

**Универзитет „Гоце Делчев“ Штип, Македонија
Факултет за природни и технички науки**

**University „Goce Delcev“, Stip, Macedonia
Faculty of Natural and Technical Sciences**

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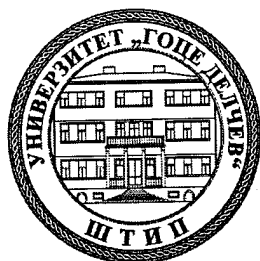
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ФАКУЛТЕТ ЗА ПРИРОДНИ И ТЕХНИЧКИ НАУКИ**

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Стручен труд

**AN APPROACH OF SYSTEMS ANALYSIS OF CRM AND
IMPROVING CUSTOMER SATISFACTION THROUGH THE
MANAGEMENT OF PERCEPTION OF WAITING****Emilija Ristova¹, Zoran Panov²****Abstract**

Historically, customer - oriented companies which are interested in obtaining high levels of customer's satisfaction have focused on using knowledgeable, pleasant servers to deliver high quality products and services to their target markets. In today's environment, this approach is insufficient. Changes in lifestyles on Macedonian citizens have profoundly altered consumer's values. Today's consumer not only demands quality, but also demands that products and services be delivered quickly. Companies must respond to these changes if they wish to remain competitive on the market. As customer experience a greater squeeze on their time, short waits seems longer than ever before. If companies can improve customers' perceptions of the time they spent waiting to be served, then customers will experience less frustration and may feel more satisfied with the service encounter.

Key words: *customer perceptions, customer satisfaction, CRM Systems.*

**АНАЛИЗА НА СИСТЕМИТЕ ЗА МЕНАЏМЕНТ НА ОДНОСИТЕ
СО КОРИСНИЦИТЕ ВО ОДНОС НА ПЕРЦЕПЦИЈАТА ЗА
ВРЕМЕТО НА ОПСЛУЖУВАЊЕ – АНАЛИЗА НА СЛУЧАЈ****Емилија Ристова, Зоран Панов****Апстракт**

Современиот начин на живеење го скратува времето што секој корисник може да го одвои за завршување на своите обврски, а со тоа потребата од брза и ефикасна услуга се наметнува како параметар во конкурентноста на компаниите. Доколку компаниите успеат да наметнат перцепција кај корисниците за минимално време на чекање за одредена услуга, тогаш фрустрацијата кај нив ќе се намали, а тоа е

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правопропорционално на зголемување на корисничкото задоволство и општо брендот и имиџот на компанијата. Во ова истражување е опфатена корисничката перцепција за времето на опслужување, методи со кои оваа временска рамка ќе се направи поприфатлива, како и придобивките од употребата на CRM³ (Customer Relationship Management) системите. Применетите методи се разликуваат од претходните истражувања, по тоа што предвид се земени индивидуалната корисничка перцепција и реалното време на опслужување.

Клучни зборови: *корисничка перцепција, задоволство на корисниците, CRM системи.*

Introduction

The paper examine customer perceptions of waiting in line and investigates methods for making waiting more tolerable as well as CRM and benefits from using it. The purpose of the study was to measure changes in customer perceptions of waiting and overall satisfaction under specific conditions. The study was conducted in two phases: the first phase served as a control and the second one for measures of expected waiting times. Also, the CRM System was reviewed as the first touch point with customers.

The used methodology differed from pervious research methods due to be matched individual customer perceptions with their actual waiting times. For each phase of the study, video cameras recorded customer entry and exist times. At the end of each day, the researchers matched the surveyed customers to those on the video tape to determine actual waiting times. It is proven that as perceptions of waiting time increase, customer satisfaction tends to decrease. In addition, increased distractions make the waiting experience more interesting and tend to increase customer satisfaction. It's also found that information on the expected time in queue tends to make perceptions of wait length more accurate but does not affect customer satisfaction.

