

**DRIVERS FOR ADAPTABILITY ON DIGITAL COSMETICS
INGREDIENT PLATFORM FOR INGREDIENTS SUPPLIERS,
RESEARCH INSTITUTES, COSMETICS MANUFACTURERS,
AND BRAND OWNERS**



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Thematic paper
entitled
**DRIVERS FOR ADAPTABILITY ON DIGITAL COSMETICS
INGREDIENT PLATFORM FOR INGREDIENTS SUPPLIERS,
RESEARCH INSTITUTES, COSMETICS MANUFACTURERS,
AND BRAND OWNERS**

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DRIVERS FOR ADAPTABILITY ON DIGITAL COSMETICS INGREDIENT PLATFORM FOR INGREDIENTS SUPPLIERS, RESEARCH INSTITUTES, COSMETICS MANUFACTURERS, AND BRAND OWNERS

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ABSTRACT

The purpose of this thematic paper aims to identify the key drivers on how the platform will be adapted by different buyers and sellers in this cosmetics ingredients value chain. Semi-structured type of interview was used to 12 participants who will be classified in this paper as: Sellers; which includes ingredients manufacturers and research institutes, and Buyers; which includes cosmetic manufacturers and brand cosmetics owners.

The result of this study found out 6 key success factors for digital ingredients platform to be adapted by Ingredients Suppliers, Research Institutes, Cosmetics Manufacturers, and Brand Owners. Recommendations have been provided to the conclusion part.

KEY WORDS: Digital Platform/ Cosmetics Ingredients/ Middleman/ Sharing Economy/ Disintermediation

28 pages

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CHAPTER I

INTRODUCTION

Thailand is the biggest cosmetics market in ASEAN countries which market size reached over 280 Billion Thai Baht with continuous growth every year. In the same time, cosmetics ingredient plays a very important role in cosmetics supply chain since the ingredient itself represents its Brand image, efficacies of product and became the core cost of the finished products. However, cosmetics supply chain still faces lots of limitations that made this industry not sustainable in the long term.

To develop this cosmetic supply chain, we are launching a digital ingredient platform with an affiliate system that will serve as a new digital platform for purchasing and selling of cosmetics ingredients around the world. The business model strategy was inspired from Thailand Digital Economy and Society Development Plan, Ministry of Information and Communication Technology. Recently, this business plan was awarded from the Ministry of Commerce as the 1st runner-up in “Passport to Global Project”. An investment budget will be granted from Thailand 4.0 project to commence the project.

In this paper, the researcher aims to identify the key drivers on how the platform will be adapted by different buyers and sellers in this cosmetics ingredients value chain.

1.1 Problem Statement

Even though Thai cosmetic industry has been booming robustly with a growth projection of 1.1 trillion-baht value by 2025, Thai cosmetics manufacturers are still relying on ingredient importers. These companies usually purchase their needed active ingredients from local agencies or local companies that import active ingredients from US, Europe, Japan, and South Korea.

Therefore, all the cosmetics products are made from the same ingredients from same ingredient traders and lead to the short product life cycle in the future. Under

these circumstances, manufacturers have lower bargaining power to the ingredient traders and have to accept undeniable conditions such as long lead time import and high quantity of packing size. Also, there are no companies that truly promote Thai active ingredients to the world even though Thai ingredients do have a well reputation in the world.

1.2 Research Question

In this paper, the researcher will investigate what will be the success factors for this digital ingredient platform. The research question is “What are the Drivers for Adaptability on Digital Cosmetics Ingredient Platform for Ingredients Suppliers, Research Institutes, Cosmetics Manufacturers, and Brand Owners?”

1.3 Research Objectives

1. To investigate how the digital ingredient platform will be adapted by oversea ingredient manufacturers or authorized distributors in the market.
2. To study how the cosmetics manufacturers and cosmetics brand owners will adapt this digital ingredient platform instead of purchasing ingredient in the traditional way.
3. To analyze key success factors of this digital ingredient platform and be able to apply and improve this platform before launching.

1.4 Research Scope

The scope of this study includes: 6 managers of overseas ingredients manufacturers and research institutes who will give the opinion on how they will adapt the digital ingredient platform; and 6 cosmetics manufacturers and cosmetics brand owners who will be in the role of future buyers in the platform.

1.5 Expected Benefit

1. To use the information gathered in this research as a guideline before launching the digital ingredient platform.
2. To provide the researcher more insights on the view of the future users of the platform.



