

Monetization and revenue streams in open business: The case of online content firm, Dek-D.com*

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Abstract—Open business strategy is young in the business field. Limited notions were studied. While the concept of openness and less ownership is widely accepted, not many researchers have drilled down on the phenomenon that applied in the real businesses. In order to gain the insights into this, the empirical case study of Dek-D.com is conducted as the firm shows obvious integration of open business in their business model. The study finds that, intentionally or not, the firm has offer openness to users since the beginning then start enjoying competitive advantages of multiple revenues. Conclusion goes with three propositions regarding the multiple revenue streams, creative revenue, and higher potential to create source of income from group of the individual users, in which the online firm can cultivate added revenue growth.

Keywords—open business; revenue streams; online content provider; Dek-D.com; case study

I. INTRODUCTION

It is important to all firms to either explicitly or implicitly employ a particular business model to drive success and gain profits. The essence of business models is that it crystalizes customer needs and ability to pay, defines the manner by which the business enterprise responses to and delivers value to customers, entices customers to pay for value and converts those payments to profit through the proper design and operation of various elements of the value chain [1], as well as the changes in these processes over time [2].

The traditional business models usually make money from its scale where the values are simply captured by combining its technology and intellectual property into a product sold either as a discreet item or as a bundled package.

Gradual emergence of Internet companies, where the creation of revenue stream is often most perplexity because of customers are expecting that the services should be free, amplifies significance of well-developed business models. Otherwise innovators will fail to deliver or to capture value from their innovations of new IT-based service or products [1]. Despite of traditional business models, which mostly based upon the ownership and control as a key of success, open business strategy is introducing values of resources that are not owned by the firm. These resources can grow sources of value creation [3][4]. One well-known example of open business strategy is open source software (OSS) model. While many digital firms

have been intentionally or unintentionally eliminating the ownership of their initiatives then seeking for a way to capture values from them, but they confront difficulties to fit the open business strategy into their business model to leverage revenues.

In our formulation of open business strategy, we take into account not only the perspective of revenue streams but also creativity of value capture. In particular, the study answers the question of how open business model stimulate firm to creatively establish its revenue models and multiply its revenue streams while being able to reserve customers' expectation of free services in an online firm.

The research approach adopted in this paper is primarily based on single case study examining one of top five online media firms in Thailand, Dek-D.com, to provide rational evidences in this setting. The study incorporates rich evidences on the case from various sources of data: CEO interview, financial statements, news releases as well as existing firm's website. The results of the study show that Dek-D.com has included open strategy in their business model since firm was found. While the information goods are substitutable by the competitors, limitless value creation is available for practitioners to cultivate revenues as well as to easily enrich creativity of those revenue sources to differentiate themselves and stay up front in the highly competitive market.

The results contribute theoretically to the open business model literature by exploring the substantial impacts of the open strategy.

II. OPEN STRATEGY AND BUSINESS MODEL

Chesbrough and Appleyard have proposed "open strategy," which examining adoptions of more open approaches to innovation and explained how those adoptions fit with business strategy [3]. The study suggested that formulating strategic sense of innovation community, ecosystem, networks, and implications of competitive advantages could form the open strategy. It also advised the definition of "openness" as the pooling of knowledge where no one can take exclusive rights over the innovation devised by ecosystem. Everyone should gain the same level of access. In other words, there would be "non-rival" when someone consumed it, and it would not degrade experience of subsequent users (Fig. 1).

A. Value Creation

While the traditional business strategies focus on concept of ownership and control, open business model shifts its focus to openness requiring redesigned processes to facilitate appropriate value creation and value capture. A number of researchers were studying this phenomenon, and it became more popular as the growth of the Internet era where the access cost to the information has been lowering over time. Visionary entrepreneurs are noticing potential creation of value from external resources, such as volunteer contributions, innovation communities and ecosystems, and surrounding networks representing sources.

Sources of value creation can be classified into three groups—organization, external party, and user. First, Organization is an in-house. It is usually referring to who initiates the innovation or owns platform. The second source is external party, which is pursued to innovate by their own interests or monetary persuasion. Moreover, a study found that the relationship between valuable contributions and level of intrinsic enjoyment in contributing with a cognitive base has direct variation. The higher intrinsic enjoyment results more diverse knowledge and motivation growing creation of value in the open strategy [5].

B. Platform

Since open innovation is a key of success for implementing open business model, firms need to have the effective channel to access all external knowledge as well as allow others to access them. Firms may consider utilizing either innovation communities or platforms. Generally, these are to facilitate interaction between contributors sharing similar interest but from the different domains of knowledge to generate higher values.

