

# ***Improving Customer Process Effectiveness in a Facebook-Based Clothing Supplier***

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**Abstract** — *Any organization needs to incorporate feedback from its customers in order to have a successful business. As an emerging Facebook-based clothing supplier it has never been evaluated upon its effectiveness. In this project, the DMAIC (Define, Measure, Analyze, Improve and Control) methodology has been used for customer process and satisfaction improvement. Considering the Voice of the Customer (VoC), brainstorming, and upper management expectations, critical to quality trees were developed. A total of 248 customers were surveyed whom provided sufficient data to create a value stream mapping of the customer process, histograms, bar graphs and pareto charts. The creation of these different analyses clearly showed deficiencies among overall waiting times and the provision of extended services, which directly cause less satisfaction among customers. To increase customer satisfaction, improvement suggestions for the different processes were given prompting that controlling and monitoring these improvement implementations will provide for continuous improvement.*

**Key Terms** — *Customer Process, Customer Satisfaction, DMAIC, Improvement.*

## **INTRODUCTION**

Due to the fast paced world we live in today, it has become a trend for our daily errands to become virtual or a part of the World Wide Web. Nowadays we are able to pay our utility bills online, check the weather and latest news, and connect with old friends through different social medias. It has brought the customer a convenient alternative to shop online from any part of the world at any hour of the day. Now you can buy shoes, clothing, furniture, home appliances, and basically anything you can imagine with just a few clicks or scrolls at your fingertips.

One of the most popular website online is the social networking service Facebook. What started as a personal profile for college students to network has now gradually become an influential portal for advertising celebrities, non-profit organizations, companies and even government agencies. The company I represent is a Facebook-based clothing supplier and distributor; it doesn't have a physical location and it is opened 24 hours a day. It also gives you the option of making an appointment with an associate (or fashion consultant as they are called); if your unfamiliar with a computer you have the option of meeting face-to-face with a consultant and the merchandise at a location of your choice.

As an emerging women's clothing and fashion supplier, the company's effectiveness neither its efficiency has been evaluated. With this said, I believe that the rapidly increasing demands of a virtual store will cause problems in an approximate if not immediate future, resulting in customer dissatisfaction and in the worst case scenario the lose of clients. The amount of clients received daily is overpowering the amount of actual employees. A thorough assessment of the customers' process should be made to establish priorities in order to keep up with orders and demands, satisfied customers, and to acquire new customers.

Any company or organization needs to incorporate feedback from their own employees and from their customers to have a successful business. Additionally, customer satisfaction needs to be incorporated into the strategic focus of the company via the mission statement for it to develop a direct influence on rentability levels. It is extremely important to know the customer perceptions not by assumptions but by measurement in order to translate those perceptions into specifications and for delivering the adequate level of service. It is also equally important the way you receive these

perceptions, the most direct from your client by feedback.

Customer Relation Management (CRM) systems efficiently coordinate the relationship life cycle activities and allows them to enable its customers to go through selecting their products and/or services, being satisfied to becoming loyal and advocate of the company or organization [1].

## **PROCESS IMPROVEMENT THEORY AND TOOLS**

The company's mission is to offer a 24 hours a day/7 days a week service to their clients in order that they can feel confident about every need or desire they would like to fulfill. Their services include: unlimited free tailoring and dry cleaning, lay away services, virtual closet, and personal shoppers. In order for all the offerings to be achieved successfully, they have to be measured and a Six Sigma methodology would be implemented. In this project the DMAIC methodology will be used for process improvement. That is the core problem solving methodology used by many lean six sigma companies [2]. The goal of Six Sigma is to achieve consistent, reliable, repeatable performance in areas that affect effectiveness and efficiency.

