

## ENGINEERING | Process BUSINESS PROCESS | Metrics



Chemical Bank mistakenly deducted about \$15 million from more than 100,000 customer accounts.

"The problem resulted from a single line of code in an updated computer program that caused the bank to process every withdrawal and transfer at its automated teller machines (ATMs) twice".

## Samsung Finally Explains the Galaxy Note 7 Exploding Battery Mess

by ALYSSA NEWCOMB

After two bungled recalls — and three months after Samsung killed production of the fire-starting Galaxy Note 7 smartphone — the South Korean company is now ready to explain what went wrong.

The company said at a news conference Monday morning in South Korea that two separate problems with its lithium-ion batteries were to blame for the fires, which led to two unprecedented recalls of the smartphone.



1 ET

DJ Koh, president of mobile at Samsung, said that during the aftermath, the company worked to replicate the incidents and "complete a detailed analysis," according to a translator at the news conference.



A damaged Samsung Galaxy Note 7 sit on a table in Richmond, Virginia, after it caught fire on Oct. 9. Shawn L. Minter / AP

In the case of the first battery, Samsung pointed to a design flaw in the upper right corner that, in some cases, caused the positive and negative tabs to break down, resulting in a short circuit.

The second battery, which came from another manufacturer, was apparently faulty because of a welding defect that could cause the battery to catch fire, it said.

The news comes as Samsung is preparing to reveal its fourth-quarter earnings results Monday at 7:30 p.m. ET, which will cover the period that was arguably the most blemished in Samsung's history.



Mainland investments Find Out More >



### PRODUCT RECALLS

## Toyota recalls 2.9 million vehicles globally over airbags

Published 6:56 AM ET Thu, 30 March 2017







FROM THE WER



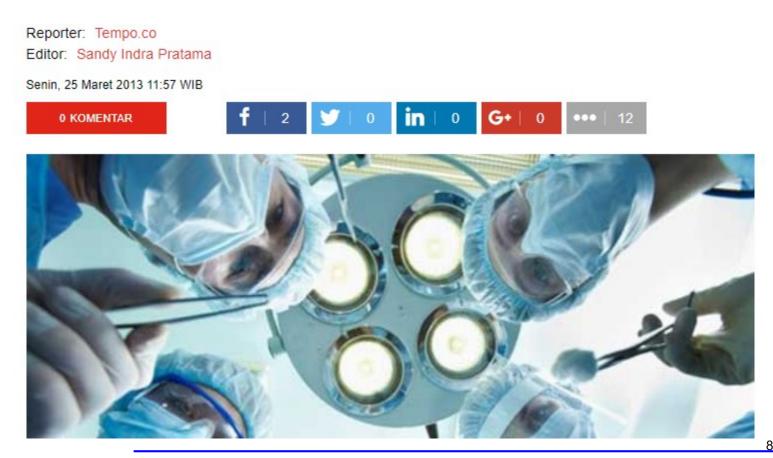
Joe Raedle | Getty Images

A deployed airbag is seen in a Chrysler vehicle at the LKQ Pick Your Part salvage yard on May 22, 2015 in Medley, Florida. The largest automotive recall in history centers around the defective Takata Corp. air bags that are found in millions of vehicles that are manufactured by BMW, Chrysler, Daimler Trucks, Ford, General Motors, Honda, Mazda, Mitsubishi, Nissan, Subaru and Toyota.



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### Sampai Akhir 2012, Terjadi 182 Kasus Malpraktek



TEMPO.CO, Balikpapan -- Sejak 2006 hingga 2012, tercatat ada 182 kasus kelalaian medik --atau bahasa awamnya malpraktek-- yang terbukti dilakukan dokter di seluruh Indonesia. Malpraktek ini terbukti dilakukan dokter setelah melalui sidang yang dilakukan Majelis Kehormatan Disiplin Kedokteran Indonesia (MKDKI).

"Akibat dari malpraktek yang terjadi selama ini, sudah ada 29 dokter yang izin prakteknya dicabut sementara. Ada yang tiga bulan, ada yang enam bulan," kata Ketua Perhimpunan Dokter Spesialis Bedah Indonesia, Prof. Paul L Tahalele, Senin, 25 Maret 2013.

