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3 IN 1 SUPERMARKET

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**I. PROBLEM**

Human beings can not be sundered from their consumptive behaviors. As people get busier, they have less time to do their daily chores in meeting their daily needs. Based on our experiences and observations, there is just a few of people who shop at supermarket. Supermarkets got replaced by convenience stores, this is proven with the massive growth of convenience stores in Indonesia, such as Alfamart and Indomaret, they are only few steps away from us. The protracted queues when checking out is the main reason why supermarkets got replaced. Most people consider supermarkets as an out dated place to shop, because we need at least 1-2 hours to shop at supermarkets because of the queue. Compared to larger supermarket, convenience stores have more flexibility in meeting customers’ demand by offering services such as free delivery with a minimum purchases required. People can now easily order their products and get their products delivered to their doorsteps with the help of advanced technology. Although convenience stores’ price is much more expensive compared to supermarkets’, people prefer to shop at convenience stores because today’s people cherish time over money. This is why the shopping trend is shifted from supermarkets to convenience stores.



A protracted queue becomes a natural scenery at supermarkets. The minimum quantity and quality of human resources, shoppers’ lack of awareness in queuing up, and also supermarkets’ poor computerization systems are the main reasons which precipitate the protracted queue.



First, minimum of quantity and quality of human resources, as we can see, supermarkets provide many cashiers, for example 10 cashiers, however the active cashiers are only 3. This happens to reduce operating cost and increase income. Both the customer and the marketing should get the same benefit. However, in real situation, it benefits the marketing more compared to the consumer.



The second is shoppers’ lack of awareness in queuing. This is very common in Indonesia, for example, when we go shopping at supermarkets with our family, after seeing the same long queue, we make our family member to stand in a different line to ensure which one is faster, then we will move to the faster one. This bad habit of us will worsen the protracted queue, and a poor computerized systems will complete it.

As the time goes by, everyone in this world gets busier and their spare time gets reduced gradually, that is why everyone demand a time-saving way in everything. The same goes to grocery shopping, supermarkets must understand that the time between the decision to purchase and making the payment is getting shorter. This is why the current supermarkets need some improvements in order to survive in the tense battleship of marketing world.



**II. IDEA**

From the description we outlined in problem section, we can conclude that the protracted queues are caused by minimum quantity and low-quality of human resources, shoppers’ lack of awareness in queuing up, and also supermarkets’ poor computerization systems. With customers becoming increasingly time-starved and queues are still a bugbear, we hereby come up with some innovations to cut down the queues so that people would prefer to go shopping at supermarkets. The lack of awareness in queuing up is not something we can change in a blink of eye. It needs their own reflection and determination to change their bad habits. People would become lazy to go shopping whenever they spot a protracted queue, therefore we come up with the ideas of Drive Thru and Delivery Services application in order to cope up with lazy, busy, practical-oriented, and impatient shoppers. With those ideas, people do not need much time to get their daily needs. Clicking and paying, that is how those ideas work, very simple.

As we all know, most people complain about the slow responses and the inhospitable staffs in supermarkets. To solve the human resources problems and to improve the supermarkets’ computerization systems, we come up with some new high-end systems where only a few of human resources are needed, such as Sclipa shopping machine and 3S shopping cart which are very efficient and effective to settle down the problems. In this opportunity, our team would like to present our marvelous 3in1 supermarket innovation. 3in1 supermarket is different from the ordinary supermarkets we already know. A mobile application of 3in1 supermarket is available in play store and app store. Through this mobile application, you can easily make your order and you can also choose your own way to get your ordered items, either by delivery or by drive thru. Here in 3in1 supermarket you can also experience a new and sophisticated way of shopping, sclipa shopping machine and 3S shopping cart which only can be found in 3in1 supermarket. They give tons of benefits for both parties, for the consumers and for the owners of 3in1 supermarket in running their business.

**III. ALTERNATIVE**

1. Mobile Application for Drive Thru and Free Delivery

To deal with practical-oriented shoppers and shoppers who dislike queuing up, we bring forth a mobile application which can be easily downloaded on smartphones. This mobile application has all the information about supermarkets, including membership profile, the items and its price, and also ongoing promos. Many people will be asking out about how this mobile application works, well, it is a very friendly application where you can make our order very easily. Nonetheless, there will be some thoughtless party who tries to make fictive and anonymous orders. To deal with them, right after downloading the mobile application, we must sign up for member, make an account and fill up some personal data, including debit card or credit card data. So that if any fictive and anonymous orders are made, their account will be blocked and their debit card or credit card will automatically get charged.

