Process Improvement Project

Project Selection Criteria:
- Select an issue or opportunity that can be written as a problem statement.
- Must be within your sphere of influence.
- Is not an attempt to solve world hunger.
- Uses data that is accessible to you or can be collected in a reasonable amount of effort/time.
- You have the ability to measure the current and future state. You have access to baseline data or can collect it.
- Preferably uses more continuous data (rather than all discrete data).
- Fixing this problem will provide value. You should develop a business case to support working this issue (consider your time and others when calculating ROI.)

Examples:
Improve product quality
Reduce expenses
Improve the output of your organization
Decrease wait time

Process Improvement Project
-Requirements-

The final submission should be 1 file, in slide format, created in PowerPoint.

It should include 2 parts:

1) Executive summary slide – 1 slide Storyboard (specific requirements below).

2) Back-up slides – additional 5-15 slides (specific requirements pgs. 3-4). This is <u>not</u> a repeat/copy of your storyboard. The back-up slides should detail and support the content of your storyboard.

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<u>1) *Executive Summary :: Storyboard*</u> (should be presented in 1 PowerPoint slide)

- Follow the DMAIC steps
- Include the problem statement and baseline
- Utilize **at least 5 different** tools/techniques (present relevant key tools to best tell your story).
- Be readable; summarize and condense exhibits where necessary
- Use arrows, call out boxes, and balloons to highlight questions and key learnings
- Display data/charts supporting your findings and conclusions
- Show results or expected results

Process Improvement Project
-Requirements-

2) *Back-up slides* **- following the Storyboard include 5-15 slides containing the answers to the following questions.**

DEFINE

•What is your goal? How will you know if you've been successful?

•Have clear operational definitions been established for your inputs and outputs?

•What is the process you're trying to improve? What are the current steps of the process?

MEASURE

•Include your Data Measurement Plan or Data Stratification Tree (examples on pgs. 5-6).

•What type of data did you collect (cost, cycle time, changeover time, yield, machine utilization, scrap, rework, defects, inventory)?

•Was that data continuous or discrete?

•Did you collect your own data or did you use existing data?

•How much data did you collect and why? What is your ideal sample size using the sample size formula? What is the risk if you collected fewer samples?

•How was your data collected? Describe the methods you used to collect it.

•Where could you have measurement error? How much measurement error do you have? What could you do to minimize your measurement error?

Process Improvement Project
-Requirements-

2) *Back-up slides* continued:

ANALYZE

- What tools did you use to analyze the data? (Utilize at least **5 different tools/techniques** and show evidence and detail of the tool/technique).
- What is the data telling you? What did you discover?
- What is the SQL for the old and new process?

IMPROVE

- What solutions did you propose and/or implement? Did you successfully improve your process? What did you learn about your process?

CONTROL

- How will you use this information to "hold the gains" of your improvement or make the next round of improvements in your process?

Data Stratification Tree

Questions About Process

Are orders impacted by the sales rep skill-levels (systems, product, pricing, listening, ability to follow the process)?

What % of the calls are order related?

Does the Sales Rep have the right skills to improve selling more orders?

Do new orders vary by month ?

Do new orders change by the receptiveness of the customer?

Are orders impacted by call duration?

Are orders impacted by call wait time?

Are orders impacted by pricing issues?

Are orders impacted by whether or not the Sales Rep follows the written process?

Do new orders vary by the availability of the product (not on backorder)?

Do the current targets impact orders?

New Orders

(Output Y)

Stratification factors X Variables

Skill level

Type of call

Training

Time of year (mo.)

Customer attitude

Call duration

Wait time

Pricing Issue

Written process

No.of backorders

Target settings (calls, orders, revenue)

Measurements

• % of orders per Sales Rep by skill level type
• average & range of Sales Rep skill levels

• % type of call

• no. of hours of training per month

• total orders placed by month
• % new orders are of total orders
• % new order revenue of total revenue by month

• customer attitude rating by order type

• Average call duration for new order / other orders

• wait time for a call

• calls transferred to OB due to pricing issues

• mystery call /silent monitoring results (points per call)

• % of orders resulting in backorders

• calls, orders, total rev, rev per mo. per Sales Rep

Example

Data Measurement Plan

Performance Measure	Data Source and Location	How Will Data Be Collected	Who Will Collect Data	When Will Data Be Collected	Target Sample Size
•% of orders per Sales Rep by skill level type •average & range of Sales Rep skill levels	•Susie	•Develop rating scale & assess performance	•Susie	5/12	N/A
•% type of call	•Manual data collection	•Use data collection form	•All	5/11-6/2	1000 calls
•no. of hours of training per month	•John's training spreadsheet	•Manual data collection	•John	5/20	12 mo
• total orders placed by month •% new orders are of total orders •% order revenue of total revenue by month	•IB performance reports	•Pull from report	•Leanne	By 6/3	28 mo
•customer attitude rating by order type	•Manual data collection	•Use data collection form	•All	5/11 - 6/2	500 orders
•Average call duration for new order vs. other	•Manual data collection	•Use data collection form	•All	5/11 - 6/2	500 orders
•wait time for each call	•Obtain from IT team	•Aspect reports	•Leanne	tbd	tbd
•% of calls transferred to OB due to pricing issues	•Manual data collection	•Use data collection form	•All	5/11 - 6/2	1000 calls
•mystery call /silent monitoring results (points per call)	•Monthly mystery call results	•Compile Pamela's data	•Leanne	By 6/3	30
•% of orders resulting in backorders	•Manual data collection	•Use data collection form	•All	5/11 - 6/2	500 orders
•calls, orders, total rev, per Sales Rep per month	•IB performance reports	•Pull from report	•Susie	By 6/3	28 mo
• No. of inbound calls per day	•IB performance reports	•Pull from report	•Susie	By 6/3	28 mo
•order revenue per Sales Rep per month	•IB performance reports	•Pull from report	•Susie	By 6/3	28mo
• Total revenue per month	•IB performance reports	•Pull from report	•Susie	By 6/3	28 mo
• Revenue per month by product type	•SN report	•Pull from report	•Leanne	By 6/3	ytd

Name of your project

Key Dates --->	Team Launch	Define	Measure	Analyze	Improve	Control

DEFINE

MEASURE

ANALYZE

IMPROVE

Storyboard template

CONTROL

TEAM MEMBERS

Process Improvement Project
-Rubric-

Content Requirements	Possible Points
A) An executive summary is provided in the storyboard format including: Is the storyboard presented in 1 PowerPoint slide? Follows DMAIC? Are tools/graphs/charts used and clearly visible? Do they support findings and conclusions Are arrows, call-out boxes, etc. used to summarize, highlight questions and key learnings? Are expected results clear? And next steps noted?	5.0
B) Is it a cohesive presentation opening with the business process and problem statement? The back-up slides (5-15) detail and support the storyboard content.	2.0
C) Was the success measure clearly identified, operationally defined and baseline identified? (Was the data identified as continuous or discrete, includes SQL?)	3.0
D) Was the data measurement plan or data stratification tree included?	1.0
E) Was the data collection method identified?	1.0
F) Was there rationale for the sample size taken? Use of the formula? Is there any reference to measurement error and how to minimize?	1.0
G) Are at least 5 different tools and techniques clearly identified? Are the tools linked/ pertinent to the data analysis?	5.0
H) Does the data analysis clearly tie to the problem conclusion? Is the "discovery" clear to the reader?	2.0
Total	**20**