APPLYING HUMAN CENTRED DESIGN (HCD) IN NEW PRODUCT DEVELOPMENT (NPD) PROCESS AT PT XYZ

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2019
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ABSTRACT

REZA SATRIA. Applying Human Centred Design (HCD) in New Product Development Process (NPD) Process at PT XYZ. Supervised by ELISA ANGGRAENI and BUDI AGUS PRANOTO.

Managing the New Product Development (NPD) process has become a challenge for firms as it requires extensive financial and human resources and is time sensitive. Moreover, firms still face difficulties in linking insights into product development. Thus, in this research, Human Centred Design (HCD) was applied as an approach to improve the understanding of consumer needs and incorporating it into product concept. The product to be developed by PT XYZ is a healthy and easy snack product for active adults’ breakfast meal with the consumer segmentation of woman and man with 30 years old above and SES AB, urban population, and active lifestyle. The identified consumers’ need from literature and hypothesis translated into 4 design principles and generated 6 product ideas with RTD Almond Milk with Flaxseed came up as a winning product idea. However, it still needs further exploration on adult’s diet pattern as the product evaluation didn’t met company’s standard. The further exploration as the iteration process of HCD found 3 results namely, diet routine type, healthy meals concepts, and challenge and expectation. These identified results then modified the previous design principle, compatibility principle, into control-enhancing. Therefore, the RTD Almond Milk with Flaxseed need to be modified to have balance and complete nutrients with acceptable and preferred taste feature. It also could use Saturo and Huel as a benchmark for control-enhancing design principle.

Keywords: Human Centred Design (HCD), consumer segmentation, consumer needs, design principle, product ideas
tentang pola diet orang dewasa masih diperlukan karena evaluasi produk tersebut tidak memenuhi standar perusahaan. Eksporasi yang merupakan bagian proses 
iteration dalam HCD menunjukkan 3 hasil yaitu, jenis rutinitas diet, konsep makanan sehat, dan tantangan dan harapan. Hasil yang teridentifikasi ini mengubah prinsip desain sebelumnya, *compatibility principle*, menjadi *control-enhancing*. Oleh karena itu, *RTD Almond Milk with Flaxseed* perlu diubah agar memiliki fitur nutrisi yang lengkap dan seimbang serta rasa yang dapat diterima dan disukai oleh konsumen. *RTD Almond Milk with Flaxseed* juga dapat menggunakan Saturo dan Huel sebagai benchmark dalam *control-enhancing principle*.

Kata kunci: Human Centred Design (HCD), segmentasi konsumen, kebutuhan konsumen, prinsip desain, ide produk
APPLYING HUMAN CENTRED DESIGN (HCD) IN NEW PRODUCT DEVELOPMENT (NPD) PROCESS AT PT XYZ

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PREFACE

Praise and deep gratitude to Allah SWT for the abundance of grace, and guidance of Him given to the writer that made this thesis can be completed properly. Greetings and salawat may always be devoted to the Prophet Muhammad SAW.

The thesis entitled “Applying Human Centred Design (HCD) in New Product Development (NPD) Process at PT XYZ” is structured to meet the requirements of the undergraduate curriculum in the Department of Agroindustrial Technology, Faculty of Agricultural Technology, IPB University.

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Reza Satria
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INTRODUCTION

Background

The awareness of industry toward the importance of new products to business makes the number of new product introductions increased dramatically (Bhuiyan 2011). The harsh realities are that the majority of new products never make it to market and those that do face a failure rate somewhere in order of 25 to 45 percent (Crawford 1987; Cooper 2001). Correspondingly, managing the New Product Development (NPD) process has become a challenge for firms as it requires extensive financial and human resources and is time sensitive. Moreover, intense global competition, short product and technology lifecycles, unpredictable consumer buying patterns and possible market stagnation makes new product development a critical activity in most businesses (Kundu 2010).

Customer-focused idea generation in New Product Development (NPD) process is a critical factor to the new product success (Crawford 1987). The firm should gather as many ideas as possible and a large number of these should come from customers so that the firm can be in a position to design and develop winning new products (Bhuiyan 2011). Incorporating voice of consumer into a product design can be approached using Human-Centred Design (HCD). According to ISO 9241-210:2010, human-centred design is an approach to interactive systems development that aims to make systems usable and useful by focusing on the users, their needs and requirements, and by applying human factors/ergonomics, and usability knowledge and techniques. This approach enhances effectiveness and efficiency; improves human well-being, user satisfaction, accessibility and sustainability; and counteracts possible adverse effects of use on human health, safety and performance.

Many researchers or company, from public health projects to food innovation, utilizing HCD approach to have an innovative product that offers customers and users added value. Kbayrak et al. (2012) using HCD to design a backpack that decreased load on shoulders, neck, and waist for school-going children 7-9 years old in Iran. This approach solved ergonomics approach for health considerations and addressed user preferences for aesthetics and appearance. Olsen (2014) exemplifies how design thinking can contribute to innovation in the food industry. He stated that design thinking offers new opportunities for the food domain and implies more consumer empathy, more frequent prototyping, and more collaboration than what is common within the food sector today.

PT XYZ currently designed new products by mainly involving two functions in up-front process of New Product Development (NPD), namely Consumer Insight (CI) and Business Development (BD). CI is responsible for ideation process that covers identifying trends, market potential, and gather consumer’s insights to generate product ideas, while BD is responsible translating those insights into product concepts. Unfortunately, CI sometimes gathers the insights from past literatures which may lead to irrelevance or invalid product concept design. This will cause the design principles that BD developed are not strongly supported with relevance data which could increase a probability of product failure. Human-Centred Design (HCD) can bridge this gap by improving consumers learning...
capability. Thus, in this research, HCD will be used as an approach to improve the product development at PT XYZ.

**Research Question**

The research question that come up based on the problem explanation above is how human centred design can improve the new product development process at PT XYZ?

**Research Objective**

The objective of this research is to explore consumer needs and translate it into a product concept in new product development process at PT XYZ.

**Significance of Study**

Theoretically, this research can be used as a reference for the next researchers who are involved in the related topic of research. It can be useful input for implementation of product development process to make product that more usable and useful for the users. Practically, it is expected to be useful in improving the consumer satisfaction toward firms’ product. The writer also hopes that this research can give insights to firms in implementing Human Centred Design approach in order to tackle firms’ innovation problems, understand the current marketplace condition, predict the future marketplace changes, and develop a more desirable and competitive products.

**Scope of Study**

There are several stages in New Product Development (NPD) process at PT XYZ that can be covered by Human Centered Design (HCD) approach from the idea discovery to post-launch stage. However, in this study, HCD will be used from the idea discovery to designing product concept only.

**METHODS**

**Research Location and Period**

This research is conducted at PT XYZ, Cakung, East Jakarta and start from 21 January 2019 to 15 May 2019.

**Research Framework**

Human Centered Design (HCD) builds upon participatory action research by moving beyond participants’ involvement and producing solutions to problems rather than solely documenting them. In this research, HCD will be applied by using 2 main stages and each stage followed by other sub-stages which are adapted from IDEO — world-famous design firm which and experts in Human Centred Design. The first stage, inspiration, improving the competitiveness of product by gathering...
insights, ideas, and expectations from both PT XYZ and consumer to linking the consumer data and firm’s strategy. This stage should be followed by doing a design framing to ensure solving the challenges drive toward ultimate impact and allow for a variety of solutions. Besides, knowing the consumer who will be offered by the product concept is essential. Consequently, the consumers’ characteristics and needs should be understood properly.

Figure 1. Research framework based on The Field Guide to Human Centred Design by IDEO

The next stage, ideation, identifying and synthesizing findings into set of design principles to make prototypes. After generated lots of ideas in previous stage, some of which will be kept and others will be discarded. The idea classification and reduction can be start by clustering the ideas into specific them according to their pattern. Then prioritize the ideas to isolate key ideas and reveal opportunities for
product design. The next step are determining the design principles. This should be done in order to be more focused at the challenges that need to be designed and to have guardrails of the product design which will help keep further iterations consistent. The product concepts then can be made to answer the challenges that faced by the company. The consumers are actively involved during designing the product concepts in order to know preference, desire, or needs so that the product will have more competitiveness and higher product acceptance. The research framework is showed by Figure 1 above.

Data Collection Procedure

This study generated data from various phase according to Human Centred Design approach, thus, make the data collection technique themselves vary in each phase. The detailed data types, data collection techniques, and data sources are shown by the Table 1 below. It is important to note that the FGD report in Table 1 is about adults’ health concerns that conducted in 2013 by third party. It involved 13 informants with criteria of female SES AB, working and nonworking, having active lifestyle, consume milk and multivitamin at least once a day, and aware Anlene, Hi Lo, and Entrasol as milk brands.