Six Sigma is the term applied to the application of the DMAIC methodology. It is a structured, disciplined, rigorous approach to process improvement. The five steps link to each other into a logical sequence, creating an infinite loop for process improvement. In this case, utilizing questionnaires, interviews and phone surveys, will help us have a better understanding of areas that need improvement or extra personnel. Customer satisfaction surveys are the information that feed the company about the customers' satisfaction levels. There are eleven (11) most commonly used types of surveys: transactional surveys; mystery shopping; focus group; survey of new, declining and ex-clients; customer panels; claims and complaints; revision of the relationship; comprehensive market research; field staff reports; system operational measures; and surveys between employees [3]. I will be using for

this project transactional surveys: these are short surveys offered immediately the product or service has been paid for in order to have the information "fresh" in their memories; and also surveys of new, declining and ex-clients: these surveys are available through questionnaires to determine why new clients have chosen the product or service, why are some of them declining their purchases or why some of them have stopped making business. It helps evaluate how product quality and its related services influence on the company's image and/or fidelity levels. The voice of the customer (VoC) is also critical in order to define a problem in the process. The VoC can be then translated into customers' feedback converted into visual aids such as Critical to Quality (CTQ) trees to pinpoint improvement areas.

Customer satisfaction is one of the main priorities any company should be addressing. It denotes the importance of excellent customer service and its direct link to customer retention, customer satisfaction, employee satisfaction, quality management system requirements (i.e. implementation of ISO 9000's preventive actions) and cost avoidance. Many of the companies (big or small), industries and organization do not have an active encouragement on listening to the voice of the customer (VoC). A process of action called LCALI (listen, collect, analyze, learn and improve) provides the importance of having the adequate listening skills and taking action training for employees on the voice of the customer and how this affects negatively the company in its competitors' eyes. Referring to this process it is defined as the moment of truth where employees gather customer information as to "any episode in which the customer comes in contact with any aspect of the organization and gets an impression of the quality of its service" [4]. Meaning that any personnel of the company could serve as a listener to detect, receive and carry customer data. When the VoC is being heard and taken in account for, from its suggestions, dissatisfactions, to how they were treated, their view's on quality, interests and satisfaction; then your organization can become solid and profitable in all aspects.

Studies show that organizations with high quality customer service and, most importantly, effective complaint handling processes can charge a premium and at the same time increase customer loyalty. To be able to get to that point, decision makers must quantify the return of investment (ROI) of complaint handling to see the link between customer satisfaction, loyalty and profits [5]. Organizations are encouraged to solicit complaints via multiple channels, improve and place into practice complaint handling processes and prevent complaints by educating their clientele in order to improve loyalty, increase revenue and receive financial payoff.

### METHODOLOGY (DMAIC)

The methodology to be used in this project would be the DMAIC (define, measure, analyze, improve, control).

- ✓ **Define:** the company's process and the customer needs. Customer process represent the inputs as their true needs, added value is the way that those needs are taken care of and delivered outputs are customers with fulfilled needs.
- ✓ **Measure:** process effectiveness. Through questionnaires and surveys gathering date on how much the customer's needs and want's are met.
- ✓ **Analyze:** data to identify the causes of variation. The customer is the one that suffers the variations and we have to be prepared in real-time to act on such variances.
- ✓ **Improve:** the process by fulfilling the customer's needs. It is important to measure the right things from the beginning. Finding the optimum number of customer interactions that will lead to increased revenue, lowered costs and improved customer service simultaneously is the goal.
- ✓ **Control:** to make sure the measures stay implemented. Constant feedback will keep a continuous process improvement.

Focusing on the primary area of variation reduction produces other secondary effects, too.

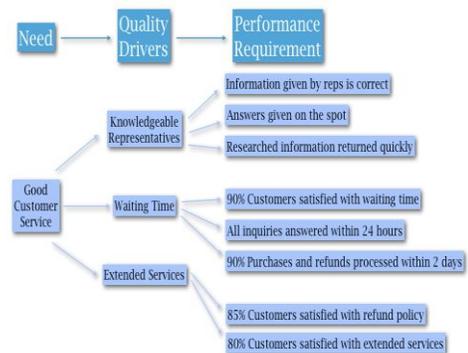
Quality is improved. Process investigation produces the re-evaluation of the value added status of many elements. Some elements are modified, while others are discontinued. Elements are refined and improved. Mistakes and opportunities for mistakes are reduced. Six Sigma is founded on two main assumptions. First, people in an organization understand and appreciate the fact that numbers can represent features and characteristics of a process [6]. They appreciate that a deeper understanding of data and data analysis can be used to produce improvements, and graphical representations of data can provide new and different perspectives of the process. The other assumption is that through the reduction of variation of all the processes, the overall performance of the organization will be improved.

