A Case Study on the Customer Loyalty through CRM: -Focused on the Uzbekistan's Mobile Telecommunication Companies-

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CRM을 통한 고객충성도에 관한 사례연구

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Abstract The main objective of this research is an increased understanding of how a supplier can successfully manage its care business in the mobile telecommunications market. In order to carry out this purpose, Uzbekistan's mobile telecommunication market has been studied as a case study in this research. The study tried to identify the forces and the factors present in CRM, and the role of these in enhancing (endangering) business. The objective was to gain a better understanding of how customer could be successfully managed and treated through CRM system. Processes and measures of customer satisfaction and loyalty provide two main aspects of the study. The importance of the concept of care and the actions that define it were found to be critically important for creating loyal customers. The relation between customer's needs, satisfaction, and loyalty, and how these ultimately relate to a providing firm's profitability, were seen to be linked in complex ways. The complexity can be studied in many ways but herein the customer satisfaction-loyalty of each event was first evaluated separately. Customer satisfaction and loyalty were then related to each other in order to compare the separate and combined characteristics.

Key words: CRM, B2B, Care phase, Central person, Snowball sampling, Customer compass.

요 약 본 연구의 목적은 모바일 정보통신 시장에 있어서, 이에 관련한 공급자가 어떻게 성공적으로 기업을 관리함으로써 고객 충성도를 증대시킬 것인가에 대한 것이다. 이러한 목적을 달성하기 위하여 본 연구는 우즈베키스탄의 모바일 정보통신 시장을 사례분석 함으로써 외국의 경우를 고찰하고자 하였다. 본 소고에서는 우선적으로 CRM의 영향력과 제반 요인들이 CRM 시스템을 통하여 고객 이해력에 의한 충성도를 제고 시킬 것인가를 분석 검토 하고자 하였다. 고객의 욕구와 고객 만족, 고객 충성도의 관련성들이 어떻게 기업의 수익성과 연계되어 발생 하는가 는 여러가지 복잡한 방법들과 관련되어 있는 것으로 나타났다. 본 연구의 특징은 외국의 사례를 중심으로 고객만족과 고객충성도의 관련 속에서 분리한 경우와 결합한 경우의 특성들로 각각 분석 고찰 한 점이다

1. Introduction

The world around us is changing quicker than ever before. Paying attention to that as competition among businesses getting tougher and tougher the survival in this competition is also getting more difficult. Nowadays sustaining of the business not only depends to consumer markets but it also highly depends to business partners, who are the core for running the businesses. Customer satisfaction and customer loyalty have been the focus of several researchers in the 90's, and most of the studies were conducted in consumer markets, whereas the present study focuses on the B2B environment. The study was undertaken to clarify certain questions related to the care phase, where the creation of loyal customer plays an important role. The research was conducted to clarify a service manager concept and its plausibility

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in the example of Uzbekistan's mobile telecommunication markets. As the existing literature on the after sales activities is limited, the idea of the research set up was extended to cover services that are provided to the customers during the care phase. The research questions additionally involve practical problems related to the service manager concept. A central question is how to manage the customer relationship in order to gain satisfied and loyal customers.

2. Objective and Scope of the Study

The failure reason for most of the businesses in high-tech industry is the flexibility of customers. Flexibility mostly occurs because most of businesses can't properly understand the needs and demands of their customers in after sales phase, which includes additional care by providing after sales services. Especially high-tech industry needs more attention as high-tech equipments require skills and quick services when they need to be served. That is why customers' flexibility increases when producer has no close relationship with its clients and fails to provide services in time.

With the purpose of understanding of how well supplier successfully managing its care business in the mobile telecommunication markets of Uzbekistan the study has been specified into three questions:

- I. What are the perceptions of the supplier and the customer in the care phase, particularly within the importance of the services, customer satisfaction and loyalty relating to those services? Is there any difference in the view of supplier and customer?
- II. What are the characteristics of care services in terms of customer satisfaction and loyalty?
- III. What are the communication networks between supplier and customer? How is the role of the service manager defined in the supplier-custo mer relationship?

The study considers both the supplier's and customer's points of views. The customer-supplier relationship consists of interviewed customers and

interviewed supplier personnel involved with those particular customers. The research focuses on customer satisfaction and loyalty and how the two parties perceive them.

