

Designing Value Co-Creation Process in Organic Food Product Distribution System

Mikhael Tjhi, Mulyani

Abstract: *This paper is a study of how to improve the organic product distribution system by applying value co-creation process in the distribution ecosystem by implementing knowledge management into all stakeholders in the distribution ecosystem. The paper will improve the existing organic food product distribution business model and the proposed business model with the implementation of knowledge management to accommodate the value co-creation among stakeholders. The reason why value co-creation among stakeholders needs to be improved is because currently organic food producers focus only on selling their products without having proper knowledge about their customers, while customers do not have enough awareness about organic food's benefit. Because of this gap, this research tries to find the solution by improving the organic product distribution system through the application of value co-creation process. This paper will use qualitative research method as the main method to collect data and scientific analysis for achieving the goals which will be proposed and related to the research objectives as explained before.*

Keywords : *Knowledge management, Value Co-creation, organic food distribution.*

I. INTRODUCTION

Living in this era has brought people comfortable and instant lifestyle, but unfortunately there are many drawbacks of this lifestyle. One of many drawbacks of comfortable and instant lifestyle is related to health issue. Younger people start to have degenerative diseases which in the past only happened to older people, such as diabetes, heart disease, etc. That is the reason why a lot of people have started to change their lifestyles [1]. They have started to live a healthy lifestyle. They have started to realize the benefits of living healthy lifestyle. The examples of healthy lifestyle is exercising regularly, consuming organic products, living a non-stressful life, etc. On this thesis, the focus is about organic products.

The organic products market is a segmented market. On the organic products market, there are many stakeholders involved. These stakeholders are government and environmental groups who serve as rule maker; business and its partners and competitors; the consumers and community who wonder what is in the products they buy and how safe they are for themselves, their children, and the environment. Other stakeholders are organic farmers who grow organic

products, and distributors who help to distribute organic products from producer to consumers.

There are several problems related to organic products market. Not many people have truly known the benefits of consuming organic products. Some of them just consume organic products because they follow their peers. It is found that level of organic product purchase in Indonesia is still low [12]. Organic products company in Indonesia face the reality that although green consumerism movement to get decent, safe, and environmentally friendly product is stronger, green marketing does not significantly influence customer intention to purchase organic products, such as organic products can only be found in specific places and has high price [11] [12]; lack of information about organic product and its benefit [11]; and questioning the originality of organic products. Knowledge in organic product may have an important role in the business ecosystem.

As mentioned above, all the stakeholders involved in organic products market create value by themselves without cooperating with other stakeholders, or in other words there is no value co-creation (values that created together) among stakeholders yet. Each stakeholder focuses on achieving their own value.

The question is, what could happen if there is no value co-creation? If there is no value co-creation, the product will become expensive, have low quality and low product variety, therefore in the end causing sales to decrease by focusing on each value separately, it is uncertain that all stakeholders' interest is accommodated whereas there could be a big potential to co-create value together among all stakeholders.

From preliminary study, it is found that in organic product market, the process is one way. Organic product producers only sell the products to consumers, consumers cannot give their feedback to the producers about the organic products meanwhile consumers' feedback is important to give producers insight about what their customers really want. The important question for producer is what factors drive customers to consume organic food. Producers still have lack of knowledge about true potential of organic consumers, i.e. the consumers who accept organic food.

Researcher will also identify current business model with service science approach. The current value in existing model needs to be identified whether it has already accommodated the value co-creation and whether it can benefit all stakeholders.

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Based on theory, there are so many potential values which can be created and developed by involving all involved stakeholders to develop business model which will accommodate value co-creation process. The business model must be designed precisely based on the finding from the study.

From the summary of the problem statement in organic food above, in this research there are three emerging research questions which can be formulated as follow : (1) Who are the stakeholders involved in organic product market and can they co-create new value together?, (2) What values and processes can be co-created together among all stakeholders in organic product market?, and (3) In order to develop current and new values, what kind of business model is needed to accommodate the value co-creation process among stakeholders in organic product market?