Table 1. The detailed data types, data collection techniques, and data sources

<table>
<thead>
<tr>
<th>No</th>
<th>Activity</th>
<th>Data Type</th>
<th>Data Collection Technique</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Design framing</td>
<td>Qualitative</td>
<td>Interview</td>
<td>Business Development staff (project owner)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Consumer Insights staff</td>
</tr>
<tr>
<td>2.</td>
<td>Defining target audience</td>
<td>Qualitative</td>
<td>Interview</td>
<td>FGD report</td>
</tr>
<tr>
<td></td>
<td>Understanding consumers</td>
<td>Qualitative</td>
<td>Literature review</td>
<td>FGD report</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Interview</td>
<td>Targeted consumers</td>
</tr>
<tr>
<td>3.</td>
<td>Clustering the ideas</td>
<td>Qualitative</td>
<td>Literature review</td>
<td>FGD report</td>
</tr>
<tr>
<td>4.</td>
<td>Determining the design</td>
<td>Qualitative</td>
<td>Interview</td>
<td>Business Development staff</td>
</tr>
<tr>
<td></td>
<td>principle</td>
<td></td>
<td>Literature review</td>
<td>Interview transcripts</td>
</tr>
<tr>
<td>5.</td>
<td>Prototyping</td>
<td>Quantitative and</td>
<td>Questionnaire</td>
<td>Business Development staff and targeted consumers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>qualitative</td>
<td></td>
<td>Design principle analysis</td>
</tr>
</tbody>
</table>
RESULT AND DISCUSSION

Inspiration Stage

1. Design Framing

Design framing in Human Centred Design (HCD) provide design pillars, organize flow of thinking, and help clarify when meets ambiguity during design process (IDEO 2015). Design framing has several aspects that should be considered such as, design question, design impact, possible solutions, and design context and constraint. The first step of design framing is started by stating a design question (a sentence in form of question) that conveys what will be done in the project. Sometimes, it needs iteration to figure out precisely how to refine the problem that want to be solved. The result of design framing can be seen in Attachment 1 and presented in Table 2 below.

Table 2. Visualization of design framing results

<table>
<thead>
<tr>
<th>Category</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data source</td>
<td>Interview with Business Development staff as the project owner. The staff explained about the project background, goals, solution, context and constraints based on observations, hypothesis, and expertise.</td>
</tr>
<tr>
<td>Problem definition</td>
<td>Making healthier and easier meals for active adults</td>
</tr>
<tr>
<td>Impact or goals</td>
<td>Being a nutritious and practical food product that is suitable for people who don't have breakfast or meals during critical hours (in-between-meal).</td>
</tr>
<tr>
<td>Possible solution</td>
<td>RTD/RTE products with practical packaging and typical variants of breakfast menu. Also the product should be nutritious that contained certain benefits.</td>
</tr>
<tr>
<td>Context and constraints</td>
<td>The product should be nutritious, practical, provide fulfillment sensation, yet still suitable to be consumed as in-between-meal snacks</td>
</tr>
<tr>
<td>Design questions</td>
<td>How might we make healthier and easier snacks for active adults that can be consumed for breakfast meal, yet still suitable for in-between-meal snacks?</td>
</tr>
</tbody>
</table>

It is important to note that this project was given from PT XYZ. Thus, in this design framing stages, the project background, goals, solution, context and constraint were explored in order to structure the work flow from PT XYZ. At the first, the design question of this project is to create a healthy and easier meals for adults. This product idea is designed for adults who don’t have much preparation time for their breakfast meal or live in face-paced activities. Therefore, the concept will be in form of ready to drink/eat product and used materials which have benefit to human health. However, this design question needed refinement because this product should has a clear differentiation with existing products or competitors (i.e. Entrasol Quickstart and Energen).

Eventually, the product idea is expanded to be an after-lunch snack product too. A reason is because it believed that many people have experiencing of being hungry in-between-meals time, while discourage to consume more meals which
makes choosing a “smart” snack isn't always easy too. This product concept is expected to give a greater impact while maintained the needs of breakfast meal as well as after-lunch snack. Besides, there are some conditions or constraints that should be considered such as the product concept should be healthy, practical, and give fulfillment sensation as well. Thus, the final design question of this project is to make a healthier and easier snack product for active adults’ breakfast meal but still suitable to be an in-between-meals snack.

2. Defining Target Audience

Designing product that meets with consumer needs is crucial in order to have high product acceptance by consumers. However, consumers are too numerous, too widely scattered, and too varied in their needs and buying practices. Besides, companies have different abilities in serving different segments in the market (Kotler et al. 2002). Therefore, target marketing or segmenting markets is chosen as an approach to divide a market into distinct groups of buyers with different needs, characteristics or behaviours, who might require separate products or marketing mixes. The following section will discuss a target segment based on company’s strategy for the proposed product concept by using demographic segmentation (age and income), geographic segmentation (population density), and psychographic segmentation (lifestyle).

Demographic Segmentation

Age

The consumer’s needs and wants change with age. Therefore some companies use age and life-cycle segmentation, where age and the life-cycle determine the marketing approach. (Kotler et al. 2002). Furthermore the age and life-cycle segmentation are associated with behavioural characteristics and buying patterns (Gunter and Furnham 1992). The target-age segmentation for this proposed product concept is referred to a similar product of PT XYZ which supported with Focus Group Discussion (FGD) report that conducted by a third party. The target consumers are adults with age above 30 years old. They are chosen because they showed specific concerns and needs to be solved. These traits can give more competitive advantage compared to other age segment (less than 30 years old) if their needs can be met by the proposed product concept.

Income

Income segmentation is a way to segment consumers as per the annual or monthly income they are earning. Income segmentation is best suited for products which are priced high. It helps companies to understand the relation between the earning of a customer, the price being offered by the company and the number of potential customers that a company can have. The target segment of this proposed product concept must be SES AB (Socioeconomic status A&B). According to Nielsen (2010), social economic status (SES) is measured based on monthly routine household expenditure. The consumers that have expenditure over Rp 2,500,000 are classified as SES AB. PT XYZ target SES AB consumers because the product designed to become a premium product as the price will be set higher compared to
similar product in the market. So the company believed that the higher SES category will influence the purchase intention of product.

Psychographic Segmentation

Lifestyle
People’s interest in goods is affected by their lifestyles. Reciprocally, the goods they buy express their lifestyles. Lifestyle segments are either using methods from agencies or customized methods for individual companies. Many companies opt for off-the-shelf methods because of their familiarity and the high cost and complexity of developing their own (Kotler et al. 2002). PT XYZ target the consumers based on their day-to-day activities and choose consumers who have an active lifestyle. Active lifestyle people are defined as people who are focused on their task, being a productive person, and tend to live efficiently. Thus they preferred or rather to choose practical products (instant/on-the-go) if possible. However, in this research, the active lifestyle people simply defined as a working people (housewife is not included).

Geographic Segmentation

Urban Population
A company may decide to operate in one or a few geographical areas, or to operate in all areas but pay attention to geographical differences in needs and wants (Kotler et al. 2002). PT XYZ target the urban consumers which the population more dense compared to suburban and rural. According to Razdan et al. (2014) in article about the evolving Indonesian consumers showed that the consuming class group consist of 55 million urban consumers – is the most commercially attractive segment. Understanding the needs and prioritizing the strategy in urban consumers will be critical as company can improve their product sales. Razdan et al. (2014) also added that between 2000 and 2013, Indonesia’s urban population increased from 42 percent to 55 percent or 138 million residents and it is expected to reach 71 percent or 209 million people by 2030. This situation makes urban segmentation more promising as its high share of market potential.

3. Understanding Consumers
Understand a person’s desires, fears, and opinions on given subject will help designer to develop a design that can meet consumer expectation. In this research, the needs explorations is done by reviewing an FGD report about adult health concern in 2013. The needs exploration was conducted through Focus Group Discussion (FGD) and In-Depth Interview (IDI) to 13 informants with characteristics of female, SES AB, working & nonworking, having active lifestyle, consumes milk & multivitamin at least once a day, and aware of Anlene, Hi Lo, and Entrasol as milk brands.

The objective of Focus Group Discussion (FGD) and In-Depth Interview were to explore adult concerns toward their personal health. This exploration will become foundation in developing products. The results showed that adults faced two health concerns namely, illness fear and age-related health symptoms (later called Gejala Faktor U). Illness fear that faced by the informants are cholesterol,
cancer, stroke, heart problem, hypertension, uric acid, and diabetic. These illness fears among the respondents is coming from family exposure or relatives who already suffered from those health problems. However, the Gejala Faktor U was more explored in the report because it allow more feasible solutions compared to illness fear.

The Focus Group Discussion (FGD) reports on Gejala Faktor U showed that the informants experienced 12 health problem namely vision, pre-menopause, white hair, wrinkles and freckles, easily feel cold, stomach problem, memory, pegal-pegal, bone pain, headache, easily get tired and easily get sleepy. The overview of results of Gejala Faktor U can be seen in Table 3. It showed how the symptoms felt by the informants and the description why it could be happened to them. Other results that written in the report are the occurrence incidence or the frequency of the symptoms felt, the ways respondents overcome the problems neither from outside (activities) or inside (product intake), and the degree of satisfaction toward the existing solutions. The details about the cause, solution, solution satisfaction, and occurrence incidence is presented in Attachment 2.