Successful CRM - Getting the People, Process, and Technology Mix Right

Reichheld, Sasser (1990) and Reichheld (1996) have studied customer lifetime value and the value of building customer lovalty by listening to complaints, anticipating their defection. and understanding why customers move to competitors. Their conclusion was "Customers remain loyal because of the value they receive from the supplier. An organization must realize that its relationship with its customers must evolve just like a courtship. Mutual loyalty and trust must be built gradually selectively. The enterprise that builds relationships wins the battle for customers".

Keeping the customer satisfied requires that the supplier identify the dissatisfaction in the customer organization, respond to it, recover the situation, and provide something extra for the customer. Defected customers can be used as an early warning signal, and those customers should be asked why they left the supplier. With the use of information technology, a supplier can continuously analyze trends and management can be alerted if a pattern of customer loss begins to develop [1].

Table 1. Developing the right mix of people, process, and technology

Key CRM Implementation Activities	Most Relevant Components		
Determining business requirements	People, some process		
Setting up project management team	People, some process		
Integrating legacy and other needed systems	Technology		
Customizing the CRM software	People,process, technology		
CRM system pilot	People, technology		
CRM system roll-out	People, technology		
CRM system support	People, some process		
Growing your CRM system	People,process, technology		

CRM success requires the integration of every aspect of business that touches the customer - including people, process, and technology revolutionized by the Internet. Each component presents significant challenges, but it is the ability to integrate all three that makes or breaks a CRM system. Table.1. provides a genetic model for understanding how the people, process, and technology mix changes key CRM implementation activities [2-3].

When a company is ready to set up their CRM project management team, the people component plays a critical role. Process is also important. Technology, however, plays a minor role at best in setting up the CRM project management team. Technology is the key for developing, modifying, and deleting screens and for navigating between screens. Process is important for driving workflow development. People are critical for ultimately judging how to well the customizations meet their needs as well as for commenting on how the workflow impacts the overall user friendliness of the system.

4. Methods and Materials

The central themes of the research, which are supplier-customer communication, the service manager concept, the impact of care for customer satisfaction and individual services, are described. The study explains how communication networks were created, how the impact of the care was studied, and each of the studied services are briefly described. Finally, the customer compass is described and explained.

4.1 The Supplier and Customer

The supplier is a large company with a global network of research and development, production, distribution, sales, and customer services in Uzbekistan. The supplier is a front-runner in terms of networks and related services for the operator customer - Perfectium Mobile. The supplier offers systems and infrastructure for both analogue and digital networks. Operations in the country have been organized around account team that has business

responsibility for a certain customer.

Customer and the supplier company have had a long business relationship with each other over a decade. The current mobile network has been in use for over five years. The supplier is currently the sole supplier of the core mobile network. Previously, there were other suppliers, but in recent years the supplier has become the sole supplier. In addition, the supplier additionally provides equipment to other customers in the market area, but customer is considered the most important of these customers from the supplier's point of view. Currently, customer focuses on the operation of the network. The heaviest expansion of the network has been completed. The growth rate of the number of subscribers is slowing, but revenue continues to grow rapidly. The customer focuses on expanding capacity in "hot spots", locations that have capacity limitations, and maintaining or improving the quality of the network. This situation shows that customer is mature and the growth rate of the subscribers is already slowing, but still the subscriber invoices are growing steadily.

The role of the care services has traditionally been to support the existing operations. The care services always been delivered together equipment sales. The care organization has been around the service manager, who responsible for the care services, and the personnel in the care operations engineering backgrounds.

Normally, when a customer has taken the network into commercial use, the ownership of the network has transferred to the customer. Therefore the transition from the project to the care phase has been completed when there has been a customer acceptance for the equipment [5].

4.2 Data Collection

In the present study, several data collection methods were used. The main means of data collection methods were documents, archives, interviews, and direct observations. The internal material of the company was used extensively. The documents and archives included such issues as after market strategy and information on care services and customer

satisfaction in various services. Study includes both qualitative and quantitative data and that the use of both can be highly synergistic.