CRM Theoretical background

Over a century ago, in small-towns, before the advent of the supermarket, the mall and the automobile, people went to their neighborhood general store to purchase goods. The proprietor and the small staff recognized the customer by name and knew the customer's preferences and wants. The customer, in turn, remained loyal to the store and made repeated purchases. This idyllic

3) Менаџмент на односите со корисници; имајќи предвид дека кратенката CRM е општоприфатена во бизнис-терминологијата која се користи кај нас, истата ќе биде користена во текстот понатаму.

customer relationship disappeared as the nations grew, the population moved from the farm communities to large urban areas, the consumer became mobile, and supermarkets and department stores were established to achieve economies of scale through mass marketing. Although prices were lower and goods more uniform in quality, the relationship between the customer and the merchant became nameless and faceless. The personal relationship between merchant and customer became a thing of the past. As a result, customers became fickle, moving to the supplier who provided the desired object at lowest cost or with the most features [6].

Therefore, in the last several years saw the rise of Customer Relationship Management (abbreviated CRM) as an important business approach. Its objective is to return to the world of personal marketing. The concept itself is relatively simple. Rather than market to a mass of people or companies, market to each customer individually. In this one-to-one approach, information about a customer (e.g., previous purchases, needs, and wants) is used to frame offers that are more likely to be accepted. This approach is made possible by advances in information technology. It's important to remember that CRM is an abbreviation for Customer Relationship *Management*, not Customer Relationship *Marketing*. Management is a broader concept than marketing because it covers marketing management, manufacturing management, human resource management, service management, sales management, and research and development management. Thus, CRM requires organizational and business level approaches – which are customer centric – to doing business rather than a simple marketing strategy. CRM involves all of the corporate functions (marketing, manufacturing, customer services, field sales, and field service) required to contact customers directly or indirectly. The term “touch points” is used in CRM to refer to the many ways in which customers and firms interact [1].

CRM is a business strategy that goes beyond increasing transaction volume. Its objectives are to increase profitability, revenue, and customer satisfaction. To achieve CRM, a company wide set of tools, technologies, and procedures promote the relationship with the customer to increase sales. Thus, CRM is primarily a strategic business and process issue rather than a technical issue. The customer is the only source of the company's present profit and future growth. However, a good customer, who provides more profit with less resource, is always scarce because customers are knowledgeable and the competition is fierce. Sometimes it is difficult to distinguish who is the real customer because the buying decision is frequently a collaborative activity among participants of the decision-making process [3].

How can companies adjust their resources and organizational structure to meet the needs of today's consumers? Science customer satisfaction hinges upon the understanding of customer needs, companies must value the preciousness of their customer's time. As they experience a greater squeeze on their time, short waits seem longer to them than ever before. Therefore, to attain higher levels of customer satisfaction companies should focus on making customers feel that they are wasting as little time as possible. This implies that transactions should seem brief so that customers have more free time for themselves. The major ways that this can be accomplished are through operations management and perceptions/expectations management [5, 7].

Perceptions and expectations management approaches. An alternative way to improve customer satisfaction is to directly manipulate customer perceptions and expectations of waiting. The logic behind perceptions and expectations management is that perception is reality. In the case of customer satisfaction, if customer thinks that he is satisfied, then he is satisfied. Similarly, if a customer thinks that his wait short enough then it was short enough, regardless of how short or long it actually was [4, 2].

The Research Methodology

In this case study it was observed a company for produce and selling of IT and fiscal equipment and development of software for financial work. The purpose was to measure changes in customer perceptions of waiting and overall customer satisfaction under specific conditions. The following hypotheses were tested [4, 2]:

- *H1:* As the perceptions of waiting increase, customer satisfaction decreases.
- *H2:* Increased distractions reduce the perceptions of waiting time, increase customer interest level, and may improve customer satisfaction.
- *H3:* Known waits seem less stressful than uncertain waits and may improve customer satisfaction. In the research, customers were asked for an answer in the questioner – It is important for you to know the waiting time in advance for certain service?

