

Abstract

Thailand losses the opportunity to generates the large income from export of animation industry. Currently, the second largest demand of animation worldwide is feature animation film, however Thailand cannot export any of its feature animation film to the market. In contrast, the other forms of animation productions from Thailand are very well received from international market, for example, animation TV series. The low performances of the sector lead to the question “why feature animation film in Thailand fail”, in contrast to others. The research use previous research on competitive advantage of animation industry in Thailand as the guideline, then use the documentary research to investigate on the sources of the problems. From analysis of data collected, Thailand still lack sustainable investment on the small scale firm in the industry, which eventually distort creativity of the work, leads to low quality of feature animation film. Furthermore, the mismatch of income and cost for the animators discourage skill animator to work for Thai animation firms. If both problem were to be solve through government and private support, Thailand will able to generate large income from expanding in global animation market, via higher number of export of animation production.

Introduction

The animation industry in Thailand grows rapidly, due to the expansion of market worldwide and increases in domestic demand. The animation production can be divided into 3 categories; long form animation, short form animation, and CG service. However, this research focuses only on feature animation film, which is the type of animation under long form animation category. Particularly, the case of Thai feature animation film will be illustrated. The first feature animation film of Thai animation industry would be “Khan Kluay”. The animation is very successful in term of revenue and the awards won from domestic film festivals. Nevertheless, the latter Thai animation films are failed miserably. Comparing to the other sectors of the industry, the feature animation film (also known as Cinematic Animation) is the least in market value and number of export (Niracharapa, 2014). The low performance of the sector leads to the question, “*why feature animation film in Thailand fails*”, in contrary to other sectors. If this question could be answered, the problems would be identified for the future growth of Thai animation industry. With the expansion of demand in both domestic and international markets; the successful feature animation film sector can generate the large revenue for the country.

Literature Review

Initially, the animation industry emerged from the film industry as the “short-subject” category (Yoon and Malecki 2009). Even though, the animation is now developing into CGI and computer graphic based film, it is still considered as a labor-intensive industry, (Tschang and Goldstend, 2004, 2010; Yoon and Malecki, 2009). With the data evidence by Tschang and

Goldstend (2004), the cost structure of hand-drawn 2D animation and computer 3D animation are not considerably different. The cost of labor in 2D animation is accounted for 70% - 80% of total cost, while 3D animation's labor cost is only 10% lower. Nevertheless, first two research papers are conducted in perspective of animation industry based on the developed countries; U.S.A and Japan, which have high cost of labor. In contrast, the other paper conducts on animation development in Heilongjiang province, China, by Ping Tao (2011), the researcher mentions the animation industry as capital intensive and considers the capital as the key factor to industry successfulness. The difference in these paper statements is possibly due to the status of animation industry of the country which the papers are based on. The latter paper is based on China where the animation is the newborn industry; hence the large investment on capital is required to increase its competency of the industry (Tao, 2011).

The trend of the industry is now shifting into the 3D animation, from the observation, the profit of 3D (CGI) animation is two times higher than the 2D animation (Tschang and Goldstend, 2004; Yoon and Malecki, 2009). However, the CGI animation production requires large amount of investment on capital for computer technology. As a result, the capital investment has become the barrier to entry to the industry, consequently; only few studios have ability to make a full-length CGI animation (Tschang and Goldstend, 2004; Yoon and Malecki, 2009; Tao, 2011). The production process of the animation film is similar to the movie film; compose of five stages; conceptualization, pre-production, production, post-production, and distribution (Krätke, 2002; Yoon and Malecki, 2009). Despite the similarity of the production process, the animation film bare higher risk than the movie film; as the animation has the higher cost in production process, in case the scene has to be fixed or changed. Therefore, to minimize the risk of high cost in

production process, longer period during the pre-production stage is required (Tschang and Goldstend, 2004).

