions or payment made within the site; friends information when you use contact importer tools to upload friends' addresses for finding ones on Facebook or invite new people outside Facebook network; action tracks you take on Facebook, such as sending gifts, poking others, attending an event; access device and browser information, such as users' browser type, location, IP address; cookies information; and information received from other websites in which share information with Facebook, and so on third parties. It enables to manage and improve the service; to contact you related services on time; to serve personalized ads to you; to supplement profile; to make suggestions on potential friends or applications; to memorize the account if the user is deceased; etc.¹²

Facebook also shares users' information with third parties when permitted by users. For example, when you invite a friend to join Facebook, the invitation may contain information about other users your friend may know. The information is useful for others if they want to find you by other email or IM providers with whom Facebook partner; to give search engines access to publicly available information; to help improve and promote Facebook's service with third parties; to advertise its services; to respond to legal requests and prevent harm; etc.

Users can access Facebook *channels* through web portal by facebook.com. Users can also access the platform via the mobile application and may send and receive messages from applications. Meanwhile, there are many other sites and third-party applications connected with Facebook. For example, when you watch the YouTube video, you can share the contents with Facebook's friends by clicking "share" button below the video. Further, Facebook now has developed a real-time online chatting tool, it works directly in the browser without additional installation, and provides the basic IM functions.

To build the *trust and loyalty* with users, Facebook is focusing on giving people privacy control over their experience so that their information is being shared in the way they intend.

¹² Facebook Privacy (2011). Online. Available at: <http://www.facebook.com/#!/privacy/explanation.php>, [1.3.2011].

With TRUSTe certified privacy policy, users use simple and powerful tools to control what information they share and with whom they share it. From the beginning, Facebook has worked to provide a safe and trusted environment, for example, requiring that people use their real names. Facebook also works with online safety experts around the world and has established a global Safety Advisory Board that it consults with on safety issues.

With the powerful social utility, more and more people are using it, and Facebook is becoming more popular and valuable. It creates a strong positive network effect and brilliant SNS site image. Facebook is always working to improve its platform, third parties services, and applications. It aims to build long term customer relationship and loyalty.

Product innovation

Facebook's *value proposition* is to offer a social networking platform that helps people communicate more efficiently with their friends, family and coworkers. It facilitates the sharing of contents through the social graph, the digital mapping of people's real life social connections. It provides the opportunity to meet new people all over the world.

It *targets global netizens* over 13 year-old who have social networking needs. The major users are college students. There are 30% Facebook users are located in US, while other 70% are outside US worldwide. Facebook meanwhile targets the co-operations with advertisers and application developers.

Facebook needs *capabilities* that can keep the mass data transmissions under a stable network infrastructure. The infrastructure ensures a safe, up-to-date, and ease-used internet platform for contents sharing, even in a situation of rapid growing traffic.

Infrastructure management

Facebook designs many *activities* to guarantee various features and maintain distinct networks on its platform for enabling users' different social needs. The designed functions cover the features for keeping in touch with friends and meet new people, informing people what you do, accessing large amount of applications made for entertainment, interaction, content publishing, page linking, and retaining the privacy.

Facebook has established many *partnerships* to improve its application features and functionalities for enhancing user experiences¹³:

- A large amount of websites enable the *share functionality* of Facebook to share video, photo, news other contents since 2006.
- Partner with *Comcast's Ziddio* to create user generated TV in 2007.
- Facebook opens its platform and encourages *developers to build applications* since 2007.
- *Mircrosoft* and Facebook built their *advertising strategic alliance*, and Mircrosoft would be the exclusive third party advertising platform partner for Facebook.
- Since 2007, many websites start to use *Facebook Beacon* to allow users to share information from other websites for distribution to their friends on Facebook. The information includes the actions happen in those websites such as item purchasing, scoring a high score in an online game or viewing of video.
- *Oodle*, the second largest classified service provider, partnered with Facebook for power its Marketplace application for online classified on Facebook in 2008.
- Facebook and *PayPal* built a strategic relationship in February 2010. It enables to pay for Facebook ads and Credits through PayPal now.
- Facebook and *Zynga* entered into a five-year strategic relationship that increases their shared commitment to social gaming on Facebook and expands use of Facebook Credits in Zynga's games. The most popular games on Facebook, such as FarmVille, Treasure Isle, Zynga Poker, Mafia Wars, YoVille, etc, are all developed by Zynga.
- In June 2010, *National PTA* and Facebook announced a formal collaboration to promote responsible and safe internet use to kids, parents and teachers. They will establish the comprehensive program for educate and support netizens, reduce cyberbullying and advance internet security.
- In October 2010, Russian largest search engine *Yandex* partnered with Facebook.

There are over 2,000 human *resources* and offices in 12 countries. Several rounds of funding from others give Facebook financial supports. Round one 500,000 dollars from Peter Thiel in the summer of 2004; round two 12.7 million dollars from Accel Partners in April of 2005; round three 27.5 million dollars from Greylock Partners leading the round, Meritech Capital Partners participating, and Accel Partners and Peter Thiel increasing their investment in the

¹³Facebook Press (2011). Online. Available at: <http://www.facebook.com/#!/press.php>, [25.2.2011].

company; and this January it raised 1.5 billion dollars from Goldman Sachs and Digital Sky Technologies.¹⁴

According to Alex.com statistics, Facebook has been the most popular social networking site at this time, it owns well-known reputation worldwide. Facebook is the most easily recognized site when people are talking about social networking. The Facebook reputation would be its great intangible asset.

Facebook now is freely open for everyone over 13 year-old all over the world. The *network* range is fairly large. Facebook is most popular among college students and extended to group of 18 to 35 years old (Alexa.com), with over 500 million users, there is over 250 million of them log in it every day. For each user, most of their friends also use Facebook, especially their alumni or colleagues. They have considerable communication and share great amount of contents on this platform.

However, the strength of ties of the network is varying since it may be used for any kind of relationship building. You may want to maintain the relationship with your old friends, or join an interest group without knowing anyone in it. And the strength of ties would be stronger than the latter one.

Regularly, the messages you post on friends' "Wall" are visible to everyone or a group of users, the discussions are one-to-many or many-to-many, it leads to rather wide exclusivity level.

Market considerations

There are numerous SNS sites presently in global internet market, they have rather fierce *competitions*. eBizMBA Rank (2011) summarizes the top 15 most popular social networking sites base on the average of each website's Alexa Global Traffic Rank, and US Traffic Rank from both Compete and Quantcast by February 2011, in order, they are Facebook, Twitter, Myspace, LinkedIn, Ning, Tagged, classmate.com, hi5, myyearbook, meetup, bebo, mylife, Friendster, myHeritage, and Multiply. However, each site targets distinct user groups and provides different social purposes. Among the most competitive three ones, Twitter serves as a micro-blogging tool, MySpace mainly drives social interaction by providing a highly personalized experience around entertainment and connecting with music, celebrities, TV, movies, and games they love, LinkedIn operates the world's largest professional network, and

¹⁴ Facebook Press (2011). Online. Available at: <http://www.facebook.com/#!/press.php>, [25.2.2011].

helps users to maintain the business connections. But Facebook takes the major social networks *market*. In year of 2010, according to Compete.com, Facebook’s monthly unique visitors are keeping above 120 million, while others like Twitter and MySpace are all below 50 million (Figure 16).

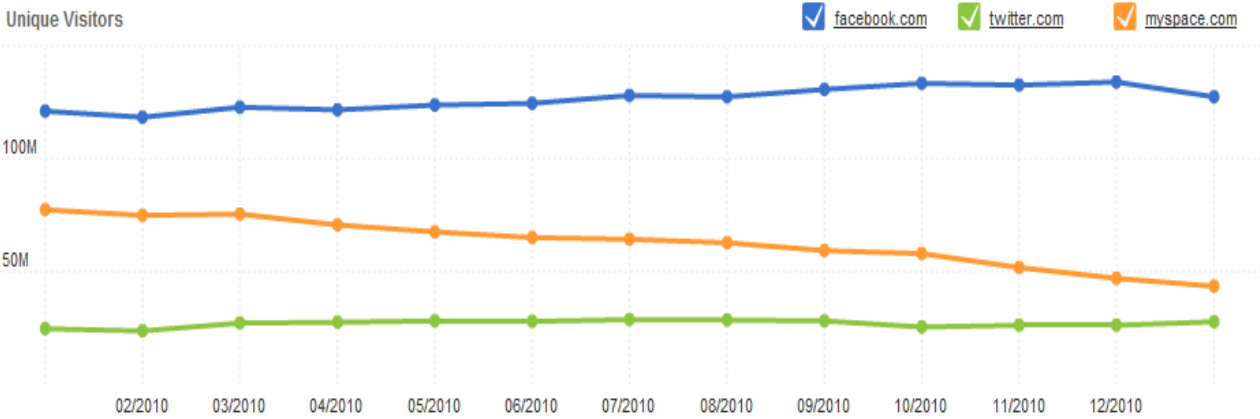


Figure 16 Unique visitors of Facebook, Twitter and Myspace (compete.com)

Globally, many countries have developed their own social networking sites, for example, QQzone, Renren.com, and kaixin001.com for Chinese, V Kontakte and Odnoklassniki for Russian, Mixi and Gree for Japanese, Tuenti for Spanish, etc. The blog of Vincenzo Cosenza sketched a world map of social networks according to Alex and Google Trends for websites traffic data in December 2010, it showed that Facebook dominated global social networking market and has managed to overtake some local incumbent social networks in past few months, particularly in Europe. For example, it wins Iwiw in Hungary, Nasza-klasa in Poland, Hi5 in Mongolia, and Google’s Orkut in Paraguay and India. According to the analysis, Facebook has absolute dominate power and it is now the market leader in 115 out of 132 countries. (Cosenza, 2010)

WORLD MAP OF SOCIAL NETWORKS

December 2010

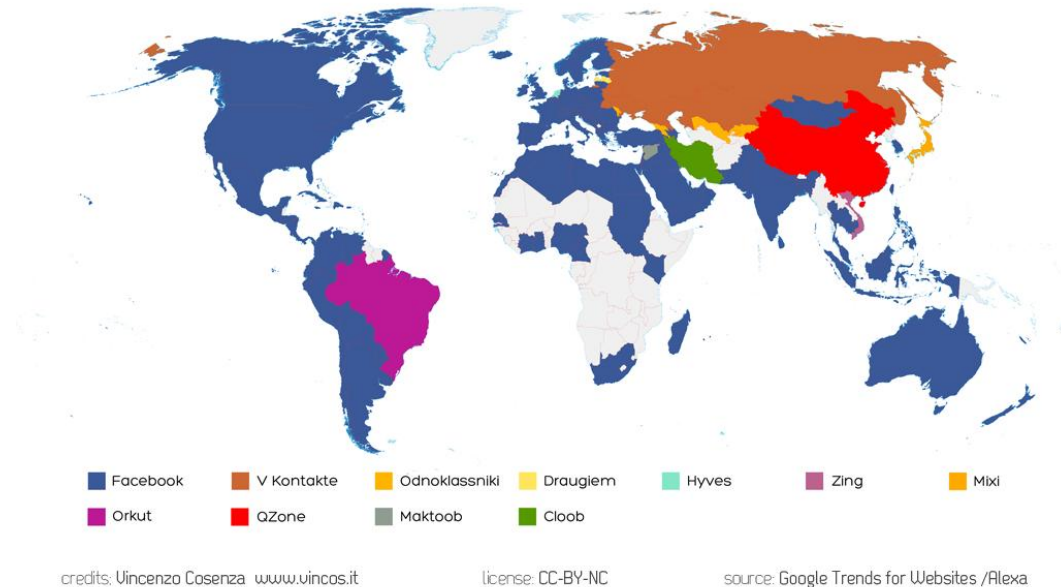


Figure 17. World map of social networks (Cosenza, 2010)