The interviews were carried out between May and November 2001. Regarding the selection interviewees, snowball sampling was used [6]. The service managers told researchers with whom they were in more frequent interaction and who would be valuable person to interview with regard to care phase issues. In addition, the service managers had to say who could be accessed for interview. Interviewed customer personnel represented high to high-middle management of the customer organization. For the most part, those selected were people in charge of the operation and of the maintenance of the customer mobile network.

4.3 Analysis of Customer Contacts and Relationships

Interviewees were asked about their contacts in order to identify the key contact points in both the customer and supplier organizations. The interviewees were firstly allowed to name people, and then they were shown diagrams of the customer and supplier organizations to help them with the nominations. Finally, the interviewees were asked if they still had some contacts that they had not nominated and were asked to nominate those persons. When people were asked about their contacts, they were also asked about the frequency of communication. The options were daily, weekly, bi-weekly, monthly, or quarterly. In the study, only the frequencies of monthly or more frequently were counted as contacts with the person. If communication was more occasional, it was considered special and of lesser value when it comes to the identification of central people.

In order to identify the central people for the customer-supplier relationship tables for the selection of the central people were created. The tables clarified the number of nominations that a person had received from the supplier and customer interviewees and included a column for the relative degree of contacts. The relative degree of contact is calculated from the number of nominations divided by the total number of possible nominations for the person to be contacted by

both the supplier and customer people. In order to bring more objectivity to the selection of the central people, the interviewee's own judgment was ignored, when the person was asked whether he or she was a central person. The central people were selected based on the nominations given by the other interviewees, who had been selected based on snowball sampling. Table.2. shows whether person is categorized as central or non-central person.

Table 2. Classification of interviewees based on their contacts

Degree of Contacts	Person's Interaction	Type Not a central person	
Below 50 percent	Low		
50 75 percent	Medium	A central person	
Higher 75 percent	High	A central person	

In addition, director or chief officer level personnel in the customer organization were selected as central people, those who have organizational power to decide on financial issues independently of the number of contacts with the supplier or customer organization.

4.4 Analysis of Customer Satisfaction and Customer Loyalty, with respect to Services

Service I consists of tasks that can be divided into three categories: local support for customer enquiries related to equipment or services, the correction of possible software faults in the system, and delivering new or enhanced features to the customer's mobile network with new software. The software in question in service I is mainly related to the software produced by the supplier for its own equipment. There is no other manufacturer for the this equipment. Service I can be software for classified as having elements of maintenance. preventive maintenance, and additionally enhancing the capabilities of the mobile network.

Service II represents a repair activity of the pieces of equipment delivered by the supplier. The supplier's responsibility is to repair equipment and deliver functioning pieces of equipment back to the customer. The customer agrees with the supplier about the

characteristics of the service and service levels beforehand. The customer sends pieces of equipment for repair as they fail. The supplier is, in most of the cases, the only manufacturer capable of repairing the pieces of equipment.

Service III is used for dealing with emergencies that can appear in the mobile network. Service III provides maintenance service to the customer. The customer has direct access to the supplier's experts, who can give advice over the phone, solve the problem by themselves remotely or on site depending on what the customer needs and requests. The customer purchases the service to cover a certain period of time.

Service IV is related to training the customer how to utilize supplier's pieces of equipment. The training can be divided into theoretical and practical training. The supplier provides different levels of training depending on the customer's needs and its personnel's level of competence. Depending on the individual components of service IV, it can be classified as either preventive maintenance or as enhancing the capabilities of the customer and its mobile network.

The analysis of each individual service was started by plotting all the individual scores to the same satisfaction-loyalty matrix. The use of qualitative and quantitative data that the interviewees provided give a rather accurate estimate of the relationship between customer satisfaction and loyalty in different services, as in the present study there was an effort to perform both a quantitative and qualitative analysis. An interval scale was used, and means and standard deviations were calculated for the supplier and the customers. For both of groups, averages for the entire sample and for the central people were calculated. The entire sample additionally includes the scores provided by the central people.