Due to the industry nature as labor intensive, many firms in the industry outsource the production to another country, where the labor is highly skilled with the cheaper in cost; mainly in Philippine, China and India (Tschang and Goldstend, 2004; Yoon and Malecki, 2009; Tao, 2011). The conceptualization, pre-production, post-production are still kept in firm's own studio, however, for the high-end animation in the U.S. and Japan, all process is done in the home studio (Tsang and Goldstend, 2004, 2010; Yoon and Malecki, 2009). At the beginning, those contractor studios are mainly responsible for the clean-up, visual effect, digital ink and paint if the film was 2D animation, and for 3D animation the job would be rendering and composting (Tsang and Goldenstend, 2004). The research conducted by Tsang and Goldenstand (2010), emphasizes on the outsourcing on animation production in Philippine. The research identifies the nature of the outsource industry into two points. First, the capability of industry is based on individual skill rather than organization. Second, the outsource in mostly done on production process, which mean the industry will lack the skill of those in conceptualize the idea, pre-production, and post-production, which is necessary for the upgrading the industry from the mere outsource contractor to become fully animation studio. Similarly, the research paper conducted by Ping Tao (2011), examines the development of animation industry in China, from the contractor for Japan and U.S. animation studios, to have their own animation brands. Both papers have the same conclusion on one point, the outsourcing in animation needs industry upgrading to create and maintain the fully developed animation industry within the country. Furthermore, Tao (2010) determines several factors for success of the animation industry in china. The research analyzes key factor for animation development by using Grey Relevance Analysis, to determine

which share of GDP contributed to development of the industry. The researcher has given seven factors as the result; Per capita disposable income, per capita GDP, fiscal revenue in the proportion of GDP, social labor productivity rate, R&D expenditure in GDP share, Urban residents' education, culture and entertainment in the consumption expenditures proportion, public education expenditure in the GDP proportion respectively.

In addition to the researches from international sources, the research on Thai animation industry should be accounted as well. The research on competitiveness of Thai animation industry by Niracharapa in 2014, explains the factors contributed to competitiveness of Thai animation industry using Porter diamond model. The model consists of five factors that contribute to the competitiveness of industry; factor condition (human capital, technology, skill), firm strategy, government, demand condition and relate industry. Niracharapa suggests the key driven of Thai animation industry to be strong government support through the establishment of organization, such as, TACGA (Thailand Animation and Computer Graphic Association), which strengthen the animation business in Thailand for both domestic and international markets. As well as, the large pool of skill animators would make Thailand to become a destination of outsources work services for animation companies from U.S.A and Japan. The researcher also suggests the key constraint of the industry; the industry still lacks the sufficient investment and has low number of skill animators to serve the increasing demand of the sector. However, the researcher does not emphasize which factors are contributed to those constraints.

In conclusion, the recent researches identify the key factor for the successful of the animation industry in country where the animation industry are strongly established. The studies are further to the contractor studio in the country where industry is newly settled; determine the key factor for the industry to develop, in order to have its own animation brand within the

country. The research papers have similar agreement on the structure of the industry. Although, the different in stage of country where the research is emphasize on create the disagreement in some part. Most of them have the same conclusion and suggestion for the industry. Furthermore, the research on animation industry in Thailand can be used as the guideline for further study on study of other research paper on Thailand animation industry, as it defines the factor that contribute to the industry keys driven and keys constraint.

Industry Overview

In 2011, Thai Animation Industry valued at 170 million USD, with the annual growth rate of 11% (Niracharapa, 2014). The performance of feature animation film in Thailand is extremely poor, out of total market value of 170 million, the value of feature film account for only 7 million USD, which all of them are import value, the feature film sector is the only sector without export. The majority of market value are belong to animation TV series, worth approximately 68 million USD and character license fee worth 49 million USD (SIPA, 2011). The animation industry production can be divided into three types, which are long form animation, short form animation and CG Service. The Long Form animation is consisted of feature animation film (Cinematic Animation) and animation TV series. For short form animation, the animation would be the one shown in the form of advertising or music video. The last is CG services, which are the production graphic and visual effect. The short form animation is currently the major part of the production in animation industry, with [95.04%] share of total production, follows by CG service at [5%], animation TV series at [2%], and the feature animation film with only [0.16%] (SIPA, 2013). The low production of feature animation film in Thailand is contrary to the world market demand. The demand for entertainment animation production can be divided into 4

categories; Animation TV Series, Feature Animation Film, Visual Effect, and Home Entertainment (Direct DVD). The animation TV series has the highest demand of [36%], follows by feature animation film at [35%], visual effect [17%] and home entertainment [12%] (ThaiFTA, 2009). The mismatch in demand and production indicates the loss of opportunity for Thailand to exploit from this expanding market.

