



## Chapter 26 Customer Satisfaction & Feedback, Post Delivery Activities

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### 0) Introduction

This is about the real thing about the future of your organization. How satisfied the customer is on your products and services. It will also decide future business opportunities. Clause 10.2.5 warranty and Clause 10.2.6 Customer complaint and Field Failure Test Analysis are critical matters. They are therefore added to the discussion pool here. The topic of Post-deliver activities are also included here as this is part of the services.

#### 1) 9.1.2 Customer Satisfaction (ISO9001)

(Requirement-paraphrase)

The organization shall monitor customers' perceptions of the degree to which their needs and expectations have been fulfilled. The organization shall determine the methods for obtaining, monitoring and reviewing this information.

NOTE Examples of monitoring customer perceptions can include customer surveys, customer feedback on delivered products and services, meetings with customers, market-share analysis, compliments, warranty claims and dealer reports.

(Highlights of the clause)

- (Ref to old Standards). There had been a similar clause 8.2.1 of the same title in the older version of ISO9001.
- Old requirements are all retained. Internal customers removed in the old NOTE.
- The total requirement is: i) monitor customers' perceptions of the degree to which their needs and expectations have been fulfilled: ii) The organization to determine the methods for obtaining, monitoring and reviewing this information.
- New NOTE clarified that meeting with customers, market share analysis are acceptable feedback channels.

*(Compliance best practice)*

#### **9.1.2 Customer Satisfaction**

1. *The clause focusses on customer perception on the organization's performance*
2. *The most common method used is still customer satisfaction survey, although there are several other ways allowed, as stated in the NOTE of Clause Description.*

3. *In automotive, scorecards are common from customer, and they are more accurate than customer satisfaction survey. If you have scorecards, you can do away with the customer satisfaction survey*
4. *For CSS, you design a feedback form to survey for quality, delivery, response and pricing. It should not be too detail, as we only need an indication. Points of concern can be followed up with telephone, email or personal visits.*
5. *The returns shall be studied and acknowledged. The returns shall also be totalled up and averaged. Positive comments should be acknowledged by expressing appreciation. Negative comments must be looked into, investigated, and communicated until resolved. IATF auditor will look at this area, in every audit.*
6. *You may want to separate the returns into automotive and non-automotive. because the targets are different. Non-automotive tends to be easier and automotive harder. When the returns arrive, you compile on 2 lists and evaluate from different perspectives.*
7. *The score can be an qualitative indicator e.g. 1 to 5, with 5 being the best. You can set your own targets for the organization, e.g.: quality 4/5, delivery 5/5, response 4/5, and pricing 3/5. The returns will be compared with these targets.*

## **2) 9.1.2.1 Customer Satisfaction-supplemental (IATF16949)**

(Requirement-paraphrase)

Customer satisfaction with the organization shall be monitored through continual evaluation of internal and external performance indicators to ensure compliance to the product and process specifications and other customer requirements. Performance indicators shall be based on objective evidence and include but not be limited to the following:

- a) delivered part quality performance;
- b) customer disruptions;
- c) field returns, recalls, and warranty (where applicable);
- d) delivery schedule performance (including incidents of premium freight);
- e) customer notifications related to quality or delivery issues, including special status.

The organization shall monitor the performance of manufacturing processes to demonstrate compliance with customer requirements for product quality and process efficiency. The monitoring shall include the review of customer performance data including online customer portals and customer scorecards, where provided.

(Highlights of the clause)

- (Ref to old Standards). There had been a similar clause, 8.2.1.1, of the same title, in the previous version of ISO/TS16949.
- The formal 3 critical customer satisfaction indicators are retained
- Explained clearer of performance of realization means product and process specs and other customer requirements, 'special status' to be added for monitoring.
- Online customer portals and customer scored cards added to scope of monitoring
- Process review to be conducted to comply with customer requirements for product quality and process efficiency.

