UNITED AIRLINES – Revitalizing the customer relations process

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Company

United Airlines (NASDAQ: UAUA) operates more than 3,200[(1)] flights a day on United®, United Express® and Ted® to more than 200 U.S. domestic and international destinations from its hubs in Chicago, Denver, Los Angeles, San Francisco and Washington, D.C. With key global air rights in the Asia-Pacific region, Europe and Latin America, United is one of the largest international carriers based in the United States. United also is a founding member of Star Alliance, which provides connections for our customers to 965 destinations in 162 countries worldwide. United's 55,000 employees reside in every U.S. state and in many countries around the world.

Customer Relations

United's Customer Relations department takes care of post travel customer contacts, that include complaints, complements and request for information related to their experience of the travel value stream starting with booking a ticket and ending with getting the luggage at the final destination. The contacts are made through phone (voice), email, letter, and fax. On an average, customer relations receive 1.2 million customer contacts per year, and email and voice channels are used for majority of the complaints. Customer Relations has a global operational footprint, with offices in United States (onshore) and in other countries (offshore).

Business Case

Customer Relations plays a critical role in recovering customers who perceive disservice during the travel value stream. Hence, when the customer complaints to customer relations about their experience, it is important they feel satisfied with their interaction with customer relations. To measure this satisfaction, a monthly customer survey was implemented in May 2007 to capture customer satisfaction before and after contacting customer relations.

The results from this survey for May-Aug 2007 indicated that our customers' satisfaction with customer relations process was below the goal. Based on additional data available and direct customer feedback (VOC) to senior company officers, it was determined that our offshore contact center (hereby referred to as OFCC), which handles majority of the customer complaints, was causing significant customer dissatisfaction.

Approach

A cross functional team was constituted in August 2007 to address this problem. The objective was to significantly improve the customer satisfaction score with OFCC operations by end of 2007, and make it sustainable by 1st qtr of 2008. Considering the complexities and challenges of global contact center operations, the Six Sigma DMAIC problem solving approach was selected, as it provided a rigorous, yet flexible framework that is repeatable and reproducible across the global platform.

Within the OFCC operations, the team selected e-mail contact channel, as it had significant volume of contacts resulting in the largest number of complaints. To ensure all stakeholders were aligned with each other and with the overall objective of the project, a charter was drafted and signed by key stakeholders, setting the stage for the team to execute the project.

Measure of the problem

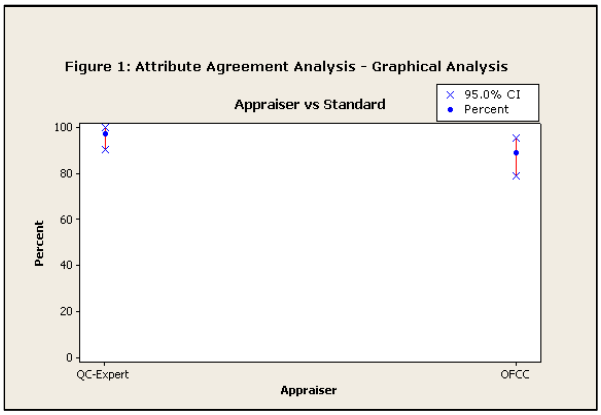
To have a better understanding of the process flow and related critical to customer attributes, the team visited the OFCC, met with agents, and observed the entire customer complaint resolution process. A current-state SIPOC map and detailed process map was created for the e-mail value stream. This provided a measure of inputs, decision points and hidden factory elements in the process.

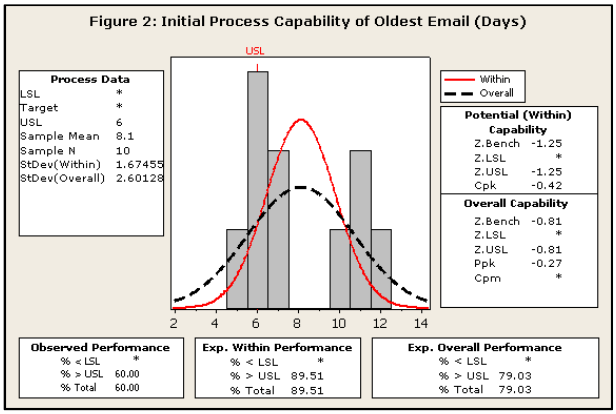
To identify significant process inputs as related to key customer requirements, team conducted a C&E Matrix exercise. As a result of the exercise, team observed that two significant attributes that impacted customer dissatisfaction were the **Quality** and **Timeliness** of the response. Based on this learning, team identified three key metrics impacting customer satisfaction which are listed in table 1.

