



PROBLEMS ANALYSIS OF E-BUSINESS APPLICATION IN MICRO, SMALL AND MEDIUM ENTERPRISES

Ardiansyah

Department of Information System, Faculty of Computer Science
Universitas Mercu Buana, Indonesia
ardian@mercubuana.ac.id

Reni Novitasari

Department of Information System, Faculty of Computer Science
Universitas Mercu Buana, Indonesia
reninovitasari94@gmail.com

Hari Cahya Putra

Department of Information System, Faculty of Computer Science
Universitas Mercu Buana, Indonesia
harycahya33@gmail.com

Manuscript History

Number: IRJCS/RS/Vol.05/Issue08/AUCS10084

Received: 09, August 2018

Final Correction: 17, August 2018

Final Accepted: 23, August 2018

Published: August 2018

Citation: Ardiansyah, Novitasari & Putra (2018). Problems Analysis of E-Business Applications in Micro, Small and Medium Enterprises IRJCS:: International Research Journal of Computer Science, Volume V, 440-446.

doi://10.26562/IRJCS.2018.AUCS10084

Editor: Dr.A.Arul L.S, Chief Editor, IRJCS, AM Publications, India

Copyright: ©2018 This is an open access article distributed under the terms of the Creative Commons Attribution License, Which Permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Abstract - Micro, Small and Medium Enterprises (MSMEs) have a very large role in monetary in 1997, so that until now the development is quite significant with the support and attention of the government. E-business applications are one way to advance MSME income. is an application that aims to regulate data management that is still manual, so that it is expected that customer service, data items, distributors can be done more quickly and precisely. In this study, knowledge patterns that will be developed into business processes have been obtained.

Keyword: e-business; Micro; Small and Medium Enterprise; UML;

I. PROBLEMS BACKGROUND

Technology plays a role in various human activities, in terms of making it easier for humans to do their work. As businesses currently move to automate processes to improve operational efficiency, they (the business side) rely on E-business to obtain transaction data, including sales, accounting and inventory. The system is also used to identify buyer behavior, such as the frequency of purchases, so companies can provide rewards for their loyal customers. [1]

“There are three main systems that can increase the profitability of a business when updating from manual checkout processes. The first is a Point of Sale system, the second is an Inventory Management (IM) system, and the third is a Customer Relationship Management (CRM) system.” (Matthew Cote, 2015)

IRJCS: Impact Factor Value – SJIF: Innospace, Morocco (2016): 4.281

Indexcopernicus: (ICV 2016): 88.80



Based on the explanation above, then to support the business and increase optimal profits, it is necessary to develop a process from manual to automation. This development will start from the E-business system, then Inventory Management, and finally Customer Relationship Management (CRM). The focus of this research is how to support Micro, Small and Medium Enterprises (MSMEs) in improving and developing their business. MSMEs are the backbone of Indonesia's economy in the face of the 1997 monetary crisis. Sales activities carried out by MSMEs for processing data are still manual, so that the speed and accuracy of the desired data to get the calculation of stock, profit and sales in a system has not been maximally achieved.

Formulation of the problem

Paying attention to the rapid development of MSMEs in Indonesia, where many shopping centers are filled with merchants with a variety of items that are traded. These items are actually needed by the community, when sales transactions occur, processes such as recording goods, profits and losses, the existence of a supplier that determines the stock of items is needed. For this reason, the existence of information technology is also a benchmark for increasing profits in a very tight business competition. Concern about the problems that exist, so that this research seeks to support MSMEs by presenting an E-business system. Firstly, to determine the problems analysis

II. REVIEW LITERATURE

MSME's

Micro-enterprises are productive businesses owned by individuals and / or individual business entities that meet the criteria for micro-enterprises as stipulated in this law. Criteria for assets: maximum Rp. 50 million, turnover criteria: maximum Rp. 300 million rupiah. Whereas Small Business is a productive economic enterprise that stands alone, carried out by an individual or business entity that is not a subsidiary or not a branch of a company owned, controlled, or becomes a direct or indirect part of a medium or large business that meets the business criteria small as referred to in the law. Criteria for assets: Rp. 50 million - Rp. 500 million, turnover criteria: Rp. 300 million - Rp. 2.5 billion rupiah. And medium enterprises are productive economic enterprises that stand alone, which are carried out by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become part of directly or indirectly with small businesses or large businesses with a net wealth or annual sales results as stipulated in the law. Criteria for assets: Rp. 50 million - Rp. 10 billion, turnover criteria: > Rp. 2.5 billion - Rp. 50 billion rupiah. [3]