<table>
<thead>
<tr>
<th>Gejala Faktor U</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>Different age group felt the symptom differently. Younger group felt the problem interfering eye function while in older group, the problem is within the function itself</td>
</tr>
<tr>
<td>Pre-menopause</td>
<td>The symptoms came up due to age factor which caused to get easily angry, feel full in stomach, pegal-pegal in waist, and hot burn</td>
</tr>
<tr>
<td>White hair</td>
<td>White hair start growing as age increasing which make the informant felt bad about their appearance</td>
</tr>
<tr>
<td>Wrinkles and freckles</td>
<td>Wrinkles and dark spots on face skin appeared as age increasing make the informant felt bad about their appearance</td>
</tr>
<tr>
<td>Easily feel cold</td>
<td>The body easily felt cold as the age growing</td>
</tr>
<tr>
<td>Stomach problem</td>
<td>Stomachache caused by bad eating patterns and feeling stressed</td>
</tr>
<tr>
<td>Memory</td>
<td>Difficult to remember things as the age growing</td>
</tr>
<tr>
<td>Pegal-pegal</td>
<td>Aching at some parts of the body due to heavy activities, bad sleeping position, lack of calcium or, too much sitting</td>
</tr>
<tr>
<td>Bone pain</td>
<td>Pain sensation in bone at some parts of body due to heavy activities, lack of calcium, and too much sitting</td>
</tr>
<tr>
<td>Headache</td>
<td>Aching in area of head due to lack of sleeping, stress, hypertension, or cholesterol</td>
</tr>
<tr>
<td>Easily get tired</td>
<td>Easily get tired get more intense as the age growing with different cause. Older group considered it is caused by lack of nutrition but they tend to accept it</td>
</tr>
<tr>
<td>Easily get sleepy</td>
<td>Easily get sleepy in daily basis as the age growing</td>
</tr>
</tbody>
</table>

Ideation Stage

1. Finding Themes

As inspiration stage generated a lot of informations, some of which will be
kept and others will be discarded. The classification and reduction can be start by clustering the informations into specific pattern. There are 2 patterns identified namely, starting age and solution satisfaction. First, starting age, is the age classification of adults when they started to feel specific of Gejala Faktor U. The majority of problems began to be felt since the age of 30 years and continues with high intensity over time. However, older age people tend to accept these problems because these problems are already common symptoms for this age group. The starting age pattern can be seen in Table 4 below. Even though it stated in the report that the problems began to be felt since the age of 30 years, however the problems are grouped start from the age of 35 years old.

Table 4. Gejala Faktor U Based on Starting Age Group

<table>
<thead>
<tr>
<th>35 years old above</th>
<th>40 years old above</th>
<th>50 years old above</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pegal-pegal</td>
<td>Bone pain (more intense)</td>
<td>Memory loss</td>
</tr>
<tr>
<td>Bone pain</td>
<td>Blurry vision</td>
<td>Easily get sleepy</td>
</tr>
<tr>
<td>Freckles</td>
<td>White hair</td>
<td></td>
</tr>
<tr>
<td>Vision (irritation eye)</td>
<td>Easily to caught cold</td>
<td></td>
</tr>
<tr>
<td>Easily to get tired</td>
<td>Pre-menopause</td>
<td></td>
</tr>
</tbody>
</table>

Secondly, solution satisfaction pattern — the degree of customers’ satisfaction toward existing solution of Gejala Faktor U. There are 3 degrees of satisfaction namely, low, medium, and high. Focussing on the low customers’ satisfaction will give an opportunity to find more impactful solutions than medium and high degree. However, the medium degree is preferred because the solution for problems in low degree is more difficult to be implemented than medium degree. Solution satisfaction pattern can be seen in Table 5 below. Further refinement on medium degree is also done to find problem priorities in that group by analyzing the diagram in Figure 2.

Table 5. Satisfaction toward existing solution

<table>
<thead>
<tr>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-menopause</td>
<td>Wrinkles</td>
<td>White hair</td>
</tr>
<tr>
<td>Easily feel cold</td>
<td>Pegal-pegal</td>
<td>Stomach problem</td>
</tr>
<tr>
<td>Memory</td>
<td>Bone pain</td>
<td>Headache</td>
</tr>
<tr>
<td></td>
<td>Easily get tired (younger)</td>
<td>Easily get tired (older)</td>
</tr>
<tr>
<td></td>
<td>Easily get sleepy</td>
<td></td>
</tr>
</tbody>
</table>

Further refinement is needed to be done in order to be more focused in selecting problems or Gejala Faktor U that want to be solved. PT XYZ itself has already chosen some health problems that they want to focused on. However, the health problems that will be used in this research are based on the analysis of Figure 2. The Figure 2 below is obtained from the FGD report about adult health concern which showed the function between health problem concern and health problem suffered. Health problem concern on vertical axis showed the level of concern of informants toward specific problems, while health problem suffered on horizontal axis showed the frequency of those specific problems occurred. Based on the figure, the refinement of Gejala Faktor U in medium category could be done by selecting problems which highly concerned (upper part) and highly occurred (to the right). Thus, the refined Gejala Faktor U are pegal-pegal, bone pain, and easily get tired.
This refinement is aligned with another similar brand’s product that raised Gejala Faktor U theme in their TVC advertisement which are pegal-pegal, bone and joint pain, and easily get tired.

![Health Problem Suffered/Concerned](image)

**Figure 2.** Function between health problems’ concern and health problem suffered.

### 2. Design Principles

Design principles are used as design guardrails that will keep further iterations consistent. There are 4 design principles that developed by Business Development function based on literature review and hypothesis. The design principles are compatibility, fulfillment sensation, practicality, and Gejala Faktor U which presented in Table 6. First principle, compatibility, meaning that the product’s variant should be familiar with consumer diet (breakfast meal, snacking habits, etc.) so the consumers will likely accept the product innovation. Secondly, fulfillment sensation, the product should be able to reduce hunger and provide sufficient energy to support their face-paced activities. Thirdly, practicality, the product should be easy to prepare and consume since the customer has an active lifestyle which highly appreciate time efficiency. Lastly, Gejala Faktor U, the product should be able to alleviate customer pain about Gejala Faktor U and contain PRO-FIT formula. The PRO-FIT formula is the innovation feature from PT XYZ that consist of hytolive (olive extracts), vitamin b complex, and high fiber characteristics to overcome Gejala Faktor U as the unique selling proposition of product.

<table>
<thead>
<tr>
<th>Design Principles</th>
<th>Design concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatibility</td>
<td>Product’s variant should be familiar with consumer’s diet</td>
</tr>
<tr>
<td>Fulfillment sensation</td>
<td>Reduce hunger and provide sufficient energy</td>
</tr>
<tr>
<td>Practicality</td>
<td>Easy to prepare and consume</td>
</tr>
<tr>
<td>Gejala Faktor U</td>
<td>Able to overcome Gejala Faktor U (pegal-pegal and bone pain) and contain PRO-FIT formula</td>
</tr>
</tbody>
</table>
3. Prototyping

Prototyping step make design principles turned into more realistic product concepts and then tested to the audience in order to gather feedbacks. The design principles were translated into product ideas by Business Development function that can be seen in Table 7. Also, in this stage, the product concepts that contained product ideas and human truth were evaluated through online questionnaire. The detail of human truth and product ideas can be seen in Attachment 3 while the questionnaire in Attachment 4. The human truth will be evaluated based on specific criteria, while the product ideas will be evaluated based on specific criteria and product ranking. The criteria that will be evaluated for human truth is relevance, while product ideas are attractiveness, uniqueness, relevance, and purchase intention. Besides, the product ideas were also ranked based on respondents’ preference. Thus, the best product idea was decided based on combination of product ideas evaluation and ranking.

Table 7. Translation of design principles into product ideas

<table>
<thead>
<tr>
<th>Compatibility</th>
<th>Fulfillment sensation</th>
<th>Practicality</th>
<th>Gejala Faktor U</th>
<th>Product ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal milk format</td>
<td>Dietary fiber from oat</td>
<td>Ready-to-Drink</td>
<td>PRO-FIT formula</td>
<td>RTD Cereal Milk</td>
</tr>
<tr>
<td>Soymilk format and increasing trend of moringa</td>
<td>Dietary fiber from moringa</td>
<td>Ready-to-Drink</td>
<td>PRO-FIT formula</td>
<td>RTD Soymilk with Moringa extract</td>
</tr>
<tr>
<td>Oat milk format</td>
<td>Dietary fiber from oat</td>
<td>Ready-to-Drink</td>
<td>PRO-FIT formula</td>
<td>RTD Charcoal Oat Milk</td>
</tr>
<tr>
<td>Almond milk trends in product</td>
<td>Dietary fiber from flaxseed</td>
<td>Ready-to-Drink</td>
<td>PRO-FIT formula</td>
<td>RTD Almond Milk with Flaxseed</td>
</tr>
<tr>
<td>Yoghurt format</td>
<td>Dietary fiber from Aloe vera</td>
<td>Ready-to-Eat</td>
<td>PRO-FIT formula</td>
<td>RTE Greek Yoghurt with Aloevera Chunks</td>
</tr>
<tr>
<td>Yoghurt format</td>
<td>Dietary fiber from granola</td>
<td>Ready-to-Eat</td>
<td>PRO-FIT formula</td>
<td>RTE Greek Yoghurt</td>
</tr>
</tbody>
</table>

There are 6 product ideas that are evaluated by respondents namely, RTD Cereal Milk, RTD Soymilk with Moringa Extract, RTD Charcoal Oat Milk, RTD Almond Milk with Flaxseed, RTD Yoghurt with Aloevera Chunks, and RTE Greek Yoghurt with Granola. The evaluation of each product ideas is shown by Figure 3. The results showed that the most attractive, relevance, and highest purchase intention were obtained by RTD Almond Milk with Flaxseed with score of, 79%, 66%, and 66% respectively. While the most unique product ideas was obtained by RTD Charcoal Oat Milk with 82% score. The respondents were also asked to rank the product ideas. The data were processed based on company’s calculation – the least the score, the higher the ranking. The ranking test results in Table 8 showed that product ideas ranking from rank-1 to rank-6 are RTD Almond Milk with
Flaxseed, RTD Yoghurt with Aloevera Chunks, RTE Greek Yogurt, RTD Charcoal Oat Milk, RTD soymilk with Moringa Extract, and RTD Cereal Milk. The best product idea is decided based on combination of product ideas evaluation and ranking which make RTD Almond Milk with Flaxseed as the best product idea.

