

Methodical Aspects for Measuring Customers' Satisfaction of eServices in Automated CRM Systems

Roumiana Y. Ilieva¹, Delyana Gashurova²

Abstract The main purpose of the paper is to identify a method for measuring customers' satisfaction of eServices in CRM systems. The research is conducted through elaborate overview analysis of enterprises using ERP systems. On the bases of the analysis suggestions for companies relying on CRM systems, a conceptual agenda for agile BI monitoring of service quality and client's perceptions is proposed.

Index Terms: Customer Intelligence (CI), Business Intelligence (BI), CRM, ITIL, service delivery, service quality, customer's satisfaction, customer survey.

JEL: M31, M37.

I. INTRODUCTION

Stimulated by the dynamic changes in business environment E-commerce and B2B have increased their significance during the last decades. Interaction between growing competitiveness of business organizations and technology development have forced companies to find a way of evolving and keeping up with market trends. Some of the main challenges that business units need to cope with are the adequate variety of services in their portfolio, service standards and effectiveness, flexibility and customer's loyalty. Focusing on client's relationship and customer retention is a common approach when aiming at sustainable business development and organizational agility. In order to have a real glance at their market position, management board need to put priority on measurement and monitoring of customers' perceptions of provided services.

In correspondence with technology innovations and emerging solutions on the market, many companies invest in Customer Relationship Management (CRM) systems. This is preferred method for delivering better customer value. CRM can be described as an enabler factor for higher standards of service effectiveness and continuity in service delivery. A fully integrated system for customer relationship management provides easiness in management from the first point of contact with client through all the phases of customer support and later on.

The aim of such systems is to maintain close relationship with clients and strengthen the competitive and sustainable advantage of the services they provide customers' satisfaction.

These systems also provide managers with complete and timely information for management decisions and ensure effective data exchange with business partners. However, few companies have invested effort in terms of having a continuous measurement strategy of CRM that can signal potential dips in real-time.

Subject of this study are the Customer Intelligence (CI) or Business Intelligence (BI) techniques for monitoring the customers' satisfaction of eServices provided in CRM. The main objective of this paper is to derive a conceptual agenda for agile measurement of customers' satisfaction in order to achieve an appropriate structure for further evaluation and enhancements of services characteristics. This paper, at the same time provides a brief review of some of the relevant approaches that have been used for such purposes.

The research is divided into four main parts. First one presents a state-of-the-art on issues in relation with CRM and companies strategy for gaining competitive powers. Second part explores the concepts of service delivery, quality of service, methods for measurement of quality and customer's satisfaction and retention. Third part derives a conceptual agenda for monitoring the customer satisfaction through the techniques of a survey. The last section discusses and summarizes the conclusions seeking to present some suggestions for the future development in this area.

II. CONCEPTS OF SERVICE DELIVERY AND CUSTOMERS' SATISFACTION

The study focuses on service delivery and how it affects clients' perceptions and evaluations. According to Grönroos, C., 2001, a service is a process that leads to an outcome during partly simultaneous production and consumption processes. ITIL defines a service as "a means of delivering value to customers by facilitating outcomes customers want to achieve without the ownership of specific costs and risks." In other words customers obtain benefits by renting the right to use a physical object, to receive an expertise or support from a competent personnel, or to pay for access to facilities and networks. In this way customers gain benefits without becoming an owner of the service itself. Quality of services is subjective

¹ Roumiana Ilieva is from the Faculty of Management, Technical University of Sofia, 8 Kliment Ohridski, 1000 Sofia, Bulgaria

² Delyana Gashurova is a PhD student at the Doctoral School at the French Faculty of Electrical Engineering for the needs of the English Language Faculty of Engineering, Technical University of Sofia, 8 Kliment Ohridski, 1000 Sofia, Bulgaria

matter depending on the group of users and area of service. Therefore there is no consensus on a definition for quality, yet there are some key points that are common to almost all the definitions of quality, such as perceptions, expectations and the actual outcome experienced by the customer (Cudjoe, A., et al., 2015).

Service quality as perceived by the customer is the degree and direction of discrepancy between customer service perceptions and expectations (Parasuraman et al., 1985). As defined by Grönroos, C., 1984 service quality is a perceived judgment; resulting from an evaluation process where customers compare their expectations with the service they perceive to have received. Therefore, quality can be defined as the perceptions customers have gained compared to their initial needs and expectations. Client's evaluations are the response to customers' needs and demands compared to what the service provider has offered them. If we proceed from common definitions of service quality that are present in literature, we can summarize that meeting customers' needs and requirements and how well the service delivered matches their expectations is the key to high levels of customer satisfaction.