After completing all the steps above, you can easily make your order by only clicking the pictures of the items then put up a number of the items we buy in the quantity box. The items we ordered will automatically be put in the shopping cart. After you’ve completed your order, list of items and also its total price will appear, then you can also choose your own payment method, either by cash, debit card, or even by credit cards. After that, you can choose your most preferable way to get your ordered items, either by the delivery service to your doorsteps or by picking them up yourself via drive thru. For both drive thru and delivery service, we pack the ordered items with a special biodegradable plastic bag, where our website and mobile application are on it. Therefore, our 3in1 supermarket will get recognized by a wider population.

In the drive thru service, 3in1 supermarket provides this service so that shoppers can get their products at their requested time by filling in the pick-up time box. For the delivery service, the shoppers can also get their items delivered at their requested time by filling in the delivery time box. However, a condition is applied for the 3in1 supermarket’s delivery service, that the order must be made at least 30

minutes before it gets delivered. Your ordered items will be delivered at the specific time and place which you have previously keyed in using the application. The shopper will get charged for the delivery fare based on the distance of the location or maybe can get a free delivery with a minimum purchase required.

Some people will wonder, what makes 3in1 delivery service different from the other online transportation application, such as Gojek (particularly Go-Mart), which provides a similar delivery service as 3in1 supermarket. As we all know, everyone can sign up and be the Gojek driver. However, 3in1 supermarket’s delivery service is different, to gain the trust of our customers and also to reduce the fraudulence risks, we only employ our honest delivery men to deliver your items to your requested location. Not everyone can be our delivery men, they must go through several interviews to get employed as our delivery men.

The advantages of this mobile application is the time-saving shopping where you only need around 10-15 minutes to find your daily needs. This mobile application is absolutely a very effective method to satisfy those time-starved people. However, in delivery service, you need to wait around 30 minutes to get your ordered items delivered, which is still an unsolved problem.

2. 3S Shopping Machine

We innovate this 3S shopping machine for those time-starved and practical- oriented people. 3S shopping machine is a new high-end computerization system where you can make your order on the spot. When you first hear 3S, then it is normal to be befuddled and wonder what does it mean. 3S stands for 3 steps, which are click, pay, and take. It is operated by a system, equipped with a touchscreen tablet to make your order and connected a conveyor belt to get your ordered items. To get the idea of 3S shopping machine, we are inspired by a vending machine and the conveyor belt at airports’ baggage claim. To make your order, you just need to click the pictures of the items you wanted on the tablet then a total price will appear after you are done making your order. There are 3 available methods to pay, which are by cash, by debit card, and by credit card. To pay by cash, just like the ordinary vending machines,

there will be a hole where you insert your money. So you just need to insert your money, pay it up, and if there is any changes, it will automatically come out. To pay by debit and credit card, we will provide a payment terminal, so you only need to swipe your card.

We also provide an instruction manual right beside the machine to make it easier for shopper to order. After the transaction is made, a payment receipt will be printed, and then you can easily to get your ordered items at the conveyor belt by matching the number on your receipt with the number tag on your ordered items. By using this machine, shopping will be more effectively so that you can save your precious time because you do not to have to rummage all around the supermarket in order to get your needed items. In order to get this machine worked effectively, tenacious and deft employees are needed. However, as we all know, most of Indonesian people are indolent and irresponsible, so it still becomes a problematic matter to find a tenacious and deft employee.

3. Sclipa Shopping Cart

The shopping cart we innovate is way more effective than the ordinary shopping cart we all know these days. You can use sclipa (Scan Click Pay) shopping cart both on basket and on trolley. Sclipa shopping cart will automatically detect the type, the quantity, and also the price of the items you put in it. In sclipa shopping cart, we use radio-frequency identification (RFID) system. RFID reader works by using electromagnetic waves which can identify and track the attached RFID tags on objects. The baskets and the trolleys are also equipped with mini monitors which automatically display the type, the quantity, and also the total price of the items you put in it. An error is something we can avoid. Whenever you face any errors with the system, you can just click the “help” button on mini monitor screen, and our technician will immediately come to you.

There is a hanger on each baskets and trolleys, the plastic bags are hung on it. You can easily pluck the plastic bags out from the hanger and then start packing your items by yourself. This solution to pack your own items right after choosing them is

very time-saving, right? After being done shopping and packing your items, you just need to click the “proceed” button on the mini monitor screen then you can directly go to the checkout machine. For those who use baskets can just put the basket above the RFID detector at the checkout machine, for those who use trolleys can just pass through the RFID detector which is located alongside the checkout machine, and lastly for those who are only window-shopping, there will be a special row where you do not need to pass the checkout machine. This special row is under a strictly surveillance of the securities.

By using this sclipa shopping cart, you can choose your own payment method, either by debit card, by credit card, or by using member card with balance in it. You just need to swipe your card and the payment will be done in a blink of an eye. In order to cast aside the possibilities of fleeing customers, we use a flap barrier automatic turnstile driveway electric gate systems, it will not be opened unless the customer have made the payment first. Once the payment is made, a receipt will be printed, and the flap barrier will be opened.

