Continuous Monitoring: Laying the Groundwork for Robotic **Process** Automation

Robert Luu, Director, Solutions and Customer Success ACL Asia Pacific

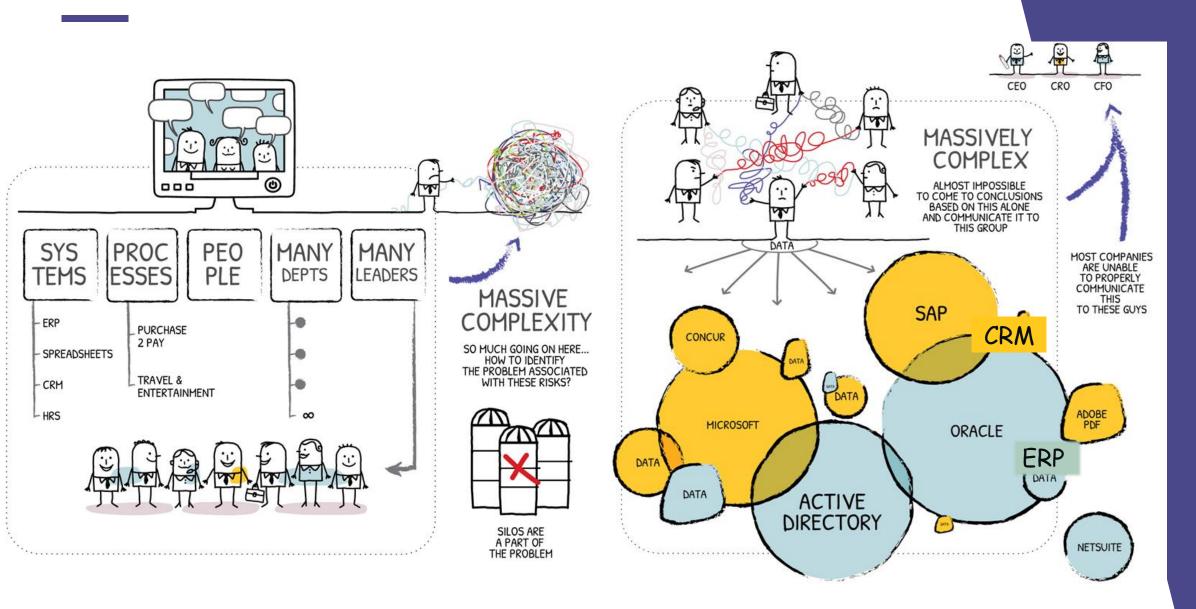
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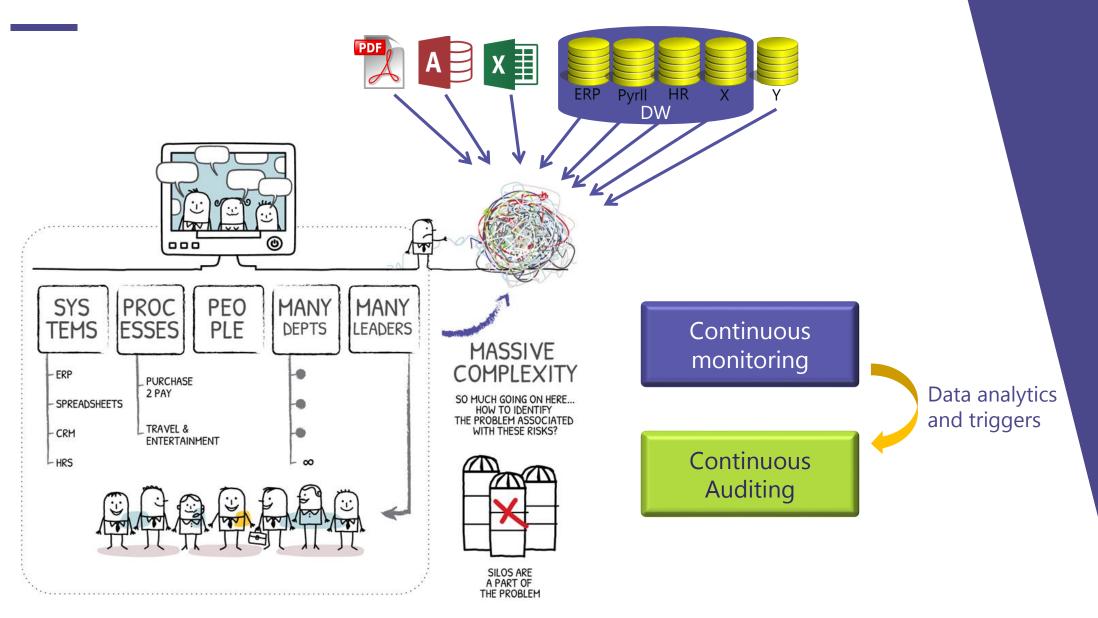
- The Importance of Big Data & Data Analytics in Audit
- How To Integrate Data Analytics in your Audit Process
- How Robotics Technology helps to achieve Continuous Audit
- Share ACL Robotics Technology