CHAPTER II

LITERATURE REVIEW

2.1 Digital Platforms

The growth of digital platforms is very fast and creates innovation in the economy and society. Digital platforms plays an important role in bringing supply and demand together. This creates opportunities for both businesses and citizens (Kamp, 2015). Digital platforms, together with its supporting tools and features, have developed as important enablers for firms to leverage distributed knowledge (Sedera et al., 2016), because they offer new ways for organizations to collaborate with the external environment for ideas, technologies, and knowledge. Indeed, studies have explored efforts to promote such collaboration on digital platforms with various popular names, such as crowdsourcing platforms (Afuah & Tucci, 2012), open innovation platforms (Frey et al., 2011), and online marketplaces (Dushnitsky & Klueter, 2011).

Even though new possibilities and competences are made possible by digital platforms, it still brings new challenges for companies that requires new ways for them to fully grasp their potential. Understanding the role of this digital ingredient platform in cosmetics business process is therefore crucial. We must recognize equally the opportunities and challenges this platform provide for organizations, and we need to understand the processes and potential outcomes in effect to the existing traditional way of purchasing cosmetics ingredients in the market. Therefore, we should consider this platform as an instrument for advancing the digital transformation struggles many cosmetics manufacturers as well as ingredients supplier are undertaking today. Despite the high significance of various digital platforms, there is limited knowledge in the extant literature about the effect of digital platforms on overseas ingredient manufacturers and authorized distributors in the market as well as on Thai cosmetics manufacturers and brand owners.

Thus, here we will discuss how an online marketplace platform for cosmetics ingredients will act as enablers for digital transformation in Thai cosmetics industry.

2.2 Digital Platform for Cosmetics Ingredients in Thailand

Thailand is Southeast Asia's top leading market for cosmetics in the region. It has more than 1,781 cosmetic manufacturing plants. These companies usually purchase their needed active ingredients from local agencies or local companies that import active ingredients from US, Europe, Japan, and South Korea. However, there is no leader in the region that can provide solutions to the problems of buyers and sellers which includes: lack of variety of ingredients and non-differentiation, long lead-time process, required high minimum order quantity (MOQ), legal document issues, and more. Moreover, there is no company that truly promote Thai active ingredients to the world yet. This is an opportunity for us to fill this gap.

2.3 Digital Platforms and Sharing Economy

The sharing economy has been widely hailed as a major growth sector, by sources ranging from Fortune magazine to President Obama (Eckhardt and Bardhi, 2015). "Sharing economy" is an umbrella term that describes a wide range of economic activities that have been made possible by technology. Two well-known digital platforms have captured markets in transportation (Uber) and short-term accommodations (Airbnb), but sharing economy businesses are emerging in nearly every sector of the economy.

Some outstanding digital platforms when it comes to ingredients marketplace are Trading Table, which links restaurant operators distributors, and suppliers to simplify and speed up the process of buying and selling; Biolinked, which connects organic food suppliers with wholesale buyers around the world; and CaterNation, which is an online B2B food ordering marketplace that aggregates restaurants, caterers, universities, and government agencies.

2.4 Theory of Disruptive Innovation

First coined in 1995 by Joseph L. Bower Clayton M. Christensen on an article for Harvard Business Review, the theory explains that a smaller company with fewer resources can compete and unseat an already successful business using modern tool

such as innovative technology. In the case of cosmetics supply chain in Thailand, a digital ingredients platform can serve as a disruptor for the already established cosmetics ingredients distributors in the country.

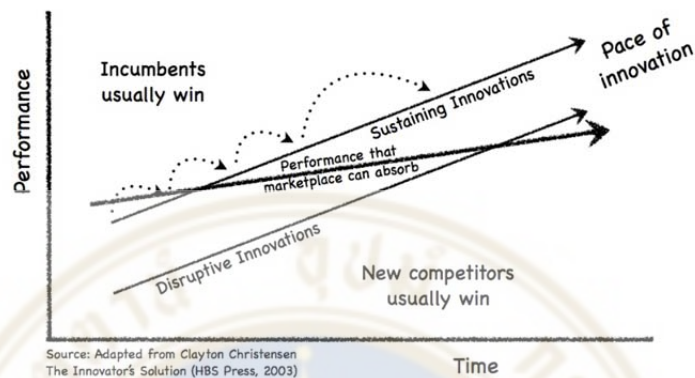


Figure 2.1 Disruptive Innovation Model Adapted from Clayton Cristensen, The Innovator's Solution

Source: HBS Press (2003)

As mentioned in 2.2, there is no existing digital platform for cosmetics ingredients in Thailand and it will be an advantageous opportunity for this platform to enter and create a new digital ecosystem. In this chapter, the researcher gathered relevant key success factors of digital platforms from previous researches and it will be discussed for the succeeding chapters on how it will be applied and adapted for the first digital ingredient platform in Thailand.