Menurut Paul, dicabutnya izin praktek tersebut seperti pukulan bagi dunia kedokteran. Karena, kata dia, dengan mencabut izin praktek, sama saja menghukum dokter tersebut, dengan hukuman penjara di atas 10 tahun, bahkan hukuman penjara seumur hidup.

"Dokter tidak harus masuk penjara, cukup saja di cabut izinnya," katanya. Dokter, kata Paul, merupakan bagian dari masyarakat yang krusial, yang sangat kental dibutuhkan oleh masyarakat. "Kalau izin dicabut itu sama saja dengan menghukum 10 tahun lebih, mungkin seumur hidup. Sebab, dia tahu jika memulai praktek lagi orang tidak akan percaya. Jadi, oleh karena itu, ini harus dijaga " katanya

Dari 182 kasus malpraktek di seluruh Indonesia itu, sebanyak 60 kasus dilakukan dokter umum, 49 kasus dilakukan dokter bedah, 33 kasus dilakukan dokter kandungan, dan 16 kasus dilakukan dokter spesialis anak. "Siasanya di bawah 10 macam-macam kasus yang dilaporkan," katanya.

#### Overview

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#### Study Suggests Medical Errors Now Third Leading Cause of Death in the U.S.

reported to better reflect reality

Release Date: May 3, 2016

#### SHARE FAST FACTS

- 10 percent of all U.S. deaths are now due to medical error. Click to Tweet
- Third highest cause of death in the U.S. is medical error.- Click to Tweet

Medical errors are an under-recognized cause of death. - Click to Tweet

Analyzing medical death rate data over an eight-year period, Johns Hopkins patient safety experts have calculated that more than 250,000 deaths per year are due to medical error in the U.S. Their figure, published May 3 in *The BMJ*, surpasses the U.S. Centers for Disease Control and Prevention's (CDC's) third leading cause of death — respiratory disease, which kills close to 150,000 people per year.

The Johns Hopkins team says the CDC's way of collecting national health statistics fails to classify medical errors separately on the death certificate. The researchers are advocating for updated criteria for classifying deaths on death certificates.

"Incidence rates for deaths directly attributable to medical care gone awry haven't been recognized in any standardized method for collecting national statistics " says Martin

#### FOR THE MEDIA

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"Human errors or employee misunderstandings occur every day in business, costing billions of dollars nationally"

# "Lack of internal control"

Internal controls **ensure accuracy** and **reliability** at crucial points in a business process and can help **reduce the number of errors** introduced in the process.

"Establishing internal controls, developing tools to increase the effectiveness, efficiency, and adaptability of a business process, and developing metrics bring the process to life (making it real)"

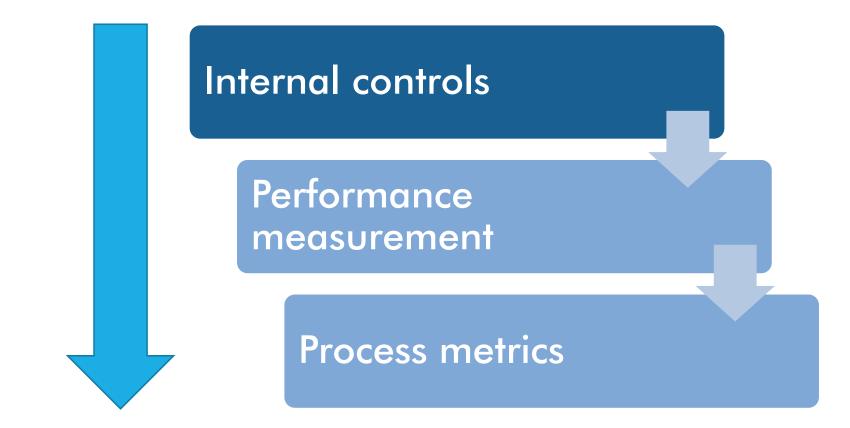
# INTERNAL CONTROLS

- 1. Internal controls help prevent errors.
- 2. Tools help employees perform their job more easily.
- 3. Metrics show whether the process works as planned
- 4. an effective training tool for new process workers.