Some empirical studies highlighted that level of collective innovation in user communities dedicated to sporting goods, medical devices, musical instruments and computer games [6][7]. Platforms are usually understood as Internet-based platforms even though they are not limited to that. Most of the online platforms are managed by firms seeking to energize their internal innovation pipelines such as Idea Storms by Dell and Jams by IBM, while others are running by Internet intermediaries [8][9].

C. Value Capture

Since open Ultimate goal of all business models are to maximize profit from the values generated. Open strategy capitalizes innovation to create value and allow anybody to capture its value with limitless ways. For example, the intellectual properties rights poorly protect many scientific discoveries or innovations, and require proper business models like pubic funding to capture profits in a crafty way [1]. Rather than rely on scale and simply packed technology and intellectual property into a product like “brick and mortar,” the way to gain profits nowadays, in Internet era, has been changed. Most of consumers are expecting free of charge for new information services. Consumers do not solely purchase because its price is less than the utility yielded.

Open business models provide abilities for both external and internal parties to capture values and turn them into profits.

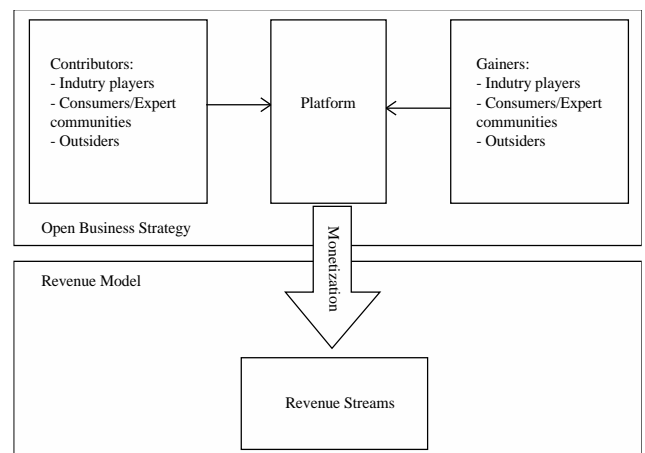
Some firms put controls and gain benefit from those controls by granting public rights over innovation or intellectual properties for a certain period of time or even only partial rights. Open source software (OSS) model is one of example proving very well value capture from openness for innovation. There are many studies advised creative value capture for internet-dominated enterprises and information goods, however, it is still unclear on how firms will gain benefits in term of revenue generation by applying open business strategy. In particular, this paper will explore more in an online content firm.

III. REVENUE STREAMS

Reference [9] suggested that one of the antecedents of open business model is needed in creating and capturing new value. Beyond the non-profit value, firms are more interested in profitable value or revenue. Whilst there have been several studies attempting to conceptualize revenue models of online business and open strategy, there has been limited number of studies that obviously concluded generic linkage of profit generation in open business. One of mostly discussed open business models is OSS. It also came together with notion of its monetization. Literatures of revenue streams in both OSS model and online content providers were reviewed.

As aforementioned OSS, it includes value capture for profitability from openness as its revenue model. There are seven traditional OSS models introduced by [10]: support, subscription, professional services, proprietary extensions, dual license, device, and community source. Later, they were grouped into four categories [4]. The first category is deployment. This is basically to create revenue from innovative activities offering better user experiences where customers are willing to pay for, such as support and professional consulting. Secondly, hybridization differentiates proprietary version from public free version and cultivates revenue. Thirdly, complements are another approach of innovative revenue. Vendor may sell technological solutions or hardware that support an open source application. The last category is self-service, where omits explicit revenue generation but implicitly gain benefit from user communities created for their own needs.

Fig. 1. Conceptual framework of open business strategy associated with



revenue model.

Due to lack of studies diversifying monetary methods for open business models, further literature reviews of revenue

models of information goods are included to explore more revenue streams, which were identified in traditional online content firms. These literatures also lead to understanding in relationship between open business models and the traditional revenue streams.

Last few decades, the evolution of information era has been creating both opportunities and challenges to businesses. Several revenue generation approaches were presented in the context of digital goods. Reference [11] has explored several revenue streams presenting in Internet-base content providers. There were seven revenue streams studied—(1) sale of online advertising on the firm site, (2) subscriptions charged from online content, (3) ability to use the online presence to subscribe to print publications, (4) firm's syndication of content to other online services, (5) per-unit charges for online content, (6) online sale of non-merchandise and services, and (7) affiliate program. These revenues streams were identified as in overall Internet-based business, and justification for pursuing each of them varied in different digital business contexts. Also, the study concluded that solely the first four streams were presenting correlation with management perception of site performance.

It is simply seen that, in information world, there are large number of ways to harvest money. These are not mutually exclusive. Some are combined together in order to heighten revenues, but these concepts were studied based on old fashioned online content firms where resided in the closed settings. The same phenomenon of an online content firm in open settings is discussed in this paper.