Regulation concerning MSMEs

Bank Indonesia Circular No. 26 / I / UKK dated May 29, 1993 regarding small business loans is a business that has a total asset of Rp. 600 million excluding land or houses occupied. The definition of this small business includes individual businesses, private business entities and cooperatives, as long as the assets owned do not exceed the value of Rp. 600 million rupiah. [3] According to the Ministry of Industry and Trade, small and medium entrepreneurs are modern industrial groups, traditional industries, and handicraft industries, which have investments, capital for machinery and equipment of Rp. 70 million down with the risk of capital investment / labor Rp. 625,000, - and the business is owned by an Indonesian citizen. [3] Whereas in the concept of SME Inpres, what is meant by SMEs is economic activity with the following criteria: (i) Assets of Rp. 50 billion, not including land and business premises, (ii) Turnover of Rp. 250 billion. [3]

III. ANALYSIS AND DISCUSSION

Questionnaire Data Analysis

List of Indicators submitted to respondents / informants as follows:

- 1 Do you have cooking skills?
- 2 Do you want to run a business in the field of food products?
- 3 Are the food products that you sell are made by yourself?
- 4 Do you have problems selling your products?
- 5 Do you need large capital to run the business?
- 6 Are you constrained by the time to run the business?
- 7 Are you constrained in marketing products from the business?
- 8 Are you willing if there are other parties who want to work with you as a distributor to sell your product?

Sampling was carried out in 5 regions within the cities of Jakarta, Bogor and Bekasi. The areas taken by the sample were Kranggan, Cibubur, Cikeas, Ciangsana, Bojongkulur. Each region is represented by 10 respondents.

The author takes a random sample. The following categories of respondents asked for research samples:

- More than 18 years of age category.
- All sexes (male and female).
- Workers, entrepreneurs and unemployed.
- Whether you have cooking skills or not.

Indicators that the writer needs in sampling data collection. This indicator is what the writer later uses as a basis for analyzing. Indicator coverage is as follows:

- People who have expertise in making dishes.
- The tendency of people to want to open a business in the food sector.
- Problems faced by the community in running a business.
- Community expertise in utilizing information technology.

The results of the author's analysis of the sampling data above are as follows:

Table1 Overall Sampling Data of 5 regions

No Pertanyaan	Responden (Kranggan)										Total	
	1	2	3	4	5	6	7	8	9	10	Y	T
1	Y	Y	Y	Y	Y	Y	Y	T	T	Y	8	2
2	Y	Y	Y	Y	Y	Y	Y	T	Y	Y	9	1
3	Y	Y	Y	Y	Y	T	Y	Y	Y	Y	9	1
4	Y	T	Y	Y	T	T	Y	Y	Y	T	6	4
5	T	Y	Y	Y	Y	T	Y	Y	Y	Y	8	2
6	T	T	Y	T	T	T	T	T	T	Y	2	8
7	Y	Y	T	T	T	T	T	T	T	Y	3	7
8	Y	Y	T	T	Y	Y	Y	T	Y	T	6	4
No Pertanyaan	Responden (Cibubur)										Total	
	1	2	3	4	5	6	7	8	9	10	Y	T
1	Y	Y	Y	Y	Y	Y	T	Y	Y	Y	9	1
2	Y	Y	Y	Y	Y	Y	T	Y	Y	T	8	2
3	T	Y	Y	Y	T	Y	T	Y	T	T	5	5
4	Y	Y	Y	Y	T	T	T	Y	Y	T	6	4
5	T	T	Y	Y	Y	T	T	Y	Y	T	5	5
6	Y	Y	Y	Y	T	T	T	T	Y	Y	6	4
7	Y	Y	Y	Y	Y	T	T	Y	Y	T	7	3
8	Y	Y	Y	Y	Y	Y	T	Y	Y	T	8	2

No Pertanyaan	Responden (Cikeas)										Total	
	1	2	3	4	5	6	7	8	9	10	Y	T
1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0
2	Y	Y	Y	Y	Y	T	Y	Y	Y	Y	9	1
3	Y	Y	Y	Y	Y	T	Y	Y	Y	Y	9	1
4	T	T	T	T	T	Y	T	T	T	T	1	9
5	Y	Y	Y	Y	Y	T	T	T	T	T	5	5
6	T	Y	Y	Y	Y	Y	Y	T	Y	Y	8	2
7	T	Y	Y	Y	Y	Y	Y	T	Y	Y	8	2
8	T	Y	Y	Y	Y	Y	Y	Y	Y	Y	9	1

