

## The Development of "Esago" Application as a Form of Improving the Quality and Prosperity for Farmers

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### ABSTRACT

In North Sulawesi Province, there are many agricultural lands with superior food commodities. However, there are many problems that make agricultural production less than optimal in North Sulawesi Province. With the rapid developments in the field of information technology, the researchers created a system, namely an E-Commerce application called EsaGo. The EsaGo application is an Android-based application that provides agricultural education and farming tutorials that farmers can learn. The research method used is the System Development Life Cycle method. SDLC consists of the problem investigation, feasibility study, system analysis, system design, implementation system, and system testing phases. The research method is carried out in stages, starting with looking for problems to the testing stage. Before the system is published, the system will be tested by developers and experts in their field, to test the functionality of the tool. The final result obtained is the Esago application which has the ability to rent farmer locations and display farmer locations within a certain radius inputted by consumers. The results of trials on 10 farmer users and 15 consumers show that this Esago is useful (Perceived Usefulness) and easy to use (Perceived Ease of Use) for buying and selling agricultural products for farmers and consumers.

**Keywords:** *application development, prosperity, quality, farmers, north sulawesi*

## INTRODUCTION

Developments in the field of information technology are currently running fast and there are many benefits that can be obtained from developments in the field of information technology. For example, in the field of business, information technology can be used to increase promotions or to assist in processing existing data to become information. For processing data into information, one example is processing data or transactions for a purchase or sale, where by processing data using a computer, the processing will be faster and the results will be much better than done manually.

In North Sulawesi Province there are many agricultural locations with superior food commodities. But there are many problems that make agricultural production less than optimal in North Sulawesi Province. The problem faced by farmers is the lack of understanding or farmer strategies in utilizing existing agricultural technology. Little information and less than optimal outreach activities on good farming methods and solutions to plant problems are the main problems for farmers in North Sulawesi Province. Aside from human resource problems, the second problem is the difficult marketing of agricultural products and often undervalued by middlemen. Marketing of agricultural products can only be carried out close to the farm, and the transaction process cannot be carried out directly between sellers and buyers so that farmers are easily fooled by rogue middlemen. Apart from that, agricultural equipment is currently quite expensive, causing income and expenditure of farmers to become unbalanced. Lack of space to accommodate agricultural tools and materials and unequal prices make farmers in North Sulawesi Province not prosperous. The third problem is that there is no place or place for farmers to hold discussions and ask questions related to the agricultural problems they face. The fourth problem is that the younger generation has started to leave the world of agriculture. As well as the lack of interest of the younger generation to pursue work in agriculture because jobs in agriculture are less promising, resulting in no regeneration of jobs in agriculture.

Based on the background mentioned above, the researcher created a solution that can solve problems in the agricultural sector, with the rapid developments in the field of information technology, the researcher created a system, namely an E-Commerce application called EsaGo. The EsaGo application is an Android-based application that provides agricultural education and farming tutorials that farmers can learn. As well as a place for discussion to solve problems in the field of agriculture that are difficult to solve. The EsaGo application is an application for farmers to distribute agricultural goods. Sales of agricultural products that can be carried out effectively, creatively and sales of agricultural products can be carried out directly with buyers. With the EsaGo application, farmers can make transactions not only with local people, but can be at the regional, national and even international levels without knowing space or time boundaries.

## METHOD

The System Development Life Cycle (SDLC) is a classic methodology used to develop, maintain and use information systems. See figure 1. The system life cycle is itself a methodology, but its patterns are more influenced by the need to develop faster systems. Faster system

development can be achieved by increasing the lifecycle and using computer-based development tools. describes the stages of the SDLC research method as follow.