IV. METHODOLOGY AND DATA COLLECTION

Define To answer research questions and explore phenomena in the real-life context, this paper conducted qualitative single-case study [12][13], which is a widely accepted method for holistic analysis of unexplored phenomena [14]. The study included multiple data sources, both secondary and primary data sources, to gain accurate in-depth view of the open strategy and revenues streams of Dek-D.com.

The empirical study was conducted from ample secondary data. There are four major sources. Firstly, research relied on company presentation, which were granted by the company founder as case study in MBA class in Thailand. The second source is archival financial reports in past 3 years. These reports are officially audited and downloaded from the database of the Department of Business Development, Ministry of Commerce of Thailand. News releases are the third source that takes in account here. Lastly, researchers intensively searched through the Internet and gathered relevant news from variety of reputable reporters. By comprising these secondary data sources together in the analysis, the study has coped with some limitations. These limitations include lack of access to relevant data and difficulty to assess the reliability of the data. Nonetheless, it should be acknowledged that there are some limitations remaining here.

In addition to the secondary data, this study incorporated primary data to validate interpretation and researcher's understanding of Dek-D.com open business models. An unstructured interview was conducted with Pakorn Santisoonthonkul, co-founder and product development director

of Dek-D.com. The interview was to gather company's evolution and its online portal since the business was founded until present (March 2015). Applications of open strategy and business model were also obtained. Additionally, numbers of questions explored insights to rationalize phenomena of value creation and revenue generation in the real context of Dek-D.com in regard to researcher's perceptions. Assessment of implications extracted from secondary data was too made throughout the interview. After the case report has been written, the report was reviewed by Santisoonthonkul again to avoid biases or misunderstandings.

V. CASE STUDY: DEK-D.COM

Dek-D.com is currently a Thailand's popular website providing open spaces for adolescents. It has been statistically ranked in top ten highest number of unique IPs (UIPs) visited per day for more than five consecutive years regarding the Truehits.net reports. Number of UIPs visiting the website have been constantly growing since 2006 (Fig. 2) and was, in average, 665,443 UIPs daily in 2014. Recently, over 3.8 millions UIPs and 270 millions pageviews were recorded in March 2015 (Fig. 3). It was the new highest record in its history. Although these numbers were little fluctuated, trend has been continuously increasing over past five years.

Fig. 2. Rank and Average UIPs per day of Dek-D.com.

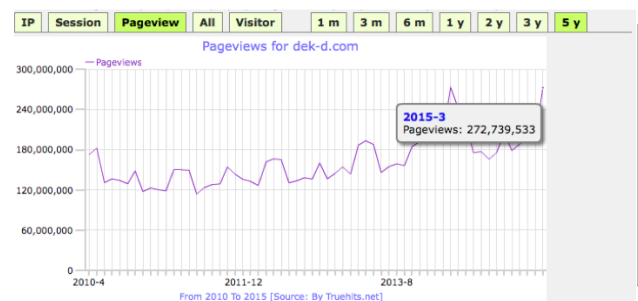


Fig. 3. March 2015 pageviews of Dek-D.com. (source: Truehits.net)

In addition to the geographic statistics showing that majority of visitors located in Thailand, demographic of Dek-D.com's consumers has the following characteristics. Firstly, most of the visitors are teenagers, whose ages are 12 to 17 years old, and 18 to 23 years old visitors are second largest group. Secondly, educational backgrounds of the visitors vary between elementary to bachelor degrees. Lastly, more than half of the visitors are female. It can be seen that Dek-D.com has clear target consumers.

To achieve the leading website in Thailand, Dek-D.com has used unique business strategies, which provide appealing testimonial on how value is created and captured efficiently while gradually applying open strategy. Despite many dot-com companies, Dek-D.com successfully pushed the boundaries of what could be done in the traditional business models with pre-specified revenue streams and loosed the cohesion of its revenue and page impression. The history and Dek-D.com's business models are briefly described in the net section.

A. Overview history and evolution of Dek-D.com

In 1999, Dek-D.com had been founded as an online media platform built on traditional Web 1.0 technology. Its first slogan was defined in the homepage as “Domain of Education Kingdom – Delivery.” Features included knowledge sharing, entertainment column, guest book, download, and web board. During early Internet bloom, the initiative was for Thai students to share knowledge or opinions, and network with others. All contents were generated in-house and free to charge. In 2001, the first attempt to redesign interfaces and add a few new features, such as chat and tutor center, allowing more interaction with target consumers was begun. Then there were several following attempts aiming to restructure its contents and obtain more visitors. It eventually became one of the top 20 popular websites in Thailand ranked by Truehits.net in 2004.