2.5 Drivers of Digital Platform

In order for digital platforms to be successful, many researchers have studied and identified the key success factors of digital platforms. Previous researches identified what should be the characteristics of a digital multi-sided markets (von Engelhardt, Wangler, & Wischman, 2017).

2.5.1 High degree of scalability

A characteristic of digital platform markets involves high degree of scalability and range. Due to technology, platforms can respond fast and flexible to additional demands. Digital coverage nowadays are now operable on a wide-range and information can be accessed in just few clicks.

2.5.2 Lower transaction costs

Generally speaking, the lower (higher) the related transaction costs, the more (fewer) market transactions take place (North, 1987): Whether a transaction takes place depends on how difficult it is to find a suitable business partner (information costs), to conclude the contract (negotiation and contract costs), to make subsequent amendments to the contract (amendment costs) and to monitor or enforce performance of the contractual services (monitoring and enforcement costs) (Stavins, 1995).

Transaction costs are usually charge in relation to technical progress. Extensive use of potential digital technologies do reduces transaction cost – one thing successful business model approaches have in common. This also enables new or additional market transactions even changes in existing market relationships.



Figure 2.2 Traditional Business Transaction without a platform

Figure 2.2 shows a simple chart of a traditional business transaction without a platform. A company has a direct business relationship with a supplier. Due to transaction costs, going into another business relationship will be unlikely. Also, no secondary supply relationship will be entered if the transactions costs are too high.

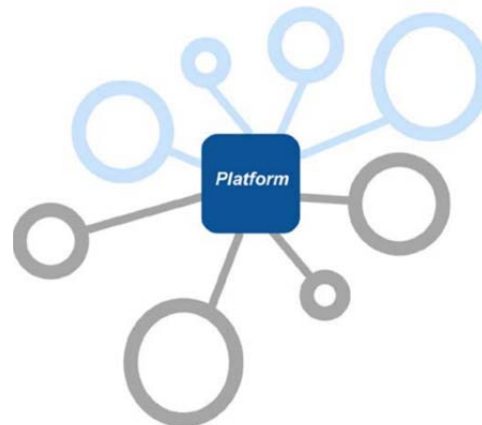


Figure 2.3 Market with a digital platform

However, if platform providers that will function as an intermediary between the buyers and suppliers can provide a service with a lesser transaction costs, market relationships will be established. In this fictitious example, the grey company (together with another company) now has access to several suppliers via the platform (Fig. 2.3).

2.5.3 Strong network effects

Market players are usually connected with digital platform. As these player groups wants to connect with each other, the accessibility of the platform for potential partners are also important and not just reducing transaction costs. This is called positive, indirect network effects where group benefits from the network size of the group (Peitz, 2006, p.322 et seq.). It is shown in Fig 2.4



Figure 2.4 Platform with indirect network effects

The indirect network effects lead to mutually strengthening effects, both in a positive and negative sense (von Engelhardt, Wangler, & Wischman, 2017). This means that platform providers who have yet to establish themselves in the market (newcomers) face one particular strategic challenge, the so-called chicken and egg problem: Their platform only appeals to one group when many players from the other group(s) use the platform and vice versa (Peitz, 2006, S. 323).

2.6 Hypothesis and Framework

The previous subsections discussed the empirical results and theory concerning the drivers of digital platforms that leads to the identification of the key success factors that will be discussed in the succeeding subsections.

2.7 Success Factors of Digital Platform

Special market forces that dominates in digital two-sided markets must be acknowledged for digital platforms to be successful. The properties of digital two-sided markets can be used to derive key factors for the successful establishment of digital platforms. These key factors address the following six dimensions: platform function, sales and revenue concept, platform openness, and platform independence (von Engelhardt, Wangler, & Wischman, 2017).

2.7.1 Platform Function

The services the platform offers for players determines determine the basic function of a digital platform. The important issue lies on who is addressed by the services and catered by that platform; as platform functions as facilitator where it brings buyers and sellers together while facilitating the transaction. With this, transaction costs are reduced while several functions are offered.

2.7.2 Sales and revenue concept

The dynamic aspects of pricing and its effects are also significant. Most digital platforms enter the market by providing low prices in order to immediately achieve

number of platform users. For some platform providers, services are offered free of charge in order to improve the platform reach while giving a message that the platform is not designed to take advantage of its market power, but it pursue for a long-term sustainable platform economy while providing growth on the digital ecosystem.

2.7.3 Openness to Digital Platform

The platform can determine its own requirements and limitations for its users in order to control the quality of the platform while protecting the interest of everyone. It can regulate and scan products and services by its quality before it can be allowed in the platform as well as its technical requirements. It can also regulate the approvals and removals of users based on adherence to the defined requirements and agreements.