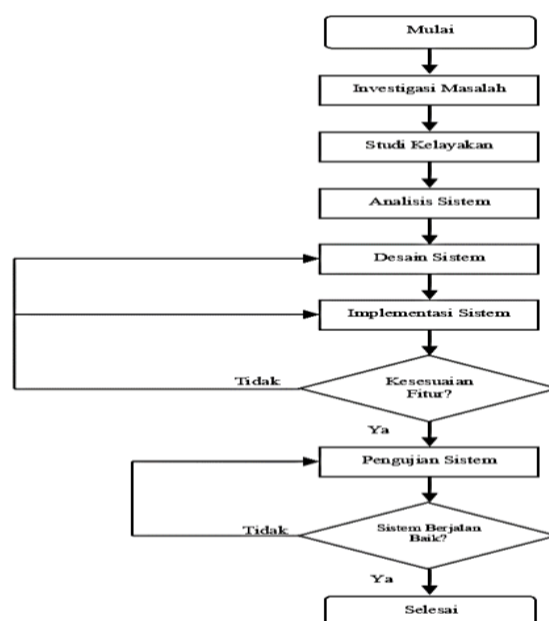


**Figure 1.** *SDLC Method*

- Design The planning stage is the initial stage of system development which defines the estimated resource requirements such as physical devices, people, methods (techniques and operations), and budget).
- System Analysis The system requirements analysis stage is the research stage of the existing system with the aim of designing a new or updated system.
- System designs the goal at the system design stage is to meet the needs of the users, as well as provide a clear picture and complete design. The system design stage is to describe diagrams that can describe system performance in an integrated manner which includes use case diagrams, activity diagrams and entity relational diagrams.
- System Implementation The implementation or implementation phase is the stage where the system design is formed into a code (program) that is ready to operate.
- System Maintenance The maintenance phase is the stage that is carried out after implementation, which includes the use or usage, audit, maintenance, repair and improvement of the system.

### Flow Diagram

Flowchart diagram in figure 2.

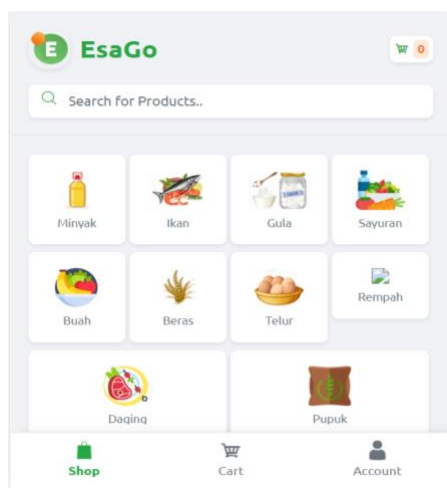


**Figure 2.** SDLC Flow Diagram

## RESULTS AND DISCUSSION

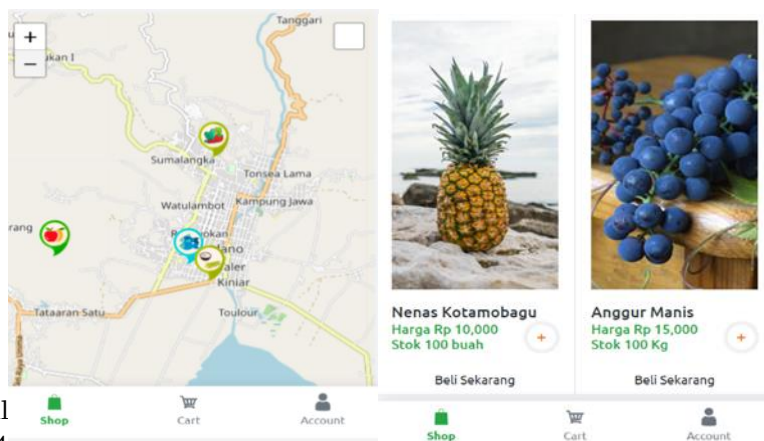
### Application Interface Implementation

Display of the EsaGo homepage Figure 3 is the display of the homepage of the EsaGo application. The EsaGo homepage contains product icons by category.

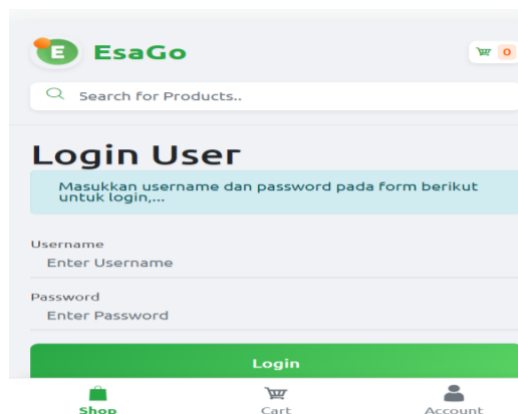


**Figure 3.** Dashboard application

b. Figure 4 is a display of buying and selling the EsaGo application. The display of product prices and farmer locations in the EsaGo application contains a product menu, to sort the products the user chooses in the form of a real time map. Form login, see figure 5