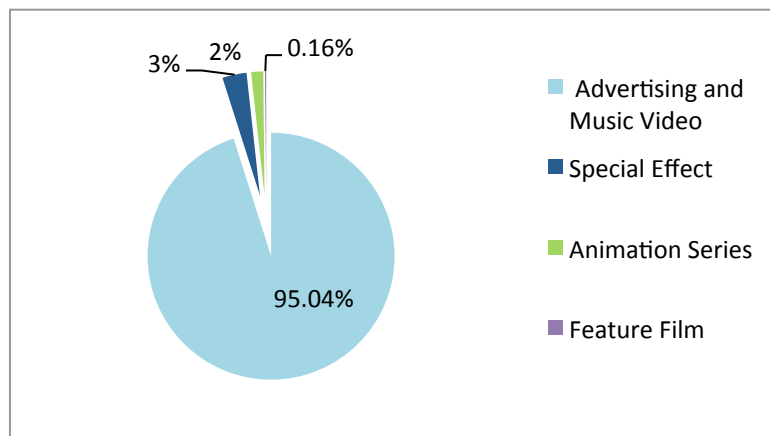


Figure 1: Thailand Animation Production in 1 year

Source: Software Industry Promotion Agency (SIPA)

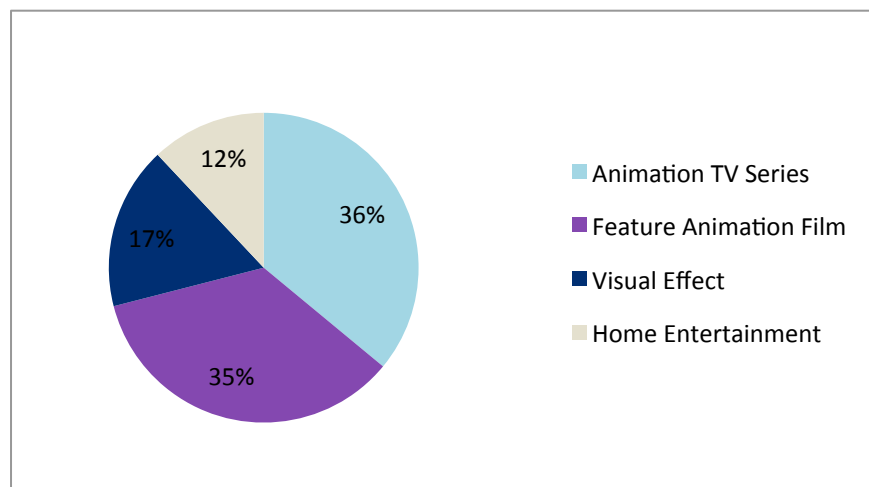


Figure 2: World demand for animation

Source: ThaiFTA report on Animation Industry (2009)

The firms in the animation industry can be classified into 3 groups; large, medium and small. The majority of the firms in the industry are small firms accounted for 68%, medium and large

firms have the same share of 16% (ThaiFTA, 2009). All the feature animation films are produced by the large firms, since the high investment is required for the production. The major players of the feature animation film sectors are KANTANA Group; the owner of “Khan Kluay 1&2”, “Echo Planet” and “Phra Mahajanaka”, another one is WorkPoint Entertainment; owner of animation “Yak”. Both companies are the large media company that does not only produce the animation, but also other form of media entertainment as well, such as feature film, TV series, TV shows and advertising. Both companies use their own subsidiary company to produce the animation for them, ITTIRIT HOUSE in case of WorkPoint Entertainment, and KANTANA ANIMATION in case of KANTANA Group. These subsidiary companies are as well not responsible only to animation production part, but also CG services for other media of the main companies. For those medium and small companies, most of the works produced are in form of animation TV series, short form animation and CG services.