#	Metric	Baseline	Goal
1	% negative 2nd contact from the customer (hereby called '% negative 2Fers'[2])	25%	≤ 10%
2	% on Time[3] – Response to customer within 3 business days of receiving e-mail	75%	≥ 95%
3	Oldest Email not replied[4]	25 days	≤ 6 days

Table 1 – List of key metrics

To ensure data being collected was relaible, an analysis was conducted on the measurement system for *negative 2Fers*. The OFCC quality team analyzed 70 randomly picked emails and marked the ones that they thought were *negative 2Fers*. The same randomly picked emails were later analyzed by a QC expert. An attribute agreement analysis was performed on these two output data, and the results are provided in Figure 1. Based on analysis, there was 86% agreement between OFCC quality team and QC expert. We were comfortale with the measurement system for *negative 2Fers*. The measurement system for *% ontime* and *oldest email* was similarly validated.





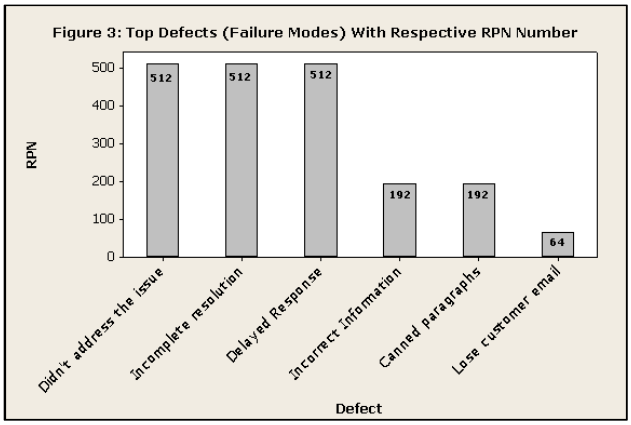
Next step was to calculate process capability. As an example, the baseline process capability for *Oldest Email* was determined as Z = **-0.81** (see figure 2) based on a USL of 6 days. In other words, 79% of United's customers were getting reply to their complaints after 6 days. Similarly, current process capability for *% negative 2Fers* and *% ontime* were calculated. This confirmed that email process had significant opportunity for improvement.

The team then used FMEA tool to understand the defects and root-causes associated with the critical inputs. The significant defects were prioritized based on the RPN score (see figure 3), and are listed below:

1. Delay or no response
2. Information on the response not good – incomplete, or incorrect, or not addressed customer issue
3. Communication plastic or lacking empathy

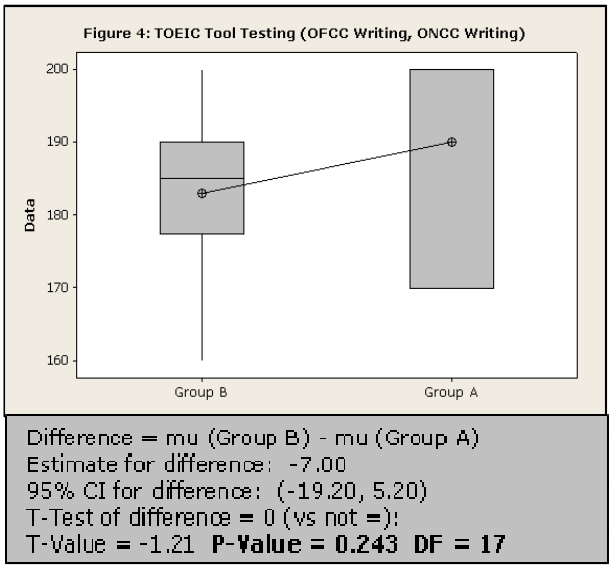
The outcome from the FMEA validated that quality and timeliness were major reasons for customer dissatisfaction. Once the defects were identified, the team used the "5 Whys" exercise to get to the root-causes associated with each of the defects. Using the affinity diagram exercise, the following major root-causes were identified:

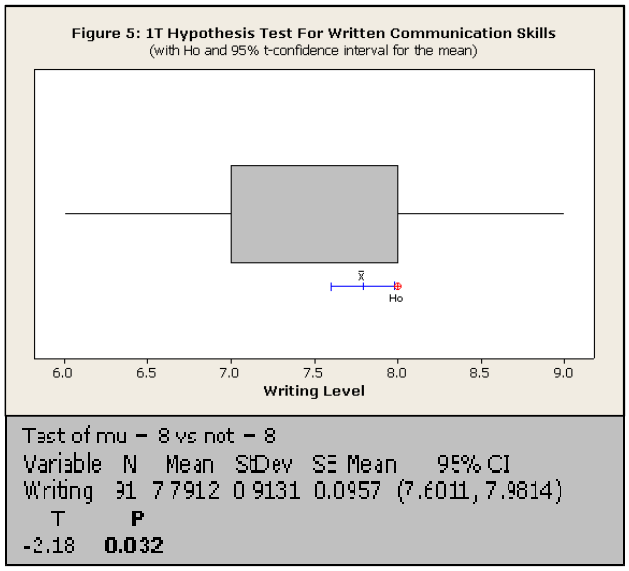
1. Lack of customer oriented metrics
2. Multiple hidden factories (a.k.a. rework elements)
3. Lack of work instructions/standard work
4. Agent's lack of communication skills



Validate root causes

The 1st three root causes were validated using auditing and objective evidence techniques. The root cause # 4, Agent's lack of communication skills, required a more rigorous technique for validation. The team identified a tool called Test of English for International Communication™ (TOEIC®[5]), a globally recognized test to measure competency in English communication in a global business environment. To validate the tool, a pilot study was conducted in which two groups of 10 agents each were given the TOEIC®. Group A had agents with English as their 1st or native language. Group B had agents from OFCC for whom English was not their 1st or native language but who had performed well in communicating with customers in English. The hypothesis was that these two groups have same or similar English communication skills, and TOEIC® can help validate that. A 2-Sample t Test was conducted on the TOEIC® scores, and the results are shown in Figure 4. Based on the P-value from the test (>0.05), we failed to reject the null hypothesis, concluding the two groups have same or similar communication skills in English. This helped to validate that TOEIC® tool can be used for further analysis.





Subsequently, the entire Email team of 91 agents was tested for TOEIC®. Per TOEIC®, the minimum score for effective communication skills is ≥ 8 based on a scale of 1-10. The 1-Sample t test was used to validate the null hypothesis that agent scores were equal to the minimum score. The results are shown in Figure 5. Based on the P-value (<0.05), the null hypothesis was rejected, and based on the 95% confidence interval (7.6011, 7.9814) it was determined that agents communication skills were lower than the minimum required level.

Identify practical solutions

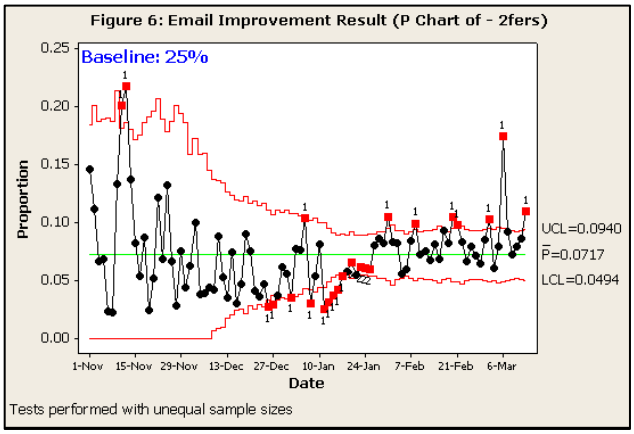
After validating the root causes, the team benchmarked other contact center operations and brainstormed to develop a portfolio of potential solutions. These solutions were filtered using a prioritization matrix based on ease of implementation, cost, benefit, and sustainability. The major solutions identified were:

1. Visual performance management: consisting of a visual performance board with a balanced portfolio of metrics, a regular performance dialog among the agents and supervisors to identify issues and celebrate success, and a mechanism to track actions taken to address the issues and a reward and recognition program to celebrate success
2. QMS consisting of standard procedures and work (conforming to ISO9001:2000), including a standard email response template that allows agents the flexibility to frame a response based on the context of customer's experience
3. Alignment of agent profile and training to current business requirements and customer recovery

These solutions were first piloted, validated with results, and then rolled out across the entire operation.