From the description above, we can conclude that sclipa shopping cart is very practical, you do not need to scan your items one by one, you just need to throw them in your basket or your trolley then the RFID system will do the rest. Sclipa shopping cart also can cut down the quantity of human resources, so we do not need to spend a fortune to hire employees. Most importantly, sclipa shopping cart can significantly cut down the protracted queue, usually we spend around 5 minutes at ordinary supermarket to complete the payment process, but with the RFID systems checkout we only need 1 minutes to complete the payment process. What a big difference, isn’t it? The only dissatisfaction of this idea is that this sclipa shopping cart will cost a big fortune at first and it needs to get monitored periodically. However, this sclipa shopping cart can be used for a long period so that the marketings’ fortune they have spent will be paid back with a much better fortune.

**IV. DECISION MAKING**

Based on the explanation and consideration we described in Alternative Section, we have come to a decision to pick sclipa shopping cart as the best alternative. Sclipa shopping cart is a brand new fresh innovation which is very practical and very user friendly for customers, especially in Indonesia. Sclipa shopping cart can significantly cut down the queues at supermarkets so that customers can save their time and their mobility will get increased. This innovation makes the owner of supermarkets to be more at ease in managing their inventories, and also can scale down the expenses for employees’ salaries.

**V. APPLICATION**

1. Mobile Application for Drive Thru and Delivery Service

To use this mobile app, the business owner have to collaborate with an information technology (IT) team to make a start up application for drive thru and delivery. Customers’ orders will be directly linked to supermarkets’ devices to get taken care of. Meanwhile, IT team is needed to respond customers’ critics, to maintain, and to update the application. It usually takes 1 to 6 months to make the application, depending on the design, the application features, and the complexity of

it.

below:

The cost of drive thru and delivery service mobile application is detailed as

a. Estimated expenses to make the application is around 50-100 million IDR (depending on the design, the complicacy, and the number of features the owner requested)

b. IT technicians’ fee (for monthly maintenance) : 4-5 million IDR. c. Maintenance fee for the application : 10-20% from software

Complexity: The Indonesians’ lack of knowledge in technology especially the elders might not be able to use the application easily. But this will not be a problem if we as the younger ones educate them.

2. 3S Shopping Machine

To apply 3S shopping machine, supermarket owners have to work with an information technology (IT) team to create an user interface designs. Orders will be directly linked to the supermarkets’ devices to prepare and deliver the orders to customers via conveyor belt. Customers can pick up their ordered items according to the matched number between the number tag on the plastic bag / paper bag and the number on the payment receipt. The required preparations for this project are to connect conveyor belts with the screens and the applications’ designs usually takes around 1-6 months, depending on the features and the complexity of it.

The estimated expenses for 3S Shopping Machines can be detailed as follows:

a. Shopping Machines with an estimated cost of 110 million IDR including design and display.

b. The cost of a conveyor is estimated around 5-7 million IDR.

c. The belt of the conveyor is estimated around 400-500 thousand IDR/ roll. d. Maintenance costs of the machine is around 140 million IDR/ year.

Nevertheless, this idea also faces a complexity, which exists because of the ignorant people in Indonesia who operate this machine recklessly. The Indonesians’ lack of knowledge of technology is also one of the limitations of this machine, for example, the old generations will face some difficulties to operate this machine. However this problem can be solved if us as younger people educate them. In addition, there is also an instruction manual right beside the machine so that everyone can read and understand the steps to operate this machine.

3. Sclipa Shopping Cart

To apply Sclipa shopping cart system, the supermarket owner must work with the developer technology engineer to make radio frequency identification (RFID) on supermarket shopping trolleys and baskets and make RFID tags on each item. RFID on a shopping cart will read the RFID tag of an item to show the type and amount of it as shown in the input of the system. After shopping, customers scan their shopping carts on RFID scanner to make a payment and to get the bill. To avoid the fleeing customers who do not pay, there will be a flap barrier automatic turnstile gate at the exit row. Turnstile gate will only open when customers have already paid and got their bills. To make the Sclipa shopping cart system, shopping trolleys & baskets with RFID, and an integrated system on both device and turnstile gate, which can take approximately 6 months to make, must be made.

Approximate costs for Sclipa Shopping Cart were as follows:

a. Passive RFID reader for approximately 3000 USD or 52 million IDR, shopping baskets for approximately 25.000-50.000 IDR, and shopping trolleys for approximately 1,5 million IDR.

b. Passive RFID tag for approximately 10 cents or 1.400 IDR/piece.

c. RFID scanner on payment detector for approximately 10.000-20.000 USD or

140-280 million IDR/piece.

d. Paper bag/plastic bagi approximately 500 IDR/piece.

There are still limitations present for this system. One of the examples is the poor quality of human resources in Indonesia, causing older generations to be unfamiliar with the system. However, this will not be a problem if the younger generations educate the older generations to use the system.