Table 8. The results of product ideas ranking

<table>
<thead>
<tr>
<th>Product Concept</th>
<th>Score</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTD Cereal Milk</td>
<td>2.79</td>
<td>1</td>
</tr>
<tr>
<td>RTD Soymilk with Moringa extract</td>
<td>3.06</td>
<td>2</td>
</tr>
<tr>
<td>RTD Charcoal Oat Milk</td>
<td>3.08</td>
<td>3</td>
</tr>
<tr>
<td>RTD Almond Milk with Flaxseed</td>
<td>3.14</td>
<td>4</td>
</tr>
<tr>
<td>RTD Yoghurt with Aloevera Chunks</td>
<td>4.27</td>
<td>5</td>
</tr>
<tr>
<td>RTE Greek Yoghurt</td>
<td>4.61</td>
<td>6</td>
</tr>
</tbody>
</table>

The evaluation of human truth is shown by Figure 4. It is obtained by using rating scale of very not relevance, not relevance, normal, relevance, and very relevance. Relevance data in Figure 4 is combination of very relevance and relevance data, while not relevance data is combination of not relevance and very not relevance data. The result showed that only 49% respondents said that the product was relevant with their needs. However, this result is considered as low in term of relevance criteria as it’s not satisfy the company’s standard.

Despite the best product idea already obtained— RTD Almond Milk with Flaxseed, but the human truth of product is still considered low and not met with company’s standard. Since human truth (consumer’s routine, pain point, and motivation) is essential in developing new product. Therefore, further exploration...
As human truth evaluation is still considered low and not met with company’s standard, further exploration toward the consumers’ needs is needed. The objective of exploration focused on adult’s diet pattern covering their diet routine, aspirations about healthy diet, and challenge/tensions that they faced for having healthy meals in daily basis. The exploration is done by interviewing 20 people with characteristics of 30 years old above, SES AB, employee in food and beverage industry. The interview was structured by using discussion guide as can be seen in Attachment 5 and the answers were analyzed in Bahasa. The informant’s responses were mainly long answers, in some cases with examples. There are 20 pages length of researcher memos and 44 pages of interview transcripts that used to analyze the interview. This exploration was designed to explore how respondents feel and behave rather than to determine how many think or act in specific ways. There are 3 main results on this exploration which are consumer diet routine type, healthy diet concepts, and challenge and expectation toward healthy diet.

Diet Routine Type

The first result of exploration is about consumer routine type. There are 3 types of consumer diet routine based on their heavy meals and snacking tendency which are heavy, medium, and light. Heavy meals and snacking tendency column are categorized based on how people behave toward heavy meals and snacking routine in their daily basis. Full heavy means that people will likely having heavy meals routine in all their eat periods (breakfast, lunch, and dinner). Partly heavy means that people will likely having heavy meals at least in 2 eat periods either...
breakfast and lunch or lunch and dinner. Few meal(s) or certain condition means that people will likely have a meal at least in lunch while in the other periods (breakfast or dinner) they avoid or limit intake either the portion or carbohydrate.

Table 9. Diet routine types based on heavy meals and snacking tendency

<table>
<thead>
<tr>
<th>Diet Routine Type</th>
<th>Heavy meals tendency</th>
<th>Snacking tendency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>Full heavy</td>
<td>Conditional to unnecessary</td>
</tr>
<tr>
<td>Medium</td>
<td>Partly heavy</td>
<td>Conditional to compulsory</td>
</tr>
<tr>
<td>Light</td>
<td>Few meal(s)/certain condition</td>
<td>Conditional to compulsory</td>
</tr>
</tbody>
</table>

Snacking tendency consist of 3 levels of tendency which are unnecessary, conditional, and compulsory. Unnecessary level means that people have no need of snacking in their routines. Conditional snacking means that people will likely having snack based on certain condition such as mood and availability. While compulsory level means that people will likely having snacks in their daily basis either in-between meals periods or at any time they want. The result of interview about diet routine types can be seen in Table 9.

Healthy Diet Concept

The second result of exploration is about healthy diet concepts. The primary aim of this exploration is to describe patterns in the way the informants interpreted the concept of healthy diet that consist of healthy meals and snacks in their personal context. The first concept analysis resulted in one theme and two categories that characterize healthy heavy meals concept as can be seen in Table 10. The theme that summarizes the entire concept of healthy heavy meals is “gaining control of what to eat”. As people perceived healthy meals are beneficial for themselves such as absence of disease, strong body, and perfect body image. They described healthy meals should provide good quality in term of nutrient and its sources while at the same time having flexibility to manage of what they eat in daily basis. The categories are having a good quality of food and maintaining self-discipline.

Table 10. Overview of the healthy heavy meals concept

<table>
<thead>
<tr>
<th>Theme</th>
<th>Categories</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>gaining control of what to eat</td>
<td>Having a good quality of food</td>
<td>Balance nutrition Complete nutrition Meal sources</td>
</tr>
<tr>
<td></td>
<td>Maintaining self-discipline</td>
<td>Self-tolerance Well-organized</td>
</tr>
</tbody>
</table>

The informants stated that having a good quality of food was essential to accomplish healthy meals in daily routine, using terms, such as providing a balance and complete nutrition and taking into account the meal sources. The balance nutrition was characterized by statements such as “keep nutrients enough for body”, “balance macro/micro nutrients”, and “meet daily intake”, while complete nutrition was characterized by “all nutrients contained” and “4 sehat 5 sempurna” to underline their opinion. The informants also emphasized the importance of meal
sources as the characteristics of healthy meals. It expressed in terms such as “considering the raw materials” and “considering the making process”.

Maintaining self-discipline category represent the flexibility of people in embracing any foods in their routine as long as committed not to exceeding their own limit. When informants stated healthy meals as “allowing any foods by knowing the limit” and “adjusting portion/menu based on preference”, it interpreted as a normal self-tolerance attitude toward their daily meals. Besides, some perspective of healthy meals characteristic such as “being consistent and discipline” and “following certain referral diet”, considered as well-organized behaviour in maintaining their own healthy meals.

The second concept analysis resulted in one theme and two categories that characterize healthy snacks concept as can be seen in Table 11. The theme that summarizes the entire concept of healthy meals is “gaining control of what to eat”. There is an underlying difference between the theme of healthy heavy meals and snacks. While healthy heavy meals characteristics was emerged because of benefits motivation, healthy snacks characteristics was emerged because of people seeking for enjoyment. Therefore, in healthy snacks context, the informants described healthy snacks should be able to evoke comfortable feeling such as fun or relieved by taking into account the right proportion of quality or quantity. The categories of healthy snacks concept consist of self-indulgent and maintaining self-discipline.

Self-indulgent category was build based on the informants’ statements that healthy snacks should be able to promote the same enjoyment as common snack does such as relieving depressive feeling and giving pleasure. The informants described depressive feeling in the context of snacks as “eat snacks when depressed/bored/stress” and “eat when they want”. While pleasure feeling in the context of snack was characterized by statement such as “snacking to have fun” and “snacking with friends”. For these characteristics, the taste of snack is important, in order to have that enjoyment.

Table 11. Overview of healthy snacks concept

<table>
<thead>
<tr>
<th>Theme</th>
<th>Categories</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining control of what</td>
<td>Self-indulgent</td>
<td>Depressive feeling</td>
</tr>
<tr>
<td>to eat</td>
<td></td>
<td>Pleasure feeling</td>
</tr>
<tr>
<td></td>
<td>Maintaining self-discipline</td>
<td>Self-tolerance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Well-organized</td>
</tr>
</tbody>
</table>

Maintaining self-discipline category in healthy snacks concepts similar to heavy meal concept. It represents the flexibility of people in embracing any snacks in their routines as long as committed not to exceeding their own limits. When informants described perspective of healthy snacks as “allowing any snacks by knowing the limit” and “adjusting portion/menu based on preference”, it is interpreted as a normal self-tolerance attitude toward their daily meals. Besides, some perspective of healthy snacks characteristic such as “being consistent and discipline” and “following certain referral diet”, considered as well-organized behaviour in maintaining their own healthy meals.

Consumer’s Challenges and Expectations

The third result of exploration is about challenge and expectation of consumers in getting healthy meals in their daily basis. The challenge and
expectation are categorized into two aspects which are product and commitment aspect that can be seen in Table 12 and Table 13. The first aspect, the informants stated that they rarely find healthy meals that have great taste so that they tempted to buy street food or junk food more frequently. Also the healthy meals usually only have plain flavour which make them bored easily. Moreover, they didn’t know the right amount and what nutrients that should be consumed in their daily basis. Thus, the informants expected that healthy meals product should have good taste with more flavour and right portion of nutrients needed.