Sustaining improvements

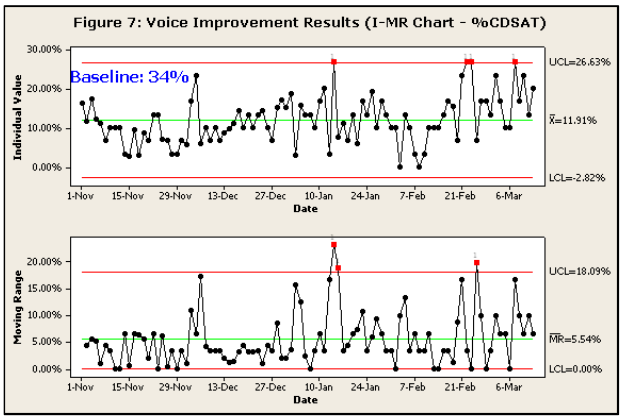
After the solutions were implemented, the process was monitored for two months to ensure new changes produced results that were sustainable and was in control before handing it over to the process owners. The *% negative 2Fers* were reduced by 71% from the baseline, with 80% of the improved data points meeting or beating the goal. The p-chart in figure 6 summarizes these improvements. The control chart allowed the team to review data points above the UCL, identify root causes and take necessary corrective actions. Additionally, for last 45 days of control phase - *% on time* is at 99.9% (goal ≥ 95%) and *oldest email* is 5 days with an average of 3 days (goal ≤ 6 days).

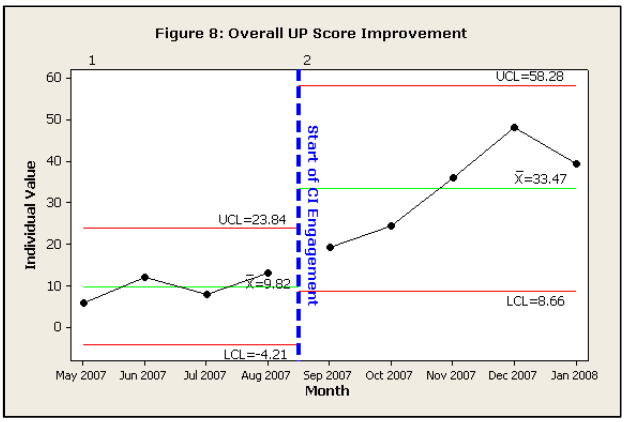


A weekly operations review is conducted between OFCC and ONCC managers in which the visual performance board metrics are discussed and issues addressed accordingly. Each quarter, the ONCC Senior Leadership visits OFCC site to review the performance and explore opportunities for further improvements. During this visit the QMS system is audited to ensure it is robust and effective in meeting current business requirements.

Explore leveraging opportunities

The team leveraged the learning from the email process improvement, and worked on the other significant mode of contact – voice. Similar to email process, team was able to reduce customer dissatisfaction (%CDSAT) by 65% from the baseline using the DMAIC methodology and tools. The results are shown in figure 7.





Overall customer perspective

Having improved the leading indicators related to email and voice processes, the team was expecting to see improvement in customer feedback on customer relations process. Since the launch of improvements, **UP score** has shown a positive trend with the improvement of **241%** highlighting meaningful results to our customers (see figure 8). The ONCC senior leadership team joined the OFCC operations team in March 2008 to celebrate these significant successes and to confirm their sustained commitment to continuously improving our customer experience.

Glossary

C&E – Cause and Effect
CDSAT – Customer dissatisfaction
DMAIC – Define, Measure, Analyze, Improve and Control
FMEA – Failure Mode and Effect Analysis
OFCC – Offshore contact center
ONCC – Onshore contact center
QMS – Quality Management System
RPN – Risk Priority Number
SIPOC – Supplier Input Process Output Customer
TOEIC® – Test of English for International Communication
USL – Upper Specification Limit
UP – United Promoter
VOC – Voice of customer
Z – Normalized process capability index

References

1. Based on the flight schedule between Jan. 1, 2008 and Dec. 31, 2008
2. A second (or additional) contact from the same customer on the same subject because of they were not satisfied with 1st response
3. Percent of customer emails replied back within three business days
4. Oldest customer email in WIP that has not been responded to
5. TOEIC® is a copyright© by Educational Testing Services (ETS)