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JOURNAL OF APPLIED
COMPUTER SCIENCE
Vol. 21 No. 2 (2013), pp. 73-84

System for Logistics Customer Service

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Abstract. *The main principle of CRM is a customer oriented, consider the desires and expectations. It is necessary to in-depth analysis of the needs to improve the level of customer satisfaction. In this day where the consumer is better educated, it becomes more and more demanding – expect high quality customer service, accurate information and quick access to them. Knowing the customer perfectly there is a chance to meet his expectations and even exceed them, and thanks to this gain his trust and loyalty. We can provide them with exactly the product, which is expected, since we know his preferences, we are also able to provide him with good service and support. We save the budget because the firm keep focus on the customers who give the opportunity of cooperation and effort is not wasted on those who never takes advantage of our offer.*
The article aims to show what elements should appear in the customer management systems to store level, to provide better customer service, and to reduce the cost of its maintenance thanks to better warehouse management.
Keywords: *rule 7R, CRM, Logistics Customer Service.*

1. Introduction

Logistics customer service is taken to achieve customer satisfaction at a sufficiently high level at the same time with minimal costs are incurred. It is important

to exceeding their expectations, meeting time and place utility in the process of goods movement and services between the buyer and the seller. Customer service in logistics goes on the rule called 7*R*: the *r*ight product, the *r*ight quantity, the *r*ight condition, the *r*ight place, the *r*ight time, the *r*ight customer, the *r*ight price.

According to A. Payne breakdown of the customer service is reasonably varied needs of customers, their preferences [1]. Types and weight of the individual components is dependent on the industry, the nature and quantity of goods or services. Customer logistics fullest define transactional elements of the service:

1. Delivery time – the time from the moment of receipt of the order to the time of actual delivery of the product.
2. Reliability - the accuracy and completeness of delivery, the correct execution of the order.
3. Frequency – supply organization system, the number of deliveries during the period.
4. Flexibility – the ability to flexibly adapt the needs of the client, bending in case of change the preferences of time, size and way of delivery.
5. Availability – stocks, which can be used, that means the demand which can be immediately met from the available stocks.
6. Accuracy – delivery according to the order, it is supplement with completeness element and together constitute the reliability of the order.
7. Completeness – full of delivery.
8. Availability of documentation – access to all the documents required for the execution of the order, the documentation should be easy to prepare, accurate and standardized.
9. Availability of advertising materials – easy access to the offers, promotions.
10. Security – guarantee the security of supply.

It is important, therefore, that the order was executed in a timely manner, would be complete without damage. What matters is the level of stocks, as far as possible is met the demand at the time of order. Another indicator of good customer service is the company's ability to flexibility when changes customer preferences.

Unfortunately, very often in companies are committed errors in logistics customer service. Typically, this is inadequate market research. Often, there is also the so-called customer overestimation, the calculation of its cost-effectiveness. Not every customer is as valuable as others and not everyone is highly profitable. Usually there is a small group of customers which generates the majority of revenue. Then the company should focus on such group and invest in it what is more costly. Another problem now is the lack of adequately trained staff, lack of awareness and skills of the staff who would know how to properly take care of the customers.

2. Characteristics of Systems Supporting Customer Relationship Management

CRM (*Customer Relationship Management*) is a management of customer relationship. There is no clear definition of CRM, but this is an approach that aims to transform the company in such way that every employee in the company, which is in contact with the client, knows him enough to be able to properly and on a high level support. Many people mistakenly believe that CRM is only a computer program. The usual practice is that without the implementation of the entire business strategy the CRM system will do nothing, it can only expose the company to unnecessary costs. One of the broader definition of CRM formulated by Ronald Swift [2]: CRM is the company's ability to acquire customers, getting to know them, renewing contacts with them, make sure that the company provides them with exactly what they want, and that to which it has committed, and finally – realization the profits from these activities.

Practically every study on CRM has its different definition. This is because this area is growing rapidly, covering more and more issues. It is a powerful tool to support the functioning of the entire company, often called the philosophy of doing business. CRM as a software only technically complete all activities in relation to the company - Figure 1.

In order to meet customers there were built tools to support the work. Originally from simple standalone application, which contains a primary database and calendar, to powerful tools with which we are dealing now. This type of automation has allowed to save time and money significantly.