(Compliance best practice)

### **9.1.2.1 Customer Satisfaction-supplemental**

1. 3 additional customer satisfaction indicators are: a) customer interruption (including line down, yard holds), b) premium freight, and c) special notifications on special status. There are highly critical.
2. Some of these data are monitored internally a) and b), while c) is informed by the customer, or via their portals.
3. These data should be best monitored internally, as KPI. See **Exhibit 26-1**. And actions can be taken immediately if any score is unsatisfactory, as they are critical.
4. Scorecard and customer portal feedback have been mentioned. Authorized persons must track and evaluate performance data and take actions where necessary
5. Process review, as one of the feedback mentioned in the clause, is normally done once a year, by production, and reported in Management Reviews

### 3) 10.2.5 Warranty Management Systems (IATF16949)

(Requirement-paraphrase)

When the organization is required to provide warranty for their product(s), the organization shall implement a warranty management process. The organization shall include in the process a method for warranty part analysis, including NTF (no trouble found). When specified by the customer, the organization shall implement the required warranty management process.

(Highlights of the clause)

- (Ref to old Standards). This is a totally new requirement.
- This subject is a closely-related to customer complaints
- Warranty generally arises from actions of final customer, e.g car owners. So there generally is a lag between shipment and warranty claims.
- To comply, organization shall have a process to handle warranties. If customer specifies a their process, compliance is mandatory
- Another requirement is to provide a report on the investigation, including NTF (no trouble found).

(Compliance best practice)

#### 10.2.5 Warranty Management Systems

1. Warranty handling needs a procedure. It tends to be very different from customer to customer and the procedure should spell out how it is done for the various customers
2. You should start off with a generic, with a special remark that customer specified method shall be used, where applicable. Only when it gets too confusing, additional procedures should then be considered. See **Exhibit 26-2**.
3. Every warranty case shall be recorded, investigated and provided with a concluding report, including cases of NTF (No Trouble Found). See **Exhibit 26-3**.
4. OEMs have their own processes usually requiring you to input your conclusion directly into their portals.

### 4) 10.2.6 Customer Complaints and Field Failure Tests Analysis (IATF16949)

(Requirement-paraphrase)

The organization shall perform analysis on customer complaints and field failures, including any returned parts, and shall initiate problem solving and corrective action to prevent recurrence. Where requested by the customer, this shall include analysis of the interaction of embedded software of the



organization's product within the system of the final customer's product. The organization shall communicate the results of testing/analysis to the customer and also within the organization.

*(Highlights of the clause)*

- (Ref to old Standards). There had been a similar clause, 8.5.2.4 Rejected Product Test/Analysis, in the previous version of ISO/TS16949.
- The old clause was dealing with rejected parts from customer plants, engineering facilities and dealerships. Organization shall minimize the cycle time of this process. Records of these analyses shall be kept and made available upon request. The organization shall perform analysis and initiate corrective action to prevent recurrence.
- The old requirements are all retained. The new clause has included customer complaint into the scope
- Another new area is: where requested, organization also need to analyse interaction with embedded software of the final product Reporting to customer and internal
- Although not specified, cycle time should be minimized, as it is a major concern of OEM customers.

*(Compliance best practice)*

#### **10.2.6 Customer Complaints and Field Failure Tests Analysis**

*(Customer Complaints)*

- *Customer complaint in general, means quality complaints. Commercial and delivery complaints are managed through other means e.g. score cards, or by their logistics with different documentations.*
- *For complaint handling, customers normally have their own methods, and organization must abide. Some of the important points are response time, handling methods, and complaint closure method.*
- *It is also good to have a generic process, where customer method is referenced. The method should be similar to the 10.2.3 See a specimen in **Exhibit 26-4**.*

*(Field Test Analysis)*

- *Whether complaints or warranty claims, this clause (Field Test Analysis) will be applicable*
- *Field failure test analysis shall be carried out where applicable.*
- *Communicate results of testing/analysis to customer and within organization*

#### **5) 8.5.5 Post-delivery activities (ISO9001)**

This was already discussed in Chapter 19. Please refer.

### **5) SIs & FAQs**

**No SIs & FAQs for this Chapter**

## 6) Supplementary Notes

*Legend: HOC= Highlights of Clause, CBP= Compliance Best Practice, S&Q= SIs & FAQ, EXH= Exhibits*

