Investigating Customer Satisfaction Factors in a Customized Software Development Company

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Abstract

The role of customer relationship management as a strategic tool in the development of the organization is undeniable. With the advent of the modern world in the field of electronic communications and new technologies customer satisfaction is very important issue in organizations and businesses. So to build relationships with customers and customer relationship management, gaining satisfaction and increase trust and loyalty in this regard as well as increases in the value of the organization plays an important role. Customer satisfaction and demands he played a vital role in achieving the goals of the organization. In other words, is the key to business development. Now the problem is that certain factors suggest that there is an organization in terms of customer satisfaction. The main objective of this paper is to develop and carry out research in the evaluation of customer satisfaction factors in a customized software development company named BarsaNovin. For this purpose, samples were selected from among the customers of the company. Factors and factors of customer satisfaction in order to process the order until after sales service software. Including quality of service, expertise, experts, quality custom software, or training provided by experts in the company has been investigated. The results showed that all factors have been identified as factors affecting customer satisfaction will increase. Organizational factors play a role in the promotion of staff in the organization will facilitate the management of customer relationships. The management decisions relative importance and role in the management of these relationships will have to earn customer satisfaction.

Keywords: Customer, Organization, Customer Satisfaction Factors, Customer Relationship Management, BorsaNovin Company, Knowledge Management

1. Introduction

One of the things that all companies in the past years, but are now seriously looking at it, satisfied customers of their services or products that are offering. Accordingly, focusing on aspects of the relationship with customers in sales and marketing support services then custom software companies and strategic factors are very important. Which provide an outline of all activities, rules and procedures of the company and how the company is doing projects.

In today's competitive market, sales of products and services is important. Developments in globalization, particularly in developing countries, including our country is growing rapidly. The areas of customer relationship management and customer relationship management effectiveness and efficiency of major concern for organizations and companies including the BarsNovina has become.

This type of management is an effective strategy to increase the productivity and profitability of the organization was created, along with increased customer satisfaction. One of the key factors in increasing customer satisfaction at BarsaNovin Company, custom software for our customers. This is due to the specialized services in various areas and diverse range of customer requests require further review and increase the level of satisfaction of our customers.

When we make our customers' needs are properly diagnosed and have a higher speed than other competitors. In addition to attracting new customers by offering solutions can raise your current customer satisfaction and have a more successful organization.

2. Literature Review

From the perspective of a service-oriented organization is customer satisfaction and loyalty by solving customer problems quickly obtained. Customer satisfaction with the investigation, the timing and customers at the right place and time may be faster [4].

Inability to respond fully to realize the promises made to customers, other researchers have been investigating the issue. Many researchers have tried to lower expectations and renewing faith in the rational and minimize customer complaints and grievances have been [7]. In this research, we have to work with others and inspired literature results may be best able to rebuild our customization process. Deliver it to the customer to gain maximum customer satisfaction we achieve in your organization.

The two researchers integrated framework of factors affecting the success of their customer relationship management. Not only knowledge but also technological factors, organizational factors, customer satisfaction and experience with regard to the mediating role of organizational factors presented [8]. They concluded that organizational factors have the greatest impact on the

success of CRM. The two investigators examine the results of a successful CRM implementation from both financial and marketing perspectives.

Their goal was to develop a valid measure for CRM in particular, the following four key CRM (including customer focus, organization, knowledge management and technology CRM) [3]. Components intended for customers include: marketing, customer-focused, identifying key customer lifetime value, personalization and interactive marketing. Organizational structure, commitment of resources and human resource management as a key component of the organization were considered. Learning and knowledge creation, dissemination and sharing of knowledge and knowledge as well as the accountability component of knowledge management were introduced. The three investigators examine the results of the implementation of CRM from financial and marketing perspective, while here we have only taken into account the satisfaction factors.