2.7.4 Platform Independence

A platform can be an independent third party in the market; that is independent of other players. It is also understood that strategic partnerships with selected players or that platforms from several players has been entered, which may consist of certain groups, are operated together.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Setting

This research is conducted from Bangkok, Thailand where the digital ingredient platform will be based. Meanwhile, ingredient manufacturers specifically from overseas as well as research institutes will give the opinion of how they will accept and use this platform. Also, cosmetics manufacturers and cosmetics brand owners will give an insight on how they will adapt this digital ingredient platform. Therefore, identifying they key success factors of digital platforms should support the future users in relation to their acceptance and adaptation of the platform.

3.2 Sample and Data Collection

An online interview was conducted using telecommunications software such as Skype, Whatsapp, and LINE application. This method was used to collect data for the proposed study. The languages used in the interviews are in Thai and English Language. For Thai respondents, Thai language was used then it was translated in English. Semi-structured interview is best used when you won't get more than one chance to interview someone and when you will be sending several interviewers out into the field to collect data. The semi-structured interview guide provides a clear set of instructions for interviewers and can provide reliable, comparable qualitative data (Bernard, 1998).

Semi-structured interviews are often preceded by observation, informal and unstructured interviewing in order to allow the researchers to develop a keen understanding of the topic of interest necessary for developing relevant and meaningful semi-structured questions. This method is chosen for this study because it enables a deeper conversation about the topic and analysis with the respondents as open-ended answers will be given and these answers are open for interpretation and analysis. Moreover, to investigate the impact of each driver on digital platform, thematic interpretation can be used to identify

the correlations between the main variables and outcomes, which are digital platform drivers and the key success factors, respectively.

This target sample size for this study consists of 12 participants who will be classified in this paper as: Sellers; which includes ingredients manufacturers and research institutes, and Buyers; which includes cosmetic manufacturers and brand cosmetics owners.

Table 3.1 Interview List

Organization Type	Organization Name	Name	Position
Cosmetics Manufacturer	Cosmonation Co., Ltd.	Mr. Kittipon Nampitchtanasin	Managing Director
Cosmetics Manufacturer	Quality Plus Aesthetic International Co., Ltd.	Ms. Muntamon Utamo	R&D Manager
Cosmetics Manufacturer	Nitchapan Co., Ltd.	Ms. Thornnapat Phanketkam	President
Brand Owner	Naese Natural Partnership	Ms. Praditha Promsee	President
Brand Owner	Witchery Co., Ltd	Mr. Raksit Chutipakdeevong	President
Brand Owner	Bangkok Face International Co., Ltd	Mr. Asada Thepyos	President
Research Institute	Faculty of Pharmacy, Thammasart University	Assoc. Prof. Dr. Rathapon Asasutjarit	Assistant to Dean
Research Institute	Kasetsart Agricultural and Agro-Industrial Product Improvement Institute, Kasetsart University	Dr. Maliwan Haruethaithanasilp	Director
Research Institute	Department of Industrial Chemistry, King Mongkut's University of Technology North Bangkok	Dr. Sukanya Thepwatee	Lecturer & Researcher

Table 3.1 Interview List (cont.)

Organization Type	Organization Name	Name	Position
Ingredient Manufacturer	I.T.O. Co., Ltd. (Japan)	Mr. Yoshiki Yamaguchi	"Division Manager, Material & International Division"
Ingredient Manufacturer	Terramater Co., Ltd. (Brazil)	Mr. Pedro E. Bretzke	General Manager
Ingredient Manufacturer	Biodiversite Co., Ltd. (Brazil)	Mr. Renan Quenca	Executive Director

3.3 Instrument

The online interview session for this research contains the following two sections:

The first section asked the respondents to provide the general information about personal and work-related information included age, gender, years of service, and job position.

The second section will be divided into two sets of questions specified for sellers and buyers. Consequently, the respondents will be asked with the following questions deemed necessary for research interpretation of the case:

Table 3.2 Ingredients Suppliers Questionnaire

No.	Questions
1	What channels do you use in finding customers?
2	What are the usual problems for your company when looking for ingredients customers?
3	What are your usual problems when dealing with your distributor?
4	If there is a digital ingredients platform that will let you find customers, how likely will you use it?
5	How will this platform address and solve the problems you mentioned?

Table 3.2 Ingredients Suppliers Questionnaire (cont.)

No.	Questions
6	What are the platform functions that you are expecting from this digital ingredient platform?
7	What premium function will keep you in using this ingredient platform and are you willing to pay for it?
8	What back-end functions would you like to see and access in the platform?