II. LITERATURE REVIEW

The literature used in this research is related to knowledge management and value co-creation. Both knowledge management and value co-creation provide a context for the study. Knowledge management and value co-creation are explained separately below.

A. Previous Research on Knowledge Management-CRM

Both KM and CRM disciplines focus on allocating resources to support business activities to gain competitive advantage [5]. While KM is needed for identifying, developing, administrating, storing, and providing the knowledge within a company; CRM is used to use the knowledge from, for, and about the customer for business purposes [10]. Several researchers emphasize the high synergy potential in an integrated approach of KM and CRM, as stated in the following arguments:

- The cultivation of knowledge to support business process is the task of KM, so, the application of KM concepts in the context of CRM is relevant field of research [9].
- According to the definition, obtaining customer-related knowledge is specified as the means to achieve CRM objectives. Because a major part of the process of capturing the expertise and intelligence in KM refers to customers, CRM is strongly related to KM and especially to customers KM [9].
- Link of KM and CRM could maximize not only operational, but strategic efficiency of CRM through gaining and sharing knowledge about customers. Moreover, from a practical perspective, customer data or information can be used as a platform for both relationships and knowledge [8]

Below is KM-CRM model for organic product acceptance, according to Garnida [4]. Customer knowledge is one of the driver motivations to buy an organic food product, alongside awareness and trust which are also the driver factors for the buying decision making.

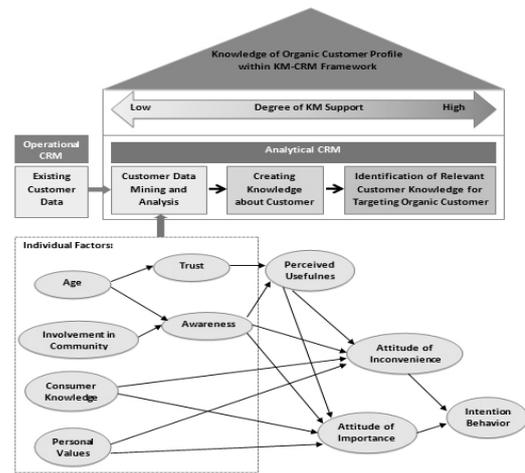


Fig 1. KM-CRM Model for Organic Products Acceptance

According to [6], there are four dimensions of knowledge in CRM:

- Knowledge about customers, which is the company's ability to identify customer profiles.
- Knowledge for customers, which will help the customers to decide whether to buy the product and how to use it effectively.
- Business to customers, which is a customer-company interaction ranges from sales interaction to public information and promotion activities.
- Customer to customers, which is a customer to customer interaction in their community.

KM support in dimension of knowledge of CRM can be found from [6] as seen below:



Fig 2 KM-support in dimensions of knowledge of CRM

From the models above, we can see the relationship among the stakeholders is necessary for building a strong CRM in order to improve or develop the business.

B. Knowledge Management by Including Value Co-creation

Value Co-creation emerged due to the coincidence of several developments such as the adoption of internet, orientation towards services and experiences, an open approach to innovation, and the growth of social, collaboration and customized technologies [2]. Value co-creation has been practiced in business-to-business (B2B) context but it is not limited to B2B context only. It can be derived for B2C context. The idea of value co-creation focuses on how individuals can collaborate with each other to meet their needs for socialization and meaning making and how organizations can influence and use the insights from a position of equality than dominance. Value co-creation can be a force for participation and democratization which creates meaning for all.

Value co-creation should be viewed as a process that provides opportunity for interaction, where organization is willing to share its world with external stakeholders and in return can generate insight from the engagement.

In value co-creation process platform in service businesses, there are two layers. At the top layer of the value co-creation process, customers and providers interact with each other and both of them co-create new values. The bottom layer invites customers and providers to get on board. The platform facilitates and orchestrates new value co-creation by customers and providers, but the control of the process lies entirely in the hands of providers, and sometimes customers.