2.1 Customer Relationship Management

Customer relationship management is a process to gather and integrate information in order to operate effectively and goal based [9]. In fact, customer relationship management is part of the strategy to identify and satisfy their customers and turn them into a permanent customer [2]. The basic idea is to help businesses use technology and human resources to gain a better insight into the value added behavior which every customer can make to the organization [4]. In fact, customer relationship management (CRM) refers to all processes and technologies that organizations identify, select and encourage, develop, maintain, and service to the customer [8].

2.2 Customer Satisfaction

As is clear, customer relationship management and how they serve as a great indicator of how a company is structured and how it will showcase projects. If we consider only on those products or services that are offered in the form of engineering projects, then you understand the importance of macroeconomic policies and the control of project management company that ultimately influence factors of customer satisfaction. Based on experience of companies (especially software companies), the correlation between the two issues has been proven. Different definitions of the concept of customer satisfaction have been proposed by theorists.

Cutler has introduced customer satisfaction as the degree to which actual performance of a company can meet customer expectations [1]. According to Cutler, if the company meets customer expectations, customer satisfaction and dissatisfaction is felt otherwise [2]. Customer satisfaction and marketing activities as a result of communication between the various stages of consumer buying behavior act. For example, if customers are satisfied with a particular service, your purchase will likely be repeated. Customers may talk with others about your shopping

experience will be involved to make the propaganda of positive verbal and verbal. Instead, dissatisfied customers, and cut his ties with organizations involved are negative verbal propaganda. This kind of advertising or repeat and not buy the survival and profitability of a company has a direct impact [11]. Weakness of the six factors of customer dissatisfaction and disconnection: Reliability, responsiveness, assurance, access, and communication facilities.

2.3 Importance for the Organization

Software companies that are engaged in the production of custom software, Like all companies or contractors who manufacture or implementation of engineering projects in the country, consider a great value for the projects and their activities. Most of these companies have the tools or semi-ready infrastructure to produce and deploy their software. Simply because software production and delivery is not considered a reasonable and right thing from a non-software perspective. That is why such companies are increasingly seeking to identify the scope and range of services offered every day in the market customers. To cover more customers and expand the scope of its relationship with old and new customers.

Organizations today have the infrastructure to manage the service via telephone lines, fax systems, email addresses and other solutions are. These are the kind of services that managers do not like the waiting customer, but the customer complaint before presenting it to react. In this way the sales force or employees are trained to anticipate the needs of our customers [3]. We now examine the procedure and implement in BarsaNovin Company [6].

2.4 Statement of Purpose

Internet era when the customer access to various types of goods and services to facilitate the survival and profitability of the company will be difficult. Unfortunately there are some problems for gaining customer satisfaction in the BarsaNovin Company such as in the following:

(1) Complete lack of understanding of customer needs at an early stage of the needs analysis (software systems), (2) Failure to implement more accurate and more detailed project, (3) Lack of knowledge of project management and phased project with clients and prolong, (4) Lack sufficient knowledge and culture customer relationship and officials associated with the project, and ultimately of behavioral problems and emotional behavior. In order to succeed in today's dynamic market should be an important component of the company's customers also considered. Companies have the ability to compete with new knowledge creation, distribution, and it is transformed into goods and services.

The company is one of the largest providers of customized software in the country which using Iranian experts have attempted to localize software and provided scientific dependency to other countries, with major customers, especially governmental companies.

There exist these questions that do BarsaNovin customers are satisfied with the services and products during the process of ordering and after-sales service (before the purchase, during the purchase and post-purchase) quality of service, expertise, experts, quality custom software, or training provided by the company specialists. Only technical capabilities of software can not ensure customer service. But also need to analyze and identify the real needs of its business customers and knowing how to deal with customer service and the training is also important for the organization.

3. Research Methodology

3.1 Sampling

As previously described, the Statistical Society of BarsaNovin We all customers who use the company's services and custom software. The only factor to be considered in the statistical community and our customers are using custom software services Barsa new organization to be counted. In other words, age, sex, educational level or type of customized software used in this study are important. Due to the limited number of customers, all of which were evaluated in this study. The target population is small and limited.