# **66** YOU CAN'T MANAGE WHAT YOU DON'T MEASURE.

- W. Edward Deming





More specific, traceable and measurable

# STEP BY STEP

- 1. Assign the team to overlook the possible error within the process
- 2. Move through the entire process map, and put warning symbols next to each activity that may cause an error (you can ask the team "What can go wrong at this point?)
- 3. listing all the problem spots first before discussing each one in detail
- 4. Documented all the findings

Activity Number	Activity Description	Possible Issue(s)	Internal Control(s)

**Activity Number:** This is the **number** you gave the activity on the process map.

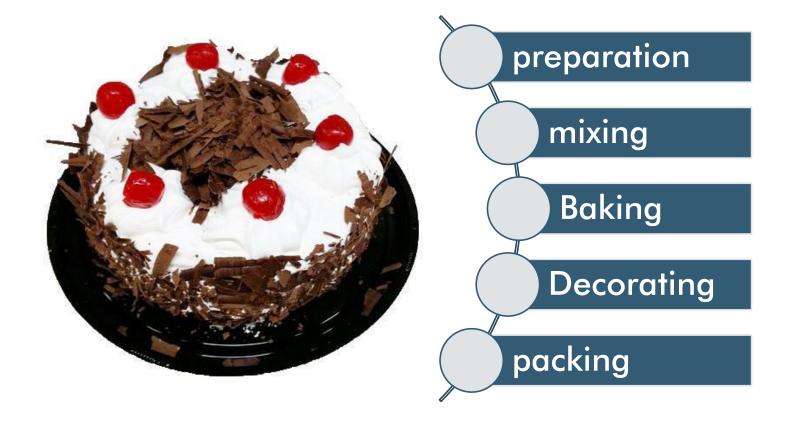
**Activity Description:** The text **description** comes from the activity box on the process map.

**Possible Issue(s):** Identify the **various mistakes** that might occur with this activity.

**Internal Control(s):** Identify how to **error-proof** each of the potential mistakes that the project team identified.



## CHOCOLATE CAKE PROCESS



## INTERNAL CONTROLS TABLE EXAMPLE

Activity number	Activity description	Possible issue	Internal control
1	Preparation	Wrong scaling	Use proper scaling tools
2	Mixing	Batter is not moist	Use timer for mixing part
3	Baking	Overcooked	Pre heat the oven up to 180 degree Celsius, user timer, spent 2 times for checking in range 30 to 45 minutes
4	Decorating	chocolate cream is easily dissolved and can not stick to the cake	Open the cake from the oven and let the cake cool naturally up to an hour
5	Packing	The cake is cracked	Use robust packaging with safety lock in each side

# SUCCESS MEASUREMENT

### Effectiveness denotes the quality of the process.

"Does the process produce the desired results and meet the client/ customer needs?"

### Efficiency signifies the productivity of the process.

"Does the process **minimize the use of resources**, improve cycle time, and eliminate bureaucracy?"

### Adaptability denotes the **flexibility** of the process.

"Does the process remain **flexible** in the face of **changing needs**?"

## PERFORMANCE MEASUREMENT FRAMEWORK

Process Efficiency

Resource consumed in the process relative to minimum possible levels

### output effectiveness

 Ability of a process to deliver product/services according to specification

### outcome Product/service effectiveness

• Ability of outputs to **satisfy** the needs of customers

## EXAMPLE: PROCESS METRIC FOR MAKING A CAKE

## Process Efficiency

• Use proper scaling, Preparation 5 minutes, mixing 20 minutes, baking 60 minutes, decorating 15 minutes, packing 5 minutes

### output effectiveness

Cake delivered successfully, no cracking, no overcooked, well designed

### outcome Product/service effectiveness

• Customer feedback 95% satisfied, 80% willing to repeat order

# RESOURCES

Susan Page (2010), The Power of Business Process Improvement - 10 Step to Increase Effectiveness, Efficiency, and Adaptability, New York : Amacom.