It was important to determine the role of CRM systems in shortening waiting times during service, all influence to the customer satisfaction and generally, the service level. If a point of sales agent has some CRM tools which provide summary of the customer history (requests and buying), then the serving time can be shortened and proportionally the customer satisfaction to be increased. The study took place in two phases, where the first phase serves as a control one. In the second phase, it was manipulated with variables and we believed that would be alter perceived times and customer satisfaction levels. The intent of the manipulations are done in Table 1.

Test dates were chosen to include the heaviest traffic days for the company. Each phase lasted three days, Wednesday through Friday, of the same week. In the research took participation 20 employees, and were observed 6 points of sales, 2 points of service and 2 points of teller.

The measure of actual waiting times - Two video cameras measured the actual waiting times. One of the cameras was focused on the queue entry point while the other one was focused on the point where customers left the line to see a teller. The time of day, including seconds were also included into records. Perceptions of waiting and customer satisfaction were measured by personal interviews. Researchers questioned customers as they left the teller window. After all questions were answered the researcher jotted down a physical description of the customer and the time of day on the back side of the questionnaire. At the end of each day were compared recorded video materials and questionnaires and matched each survey with a customer on the tape. Once a customer was located on the tape, his entry and exit times were recorded. Instead, most research has focused on matching customer perceptions with average waits during a specified time period, in this case study some effort was made and matched individual perceptions to reality. Science actual waiting times can vary widely from customer to customer, we believe that our matching method provides much more accurate data.

Measuring perceptions and questionnaire design - The questionnaire was designed to measure customer perceptions and satisfaction levels. Perceived waiting times were obtained by asking customers to specify how long they thought they waited in line to see a teller. Descriptions of the queuing experience were obtained by having customers rate their wait in line with respect to three different attributes on ten point scales. The attributes measured duration, boredom and stress levels. The same questionnaire was using in the two phases. In phase 2 was added one more question related if customer noticed the electronic news board. Also, customers were asked for opinion some clocks that will announce time which they should wait to be installed. These additional questions were necessary since if the devices were not noticed we would not expect them to influence customer perceptions.

Analyses across the phases and Results

During the course of this case study were conducted 205 personal interviews in total, 116 of them in the phase one and the rest 89 in the phase 2. The third hypothesis is overlooked by additional asked questions mentioned previously. Table 2 shows summary statistics for interviews done.

Conclusions and outlook for further work

In general, our findings supported the preliminary hypotheses. Observations and empirical results of this case study provide a list of suggestions that might be helpful for the management team of the company and improve customer perceptions of waiting and over all satisfaction. It should be noted that waiting is only one element of the customer service mix and that other factors significantly influence perceptions. For instance, the service competence and attitude, transaction speed, and the available physical resources employed play a major role in the formation of customer opinions. Some major suggestions are following:

- Do not overlook the effects of perceptions management - consumer concern about waiting is growing
- Determine what is an acceptable waiting time for your customers
- Install distractions which entertain and physically involve the customer
- Use companies resources in a visible manner
- Segment customers by personality types
- Management must adopt a long term perspective accordingly predefined segments

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Table 1. The intent of manipulations

Phase	Variable	Method	Intend
1	None	No changes	Control group
2	Distractions	News board, TFT screens with info for the latest promotions, products and services	To improve customer perception

Table 2. Summary statistics for 205 respondents

	Phase 1	Phase 2	In total
Responses	116	89	205
Actual waits			
% 0- 4 minutes	75 %	40 %	57.5 %
% 4-12 minutes	19 %	60 %	39.5 %
% >12 minutes	6 %	0 %	3 %
Average actual waits (in minutes)	3.6	4.8	4.2
Perceived wait			
Average perceived wait (in minutes)	4.7	6.0	5.4
Average overestimated (in minutes)	1.1	1.2	1.2
Reasonable wait			
Average reasonable wait (in minutes)	5.8	5.9	5.9
Description of time spent in line (average on 1 to 10 scales)			
Short/Long	2.9	3.4	3.2
Boring/Interesting	3.9	5.4	4.6
Stressfully/Relaxing	6.9	6.6	6.7
Overall satisfaction (average on 1 to 10 scales)			
Day when research is performed	9.1	9.2	9.1
Usually	8.1	8.1	8.1