

A Study of Electronic Money for Online Games in Thailand

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Abstract

The online game industry has boomed benefiting all the involved parties in the supply chain from the producer to the retailers. However, there is a limited research involving with the retailers who provide e-money for the online games. This study aims to analyze business strategies and models including related aspects based on interview with the founder of the company, which is running e-money for online games in Thailand. The research outcomes cover company background, business strategy, model, key business driver, threats, and the assessment analysis including the web site assessment framework and the web assessment index. Subsequently, strategies, which should be born in mind when running this type of e-commerce, are also highlighted and discussed.

1. Introduction

In recent years, the online game activities have become very popular among the young people in Thailand [22]. At present, the multiplayer games, especially massive multiplayer online games (MMOG) are the most successful and popular among all online games [32].

There is a business channel of virtual currency or game point card for online games that is getting rather competitive in recent years. Despite numerous e-commerce studies in the world, there is limited number of research catering to e-money for online games. The currency used virtually is important aspect in the online game's supply chain and it recognized the synergy created between retailers and gaming companies. Through game cards, retailers become valuable part of the supply chain and through in turn; online game developers can reach their core audience and expand their number of users indirectly via the retail channel [24].

This paper begins with a review of the online game industry and the in-game virtual currency e-commerce. RTB Plus (www.rtbplus.com), a pure play e-commerce of

the Blue Ocean Online Company, is analyzed as the case study.

2. Literature review

2.1. Game market

The United States took the highest value in the world game market followed by Japan and South Korea. Thailand, in its infancy stage, has only 0.61% of the world market [22]. It has been reported that online-game manufacturers occupied the top three of the enterprise's billboard of 500 "Tops of the High-tech High Development of the Asian-Pacific Area" [31].

Thailand started its first online game in 2001 and achieved average growth rate about 25% across 4 years, 2003–2006 [22]. In 2008, it had a growth rate about 15–20%, due to the growth of broadband Internet, the variety of games, the decreasing of hardware's prices; the online-game industries become very popular and competitive [1].

From the survey done by Software Industry Promotion Agency (SIPA), it showed that most of the gamers are undergraduate students, follow by high school students, with average income less than 5,000 Baht per month [22].

According to the famous game company, Asiasoft Corporation exists a version of three main phases for the generation of online game industry. The first phase refers to the period where game companies rely on only one main game as the selling point. The second phase refers to transforming business process to various games. The third phase, they are creating other diversified business lines such as content advertisement, and other services. From its viewpoint, Thailand has passed both the second phases, and now proceeding into the third [5]. Moreover, Thailand has per annually organized major event that attempts to promote the game industry. It is the Thailand Animation and Multimedia (TAM) organized by SIPA [22].

2.2. Virtual currency / In-game currency

Virtual currency is used to purchase virtual goods within a variety of online communities. It is categorized into 4 types: (1) gaming-primarily for purchase of in-game goods that enhance game play; (2) virtual Worlds-primarily a mechanism for exchange; (3) online communities-primarily nonmonetary, used for points, to enhance status and prestige; and (4) social networking Web sites-primarily nonmonetary, used for points, status, and prestige as well as mechanism for exchange [8]. This context focuses on the first type. The game card is the profit source of online game companies [31]. Many online games are free, but gamers have to pay to enhance their experiences with some special weapons, abilities, clothes, and even pets [25]. Since some people are unwilling to spend time upgrading for status and superior equipments, they buy the virtual equipment with money [31], the in-game (virtual) currency. It allows gamers to purchase virtual currency, or points, to be redeemed in virtual environments [25]. CyKash Game Card is launched in United States as a multi online game card [9]. Cherry Credit, in Singapore, is also launched as the Unified Global Virtual Credit [6]. InComm, the US prepaid card distributor, is capitalizing on this growing phenomenon of nearly 200 percent growth in game card sales in 2008. [24]. And SuperData Research found that prepaid game cards are leading alternative channel for payment method in online entertainment [26]. The consumers aged less than 21 are using this alternative payment method [4]. According to Figure 1, provided by Liu and Zhang (2006) [17], this e-commerce is a retailer that buys the online game cards from the operational company and sells them to the online game players.

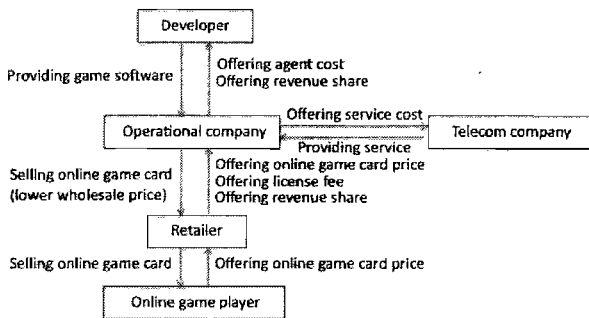


Figure 1. Operation process in supply chain coordination for online game industry

Source: Liu & Zhang, 2006 [17].