Table 12. Challenge and expectation on product aspect

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not taste good</td>
<td>great tasting product</td>
</tr>
<tr>
<td>low product variance</td>
<td>more flavor, not only plain</td>
</tr>
<tr>
<td>difficult to measure the appropriate quantity</td>
<td>better meals quality</td>
</tr>
</tbody>
</table>

The second aspect, the informants described commitment aspect as a condition or situation that may hinder them to get healthy meals in their daily basis. The condition or situation could be caused by the environments, set of circumstances, or oneself. For example, friends or family or even promotion/discount on foods product could distract the informants to get healthy meals which make the environment unsupportive. Besides, the mood could also contribute of one’s meals daily routine to avoid getting healthy meals because if they feel stress they tend to have “unhealthy foods”. Moreover, the effort and time to prepare healthy meals further discourage them to get it in their daily basis. Therefore, they expect to have more practical products of healthy meals while at the same time they can organize the nutrients needed and meals schedule regardless what environment looks like.

Table 13. Challenge and expectation on commitment aspect

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>unsupportive environment</td>
<td>limit the intake</td>
</tr>
<tr>
<td>need some time and effort</td>
<td>more practical</td>
</tr>
<tr>
<td>mood dependent</td>
<td>scheduled meals</td>
</tr>
</tbody>
</table>

2. Finding Themes

There are 2 patterns emerged from understanding consumer needs sub-stage, namely compatibility and gaining control. Visualization of identified patterns is shown by Figure 5. The result of consumer routine type from Table 9 can be interpreted as compatibility of product idea with daily meals routine of consumer. As the positioning of product idea as a healthier and easier snack product for active adults’ breakfast meals. It can be inferred that consumer type from the most to the least to adopt the product idea respectively are, light, medium, and heavy type. This could be happened because the heavy type preferred heavy meals in their diet and only need snack in particular circumstances or even does not need snack at all. While compared to medium and light type, they preferred lighter meals with snacking habits regarded as conditional to compulsory routine.

The next pattern emerged is called gaining control. As emphasized in the theme of healthy meals concept that people want to gain control of what they eat.
They will likely to manage their meals in two aspects namely product quality and commitment as it supported by Table 12 and 13 about consumers’ challenge and expectation. Product quality that considered as important features on healthy meals are nutrition and taste. The product should provide complete and balance nutrition while at the same time having a good taste. Also, it stated that to get healthy meals in daily routine, it required commitment which could be influenced by environment, set of circumstances or even by themselves.

Figure 5. Visualization of identified patterns

3. Design Principles

There are 4 design principles of product ideas before iteration process. They are compatibility, fulfillment sensation, practicality, and Gejala Faktor U. However, after generated a lot of ideas during iteration, control-enhancing was added as a new design principle. Control-enhancing meaning that the product should provide consumers in-control feeling in term of product quality, namely nutrition and taste. The product should have a complete and balance nutrition with acceptable and preferred taste. On the other hand, in-control feeling in term of commitment is not incorporated into product’s design principles because it will be more appropriate to be used in marketing strategy. It can be used as a product positioning strategy to address motivation and needs of consumers toward healthy meals product. Therefore, the new design principles are control-enhancing, fulfillment sensation, practicality, and Gejala Faktor U which presented in Table 14.

Table 14. Design principles of product idea after iteration

<table>
<thead>
<tr>
<th>Old Design Principles</th>
<th>New Design Principles</th>
<th>Design Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compatibility</td>
<td>Compatibility</td>
<td>Product’s variant should be familiar with consumer’s diet</td>
</tr>
<tr>
<td>Fulfillment sensation</td>
<td>Fulfillment sensation</td>
<td>Reduce hunger and provide sufficient energy</td>
</tr>
<tr>
<td>Practicality</td>
<td>Practicality</td>
<td>Easy to prepare and consume</td>
</tr>
<tr>
<td>Gejala Faktor U</td>
<td>Gejala Faktor U</td>
<td>Able to overcome Gejala Faktor U (pegal-pegal, bone pain, and easily get tired) and contain PRO-FIT formula</td>
</tr>
<tr>
<td>Control-enhancing</td>
<td>Control-enhancing</td>
<td>Provide complete and balance nutrition with acceptable and preferred taste (not plain)</td>
</tr>
</tbody>
</table>
4. Prototyping

RTD Almond Milk with Flaxseed – the winning product idea from previous rapid prototyping need further development as control-enhancing principle was added as a new design principle. The addition of control-enhancing principle into product concept is expected can improve the product acceptance by consumers. This control-enhancing principle is translated into the feature of RTD Almond Milk with Flaxseed as balance and complete nutrition with acceptable and preferable taste, while the other principles (compatibility, fulfillment sensation, practicality, and Gejala Faktor U) are still remained the same. The translation process of control-enhancing principle into product concept can be seen in Table 15 below.

According to Anderson et al. 2015, human body needs to consume essential nutrients, both macronutrients and micronutrients in amount sufficient to maintain health. The micronutrients are carbohydrates, fats, and proteins, while micronutrients are vitamins and minerals. The appropriate amount and ingredients for improved product is important to be positioned as healthy meals product. Therefore, the macronutrients and micronutrients and its amount should be referred to Angka Kecukupan Gizi Indonesia 2013. On the other hand, the characteristics of ingredients should be able to provide health benefit for body which discussed in following paragraphs.

Carbohydrates’ main purpose in diet is to provide energy. There are many different types of carbohydrate-containing foods and they are vary greatly in their health effects. Ingredients that categorized as low Glycemic Index could be a good criteria for improved product idea as it prevents from spikes and dips in blood sugar levels (Yalcin et al 2017). Food sources like whole grains, fruits, vegetables, and legumes could be a good option for low GI ingredients. The reference for low GI food sources can be seen in International Table of Glycemic Index and Glycemic Load Values by Powell et al. (2002).

All fats, including saturated fatty acids, have important roles in the body. However, the most important fats are those that the body cannot make and thus must come from the food (Di Pasquale 2009). These essential fats – omega 3 and omega 6 fatty acids have been shown to be particularly beneficial for health. Sources and benefits of these essential fats can be seen in literature by Lisa (2010). Protein is made up of amino acids. There are over 500 amino acids in nature, 20 of which are known as the standard amino acids. With 9 essential amino of these 20 cannot be synthesized from other amino acids. Generally, essential amino acids can be obtained from animal and plant foods. Example source for animal proteins are beef, chicken, yoghurt, and cheese, while plant proteins are beans, quinoa, nuts, and chia seeds (UCDavis Health System 2015).

Micronutrients include vitamins and minerals and can be further divided into water-soluble vitamins, fat-soluble vitamins, macro minerals and trace minerals (FAO 2004). They’re critical for several important functions in body and must be consumed from food. Besides, the functions, food sources and recommended intakes of each vitamin and mineral vary. The example of sources for micronutrients can be referred to article written by Lizzie (2018). The last feature is acceptable and preferred taste which already covered with current product concept namely Almond Milk variant. This almond milk format is expected to alleviate customer challenge in product aspect, specifically in product taste and variant. There are 2 similar products in market that can be used as illustration or
even benchmark for control-enhancing design principle. The products can be seen in Attachment 6.

Table 15. Translation process of control-enhancing principle to product concept

<table>
<thead>
<tr>
<th>Design principle</th>
<th>Design concept</th>
<th>Product concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control-enhancing</td>
<td>Complete nutrition</td>
<td>All macronutrients and micronutrients based on AKG 2013 should be contained;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carbohydrates with low Glycemic Index obtained from whole grains, fruits, vegetables, or legumes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fats with essential fats especially omega 3 and omega 6 fatty acids that could give ultimate impact to human health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proteins with essential amino acids obtained from yoghurt, cheese, beans, quinoa, nuts, or chia seeds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All vitamins and minerals are contained</td>
</tr>
<tr>
<td>Balance nutrition</td>
<td>All macronutrients and micronutrients should be in amount sufficient that referred to AKG 2013</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage of nutrient intake per portion could be adjusted according to product formula</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Benchmarking to complete food product to see the percentage of nutrient intake per portion</td>
<td></td>
</tr>
<tr>
<td>Acceptable and preferred taste</td>
<td>Almond milk format</td>
<td></td>
</tr>
</tbody>
</table>

CLOSING

Reflection on NPD Process at PT XYZ

The upfront-process of New Product Development (NPD) at PT XYZ, Idea and New Ideation Concept, are similar to Human Centred Design (HCD) stages, Inspiration and Ideation. However, PT XYZ using hypotheses and past literature to understand the consumer’s needs in this product development process. This make the design principles that Business Development developed were not
strongly supported by valid or relevance facts, truth, or data. Furthermore, the design principles were not tested to the consumer which make the evaluation can’t pinpoint the mistakes during the product development process. Beside it is still unknown whether the design principles already fit with customer’s needs or not. Thus, the mismatch between customers’ needs and product concepts often happened when product concept is tested to the targeted consumers. HCD then was applied again through iteration process to improve the product development on selected product idea – RTD Almond Milk with Flaxseed. Through this several stages, Human Centred Design (HCD) has helped the company to pinpoint the human truth (consumer’s routine, pain point, and motivation) which supported the product development of RTD Almond Milk with Flaxseed. It is expected that HCD does improve the product development process and increase the likelihood of customer acceptance.