Clause	Section	Clarification Subjects
9.1.2, 9.1.2.1	CBP	<b>SN26.1. Why is score cards from customer is better than customer satisfaction survey?</b>
9.1.2, 9.1.2.1	CBP	<b>SN26.2. Why is very detail customer satisfaction survey not preferred? We can analyse better than simple ones.</b>
9.1.2, 9.1.2.1	CBP	<b>SN26.3. Why and how do we acknowledge customer satisfaction survey returns?</b>
9.1.2, 9.1.2.1	CBP	<b>SN26.4. Why we should compile 2 different list of customer satisfaction survey results?</b>
9.1.2, 9.1.2.1	CBP	<b>SN26.5. Is it OK to come up with a final score of the QCDS (quality, cost, delivery, service) and use it as criteria of measure? Say passing mark is 80%.</b>
9.1.2, 9.1.2.1	CBP	<b>SN26.6. For negative returns on pricing, how do we handle?</b>
10.2.5	CBP	<b>SN26.7. If there are disagreement with customers on judgement of warranty validity, how should we handle?</b>
10.2.6	CBP	<b>SN26.8. Do we need to conduct field failure analysis for all warranty claims?</b>
10.2.6	CBP	<b>SN26.9. How do we share failure test analysis with internal departments?</b>

### **SN26.1. Why is score card from customer is better than customer satisfaction survey?**

Customer scorecard is an official exercise of the customer and scoring is guided and transparent. Therefore it is reliable. You can also seek clarifications/try to resolve on doubtful areas. Customer Satisfaction Survey on the other hands are not so reliable. They are sometimes treated very lightly and answered by low ranking employees. I have seen a case where all survey forms for 10 companies in a group were told to be sent to a procurement office in Singapore. All the forms were subsequently replied by a junior clerk in Singapore, with 100% identical results for all 10 companies. This is a sheer waste of time and misleading. This admittedly is an extreme case of misapplication, the ratings of customer satisfaction are at best generalizations not supported with data, sometimes tainted with bias and prejudice.

### **SN26.2. Why is very detail CSS not preferred? We can analyse them better than simple ones.**

People replying your survey are not your employees, they are your customers. They have no obligations whatsoever to help you complete your tasks. Moreover they could be busy. Simpler surveys will help them to help you. If it is too complicated, your request is just ignored. That is the reason why some organizations only get about 30-50% replies.

### **SN26.3. Why and how do we acknowledge customer satisfaction survey returns?**

This is basic courtesy that people seem to have forget. A simple expression of appreciation by email is all that is necessary. If you don't do that, don't blame your customers next time when they ignore your request.

### **SN26.4. Why we should compile 2 different list of customer satisfaction survey results?**



Automotive and non-automotive customer have different expectations and targets. If you use average figures from a mixed pool for automotive audit, you will fail in many instances. For example: on-time delivery. Automotive customers expect 100% on-time, or very close to it. Results from a mix pool normally cannot achieve that and you will have a lot of explanations to do. If you only show the automotive list, you should be able to hit the target and no more questions asked.

**SN26.5. Is it OK to come up with a final score of the QCDS (quality, cost, delivery, service) and use it as criteria of measure? Say passing mark is 80%.**

It will be OK for non-automotive, but not automotive. In automotive, we look into the details. A score of 85% example, could hide poor delivery ratings, which is not good. But if the individual ratings are also shown, then the method is OK.

**SN26.6. For negative returns on pricing, how do we handle?**

Acknowledge the concern and promise to get back to the person. Then ask the marketing people to word the reply for you to send out. Any further development shall then be handled by the marketing people.

**SN26.7. If there are disagreements with customers on judgement of warranty validity, how should we handle it?**

You try to reason out with your counterpart. If no agreement can be reached, you escalate to a higher authority. We have seen such cases especially agreement can only be reached at a higher level.

**SN26.8. Do we need to conduct field failure analysis for all warranty claims?**

No, it is also not possible due to a few reasons.

- a) usually you are required to visit OEM site to view the returns. In some instances, non-valid claims due to secondary causes can be rejected there and then, with customer acceptance. Those rejected ones do not need further analysis, which is a good thing.
- b) sometimes customers do not get the returned parts, so there is nothing for you to analyse
- c) customer has a policy of giving a certain percentage of returns for analysis. You only have a chance to analyse those that are returned

**SN26.9. How do we share failure test analysis with internal departments?**

You should have a report to conclude each case. Just share the reports with them.