There is no single, universal, effective CRM system. This is caused by the specific companies. It is difficult to create a system that will be well checked in

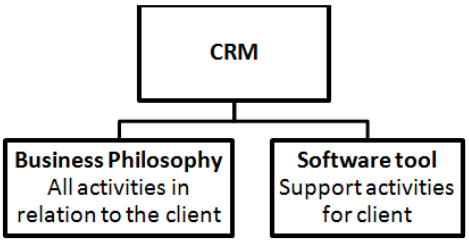

Figure 1. Understanding of CRM definition

companies with very different specializations. Thus formed the core modules, systems, checking in every kind of areas with the possibility of extension to other modules relevant to specific industry. There are also in the market possibilities to order custom software for specific company, and recently more and more popular open source solutions.

The concept of CRM can bring enormous benefits to the company, both strategic and operational, and significantly improve its functioning and performance. This awareness can also help to implementation such solution in the right way [3].

3. Logistics Customer Service

3.1. Problem to solve

Should be answer the question, for what reason most customers are disloyal? According to Mueller [4], about 15% have found a better deal and better quality products. The same has decided to cheaper products. 20% have changed supplier because of dissatisfaction with the way of delivery, and as much as 45% due to lack of interest from companies and inadequate service.

As it might seem, the poor quality of the product or too high price should be a major factor in initiating customer dissatisfaction. However, the quality of service is far more important. Graph in Figure 2 shows that the most important factors are the lack of interest on the part of providers, combined with inadequate and unsatisfactory service delivery of the product. The key is therefore to focus on these areas, to ensure proper handling of the product quality. This will then reduce the cost and will not generate new ones.

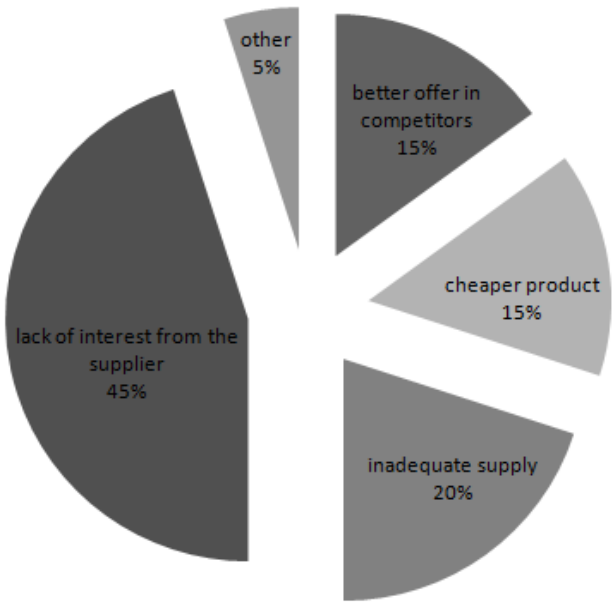

Figure 2. Why customers leave?

Therefore, the main objective of the system is the concept of customer orientation, consider the desires and expectations. It is necessary to in-depth analysis of the needs to improve the level of satisfaction. Expect high quality customer service, accurate information and quick access to them. The question is what can be achieved by knowing the depth of its customers – Figure 3.

Knowing the customer perfectly the company has a chance to meet his expectations and even exceed them – this is the step to gain his trust and loyalty. We can supply them exactly the product, which is expected, since we know his preferences, we are also able to provide a customer with a very good service and support. Also it allows to save budget by hitting customers who gives the opportunity of cooperation and the effort is not wasted on those who never takes advantage of offer. Knowing the customer, the company also knows how to make this offer to put attention on things which likes customer.

The main objective, therefore, is to create long lasting relationship with customers and maintain the loyalty. This is done through a customized approach to it. It is therefore important synergy as a result of customer relationships, increase their