Value Co-creation links customers and provider, so value co-creation process platform becomes a tool to allocate resources to support business activities to gain competitive advantage, which is the focus of KM-CRM.

III. RESEARCH MODEL AND METHODOLOGY

In this research, researcher employs several methods to meet research objectives. A mixed-methodology design was developed to gain advantage of qualitative and quantitative methods in responding to different research questions. According to [3], mixed-methodology design enables researcher to mix aspects of qualitative and quantitative paradigm at a methodological steps in a single design. Furthermore, the mixed models also enables researcher to conduct a sequential research, where the two stages of research are conducted, with the result of first stage is used to help inform the second stage [3].

This part explains and discusses the methods used to answer the research questions and objectives. The research questions are who the stakeholders in organic food product ecosystem are, what values and processes can be co-created together among all stakeholders in organic product market, and business model needed to accommodate the value co-creation process among stakeholders in organic product market.

In this research, a case study was conducted find out what values can be co-created together among all stakeholders in organic product ecosystem. The research design can be seen in Figure 3 below.

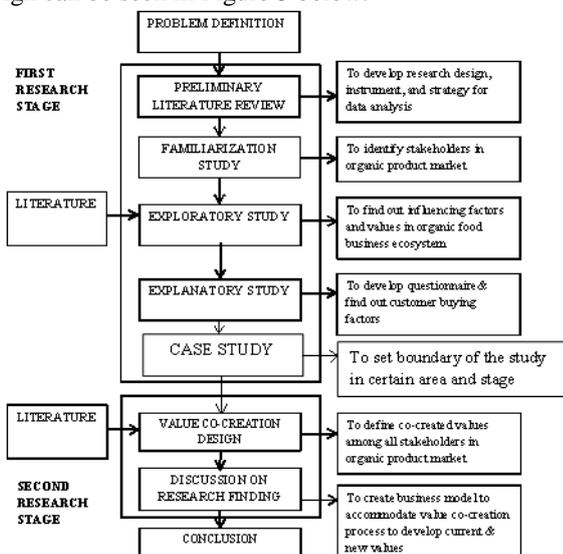


Fig 3 Mixed Methodology Research Design (Study Result)

IV. RESULT AND DISCUSSION

After conducting cluster analysis as explanatory study, it is found that from sixteen factors being asked to respondents (size, price, packaging, availability, healthy, taste, information about product, quality, promotion, lifestyle, origin of the product, safety, knowledge of process, knowledge of consuming technique, suggestion from other, and contribution to environmental conservation), respondents consider six factors when buying organic products. The six factors are safety reason, healthy reason, contribution to environmental conservation, quality of the product, product taste, and information about the product. Based on this cluster analysis result, researcher proposed new business model.

A. Proposed Business Model

In this research value co-creation design in business model design is using two main approach the first one is value co-creation process with value creation design focused on association as the enabler of the value orchestration platform, this is due to the main role of the association is to accommodate the communication and knowledge exchange among the involved stakeholders. The second approach is business model and business canvas which focus on distributors role as the center of the value exchange.

B. Value Co-creation Design

The value co-creation process that can be implemented by the association is divided into two main focuses, first is producer's value co-creation and second is stakeholder value co-creation. In producers value co-creation the purpose is to promote and develop the benefit of organic farming and contribution to the environment. In stakeholders analysis the purpose is to spread the benefit of organic lifestyle and increase the organic food product acceptance. Both processes will involve different stakeholders. All the process will be facilitated by association as the center an act like as value co-creation platform.

In the left is the producer value co-creation, the platform focus on organic food production, all the stakeholder that involved in this platform are association, producer, and government, especially the association is acting as enabler in the system that will promote organic farming towards the conventional farming and collect feedback. In the right is the stakeholders value co-creation, the platform is focus on promoting the organic lifestyle, the stakeholders that are involved in this system is are from producer, supplier, distributor, consumer, and association. Their interaction are divided into 3 categories, B2B, B2C, and C2C.