Technologies

Facebook uses LAMP (Linux, Apache, MySQL, PHP) as its technology architecture. Because it is one of the most-trafficked sites in the world and has to build infrastructure to support this rapid growth. The company is the largest user in the world of memcached, an open source caching system, and has one of the largest MySQL database clusters anywhere. The site is largely written in PHP though the engineering team developed a way to programmatically transform PHP source code into C++ to gain performance benefits. Facebook has built a lightweight but powerful multi-language RPC framework that seamlessly and easily ties together infrastructure services written in any language, running on any platform. The company has created a custom-built search engine serving millions of queries a day, completely distributed and entirely in-memory, with real-time updates. Facebook relies heavily on open source software and releases large pieces of its own software infrastructure as open source.¹⁵

¹⁵ Facebook Press, <http://www.facebook.com/#!/press.php>

Regulations

Facebook states its regulations concerning to the rights and responsibilities derive from the Facebook Principles, and govern the relationship with users and others who interact with Facebook. The relevant statements include Privacy Policy, Payment Terms, Platform Policies, Ads Guidelines, Promotion Guidelines, Claims of Intellectual Property Infringement, Claims of Copyright Infringement, etc. All Facebook parties must comply with these policies.¹⁶

Financial aspects

According to Mashable (O'Dell, 2011) cited from eMarketer data, Facebook's revenue was estimated at 2 billion dollars in 2010, while 1.86 billion dollars from advertising alone and others mainly from its virtual currency payment by Facebook Credits.

There are generally three basic types of advertisement on Facebook platform. Firstly, ads places can be bought directly on Facebook's page. It can be simply created by anyone. To make an advertisement, an advertiser needs to address the links you want to be directed to your ads first, and then give the name and description; specify the target customers by age, gender, location, sex, relationship, etc, and state the payment model either by pay per click or pay per view. Finally the ads will be displayed on target users' pages.

Secondly, Facebook provides social ads pages. Any brands, businesses, organizations, bands and so on can create their own Facebook page with adding the contents they want, including photos, videos, music and Facebook platform applications. Users can directly interact with the business by commenting on business' Wall or giving the feedback by clicking "thumbs up" or "thumbs down" buttons on the top of that page. The actions could appear in users' News Feed which enables to ones' friends can all see this information. Social ads actions are more powerful than conventional ads because they act as trusted referrals. Above two ads approaches are both based on Facebook's self-serve ads platform, according to Marshable, it takes 60% Facebook's ads revenue.

Thirdly, Facebook and Microsoft Corp. announced in 2007 that the two companies would expand their advertising partnership, and Microsoft will be the exclusive third party advertising platform partner for Facebook. Thus Microsoft is able to post advertising banners on Facebook's page.

¹⁶ Facebook Terms (2011). Online. Available at: <http://www.facebook.com/#!/terms.php>, [25.2.2011].

For another revenue stream, Facebook Credits is the virtual currency which you can use to buy virtual items (gifts, weapons, etc.) in many games and applications on the Facebook platform. And Facebook collects 30% of each dollar for Credits spent within its ecosystem of games and applications.

Finally, Facebook offers users a channel for polls. The poll is a question you can pay to display in targeted Facebook members' news feeds. It is not only just the answers people picked, but other useful information such as what percentage of males took your poll. The amount you have to pay varies based on how many responses you want, as well as how soon you want complete poll results. The starting payment of a poll is 26 dollars.

Summary

Facebook provides people a specific social networking platform and facilitates contents sharing and communication. It targets global netizens, advertisers, and also application developers. Facebook partners with different parties in the functionality, application developing, and advertisers for enabling various features to meet users' different social needs. To give better services to right customers, Facebook exploits and analyzes customer information, shares info with third party and provides ads to targeted ones. It meanwhile gives users control on privacy setting, enables a safe and trusted internet environment, which maintains a good relationship with customers. Under the fierce global competition in social networking market, Facebook takes dominant place in the global market currently. LAMP technology architecture and sophisticated legal regulations are the solid foundations to supports all activities. Finally, there are over 90% revenue collected from advertising and only less than 10% from virtual items by Facebook Credits. The business model is summarized in Figure 18:

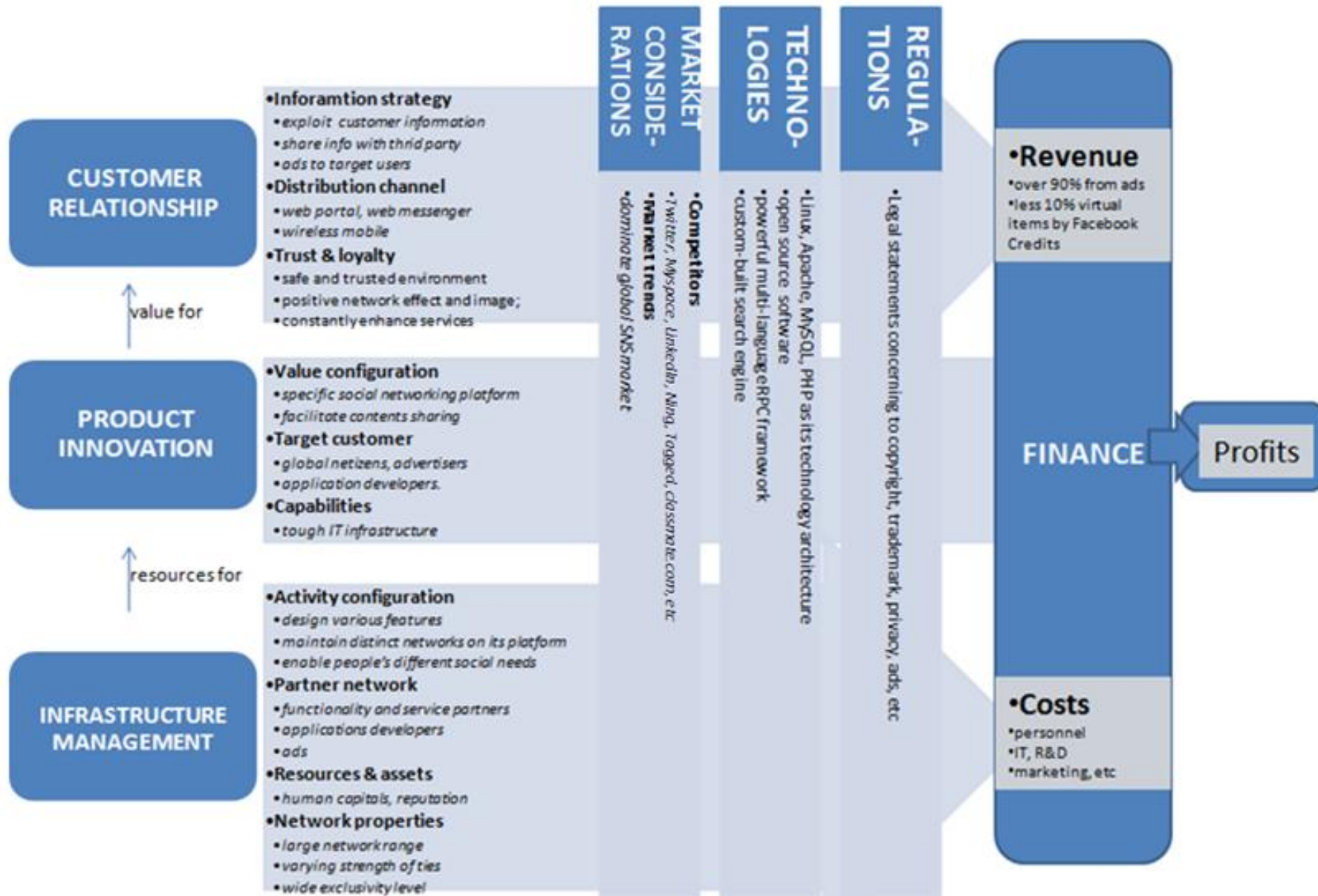


Figure 18 Facebook business model

5.2.2 Myspace business model

Customer relationship

The same with other social networking services, *information* is important in Myspace. When people log into the service for the first time, personal information is required to be filled, includes your basic info, interests, companies or schools, etc. They are useful when users try to connect other new people in Myspace. The site will recommend people you might know based on your provided personal information. Recommended people could be the one who has the same interests with you or the one from the same location. Not only profile info, contents of sharing, friends' info, and all activities on the site could be recorded and analyzed by company with the purpose of improving the personalized experiences. However, an existing big problem is that Myspace is not real-name social network site, there are many fake information registered in Myspace, and thus it is impossible to dig into customer data deeply¹⁷.

Users access Myspace through different *channels* like internet web portal and mobile devices. Similar with other social networking services, you can use the comprehensive services through web portal, and the core functions on your mobile device. Myspace mobile has higher engagement than any other social sites on the mobile web with users spending over 40 minutes a week. On the other hand, several third parties sync with Myspace services which enables users to share contents across different websites. Moreover, Myspace has also developed a real-time web messaging service.

Myspace is dedicated to improve users' *trust and loyalty* through constantly enhancing service contents and features, and enabling privacy setting options related to cookies, users' accounts, personal info, profile visibility, visitors blocking, etc. According to Myspace statement on its safety, security and privacy, the site is always steadfast in commitment to keeping people safe online through unique safety features and technology, partnerships with safety organizations and law enforcement, and the support of new laws will nurture the growth of online safety tools, education and research. Nevertheless, in front of tough SNS competition, Myspace is facing losing users and fighting to keep their loyalty recent years.

¹⁷ Online. Available at: <http://content.businessvalue.com.cn/post/3374.html>, [28.2.2011].

Product innovation

Myspace's *value* is delivered as a platform for social entertainment networking by a highly personalized experience. It mainly facilitates the content sharing in music, video, TV shows, and assists users to discover their favorite contents, play games, catch up celebs.