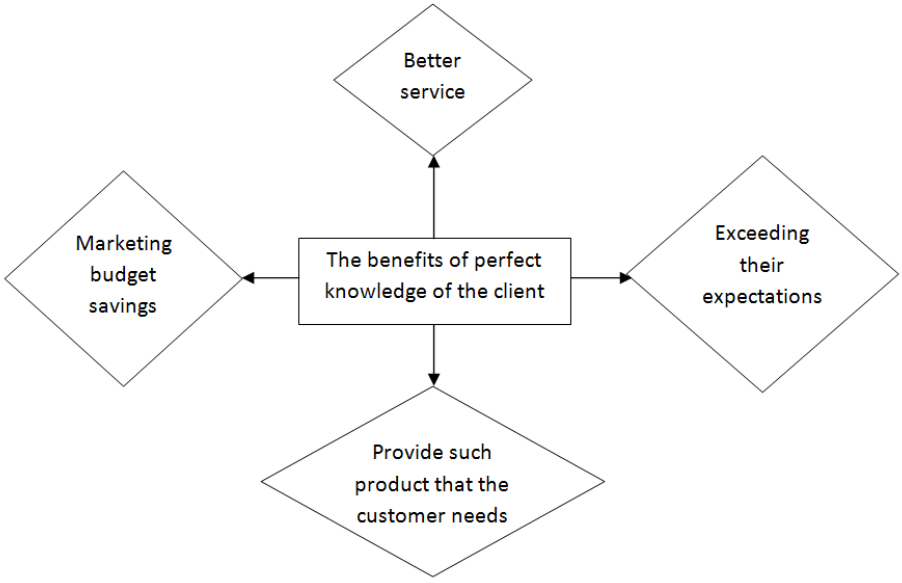

Figure 3. The benefits of knowledge of the client

profitability and expand the family of satisfied customers. Individual approach is thus characterized by certain behaviours. Namely, not all customers are treated equally, the need for major clients are examined very carefully, it is for them more flexible. The company focuses on the relationships of the most profitable group of customers. Stanusch cites in his book that his company studied only 12% of customers generate 80% of the profits [5]. This is consistent with the Pareto principle, where 20% of customers bring 80% of the profits. It is therefore important to focus on the most important client group, because they are ones who generate a large profit.

3.2. Idea to solve

An application designed for inventory management with particular emphasis on effective customer service.

The application includes basic tasks that are associated with problems to solve, and additional tasks that must exist to allow the solution of basic tasks.

- Basic tasks:
  - The solution of the distribution range of stock and update with regard to selected criterion.
  - Solving the problem of the determination of the minimum range is stored in the warehouse.
  - The solution of reserving product that was ordered.
  - The solution of the problem connected with the client: reporting its activity and determining the strategic importance of the customer.
- Additional tasks:
  - The related service store, acceptance of the goods to the warehouse, delivering goods from the warehouse.
  - The related service contract, that is the possibility of placing an order for a customer to inform him about the status of an order, reservation of a specific quantity of goods in stock ordered by the customer.
  - Client management, that means the customer can be added, edited customer's information, looked history of orders.

3.3. Solution

The main goal of the system is focus on the customer – depth analysis of the needs to increase its level of satisfaction. This paper identifies actors and use cases for customer management system – enabling the establishment of the order and its realization, as well as to manage warehouse.

Actors appearing in the system are introduced in Figure 4.

The first user of the system is the *Guest* who can register or log in.
User of the system is the *Client* who is logged in – then the client can edit his information (selected), look through the offer, place an order, check status of the order or view order history.
User of the system is the *Warehouse worker*, which (after login) has the opportunity to review the orders, filtering depending on the specific key, status changes depending on the stage of the order. The employee also supports the storage, he has the ability to edit existing inventory (e.g. receipt of goods to the warehouse

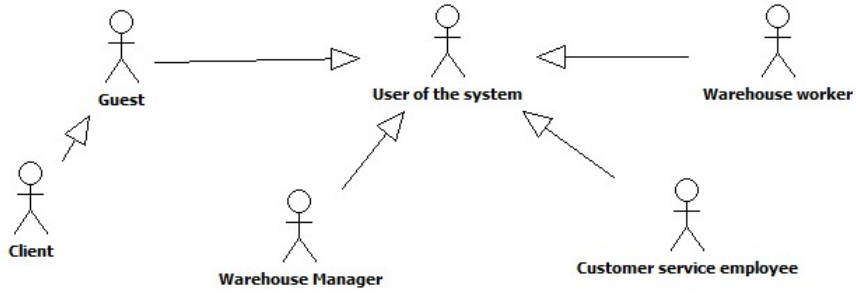

Figure 4. The actors in the system

while picking), edit the data relating to the goods, as well as adding a new product. User of the system is also the *Customer service employee*, which has the ability to assess the activity of the customer to determine for the company.
The final user is the *Warehouse manager* that manages warehouse, determines the spread range in stock (depending on chosen method and selected criterion), and determines the status of the minimum individual commodities.

The most important use case diagrams are shown in Figure 5, and some of them are described in more details.