### RESULTS

The results are arranged in the DMAIC format.

#### Define

To define any problem or issue that is affecting the productivity in any particular area it is essential to understand and be capable to describe the process in detail. There are many definitions tools such as affinity diagrams, cause-and-effect diagrams, Pareto diagrams that must be applied on common problem definitions [7]. It is the most critical stage to catch the support from your organization. To clearly define the problem, the VoC has been translated into customers' feedback as a visual aid (Figure 1). This Critical to Quality (CTQ) trees pinpoints improvement areas.



**Figure 1**  
CTQ Tree (Expected)

Since the company has never been evaluated upon its performance, this CTQ tree shows how management expects for its performance requirements to succeed.

Another objective in this area is to create a clear statement, a Project Charter (Table 1), which depicts the success story to be created; shows a high level description of the processes being improved and the expected achievements; and shows how customers will be impacted.

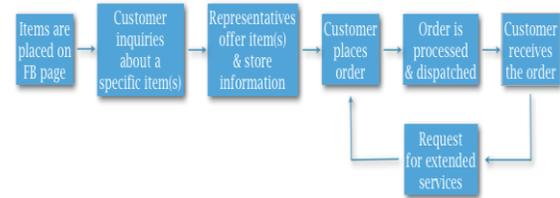
**Table 1**  
**Project Charter**

<b>Project Name</b>	Improving Customer Process Effectiveness in a Facebook-Based Clothing Supplier		
<b>Process Impacted</b>	Customer Satisfaction Process		
<b>Project Leader</b>	Rachel C. Hermina Stewart	Tel number 401-572-0508	
<b>Coach</b>	José A. Morales, Ph.D.	Tel number 787-622-8000	
<b>Start Date</b>	August 12, 2013	<b>Target Completion Date</b>	End of October 2013
<b>Project Description</b>	To have a proper knowledge of the customer process and overall satisfaction in order to suggest and implement improving techniques. Identify the weaker performance requirements to increase customer satisfaction.		
<b>Project Scope</b>	Increase and maintain customer satisfaction up to 90% and, in turn, increased revenue and clientele attainability.		
<b>Project Goals &amp; Measures</b>	Project Goals:		
	Metric	Current (Baseline)	Goal
	Requirements	Unknown	90.0%
<b>Expected Business Results</b>	To reduce waste, therefore, cost and increase productivity, which meets all customer satisfaction.		
<b>Project Schedule</b>			
<b>Phase</b>	<b>Start Date</b>	<b>Completion Date</b>	
Define	08/12/2013	08/12/2013	
Measure	08/13/2013	09/15/2013	
Analyze	09/15/2013	09/16/2013	
Improve	09/16/2013	10/01/2013	
Control	10/01/2013	10/08/2013	

**Measure**

The whole objective here is to gather data and information that will help in pinpointing the real causes of the problem being resolved. The current situation will be known and the expectation on how much can be improved. Information here, helps to refine a define stage. First we need to map the customer process from start to finish (inquiry of product, placing an order, receiving the order, demand for alternate services such as tailoring or dry cleaning) as shown in Figure 2. Since the company has never been evaluated in any given part of its process, this project aims to show on average how

much time does it take to complete the whole process stream map and determine areas for improvement.



**Figure 2**  
**Customer Process Stream Map (Flowchart)**

There is also a need to know why it is important to implement a Six Sigma technique on this project and through a brainstorming we can determine helpful information utilizing the five whys:

The suggestion of a DMAIC implementation for evaluating effectiveness and efficiency is offered.

- ✓ **Why?**  
Because as an emerging company it is important to be aware of your strengths and weaknesses.
- ✓ **Why?**  
Because there could be customer dissatisfaction and, as a weakness, it's an improvement area.
- ✓ **Why?**  
Because orders may get delayed or even customers unattended.
- ✓ **Why?**  
Because if a few employees process all online orders, waiting times would start building up.
- ✓ **Why?**  
Because customers have access to submitting orders continuously, 24/7.