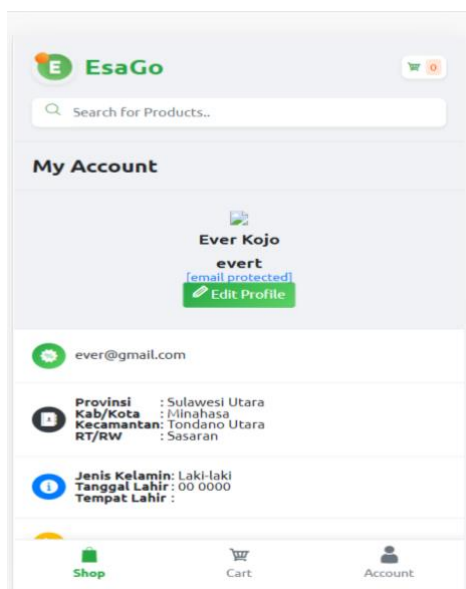
**Figure 4.** display of price and farmer's location



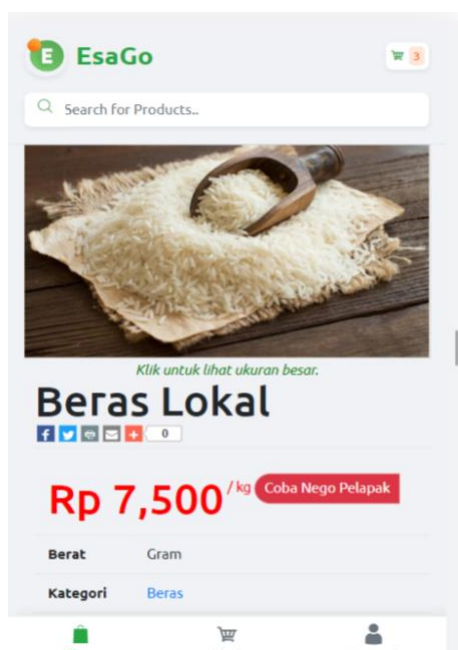
**Figure 5.** User login

#### *Feasibility Analysis*

User profile see in figure 6, and Order Display in figure 7.



**Figure 6.** User Profile



**Figure 7.** Order Display

## Testing Results to Farmers

### Statement 1

Selling agricultural products directly to consumers in North Sulawesi Province would be difficult without the EsaGo application. See table 1

**Tabel 1.** Farmer Questionnaire Statement 1 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	1	5	13%
Agree	4	6	24	63%
Doubtful	3	3	9	24%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	38	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			3,80	

From the calculations in the table above, it can be analyzed that in general the EsaGo application is quite easy for farmers to sell agricultural products directly to consumers, with a score of 3.8 on a scale of 1-5.

### Statement 2

Using the EsaGo agricultural application enables me to control sales to consumers in North Sulawesi Province. See table 2

**Tabel 2.** Farmer Questionnaire Statement 2 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	3	15	38%
Agree	4	4	16	40%
Doubtful	3	3	9	23%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	40	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,00	

From the calculations in the table above it can be analyzed that in general the EsaGo application is useful for controlling sales to consumers, with a score of 4 on a scale of 1-5.

#### Statement 3

The EsaGo application improves performance for selling directly to consumers in North Sulawesi Province. See table 3.

**Table 3.** Farmer Questionnaire Statement 3 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	2	10	24%
Agree	4	7	28	68%
Doubtful	3	1	3	7%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	41	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,10	

From the calculations in the table above it can be analyzed that in general the EsaGo application is useful for increasing the performance of selling agricultural products to consumers, with a score of 4.1 on a scale of 1-5.

#### Statement 4

The EsaGo application saves me time to get agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 4

**Table 4.** Farmer Questionnaire Statement 3 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	5	25	38%
Agree	4	10	40	62%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	65	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,33	

From the calculations in the table above, it can be analyzed that the EsaGo application saves me time to get agricultural products from farmers, with a score of 4.33 on a scale of 1-5.