Another significant strategic movement began in 2005. Dek-D.com was revolutionized platform from Web 1.0 to Web 2.0 technology. New user interfaces were developed and introduced to all consumers. While many existing features remained, Writer feature was invented and introduced to consumers. More collaboration from crowdsourcing was started. Target consumers were able to create and share their own contents to public easily. Several novel features were launched later when co-founders had decided to run their real business to accelerate growth of the Dek-D.com.

Dek-D Interactive Co.,Ltd. had been established in 2006 with the vision of all four co-founders to utilize online platform for delivering values to Thai youngsters (source: www.dek-d.com). Initial business strategy of Dek-D.com was “Create more brand recognition and popularity to maximize profit.” Pakorn Santisoonthonkul, co-founder of Dek-D.com, stated this during company’s presentation for MBA students at King Mongkut’s University of Technology Thonburi, Thailand, in March 2015. The strategy was then transformed over time in order to compete in the higher competitive market.

Comparable to many other online media companies, Dek-D.com began capturing value and generating revenue from advertisements. The advertising sections were expanded from its homepage to webboard, writer, tutor center, and many other parts of the platform. The expansion aimed to generate revenues from both large and small customers. In 2007, the company got into trouble. Many new online media competitors emerged, such as Sanook.com and Kapook.com. Some market shares in advertising were snatched. Dek-D.com however survived by clinching its position of youngster’s community again. Hence, minimal impact to the revenue could be recognized.

In addition to the emerging direct competitors, social media bloom in 2008 to 2010 came with huge challenges to Dek-D.com. For instances, Hi5 created “everyone says Hi5” phenomenon where many customers shift their money to advertise. Another example is Facebook. While Dek-D.com focused only teenagers, Facebook could reach much broader groups. People would rather social networking than posting in webboard. Bloggers seemed to replace their blogs with Fanpages. As a result of these behavioral changes, Dek-D.com seek to harvest new revenue streams from existing values, which had been grown on its platform. In short, new advertorial and ad

network were added into its business model in 2008. Dek-D’s publishing was then lunched in next two years.

More recently, the company further introduced new services to the market beyond its original online platform. Dek-D’s admission SMS was first lunched in 2010 and quickly became a successful service. Soon after the SMS service, the company decided to setup its first talk show, called Dek-D’s admission on stage & fair. The talk show was later performed several times in different provinces in Thailand. In a nutshell, these aforementioned offline services unleashed capability to raise its revenue over its pageview growths. In the next section, we review deeper in Dek-D.com’s open business strategies and discuss how they have affected its revenue streams. The timeline of Dek-D.com evolution is illustrated in Fig. 4.

B. The role of open strategy in the overall business models of Dek-D.com

Before open strategy became well known, Dek-D.com successfully implemented the similar notion of openness in its business model.

Unlike many others online media providers in the past decades, Dek-D.com had started taking advantage of collaborative community by offering a platform which allowed all contributors to generate values. Contributors are both from internal and external sources. The main navigation—university admission, oversea study, love’s room, NUGIRL fashion, and teen trends—is focusing on in-house generated contents. The initial contents are frequently discussed among public crowds. More than half of the contents are initiated by ecosystem. All of them are free. Not only free to access, but also free to use and share. In other words, the company does not create intellectual property, copyright or ownership even though its can be done. This can be recognized as a first clue for Dek-D.com’s open business strategy.

The second testimonial became much more transparent soon after the Web2.0 technology was developed to allow real-time interaction among consumers. Chesbrough, 2007, suggested on nature of open business models in part of the MIT Sloan Management Review [15] as follows:

“Open business models enable an organization to be more effective in creating as well as capturing value. They help create value by leveraging many more ideas because of their inclusion of a variety of external concepts. They also allow greater value capture by utilizing a firm’s key asset, resource or position not only in that organization’s own operations...”

The company has reflected its attempts in utilizing the existing resources to create more ideas, innovations and value creations. Collaboration of in-house and ecosystem is an essence of success. While in-house contents are created as initial articles that will be discussed and shared by the crowds, ecosystem is also allowed to generate their own contents in blog, webboard, Dek-D’s Writer and game center sections.

In term of value capture, Dek-D.com is open for everyone to capture any fraction of all values generating by the crowds. Additionally, the company at the same time has been trying to capture values by organization’s own operations prior others can see them, but there is no prevention to other’s company

businesses. When the values are available to capture, open business model, including revenue model, is required to move idea from invention to commercialization [3]. In the following section, the researcher reviews on revenues streams in which Dek-D.com implemented to commercialize the ideas within the open business context.