The ability of an organization to determine customer needs and to effectively meet their demands has a great impact on service quality. Therefore main objective of any business is keeping high levels of service quality, as a method for ensuring high competitive powers. Companies that take in consideration what are the levels of their customers' happiness from service delivery grow and flourish, by establishing a strong relationship between client and vendor. Yet there are many companies that do not put a high priority on these metrics. This is partly due to the fact that measuring customer satisfaction is not as straightforward as e.g. measuring systems' availability and performance, thus making it hard to set up clear goals.

Because of these complexities, various measuring models have been developed for measuring perceptions of service quality (Grönroos, C., 1983; 1990; Parasuraman et al., 1985; 1988; 1991; Stafford, 1996; Bahia and Nantel, 2000; Aldlaigan and Buttle, 2002). The SERVQUAL model of Parasuraman et al. (1988) proposes a five-dimensional framework of perceived service quality: tangibles; reliability; responsiveness; assurance; and empathy – with factors reflecting both expectations and perceived performance. According to Gabbie and O'Neill, 1996, SERVQUAL instrument uses 22 questions evaluating the performance across the five determinants, using a seven-point Likert scale measuring both customer expectations and perceptions. Positive results of Service Quality Index (evaluation of the service is greater than the expected one) is considered as high quality service.

Customer Intelligence (CI) is a key component of CRM. CI enables to get insight into customers' behaviour by analysing customer data. Using Business Intelligence (BI) methods a company is able to describe, predict and influence customers' behaviour. Data Mining or knowledge extraction is the application of a scientific method to data to obtain useful information. The heart of the scientific

approach to problem-solving is rational hypothesis testing guided by empirical experimentation.



Fig. 1. Data visualization in a BI system

Data mining attempts to answer the following questions:

- ✓ What kinds of patterns are in the information?
- ✓ What are the main characteristics of these patterns?
- ✓ Can meaning be endorsed to these patterns and/or their changes?
- ✓ Can these patterns be presented to users in a way that will facilitate their assessment, understanding, and exploitation?
- ✓ Can a machine learn these patterns and their relevant interpretations?

The pyramid in Figure 2 shows the main building blocks of a business intelligence system.

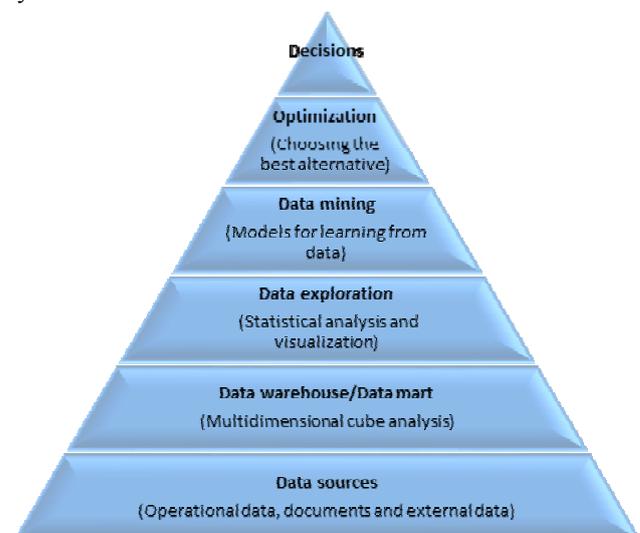


Fig. 2. The main components of a BI system, according to Vercellis, 2011

III. A CONCEPTUAL AGENDA FOR SATISFACTION MEASUREMENT

There are several ways to gather input from customers. The simplest way to find out how customers feel and what they want is to ask them. The most efficient and economical way to measure customer satisfaction is to create customer satisfaction surveys with the help of a survey software solution. An advanced survey software solution can manage various survey research methods – create the same survey in different formats; include online surveys, email surveys, paper surveys, mobile surveys, and telephone surveys – depending on the preferred way to reach client. The purpose of this type of survey is to gauge how satisfied are customers from the services provided. The end goal of a customer satisfaction survey is to get customer feedback based on which corrective actions can be taken in order overall customer experience to be improved. One of the main advantages of performing customer survey is collecting feedback on various aspects of the eServices in CRM. Regularly scheduled online surveys or email surveys, thus receiving instant customer feedback assures the accuracy in a timely manner. Customer surveys with standardized survey questions insure collection of the same information from all target groups. By launching a customer survey as an attempt to find out how services can be improved, customers will feel less put upon.

Some of the dimensions commonly used for measuring service delivery with surveys are:

- ✓ quality of service
- ✓ speed of service
- ✓ pricing
- ✓ complaints or problems
- ✓ trust in employees
- ✓ competence of personnel
- ✓ types of other services needed
- ✓ the closeness of the relationship with contacts

Overall process objective is to measure and report the satisfaction from eServices delivered to the customers and identify relevant improvement actions and plan. Performing evaluation of services based on surveys is complex method containing multiple steps.