No Pertanyaan	Responden (Ciangsana)										Total	
	1	2	3	4	5	6	7	8	9	10	Y	T
1	T	T	Y	Y	Y	Y	Y	Y	Y	Y	8	2
2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0
3	T	T	Y	Y	Y	Y	Y	Y	Y	Y	8	2
4	Y	Y	T	T	T	Y	Y	T	Y	T	5	5
5	Y	Y	Y	Y	Y	T	Y	T	Y	Y	8	2
6	Y	Y	T	T	Y	T	Y	Y	T	T	5	5
7	Y	Y	T	T	T	T	T	Y	Y	T	4	6
8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10	0

No Pertanyaan	Responden (Bojongkulur)										Total	
	1	2	3	4	5	6	7	8	9	10	Y	T
1	Y	Y	Y	Y	Y	Y	Y	Y	T	T	8	2
2	Y	Y	T	Y	T	Y	Y	Y	Y	Y	8	2
3	Y	Y	Y	Y	T	Y	T	T	T	T	5	5
4	Y	Y	T	Y	T	Y	T	Y	Y	Y	7	3
5	Y	T	Y	T	Y	Y	Y	Y	Y	T	7	3
6	Y	T	Y	Y	T	T	T	T	Y	Y	5	5
7	T	Y	Y	Y	Y	Y	Y	Y	Y	Y	9	1
8	Y	Y	T	Y	Y	Y	Y	Y	T	T	7	3



The results of the author's analysis of the sampling data above are as follows:

Analyze each question.

1. Show that many people have expertise in cooking (86%).
2. Many people have a desire to run a business in the food sector (88%).
3. The people's desire to sell their own products is quite large (78%).
4. Some people think that selling homemade products is an obstacle in running a business compared to products on the market (50%).
5. Most of the people need business capital which is considered quite large in running a food product business (66%).
6. Time management is an obstacle in running a food product business for some people (52%).
7. Marketing products is an obstacle in running a food product business, for most people (44.1%).
8. Most people who want to run a business in the food sector are willing to establish cooperation with other parties as suppliers (80%).

Analyze the incorporation of several questions.

1. Questions 1, 2

Many people want to run a business and they also have expertise in making food (88.7%).

2. Questions 1, 2 and 3.

Most of the people who have gastronomy are most likely to run businesses in the food sector by selling their own products (76.7%).

3. Questions 1, 2, 3 and 4

A small percentage of people who have gastronomy want to do business in the food sector but have problems in selling their products (34.8%).

4. Questions 1, 2, 3 and 5

Most of the people who have cooking skills, they want to run a business by selling their products but need capital that is considered quite large (51.1%).

5. Questions 1, 2, 3 and 6

There are people who have cooking skills, they want to run a business by selling their products but are constrained by time (39.5%).

6. Questions 1, 2, 3 and 7

There are people who have cooking skills, they want to run a business by selling their products but are constrained in marketing their products. (37.5%).

7. Questions 1, 2, 3 and 8

On average, people who have cooking skills, they are willing to cooperate with other parties to partner as a product supplier (69.7%).

7. Questions 2 and 1

There are people who do not have cooking skills but are willing to run businesses in the food sector (11.3%).

8. Questions 2 and 5

Most of the people who want to run a business in the food sector, feel that they need substantial capital to run the business (68.1%).

9. Questions 2, 1 and 5

There are people who want to run a business in the food sector but do not have expertise in making food products and require substantial capital (9%).

Proposed System Analysis

Explanation

The system to be built in this final project is an E-Commerce Information System application that wants to find food products. This system will be divided into 2 parts. The first part is the System Administrator who has the task of manipulating data and setting up the system, and then the second part is the end user, that is, the person who uses the facilities provided by the system. Based on the analysis of questionnaire data that has been done, it is proposed a system that can help overcome the problem, namely by designing an E-Commerce information system.

The system proposed to overcome these problems is:

- a. There are 4 types of users who can use the system (visitors, buyers, sellers, administrators).
- b. Providing facilities to the owners of food making skills so that they can market and sell their products to prospective buyers.
- c. The system can provide information about food products and sellers.

- d. Making transaction modules, this module is used to facilitate sellers and buyers in buying and selling transactions
- e. Making product modules, this module is used to add and display product data information.
- f. Making a product discussion module, this module is used to facilitate buyers discussing a product to the product owner (seller).