From the brainstorming we can infer that a lack of staff might be a result of order bulk, which leads to customer dissatisfaction. In order to have a real-time answer to the voice of the customer, surveying the customer's process experience will deliver measurability and suggestions for improvement implementations. Upper management submitted a list of random clients from the last 6 months. The clients were surveyed by telephone (due to company's specifications). Management also provided access to the Facebook page of the company to gather real-time information from the clientele. Information acquired through the portal

was only restricted to viewing representative-customer interaction such as: items postings, reactions from customers, representative greetings, customers' inquiries and placement of order. This brought a meaningful insight since every comment and response, both from customers and representatives, is captured on the Facebook-page with their respective date and time, which provides accurate data.

Overall there were 218 customers surveyed via telephone and 30 additional customer information was acquired through the Internet portal to complete a total sample size of 248. Since only the Project Leader made the individual surveys via telephone, it was easier to gather the information in a computer on a spreadsheet whilst asking the customer. The whole process took an average time of 5-10 minutes per customer and data was automatically entered on the computer. Samples selected from the Facebook page were also entered in the same method; random representative-customer interactions were selected and data was added to the spreadsheet. This data will serve to prove if the original expected CTQs were achieved, to determine real-time data in order to complete the value stream process map, and to graph data that will show the root causes of variation. All customers surveyed were women with the exception of 1 man; 90% of the clientele are customers from Puerto Rico, 8.9% from the United States and 0.1% from other countries; and age ranged mainly (87%) on 19-40 years old. Results of the survey are displayed on Table 2. By collecting the data the first thing noticed is a regular tendency in many particular problems [8]. Giving attention to those particular areas can start the analysis of the process improvement. We can then create a cause and effect analysis utilizing Histograms, Pareto charts (which determine that 80% of the problems are caused by 20% of the failures), and review the five whys to develop improvement techniques.

Just by overlooking the customer satisfaction survey results we can determine that a couple of changes must be made to improve the process experience, specially areas regarding product time management and extended services. After these

changes are implemented they must be measured again in order to determine if an improvement in those areas was accomplished.

**Table 2**  
**Customer Satisfaction Survey-Results**

Customer Satisfaction Survey					
	A	B	C	D	E
<b>Age</b>	<b>&lt;18</b>	<b>19-30</b>	<b>31-40</b>	<b>41-50</b>	<b>&gt;50</b>
	3	89	115	30	11
<b>Country</b>	<b>PR</b>	<b>USA</b>	<b>Other</b>		
	224	22	2		
<b>Time Management</b>					
From inquiry to received item	<b>&lt;1hr</b>	<b>2-12hr</b>	<b>13-24hr</b>	<b>1-3days</b>	<b>&gt;4days</b>
	2	41	80	106	19
Response on first inquiry	<b>&lt;1hr</b>	<b>2-6hr</b>	<b>7-12hr</b>	<b>13-24hr</b>	<b>N/A</b>
	12	56	88	90	2
Receiving placed order	<b>&lt;1hr</b>	<b>2-12hr</b>	<b>13-24hr</b>	<b>1-3days</b>	<b>&gt;4days</b>
	3	43	82	101	19
Request for extended services	<b>&lt;1hr</b>	<b>&lt;24hr</b>	<b>&lt;48hr</b>	<b>2-5days</b>	<b>&gt;5days</b>
	0	13	25	43	21
<b>Customer Satisfaction</b>	<b>Least</b>	<b>&lt;---Satisfied---&gt;</b>			<b>Most</b>
	1	2	3	4	5
<b>Overall Process Satisfaction</b>	3	10	26	178	31
<b>Representatives (staff)</b>					
Information given is correct	2	3	17	69	157
Answers given on the spot	1	2	21	83	141
Researched info returned quickly	1	3	34	78	132
Friendly staff	1	3	11	52	181
<b>Time</b>					
Waiting time	7	37	156	42	6
<b>Extended Services</b>					
Refund Policy	10	35	141	48	14
Dry Clean	1	9	31	36	17
Tailoring	6	28	32	20	16
Other Services	0	1	12	17	13

### Analyze

The objective in this stage is to get the data measured and use statistical tools to identify the root cause(s) of the problem(s). These causes are the ones that need to be addressed on the next stage. Evaluation consists on a ranking of 1-5, 5 being Very Satisfied and 1 the Least Satisfied; results were averaged by consumer record and rounded to one decimal place. An average satisfaction score less than 3.5 is considered a "defect". There was also a ranking based on different hours to determine the process time management.