In the proposed agenda for customer satisfaction survey can be seen the main concepts standing behind implementation of this monitoring method. Main actors in the process are the leadership team, survey administrators and the clients. Survey process is divided in the following 3 phases:

A. Survey preparation

In this phase survey administrators are responsible for design of the questionnaire and timelines for execution or updates of the already existing ones. Next step is approval of the prepared calendar and questionnaire by the responsible leadership team of the company. Measuring customer satisfaction must be a continuously, consistent, timely, accurate and reliable process which is why it is recommended to be scheduled on monthly or weekly bases depending on the approved calendar. When the proposed changes are accepted survey administrators need to collect and extract the necessary recipients' information like names, address, email etc.

B. Survey execution

Once completion of user details extraction is done surveys are sent to the customer. If there is no response from clients after a certain period of time a reminder is sent. Closing of survey is executed when the user completes it or if there is no feedback after the reminder. At that point administrators are responsible for analysis and reports creation of the collected data.

C. Report results

In the final phase after data analysis results are communicated to the leadership and preventive and corrective actions are considered in case of low customers' satisfaction levels. Continuous tracking of satisfaction results is often part of a management initiative to assure quality is at high levels over time.

Tracking of customer satisfaction from eServices in CRM draws a trend line how an organization is performing relatively to competitors in the same industry. Therefore customer satisfaction research should be done with greatest care. Efficient customer satisfaction management requires a long term vision and strategy, and a dedicated team for survey administration and control. For consistency and transparent survey processes it must clear the process of survey organization and reporting. The challenge for organizations is to implement and secure a standardized customer satisfaction process across their business area. For that reason organizations could definitively take advantage of a proven systematic customer satisfaction process.

The conceptual agenda on which the research is structured in a Customer Satisfaction Survey Life Cycle manner (fig.3) is based on a significant theoretical background. It explores the relationship between monitoring of the clients feelings and perceptions of the services and reflections over company's overall performance.