It mainly *targets Gen Y*, Myspace has over 50% market share in the 13 to 35 demographic in US, the people who has entertainment needs and social needs. It at same time open to advertisers for business deals.¹⁸

Myspace needs to ensure a stable technology infrastructure with *capability* to hold the large music and video contents, able to capture the fashion and popularity in entertainment, pay the closet attention and publish the newest music album and news in entertainment.

Infrastructure management

For Myspace's *activity configuration*, it designs different features for users' entertaining social needs. Users can discover and engage the favorite contents, collect and show the creations and profiles information, connect with other people who have similar interest, online gaming platform, music listening and sharing place, video watching, outer network sharing, etc.

According to Myspace' timeline of activities, in November 2007, it join Google's Opensocial platform; in April 2009, it cooperated with Citysearch which is the guide site to get reviews, recommendations and directions to your desired service; in February 2010, it integrated Google and Myspace real time search; in March 2010, it collaborated with GLEE TV episode to host an exclusive casting call, allowing users to be front in the decision making process for upcoming seasons; in June 2010, Myspace *partnered* with Ad.ly, an in-stream ads platform; in July, partnered with MTV.com; in August, Fox Audience Network and Myspace started organizational integration; in September, partnered with American Idol to add an online component to shows' casting process; in October, announced partnership with People's Choice Awards 2011; in November, partnered with Electus and Sprite for dance-themed original web series to create celebrities out of fans; in December, Myspce expanded search and ads agreement with Google; recently in February 2011, Songtrust partnered with Myspace for music service improvement.

¹⁸ Myspace Press(2011). Online. Available at: <http://www.myspace.com/pressroom/>, [25.2.2011].

Regarding to the *resources and assets* in Myspace, currently it has 1000 employees around the world, and they work for the option to access the site in different regional versions. Over 30 countries can access the Myspace service with 16 languages options. The global brand awareness is increasing under the efforts by them. The site services are constantly improving and enhancing in order to attract more people and keep their loyalty.

To consider the *network properties*, Myspace owns rather large network range globally because it basically opens to most of netizens except several places, such as in Turkey. However, according to Alexa.com, the global daily average spent time is much less than other social networking site, so it has less considerable communication on the platform than other popular sites e.g. Facebook. Further, the strength of ties is weak. Not like Facebook, which people connect with others who are classmates, real life friends, etc, Myspace users look friends usually based on same interests, for example both are fans of Lady Gaga, but they may never meet in real life before.

Market considerations

In previous Facebook section, it has been discussed about the *competition* among social networking services, and Myspace is also in the battle of them. Several years ago in 2006, Myspace was still the most popular social website in US, but Facebook surpassed it in 2008. After that, Myspace had been always struggled in fierce competition. As indicated in Figure 18, the number of unique visitors of Myspace had dropped under 50 million from 80 million within the year of 2010. And according to statistics of Alexa.com, its traffic rank decreases to 77 now from top 10 popular sites two years ago. To compare Myspace with other top 5 popular social networking sites ranked by eBizMBA (2011), Twitter, LinkedIn, Ning, and Tagged, their daily unique visitors are all increasing except Myspace's number is decreasing (Figure 19). It indicates that Myspace is losing users constantly in recent years. It has to figure out the customer strategy to attract and keep users on its services.

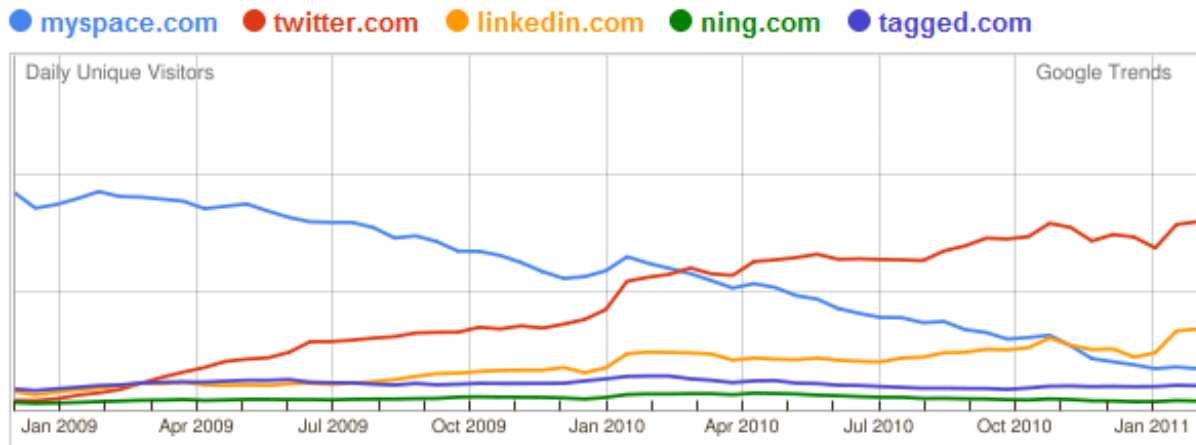


Figure 19 Daily unique visitors comparison (Google Trends, retrieved in March, 2011)

Technologies

According to Myspace's chief systems architect Farino (2009), Myspace was sending 100 gigabits of data per second to the internet, 10 gigabits contents among them were written by HTML and the remainder was media like videos, music and pictures. The server infrastructure consists of over 4500 web servers which running Windows Server 2003, IIS 6.0, ASP.NET and .Net Framework 3.5, over 1200 cache serves which running 64-bit Windows Server 2003, and over 500 database servers which running 64-bit Windows Server 2003 and SQL Server 2005 as well as a custom distributed file system which runs on Gentoo Linux. In 2009, Myspace migrated from HDD to SDD technology in some of their servers, and saved a lot spaces and power usages.

Regulations

Myspace mainly states its regulation regarding to the contents sharing on the site, including Proprietary Rights in Content on Myspace, Content Posted rules, Contents and Activity Prohibited regulations, Copyrights and Intellectual Property Protection, Third Party Linked Services regulations, Privacy Policy, Disclaimers, Limitation on Liability, etc.¹⁹

Financial aspects

95% to 98% revenue comes from the ads business in Myspace²⁰. First of all, the banner advertising, referring to MyAds by Myspace, provides solutions for small business advertising, music and concert promotion, comedians, film makers, and so on parties. With

¹⁹ Myspace Privacy (2011). Online. Available at: <http://www.myspace.com/Help/Privacy>, [28.2.2011].

²⁰ Online. Available at: <http://forum.techweb.com.cn/redirect.php?tid=194601&goto=lastpost>, [28.2.2011].

MyAds, users are able to build their own customized banner ads, target specific customer groups, and track and monitor their campaign by reporting tools. The ads fees are collected by clicks or views.

Myspace also had 900 million dollars deal with Google ads to monetize the search results by August 2010 and extended the deal by 20 million dollars per month after that²¹. Myspace uses strategic placement of advertisement on their search result pages by Google AdSense to gather revenue. The ads are displayed above and below search pages. The ads showing are based on contents of pages people are viewing and sometimes are reflect users' interests which are based on contents of webpage from participating websites that previously visited.

Summary

Myspace offers the social entertainment networking opportunity and highly personalized experience through various entertaining features. It has capabilities to hold large music and video contents data transmission, know the entertainment trends and thus able to provide Generation Y's social and entertainment needs. Myspace partners with different famous enterprises and also uses its own resources to deliver the value. Customers can discover and engage their favorite contents, connect people with same interests, and build their own network. However, due to the non-real name registration policy, the company is unable to dig customer data deeply that leads to the company cannot provide desired solutions to target users. Still, Myspace has the stable technology architecture to enable large data transfer and laws to regulate activities on the site. In addition, most of Myspace's revenue derives from its ads business MyAds and Google AdSense. The business model is summarized in Figure 20:

²¹ Online. Available at: http://news.xinhuanet.com/zg/jx/2008-02/19/content_7628132.htm, [28.2.2011].

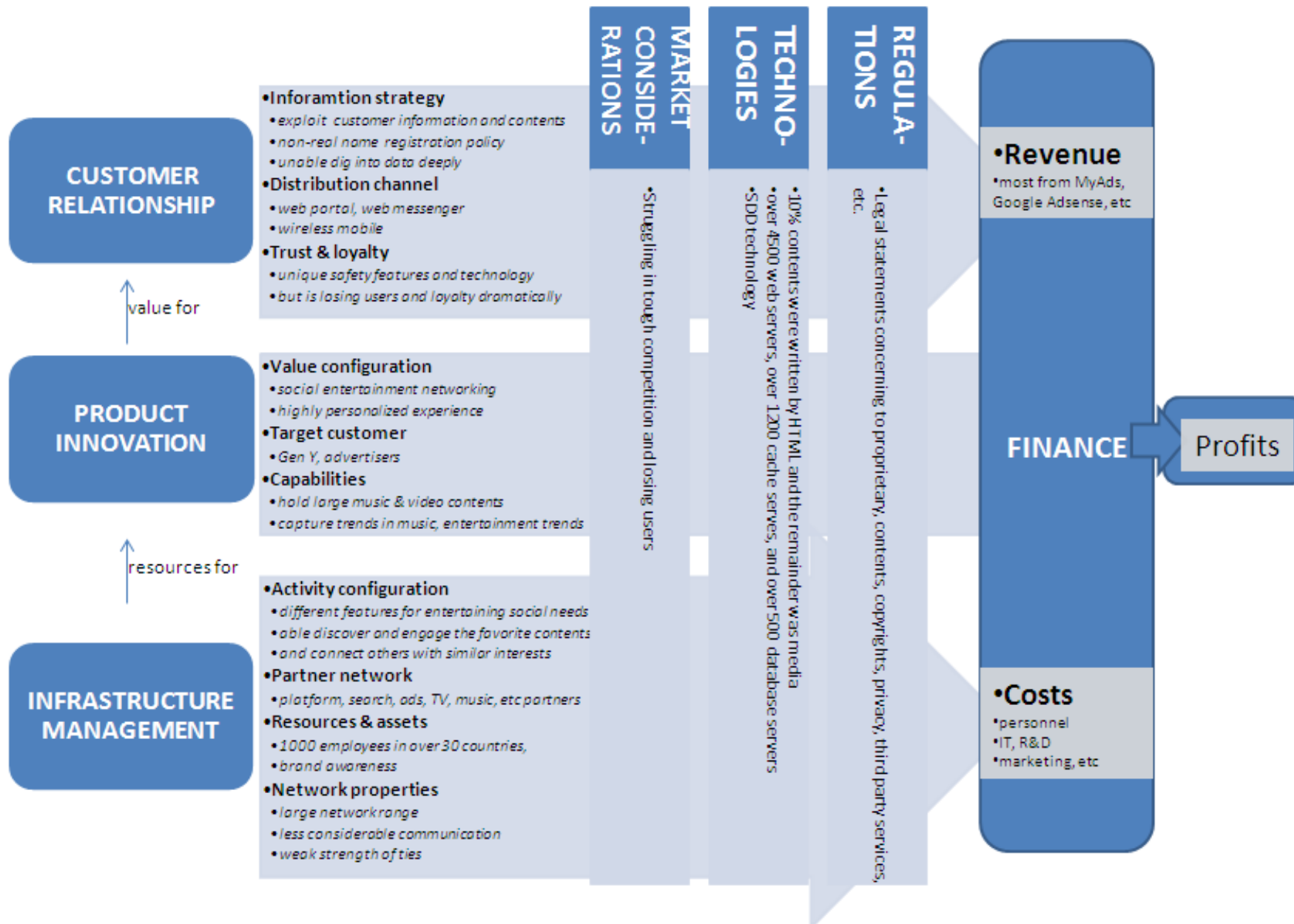


Figure 20 MySpace business model

5.2.3 Business models comparison

Then above discussion has identified business models of three case companies. They are differentiated in the components of business models. This part compares their similarities and differences of each component, and examines different emphasis.

