

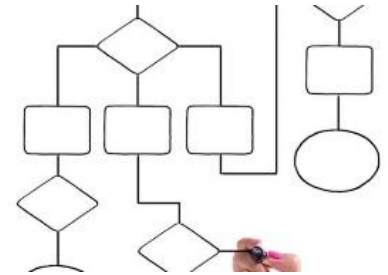
## Six Sigma in Courier Services

Six Sigma can help improve courier services that provide transport activities, parcel transport, that means transport and postal activities. Examples of measurable indicators can be: rate of delays in delivery, number or rate of human error, income and expenses on cost centers and cost, fast reaction times.



For example: A Six Sigma project could be "Increase customer satisfaction". The key indicator which give the performance of the process is index of customer satisfaction (S) and it is measured on a scale from 1 to 5, 5 is very satisfied customer.

First, we define the problem, identifies the process and team to work on the project. Specific tools of this phase (**Define**) for this case can be: Map process and collecting the Voice of the Customer.



Then we collect data and measure S the parameters that would influence it, x-s (**Measure** phase). Identifying of x can be done by one of the following methods: Brainstorming, Cause - Effect Analysis or Ishikawa, 5 Why?. Another tool used is control chart (see picture below).

For example S can be influenced by: delays in delivery (t), price (p), the distance from the sender to the recipient (d), the number of errors / non-receipt of the package (n), etc. These parameters are called potential causes. If we demonstrate with data the influence, the potential causes become root causes (**Analyze** phase). Here, we can use more advanced techniques such as Hypothesis Testing. In this phase, can also be used graphical analysis of variance ANOVA.

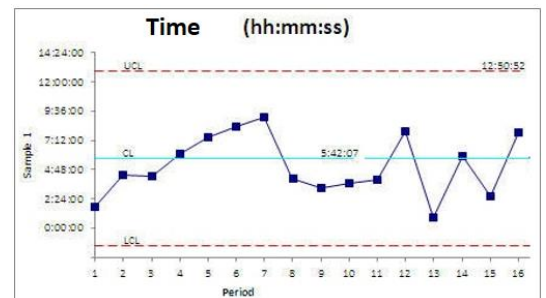
Six Sigma Project : Increase Customer Satisfaction  
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### IPO diagram

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Input	Process	Output
t - delays in delivery p - price d - distance from sender to recipient n - number of errors / non-receive of package	<b>Transport and parcel delivery</b>	S - Customer Satisfaction index

After finding the root causes, in our case delays in delivery (t), it proceeds to identify solutions that implemented would eliminate or diminish the negative effects for which it was made the project (**Improvement** phase).



To find solutions we can use the following tools: Brainstorming, DOE (Design Of Experiment), Poka Yoke. Choosing the most efficient, those who consumed the fewest resources or those that are implemented as quickly as possible can be done using Prioritization Diagram and Cause – Effect Matrix (Pugh).

In our case " Preventive maintenance of the transport cars " was the chosen solution. After implementation (contract with a service company for cars preventive maintenance), there has been no delay in transportation.

In **Control** phase drivers are trained to avoid additional expenses for maintenance.

We invite you to Six Sigma courses organized by Effective Flux to reap the benefits of this methodology.