C. Revenue Streams

Since Dek-D.com has started without predefined business model. Its evolving business models were based on experiments over a decade but never changed concept of openness. Its entire online space can be accessed with no cost and contents bundles all initiatives from collaboration and innovation of online communities. Once Dek-D's interactive company has been formed to operate Dek-D.com as an online media enterprise, the first business strategic movement was extremely "traffic-based." Popularity and number of visitors were its main strive and top goal. Dek-D's co-founders supported this during his presentation by saying: "It was as important to make people recognizing and remembering our website as to grow the its popularity. Then we could make profits as much as we desire." With this strategy Dek-D.com continuously grow page impression at the relatively constant rate. Beside the focus on increasing user momentum, it can be seen in the short history that the company has been innovating its value captures and revenue streams to survive in the quick changing market. Four revenue streams indicated in Dek-D's timeline are summarized below.

First, Advertising has been the company's largest source of revenue for its entire life. As other online media enterprises, the company started offering advertising spaces for the small groups. Then spaces were gradually increased as more traffic creating higher interests from advertisers. A hundred percent of its revenue pie was from this source. However, advertisement revenue stream had potential to grow. Not only the large capital firms were interested in advertising on Dek-D.com but also

played around the advertisement. From per-page oriented charge turned to per-content-type oriented charge. The more creative pathway to create bigger revenue pie was when included advertorial and ad network in 2008. Although self-acquired advertising were no longer the merely source, need in increasing user momentum is remained crucial to pursue its growth [16][17]. Generally speaking, almost its entire life, the revenue model of the company depends on advertising revenue stream where it is highly cohesive with its level of traffic on the platform. The empirical analysis will be further discussed in the next section.

Second, Dek-D Publishing started creating revenue in 2010. With more than half-decade value creation from the collaboration of internal and external sources, platform was successfully utilized to generated value on educational admission knowledge. Users were able to access to all knowledge with free of charge. The company, however, saw the potential to harvest more incomes from printed version, so they began collecting and publishing educational guidance of the top most popular faculties for pre-undergrads. The books are being well recognized and generating a bigger revenue pie. This can be considering as the first significant move from online to offline space. With openness in its business strategy, collaboration in the platform creates such valuable contents also bring trust to users when more people discussing and sharing those contents. Combining trust with willingness to pay for education, Dek-D Publishing is successful move in capturing values and monetizing all those values as a new revenue stream. In 2014, revenue from selling books shared almost one eighth of its total revenue.

The third revenue stream is Dek-D's Admission SMS. As an extension of admission knowledge accumulating in the platform, the company creatively initiated the new way in turning a portion of existing value to its income. While the value has been created on web platform, the company is monetizing that value on a different platform, which is telecom or mobile platform. All

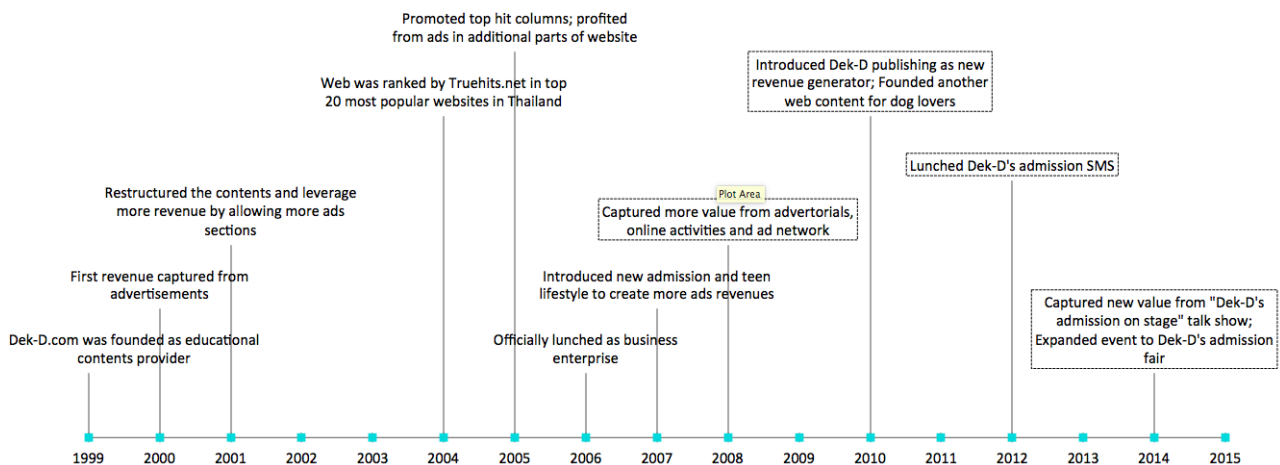


Fig. 4. Timeline of Dek-D.com's history.

small firms and individuals. The first novel revenue strategy

subscribers will receive SMS notifying any admission updates

and reminding any due dates. For example, subscribers may get SMS reminding that tomorrow is last day for submitting application. Because of its small cost, paying only less than one dollar per month for this service, number of subscribers gradually increases. As of May 2015, there are more than 50,000 users using this service. Furthermore, Dek-D.com has recently horizontally spanned the existing technology to English tips on SMS. It can be recognized that SMS services are one of the success stories in monetizing value to aim for the company's revenue growth.