Use case 1: Sign-up The client (who do not have accounts in the system) through a well-prepared form on the website sign up. The data is stored in the database, and it confirms the activation link via the email – after logging in, he/she has access to the functionality of the system.

Use case 2: Login The client (with an account in the system) through a well-prepared form on the website logs in to the system. The user-name and password are verified. When the data are correct he has access to the system, the error - need to re-enter the data.

Use case 3: Review the company's offer The client (with an account on the system or not) is looked through products company, has the ability to search for a specific product or group of products, sort the information on the goods.

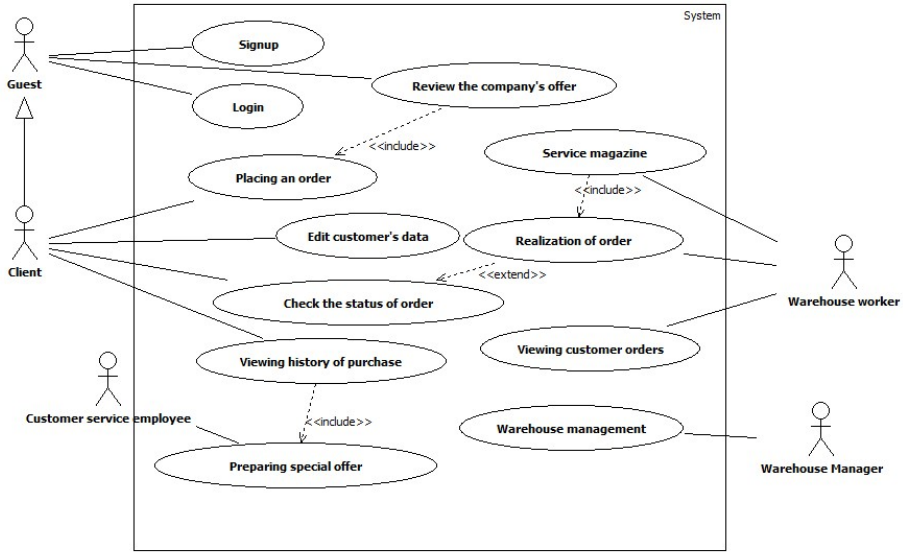

Figure 5. Use case diagram for the system

Use case 4: Placing an order The client (off-line) fills out a form, which is checked for accuracy of the order (fill fields, as well as many products you order – whether they are in the right quantity in stock). If the form is correctly filled in the order is written in database and booked store products in stock - Figure 6.

Use case 5: Edit customer's data The client (off-line) edits the form in which the client's data is available. If the form is correctly filled, data is written, otherwise the data is not changed.

Use case 6: Viewing history of purchase The client (off-line) are reading so far made/completed orders. It has the capability of sorting, filtering, search.

Use case 7: Check the status of order The client (off-line) can check the status of order. He/She has the following options: placing an order, the order adopted for the realization (the order for which payment has been confirmed and has been transferred to completion), the order ready for sending / receipting, order made. In

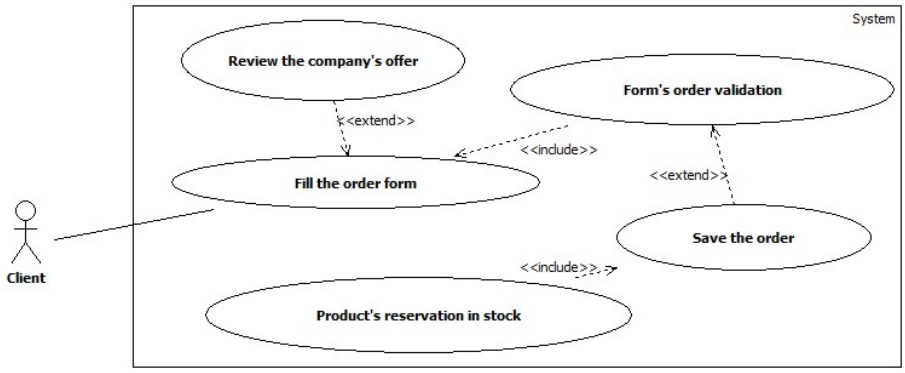

Figure 6. Use case diagram for placing an order

the system is also rejected status of orders with information about the reason for the rejection, which at some stage has been completed.

Use case 8: Viewing customer orders Warehouse worker (off-line) are reading previously placed orders to be processed. He/She selects one, which is the first in the queue (the order of submission of orders by customers).