## 7) Exhibits

### Exhibit 26-1. Critical Customer Satisfaction Criteria

#### Critical Customer Satisfaction Criteria

##### *Premium Freight outbound*

	J	F	M	A	M	J	J	A	S	O	N	D
Event	0	2	0	0	0	1	1	0	0	0	0	0
RM		300				100	900					
Remark		A				B	C					

Remarks:

A: Due do customer change order quantity and increase. Need to arrange special delivery. Management approved

B: Same as above

C. Machine 3 broke down

##### *Premium Freight inbound*

	J	F	M	A	M	J	J	A	S	O	N	D
Event	0	2	0	0	0	1	0	0	0	0	0	0
RM		1000				200						
Remark		A				B						

Remarks:

A: due do customer increase order, shortage of material. Air freight. Customer agree to pay.

B. Material XXX ran short after deducting the off shelf-life items.

##### *Customer Disruption (line down)*

	J	F	M	A	M	J	J	A	S	O	N	D
Event	0	2	0	0	0	0	0	0	0	0	0	0
RM		15000										
Remark		A										

Remarks:

A: Due to customer A line down 15 minutes @RM1000/min. Some parts cannot fit

##### *Special status notification (serious warning from customer e.g. no new bidding)*

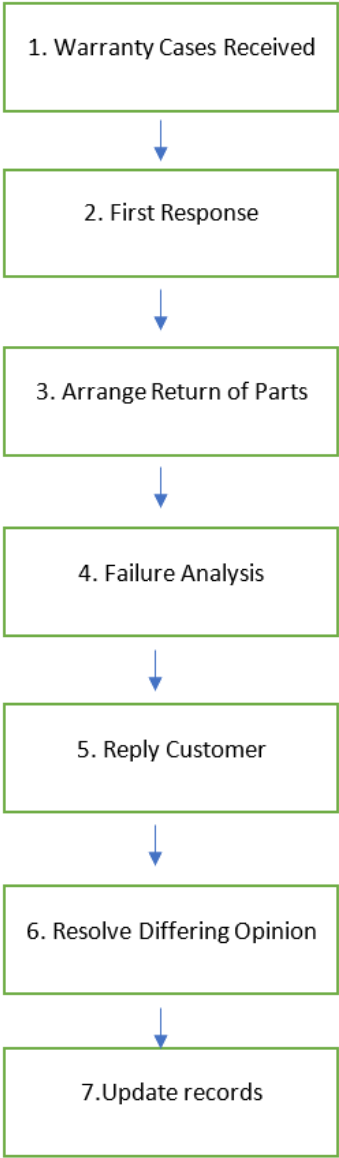
	J	F	M	A	M	J	J	A	S	O	N	D
Event	0	2	0	0	0	0	0	0	0	0	0	0
RM												
Remark		A										

A= From Customer B. Due to many rejects. Added pre-shipment quality gate.

**Remarks given here explain on the Exhibit. Do not include them as part of the document**

- This is often omitted, and also not reported in Management Reviews
- Note that premium freight has 2 types, inbound (purchasing), outbound (delivery)

### Exhibit 26-2. Warranty Procedure

Responsible	Flow Diagram	Description
QA	 <pre> graph TD     A[1. Warranty Cases Received] --&gt; B[2. First Response]     B --&gt; C[3. Arrange Return of Parts]     C --&gt; D[4. Failure Analysis]     D --&gt; E[5. Reply Customer]     E --&gt; F[6. Resolve Differing Opinion]     F --&gt; G[7. Update records]           </pre>	<p>Point 1:</p> <ul style="list-style-type: none"> <li>Customer will inform through portal, email etc</li> </ul> <p>Point 2:</p> <ul style="list-style-type: none"> <li>First responder shall access the information e.g. from customer portal</li> <li>The info shall be studied and background checked for possible clues</li> </ul> <p>Point 3:</p> <ul style="list-style-type: none"> <li>Parts usually need to be collected from the customer.</li> <li>Obvious unwarranted claims can usually be reject while collecting the returned parts</li> <li>Most common rejections are based on secondary damaged-damaged occurred after delivery</li> </ul> <p>Point 4:</p> <ul style="list-style-type: none"> <li>The analysis of failure shall then</li> <li>Most analysis will first confirm failure by means of functional tests</li> <li>In some cases, simulation needs to be done.</li> </ul> <p>Point 5:</p> <ul style="list-style-type: none"> <li>The final analysis shall be feedback to customer, with full report</li> </ul> <p>Point 6:</p> <ul style="list-style-type: none"> <li>If there are differing opinions that cannot be resolved at the normal level, the case shall be escalated to higher authority</li> </ul> <p>Point 7:</p> <ul style="list-style-type: none"> <li>There should be a running log for warranty cases, and this should be update</li> <li>The reports are sent to customer Including NTF cases (no-trouble found)</li> <li>Relevant internal departments, including finance shall be informed via copies of the reports.</li> <li>Where applicable, organization shall update customer portal directly</li> </ul>