#### Statement 5

The EsaGo app allows me to complete purchases faster. See table 5.

**Table 5.** Farmer Questionnaire Statement 5 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	8	40	59%
Agree	4	7	28	41%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	68	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,53	

From the calculations in the table above, it can be analyzed that the EsaGo application allows me to complete purchases faster, with a score of 4.53 on a scale of 1-5.

#### Statement 6

The EsaGo application increases effectiveness (effectiveness) in obtaining agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 6

**Table 6.** Farmer Questionnaire Statement 6 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	6	30	45%
Agree	4	9	36	55%



Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	66	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,40	

From the calculations in the table above it can be analyzed that in general the EsaGo application is useful for saving time selling agricultural products, with a score of 4.4 on a scale of 1-5.

#### Statement 7

The EsaGo application increases effectiveness (effectiveness) in selling agricultural products directly to consumers in North Sulawesi Province. See table 7

**Tabel 7.** Farmer Questionnaire Statement 7 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	4	20	47%
Agree	4	5	20	47%
Doubtful	3	1	3	7%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	43	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,30	

From the calculations in the table above it can be analyzed that in general the EsaGo application increases effectiveness (effectiveness) in selling agricultural products directly to consumers, with a score of 4.30 on a scale of 1-5.

#### Statement 8

The EsaGo application increases my productivity to sell agricultural products directly to consumers in North Sulawesi Province. See table 8.

**Table 8.** Farmer Questionnaire Statement 8 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	2	10	26%
Agree	4	5	20	51%
Doubtful	3	3	9	23%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%

Total	10	39	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)		3,90	

From the calculations in the table above, it can be analyzed that in general the EsaGo application has sufficiently increased my productivity to sell agricultural products directly to consumers, with a score of 3.9 on a scale of 1-5.

#### Statement 9

The EsaGo application makes it easier for me to sell agricultural products directly to consumers in North Sulawesi Province. See table 9.

**Table 9.** Farmer Questionnaire Statement 9 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	2	10	24%
Agree	4	7	28	68%
Doubtful	3	1	3	7%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	41	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,10	

From the calculations in the table above it can be analyzed that in general the EsaGo application makes it easier to sell agricultural products directly to consumers, with a score of 4.1 on a scale of 1-5.

#### Statement 10

Overall, I find the EsaGo application system useful in selling agricultural products directly to consumers in North Sulawesi Province. See table 10.

**Table 10.** Farmer Questionnaire Statement 10 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	2	10	24%
Agree	4	7	28	68%
Doubtful	3	1	3	7%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	41	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,10	

From the calculations in the table above it can be analyzed that overall the EsaGo application is useful in selling agricultural products directly to consumers, with a score of 4.1 on a scale of 1-5.

### Ease of Use of Technology

#### Statement 1

I find it easy to fix errors/errors found when using the EsaGo application. See table 11.

**Table 11.** Farmers Questionnaire Statement 1 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	2	10	27%
Agree	4	3	12	32%
Doubtful	3	5	15	41%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	37	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			3.70	

From the calculations in the table above it can be analyzed that in general the EsaGo application is quite easy to fix from the errors/errors found, with a score of 3.7 on a scale of 1-5.

#### Statement 2

If find it easy to use the EsaGo application to sell agricultural products directly to consumers in North Sulawesi Province. See table 12.

**Table 12.** Questionnaire of Farmers Statement 2 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	1	5	13%
Agree	4	8	32	80%
Doubtful	3	1	3	8%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	40	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4.00	

From the calculations in the table above it can be analyzed that in general the EsaGo application is easy to use, with a score of 4 on a scale of 1-5.

**Statement 3**

My interaction with the EsaGo application is easy for me to understand. See table 13.

**Table 13.** Farmers Questionnaire Statement 3 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	3	15	37%
Agree	4	5	20	49%
Doubtful	3	2	6	15%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	41	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,10	

From the calculations in the table above it can be analyzed that in general it is easy for farmers to interact with the EsaGo application, with a score of 4.1 on a scale of 1-5.

**Statement 4**

It's very easy for me to remember how to use the EsaGo application system. See table 14.

**Table 14.** Farmers Questionnaire Statement 4 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	5	25	60%
Agree	4	2	8	19%
Doubtful	3	3	9	21%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	42	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,20	

From the calculations in the table above it can be analyzed that in general it is easy for farmers to remember how to use the EsaGo application, with a score of 4.2 on a scale of 1-5.