3. Research methodology

RTB Plus was selected as a case study of this study because it was one of the first pure online virtual currency e-commerce for online games in Thailand. The information about this e-commerce has been obtained

from the interview of a general manager of Blue Ocean Online Company and the specialized web sites such as Alexa.com, Google Analytics, etc.

3.1. Web Assessment Index

WAI is a tool that provides an integrated approach for evaluating potential factors of web sites. Since WAI avoids subjective factors, which have been predominant in other assessment tools [3], it is selected as an assessment tool for this study. Based on Miranda and Bañegil (2004) [19], there are four main factors: accessibility, speed, navigability, and content quality, we have to consider.

3.1.1. Accessibility. It refers to the quality of a web site in terms of its ease of identification and access. It may be measured by at least two indicators: the search engine positioning of the web site and site popularity [13]. The higher the search engine ranking is, the greater traffic of a site is, and therefore, increases its degree of accessibility [19]. According to Truehits, Thailand largest web statistics collector operated by Government Information Technology Services, Google is most frequently used in Thailand. Moreover, the second rank, Sanook.com, the largest Thailand web portals, also uses the search function provided by Google. For this reason, it can be concluded that Google currently dominates the search engine market in Thailand [28]. Therefore, Google Thailand has been chosen to measure. The score in this study is based on the Eyetools Research. The key location on Google for visibility is a triangle that extends from the top of the results over to the top of the first result, then down to a point on the left side at the bottom [11].

The Alexa's Sites Linking In, which measures the number of sites linking to the web site, is used in site popularity analysis. Multiple links from the same site are only count once.

3.1.2. Speed. Access speed and response time are significant, because time is always critical [3]. Since there is strong correlation between web site loading time and Google Page Speed [7], we analyze the information from a quantitative measurement score of Google Page Speed.

3.1.3. Navigability. It is the browsing extensibility, which the web site's software allows [21]. Users should never feel lost, and each page should be self-sufficient and provide links to main contents [3]. The factors used in this work to assess this category are permanent site menu and keyword search function [19].

3.1.4. Contents quality. It is measured assessing the presence of relevant information to the users. A site must

have content that satisfies users' needs and updated at least once a month [19].

The following categories (see Table 1) were weighted based on Miranda and Bañegil (2004) [19] study, which were used to analyze the firms that sell products online. Although the use of these subjective weightings may be considered as limitation of this study, it is to be noted that many studies ([13], [19], [20], [30]) have also employed such similar tactic of arbitrary weightings in their researches.

Table 1. Web assessment index

ACCESSIBILITY	20%	NAVIGABILITY	20%
Presence in search engine	5	Permanent menu	15
Link Popularity	15	Search function	5
SPEED	10%		
Access speed	10		
CONTENTS QUALITY	50%		
Informational content	20%	Transactional content	15%
Company background	4	Online orders	15
Product/service description	4	Communicational content	15%
Daily news highlights	4	Contact e-mail	5
Financial information	2	Contact tel. or address	4
Job opportunities	2	Receive news by e-mail	1
Check order/shipment status	2	Free e-mail service	1
Search for game companies, etc.	2	Personalization capacity	2
External links	1	Entertainment elements	2
Link to firm divisions	1		

Source: Miranda and Bañegil, 2004 [19].

4. RTB Plus

4.1. The history

Blue Ocean Online Co., Ltd. was established in Thailand in February 2008, and began its online business in April of the same year with only 3 entrepreneurs: administrator, marketing manager, and general manager. From the nature of the participants in the e-commerce transaction, it is a Business-to-customer (B2C) e-commerce that involves retailing products and services to individual shoppers [16]. Its annual growth rate increases to 20-25% within 2 years. The target customer is Thai online gamer who likes fast transaction, modernizing, and safe for topping up the game's account.

The founder used to work in a music company. He was asked to make a business model for online song to

teenagers who do not have credit card. He found that Counter Service, a Thai business, which offers alternative way to paying bills in cash, is the suitable solution for the online purchase since the customer can pay through Counter Service at many places. In addition, the founder of RTB Plus is an avid online gamer and found many problems particularly inconvenience in payment. He tried to adopt that business model to solve the existing problems, and came up with ultimate answer. The solution was for the gamer to top up their account with much ease, purchase point 7/24, enjoy purchase promotion, and obtain freebies. The idea became the foundation for the RTB Plus which stands for Ready-To-Buy. The Company started this business with the one pocket concept that enables the gamers to use with all online games available in Thailand. The main income comes from online game serial top up.