Table 3.3 Research Institutes Questionnaire

No.	Questions
1	What kind of ingredients does your institute researches?
2	What do you think is the importance of these ingredients for it to be adapted in the global cosmetic industry?
3	How does your institute commercialize and promote these ingredients?
4	What characteristics of digital ingredients platform will help you in promoting these ingredients?
5	How will this platform help you in selling some small scale of ingredients, patents, and/or other intellectual properties?
6	What are the platform functions that you are expecting from this digital ingredient platform?
7	How will this platform help your institute and your researchers benefit from your research reports and data findings in case a user want to buy some data and formulation?
8	What back-end functions would you like to see and access in the platform?

Table 3.4 Cosmetics Manufacturers Questionnaire

No.	Questions
1	How do you usually find cosmetics ingredients for your products?
2	What are the problems do you usually encounter when you find ingredients suppliers?
3	On the other hand, what are your usual problems when looking for brand owners?

Table 3.4 Cosmetics Manufacturers Questionnaire (cont.)

No.	Questions
4	What are the negative effects to your business when you are required to meet a specific minimum order quantity (MOQ) of your ingredients?
5	If there is a digital ingredients platform that will let you explore new ingredients, how likely will you use it?
6	How will this platform address and solve the problems you mentioned?
7	How does a limited choice of ingredients affect the product life cycle (PLC) of your brand owners?
8	What are the platform functions that you are expecting from this digital ingredient platform? (This is good question which can benefit to our future platform)
9	What premium function will keep you in using this ingredient platform and are you willing to pay for it?

Table 3.5 Brand Owners Questionnaire

No.	Questions
1	How do you usually find cosmetics ingredients for your products?
2	What problems do you usually encounter in finding ingredients suppliers?
3	What problems do you usually encounter in finding cosmetics manufacturers?
4	Which online platform/websites have you used in finding ingredient suppliers?
5	What are the usual problems you encountered using these websites?
6	If there is a digital ingredients platform that will let you explore new ingredients, how likely will you use it?
7	In your opinion, what platform functions you are expecting from this digital ingredient platform?
8	How does a limited choice of ingredients affect the product life cycle (PLC) of your products?
9	How will this platform address and solve the problems such as finding ingredients suppliers?
10	Apart from ingredients suppliers, who else can support your business operation both directly and indirectly and how? (cosmetic manufacturer, researchers, business consultancy, government organization, etc).
11	What premium function will keep you in using this ingredient platform and are you willing to pay for it?

CHAPTER IV

DATA ANALYSIS

The interviews allowed the researcher to gain insights and collect realistic information about the current situation of ingredients supply chain in Thailand. First, the researcher asked the respondents on how they usually find their sellers and customers and then the usual problems they encounter when looking for them. Then, series of questions followed to observe and analyze what will be the deciding factors for these potential future users of this digital ingredients platform to adapt it to their respective businesses and how it will address their problems and needs. These will be further discussed in the succeeding parts of this chapter.

4.1 Drivers of Adaptability on Digital Ingredients Platform

4.1.1 Disintermediation of Middleman

First problem that was identified in the interviews was that ingredients buyers and sellers do rely with ingredient distributors or middleman. All of six respondents from Ingredients Sellers and Cosmetics manufacturers said they rely on distributors when asked the first question, “How do you usually find cosmetics ingredients sellers/buyers?”. This dependency on middleman created a domino-effect on the operation of these businesses such as the high minimum order requirement (MOQ) set by these middlemen.

A clear example of this reflects the answers from cosmetics manufacturers when asked “What are your usual problems when finding cosmetics ingredients sellers/buyers?”. All 3 respondents explained their pain when dealing with overstocks. Nichapath Co., Ltd, a Thai company based in Bangkok, mentioned that high MOQ set by middleman is too big for a small OEM company like them. This answer also reflects the question asked to cosmetics manufacturers, “What are the negative effects to your business when you are required to meet a specific minimum order quantity (MOQ) of your ingredients?”

The respondent elaborated that usually, ingredient samples that they request from supplier shows up in very small quantity. This gives problems to small SME company like them as this leads to the problem of overstock with non-assurance that their customer will approve their formulation.

Same scenario happens with Quality Plus Aesthetics International Co., Ltd., another Thai company. Upon being asked the same question, their Research and Development Head elaborated the consequences of high MOQ set to them. Their overstock forces them to push their sales team to use the same ingredients to many customers leading to no product differentiation and shorter product life cycle for their customers who are brand owners. All 3 respondents from cosmetics manufacturers have the same pain.

Another problem the respondents explained deals with the importance of time which includes long lead-time process and delays. Answering the questions, “What problems you usually encounter in finding ingredients suppliers/buyers?” and “What are your usual problems when dealing with your distributor?”, 7 of the respondents said that their middlemen are usually late in response to their queries. Adding to the pain, long lead-time process is also experienced.