First, we will look back at Figure 1 to determine if the expected CTQs tree complies with its performance requirements as determined from the customer survey.

- ✓ Need: Good Customer Service (see Tables 3-5)

**Table 3**  
**Quality Driver: Knowledgeable Staff**

Performance Requirement Expectancy	Performance Requirement Result
Information given by representatives is correct	98% of the customers agree

Answers are given on the spot	98.8% of the customers agree
Researched information is returned quickly	98.4% of the customers agree

**Table 4**  
**Quality Driver: Waiting Time**

<b>Performance Requirement Expectancy</b>	<b>Performance Requirement Result</b>
90% of customers are satisfied with waiting time	82.3% of customers are satisfied with waiting time
All inquiries are answered within 24 hours	99.2% of all inquiries are answered within 24 hours
90% of purchases and refunds are processed within 2 days	92.3% of purchases and refunds are processed within 1-3 days which leaves a margin of error

**Table 5**  
**Quality Driver: Extended Services**

<b>Performance Requirement Expectancy</b>	<b>Performance Requirement Result</b>
85% of customers are satisfied with the refund policy	81.9% of customers are satisfied with the refund policy
80% of customers are satisfied with the extended services	Although 84.6% of customers are satisfied with overall extended services, when addressing each service specifically, tailoring receives a 66.7% satisfaction score

We can determine that the company has skilled and knowledgeable representatives and that clients are satisfied with the information that is being provided. In addition, 94% of customers were very satisfied with friendliness of staff. Regarding waiting times, customers are satisfied with inquiries responded within 24 hours and with the way that, on average, purchases and refunds are processed within a time frame of 2-3 days even though the company aims for a delivery within 2 days. Here lies an example for improvement, in this area the survey must be a little more specific to have a better approximate of the time frame.

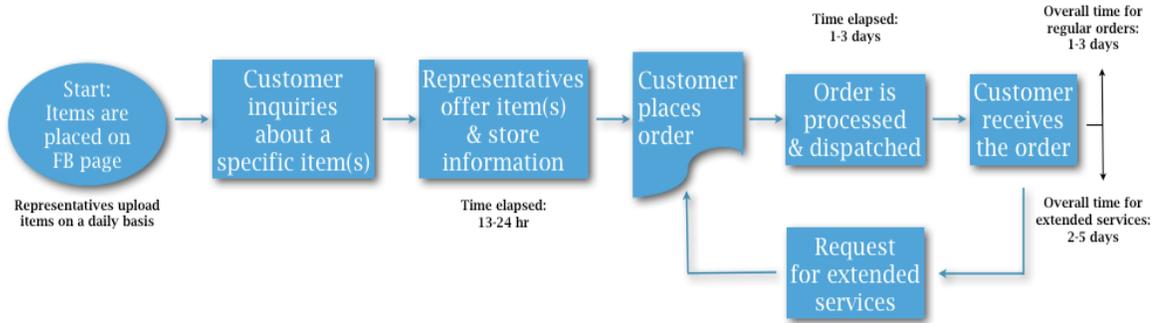
Although the company aims for a 90% satisfaction on waiting time for the overall process,

the customer survey proves that only 82.3% of customers are satisfied in this area. Figure 3 shows the flowchart of the process and the average time elapsed based on the survey results on a particular step. We can see that if time is reduced from the first interaction with the client, ultimately the overall time for a processed and dispatched order will be less.