Feature Animation Film

The feature animation film is categorized as long form animations, together with animation TV series. The different between these two is the feature film animation is shown in the cinema, but the animation TV series is shown as the TV program. The examples of world famous feature animation films are “Toy Story”, “Finding Nemo”, “Lion King”, and “WALL-E”. The feature animation film can be both in the form of 2D and 3D animation. However, in Thailand all the feature animation films are made in 3D form. Currently, there are only few feature animation films produced by Thailand; they are “Khan Kluay 1&2”, “Yak”, “Nak”, and “Echo Planet”. The costs of production of these feature animation films are very high. For instance, the budget of “Khan Kluay” is about 150 million Baht. Furthermore, the feature animation film faces with the same risk as the movie shown in cinema. The short duration for the film to generate income to

cover up the cost of production is taken in only few weeks, compare to those animation TV series that have long period of time to gain the return on investment. Because of the requirement of large investment and high risk, only the large firms are able to produce the feature animation film in Thailand.

Theological Framework

The theological framework in this research is based on the *Porter Diamond Model*. The model is used in the research on Competitiveness of Animation Industry in Case of Thailand by Niracharapa in 2014. This research tends to further study the source of constraint of animation industry in Thailand mentioned in Niracharapa's work. The Porter Diamond Model identifies five key factors that create the competitiveness to the industry/firm.

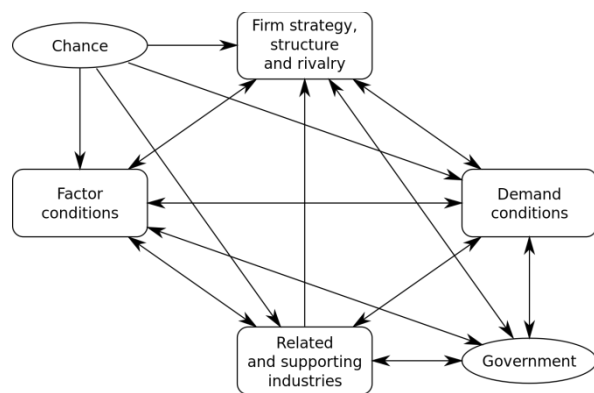


Figure 3: Porter Diamond Model

In Porter Diamond Model, the factor conditions are labor force, skill, capital, resource or infrastructure. In the case of animation industry, the factor conditions are mainly human capital, skill and investment.

For firm strategy, the factor is related to business environment, market structure, openness to trade and investment.

Demand condition is determination of demand for the product/service of the industry/firm. The higher demand, the more rapid growth of the industry, through the firm action to innovation and increase in productivity. Especially, the demand is high in domestic market, the more national advantage (Barkan and Dogan, 2012).

The related support industries can strengthen the competitiveness of the industries, through strong value chain (Barkan and Dogan, 2012). For animation industry, the related support industries would be software industry and media industry. Strong software industry enable the production of animation be made with lower cost and higher in technology. For media industry, the strong industry creates high demand for animation work.

The government factor is external factors that affect the industry. The government has a role to support or push the industry to have higher competitiveness through government support organization or government subsidiary. In Thailand, there are several organizations that are supported by government such as Software Industry Promotion Agency (SIPA) and Thailand Animation and Computer Graphic Association (TACGA) to promote the industry both in domestic and international market. The opportunity is only factoring that out of control to the industry.

In the “Competiveness of Animation Industry” by Niracharapa, the key constraints of the industry are defined as the lack in sustainable investment and low available skill animators. The problems are related to factors condition and firm strategy of the industry. Therefore, the research will focus only on two factors, and determined the issue that contributes to their failure.