**Remarks given in this section explain on the exhibit. Do not include them as part of the document**

- This procedure is a requirement for documented process
- Actually, each customer has its own procedure, which you need to follow
- But you should try to maintain one procedure as far as possible, in order to avoid adding complexities to the clause





**Exhibit 26-3. Warranty Records**

**Warranty Cases Resolution**

Date	Customer – case No	Description	Investigation Date	Report No	Failure Part Analysed?	Conclusion Valid/Not Valid	Follow up actions	Status
15/3/16	Omron- WCN-299	Casing detached	16-20 Mar 2016	WCI-17-12	Yes	Valid	Replaced part and carry out 8D problem solving	Resolved 17/3/16. 8D report 17-17

**Remarks given in this section explain on the Exhibit. Do not include them as part of the document**

- This is a typical recording form for claims from the field. Each claim has to be recorded, even if it is not valid. This is particularly important, as OEM tend to deduct first and reimburse later, for non-valid cases.
- More and more OEM nowadays require you to input these data directly onto their portals
- Your reports need to be clear and convincing so you do not end up paying for fault not caused by you

### Exhibit 26-4. Customer Complaint Procedure

Responsible	Flow Diagram	Key Points
Respondent / PIC	<pre> graph TD     A[3-3(1) Complaint from customer] --&gt; B[3-3(2) Mitigation and Correction]     B --&gt; C[3-3(3) Investigate &amp; Analysis]     C --&gt; D[3-3(4) Reporting to Customer]     D --&gt; E[3-3(5) Closure/Tidy up]     E --&gt; F[3-3(6) Documentation Updates]     F --&gt; G([End])           </pre>	<p><b>3-3(1)</b></p> <ul style="list-style-type: none"> <li>Customer complaint may be via an official NC format, email, or a phone call</li> <li>If complaint is by email, acknowledge and contact customer immediately</li> <li>Respondent shall note down all details, and specific customer requests</li> <li>Enter the complaint into the Complaint Master List</li> </ul> <p><b>3-3(2)</b></p> <ul style="list-style-type: none"> <li>If complaint is causing customer interruption, mitigation actions shall be taken immediately, e.g. send backup products by fastest method</li> <li>decisions shall be made, in consultation with customer, regarding disposition of defective products on customer's site e.g. return, onsite sorting etc.</li> <li>Arrange for implementation of disposition method as agreed</li> </ul> <p><b>3-3(3)</b></p> <ul style="list-style-type: none"> <li>investigate validity and extend of problem or potential problem</li> <li>carry out Root Cause Analysis and decide on long-term solution</li> <li>if problem is due to product quality, take containment actions internally e.g. stop machine and delivery of similar product and quarantine 1 lot each, before and after, for verification</li> <li>For detail problem-solving, refer to QP3-1</li> <li>If return is involved, refer to QP3-4</li> </ul> <p><b>3-3(4)</b></p> <ul style="list-style-type: none"> <li>Comply to customer requirements on complaint handling e.g. timeline and reporting</li> <li>In the absence of a customer specified method, internal CAR format shall be used to document problem-solving data and results</li> </ul> <p><b>3-3(5)</b></p> <ul style="list-style-type: none"> <li>Closure shall comply to customer method e.g. 3 trouble-free shipment, or customer verification onsite etc.</li> <li>Disposition decisions shall be made on quarantined materials/products and implemented.</li> <li>All documentation concerning the complaint shall be filed for easy retrieval</li> </ul> <p><b>3-3(6)</b></p> <ul style="list-style-type: none"> <li>All other documentations are then checked through, and updated as needed.</li> <li>The documents are: process flow chart, FMEA, control Plan, WI, visual guides, Inspection Sheets, etc.</li> </ul>
QMR/PIC		
QMR/ Doc Controller QAQC		

**Remarks given in this section explain on the Exhibit. Do not include them as part of the document**

- This procedure is for handling of complaints. You can think of it as a subset of problem solving, because complaints are also nonconformity and handled the same way
- Customer complaint may also lead to recall or return of goods. If so, you should also have processes to deal with such eventualities

>> End of Chapter 26 <<