On an instance told by Quality Plus, a no stock availability from their distributor led them to have a long lead time of 30-45 working days. In order to meet and synchronize with the promised schedule they agreed with their customer, the company had to choose air freight which costs 300% higher with an average shipment of twice a month which seems very costly. In some cases, the company has the need to recheck everything while forcing them to use it right away in urgent cases.

In a classic supply chain, there are retailers, producers, wholesalers, and consumers. Under disintermediation, it affects and eliminates the middleman’s role between the buyers and sellers. Middleman usually consists of distributors, brokers, or agents. In other words, one party goes directly to another end party, removing middleman along the way and making the process more straightforward. (Nichol, 2016)

4.1.2 Platform Functions

Aiding to the development of this paper, all respondents were asked “If there is a digital ingredients platform that will let you find customers, how likely will

you use it?”. Surprisingly, all 12 respondents have said that if there will be a digital ingredients platform, they will very likely to use it. The answers provided were a confirmation of the huge potential of this digital ingredient platform for these future users’ adaptation in their respective organizations. Though, this paper will analyze further the responses of the respondents on what functions they are looking from this platform.

It is understandable that attracting many users from both the seller and the buyers is important to create value scale. From the respondents’ point-of-view, a success factor for this kind of digital platform is the personalization of an experience that is focused towards functions and outcomes, different from their traditional and usual way of looking for ingredients sellers/buyers. Targeting potential customers or connections will be easier if a digital platform has what the user really needs. It wants to understand the customer’s intent and then dynamically and uniquely provide experiences to each customer and networks across the platform.

The above paragraph reflects the answers of the respondents when asked “What are the platform functions that you are expecting from this digital ingredient platform?”. Respondents provided interrelated answers based on what their respective organizations need. From the Ingredients Supplier side, all 3 respondents emphasized the importance of addressing language barrier problems. All 3 respondents are based overseas thus, needs a platform that will solve their pain of communicating the right message to potential buyers while bypassing middleman.

On side of Research Institutes, commercialization of their research, formulations, patents, and other intellectual properties is the primary function they are expecting if they want to adapt the platform. All 3 respondents said that accessibility to information and transferability of trustable information are very important. One respondent mentioned that currently, there is a “Center of Intellectual Property & Business Incubator” where patents and petty patents are gathered. However, it does not actively promote these patents thus, not being a good help to these research institutes. Also, most researchers will approach and discuss with private sectors by themselves in hope of having fruitful collaboration but to no avail. These responses provide a great insight on what the platform should have to address the needs of these research institutes given their vital role in formulation of Thai active ingredients to the world.

The side of Cosmetics Manufacturers also provided the researcher additional huge understanding on what functions this digital ingredient platform should have. As earlier discussed in this chapter, Cosmetics Manufacturers suffers some blow to their inventory and expenses due to high MOQ set by middleman. With this, cosmetics manufacturers are looking for a function that will enable them to purchase necessary amount of ingredients that is sufficient for their formulations. The researcher extracted from an interview with Cosmonation Co., Ltd. the concept of Ingredients Pooling System.

This ingredient pooling system will fall under the concept of Sharing Economy as discussed in the Literature Review of this paper. This system will have a very huge potential to change the world of cosmetics industry specifically the Thai ingredients supply chain. Proponents of what was originally called “collaborative consumption” (Botsman, 2010) highlighted the ability of platforms and apps to use underutilized assets more efficiently, build more networks and trust to person-to-person or in this case, business-to-business economies.

Sharing platforms should offer a win-win situation for all the users. This platform will also be credited in providing more value to users by cutting out the middleman and facilitating direct buyer/seller exchange. It can be inferred that this system will provide an opportunity to both the cosmetics manufacturers and the brand owners to finally find a solution on the pain of MOQs that leads to overstocks and short product life cycle (PLC) that will be further discussed on another part of this chapter.

Equally important, when asked “What premium function will keep you in using this ingredient platform and are you willing to pay for it?”, majority of respondents’ suggestion on which premium subscribers can have includes back-end functions, patent information access, free samples, special price and MOQ, unlimited sample request of amount not exceeding 5,000 Thai baht, and research publications that are usually only made available to students. Remarkably, majority of the respondents asked said that they are willing to pay for premium subscription fee as long as they can access the necessary documents and information they need as well as achieving their intention of using the platform.

Another platform function that the researcher learned from the respondents is the addition of live chat function in the platform. The platform must add this function

for every user or else platform users will lose the opportunity for a potential customer or partner. As it appears, the live chat can provide the fast answers the users want to hear. It makes communication way faster rather than the lengthy process of e-mail inquiries or costly telephone bills. Likewise, it provides users immediate access to help.