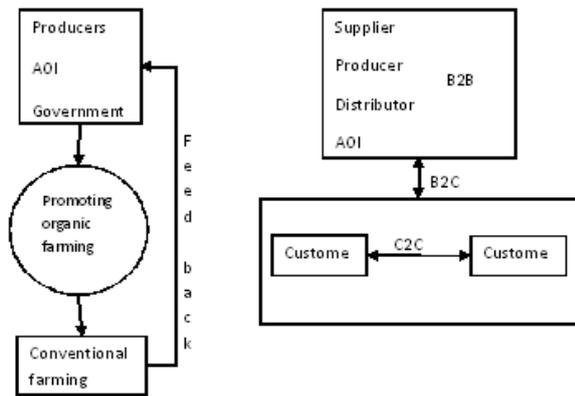


Fig 6. Producer Value Co-creation and Stakeholder Value Co-creation (Study Result)

There are some proposed method emerging in the observation and interview with the organic food stakeholders, some of the methods are currently running in the system as an experimental method and some other are emerge as proposed method or idea. Those methods are presented in the value co-creation below.

C. Producer value co-creation

In the producer co-creation system, involved organic food producer, association and government as one group, their duty is to promote organic farming to the conventional farmer and gain feedback for evaluation. The producer value co-creation process is derived from the case study of organic food in Bandung. Most of the organic food in west java and Jakarta are from Bandung area, organic farmer in Bandung area are connected one another through the organic association, those organic farmer and other association member usually promote organic farming method to conventional farmer (non-organic farming) as an environmental friendly and educate them about the benefit of the organic farming method. And the government in this system is act as regulator that will keep the quality of the organic farming method, the government action is needed due to the organic product pricing problem, an organic product is usually more expensive compare to the conventional product due to the difference of the operational cost, because of this matter, some of conventional farmer using the organic label on their product to obtain greater profit. With the government regulation about organic farming certification, the conventional farmer must acquire the organic knowledge and apply the organic method for the certification process.

The organic association in Bandung has already perform some method promoting the organic farming and the benefit of organic farming. The common one is through organic farming workshop which promote the benefit of organic farming and improving ecosystem, in this workshop they promote the environment friendly farming of how to control pest and weed by using natural approach. In short the producer value co-creation is focus on educating conventional farmer about the benefit of the organic farming (the knowledge exchange in the process).

D. Stakeholder value co-creation

The stakeholder value co-creation is involving all stakeholders from the producer, supplier, distributor and

consumer. The focus it to promote the benefit of organic lifestyle. In this system the interaction between stakeholders are divide into 3 categories B2B, B2C, and C2C. The association, producer, supplier, and distributor are categorize as business (B) in the system and organic consumer as costumer (C) in the system.

B2B relation is the relation occur between the producer, supplier and distributor via association, the emerging method of B2B from the case study is the knowledge sharing between the producer and distributor (sometimes involving the supplier) regarding the consumer behavior and consumer preference towards organic food product. The knowledge sharing process is possible due to the online service of the association that accommodate the member of B to interact in the forum for knowledge exchange and product improvement, with this media B also promote the benefit of the organic lifestyle to the consumer by opening a B2C online forum involving B and C in the interaction, with this platform not only B can promote the knowledge of organic lifestyle to C but on the other hand C can suggest a new knowledge to B regarding product improvement, for example a doctor as organic consumer (C) promote the specific cultivation to producer (B) for special treatment that will improve the organic lifestyle in general. In the association online forum there is one specific forum that only involved consumer as member, in this C2C online forum the consumer interact each other to share their knowledge and experience towards organic food product, there are many new consumer of organic food product are lead form this forum, for example many of the new consumer in need is gaining new knowledge for their treatment through this forum and become the organic consumer.