Customer relationship

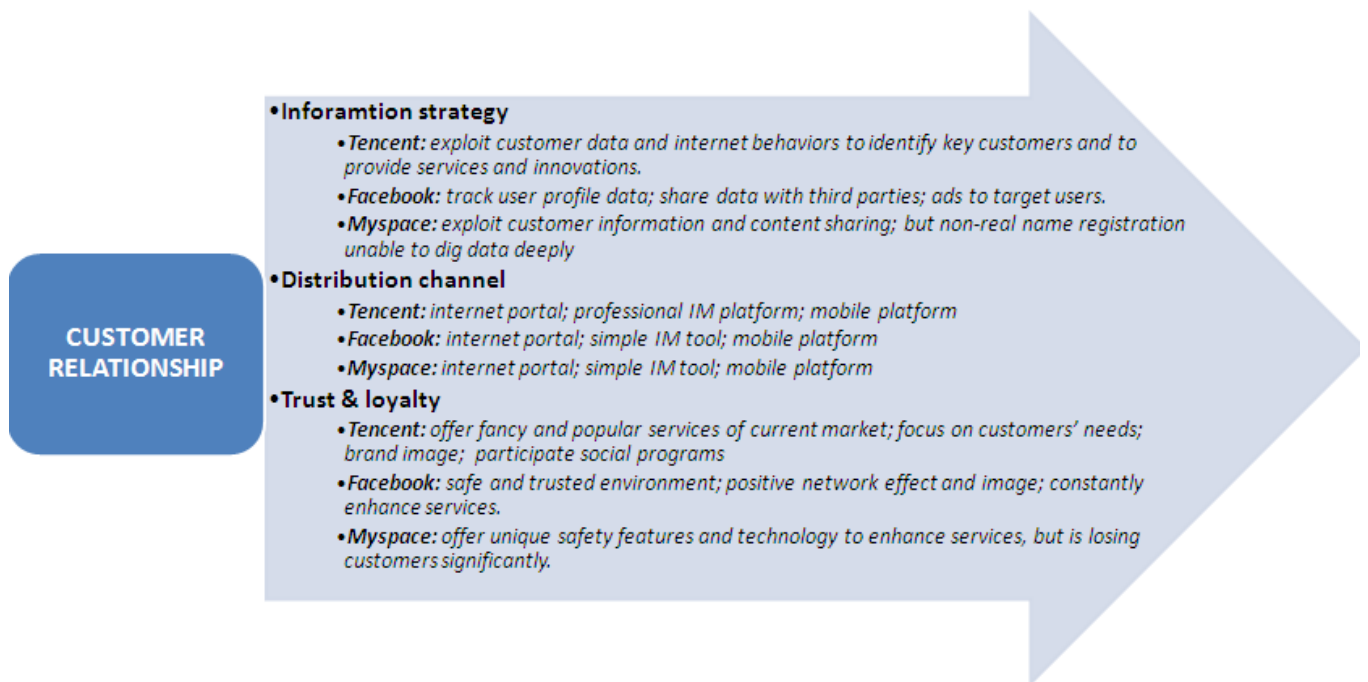


Figure 21 Comparison in customer relationship

Tencent takes the advantages of its huge user base, it exploits customer data and internet behaviors to identify keys customers and enhance the services. Facebook focuses on its user profile information and contents sharing tracking, the data is used to provide an efficient and customized experience. The data is also shared with third parties for enhancing services, and that helps advertisers to target right customers. Myspace also uses customer profile information and analyzes content sharing, however, due to non-real name registration on sites, much information provided are unreal, it thus unable to dig data deeply.

Three companies all use internet portal as their major service delivery channel, and they also develop specific platform for mobile access. Tencent started up as an IM software company, it therefore has the professional IM platform which provides comprehensive instant communication features. However, the IM tool of Facebook and Myspace are relative simpler.

Companies focus on different strategies to maintain customers' trust and loyalty. Tencent's strategy is to meet customers' needs and constant innovate its products and services to provide them fancy and popular features of current market. It also ensures a secure and safe internet environment through specific protection applications embedded in its software. On the other hand, Tencent actively participates in social charity programs and calls on users to join for brand building. Facebook emphasizes to give users controls over their experiences to ensure a trusted environment. As increasingly users join in the community, it results in the positive network effects and enhancing brand image. Myspace offers unique and safe features and technologies, give controls over customers' user experiences, but it is currently losing customers and loyalty significantly.

Production innovation



Figure 22 Comparison in production innovation

Three companies offer different value proposition to their target customers with distinct capabilities. What makes Tencent special is that it offers one-stop services to users, people can find rich services to meet their needs. It emphasizes on users' personalities and gives them opportunities of self-expressions through customizable service features. Also it has membership and upgrading mechanism to differentiate users' identities. Facebook offers a social networking platform for general social purposes, it facilitates communication and content sharing on the site which helps to build and maintain friends' relationships. Myspace is working on entertainment social networking platform. Users can enjoy the highly personalized experience through rich media and customizable features.

Tencent opens its features to every netizen and cooperation partners. Facebook target netizens over 13 years old while major audience are students group. It also provides advertisers a platform for business deals. Meanwhile, Facebook welcomes global application developers to build and improve its platform. Myspace aims at Gen Y, it drives social interaction by giving personalized experience around entertainment and connecting people to music, TV, movies, and games they love. Also, it partners with advertisers.

In order to deliver value efficiently, Tencent is good at capturing customers’ needs and preferences, and deliver related features to fit their tastes. Facebook ensures a safe and featured platform to meet social needs, and Myspace is able to hold large media contents and catch entertainment tendency. They all have tough IT infrastructures that enable stable platforms

Infrastructure management



Figure 23 Comparison in infrastructure management

Three companies use different activities to deliver their offers and values. Tencent analyzes the markets and users’ requirements and designs relevant products and services based on market trends and user needs. It then delivers the comprehensive services through multi-

platform. Facebook mainly focuses on its platform. It designs various features to meet social networking requirement and offers third party application developers more opportunities to enhance platform services. Myspace also provides people social networking functions, but specifically entertaining purposes like music, TV, ect. Users are able to discover and engage their favorite media contents and connect others with similar interests.

Tencent cooperates with rich amount of partners almost in each area of its services globally. Comparatively, Facebook and Myspace have fewer amounts of partners. Facebook cooperates with other in order to improve their functionality and features on its platform, whereas Myspace's partners assist content services and enhance entertaining media sharing service. And they both partner with advertisers for business purposes.

Three companies are all very famous in their brand. Tencent is the largest social media provider in China and the pioneer of IM service, Facebook is becoming global dominate in social networking service, and Myspace was once the hottest social network site worldwide. Tencent has over 10,000 human capitals and over 50% of them are working for research and development department. Facebook has around 2,000 employees while Myspace has around 1,000 employees globally, and websites are accessible in different countries in their own languages. Facebook received several rounds of funding from its partners which strengthened company's financial support.

Companies' network properties differ from each other although they all have large network range due to free registration to public. Tencent's network is denser and tightly-bounded because there are considerable communications among users and large proportion of network members' ties stay within this social network, and almost every Chinese netizen uses it. People have strong strength of ties with each other. Tencent enable one-to-one and one-to-many dialogues which gives the flexible exclusivity level. Facebook users also have considerable communications but less strength of ties. The conversations are usually in the way of one-to-many, and this leads to a wide exclusivity level. Users in Myspace build their network based on similar interests, they are strangers never meet each other before. They have less amount of communication and the strength of ties is weak.

Market considerations



Figure 24 Comparison in market considerations

Social networking services are facing fierce competition nowadays. Tencent competes both national and international wide mainly in IM, SNS and gaming markets. At present, Tencent is the largest Chinese social media company and is still growing. Facebook’s competitors come from global SNS market like Twitter, Myspace, LinkedIn, and so on popular sites, although they provide different social functions. However, it is now the SNS market leader and has dominant power worldwide. Conversely, Myspace is in downhill path. It is losing customers significantly and struggling in severe competition.

Technologies

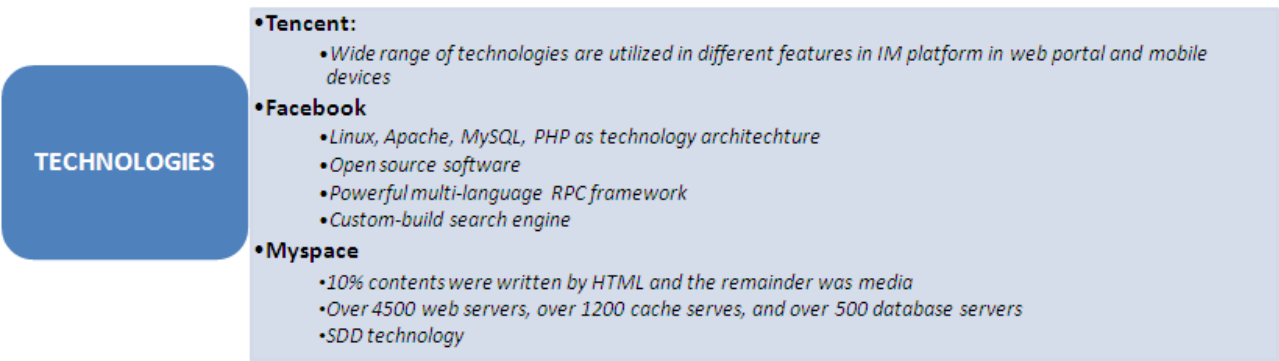


Figure 25 Comparison in technologies

Technologies are important for social media companies. Because of comprehensive range services ran by Tencent, it utilizes wide range of technologies in different features in IM platform of web portal and mobile devices. Facebook is built in the way of webpage. Linux, Apache, MySQL, and PHP have been used as it technology architecture on the site. It uses open source caching system and is built by powerful multi-language RPC framework so that easily ties together infrastructure services written in different languages. One of the main

functions of Myspace is to share vast contents on the site. 10% of contents are written by HTML and the remainder is media. It has over 4500 web servers, over 1200 cache serves, and over 500 database servers to ensure whole network work smoothly. Myspace has utilized SDD in some of servers for saving spaces and power usages.