Last, in addition to Dek-D Publishing, the company has further captured value and monetized a portion of that value offline. It recently introduced Dek-D's admission on stage & fair in 2014. This is basically the talk show guiding on preparation for university admission for all school ages. It is similar to what can be found in the platform and books but delivering information in the more fun and energetic way. Not only those who are reluctant to surf its online platform or to read the books, all Dek-D.com's users are interested in the event and willing to pay for tickets. Additionally, it creates new demand to join the event is being rotated to many different provinces around the country. In other words, tickets are limited. However, if users missed to get the tickets for the talk show, Dek-D.com partners with many education-related organizations to offers free join to its fair, which always appears on the same date. Again, as a result of the openness, the company is able to build a new phenomenon in capturing value and raising the demand of its next shows. The summary of value creation, value capture, and revenue stream is shown in the Table I.

VI. ANALYSIS OF DEK-D.COM'S OPEN BUSINESS STRATEGY

Define Competing in the dot-com market among online content providers is very challenging. Dek-D.com evolves, in approximately 13 years, from a school aged initiative to one of the top five online content providers in Thailand. The case reviewed in this study suggested that open business strategy is supportive of company's revenue growth, especially when the crisis of revenue slowdown is taking place, because openness in the business model helps leverage many more ideas as it fully enables variety of collaborations from internal and external sources. Without ownership over value created on its platform, ecosystem can enjoys any competitive advantages and monetizes as if that value are unlimitedly available.

In the following section, distinct propositions are formulated based on the insights of the case study and earlier theoretical review. In particular, the propositions aims to identify latent relationships and phenomena linking between open business strategy and firm's revenues and thus answer question on how online firms can take viable advantages from the openness.

On the basis of the case study, Dek-D.com started cultivating the first revenue stream from the commerce of online advertising on its platform. While the advertising seems sufficient to grow the company for about 4 years, emergence of social media and lower entry cost of new rivals forced the company to seek for more revenue streams for its survival. The firm quickly resonated in the success of multiple revenue streams as a counterattack to the crisis by leveraging ideas from ecosystem. With the help of the open strategy, Dek-D.com enjoyed extracting as well as turning value to incomes. Additionally, it

can be noticed that openness on value creation on the educational admission knowledge helped the firm to easily monetize the value in various ways, such as print publication, admission SMS and talk show. It therefore grew the share on firm's revenue pie. These revenue streams are concordant with the findings of the [11], as the sales of online advertising, ability to use the online presence to subscribe to print publications, and firm's syndication of content to other online services respectively. However, they suggested that per-unit charges for online content, online sale of non-merchandise and services, and affiliate program had negative correlation with management perception of site performance, the case seems contradict that online sale of non-merchandise and services also helps leverage the firm's performance as resulted in remarkable success of introducing Dek-D's admission on stage & fair to the users. Furthermore, most of the researches could extract each of revenue streams from many different firms.

TABLE I. SUMMARY OF DEK-D.COM'S VALUE CREATION AND CAPTURE IN OPEN BUSINESS STRATEGY.

Value Creation	Value Capture	Revenue Stream	Role in Value Capture
Educational admission knowledge	Demand of admission guidance	Publication SMS subscription Talk show & fair	In-house
	Source of self-search for admission information		Ecosystem
Tutors community	Demand of tutor promotion and its traffic	Advertising	In-house
	Source to find tutors		Ecosystem
Novel writers and readers community	Traffic from novel writers and readers	Advertising	In-house
	Demand of printed books	Publication	Ecosystem
Teenagers community	Advice for teen problems		Ecosystem
	Traffic from the community	Advertising	In-house

Even though, some scholars suggested that creating and capturing new values is one of the antecedents leading firms to open up their business models [9], not many of an individual firms were successfully implemented multiple revenue [11], also suggested that many digital information providers were struggling with how they will be able to find the appropriate revenue model mix. On the other hand, the case of Dek-D.com proved that with the open business environment the mixture of the revenue streams could be easily initiated and provides the positive consequence to the firm. Only the appropriate mixture of revenue streams but also effectiveness in creating as well as capturing value by utilizing internal and external key asset, resource or position [15]. Based on above discussion, the following proposition can be extracted.

Proposition 1. Integrating open strategy in firm's business model provides higher potential for the firm to cultivate multiple revenue streams.

A further prominent intuitive that applies to the revenue streams when the open business strategy is integrated is creativity. In fact, philosophers defined creativity in different meanings. A widely accepted definition of creativity suggested by [18], is as shown below.