Methodology

The documentary research is used to determine the problem. The research uses the available data to examine the possible source of the key constraint of the industry that lead to feature animation film failure. The sources of the data are varies, but all the data used in this report are credible. The data used are mainly from the government organization, university information center and corporation annual report for public stockholders. Therefore, the data has been checked by its publisher before it is used in this research.

Finding Analysis

From the research on available data, the major sources of the problem are mainly due to payoff and market structure.

1) Payoff

The animator job is one of the lowest paid in animation industry sector, however the course of obtaining their animation skill is surprisingly high. The animators obtain their skills and knowledge to produce animation through university degree. There are many universities in Thailand that offer the course concerning animation area, both in public and private university as well as the institution.

Mahidol University International Collage (MUIC)	B.A. Animation Production
Silpakorn University International Collage (SUIC)	B.F.A. Digital Communication Design
King Mongkut's Institute of Technology Ladkrabang (KMITL)	B.F.A. Media Arts

Chiang Mai University (CMU)	BSc Animation
Khon Khean University International Collage (KUIC)	BSc Multimedia Technology and Animation

Table 1: Public Universities with Bachelor degree in Animation

(Source: Data collect by researcher from university official website)

Rungsit University (RSU)	B.F.A Computer Arts
Sriprathum University (SPU)	B.F.A. Computer Animation
University of Thai Chamber of Commerce (UTCC)	BSc. Computer Animation
Christian University (CTU)	BSc. Multimedia Technology and Animation
KANTANA Institute	B.A . Media Production Arts

Table 2: Private Universities and Institution with Bachelor degree in Animation

(Source: Data collect by researcher from university official website)

University	Tuition fee for animation course : Baht	Average tuition fee of other course in University : Baht
MUIC	1,236,800	650,000
SUIC	1,219,500	627,000
KMITL	295,500	213,750
CMU	280,000	220,000
KUIC	400,000	320,000

Table 3: 4 years tuition fee of public universities with Bachelor degree in Animation

(Source: Data collect by researcher from university official website)

University	Tuition fee for animation course : Baht	Average tuition fee of other course in University : Baht
RSU	397100	660,000
SPU	272,720	324,000
UTCC	280,000	280,000
KANTANA	1140000	

Table 4: 4 years tuition fee of private universities and institution with Bachelor degree in Animation

(Source: Data collect by researcher from university official website)

In public university, the course of Bachelor degree in Animation is higher than average tuition fee of other courses in university. Especially in MUIC and SUIC the fee is high up to million Baht, 50% higher than other courses in universities. For other public university, the tuition fee still not significantly high, but still higher than the average cost.

For private university, surprisingly, the tuition fee is not as high as those in public university. Furthermore, when compare the animation fee to average tuition fee, the cost of animation degree is lower. The opposite in tuition structure may be resulted from the high average cost of the courses in private university. However, the KANTANA institution has the high tuition fee as those in international collage.

In accordance to the data in Table 3 and 4, the cost of obtaining the skill for animation is higher than other skill on average. However, the payoff (income) of that animator and character design are lower than the average income of animation industry (Table 5). The lower payoff compare to other can discourage the skill animator to work on these fields, which is crucial for the feature animation film. Therefore, many skilled animators who work on feature animation

film are working for the foreign animation firm such as Pixar and Disney, instead of working for Thai companies.

Executive Producer	31,296
Project Director	30,714
Art Director	23,846
Account Executive	26,053
Script Writer	19,607
Character Design	18,478
Story Board	19,000
Modeler	21,607
Animator	18,448
SLR	21,250
Editor	20,385
Graphic Designer	18,448
Average	22,910

Table 5: Average income in Thailand Animation Industry

(Source: Software Industry Promotion Agency (SIPA))