Regulations



Figure 26 Comparison in regulations

Each company applies various legal terms and user agreement to protect its services and users’ rights. They focus on copyright, trademark, privacy, advertising rules, and third party services. However, Tencent mainly present its legal terms only on copyright, trademark, privacy, and security issues officially.

Financial aspect

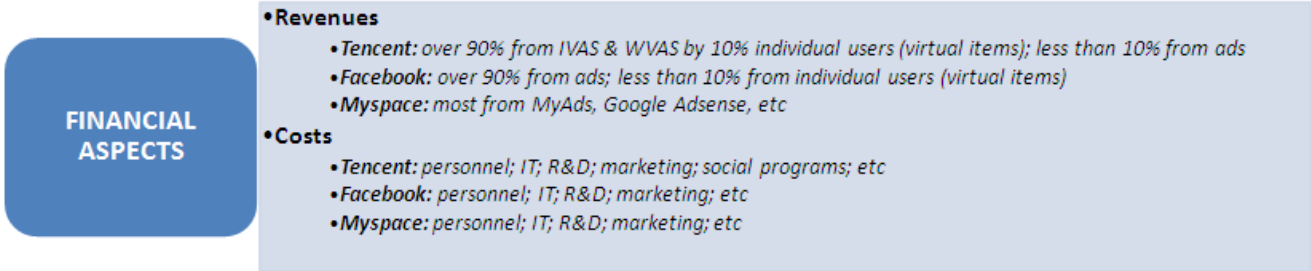


Figure 27 Comparison in financial aspects

Revenue model of each company is very different from each other. Facebook and Myspace obtain their revenue largely from advertising. Ads income comes from both individual users and company or organization advertising deals. In the contrast, less than 10% revenue in Tencent from advertising and other 90% from its internet value-added services and wireless value-added services by 10% individual users. And these services are sold in a way of virtual items. In Facebook, revenue by virtual items sold to individuals takes only 10% and Myspace

takes much fewer. However, their cost structure are similar, including personnel cost, IT, R&D, marketing. There is social programs cost in Tencent due to frequent charity donations.

5.3 Performance Measurement

Four indicators have been identified for measure case companies’ business models and performance. First of all, websites’ engagement situation will be assessed by their reach rate, page view rate, bounce rate, and so on metrics. Secondly, geo-socio-demographic measurement is used to observe the audience situation, to find out who are using the service and what the characteristics of them are. Thirdly, the features and functions of each service will be summarized and compared in order to identify the potentials of features able to be developed. At last, since the final goal of business which is to make money, we will measure their financial performances.

5.3.1 User activity and engagement metric

User activity indicates users’ actions when using the services, it typically reflects the popularity of the service, and can be measured by the site traffic, or the number of registered or active users. Engagement metric can be understood as how much time people spend on a site and how many pages they look at on average during each visit to more fully understand sites’ popularity. A successful service attracts more users’ attentions and activities, people are willing to engage more time on it rather than other services. According to Alexa internet company data statistics, the most frequently used metrics are reach rate, percentage of daily pageview, daily pageview per users, bounce rate, and daily time on site. We collect data of Tencent, Facebook, and Myspace and do the comparison of their popularity:

Table 8 Traffic and user engagement (Alexa.com, retrieved at 3 March, 2011)

	Reach rate (%)	Daily Pageview (%)	Daily Pageview/User	Bounce rate (%)	Daily time spent (minute)
Tencent (qq.com)	7.16	0.64	9.23	29.2	15.18
Facebook.com	40.29	5.1	13.1	15.1	32.76
Myspace.com	1.31	0.053	4.23	44.7	3.97

Reach measures the number of users. It is the percentage of all internet users who visit a given site. Facebook has a reach of 40.29%, which means that all global internet users measured by Alexa, 40.29% of them visit Facebook.com. Tencent’s website portal obtains a much lower reach. There are 7.16% global netizens visit qq.com. Myspace has the lowest reach rate 1.31%. Page views measure the number of pages viewed visitors. Daily pageview metric

indicates the percentage of global page views per day. Facebook still excels Tencent and Myspace in this metric. Meanwhile, the page views per user are the average numbers of unique pages viewed per user per day by visitors. A Facebook’s user visits around 13 pages every day, while a user of qq.com views about 9 pages and a user of Myspace views 4 pages on average. Bounce rate is the percentage of visitors who enter the site and leave rather than continue viewing other pages within the site. There are 29.2% visitors of qq.com views only one page of the site and leave, they are less willing to go deeper into the site than Facebook. And Myspace did the worst then. People prefer to spend more time on Facebook than qq.com and Myspace.

To summarize, Facebook attracts most netizens globally and users devote more time and loyalty than visitors of Tencent’s and Myspace’s website portal. Myspace was once the hottest social website in US, but now is overtaken by others obviously, it therefore needs to make more efforts for improvement in attracting people and retaining them to use the service.

5.3.2 User geo-socio-demographic metric

For each type of service, it appeals distinct audience group. For example, a professional social networking site is more attracted to people who are looking for business network or professional relationship building like LinkedIn, whereas Facebook is for general networking service and entertaining, it attracts younger users. People live in different social environment have different service needs. To be more specifically, users can be identified according to their gender, age, or geographical data. Audiences’ differences of Facebook, Myspace and Tencent can be observed from below statistics.

Table 9 Geo-socio-demographic statistics (quantcast.com, retrieved at 3 March, 2011)

		Facebook	Myspace	QQ
Gender	Male	45%	44%	48%
	Female	55%	56%	52%
Age	3-12	4%	5%	1%
	13-17	22%	27%	5%
	18-34	42%	44%	56%
	35-49	20%	16%	28%
	50+	12%	8%	10%
Ethnicity	Caucasian	75%	65%	9%
	African American	13%	13%	4%

	Asian	5%	4%	83%
	Hispanic	6%	17%	2%
	Other	1%	1%	2%
Children in Household	Kids 0-17	48%	43%	30%
	No Kids 0-17	52%	57%	70%
Education Level	No college	40%	58%	36%
	College	47%	33%	43%
	Graduate school	13%	8%	21%

It can be seen that both male and female would like to use these them, while the number of female is a bit more than the number of female male in all sites. The main function and feature of these sites are social networking, and this relates to the female nature of that they are more talkative and like social activities than male, which could be the reason of gender difference in usage. Considering age group, Facebook and Myspace have many teens and young people users and the major age range of them is from 13 to 34. Among Facebook majority, 22% of users are between 13 and 17 whereas 42% of users are between 18 and 34. Among Myspace majority, 27% of users are between 13 and 17 whereas 44% of users are between 18 and 34. At the same time, young adults are primary group for QQ with 56% of them are between 18 and 34.

QQ was developed in China mainland and started as the first IM tool there, it has first mover advantages for years locally, thus it used by most of Chinese netizens, but it is still on its way to open its global market. Currently, 83% users are Asian as indicated by Quantcast, while Facebook and Myspace users are primarily the Caucasian. In Asian countries, for example, Chinese government blocked the internet access to Facebook, and they usually use local SNS sites, such as Renren.com and Tencent's SNS, Japan also owns its own SNS website Mixi which takes 80% shares of social networking market in Japan. Few Asian uses Facebook then.

Further, since Facebook's decision on open registration, it changed to be available to general public from previous policy requiring a valid email address from university or selected group of organizations, Facebook is attracting increasingly teens than before, and currently not only college students use it, many less well-educated individuals join the community. Myspace also attracts more under well-educated users. Meanwhile, QQ users are well-distributed in each education level, and well-educated individuals are the majority.

To conclude, the female is more likely to use social networking services than the male. Secondly, the major users are between 18 years old to 24 years old which makes no difference in each case website. Thirdly, most Facebook and Myspace users are Caucasian, while QQ is mainly used by Asian, especially Chinese. Fourthly, majority of QQ users has no kids less than 17 years old and over half of Facebook and Myspace users has no kids. At last, Myspace users are somewhat less well-educated than QQ and Facebook.

5.3.3 Social media content metric

As indicated by definition, social media is the media used for social interaction with highly accessible and scalable communication techniques. For social media or social networking websites, some features and functions have to be enabled in its offered contents for the interactions among the users. We tabulate and compare the core features of each case website in table below (Table 10). The functions of contents have been categorized into six types, basic features, content sharing functions, friends' interactions, pages customization, virtuality, and miscellaneous supported features.

Table 10 Features list

Functions	Facebook	Myspace	QQ
<i>Basic features</i>			
Status	+	+	+
Comments	+	+	+
Pokes	+		+
Inbox	+	+	+
Message wall	+	+	+
Polls	+		+
Likeness/ Thumb up	+	+	+
Follow someone or become a fan	+	+	+
Groups	+	+	+
Events	+	+	+
News feed	+	+	+
Check-in	+		
<i>Shares</i>			
Photo/ Album uploads and shares	+	+	+
Videos uploads and shares	+	+	+
Blog/Journal writes and shares	+	+	+
Micro-blog			+
Import blogs from other networks			+
Export blogs to other networks			+
Links shares	+	+	+
Online music listen and shares		+	+

Collection of favorite shares (only visible to the user)		+	+
Hot sharing in the site		+	+
Sharing between different networks	+	+	+
Forum posts and discussion	+	+	+
Third party syncing content		+	
<i>Friends</i>			
Search friends by geo-socio-demographic tags	+	+	+
Import friends' contacts from other networks	+	+	+
Suggested friends	+	+	+
Friends classification	+	+	+
Friends' impression tags			+
Friends management on the desktop			+
Block users	+	+	
Instant messenger			+
IM multi-person chatting		+	+
Web messenger	+	+	+
Ringtone reminds of IM contact online		+	+
Ringtone reminds of new message	+	+	+
<i>Pages</i>			
Changeable page backgrounds and skins		+	+
Modifiable personal page	+	+	+
Appear offline when you visit the page	+	+	+
History and counts of page visitors		+	+
<i>Virtuality</i>			
Personalized virtual avatar			+
Membership level			+
Virtual gifts	+		+
Web games	+	+	+
Online games		+	+
<i>Miscellaneous</i>			
Instant weather			+
News board			+
File transfer			+
File storage			+
Exclusive domain email			+
Photo beautify			+
Application add	+	+	+
Online TV		+	+
Mobile portal access	+	+	+
SMS binding	+	+	+
E-commerce	+		+
Bookmarks			+
Privacy setting	+	+	+
Illegal behaviors reporting tag		+	+

Above table shows that Tencent offers a comprehensive range of services. The services cover most popular and usable functions of social media which ranges from social networking to e-commerce. Clearly to see that QQ has developed almost all features of being able imaged except “check-in” feature for telling friends where you have been at what time with whom, and what you have done. In Myspace, you cannot send a virtual poke to others, and unable to check-in neither.