“For creativity to occur, a set of rules and practices must be transmitted from the domain to the individual. The individual must then produce a novel variation in the content of the domain. The variation then must be selected by the field for inclusion in the domain”

The case study shows that even in the difficult situation they could create value by leveraging many more ideas from the inclusion of ecosystem. Similarly, some scholars suggested that Internet enables “*virtual customers environment*” which is a platform allowing firms to tap collaboration of individual and social customer knowledge from on-going dialogue [19][20]. While customer toolkits enable source of input to innovation, they greatly reduce cost and improve speed and quality of innovation process gathering innovation from leading-edge customers [21][22]. In the firm’s open business environment, Dek-D.com has turned the ideas from both in-house and ecosystem into new products and services then offered to improve users being in reality. Particularly, commercial educational SMS services and talk & show are good examples of creativity generated in this case. These were introduced and extensively accepted by the market (field) in a short period of time. The domain of value capture and revenue generation in online content provider in Thailand has been expanded.

With that creativity, the firm successfully brought its revenue growth to the next level. This discussion enables the following proposition.

Proposition 2. Open business strategy encourages added potential for the firm to convert many more ideas from ecosystem into creative revenue scheme.

Dek-D.com has added its lucrative activities and revenue models to obtain higher gross revenue every year. According to financial statements of Dek-D’s interactive company and the archival data from company presentation, the annual revenue has initially grown at approximately the same percentage of the average daily pageview growth. Its revenue streams originally relied on advertising activities (e.g. banner and advertorials). Focusing on these advertising activities, majority sources of incomes were other firms or enterprises. Revenues were cultivated from small group of customers. While there was potential on growing advertising fees or spaces, the company first time confronted abatement of the pageview growth due to emerging social media fashion shifting its consumers to Facebook. Dek-D.com however handsomely accelerated its revenue growth against the crisis of many online media enterprises; reverse variation of the revenue and pageview growths took place in 2011. With the help of openness in the firm’s strategy, much higher user involvement has been allowed throughout the platform, so the company started putting eyes on monetizing values captured from those individual users. Soon after launching Dek-D’s publishing, the company began capturing more values then introducing new creative revenue streams—admission SMS and admission on stage & fair. Newly

created monetization was added into total revenue pie of the firm. These revenues streams shaped remarkable incomes growth to the company in 2012 and 2014 respectively.

Similar to [23], it suggests that “[...] depends on your strategic goals. [...] If your goal is cross-selling and driving more revenue per customer, focus first on improving your customer experience [...]” When users experience plays an important role, incorporating open strategy in the business model creates a strong foundation bridging company to higher potential in growing involvement and gain higher experience of the individual users. The following proposition can be summarized as in the following section.

Proposition 3. Involving openness in business model leads to higher user involvement, thus increasing potential to create source of income from group of the individual users.

VII. CONCLUSION

Integrating open business strategy into business models is a significant factor driving Dek-D.com to today’s revenue growth. Dek-D.com does not restrict ownership on almost all fragments of its platform to cultivate collaboration and innovation. Not only the value creation, the company demonstrates successful movement on cultivating higher revenue growth. Compared to many other online media providers, the company has been advancing further on creating as well as capturing value.

A. Theoretical implications

Within the young concept of open business, this study is to provide more insight aspect of the impacts from integrating open business strategy into firm’s business model since the very early stage to its revenue streams which is the most superior aim in any businesses. Not only in the aspect of value creation and value capture, but also in aspect of how open business can create competitive advantage for online content firms to survive in the current dot-com market. Traffic may not be an easy thing to pursue nowadays; relying on advertising revenue model may not allow continuous growth. Most firms are seeking alternative channels to generate profit, but struggling to find the appropriate revenue mix or even encounter difficulties in initiate alternative revenues. This study introduces the considerable benefits of open business strategy over the revenue streams within the online content provider context.

In more detail, the researcher first proposed that, by implementing open business strategy, the firm should have higher potential to enjoy the advantages from alternative revenues, which is called “multiple revenue streams.” Although the revenue streams are normally implemented in the different industry firms, the openness and collaboration from ecosystem helps create the way to add that streams into the firm. Second, this study also proposed higher potential in creating creative revenue comes from the openness of the integrated open business strategy. Either from ecosystem or internal firm, many more ideas will be simultaneously cultivated. As to generate multiple revenue streams, the firm will more likely incorporate ideas then turn it into reality. This is where the higher potential of creative revenue takes place. The last proposal is higher potential to create sources in generating income from both

enterprises and individual users. This is the ultimate competitive advantage of most online content firms.