In general knowledge about organic food product is spread among the stakeholders, and association as the platform of value co-creation has facilitated the knowledge sharing through forum to accelerate the organic food improvement and acceptance. The main reason for association to involve all the stakeholders in the forum is because all the stakeholders have their unique knowledge regarding the organic food product, and so the education of organic benefit can be improved and spread by all stakeholders.

E. Proposed Business Canvas

In this proposed business canvas the knowledge exchange and value co-creation is added into the value proposition. This means distributor alongside with association will facilitate the knowledge exchange and new value creation. Distributor main role is to become mediator of knowledge exchange and value creation between stakeholders and association role is act as advisor and moderator in the process. This business canvas is consistent with the second value co-creation platform and accommodates the B2B, B2C and C2C value co-creation process. B2B value co-creation is the value creating process among the supplier producers, distributors, and association, this process will develop the product quality, product diversity, product knowledge and customer knowledge among the business providers.

The B2C value co-creation process is the process of value creating between the business providers (producers, distributor, and association) and customers, this process will provide the knowledge exchange between them and can lead the development of mutual business benefit. The C2C value co-creation process is the value creating process among the customer, this process is allowed the customer to exchange information and knowledge about organic food, this process is made possible by the online forum that provided by business provider and the association as the moderator, or it can be shared by using word of mouth.

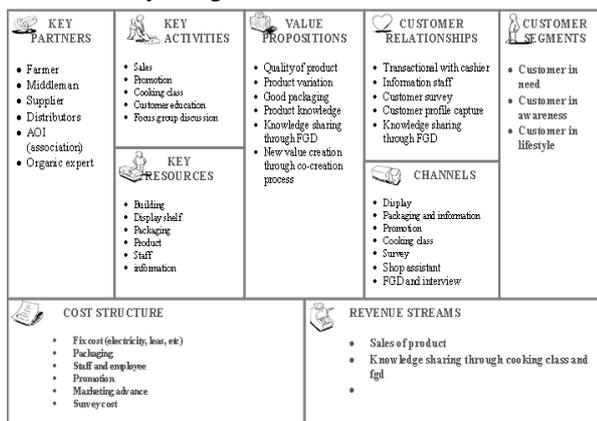


Fig 7. Proposed Business Blueprint (Study Result)

F. Proposed Business Blueprint

In this proposed business blueprint, there is knowledge exchange between customers and producers. We can find knowledge sharing in the cooking class and the customer profile capture process by implementing the customer survey at the end of the cycle. The value co-creation process can be established just because the provider is willing to involve the customer in the process. For example the customer can give their opinion and preference to improve the product acceptance. On the other hand, providers can share the product knowledge through the information on the packaging, cooking class (enable the communication between the provider and the customer) in order to gain co-innovation, and through advertising that can improve the awareness towards the organic food product.

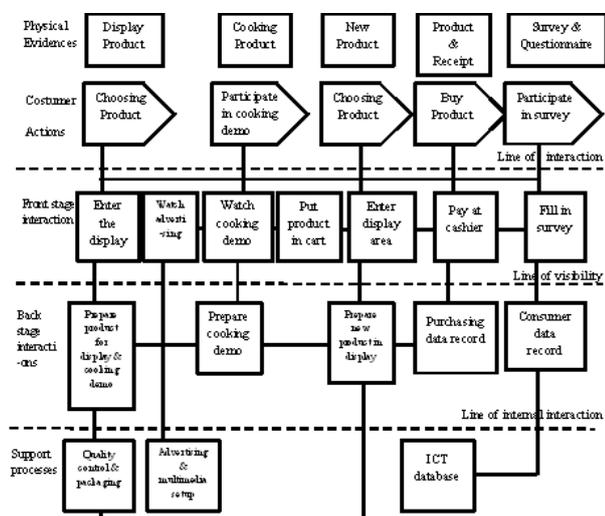


Fig. 8 Proposed Business Blueprint (Study Result)

Before the organic food producers or companies currently use push-marketing strategy. In push-marketing strategy, the focus is only on selling the organic food without really considering what their customers want. In other words, companies now only focus on their products (goods-dominant logic/GDL), Companies want accelerated growth, but the question is, how do they achieve it?