2) Investment

As mentioned in the industry overview, the majority of the firms in animation industry in Thailand are small scale firm. These firms lack the substantial investment to acquire the animation software to produce the animation film production (Niracharapa, 2014). Therefore, these small companies are only work on the production of CG service or short form animation. With the nature of feature animation film that require high investment, the small firm unable to access the fund to produce the feature animation film of their own, due to discouraged loaner, fear to the high risk of this type of animation. Therefore, only the large company such as WorkPoint and KANTANA are able to produce the feature animation film. These large companies use their subsidiary companies to produce the animation for them. Those subsidiaries

companies does not only work on animation production, their job can be in other form of productions, such as, short form animation, and CG services. The subsidiary companies, which have varies responsibility may lack of the specialization in animation film production. In U.S.A, where the animation industry is flourished, the animation studio such as Pixar and Walt Disney only work on animation film production. To solve this problem, the industry needs more competition in the market to strengthen creativity. However, because the feature animation film sector has large investment on capital as barrier, only few companies are able to enter the market (Tschang and Goldstend, 2004). Moreover, without substantial support from government or more access to fund, the feature animation film cannot be successful, as it should serve the expanding demand of the world market.

There are several problems other than the factors mentioned. The problems are the feature animation film characteristic. On the interview for Manager Newspaper in 2013, Mr. Kompin Kemgumnird, one of animator of famous feature animation film “ICE Age”, as well as a committee of TACGA mentioned that Thailand still lack of a script writer, and the storyline in Thai feature animation film is too simple. Furthermore, the animations produced in Thailand tend to focus only domestic market, observing from character designs and story plots. The stories of feature animation film mainly emphasize on Thai history and Thai culture, because of this it the Thai animation film are hard to sell to foreign market.

Suggestion

The root of the problems for the failure of Thai feature animation film are the low expected payoff compare to high cost of obtaining skill of animators, and the lack on investment and aces to fund of small firms in the markets, which discourage the creativity of the market, as

there are only two large firms as the major player in the market. Therefore, to solve these problems the supports from both government and private sectors are needed. To solve the issue of the low income, and high cost of obtaining skill, the private sectors can offer the scholarship and work guaranteed to those skilled people who have strong interest on this career path; this would eventually lower the cost of obtaining skill of those animators. For the issue in the lack of investment, the government could help through funding of domestic software development. The high prices of the animation software is needed by animation firms, are one of the major constraints of those small firms to produce the feature animation film. If the small firms were able to obtain the software at lower price, the firms would be able to produce more feature animation film to the market. In addition, the development of domestic software would not only help the animation industry, but also lead to stronger software industry.

Another suggestion that could lower the risk from the firms is to start their animation in form of TV series animation. The TV series have more time on air; longer than feature animation film. The TV series animation can be shown for several months to years depend on the contract of animation producer and TV channel. In contrast, the animations feature film, like other cinematic film that has the limited show time for only several weeks. Therefore, the time for feature film to gain return on investment is less, leads to higher risk for animation producer. Longer show time makes the consumer to be more familiar to animation characters. Then, the firms can turn the animation series into full feature animation film, like the case of “Doraemon”, which start from comic, then move to animation series, and eventually become the successful feature animation film.

Conclusion

The feature animation film in Thailand is not successful as much as other sectors in the animation industry. The number of market value and export number are considerably low compare to other sectors. The study on competitiveness of Thailand in 2014, has suggest the source of the problem, to be lack in investment of small firm in the market and low number of skill animators in the market. The further study in this research is to investigate the source of the problem and identify its relationship to the failure of feature animation film sector. The find out are, in Thailand, there are the mismatch of expected income of the animators and the cost of the animators to pay to obtain animation skill, especially those needs for feature animation film production. Another source of the problem to feature animation film can be low investment among small firms in the market. The low investment is due to the inability of the firms to produce feature animation film, which requires high cost of production and has high risk of failure. With the only large firm in the market capable to produce feature animation film, the market becomes less competitive and lack of creativity. The suggestion for these problems is that the supports from both private and government are needed. For the problem of lack in skilled animator, the private can solve through direct support in term of occupation guaranteed or scholarships for students who have strong interest in animation. For investment issue, the problem can be solved via domestic production of animation software, which eventually lower the cost of small company. It would enable them produce more feature animation film into the market. The firms can also lower the risk on failure by focus more on animation TV series before upgrade to the feature animation film. If the problems were to be solved, the expansion of world animation market would be great opportunity for Thailand.

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