4.5 Customer Compass: Means to Evalu ate Customer Relationship

Customer relationships can be divided into several dimensions. Customer portfolio management handles the selection and management of customer relationships. Companies can increase their value for their customers by choosing optimal positions to suit

their markets. With customer compass, one can gain an overview of the position of the customer-supplier relationship. Customer portfolio management handles the selection and management of customer relationships. Value proposition design is concerned with a company's contribution to its customer's value chain. Value added role refers to a company's position within the industry's value added chain. Reward and risk sharing is tied to the basis on which customer and supplier interact to create and share value.

5. Results of the Study

All the interviewees in the customer and supplier company (each n = 15).

Table 3, Selection of supplier's and customer's central people

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People	Supplier contacts	Contacts/l		Relative Degree of contacts (%)	Interaction
		Suppl	ler's central peop	ole	
AM1	7	7	14/15	93	High
SM	7	5	12/14	86	High
AM2	6	5	11/15	80	High
PM	4	5	9/14	64	Med
AM3	3	4	7/15	47	Low
NCP	3	2	5/15	33	Low
		Custo	mer's central peo	ple	
OD	6	6	12/15	80	High
DD	4	6	10/14	71	Med
ID1	5	4	9/14	9/14 64	
DM	4	5	9/15	60	Med
ID2	3	2	5/15	5/15 33	
NCP	1	2	3/14	21	Low

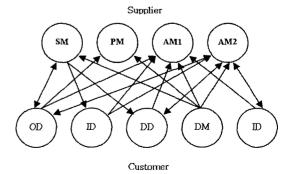


Fig 1. Communication network between the supplier's and customer's central people

Table 4. The importance of the care phase in Case

	Care is not as important as sales	Care and sales are equal	Care is more important than sales	N/A
Supplier (15)	0	3	8	4
Customer (15)	0	5	8	2

Table 5. Most important services (in percents)

	Supplier (15)	Customer (15)	Supplier's Central people (5)	Customer's Central People (5)
Service I	83	93	69	93
Service II	37	35	47	17
Service III	37	22	47	37
Service IV	18	23	21	18
Internet Solutions	11	14	1	21
Service Manager	10	24	0	19

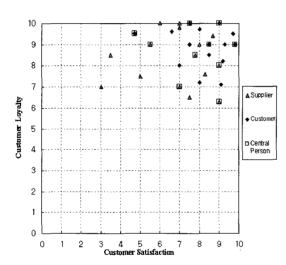


Fig 2. Customer satisfaction-loyalty matrix for service I

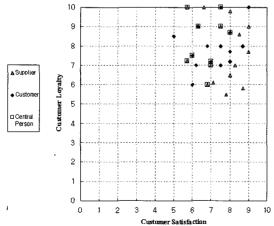


Fig 3. Customer satisfaction-loyalty matrix for service II

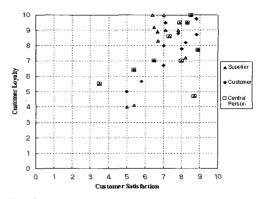


Fig 4. Customer satisfaction-loyalty matrix for service II

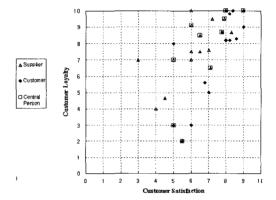


Fig 5. Customer satisfaction-loyalty matrix for service IV

Table 6. Supplier's and customer's satisfaction and loyalty scores with respect to services

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Services	Satisfaction	Loyalty	Satisfaction	Loyalty
Service I	Supplier	Supplier (15)		ier (15)
M ean	6.82	8.27	8.16	8.89
St. de viation	1.88	1.26	1 36	0.92
Service I, central people	Supplier	(5)	Custon	ner (5)
Mean	7.66	7.76	79	9.5
St. deviation	1.48	1.1	1.97	0.5
Service II	Supplier	(15)	Customer (15)	
M ean	7.17	8.00	7.58	7.68
St. de viation	1.11	1.11	1.08	1.60
Service II, central people	Supplier	(5)	Customer (5)	
Mean	6.96	8.48	6.54	7.85
St. de viation	0.83	1.14	0.81	1.62
Service III	Supplier	(15)	Customer (15)	
M ean	6.81	7.67	7.41	7.91
St. de viation	1.36	2.13	1.28	1.52
Service III, central people	Supplier (5)		Customer (5)	
Mean	7.08	7.06	7.52	8.12
St. deviation	2.06	2.02	1.5	1.57
Service IV	Supplier	(15)	Customer (15)	
M ean	6.07	7.60	7.36	7.25
St. de viation	1.45	1.72	1.40	2.79
Service IV, central people	Supplier (5)		Customer (5)	
Mean	6.5	8.12	709	6.74
St. de viation	1.1	1.31	1.72	3.92
Service Manager	Supplier (15)		Custon	er (15)
Mean	7.9	7.31	7.44	6.25
St. deviation	0.90	1.42	2.50	1.90
Service Manager, central people	Supplie	Supplier (5)		mer (5)
Mean	7.47	6.9	8.07	7.01
St. de viation	0.9	1.45	0.71	2.33