Conclusion

The product to be developed by PT XYZ is a healthy and easy snack product for active adults’ breakfast meal with the consumer segmentation of woman and man with 30 years old above, SES AB, urban population, and active lifestyle. These consumers segment concerns about illness fear and Gejala Faktor U. Their need is solutions toward Gejala Faktor U especially pegal-pegal, bone, and easily get tired problems. Also, there are 4 design principles developed which are compatibility, fulfillment sensation, practicality, and Gejala Faktor U. The design principles translated into 6 product ideas which are RTD Cereal Milk, RTD Soy Milk, RTD Charcoal Oat Milk, RTD Almond Milk with Flaxseed, RTD Yogurt with Aloevera Chunks, and RTE Greek Yogurt. Eventually RTD Almond Milk with Flaxseed came up as a winning product idea. However, the evaluation of human truth of RTD Almond Milk with Flaxseed considered low and didn’t meet company’s standard. Further exploration of consumer’s needs found 3 results namely diet routine type, healthy meals concepts, and challenge and expectation. Diet routine types categorized consumers into 3 groups namely heavy, medium, and light types. Healthy meals concept showed that people want to have a control of what to eat in order to have a healthier meals in daily basis. The results also showed that people faced challenge and expectation in two aspects, product quality and commitment. These identified needs of gaining control in product quality (nutrition and taste) then developed into a new design principle – control-enhancing principle. Therefore, the RTD Almond Milk with Flaxseed need to be modified to have a feature of control enhancing namely balance and complete nutrients with an acceptable and preferred taste.

Suggestion

Although the new improved product idea has complete and balance nutrients, however it’s served in liquid form as the concept is Ready-to-Drink. This product format is not suitable with consumer’s diet routine which usually having snacks or breakfast in solid form. Thus, a set of actionable marketing should be linked. For example the product positioning which directly reflects consumer motivations or consumer needs should be addressed properly. Also, for the future research, the
design principles that act as product fundamental should be evaluated by consumers in the New Product Development process.
REFERENCE


Yalcin T, Ayhan A, and Rakıcıoğlu N. 2017. The effects of meal glycemic load on blood glucose levels of adults with different body mass indexes. *Indian J Endocrinol Metab.* 21(1): 71-75
Attachment 1. The result of design framing

**What is the problem you’re trying to solve?**
Making healthier and easier meals for adults that live in fast-paced activities

1. **Take a stab at framing it as a design question.**
   How might we make a healthier and easier meals for active adults?

2. **Now, state the ultimate impact you’re trying to have**
   Being a nutritious and practical food product that is suitable for people who don’t have breakfast or meals during critical hours (in-between-meal).

3. **What are some possible solutions to your problem?**
   *Think broadly. It’s fine to start a project with a hunch or two, but make sure you allow for surprising outcomes.*
   - RTD/RTE products with practical packaging and typical variants of breakfast menu
   - The product ingredient has certain benefits (essential proteins, vitamins, etc)

4. **Finally, write down some of context and constraints that you’re facing**
   - The product should be nutritious and practical
   - Should give fulfillment sensation
   - Can be consumed for in-between-meal snacks

5. **Does your original question need a tweak? Try again.**
   How might we make a healthier and easier snacks for active adults that can be consumed for breakfast meal, yet still suitable for in-between-meal snacks?
Attachment 2. Exploration of *Gejala Faktor U*

### Vision

<table>
<thead>
<tr>
<th></th>
<th>Younger (minor)</th>
<th>Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms felt</td>
<td>Irritation – red eyes more often</td>
<td>Having trouble reading, watching, or any short range vision. Blurry/cloudy vision at long range</td>
</tr>
<tr>
<td>Cause</td>
<td>Soft lens usage and stayed in air-conditioned room too long</td>
<td>Age hereditary</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Eye drops</td>
<td>Glasses</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Eye vitamins from doctor and consume carrot (minor)</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Low, because they don’t really feel prominent effect, but the older people think it cannot be prevented or cured, only can be postponed</td>
<td></td>
</tr>
<tr>
<td>Occurrence</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

### Pre-menopause (among women)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms felt</td>
<td>Easily get angry, feel full in stomach, <em>pegal-pegal</em> in waist, hot burn</td>
</tr>
<tr>
<td>Cause</td>
<td>Age</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>-</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Hormone therapy, drink milk to gain calcium, consume healthy diet</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Low</td>
</tr>
<tr>
<td>Occurrence</td>
<td>Low</td>
</tr>
</tbody>
</table>

### White hair (among women)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms felt</td>
<td>White hair start growing and it makes bad appearance</td>
</tr>
<tr>
<td>Cause</td>
<td>Age, poor hair treatment</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Hair dye</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>None</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>High</td>
</tr>
<tr>
<td>Occurrence</td>
<td>Medium (younger women) and high (older women)</td>
</tr>
</tbody>
</table>
### Wrinkles and Freckles

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Wrinkles and dark spots on face skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Age</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Face treatment, make up, lotion</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Vitamin E</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Medium</td>
</tr>
<tr>
<td>Occurrence</td>
<td>low (younger women) and high (older women)</td>
</tr>
</tbody>
</table>

### Easily Feel Cold

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Easily feel cold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Age</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Warm outwear</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>None</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Low</td>
</tr>
<tr>
<td>Occurrence</td>
<td>Low</td>
</tr>
</tbody>
</table>

### Stomach Problem

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Stomachache</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Bad eating patterns and stress</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Keep good eating pattern, maintain positive mind as preventive action</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Medicine if needed</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>High</td>
</tr>
<tr>
<td>Occurrence</td>
<td>High</td>
</tr>
</tbody>
</table>

### Memory

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Easily forget names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Age</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>None</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>None</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Low</td>
</tr>
<tr>
<td>Occurrence</td>
<td>Low</td>
</tr>
</tbody>
</table>
### Pegal-pegal

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Aching in some parts of the body: shoulders, waist, calf, foot palm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Heavy activities, bad sleeping position, lack of calcium, too much sitting</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Massage, good resting, apply balm in the aching area</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Consume healthy diet, fruits, multivitamins, drink high calcium milk</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Medium</td>
</tr>
<tr>
<td>Occurrence</td>
<td>High</td>
</tr>
</tbody>
</table>

### Bone Pain

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Felt pain in the bone in some parts of body such as waist, arm, knees, and palm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Heavy activities, lack of calcium, and too much sitting</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Soak in hot water, apply balm in the aching area</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Vitamins and drink high calcium milk</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Medium</td>
</tr>
<tr>
<td>Occurrence</td>
<td>High</td>
</tr>
</tbody>
</table>

### Headache

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Headache</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Lack of sleeping, stress, hypertension, and cholesterol</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Resting and sleeping</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Multivitamins, medicine, avoid certain foods like fatty food</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>High</td>
</tr>
<tr>
<td>Occurrence</td>
<td>High</td>
</tr>
</tbody>
</table>

### Easily get tired

<table>
<thead>
<tr>
<th>Younger</th>
<th>Older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms felt</td>
<td>Easily get tired when doing activities</td>
</tr>
<tr>
<td>Cause</td>
<td>Heavy activities and unhealthy lifestyle</td>
</tr>
<tr>
<td>Current solution (outside)</td>
<td>Rest well</td>
</tr>
<tr>
<td>Current solution (inside)</td>
<td>Healthy lifestyle, consume healthy and nutritious food, vitamins, fruits, drink lots of mineral water, and drink high calcium milk</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Medium</td>
</tr>
<tr>
<td>Occurrence</td>
<td>High</td>
</tr>
</tbody>
</table>
Easily Get Sleepy

<table>
<thead>
<tr>
<th>Symptoms felt</th>
<th>Easily get sleepy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>Old age</td>
</tr>
<tr>
<td>Current solution</td>
<td>Rest well, increase sleeping duration, sleep early</td>
</tr>
<tr>
<td>Current solution</td>
<td>-</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>High</td>
</tr>
<tr>
<td>Occurrence</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Overview of Health Concern Based on Occurrence and Satisfaction Level

<table>
<thead>
<tr>
<th>Health concern</th>
<th>Occurrence</th>
<th>Satisfaction level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>Low to medium</td>
<td>Low to medium</td>
</tr>
<tr>
<td>Pre-menopause</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>White hair</td>
<td>Medium to high</td>
<td>High</td>
</tr>
<tr>
<td>Wrinkles &amp; Freckles</td>
<td>Low (younger) and high (older)</td>
<td>Medium</td>
</tr>
<tr>
<td>Easily feel cold</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Stomach problem</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Memory</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Pegal Pegal</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Bone pain</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Headache</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Easily get tired</td>
<td>High</td>
<td>Medium to high</td>
</tr>
<tr>
<td>Easily get sleepy</td>
<td>Medium</td>
<td>High</td>
</tr>
</tbody>
</table>
Attachment 3. Human truth and product ideas

Human Truth

Saya sudah mulai mengalami gejala Faktor U (badan mudah pegal, tubuh cepat lelah, dan sendi kaku) dan saya khawatir bahwa gejala ini dapat menghambat aktivitas saya. Saya tau untuk mengatasinya, saya harus memulai pola hidup sehat. Tapi, selama ini, saya justru sering mengkonsumsi makanan atau snack yang kurang sehat. Terlebih lagi dengan aktivitas yang padat, saya sulit mencari snack on the go yang bernutrisi yang sekaligus bisa mengatasi gejala Faktor U saya.