There is an area for improvement found on the quality driver for extended services. The company projected that 85% of customers will be satisfied with their refund policy in which only 81.9% of the customers are. This may be attribute to various things: no money back policies, out-of-stock items, short period of time for returns, or having an option to only exchange items when not interested in another selection. Another performance requirement for extended services that needs improvement is the extended services itself. The company projected that 80% of their customers would be satisfied with these services (since the majority of them are outsourced) and even though 84.6% of customers are truly satisfied, which exceeds projection, when addressing each service specifically (dry cleaning, tailoring, and others), tailoring receives a 66.7% satisfaction score. This almost 18% difference needs to be addressed and managed with the tailoring company.

Now that we know what the customer thinks and have viewed the process with much detail (inquiry of product, placing an order, receiving the order, demand for alternate services such as tailoring or dry cleaning), we can go back to Figure 2 and map the customer process from start to finish showing, on average, how much time does it take to complete the whole process stream map and determine areas for improvement.

Figure 3 shows average times elapsed on different stages of the customer process. Since it's an online 24/7 service the first problem we encounter is that it takes too long for a representative to answer any inquiries customers or possible clients may have. The second issue is presented in the time frame from an order placement to an order processing and dispatch. Since there are few employees on the company, the same representatives that are attending



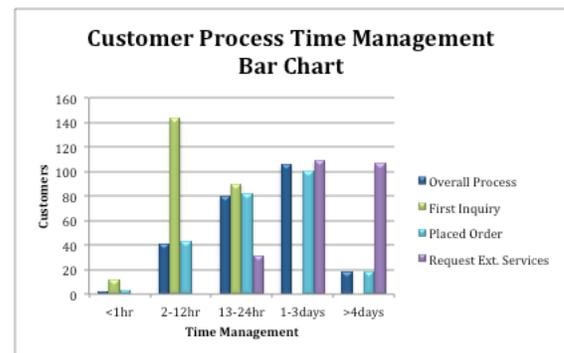
**Figure 3**  
**Customer Process Value Stream Map**

and responding inquiries on the Facebook page are the ones processing, dispatching and delivering the orders, which clearly causes delays in delivery. And the third dilemma that has arisen pertains the extended services. Since the majority of these services are outsourced (dry cleaning and tailoring), employees take up more time delivering and picking up orders to and from customers to then deliver or pick up orders from the outsourced company, which delays orders in the process and ultimately, affects customers' waiting time and overall satisfaction with these services and the company itself.

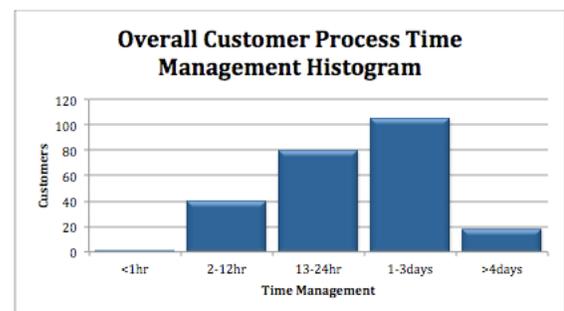
Data from the survey can be used as cause and effect analysis. Histograms and Bar charts are used to graph frequency of occurrence. Bar charts are used when comparing the values of individual data points with another. They help in bringing out the highs and lows of the data set very easily. We start by viewing the customer's responses regarding to the company's time management along the customer process. Figure 4 shows a bar graph of the complete customer process cycle. This way we can clearly examine that customers' first inquiries are being answered in the first twelve hours, which can be improved. We can also see that the majority of the process outputs fall within a time range of 1-3 days and that the extended services present a defined area for improvement taking the most time from 1-3 days to over 4 days.

We can examine the overall customer process on the histogram in Figure 5. Histograms let us analyze, identify and classify the pattern of variation displayed by the graph (such as the shape, the

location of the center, or the spread of the data from the center) and relating what is known about the characteristic pattern to the physical conditions under which the data were created to explain what might have given rise to the pattern in those conditions [1]. This particular figure shows a bell-shaped distribution that can be translated to a natural and expected tendency. We can conclude that the overall customer process takes on an average 1 to 3 days.