3.2 Data Collection

In this method, a questionnaire was used to collect data. This questionnaire is merely distributed between the customers of BarsaNovin in 20 purchasing departments. The population is now limited to the clients. The survey among customers of men, women in different age groups or according to manufacturing companies, service companies and customer categories and examines it. Depending on the type of research questions were presented. For each question and response options chosen by the individual respondents should select one of them as a response.

Overall, responses between a scale of 7 (of 1 means very dissatisfied and 7 means very satisfied) have been investigated. To investigate the validity of the research we have used university professors and specialists.

3.3 Data Analysis

After identifying the criteria and factors of customer satisfaction (quality of service, expertise, experts, quality custom software, or training provided by experts of BarsaNovin Company to the customer), questions were devised for each. To investigate compliance and compatibility with standard questions and satisfaction factors, alpha method was used.

Table 1: Result of Alpha test

Factors	No. Questions	Alpha
Providing quality services in the field of guidance and counseling	5	0.73
Treatment and follow-up of experts and their expertise	5	0.78
Software Quality made	6	0.81
Customer training and after sales service	4	0.70

Finally, to evaluate the various assumptions and criteria identified by researchers T-test was used.

4. Results and Findings

To test the hypothesis that "the quality of services provided by BarsaNovin has significant impact on customer satisfaction" T-test was used.

Table 2: Result of T-test regarding to service quality

domain		df	Variance	Mean	No. Instances	Service Quality
Lower	Upper	19	4.05	24.15	20	
4.75	8.54					

The result of T-test shows that the T-value is significant at 0.001 (t = 10.58), therefore regarding to the lower and upper domain, the software quality has impact on increasing customer satisfaction.

To test the hypothesis that "the behavior and expertise of experts have impact on customer satisfaction" T-test was used.

Table 3: Result of T-test regarding to skill of experts

Domain		df	Variance	Mean	No. Instances	Behavior and skills of experts
Lower	upper	19	3.12	24.90	20	
5.93	8.86					

The result of T-test shows that the T-value is significant at 0.001 (t = 7.33), therefore regarding to the lower and upper domain, the behaviors and skills of experts have impact on increasing customer satisfaction.

To test the hypothesis that "the quality of the software by BarsaNovin has impact on customer satisfaction" T-test was used.

Table 4: Result of T-test regarding to software quality

Domain		df	Variance	Mean	No. Instances	Software Quality
Lower	upper	19	3.21	31.60	20	
9.09	12.10					

The result of T-test shows that the T-value is significant at 0.001 (t = 14.72), therefore regarding to the lower and upper domain, software quality has impact on increasing customer satisfaction.

To test the hypothesis that "the customer training and after-sales service in BarsaNovin have impact on customer satisfaction" T-test was used.

Table 5: Result of T-test regarding to customer training and after sale services

Domain		df	Variance	Mean	No. Instances	customer training and after sale services
Lower	Upper	19	4.27	20.02	20	
4.05	8.04					

The result of T-test shows that the T-value is significant at 0.001 (t = 6.33), therefore regarding to the lower and upper domain, customer training and after sale services have impact on increasing customer satisfaction.

Final result of T-test based on SPSS software

Company	N	Mean	Std. Deviation	Std. Error Mean
Aviation Industry Organization	20	4.55	1.849	.413
Matin Tam Energy Development Co.	20	6.00	1.026	.229
Parsian Bank	20	4.20	1.436	.321
Refah Bank	20	4.90	1.744	.390
Mojan Co.	20	4.20	1.436	.321

Presidential Office	20	5.50	1.051	.235
Mazandaran Medical Science Uni	20	4.55	1.849	.413
Iran Insurance	20	5.00	1.556	.348
Shahid Beheshti Medical Science Uni	20	4.90	1.744	.390
Ministry of Foreign Affairs	20	4.05	1.877	.420
Civil Servants Pension Fund	20	6.10	1.119	.250
Zeiton Group	20	4.20	1.436	.321
Airport Holding Company	20	3.95	.759	.170