The answer is by applying value co-creation through KM-CRM framework. While KM is needed for identifying, developing administrating, storing, and providing the knowledge within a company; CRM is used to use the knowledge from the customer, for the customer, and about the customer for business purposes. When KM-CRM framework is applied, all stakeholders in organic food industry must be involved. As a result, in the proposed business canvas and business blueprint, all stakeholders are involved and enable the value co-creation process and co-innovation process. Moreover the education for the organic lifestyle benefit can be improve and spread more easily by using the VCC platform that will actively involve all the stakeholder to share their knowledge and generate the new method of promoting the benefit.

To get a better insight about customers, this research use cluster analysis. From cluster analysis, researcher gets an insight about customer profile and preference from sixteen factors that were asked to them through questionnaire. By knowing customer profile and preference, company will have better understanding about their customer and therefore they can propose a new business plan and strategy to make a better approach to customers. Here, companies do not only focus on their product, but they also focus on the service that they provide to their customers (Service-dominant logic / SDL).

The value co-creation process that can be implemented by the association is divided into two main focuses, first is producer’s value co-creation and second is stakeholder value co-creation. In producers value co-creation the purpose is to promote and develop the benefit of organic farming and contribution to the environment. In stakeholders analysis the purpose is to spread the benefit of organic lifestyle and increase the organic food product acceptance. Both processes will involve different stakeholders. All the process will be facilitated by association as the center an act like as value co-creation platform.

In the proposed business plan as we can see in the business canvas and the business blueprint, the customers has an important role, they are involved in the process. The customer can provide the knowledge about the customers profile and the customer preference towards the organic food product. By capturing the customer profile and customer preference, the organic food provider can make an effective business strategy in order to increase the organic food product acceptance rate.

The provider also provides the customer with the product knowledge. As we know the organic food product is a new technology in food industries. So the customer still lack of knowledge about the product.

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By educating the customer about the product knowledge, it will help the customer to become aware and more concern towards the organic food product. In the customer to customer platform, customers also play important role, they are exchanging knowledge among the customers. This platform is the key factor to gain the customer's loyalty.

In Bandung case study, the distributors have important role to deliver the value to the customers, so it is important for distributors to implement the knowledge management system in order to share organic food knowledge to customers. For example the distributors are suggested to do the knowledge sharing to share "how to" and "to know how" to the customer, and in contrary the distributors are suggested to do the customer preference research through the market research like explained above in the business blueprint.

V. CONCLUSION

In value co-creation process and development not only the business owner that are involved but moreover we should involve all stakeholders including the customer in order to gain the optimum result. The customers have an important role to provide the business owner with the knowledge about customer preference.

On the other hand the customer can improve the product knowledge form the information that given by the business owner in order to improve their experience quality in organic food consumption.

Value co-creation process is two way process that will continuously interact each other between the business owner and other stakeholders. The process is repetitive and each process will improve the model from the previous model. In other words it's a process of continuous improvement made by stakeholders among the organic food business environment. The process is possible because the knowledge sharing will improve the existing knowledge in each stakeholders and shared through the media. This will improve the spread of the knowledge and increase the organic food acceptance by reaching the new stakeholders through the knowledge sharing and organic food benefit education.

Value co-creation process serves as a tool to help companies shift their focus from goods-dominant logic / GDL to the combination of goods-dominant logic / GDL and service-dominant logic.

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Mikhael Tjhi an industrial engineer with ergonomic knowledge and human factor knowledge. interests are in entrepreneurship innovation and human relation development, and has collaborated with some education center and human soft skill development center in Value co-creation for new knowledge and expertise.



Mulyani graduated from Doctoral of economic program. Mulyani have a passion in research about art and humanity, manajemen and leadership. She work as lecturer of Entrepreneurship program of BINUS University. Her concern about teaching and research made her become part of lecturer association namely Ikatan Dosen Republik Indonesia.