Use case 9: Realization of order Warehouse worker verifies orders placed by customers (their correctness and payment). If the order is not correct, the status is set to reject an order, otherwise the order status is set adopted for realization. Then the warehouse worker receives the order to collect - follows completion of the order (change in the store) and preparing orders for transportation – change in order to order ready to send / receive. Depending on the delivery option (selected in the order form), the order is sent / received. After sending / receiving of goods order status is set to made – Figure 7.

Use case 10: Service magazine Warehouse worker has the opportunity to store the goods in stock, add new, updated data about goods, as well as upgrade of the stock (e.g. the receipt of the goods to the warehouse or during completion).

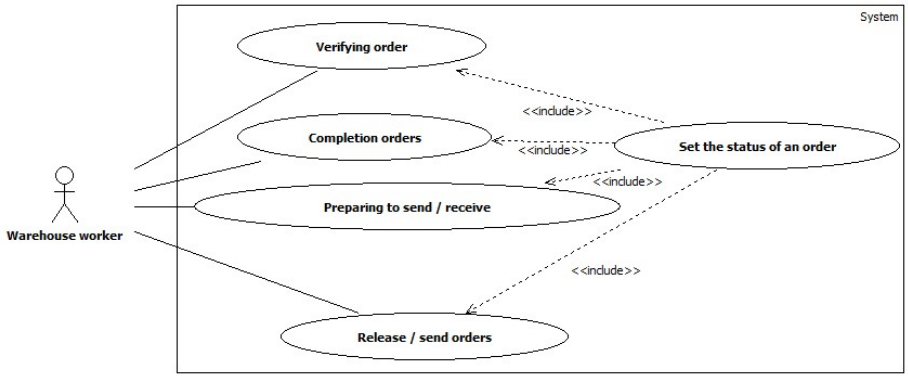

Figure 7. Use case diagram for order realization

Use case 11: Preparing special offer Customer service employee has the opportunity to review the activity of client orders. After searching the customer checks the story of his orders, the value of, and activity within a specified period of time, and on that basis decide about customer's strategy for the company, which may be associated with the special offer preparation.

Use case 12: Warehouse management The warehouse manager can also trace the distribution of goods in the warehouse, as well as decides on a different distribution of goods in the warehouse, on the basis of the analysis distribution according to the different criteria. Also determines the minimum range and is able to generate orders for replenishment of goods, when the level is exceeded. He/She also has an impact on the way of deposit products in the store – Figure 8.

4. Conclusions

While reporting the principle 7*R*, make sure that the proposed solution is likely to support the company's strategy so as to be compatible with this principle.

The proposed solution allows for better organization of the warehouse, which helps to maintain or even increase level of customer service. Better inventory management, through appropriate arrangement of products in stock, can increase the effectiveness of the orders realization. Additional features in the system allows the

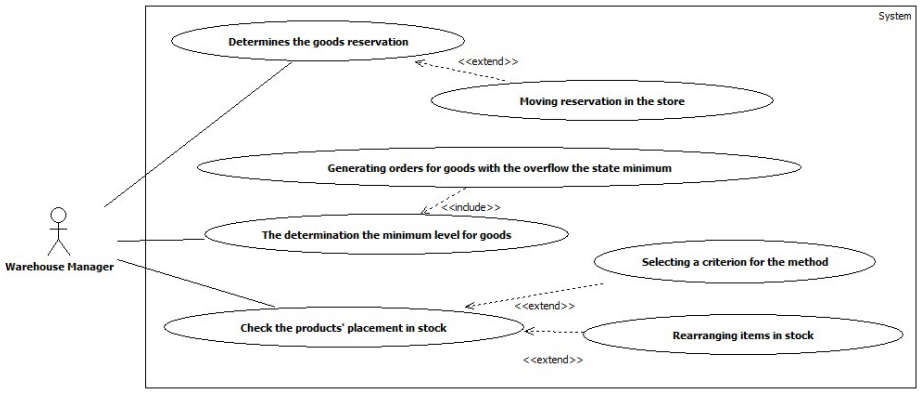

Figure 8. Use case diagram for warehouse management

customer to track execution of the order, which attaches it to the company. Such customers will be more likely to buy a next product, and thus can become a strategic client. This solution is of course a change in the mentality of employees who need to understand that better inventory management, better customer service is the starting of any business development.

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