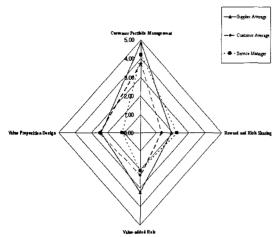


Fig 6. Customer compass

6. Conclusions

Research area of this analysis covered mobile telecommunication market of Uzbekistan, in which two companies were selected and studied, from the point of after market sales activities in B2B environment. Analysis of case study approach gives as results that customer was at the mature stage and all services, which were provided by supplier, were almost with high quality. Creating loyal customer through CRM system was implied successfully. Following results can be concluded:

- 1. The importance of care phase to customer satisfaction is higher than the relative sales of the care phase compared to total sales. Care phase is considered more long-term and is а common phenomenon in the customer's network, and thus it more critical to customer. A better reception of customer's ideas and a better response to those ideas was seen as a way to improve customer satisfaction and loyalty. When the problem arises, a prompt response to customer demands and quick problem solving are key issues.
- 2. Both the customer and the supplier considered service I as the most important service. Other important services were services II, III, IV, Internet solutions, and the service manager. The supplier had a more negative perception of the supplier's services

than the customer's own personnel did. The service manager concept was seen as positive and value-adding. The nature of service I is captive, as customer loyalty is higher than satisfaction.

The customer believes that, as long as the supplier's equipment is used in the network, the customer is forced to purchase the service. Findings indicate that the customer's loyalty for service I may not be as high in the future as it has been so far. The reason for this is the arrival of new technological solutions.

In this situation supplier should be more creative in software technologies, which are completely suite to customer's demand, and the implementation process of these technologies should be lead by the mutual efforts. Equipments also should be changed often by the new ones as the modern competitive environment require it and the situation shows that used equipment almost in the stage of declining phase.

The customer's evaluation on service II was that it was working at least satisfactorily. Service II has not experienced any dramatic issues, apart from some component problems and design failures.

According to service III, loyalty received higher scores than did customer satisfaction. This further indicates that this service is a service that the customer is forced to buy. There were only a small number of complaints about the service or on perceptions of how the service was assumed to perform.

Service IV has produced welcome progress by building systematic training courses for the customer. Service IV should be quickly available and tailored when necessary. In general terms, the courses are run professionally and are of high quality. The contents of the courses and their material are good, but the contents of the courses should be discussed with the customer before the courses take place in order to tailor individual courses.

It appears that in Internet solutions, the supplier believes that they would be capable of re-selling the service, whereas the customer remains more skeptical.

3. The service manager is a clear contact point that clarifies matters, and the customer is not forced to

deal with many people. The service manager has been considered extremely useful when problems arise and someone is required to coordinate the process.

The critical points of this case study approach could be:

- 1. Because the data in the present study were gathered from the customer of a single supplier, deep observation was possible, but at the same time the general findings may not represent the realistic situation within the market as the data in the case was limited in terms of some information privacy.
- 2. As the nature of the care phase services, which considered as the most important source for identification CRM, has been studied through customer satisfaction and loyalty, this may not provide a complete picture of those services, but rather provides an approach to studying services. Therefore, the use of the studied services should principally be viewed from the perspective of how they reflect to a customer.
- 3. The present study suggests that it may be possible to determine satisfaction-loyalty curves for the different services that were identified in the care phase. The shape of satisfaction-loyalty curves remains a subject for further research, which could increase the amount of the data and number of customers. Thus, one could carry out more extensive studies on services using statistical methods.

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