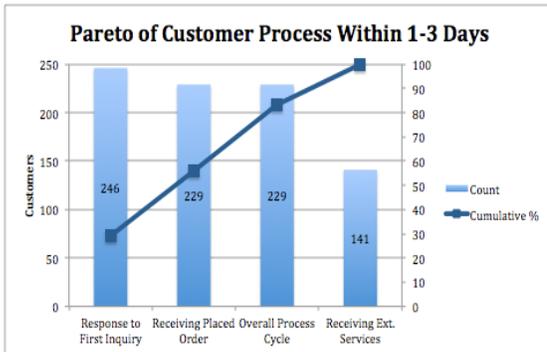


**Figure 4**  
**Customer Process Time Management**



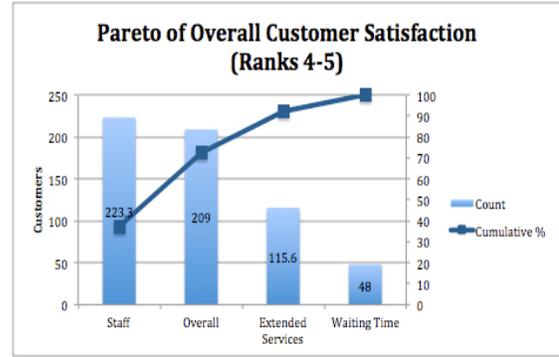
**Figure 5**  
**Overall Customer Process Time Management**

Another tool of analysis is the Pareto chart. It is a useful tool when you want to separate the important from the trivial. In the real world a minority of causes lead to a majority of the problems. This is known as the Pareto principle, 80% of the causes are lead by 20% of the problems. A Pareto chart is a bar graph. The lengths of the bars represent frequency or cost (time or money), and are arranged with longest bars on the left and the shortest to the right. In this way the chart visually depicts which situations are more significant [9]. Figure 6 shows the Pareto of the customer process within the first 1-3 days. Its data displays that the majority of satisfactions for waiting times are bounded by the first response to inquiry and the overall process cycle, a little over 80%. We can also interpret the data vice versa and establish that receiving the extended services causes the majority of dissatisfaction or “problem” within this time frame, almost 84%.



**Figure 6**  
Customer Process within 1-3 Days

Figure 7 shows the Pareto of the overall customer satisfaction for ranks 4-5, above average satisfaction. Its data displays that the majority of overall customer satisfactions are bounded by the company’s representatives and the, on average, overall process, a little less than 80%. We can also interpret the data vice versa and establish that receiving the extended services and waiting times causes the majority of dissatisfaction or “problem”, with almost 87%.



**Figure 7**  
Overall Customer Satisfaction (Ranks 4-5, Above Average)

To better guide us to the improvement stage we, finally, review the five whys. These were based on a DMAIC implementation suggestion for evaluating effectiveness and efficiency because as an emerging company it is important to be aware of your strengths and weaknesses. We found that there is customer dissatisfaction and, as a weakness, it’s an improvement area. One of the main areas for improvement are waiting times because orders are getting delayed and a very few unattended. Also, since customers have access to submitting orders continuously, only a few employees process all online orders and waiting times start building up.

### Improve

This target stage focuses onto implementing actions to correct the problems identified on the previous stage. These actions need to be tested and measured to verify that they are effective. The effective methods set the basis for the next stage. Six Sigma brings a clear commitment to making decisions on the basis of verifiable data and statistical methods, rather than assumptions and guesswork. Here are the areas that have been determined for improvement: waiting times, extended services and the overall customer process. The former will be a direct result of the first two, for which focus will be on waiting times and the extended services. Table 6 shows the improvement suggestions for the different processes. By hiring, at least, three more employees overall waiting times for regular orders and for the extended services could be reduced. Creating eight-hour shifts (three shifts total

per day) would allow for customers to receive information at the expected or objected times.