RTD Cereal Milk

Kini hadir Ready-to-Drink (RTD) Cereal Milk dengan PRO-FIT Formula, susu sereal siap minum dari segala kebaikan oat.
- Tersedia dalam kemasan kaleng 180ml, dengan rasa yang enak: Vanilla & Moccachino
- Oat adalah sumber protein, sumber serat dan mineral.
- Serat pangan yang dikandung oat baik untuk sistem pencernaan dan juga dapat memberikan rasa kenyang lebih lama.

RTD Soy Milk

Kini hadir RTD soy milk with moringa extract dengan PRO-FIT formula, susu kedelai dengan ekstrak daun moringa. Tersedia dalam kemasan Tetrapack 200ml, dengan rasa yang enak: Original & Matcha.
- Susu kedelai merupakan sari kacang kedelai yang mengandung antioksidan, terutama isoflavon yang sangat baik untuk tubuh.
- Moringa mengandung banyak serat, protein, magnesium dan kalium. Ekstrak moringa juga mengandung kalsium, zat besi, dan vitamin C. Sangat baik untuk sistem pencernaan dan membuat tubuh tetap fit.
RTD Charcoal Oatmilk

Kini hadir RTD Charcoal Oat milk dengan PRO-FIT Formula, susu oat dengan Charcoal.
- Tersedia dalam kemasan Botol 200ml, dengan rasa yang enak: Charcoal Latte.
- Oat milk adalah sari dari biji oat. Oatmilk memiliki semua kebaikan oat, dengan kandungan tinggi serat yang baik untuk sistem pencernaan dan memberikan rasa kenyang lebih lama.
- Activated charcoal adalah bubuk charcoal yang tidak berbau dan tidak berasa, baik untuk sistem pencernaan.

RTD Almond Milk with Flaxseed

Kini hadir RTD almond milk with flaxseed dengan PRO-FIT Formula, susu almond dengan flaxseed.
- Tersedia dalam kemasan Botol 200ml, dengan rasa yang enak: original & chocolate.

RTD Yogurt with Aloevera Chunks

Kini hadir RTD Yogurt with aloevera chunks dengan PRO-FIT Formula, minuman yogurt dengan potongan aloevera.
- Tersedia dalam kemasan Botol 200ml, dengan rasa yang enak: strawberry, plain, leci
- Aloë Vera (atau disebut juga Lidah Buaya) sangat baik dikonsumsi untuk menjaga kesehatan sistem pencernaan karena mengandung tinggi serat.
Kini hadir Ready-to-Eat (RTE) Greek Yogurt dengan PRO-FIT Formula, smooth and creamy yogurt dengan sensasi topping yang menarik.
- Tersedia dalam kemasan cup 130 g, dengan variant:
  - Plain Greek Yogurt with strawberry
  - Plain Greek Yogurt with granola
  - Charcoal Greek Yogurt with honey
- Greek yogurt adalah yogurt yang memiliki tekstur yang lebih kental dan creamy.
- Granola adalah makanan yang terdiri dari oat, kacang-kacangan, buah-buahan kering. Granola mengandung lemak baik dan serat untuk kesehatan sistem pencernaan.
- Activated charcoal adalah bubuk charcoal yang tidak berbau dan tidak berasa, dan baik untuk sistem pencernaan.

Attachment 4. Prototyping test questionnaire

Informasi Pribadi
1. Nama Lengkap:
2. Jenis Kelamin :
   a. Laki-laki b. Perempuan
3. Umur
   a. <25 tahun
   b. 25-30 tahun
   c. 31-35 tahun
   d. 36-40 tahun
   e. 41-45 tahun
   f. >45 tahun
4. Pengeluaran dalam sebulan?
   a. <900.000
   b. 900.000-1.250.000
   c. 1.250.001-1.750.000
   d. 1.750.001-2.500.000
   e. 2.500.001-4.000.000
   f. >4.000.000
5. Apakah anda bekerja?
   a. Ya, bekerja
   b. Tidak bekerja
Kesehatan Anda
1. Apakah anda pernah mendengar istilah Faktor U? (Faktor U adalah istilah yang menggambarkan gejala-gejala yang biasanya dirasakan pada kondisi kesehatan atau tubuh seseorang dengan seiringnya pertambahan usia.)
   a. Ya  b. Tidak
2. Apakah anda sudah mulai merasakan gejala Faktor U?
   a. Ya  b. Tidak
3. Apa gejala Faktor U yang anda rasakan? (boleh pilih 1)
   a. Badan pegal
   b. Tubuh cepat lelah
   c. Tulang dan sendi terasa kaku
   d. Tidak merasa pilihan di atas
   e. Lainnya:
4. Apa yang telah anda lakukan untuk mencegah gejala Faktor U?
   a. Konsumsi susu
   b. Pola makan yang sehat
   c. Rutin berolahraga
   d. Mengkonsumsi suplemen
   e. Tidak melakukan apapun
   f. Lainnya:

Insight
Aspirasi: Sebelum membahas lebih lanjut mengenai konsep produk, Saya ingin menanyakan pendapat Anda tentang paragraf yang menceritakan Faktor U dan kaitannya dengan pola konsumsi "snack" sebagai berikut:
Saya sudah mulai mengalami gejala Faktor U (badan mudah pegal, tubuh cepat lelah, dan sendi kaku) dan saya khawatir bahwa gejala ini dapat menghambat aktivitas saya. Saya tau untuk mengatasinya, saya harus memulai pola hidup sehat. Tapi, selama ini, saya justru sering mengkonsumsi makanan atau snack yang kurang sehat. Terlebih lagi dengan aktivitas yang padat, saya sulit mencari snack on the go yang bernutrisi yang sekaligus bisa mengatasi gejala Faktor U saya.
1. Seberapa relevan kalimat di atas dengan anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak relevan
   e. Sangat tidak relevan

Aspirasi: Jika nantinya akan ada produk-produk snack yang menawarkan formula sebagai berikut:
- Memperkenalkan XYZ on-the go, yang mengandung PRO-FIT formula:
- Hytolive/ Extrak Buah Zaitun, sebagai sumber antioksidan.
- Vitamin B Kompleks, sebagai sumber energi agar tidak cepat lelah.
1. Seberapa menarik konsep produk tersebut?
   a. Sangat menarik
   b. Menarik
   c. Biasa saja
   d. Tidak menarik
   e. Sangat tidak menarik

2. Seberapa unik konsep produk tersebut?
   a. Sangat unik
   b. Unik
   c. Biasa saja
   d. Tidak unik
   e. Sangat tidak unik

3. Seberapa relevan konsep produk tersebut dengan kebutuhan anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak unik
   e. Sangat tidak unik

Arahan
Pada section selanjutnya akan dibahas beberapa ide produk baru, kami ingin Anda mengevaluasi setiap ide produk tersebut.

Konsep Produk

RTD Cereal Milk

Kini hadir Ready-to-Drink (RTD) Cereal Milk dengan PRO-FIT Formula, susu sereal siap minum dari segala kebaikan oat.
- Tersedia dalam kemasan kaleng 180ml, dengan rasa yang enak: Vanilla & Moccachino

Oat adalah sumber protein, sumber serat dan mineral. Serat pangan yang dikandung oat baik untuk sistem pencernaan dan juga dapat memberikan rasa kenyang lebih lama.

Apakah konsep produk ini menarik untuk anda?
   a. Sangat menarik
   b. Menarik
   c. Biasa saja
1. Apakah konsep produk ini menarik untuk anda?
   a. Sangat menarik
   b. Menarik
   c. Biasa saja
   d. Tidak menarik
   e. Sangat tidak menarik
2. Apakah konsep produk ini unik (berbeda dengan produk di pasaran) untuk anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak unik
   e. Sangat tidak unik
3. Apakah konsep produk ini relevan untuk Anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak relevan
   e. Sangat tidak relevan
4. Apakah anda ingin membeli produk ini?
   a. Sangat ingin membeli
   b. Ingin membeli
   c. Biasa saja
   d. Tidak ingin membeli
   e. Sangat tidak ingin membeli
5. Apa yang anda sukai dari produk ini? Apa alasannya?
6. Apa yang anda tidak sukai dari produk ini? Apa alasannya?

RTD Soy Milk with Moringa Extract

Kini hadir RTD soy milk with moringa extract dengan PRO-FIT formula, susu kedelai dengan ekstrak daun moringa. Tersedia dalam kemasan Tetrapack 200ml, dengan rasa yang enak : Original & Matcha.

- Susu kedelai merupakan sari kacang kedelai yang mengandung antioksidan, terutama isoflavon yang sangat baik untuk tubuh.
- Moringa mengandung banyak serat, protein, magnesium dan kalium. Ekstrak moringa juga mengandung kalsium, zat besi, dan vitamin C. Sangat baik untuk sistem pencernaan dan membuat tubuh tetap fit.

1. Apakah konsep produk ini menarik untuk anda?
   a. Sangat menarik
   b. Menarik
c. Biasa saja
d. Tidak menarik
e. Sangat tidak menarik

2. Apakah konsep produk ini unik (berbeda dengan produk di pasaran) untuk anda?
a. Sangat relevan
b. Relevan
c. Biasa saja
d. Tidak unik
e. Sangat tidak unik

Apakah konsep produk ini relevan untuk Anda?
a. Sangat relevan
b. Relevan
c. Biasa saja
d. Tidak relevan
e. Sangat tidak relevan

Apakah anda ingin membeli produk ini?
a. Sangat ingin membeli
b. Ingin membeli
c. Biasa saja
d. Tidak ingin membeli
e. Sangat tidak ingin membeli

Apa yang anda sukai dari produk ini? Apa alasannya?