B. Managerial implications

For the business practitioners, this study proposes that although open business strategy relieves the ownership of the particular product created by your own efforts, the provide the considerable results on generating creative revenue, multiple revenue stream, and even unleash the revenue growth from merely single source of income to proper revenue mix. Solely with traditional revenue stream, it could lead the trouble of the revenue slowdown, especially when advertising revenue model is relied on. Online content providers easily get into the competition, which may share the same revenue pie where the enterprise customers tend to switch to any other online portals. Also, if you are seeking for alternative channels to gain benefit but trap into perplexity of finding the right mixture. This study can give the reasons on why you should consider integrating open business strategy into your business model. The success of Dek-D.com case shows that in the open environment, some other revenue streams that may not give positive performance can also generate the revenue growth for the firm.

C. Limitation and further research directions

In this study, the result suffers from some limitations of a single case study. The study is bound with an only firm in the online content providers in Thailand. The research mainly relies on the observations and secondary data. Although the case is one of top five firms in the online industry, the implication may not simply imply to all other companies, particularly for the firms in different industries. The future researches can be taken to closed these limitations by comparing with multiple firms either in the same or different industries to confirm the universality. The quantitative study is also helpful to identify the degree of the significant or intensity of relationship between open business strategy and the aforementioned propositions for further understanding and encouraging on wider implementation in the real businesses.

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REFERENCES

- [1] Teece, D. J. (2010). Business models, business strategy and innovation. *Long range planning*, 43(2), 172-194.
- [2] Zott, C., & Amit, R. (2010). Business model design: an activity system perspective. *Long range planning*, 43(2), 216-226.
- [3] Chesbrough, H. (2007). Business model innovation: it's not just about technology anymore. *Strategy & leadership*, 35(6), 12-17.
- [4] Chesbrough, H. W., & Appleyard, M. M. (2007). Open innovation and strategy.
- [5] Frey, K., Lüthje, C., & Haag, S. (2011). Whom should firms attract to open innovation platforms? The role of knowledge diversity and motivation. *Long Range Planning*, 44(5), 397-420.
- [6] Baldwin, C., & von Hippel, E. (2011). Modeling a paradigm shift: From producer innovation to user and open collaborative innovation. *Organization Science*, 22(6), 1399-1417.
- [7] Franke, N. and Shah, S. (2003). How communities support innovative activities: an exploration of assistance and sharing among end-users. *Research Policy*, 32, 1, 157-178.
- [8] Jeppesen, L. B., K. R. Lakhani. 2010. Marginality and problem-solving effectiveness in broadcast search. *Organ. Sci.* 21(5) 1016-1033.
- [9] Frankenberger, K., Weiblen, T., & Gassmann, O. (2014). The antecedents of open business models: an exploratory study of incumbent firms. *R&D Management*, 44(2), 173-188.
- [10] Perr, J., Appleyard, M. M., & Patrick, P. (2010). Open for business: emerging business models in open source software. *International Journal of Technology Management*, 52(3/4), 432-456.
- [11] Gallaughier, J. M., Auger, P., & BarNir, A. (2001). Revenue streams and digital content providers: an empirical investigation. *Information & Management*, 38(7), 473-485.
- [12] Yin, R. K. (2003). Case study research design and methods third edition. *Applied social research methods series*, 5.
- [13] Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544-559.
- [14] Ritala, P., Golnam, A., & Wegmann, A. (2014). Coopetition-based business models: The case of Amazon.com. *Industrial Marketing Management*, 43(2), 236-249.
- [15] Chesbrough, H. (2007). Why Companies Should Have Open Business Models. Retrieved May 26, 2015, from <http://sloanreview.mit.edu/article/why-companies-should-have-open-business-models/>
- [16] Enders, A., Hungenberg, H., Denker, H. P., & Mauch, S. (2008). The long tail of social networking.: Revenue models of social networking sites. *European Management Journal*, 26(3), 199-211.
- [17] Canzer, B. (2006). *E-business: Strategic Thinking and Practice*. Houghton Mifflin Company, Boston – New York.
- [18] Csikszentmihalyi, M. (1999). 16 Implications of a Systems Perspective for the Study of Creativity. *Handbook of creativity*, 313.
- [19] Nambisan, S. (2002). Designing virtual customer environments for new product development: Toward a theory. *Academy of Management Review*, 27(3), 392-413.
- [20] Sawhney, M., & Prandelli, E. (2000). Managing distributed innovation in turbulent markets. *California management review*, 42(4), 24-54.
- [21] Hippel, E. (2001). User toolkits for innovation. *Journal of product innovation management*, 18(4), 247-257.
- [22] Dahan, E., & Hauser, J. R. (2002). The virtual customer. *Journal of Product Innovation Management*, 19(5), 332-353.
- [23] Weill, P., & Woerner, S. (2013). Optimizing Your Digital Business Model | MIT Sloan Management Review. Retrieved May 26, 2015, from <http://sloanreview.mit.edu/article/optimizing-your-digital-business-model/>