During the kick off period of this e-commerce, the company encountered the problem of trust issue. The solutions are further discussed in session 4.3.

4.2. Business strategy and model

Special e-payment system has been developed to pay for goods electronically on the Internet. e-payment systems for Internet have many types of payment system [16]. For RTB Plus, it provides an e-money service termed as "B-Pocket". According to the Bank of Thailand Notification [2], it is considered as e-Money List A. Its business model is a retailer in the online game industry. It transfers the real money to be virtual currency that can be used to buy serial code for topping up the online games' account.

RTB Plus has four channels for the customers to change their money to its e-money: (1) Counter Service; (2) payment systems via ATM or Internet Banking; (3) Credit Card; and (4) Money transfer to bank account.

In 2009, Thailand had 16,100,000 Internet users [18]. Based on Google Analytics, RTB Plus receives a daily average site visit of 2,766 visits, where 35.67% are new visitors. From the beginning period of merely 1,000 customers, RTB Plus has attracted up to 50,000 customers by 2010. There are two types of customer, namely the ordinary and the e-business customer. The former is the common gamer while the latter is the small business owner to sell the product under B-Pocket. The latter customers are the sub-distributors.

4.3. Key business drivers, treats, and innovation factors

The key business drivers of RTB Plus are the alternative payment method that enables anyone, anywhere, anytime to purchase its products with ease and

convenience; the variety of online games' product that covers all online games in Thailand; the monthly promotion; and the speed of services provided. Besides, RTB Plus also applies the Secure Socket Layer (SSL) 128 Bits Encryption for the information transfer through the network. It enables client and server computers to manage encryption and decryption activities during the communication [16], as employed in the currently Internet Banking ([12], [15], [23], [27]). At initial start of period, it was hard to gain customers' trust because they were used to the traditional way of buying game cards to get the code and top up via web site. E-commerce cannot flourish unless there is an atmosphere of trust among buyers, sellers, and other partners involved in online transaction [16]. Thus, RTB Plus has used following strategies: designing the reliable web interface; registering e-commerce with the Department of Business Development, Thailand; registering a legal company limited; notifying business operation of its e-money services to the central bank according to the conditions for regulating on e-payment services [2]; increasing the link popularity especially among the online games' web site; commercial advertisement regularly; and providing web board and social network for the customers.

4.4. Web site Assessment Framework

Based on the proposal by Elliot and Bjorn-Anderson [10] of the Centre for Electronic Commerce, this study uses the framework, which composes of six criteria: company information and functions, product/service information and promotion, buy/sell transactions, customer services, ease of use, and innovation in services and technology, to evaluate RTB Plus. An evaluation done for RTB Plus can be seen as follows. The web site: (1) shows ownership, operations and product/service area, and contact details; (2) categorizes products in game card groups, and show the detail of each card including pricing, providing promotions, and displays new products frequently (3) since it is pure play e-commerce, it supports online purchasing, provides 128 Bit SSL Encryption, provides simplified processes; (4) operates 7-day call center, and web board for discussion; (5) has a modern layout and creative design which is easy to read as shown in Figure 2; and (6) enhances customer services such as games with prizes, and customer communities such as web board and, displays Top ten products and buyers of the week.

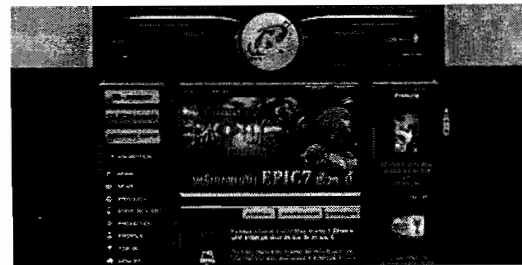


Figure 2. RTB Plus' web site

Source: <http://www.rtbplus.com> (July 2010).

4.5. Web site evaluation using WAI

Three selected web sites taken from the list of online channels in Thailand that provides Cherry Credits, the world's first Unified Global Virtual Credit [6], used as comparison. They consist of (1) Zest (www.zest.co.th), the click-and-mortar retailer; (2) FunLoader (www.funloader.in.th); and (3) GameCards (www.gamecards.in.th), the pure play retailers. The results tabulated are shown in Figure 3.

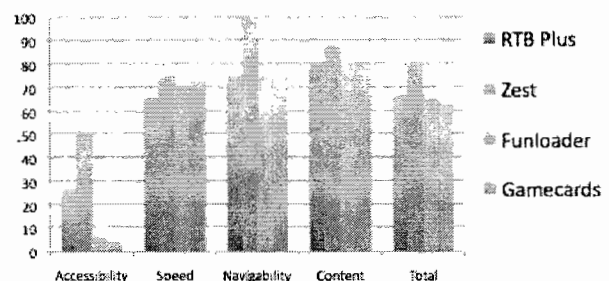


Figure 3. Evaluation of web site quality by WAI

Note: Data evaluated during May-July 2010.