4.1.3 Ease of Finding Ingredients

All of the 6 respondents in the buyers' side (cosmetics manufacturers and brand owners) most of the times have difficulties in finding ingredients that they need for a specific formulation. Surprisingly, all 3 respondents from Brand Owners do rely from the information of ingredients that is available from their cosmetic manufacturer. Cosmetics manufacturers, on the other hand, wait for the middleman and also from suppliers some feedbacks of the requested ingredients and usually, the response is delayed creating some opportunity lost for both buyers. The respondents feel that this scenario is too time consuming and cost their respective companies.

When asked "Which online platform/websites have you used in finding ingredient suppliers?", majority of the respondents from the buyer side said they just currently just use Google in looking for the ingredients. A follow-up question was asked "What are the usual problems you encountered using these websites?". It was explained by some respondents that while searching for some specific ingredients, some websites do list it as available but once the buyer wants to contact, the website is either not working or has insufficient support.

We can also deduce from the interviews the effects of limited choice of ingredient to buyers. All 6 respondents were asked the question "How does a limited choice of ingredients affects the product life cycle (PLC) of your products?", and 5 of the respondents stated that this scenario where almost everyone has same ingredient, it is hard to survive in the market competition. However, even if some ingredients do provide very good efficacies, it still ends up as fashion ingredient that leads to be only well sell on just short period of time.

The researcher can derive and analyze from the given interviews above that respondents can easily adapt to this digital ingredient platform being proposed in this paper. Efficient usage of resources such as providing an ease of finding ingredients may be relate to a better matching of the demand and supply gap between the buyers

and sellers. The platform users are the center of mechanism in which this sharing economy revolves around. With the world becoming more fast moving, platform users expect all the information and services at the tap of a button. On demand and information services match the platform user's needs quickly, efficiently, and conveniently.

4.1.4 Platform Reliability

Another good function that was extracted from the respondents is the concept of ratings and reviews. These are both prevalent on digital platforms. It serves as a deciding factor for decision makers if they want to cooperate or negotiate with a listed seller/buyer. At the same time, it is also a source of network effect as discussed in this paper's literature review. Some respondents have raised the issue of identifying qualified users of the platform. As per the interview, it was said that if the user can feel that the platform does really have great options of sellers and buyers, then it will be a very easy for them to adapt the ingredient platform.

More likely, ratings and review systems are a solution to the general trust problems encountered by both buyers and sellers. Questions may rise like is the quality being offered by the seller reliable? Is this seller legit and has factory? Is the ingredient having a truthful disclosure of its formulations? Likely, these trust problems also exist the other way around. In a bilateral relationship, such trust problems can be solved through repeated interaction. When users of the platform are likely to create and leave reviews and/or ratings, the trust problem can also be solved.

4.1.5 Cost Reduction

A great platform delivers lesser costs for users. This is what we can infer from 6 respondents that mentioned that with the possible usage of this platform, it will give their companies lots of savings from expenses paid to exhibition booths. They believe that growing their presence through this platform will enable them reach more potential buyers while saving them with time and money. One respondent explained that if the platform will work well in their favor, their company will try to lessen attending domestic and international exhibitions for their organization to cut costs and save them more time and energy.

4.1.6 Strong Network Effects

As mentioned in the literature review, strong network effects is a good driver for digital platform. Usually, users relate to digital platform and as these player groups wants to connect with each other, the accessibility of the platform for potential partners are also important.

The researcher asked the brand owners the question “Apart from ingredients suppliers, who else can support your business operation both directly and indirectly and how? (cosmetic manufacturer, researchers, business consultancy, government organization, etc). All respondents noted that cosmetics manufacturers still play the biggest role in support of their business. Moreover, the support of the government through assistance and sponsorship for international exhibitions.

Research Institutes were also asked the question “How will this platform help your institute and your researchers benefit from your research reports and data findings in case a user want to buy some data and formulation?”. The respondents said that the platform will open the possibility for them to connect with other users in related field that can discuss and develop possible researches together in order to meet demands and promote new research and ingredients. This will enable them to meet the increasing demands of ingredients differentiation needed by cosmetics manufacturers as well as brand owners.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

To conclude this work, the researcher will answer the research question “What are the Drivers for Adaptability on Digital Cosmetics Ingredient Platform for Ingredients Suppliers, Research Institutes, Cosmetics Manufacturers, and Brand Owners?” while analysing and linking related literature review. As there is a lack of digital ingredients platform for cosmetics in Thailand that causes problems and challenges in the cosmetics value chain, the research underlined the key success factors derived from the qualitative interviews conducted. The researcher can therefore conclude that there are 6 key success factors: Disintermediation of Middleman, Platform Functions, Ease of Finding Ingredients, Platform Reliability, Cost Reduction, and Strong Network Effects.