**Statement 5**

The EsaGo application provides a guide that helps in selling agricultural products. See table 15.  
See table 15.

**Table 15.** Farmers Questionnaire Statement 5 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	1	5	13%
Agree	4	7	28	72%
Doubtful	3	2	6	15%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	39	100%

From the calculations in the table above it can be analyzed that in general the EsaGo application provides little guidance that helps in making sales, with a score of 3.9 on a scale of 1-5.

#### Statement 6

Overall, I find the EsaGo application system easy to use. See table 16.

**Table 16.** Farmers Questionnaire Statement 6 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	4	20	47%
Agree	4	5	20	47%
Doubtful	3	1	3	7%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		10	43	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4.30	

From the calculations in the table above it can be analyzed that overall, the EsaGo application is easy to use, with a score of 4.30 on a scale of 1-5.

#### Trial Results Against Buyers

##### Technology Uses

#### Statement 1

Obtaining agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province will be difficult without the EsaGo application. See table 17.

**Table 17.** Questionnaire Buyer Statement 1 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	6	30	50%
Agree	4	5	20	33%
Doubtful	3	2	6	10%
Don't agree	2	2	4	7%

Very not Agree	1	0	0	0%
Total		15	60	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4.00	

From the calculations in the table above it can be analyzed that in general it is easy to buy agricultural products using the EsaGo application, with a score of 4 on a scale of 1-5.

#### Statement 2

The EsaGo application improves performance to get agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 18.

**Table 18.** Questionnaire Buyer Statement 2 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	6	30	47%
Agree	4	7	28	44%
Doubtful	3	2	6	9%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	64	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,27	

From the calculations in the table above, it can be analyzed that the EsaGo application improves performance, with a score of 34.27 on a scale of 1-5.

#### Statement 3

The EsaGo application answers my need to get agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 19.

**Table 19.** Questionnaire Purchaser Statement 3 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	5	25	40%
Agree	4	8	32	51%
Doubtful	3	2	6	10%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	63	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,20	

From the calculations in the table above, it can be analyzed that the EsaGo application answers my need to get agricultural products from farmers, with a score of 4.2 on a scale of 1-5.

*Statement 4*

The EsaGo application saves me time to get agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 20.

**Table 20.** Questionnaire Buyer Statement 4 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	5	25	38%
Agree	4	10	40	62%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	65	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,33	

From the calculations in the table above, it can be analyzed that the EsaGo application saves me time to get agricultural products from farmers, with a score of 4.33 on a scale of 1-5.

*Statement 5*

The EsaGo app allows me to complete purchases faster. See table 21.

**Table 21.** Questionnaire Buyer Statement 5 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	8	40	59%
Agree	4	7	28	41%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	68	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4.53	

From the calculations in the table above, it can be analyzed that the EsaGo application allows me to complete purchases faster, with a score of 4.53 on a scale of 1-5.

*Statement 6*

The EsaGo application increases effectiveness (effectiveness) in obtaining agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 22.

**Table 22.** Questionnaire Purchaser Statement 6 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	6	30	45%
Agree	4	9	36	55%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	66	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,40	

From the calculations in the table above it can be analyzed that the EsaGo application increases effectiveness (effectiveness) in obtaining agricultural products from farmers, with a score of 4.4 on a scale of 1-5.

#### Statement 7

The EsaGo application improves my performance to get agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 23.

**Table 23.** Questionnaire Purchaser Statement 7 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	8	40	59%
Agree	4	7	28	41%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	68	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4.53	

From the calculations in the table above, it can be analyzed that the EsaGo application has improved my performance in obtaining agricultural products from farmers, with a score of 4.53 on a scale of 1-5.

#### Statement 8

The EsaGo application makes it easier for me to get agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 24.



**Table 24.** Questionnaire Buyer Statement 8 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	4	20	31%
Agree	4	11	44	69%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	64	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,27	

From the calculations in the table above, it can be analyzed that the EsaGo application makes it easier for me to get agricultural produce from farmers, with a score of 4.27 on a scale of 1-5.

#### *Statement 9*

Overall, I find the EsaGo application system useful in terms of farm yields from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 25.