Apa yang anda tidak sukai dari produk ini? Apa alasannya?

RTD Charcoal Oatmilk

Kini hadir RTD Charcoal Oat milk dengan PRO-FIT Formula, susu oat dengan Charcoal.
- Tersedia dalam kemasan Botol 200ml, dengan rasa yang enak: Charcoal Latte.
- Oat milk adalah sari dari biji oat.

Oatmilk memiliki semua kebaikan oat, dengan kandungan tinggi serat yang baik untuk sistem pencernaan dan memberikan rasa kenyang lebih lama.
Activated charcoal adalah bubuk charcoal yang tidak berbau dan tidak berasa, baik untuk sistem pencernaan.

Apakah konsep produk ini menarik untuk anda?
a. Sangat menarik
b. Menarik
c. Biasa saja
1. Apakah konsep produk ini menarik untuk anda?
   a. Sangat menarik
   b. Menarik
   c. Biasa saja
   d. Tidak menarik
   e. Sangat tidak menarik

2. Apakah konsep produk ini unik (berbeda dengan produk di pasaran) untuk anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak unik
   e. Sangat tidak unik

3. Apakah konsep produk ini relevan untuk Anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak relevan
   e. Sangat tidak relevan

4. Apakah anda ingin membeli produk ini?
   a. Sangat ingin membeli
   b. Ingin membeli
   c. Biasa saja
   d. Tidak ingin membeli
   e. Sangat tidak ingin membeli

5. Apa yang anda sukai dari produk ini? Apa alasannya?
6. Apa yang anda tidak sukai dari produk ini? Apa alasannya?

RTD Almond Milk with Flaxseed

Kini hadir RTD almond milk with flaxseed dengan PROFIT Formula, susu almond dengan flaxseed.
- Tersedia dalam kemasan Botol 200ml, dengan rasa yang enak: original & chocolate.
1. Apakah konsep produk ini menarik untuk Anda?
   a. Sangat menarik
   b. Menarik
   c. Biasa saja
   d. Tidak menarik
   e. Sangat tidak menarik

2. Apakah konsep produk ini unik (berbeda dengan produk di pasaran) untuk Anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak unik
   e. Sangat tidak unik

3. Apakah konsep produk ini relevan untuk Anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak relevan
   e. Sangat tidak relevan

4. Apakah anda ingin membeli produk ini?
   a. Sangat ingin membeli
   b. Ingin membeli
   c. Biasa saja
   d. Tidak ingin membeli
   e. Sangat tidak ingin membeli

5. Apa yang anda sukai dari produk ini? Apa alasannya?

6. Apa yang anda tidak sukai dari produk ini? Apa alasannya?

RTD Yogurt with Aloevera Chunks

Kini hadir RTD Yogurt with aloevera chunks dengan PROFIT Formula, minuman yogurt dengan potongan aloevera.

- Tersedia dalam kemasan Botol 200ml, dengan rasa yang enak: strawberry, plain, leci

Aloe Vera (atau disebut juga Lidah Buaya) sangat baik dikonsumsi untuk menjaga kesehatan sistem pencernaan karena mengandung tinggi serat.

Apakah konsep produk ini menarik untuk anda?
   a. Sangat menarik
   b. Menarik
   c. Biasa saja
   d. Tidak menarik
   e. Sangat tidak menarik
1. Apakah konsep produk ini unik (berbeda dengan produk di pasaran) untuk anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak unik
   e. Sangat tidak unik

2. Apakah konsep produk ini relevan untuk Anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak relevan
   e. Sangat tidak relevan

3. Apakah anda ingin membeli produk ini?
   a. Sangat ingin membeli
   b. Ingin membeli
   c. Biasa saja
   d. Tidak ingin membeli
   e. Sangat tidak ingin membeli

4. Apa yang anda sukai dari produk ini? Apa alasannya?

5. Apa yang anda tidak sukai dari produk ini? Apa alasannya?

RTE Greek Yogurt

Kini hadir Ready-to-Eat (RTE) Greek Yogurt dengan PRO-FIT Formula, smooth and creamy yogurt dengan sensasi topping yang menarik.

- Tersedia dalam kemasan cup 130 g, dengan variant:
  - Plain Greek Yogurt with strawberry
  - Charcoal Greek Yogurt with honey

Greek yogurt adalah yogurt yang memiliki tekstur yang lebih kental dan creamy.

Granola adalah makanan yang terdiri dari oat, kacang-kacangan, buah-buahan kering. Granola mengandung lemak baik dan serat untuk kesehatan sistem pencernaan.

Activated charcoal adalah bubuk charcoal yang tidak berbau dan tidak berasa, dan baik untuk sistem pencernaan.
1. Apakah konsep produk ini menarik untuk anda?
   a. Sangat menarik
   b. Menarik
   c. Biasa saja
   d. Tidak menarik
   e. Sangat tidak menarik

2. Apakah konsep produk ini unik (berbeda dengan produk di pasaran) untuk anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak unik
   e. Sangat tidak unik

   Apakah konsep produk ini relevan untuk Anda?
   a. Sangat relevan
   b. Relevan
   c. Biasa saja
   d. Tidak relevan
   e. Sangat tidak relevan

   Apakah anda ingin membeli produk ini?
   a. Sangat ingin membeli
   b. Ingin membeli
   c. Biasa saja
   d. Tidak ingin membeli
   e. Sangat tidak ingin membeli

5. Apa yang anda sukai dari produk ini? Apa alasannya?
6. Apa yang anda tidak sukai dari produk ini? Apa alasannya?

**Ranking Konsep Produk**

Ranking 1:
Ranking 2:
Ranking 3:
Ranking 4:
Ranking 5:
Ranking 6:
## Discussion Guide
### Adult’s Healthy Diet/Meals Exploration
#### April 2019

| Warm Up | • Usual warm up – introduction by moderator to the aims of the session, how much time it will take, rules for the session etc  
| | • State that there are no right or wrong answers  
| | • Cover briefly their identity, work life, and activities  
| | Now we are going to talk about healthy diet/meals |

| On Being a 30 years old | “OK so with your certain activities and being in this age, tell me about your daily diet”  
| | • How is your daily routine of diet/meals? Covering breakfast, lunch, dinner, and snacking habits. Then follow up what kind of meal and how they prepare it?  
| | • Is there any certain prohibition or suggestion about your diet? Are you following it? Follow up the reason |

| Aspirations | We want to know what their definitions about healthy diet (heavy meals and light meals/snack). If the following aspects such as nutrition, price, raw materials, practicality, and taste are not described spontaneously, then prompt it. Also, ask about what kind of efforts that they are doing to meet those healthy diet/meals.  
| | • What is your opinion about healthy diet/meals (heavy meals and snacks)? What aspects that are important? Then ask why it matters.  
| | • Do you need healthy diet/meals? Based on their answers, do they already meet their healthy diet? Ask when did the last time they eat healthy and unhealthy meals, then explore more.  
| | • Tell me about what the healthy and unhealthy diet that just you eat recently  
| | • How is your effort to stick with your healthy diet/meals (heavy meals and snacks) |

| Challenge/Tensions | • What are the factors that hinders you to get healthy diet/meals in daily basis?  
| | • Is there any worry about your daily diet/meals? |

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**Note:**
- Include any additional details or context that may be necessary for a comprehensive discussion guide.
- Ensure the questions are clear and open-ended to encourage meaningful conversations.

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**Reference:**
- The guide is designed to facilitate a discussion on healthy diet/meals among adults, particularly focusing on their daily routines and aspirations regarding healthy eating.
Attachment 6. Benchmarks for new improved product idea

Saturo

SATURO is Europe’s first complete meal in a bottle and the perfect combination of convenience food and balanced nutrition. We free you from the effort and stress of finding a quick, healthy, and affordable complete meal. So that you can pursue your goals.

Enjoy SATURO 330 ml complete meal in a bottle. A perfect combination of convenience food and balanced nutrition.

Huel

Nutritious food is vital for a happy, healthy life, but we are all leading increasingly busy lives. So what we need is a meal that is both nutritionally complete and convenient. A food that has just the right amount of protein, essential fats, carbohydrates, vitamins & minerals.

Huel is all this and much more. It’s vegan, lactose-free, soya-free, GMO-free, and approved by Registered Nutritionists. And it tastes great!
BIOGRAPHY

Reza Satria was born in Bogor on 23rd April 1996, the first son to Rd. Mohamad Yahya Sampurna and Tri Nizmayanti. Reza graduated from SMAN 6 Bogor in 2014 and had a year vacuum before entered the university. The writer went to IPB University in 2015 through Seleksi Bersama Masuk Perguruan Tinggi Negeri (SBMPTN) and actively involved in organizational as well as competition activities throughout these 4 years in university. Reza had held several leadership roles in organization activities from department scale (Head of Event Division of HAGATRI 2017) to national scale (Project Officer of Festival of Agroindustry 2018). The writer also exposed to several multinational companies such as became a participant of General Electric Dare to Lead 2018, top 33 finalists of Unilever Future Leaders League 2018, and 2nd runner up of Risk Intelligence Challenge 2019 by Deloitte Indonesia. Besides, the writer is an active member of running community, IPB Runners, and became a Half Marathon Finisher in Bogor Half Marathon 2019 event.