Based on the interviews from 12 respondents, it was investigated that one main reason for the digital cosmetics ingredients to be adapted by the buyers and sellers is the reason that there is no existing digital platform in Thailand right now. Based on the interviews, buyers and sellers’ dependence on the middleman has been a very big concern and creates unfavourable outcomes to their respective organizations. Thus, a digital ingredient platform will provide the buyers and sellers with a foundation where resources can come together to address their needs while creating value. This creates an ecosystem that will connect both the sellers and the buyers.

With the digital platform, it will disrupt the traditional value chain by removing the middleman in the process. Users will have a faster way of connecting to one another, addressing the issues and needs they are looking for without relying most of the time to their distributors. Ingredients suppliers as well as cosmetics manufacturers will also cut their costs from exhibition costs that is usually expensive and time consuming. Attending such exhibitions can be lessened with focusing on their networks on the platform and start building on them.

Findings from interviews also reveal that for ingredients suppliers, addressing the issue of language barriers is an important factor for them to adapt the platform. Connecting to ingredients buyers are also main factor for platform adaptation. For research institutes, we can conclude that commercialization of their formulations and researchers tends to be the most deciding factor for the organization.

On buyers' side, the research studied that for cosmetics manufacturers and brand owners to adapt the ingredient platform, its function plays a vital role. The success of this platform might depend on the functions it will offer its users and how reliable it will be. These functions, as per respondents include; ease of data access, where users can see wide range of ingredients list and/or research publications; back-end functions, where users can sort or customize their pages; Multilanguage support, where platform can provide services and contents with other languages; trading channel, rating and review system, price comparison feature, and very interestingly, pooling system.

Also based on the interview, the promising range of strong network that the digital ingredients can provide appeals strongly for all the buyers and sellers. In the case of research institutes, they believe that they can better communicate and propose their formulations while accumulating potential research partners.

Importantly, findings show that concept of sharing economy like the ingredients pooling system will be very vital in the adaption of this platform especially by cosmetics manufacturers and brand owners. It will solve and improve their pain of overstocking that usually lead to dead stocks and short product life cycle. These problems caused many Thai cosmetics businesses to not survive the market and therefore die.

5.2 Recommendations

To become successful in the digital world, companies and organizations must adapt to new innovations and business models such as this digital ingredient platform. There are new opportunities that should be searched away from the traditional markets with tools of providing better connection and matching between buyers and sellers.

With this, the researcher would like to recommend to the future creator of this platform the following: reassess its platform users' needs, make the platform indispensable,

provide value proposition, re-examine the platform functions' capability to fulfil its value proposition, and create a successful and healthy platform ecosystem.

The researcher also would like to recommend that Ingredients Suppliers and Cosmetics Manufacturers to lessen or remove the middleman along the process of buying and selling of cosmetics ingredients. This will shorten the value chain process and it also generate lower costs, faster deliveries, and direct consumer feedback. It addresses the pain the respondents have provided. Also, the researcher would recommend that cosmetics suppliers and ingredients suppliers to use an affiliate system where their offerings can be reviewed by influencers, researchers, or even bloggers.

For both buyers which are cosmetics manufacturers and brand owners, the researcher would like to recommend that they create a good network within the platform. A good relationship with other players on the platform will easily enable them to communicate and deal with each other once they need to use the function of ingredient pooling system.

The researcher also recommends the research institutes to use this digital ingredient platform for easier and faster commercialization of their research and formulations. This will enable them to have a direct discussion with other researchers and can possibly lead to patent trading and information sharing. Also, through this platform their commercialization of some formulations can provide them some profit while continuously promoting Thai cosmetics ingredients in the value chain.

Lastly, the researcher recommends that the respondents should consider revisiting their value chain by simplifying some processes by adapting this digital ingredient platform. This platform will create a value chain that is faster, less expensive, and provides more networks.

This study is mainly about how the digital ingredients platform will be adapted by ingredients suppliers, research institutes, cosmetics manufacturers, and brand owners. The ideas were collected and analysed from 12 respondents who are part of the current Thai supply chain in cosmetics ingredients. Even though the number of respondents is enough to gather relevant information for possible adaptation of digital ingredient platform, a more respondents would give higher reliability result.

For future research, the researcher suggests conducting another qualitative interview on focus groups consisting of digital platform users with a possible addition

of other government and non-government agencies that can also be a part of the platform. It would also be interesting to further explore and research why some buyer-seller relationships in cosmetics ingredients failed as noticed by the researcher while listening to interviews of the respondents. The result of such research could further strengthen the importance of a digital ingredient platform as discussed in this thematic paper.



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