Nevertheless, Facebook still has a lot of potentials in its function development. In the features related to sharing, is has no micro-blogging and no way to import or export journals from elsewhere. Meanwhile, it lacks of its own music player, etc. Because Facebook has majority users of teens and young people, it would be a good approach if Facebook develop its own web-based music players. Myspace also lacks the way to micro-blogging and importing or exporting the journals, but the user is able to sync the account to his/her other network, and for instance, when you sync to Twitter, you will be updating Twitter automatically when you update your Myspace status.

Compared with QQ’s excellent IM service, Facebook and Myspace offer the basic online chatting functions since you can only sent simply text messages to online friends, whereas QQ IM platform also enables video, voice chatting, multi-person conversation and more other fancy utilities. Facebook and Myspace web-messenger features appear to be rather pale and unlively.

Additionally, Tencent does an excellent job in user personalization and customization. It enables a user to add the customizable module in personal pages, and he/she can give the own names to the module as they want. The homepage theme and background is changeable as well, a user can upload his/her liked picture and use it as the homepage skin. And when visitors enter a user’s page, it automatically records the visiting tracks, and the history of tracks is visible to the user. This is a good way to know who is paying close attention to the user and to enhance the interaction between each other in a sense. However Tencent also allows user to control the privacy of the willingness to be tracked. Hereby you could visit friends’ page without trace by privacy setting. Similarly in Myspace, the pages are customizable and users are able to see recent visitors of their pages only if turn on the feature. In Facebook, the user can collapse and expand modules of the homepage, but unable to rename them. Facebook visitors’ traces are more protected, tracking function is unavailable neither.

For virtuality, Facebook enables virtual gifts sending among friends and mini web games, and Myspace enables mini and online games. Besides these features by them, QQ users have personalized virtual avatars for self-expression. With hierarchical memberships, users can enjoy different value-added services. There are other miscellaneous features that add much value to Tencent. For example, the instant weather notifier, news pop-ups, file storage and transfer, online TV, exclusive domain email, illegality reporting, etc. These user oriented features attract numerous users to keep using QQ.

To sum up, Tencent owns relatively comprehensive services and features. To benchmark, Facebook and Myspace still have the potentials to develop more functions to enhance their services. Facebook can add a micro-blogging function and embed the music player on the page. Further, certain level page customization can be considered. Also, to lever the membership on some users to get additional services is a good option to increase the revenue. And virtual avatar feature enables the user personality and self-expression. Similarly to Myspace, basic features can be completed first, and then micro-blogging feature, membership level, and virtuality are the gaps have not yet to be filled. Besides, some supporting functions of Tencent such as instant weather, news board, file transfer and storage, exclusive email box, and so on could be learnt, and Facebook and Myspace should gain the insights from them.

5.3.4 Business metric

According to New York Times (Andrew Ross, 2011), Facebook recorded revenue of approximately 2 billion dollars, with roughly 400 million dollars in profit in 2010, which summarized by company's results. That is up from 220 million dollars in earning on 770 million dollars in sales in 2009. For Myspace, most of its income derives from the online advertising, and based on the eMarketer, the online advertising revenue in 2009 was around 490 million dollars²², and in 2010 decreased to 288 million dollars²³. Unfortunately, we have not found any information on the profit Myspace made and their financial figures have not been disclosed, it is difficult to estimate profit number. However, it is clearly that the financial performance of Myspace is becoming worse by revenue figures. Meanwhile, Tencent's financial reports present associated revenue and profit in the year of 2009 and the first nine months of 2010. On the other hand, Tencent's financial performance exceeds Facebook and

²²Mccollum, J. (2009). Online. Available at: <http://www.marketingpilgrim.com/2009/12/facebook-set-to-pass-myspace-revenue-ahead-of-schedule.html>, [1.3.2011].

²³ Online. Available at: <http://itnews.buynow.com.cn/portal.php?mod=view&aid=8757>, [1.3.2011].

Myspace numerically. However, Facebook’s revenue has increased by 160% from 770 million dollars to around 2 billion dollars, which jumps the fastest among three companies.

Table 11 Revenue and profit

(billion dollar)		Facebook (estimated)	Myspace (estimated)	Tencent
Revenue	2009	0,77	0,49	1,89
	2010	2	0,288	2,14 (3 Quarters)
Profit	2009	0,22	#	0,8
	2010	0,4	#	0,9 (3 Quarters)

When compare with revenue streams of them, Facebook’s 90% business comes from advertising and 10% from virtual items sell, whereas there is less than 10% of Tencent business derives from advertising, other 90% business from internet value-added services and wireless value-added services directly by Tencent’s 10% individual users, and virtual items are main sources of income. Myspace put the least effort on other revenue sources since a very big majority is from advertising. (Table 12)

Table 12 Revenue breakdown

		Facebook	Myspace	Tencent
Revenue	Ads	> 90%	98%	< 10%
Sources	Virtual items & others	< 10%	2%	> 90%

In the end, when we calculate the profitability by profit divide by revenue, Tencent is around 42% and Facebook is above 20%. Tencent’s revenue is ahead other two companies as well as the profit. Facebook made huge growth in its financial performance in ads revenue, whereas Myspace is lagging behind. Major revenue for Myspace receives from advertising, same around 90% for Facebook. Conversely, over 90% revenue of Tencent derives from virtual items selling for individual users and less than 10% comes from advertising.

To conclude, Tencent is outstanding no matter in aspects of service features, customer engagement, or financial returns. Until this point, we could now explain the reasons of Tencent success. First, Tencent focuses on users’ needs and offers diversified services to matching all users’ needs to the maximum level. Secondly, it emphasizes personalization of the users, provides the channels for satisfying the desire of self-expressions for most young people who are the essential customers. Thirdly, there is limited competition in IM market initially in China because of the first-mover advantage. It helps company to grow quickly and attracts a large amount of users as its business base. The large user base enables Tencent to

deliver any services conveniently. Fourthly, China currently has 700 million mobile phone users, therefore Tencent takes the advantage of large user base and puts efforts on wireless service development as well, which brings around 15% revenue per year. The last but not the least, Tencent's revenue strategy is leveraged by virtual items sales directly from individual users rather than traditional online advertising approach.

5.4 Business Models Innovation

5.4.1 Potential models assessment

According to previous study on case companies' business models and performance measurement, some improvable areas have been identified through comparison. It is obvious that Tencent noticeably turns the social media service into the brilliant business and achieves great success. One of the biggest reasons of Tencent success is that it provides the comprehensive range services and integrated business model which exist in the current market. Although the competition to Tencent is very tough in Chinese market, Tencent proactively takes strategic actions to face those competitors every time. For example, it competes with Chinese social networking site Renren.com by adopting Friends service to weaken Renren's competitive advantage, wins the online music websites by providing its own music service, and improves its service range and quality by offering one-stop service platform. However, Facebook and Myspace still need to work hard to increase their financial returns. When the goal of business model of the company is to make money, it indicates business models of Facebook and Myspace are improvable. Recommendations will be given in this section.

The recommendations mainly come from three channels. First of all, Tencent achieves great success in its business, and a lot of voices spoken about social networking sites could learn a lot from Tencent about how to make profit. For example, Lukoff (2010) compares the virtual goods services, and he thinks Facebook should raise the promotion of Facebook Credits and learn from Tencent that monthly memberships work better than relying solely upon one-off purchases of credits. It is believed that Tencent's model is not only working in China, but can be adapted globally. Benchmarking with Tencent's services and business models will be a good option to develop Facebook and Myspace business, and we can obtain some insights from this company and suggest learnable models to them. Second resource of recommendations comes from the focus group as discussed in chapter 4.2. The data collected related to participates' attitudes to the products support us to measure and develop their

business models in relative components. Third, at the end of the literature review of social media of chapter 2, we obtained a lot of useful knowledge about some crucial factors to social media's success. It will contribute to the recommendations part of companies' business models.

5.4.1.1 Facebook

According to our measurement, major users in Facebook are young people and college students. Meanwhile from the information of focus group opinions, in order to explore development potential and gain stronger competitive advantages in this user group, the platform has to assist young users in their life, study, career, consulting, entertainment, current events, etc, by sharing the information and interaction. Users can have more efficient and effective communication, get valuable information and helps from the services. The suggestions are mainly given in Facebook's customer relationship, product innovation, infrastructure management, marketing consideration and financial aspects.

Customer relationship. Tencent's customer relationship strategies are welcomed by its users according to focus group opinions, it thus suggests Facebook benchmarks some features with Tencent. Besides similar information strategy and service distribution channels with Facebook, Tencent's two membership mechanisms also help to maintain user relationship. One is the upgrading as active time growing, the more time you are online, the faster you will upgrade. With advanced level, more services you can have. Second one is the diamond levels by charging fees. By paying to different color diamond level, you are able to enjoy different value-added service. Also, the more time you are spending on these value-added services, the better discounts and services you will get next time. Meanwhile, users of Tencent in focus group showed more interests in upgrading mechanism rather than tedious login and logoff. Facebook can learn from it, and develop similar upgrading mechanism to keep people interested and engaged. To reward people, it can for example enable larger photo album memory, or gives more rights on privacy control.

Product innovation. Facebook should offer more comprehensive services and adopt learnable things from others social media sites. First it can benchmark Tencent service features like micro-blogging, online music, customizable page, visitor counts, virtuality. If adopting the micro-blogging, it simultaneously weakens the strength and competition e.g. Twitter service. Music is the favorite thing by most young people, Facebook could develop its own music service such as embedding a simple music player in their homepage, people can

listen to their favorite music or order a song for friends. It not only brings the fun, but also enhances the interactions between each other. Offering virtuality service or customizable pages enables the self-expression and personality showing that young people desire to.

Besides, as discussed, young people care about the jobs, news, weather, or exams which relate to their life closely. An associated information section can be designed. It would be convenient if users can check the information about study, life, university, career, and news after login. Information could not only be shared between each other, but also be sent to specific one. In addition, a job recruitment section would be very valuable for college students. Companies target people and deliver job information according to users' locations and schools. Meanwhile, it should facilitate resume creation. When people find the desired position, the platform can send the resume to the aim company.

Infrastructure management. Another reason of Tencent success is that it knows customers' needs clearly. However, Facebook offers a lot of space for application developers and has not yet to consider make money from individual users. To meet individual users' requirement directly, Facebook should do more works on customer analysis and give the relative solutions.

For the partner network, Facebook should look for the cooperation with more business organizations that also valuable to users' life. According to focus group, we know that people also frequently visit sites e.g. Amazon books, online shopping ebay, job page monster. Therefore, e-commerce platform could be built up. Think about if you can buy book via Facebook without logging into Amazon, and probably get a cheaper price, it will not only bring the revenue for Facebook, but also make young people life easier.