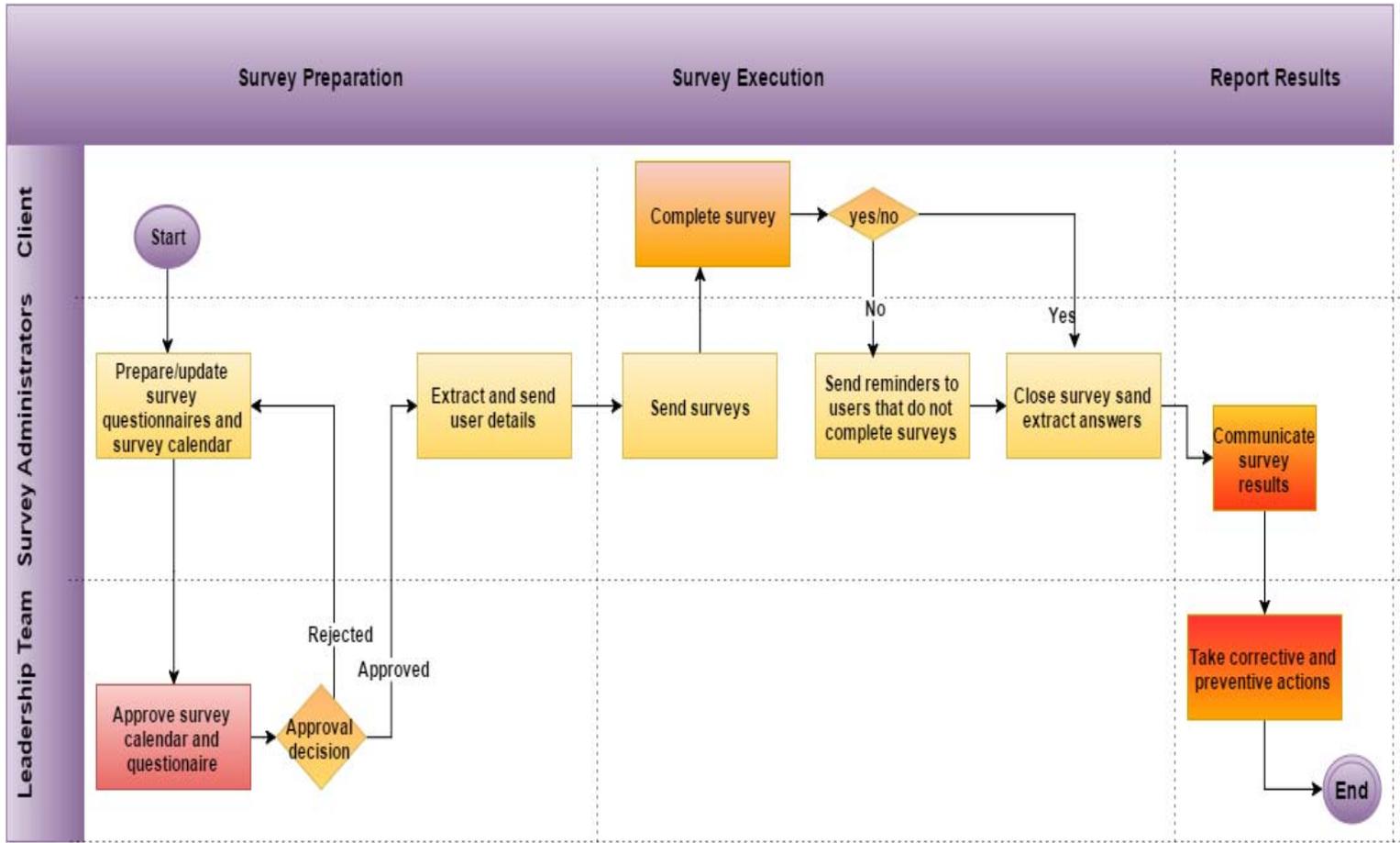


Fig 3. A Conceptual Agenda for Customer Satisfaction Survey Life Cycle

Customer Intelligence (CI) is a key component of CRM. CI enables to get insight into customers' behaviour by analysing customer data. Using Business Intelligence (BI) methods a company is able to describe, predict and influence customers' behaviour. Data Mining or knowledge extraction is the application of a scientific method to data to obtain useful information. The heart of the scientific approach to problem-solving is rational hypothesis testing guided by empirical experimentation. Data mining attempts to answer the following questions:

- ✓ What kinds of patterns are in the information?
- ✓ What are the main characteristics of these patterns?
- ✓ Can meaning be endorsed to these patterns and/or their changes?
- ✓ Can these patterns be presented to users in a way that will facilitate their assessment, understanding, and exploitation?
- ✓ Can a machine learn these patterns and their relevant interpretations?

IV. CONCLUSIONS

Companies today realize that one of the keys to successful business in the competitive marketplace is the effective customer management. Keeping high levels of customer relationship can be accepted as a strategic advantage. This is the reason many industries invest a lot of effort in making sure that Customer Relationship Management based on BI analytics is high on the priority list. From the conducted overview it can be concluded that customer satisfaction can be defined as an overall customer attitude towards a service provider and experience from services received.

To coordinate continuous improvement efforts all activities should be processed according a plan approved by responsible organs, surveys execution, monitoring of collected results and metrics for corrections. Customer satisfaction program should start with careful planning, should result in effective action and last but not least should be measured and analysed in a continuous and consistent BI manner. Considering the effect of customer satisfaction of service quality on customer retention, the study evaluated that companies should focus their objectives on keep a track of customer levels of satisfaction. As preferred method for performing

satisfaction monitoring is recommended a customer survey approach.

ACKNOWLEDGEMENTS

The research, described in this paper, was carried out within the framework of R&D Project in support of PhD student (session 2015), contract № 152ПД0059-15.

REFERENCES

- Cudjoe, A., Anim, P., George, A. (2015). Effect of Customers' Satisfaction of Service Delivery on Customers' Retention of Tigo Telecommunication Network (A Case of Abokobi-Madina Locality) *The International Journal Of Business & Management*. Vol 3, Issue 1. January, 2015 (ISSN 2321 – 8916)
- Grönroos, C. (1988). *Service Quality: The Six Criteria of Good Service Quality*. Review of Business, St. John's University, No. 3.
- Parasuraman, A., Zeithaml, V. A., Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions. *Journal of Retailing*, 64(1), 12
- Vercellis, C. (2009). *Business Intelligence: John Wiley & Sons, Ltd.*
- Wahab, S., Al-Momani, K. & Noor, A. M. (2010). The Relationship between Eservice Quality and Ease of Use on Customer Relationship Management (CRM) Performance: An Empirical Investigation in Jordan Mobile Phone Services. *Journal of Internet Banking and Commerce*, 15(1): 1-15.
- Zarei, S. (2010). Electronic Service Quality Evaluation Methods for Online-Banking System, Dr. *International Journal of Computer Science and Technology (IJCST)*, Vol. 1, Issue 2
- Marinov O., R. Popova (2009) Prilozhimost na podhoda „Business Intelligence” (biznes analiz) v upravlenieto na MSP za proizvodstvo na mebeli, II Nauchno-tehnicheska konferentsia „Inovatsii v gorskata promishlenost i inzhenernia dizayn” - Yundola, Sbornik nauchni dokladi, ISSN 1314-0663, c. 274-279.
- Nedyalkov, A. (2011). Metodika za izmervane na kachestvoto na uslugite, *Scientific Proceedings of the Scientific-Technical Union of Mechanical Engineering, IX International Scientific Conference “Management and Engineering”*, 2(122), c. 228-237, ISSN 1310-3946,