**Table 6**  
**Improvement Suggestions**

Process	Objective	Suggested Implementation
<b>Overall Waiting Times</b>	Reduce waiting times to 1-2 days	Reduce answered inquiries and orders process & dispatch
Information Responded to Clients	Respond to clients within the first 12 hours	Have employees strictly assigned to greetings and inquiry response within 12hr intervals or three 8hr shifts
Order Processing & Dispatch	Process all orders within 24hr to dispatch within 24-48hr	Have employees strictly assigned to order processing and dispatch within 12hr timeframes
<b>Overall Extended Services</b>	Reduce waiting times to 1-3 days	Carefully select outsource companies and reduce processing & dispatch of orders
Outsourced Services	Hire greater quality, fast-acting and cost-effective outsources	Carefully select outsources by testing their services.
Processing & Dispatch of Orders	Process all orders within 24hr to dispatch within 24-72hr	Have employees strictly assigned to the pick-up, processing and delivering of these services.

### Control

This last stage targets to turn the solutions found into a rentable change in the processes. These changes are to monitor the performance, maintain the benefits from the solution implemented and set the ground for new improvement opportunities as the new data being collected feeds the DMAIC cycle for another project. In the regulated industry, these changes might require, new procedures (SOP) and Validations to ensure compliance to ISO and FDA regulations as applicable.

With the suggested implementations in place, and waiting times reduced, customer satisfaction should highly increase in these factors and the overall customer process. In order to be able to determine if customer satisfaction has increased over time in these areas, a small paper or online-based survey immediately after the order is received is

recommended. This survey will capture “fresh”, real-time data that would allow for immediate feedback on the process for continuous improvement. A detailed telephone survey is recommended every six to twelve months for new customers intake and observe customer loyalty patterns. This survey should have specific timeframes that reflect the company’s goals in order to an accurate assessment.

In addition, random customers should be surveyed for outsourced extended services on a monthly basis. These services have to be evaluated on quality of work, ease of management, fast delivery of results, and cost-effective contracts.

Reviewing control methods:

- ✓ Short survey after orders is received to provide a “fresh” input
- ✓ Detailed survey every six to twelve months to verify customer satisfaction
- ✓ Verify the effectiveness of defining shifts
- ✓ Verify the efficiency of assigning employees to specific areas
- ✓ Maintain process controls within targets
- ✓ Monitor the customer process value stream, and perform periodical audits
- ✓ Monthly outsourced extended services evaluations by random customers
- ✓ Evaluate, select, and monitor supplier performance

### CONCLUSIONS

Within each phase of the DMAIC methodology, Six Sigma analysis helped in the development of an improvement plan, maintaining the process, achieving the proposed goals, including the reduction of the cost and increasing productivity. From the results obtained in each phase of the methodology, a complete improvement plan was created and suggested. With the increasing statistical power of Six Sigma, we were able to measure the effects of each element in the system on the quality of management. Furthermore, the improvements prove to be significant, and all the suggested implementation was satisfactory for the process.

There are various reasons why businesses use VoC to research for shaping their strategies going forward. Customer satisfaction surveys can be the key to customer success helping obtain honest, insightful customer feedback through customer surveys and questionnaires will help better understand customer loyalty, new products and services, and brand perception, awareness and positioning. Satisfaction surveys are a valuable tool for small businesses, helping gain a better understanding of customers' requirements and concerns so that you improve your products and your standards of service in line with customers' needs. By monitoring customer satisfaction and responding to problems, customer loyalty can be improved and, also, protect revenue and profitability. Effective customer service and sales is the first step toward customer satisfaction. Employees should be thoroughly trained on their products and services, and able to confidently answer questions and converse on the products.

### RECOMMENDATIONS

By conducting a number of surveys over a period of time, you can measure the results of any improvement programs you have undertaken. Ask customers specific detail-oriented questions that align with business goals. Gather ideas various individuals within the business to gain an insight on how the potential adjustments will impact the customer and the company.

Today's generations of purchasers, as well as the other millions of internet-savvy users, often prefer to look toward the business's website for information and answers before reaching out to the company. Implementation of a thoroughly versed website that includes a "frequently asked questions" section that addresses the most common concerns and questions posed by customers is highly suggested. A strong recommendation would be to explore the idea of creating a webpage outside of Facebook. This will ultimately benefit the company since it provides for personalized details, items information directly on the page, order transaction

easiness, reduced response and waiting times, and eventually it could lead to a cost-effective system.

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