4.5.1. Accessibility. We use the generic name of their products. RTB Plus' web site is among the top-ten results for "d card", cubicash, "darkstory card", "silver card", "jam card", "rom card", winner, "fun cash", and "cherry credit", respectively. And there are 59 sites linking to STB Plus.

4.5.2. Speed. RTB Plus receives 66/100 score. The slowness is due to presence of a number of Flash and JS; cacheable resources have a short freshness lifetime; large CSS resources; and some unspecified-dimension images.

4.5.3. Navigability. RTB Plus facilitates navigability by a permanent site menu. It provides eye-catching three main link buttons: namely B-Pocket, its e-money; Quick order, the fast way to buy the products; and Internet Café, the channel for e-business customers. Subsequently, RTB Plus provides the navigation menu that consists of various choices: home, news, product, game box set, promotion,

(user) profile, top 10, how to, FAQ, B-Share (web board), B-Trade (marketplace), B-Game, B-Free, B-Auction, B-Class (level for user), and B-Music.

4.5.4. Contents quality. In online gaming environment, there are four factors in two categories (web site outputs and web site characteristics), which are the key drivers of trust: namely product quality, service quality, web site security, and web site interface design. These four factors are essential for players to develop knowledge-based trust [14]. As studies showed, RTB Plus satisfies all these four factors. Firstly, it provides information about all of its products and services. Secondly, it shows the list of game that each card can be used for and also provides links to each game and the respective company. Thirdly, it shows the description about the payment method, provides call center number for everyday, and has web board and social media for communication among the customers and with the company. And lastly, it is visually eye-catching web design. However, the web site does not provide some necessary information such as the financial information. As its immaturity status, there may not much information on financial status to present.

4.6. Future development plan

The RTB Plus' web site plans to continue with development of new web site design to make the customers easier to use their services and purchase their products with ease. They plan to integrate their site with social network services and extend their products to other categories using the B-Pocket.

5. Discussions and conclusions

This study provided some insights on the e-money for online games practices in Thailand. The ongoing expansion of Thai gaming industry is attested by the increase in market value for demand perspective [22]. CEO of Nexon Corporation highlighted that online game industry in Thailand still has rooms to grow and improve. In 2008, there were about six million online gamers in Thailand [29]. However, RTB Plus found that only 10% of them are currently using the online payment mode. Additionally, Internet radically reduces the cost of creating transaction cost, and storing information while making that information more widely available [16]. Thus, it is indeed an opportunity to participate and challenge in this blooming business. Nevertheless, there remains the problem of providing and maintaining the e-commerce for the customers' needs to achieve full satisfaction.

In this paper, the author has developed a case study of RTB Plus in which data obtained is based on interviews

with the founder of the company. It was found that the success of this young blooming web site has gained new customers trust and maintain the current members' satisfaction by using the following strategies to: how to make the reliable and creative web site; how to make the e-commerce and e-money's reliability; how to increase the link popularity; how to make the gamer familiar with the logo and name of the e-commerce; and how to provide suitable services. RTB Plus has managed to increase its customer to over 50,000 within two years. These strategies are recommended factors suggested by RTB Plus.

RTB Plus gets the highest score among the selected pure play e-commerce, which mostly from the accessibility. Although its design is modern and creative but only web design aspect is insufficient for a site [30]. Its web site could be improved by adding a search function, detailed company profile, financial information, and job opportunity. It is not surprised Zest has a better web site score according to the WAI, because of a longer experience and merit of having the physical shops. Thus, as RTB Plus is rather new, it should follow and pick up useful strategies employed by Zest.

Zest, RTB Plus, Funloader, and GameCards, are now playing important roles in Thailand. It is interesting to monitor their performance. The e-commerce is expected to act with high business standards and have skills and expertise to perform transactions in an expected manner [24]. The representative reliability, which consists of readability, standards conformance, and the ease of manipulation [21], is also important. Through this paper, the conclusions and implications derive from this study can guide the distribution channel for the new comers and the idea of development for the existing companies. This can be a reference for those who wish to enter into this industry.

There are presences of several limitations in the analysis done. Firstly, only one particular web site is selected, which is the pure play pioneer of this business in Thailand as the case study; despite the fact that there are many web sites providing this type of e-commerce. Secondly, the selection of the factor weightings in the WAI, are based according to those in the previous research papers. As further studies, other demographic variables can be linked in the analysis. There can also be comparison made with other countries on the e-money.

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