Market considerations. Tencent's strategy is integrating all exist business models of competitors in the market. It tries to weaken every threat and competition emerging. Facebook also needs to pay attention closely to the global competitors. Company has to figure out strategies for facing emerging rivals. Integrating business model like Tencent could be a good solution.

Financial aspects. 90% of Facebook's revenue derives from online advertising, whereas less than 10% of Tencent's revenue comes from advertising. The truth is that people usually dislike ads when they are browsing the web pages or using internet services. Meanwhile, traditional advertising is losing its credibility and impact. People are gaining information from alternative sources, and preliminary evidence suggests that they are getting an increasing

amount of information used to evaluate product and service offering by consulting other people through online reviews and social websites interaction (Clemons, 2009). We suggest Facebook should expand revenue streams besides ads, one way is to obtain revenue directly from large user base.

First of all, Facebook can increase the virtual item sales. Although the company has leveraged Facebook Credits on users, the income on virtual currency takes minor part, and it has not discovered the full potential yet. Look at Tencent, also owns a large user base, it turns virtuality into a successful revenue stream. Each Tencent service can be related to a kind of diamond membership of certain color. With the membership, you can enjoy free and exclusive virtual items. They can be used in profile avatar, customizable page decorations, games, music, or others. 90% revenues originating from virtuality services in Tencent indicates there is a huge profit potential inside. However, Facebook Credits have not yet go deep into the services and are mainly for purchasing virtual goods in web mini-games, therefore more virtuality services should be promoted and developed. And Facebook could try to leverage paid membership mechanisms for exclusive features.

For Facebook, the virtuality services could be personal avatar, page decorations for self-expression. Similar to Tencent, a user can pay to buy virtual expressions, clothes and accessories for the avatar, or a fancy looking music player on his/her homepage. Increase the virtual gifts types, for instance, when people receive different types of flowers with written various blessing words, they would feel really pleasant. Further, Facebook can develop an information rolling bar on the top of the page and charge people by Facebook Credits who want to publish the content on the bar. The information could be the blessing words to someone, current events, or school activities in a user's network. If people want to forward the information into a larger network, then he/she will be charged more. Facebook is now working hard on its application development, as the application features increases, there will be more spaces for charging.

On the other hand, there are more than 200 million users accessing Facebook through their mobile devices according to Facebook latest statistics²⁴. And people that use Facebook on mobile are twice as active on Facebook than non-mobile users. Therefore, Facebook can cooperate with the local telecommunication company and provide mobile monthly subscription and binding service to Facebook mobile users. In detail, Facebook mobile users

²⁴ Online, Available at: <http://www.facebook.com/mobile/?settings#!/press/info.php?statistics>, [25.2.2011].

pay monthly fee to the telecommunication company, and he/she will be able to access the Facebook via mobile device with the limitation of certain amount of data flows. The cost can be much cheaper than accessing without binding service. Facebook can finally share the revenue with the telecommunication company.

5.4.1.2 Myspace

According to the previous measurement to company performance, Myspace is significantly losing users constantly, and its business performance is dropping as well. The competition in market is fierce and Myspace seems very struggling in battles these years. For a social networking website, the most significant task is still to attract enough users, keep their interests and retain the engagement rate. To improve company business model and performance, the suggestions are mainly given on the customer relationship, product innovation, infrastructure management, market considerations, and financial aspects.

Customer relationship. Due to non-real name registration, there is a lot of fake information on Myspace, company is not really able to dig into customer data deeply. For a social networking service, user data is extremely important, because data enable the company to target right users and sell right virtual items, deliver right ads, and optimize the revenue. Without correct data, Myspace could not offer the suitable service to right ones and user experience also drops. As time goes by, fake information increases, then it lacks trust and credibility among the users, and people leave.

To solve the problem, several ways are provided. Firstly, again adopt real name registration policy, and users need to provide real demographic information. However, privacy setting should be also enabled to users. With real information, people feel safe and trust the website under the optimized security environment. Meanwhile, it provides valuable customer information to Myspace.

Secondly, develop possible features for keeping users active on the site. Myspace can also learn from Tencent on this point. Upgrading and membership mechanisms could be introduced. The same with Tencent, high level users can enjoy better and advance service features. And in the initial stage of attracting users, it would be better not to charge users. After a period of free services, it then can consider to charge. Moreover, currently there is the feature named as “sign-in” in other sites. Each time after sign-in, you receive a small amount of virtual currency, and you can exchange virtual items with accumulated virtual currency. If

you sign-in in successive days, upgrading will be speed up. This would be a good way to keep users' engagement.

Thirdly, the company needs to show that it cares about users and gives them "caring" service. For instance, offering premium services to the one who is on the birthday. Or publishing blessing words to you in information rolling bar on the top of the page, which is also visible to all your network friends. This sort of close service in fact assists the interaction among three parties of you, your friends, and the website. Meanwhile, users can also forward messages to their network friends in this way.

Fourthly, the company needs to listen to community users' voices actively and provide a way for service feedback. Myspace should provide the opportunity for community to experience and discuss services actively. To listen to users' opinions, Myspace could often send rewarding surveys or questionnaires, actively post messages and reply users' requests in discussion forum. The discussion would better be open-ended and visible to everyone.

Product innovation. According to the measurement of Myspace contents, it already has the essential features. Since Myspace core service is music, so it should enhance its competitive advantage in music solution. Myspace could add more functions that improve user experience on this service. In Myspace music page, people need to search their favorite artists by names or songs. However, a function similar with friends recommended could also be utilized in music service. When a user adds several artists or music pieces into playlists, it would be superior to be recommended similar types of artists and music pieces to the user.

Infrastructure management. One of Myspace problem is its network properties. Due to people connect on Myspace are usually based on same interests, they may never meet in real life, therefore the relationship between each other is not deep, and the strength of ties is relatively weak. In order to build strong ties, we recommend Myspace to adopt real name policy like Facebook. With the real information, the suggested friends and networks will be more realistic and the relation between friends will be closer.

Market considerations. Myspace is in a bad situation in global competition. Tencent's strategy is integrating all exist services of competitors in the market, and this weakens threats in every service field. Myspace could learn from it and integrate multiple services.

Financial aspects. Currently, most of Myspace's revenue originates from online ads. As we discussed, ads is becoming losing of trust and disliked by people. Myspace could also start to

look for new revenue models. Although we do not strongly recommend Mysapce to sell virtual items like Tencent because there is no large user base now and people might just turn to other popular community if charged. Still, Myspace could try to add charging virtual goods services like in avatar. The reason of that is because there are more users in Myspace than Facebook like to emphasize their personality and self-presentation. There do exist the potential of virtuality business.

What's more, Myspace mobile service has higher engagement than any other social site on the mobile web. It is highly recommended to share incomes with local telecommunication provider, and get monthly subscription and binding service for mobile users.

5.4.2 Identification of risks

Any strategies and actions implemented bear possible risks because of the uncertainty of markets, project failures, legality, accidents, etc. The potential risks of Facebook and Myspace business model recommendation in previous section do exist.

For Facebook, we suggest to offer comprehensive services on the site such as micro-blogging, online music, page customization, virtuality, etc. In this way, the company's core service might not be differentiated since diverse features and sections on the site easily make pages loud and noisy. If adopt integrating business model like Tencent, Facebook might unable to concentrate on its competitive advantage. Sometimes too many models exist at same time means no model is significant. When the company needs to put efforts on every service, it is hard to compete with others who are great at a specific aspect. The study also recommends Facebook to expand its revenue streams, for instance, increase the virtual goods sales. This approach works brilliant in Asian social media market, however, it is hard to know whether Caucasian willing to pay much for virtuality. People dislike paying, therefore the risk is that they might just turn to other free services and Facebook loses the engagements.

The study suggests Myspace to focus and enhance its music service, complete the music service features in order to improve user experience. In this case, Myspace needs a strong resource integration capability to implement contents sharing, communicating, transferring, storing, recommending, etc. By adopting real name registration policy, users would worry about their privacy being invaded. When the personal information is used in improper way by others, it may lead users' personal safety to a dangerous situation. Moreover, the current biggest problem of Myspace facing is increasingly amount of users are leaving, and if

Myspace charges its services too much as study recommended, there will be more and more users turning away to other services.

To summarize the innovations of case companies and related risks, they are tabulated as below:

Table 13 Potential business models and risks

Facebook	
<i>Customer Relationship</i>	<p><i>Recommendations:</i> develop upgrading and membership mechanism similar to Tencent for keeping users interested and engaged in.</p> <p><i>Risks:</i> low risk.</p>
<i>Production Innovation</i>	<p><i>Recommendations:</i> benchmark other social media services offers; offer more services like micro-blogging, online music, customizable page, visitor counts, virtuality; develop information section for displaying study, life, school, news info; add job recruitment section.</p> <p><i>Risks:</i> unable focus on core service, too diverse features make pages loud and noisy.</p>
<i>Infrastructure Management</i>	<p><i>Recommendations:</i> analyze users' needs and design related features; build e-commerce platform, cooperate with more business partners that can make users' real life easier, such as Amazon books, ebay, job website monster, etc.</p> <p><i>Risks:</i> low risk.</p>
<i>Market Considerations</i>	<p><i>Recommendations:</i> integrating services models.</p> <p><i>Risks:</i> unable to concentrate on its competitive advantage, too many models sometimes means no an important model; unable to compete with others who work on the specific service.</p>
<i>Financial Aspects</i>	<p><i>Recommendations:</i> increase virtual items sales; bind with telecommunication services.</p> <p><i>Risks:</i> whether Caucasian willing to pay for virtual goods although it works very well in Asian market; people dislike to pay, they might just turn to other free services.</p>
Myspace	
<i>Customer Relationship</i>	<p><i>Recommendations:</i> real name and real information registration enables a safe and trusted internet environment and offer valuable data to Myspace;</p>

	<p>upgrading, membership, and sign-in features keep users engaged in website; enhance relationships between website and users; actively listen to users' voices.</p> <p><i>Risks:</i> privacy leak and violation, cost increases, freedom of speech could be abridged by real name registration policy.</p>
Product Innovation	<p><i>Recommendations:</i> enhance Myspace's main service – Myspace Music.</p> <p><i>Risks:</i> need strong resource integration capability.</p>
Infrastructure Management	<p><i>Recommendations:</i> adopt real name registration policy for enhancing the strength of ties of the network properties.</p> <p><i>Risks:</i> Privacy leak and violation, freedom of speech could be abridged.</p>
Market Considerations	<p><i>Recommendations:</i> integrating business model.</p> <p><i>Risks:</i> unable to concentrate on its competitive advantage; the core service in Myspace is not good enough, and integrated models might bring more difficulties.</p>
Financial Aspects	<p><i>Recommendations:</i> work on virtuality services and charge in somewhat level; share revenue with telecommunication provider.</p> <p><i>Risks:</i> the major problem is keep users engaged, but charging services would turn away more users.</p>

5.5 Summary of Empirical Study

This study is based on three social media companies. The purpose is to study their business models and to find out the best performing one, to obtain insights from successful company. There are two main parts of study to complete our research purposes. First, empirical study on three case companies examined their business models based on our modified framework. Through the comparison of their business models and company performance in various aspects, Tencent is identified as the best performed company. Second, some potential improvements are recommended for developing Facebook and Myspace business models.