**Table 25.** Questionnaire Buyer Statement 9 (Usability)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	8	40	59%
Agree	4	7	28	41%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	68	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4.53	

From the calculations in the table above it can be analyzed that overall the EsaGo application is useful in farming yields from farmers, with a score of 4.53 on a scale of 1-5.

#### **Ease of Use of Technology**

##### *Statement 1*

I find it easy to fix errors/errors found when using the EsaGo application. See table 26.

**Table 26.** Questionnaire Buyer Statement 1 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
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Strongly agree	5	2	10	18%
Agree	4	8	32	58%
Doubtful	3	3	9	16%
Don't agree	2	2	4	7%
Very not Agree	1	0	0	0%
Total		15	55	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			3.67	

From the calculations in the table above it can be analyzed that in general the EsaGo application is quite easy to fix from the errors/errors found, with a score of 3.67 on a scale of 1-5.

#### Statement 2

I find it easy to use the EsaGo application for agricultural products from farmers and farmer locations within a radius/distance in North Sulawesi Province. See table 27.

**Table 27.** Questionnaire Purchaser Statement 2 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	6	30	45%
Agree	4	9	36	55%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	66	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,40	

From the calculations in the table above it can be analyzed that in general the EsaGo application is easy to use, with a score of 4.4 on a scale of 1-5.

#### Statement 3

My interaction with the EsaGo application is easy for me to understand. See table 28

**Table 28.** Questionnaire Buyer Statement 3 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	6	30	47%
Agree	4	7	28	44%
Doubtful	3	2	6	9%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	64	100%

FINAL SCORE (Total Result 1-5/Total Sum Respondents)	4,27
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From the calculations in the table above it can be analyzed that in general consumers easily interact with the EsaGo application, with a score of 4.27 on a scale of 1-5.

#### Statement 4

It's very easy for me to remember how to use the EsaGo application system. See table 29.

**Table 29.** Questionnaire Purchaser Statement 4 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	8	40	59%
Agree	4	7	28	41%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	68	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4.53	

From the calculations in the table above it can be analyzed that in general it is easy for farmers to remember how to use the EsaGo application, with a score of 4.53 on a scale of 1-5.

#### Statement 5

The EsaGo application provides a guide that helps in selling agricultural products. See table 30.

**Table 30.** Questionnaire Buyer Statement 5 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	2	10	16%
Agree	4	13	52	84%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	62	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,13	

From the calculations in the table above it can be analyzed that in general the EsaGo application provides a guide that helps in making purchases, with a score of 4.13 on a scale of 1-5.

### Statement 6

Overall, I find the EsaGo application system easy to use. See table 31.

**Table 31.** Questionnaire Purchaser Statement 6 (Convenience)

Answer	Scale(1-5)	Amount Respondents	Results	Total
Strongly agree	5	4	20	31%
Agree	4	11	44	69%
Doubtful	3	0	0	0%
Don't agree	2	0	0	0%
Very not Agree	1	0	0	0%
Total		15	64	100%
FINAL SCORE (Total Result 1-5/Total Sum Respondents)			4,27	

From the calculations in the table above it can be analyzed that overall, the EsaGo application is easy to use, with a score of 4.27 on a scale of 1-5.

## CONCLUSION

Based on the results of the analysis, design, implementation and trial of EsaGo it can be concluded that: The EsaGo Application Using the Api Maps Leaflet was successfully built by:

1. Using the PHP programming language with a MySQL database and using maps facilities from the Leflet Maps API.
2. Use the Pythagorean formula to find the location of the closest farmer within the input radius.
- b. The EsaGo Application Using the Api Maps Leaflet can function properly, including being able to search for farmer locations within the inputted radius, place orders, provide confirmation regarding orders via email, and show the way to the location of farmers and buyers.
- c. Based on trials on users (beta test), it is concluded that the EsaGo Application:
  1. Useful (Perceived Usefulness) with an average value of 4.0 (out of 5) and easy to use (Perceived Ease of Use) with an average value of 4.0 (out of 5) for farmers
  2. Useful (Perceived Usefulness) with an average value of 4.3 (out of 5) and easy to use (Perceived Ease of Use) with an average value of 4.2 (out of 5) for customers.

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