Company	Test Value = 4					
					95% Confidence Interval of the Difference	
				Mean		
	t	df	Sig. (2-tailed)	Difference	Lower	Upper
Aviation Industry Organization	1.330	19	.199	.550	-.32	1.42
Matin Tam Energy Development Co.	8.718	19	.000	2.000	1.52	2.48
Parsian Bank	.623	19	.541	.200	-.47	.87
Refah Bank	2.308	19	.032	.900	.08	1.72
Mojan Co.	.623	19	.541	.200	-.47	.87
Presidential Office	6.381	19	.000	1.500	1.01	1.99
Mazandaran Medical Science Uni	1.330	19	.199	.550	-.32	1.42
Iran Insurance	2.874	19	.010	1.000	.27	1.73
Shahid Beheshti Medical Science Uni	2.308	19	.032	.900	.08	1.72
Ministry of Foreign Affairs	.119	19	.906	.050	-.83	.93
Civil Servants Pension Fund	8.391	19	.000	2.100	1.58	2.62
Zeiton Group	.623	19	.541	.200	-.47	.87
Airport Holding Company	-.295	19	.772	-.050	-.41	.31

Company	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Aviation Industry Organization	57.55	85.524	.529	.764
Matin Tam Energy Development Co.	56.10	106.726	-.035	.805
Parsian Bank	57.90	85.147	.748	.745
Refah Bank	57.20	85.747	.565	.760
Mojan Co.	57.90	85.147	.748	.745

Presidential Office	56.60	105.305	.029	.801
Mazandaran Medical Science Uni	57.55	85.524	.529	.764
Iran Insurance	57.10	88.200	.562	.762
Shahid Beheshti Medical Science Uni	57.20	85.747	.565	.760
Ministry of Foreign Affairs	58.05	91.524	.334	.787
Civil Servants Pension Fund	56.00	108.842	-.131	.812
Zeiton Group	57.90	85.147	.748	.745
Airport Holding Company	58.15	107.924	-.092	.803

5. Conclusion

The importances of providing customized software are due to the following points:

(1) Generating various reports for managers (2) determine the necessary policies using data collected by the type of activities and information about the organization, (3) faster production of information system (4) The evaluation of the staff performance for managers.

Thus organizations are always looking for customer satisfaction model and implementation decisions in the fields. We can refer to some points with this regards:

1. Separation of duties and responsibilities of individuals representing organizations and experts

2. Learning how to interact better customer experiences and good and bad experiences are very important in communication with customers.

3. Deployed in the customer center and next to them during the project in order to create a sense of trust and the steps taken to implement them for the trust they show the work in progress.

4. No to perform the detailed project implementation in front of client to prevent subsequent claims of comfort.

5. teaching the culture associated with the software before presenting it to the client application

6. Employing experienced people in the analysis and project management for extracting a set of processes for managing the entire project and finally finding solutions.

5.1 Research Recommendations

Given that clients are one of the key elements of success, therefore, Satisfaction, trust and loyalty they can play a crucial role in the survival and profitability of the organization. For this reason, the installation of the software, customer relationship management in organizations, companies

and businesses can have very effective role in collecting and analyzing data required for customers.

According to the research results can be used to promote employee knowledge, identifying the training needs of the organization, and training in this field in order to improve customer satisfaction and customer interaction and how to identify the needs of customers to provide staff. Also, organizations can improve customer relationship management strategies for their organizations apply to the use of consultants, in order to take action to improve decision-making for managers. Knowledge and knowledge about the needs, resources, and customer and market knowledge in the management of customer relationships, can accurately identify the customer and his needs and his interactions with them.

5.2 Recommendations for future research

This research is exclusively taken place in BorsaNovin Company and for its customer. Purchase units at client companies have different gender and age groups. This research can be used in various organizations and according to age groups and gender.

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