Concerning their business models, Tencent is a user-oriented company. Its brilliant human capitals and partnerships with global business parties enable Tencent to deliver its one-stop services through multi-platforms to Chinese netizens. Under the protection of legal regulations and good technology base, it creates a trusted network environment to users. Although Tencent faces tough competition in current market, it still achieves excellent financial returns mostly from its IVAS and WVAS services.

Facebook dedicates to work on the platform development in order to offer people different social networking functions to mainly students group and advertisers. To deliver the good value to users via multi-platform, Facebook cooperates with third party application developers and others business parties to improve the features and contents on the platform. With legal protection on privacy and content copyrights and also constantly service development, the network environment becomes more trustful. In addition, its current dominant position in SNS market brings positive network effects and appeals more people to join in. Under its business model, Facebook obtains revenues mainly from advertising approach and few from virtual items sold to individual users.

With a good sense of entertainment trends, Myspace drives social interactions by providing a highly personalized experience around large entertainment media sharing. Although it has stable IT infrastructure to support large amount of data transmission, Myspace is struggling in the market due to the fierce SNS market competition. And because of the non-real name registration policy of its information strategy, increasing amount of people show the less trust to the service. Myspace is losing considerable customers.

Further, through the measurement and comparison of three companies' performance in aspects of sites engagement, content features, and financial returns, Tencent is found out to be the best performed one, Facebook is the second best, and Myspace needs to put more efforts. Moreover, in the part of business models development, we give recommendations in production innovation, infrastructure management, customer relationship, market consideration, and financial aspects of both Facebook and Myspace business models. The recommendations are from the benchmark with Tencent's services, inspiration by focus group information, and previous literature review study by the research. The innovations of business models and related risks are listed in Table 13.

6. Conclusion

This chapter concludes the study and summarizes the main results of empirical research. It first analyzes the applicability of modified business model framework we have created in chapter 3.3, second summarizes the key findings through the whole research, and then concludes its theoretical and managerial contributions, finally points out limitations of the study and further possible research.

6.1 Applicability of Modified Business Model Framework

The business model framework used for case companies' business models analysis is modified based on Osterwalder's (2002) four pillar ontology for e-business. It provides a rigorous methodology that defines the essential components and concepts in e-business models and shows the relationships between them. His four pillar ontology is most famous and acknowledged by other academic literatures. Because social media business belongs to the e-business, taking his ontology's attributes into our modified framework is appropriate, and we consider that the foundation of our framework is acceptable in its validity and reliability.

New added components of the framework are proven to be essential in social media business. Lytras et al. (2009) have identified market considerations, technologies, network properties, and securities are crucial factors in designing social networking sites. Since our case companies come from social networking services, we consider it is valid to take these elements into our framework. Meanwhile, due to a lot of copyright and privacy issues arise in social media, legal terms and rules have to be considered seriously to prevent illegal actions, thus the component of regulation is added as well into the framework. All elements in new framework are essential to social media business success, and one of them may influence other elements, also affect whole business model. We can think that the new framework is more rigorous and completed for social media business.

To check the applicability of the new framework, we can take an example of another social media site Twitter. When we analyze Twitter's business model, all the production innovation, customer relationship, and infrastructure management need to be studied, and market considerations, technologies, network properties, security issues, or regulations are significant to company's success. It is obvious that Twitter could not success without a good technology foundation or legal restrictions. Therefore, our new framework can be recognized as that not only applicable to our case companies but also to whole social media business.

6.2 Key Findings

The first finding of our study is the modification of business model framework for case company analysis. In the new framework, the major components are based on Osterwalder's (2002) four pillars ontology for e-commerce which consists of production innovation, infrastructure management, customer relationship, and financial aspects. To fit social media business genre, other attributes have been added into our framework. The new attributes are

market considerations, technologies, and regulations. These three factors have been mentioned by many researchers and are considered significantly in associated business model framework (Pateli and Giaglis (2003), Petrovic et al. (2001), Alt and Zimmermann (2001)). Additionally, a sub-attribute of network properties is located into infrastructure management component, since Lytras et al. (2009) have argued that the network properties are crucial for social networking sites designing.

Secondly, through the examination of Tencent's business model (Figure 17), we find out the core strength of its services. The most brilliant point is Tencent's integrated business model which offers comprehensive services that cover users' needs in every aspect. Moreover, it gives the opportunity of self-expression and personality presentation by customization services. Also, the first-mover advantage of IM service enables a large user base and limited competition locally. Further, Tencent takes the advantage of large amount of users in mobile and monetizes the service also through the wireless channel. The last but not the least, Tencent strategically charges individual user on virtual items rather than conventional online ads.

Thirdly, business models of Facebook and Myspace have been studied according to seven components business model ontology. Product innovation, infrastructure management, customer relationship, market considerations, technologies, regulations, and financial aspects of each company have been elaborated. The summaries of their business model are tabulated in Figure 18 and 20.

The last, the potential business model innovations have been recommended. Recommendations come from three channels, benchmarking with Tencent, focus group discussion, and literature review study. For Facebook, we suggest it improves its production innovation by offering more services, such as micro-blogging, online music, page customization, visitor tracking, virtual items. Meanwhile, an information section about jobs, news, weather, exams which related to most students users' life closely should be added on the site. Similarly, a specific job recruitment section could be especially valuable for college students. Regarding to Facebook's infrastructure management, Facebook should not only consider application developers on the platform, but also the individual users are extremely important. It could try to partner with some companies like Amazon books, ebay, or monster.com for building e-commerce platform. It can not only make profitable, but also provides individual users real valuable thing close to their life. To enhance the customer

relationship, Facebook could also imitate Tencent upgrading and membership mechanisms for keeping their interests and engagements. Meanwhile, it has to pay attention to global competition in social networking market. To solve this problem, again Facebook could try to use integrated models like Tencent to weaken threats in every service field. Finally, the study recommends Facebook expands the revenue models by more virtual items sales in all kinds of Facebook services. They could be the customization in pages, personal avatar, etc. Furthermore, it can develop new features like information rolling bar on the top of page, and charge the one who would like to publish information on it. Besides, another way to increase the revenue is to cooperate with local telecommunication service providers and provide users cheap monthly subscription and binding services to Facebook mobile users.

Similarly, the study gives certain suggestions to Myspace. Because the major problem of Myspace is losing users severely recent years, the emergent task is to attract people to join the community, keep their interests and engagements, and build good customer relationship. Regarding to its product innovation, Myspace should enhance its core service Myspace Music and add more features to music to outstand its competitive advantage. To build strong strength of ties among the users, real name registration policy is recommended. It meanwhile helps the site to do user data analysis correctly and thus deliver the right services to right ones. When the trust and credibility are enhanced, the customer relationship is also improved. Upgrading and membership mechanism can be adopted as well by Myspace for retaining users. Frequently listen to users' voices openly and actively or provide efficient feedback approach also helps to build customer relationship. Most revenue of Myspace derives from online ads, thus it could try to make money by other ways. Myspace users are more care about the personality presentation and self-showing, it would be great to offer people virtual items in page customization and personal avatar to better express themselves. Also, sharing revenue with local telecommunication service provider is another way to make profit.

6.3 Theoretical and Managerial Contributions

The framework modified for business model analysis is not only applicable to our case study, but also to other social media business. The applicability has been discussed in previous section. Theoretically, thus the framework (Figure 8) can be generalized into whole social media area, and can be used in their business model analysis.

Further, this study provides potential improvement areas in two companies' business models which can be viewed as the managerial contributions. Facebook and Myspace have been

suggested to improve their business models in elements of production innovation, customer relationship, infrastructure management, market considerations, and financial aspects. The recommendations for company managerial side can be summarized as follow:

Table 14 Managerial suggestions

Managerial Suggestions to Facebook	
<i>Production Innovation</i>	Offer comprehensive services and adopt learnable things from others social media sites, benchmark from Tencent; provide more things based on young people's needs, such as jobs, news, weather, or exams which relate to their life closely.
<i>Infrastructure Management</i>	Consider making money from individual users; looking for new business partners and integrate e-commerce platform, such as Amazon, ebay, job seeking page, to make young users life easier.
<i>Customer Relationship</i>	Enhance user loyalty by designing membership or upgrading mechanisms.
<i>Market Considerations</i>	Integrate multiple services to weaken threats and competitions.
<i>Financial Aspects</i>	Increase virtual items sales in different approaches; cooperate with local telecommunication provider and provide mobile monthly subscription service to mobile users, and share revenues with telecommunication provider.
Managerial Suggestions to Myspace	
<i>Product Innovation</i>	Enhance competitive advantage in music solution, and add more features to improve user experience on music service.
<i>Infrastructure Management</i>	Build stronger strength of ties of network properties by adopting real name registration policy.
<i>Customer Relationship</i>	Improve network security and decrease the user information fakeness by real name registration policy for maintaining customers' trust and loyalty; actively listen to users' voices and give ways of feedback.
<i>Market Considerations</i>	Integrate multiple services to weaken threats and competitions from other social media areas.
<i>Financial Aspects</i>	Try to charge virtual goods but pay attention to users' attitudes; share revenues with local telecommunication provider and get monthly subscription and binding service for Myspace mobile users.

6.4 Limitations and Further Research

The limitations of this study can be considered from two perspectives, one is the framework utilized for business model analysis for social media services, second is the methodologies conducted in research.

The modified framework for analyzing social media business is primarily derived from e-business model. Although some new attributes related to social media have been considered into new framework, we still could not know its completeness and accurateness. Therefore, some information could miss or not hundred percent correct for the study results.

On the other hand, our research is based on qualitative case analysis, and there is no in-depth interview with companies and no quantitative analysis. The data collected through observation and focus group and the analysis based on them may lead biased and incomplete results because of people's subjective opinions. Meanwhile, without in-depth interview, we could not go deep inside the company and analyze their business models from inside. Without quantitative analysis, we could not numerically measure the profitability and return on investment of social media in business model innovation part.

It therefore brings the further possible research. Quantitative study could be conducted to measure and evaluate the feasibility of business model innovation from either costs or profitability sides. In this way, we should develop the quantitative research frameworks or other numerical metrics for studying the social media's return on investment. In addition, Facebook and Myspace are principally the social networking services, however, other different kinds of social media business models can be studied, such as micro-blogging service provider Twitter, video sharing provider Youtube, etc. Their business models are different from social networking service provider.

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