Proposed System Procedures
Rich Picture

a. Procedures of Sales

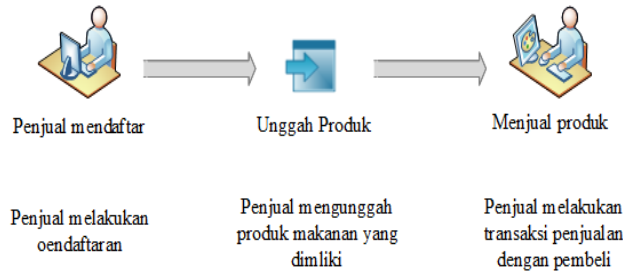


Figure1. Rich Picture of proposed system procedures of sales

b. Sales sale

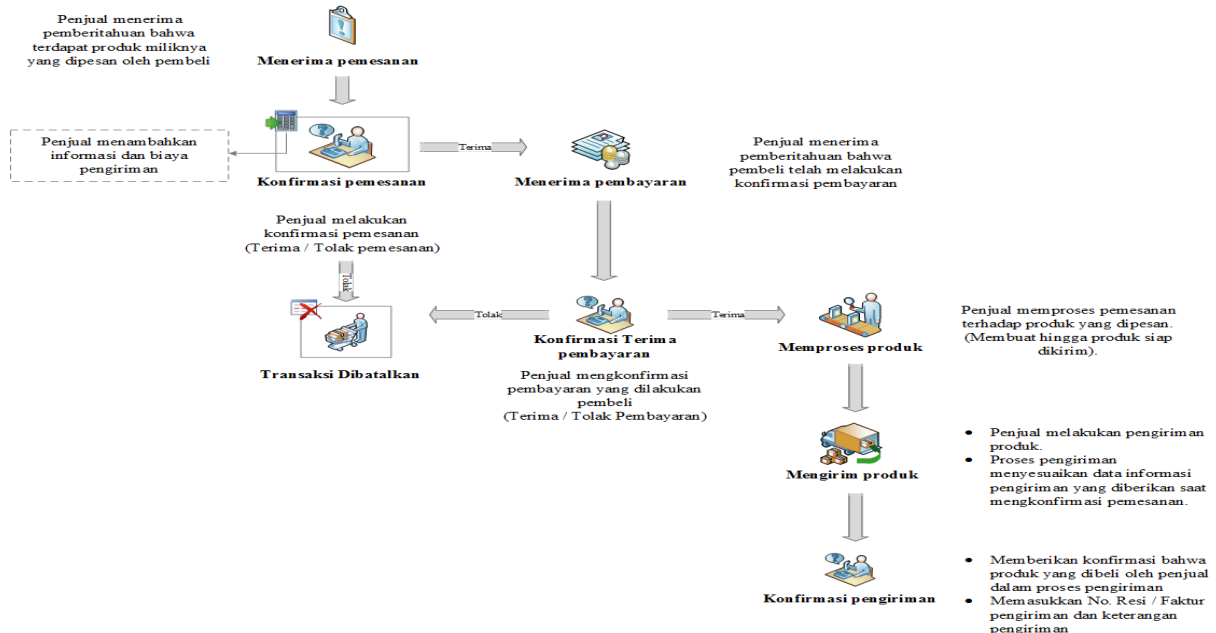


Figure2. Rich picture of system procedures for sales to sale

c. Buyers

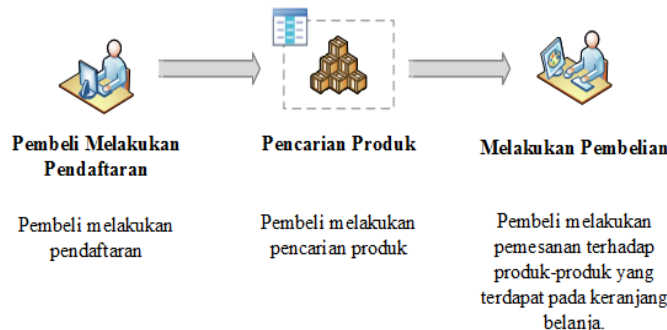


Figure3. Rich picture of customers

d. Buyers purchase products

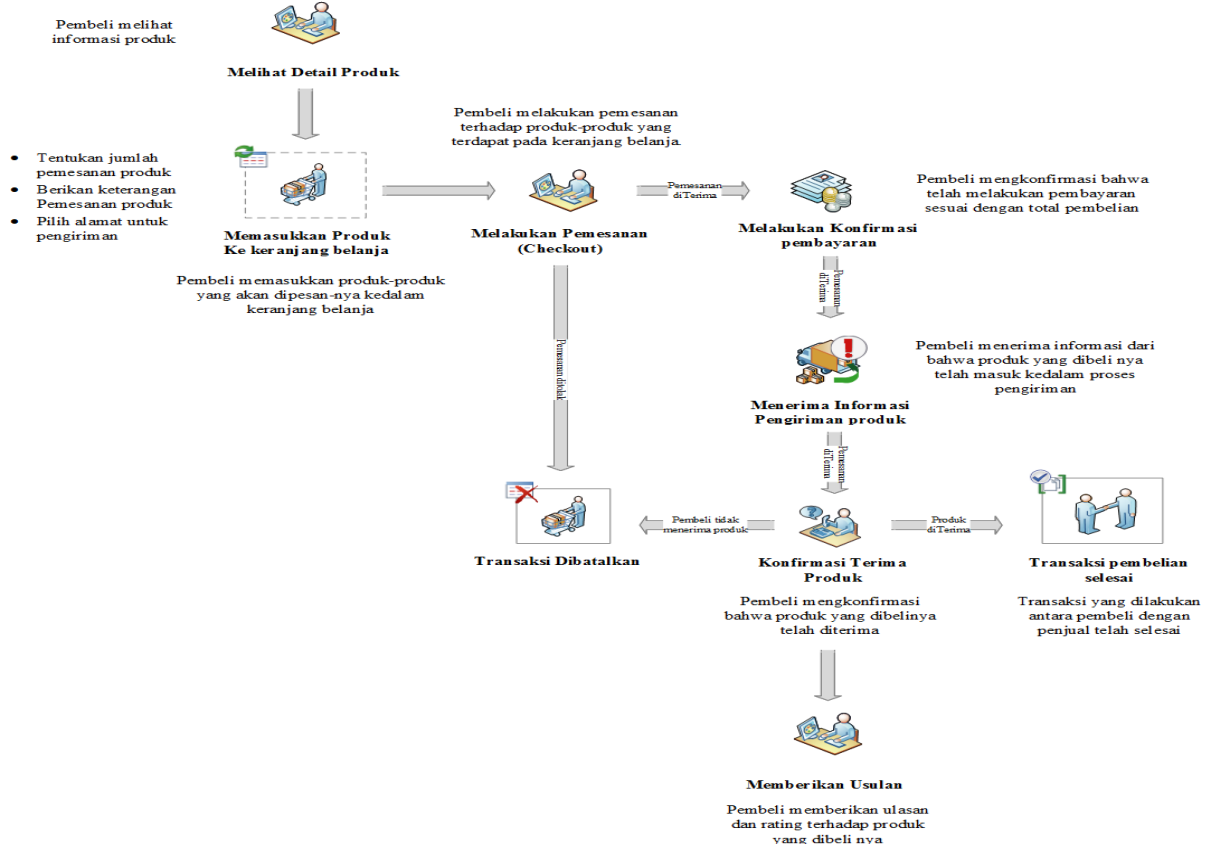


Figure 3.4 Rich picture proposed system procedure for buyers to Purchase Products

IV. CONCLUSION

From the results of e-business System Implementation on MSMEs, the authors can draw conclusions, including:

1. Distribution of questionnaires for several regions can be an analysis of the problems modeled in the business process using rich picture diagrams
2. The results of the analysis of the problems that have been carried out can be developed to the next stage, namely; use case modeling and designing UML diagrams, such as Classm Activity, Sequence, Package, etc.

REFERENCE

1. <https://www.trendmicro.com/vinfo/us/security/news/cyber-attacks/are-industries-ready-for-point-of-sale-system-breaches> (4 Juni 2017)
2. Cote, Matthew (2015). The Power E-business; Improving Growth, Profit, and Customer Service in a Retail Business.
3. <http://goukm.id/apa-itu-ukm-umkm-startup/> (waktu akses 4 Juni 2017)
4. Permana, Silvester D H., Faisal (2015). Analisa dan Perancangan Aplikasi E-business untuk Mendukung Manajemen Hubungan Pelanggan. JTIK vol.2 no.1
5. Agarwal, Ravikant., Umphress, David (2014). Extreme Programming for a Single Person Team. ResearchGate.