BIG DATA & AUDIT

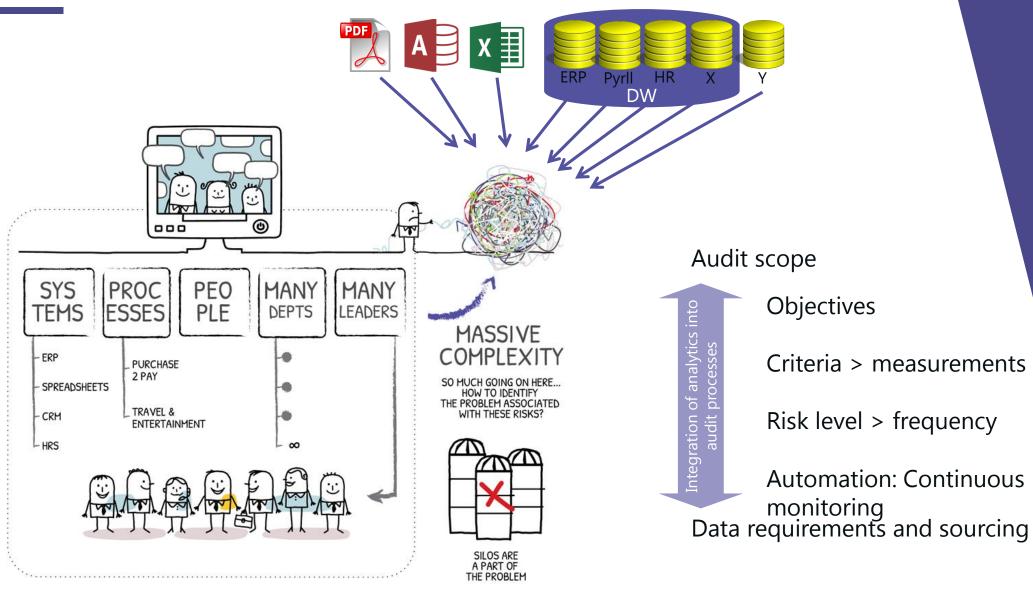
AUDIT IN THE DIGITAL AGE: THE BIG DATA



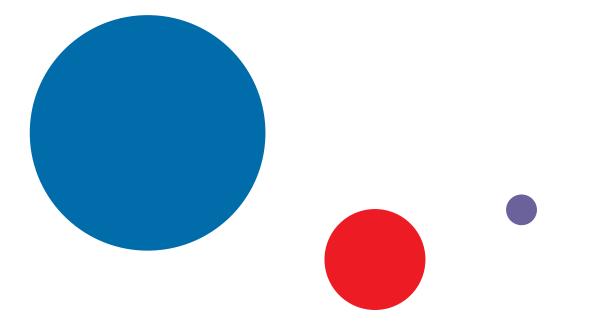
INTEGRATING DATA ANALYTICS INTO AUDIT PROC



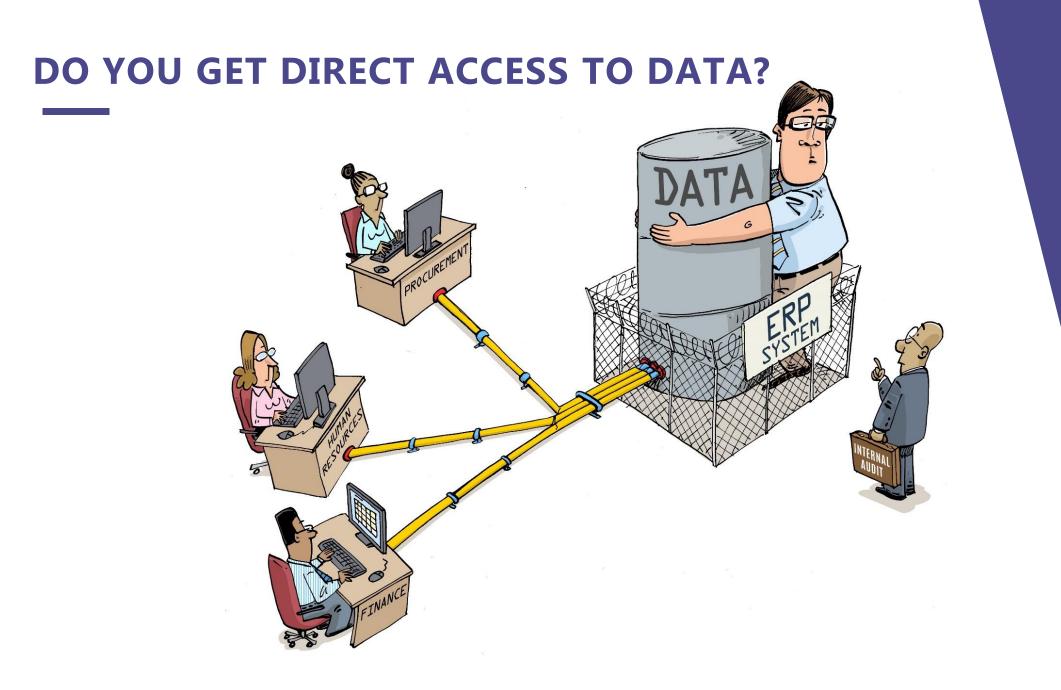
INTEGRATING DATA ANALYTICS INTO AUDIT PROCESSES

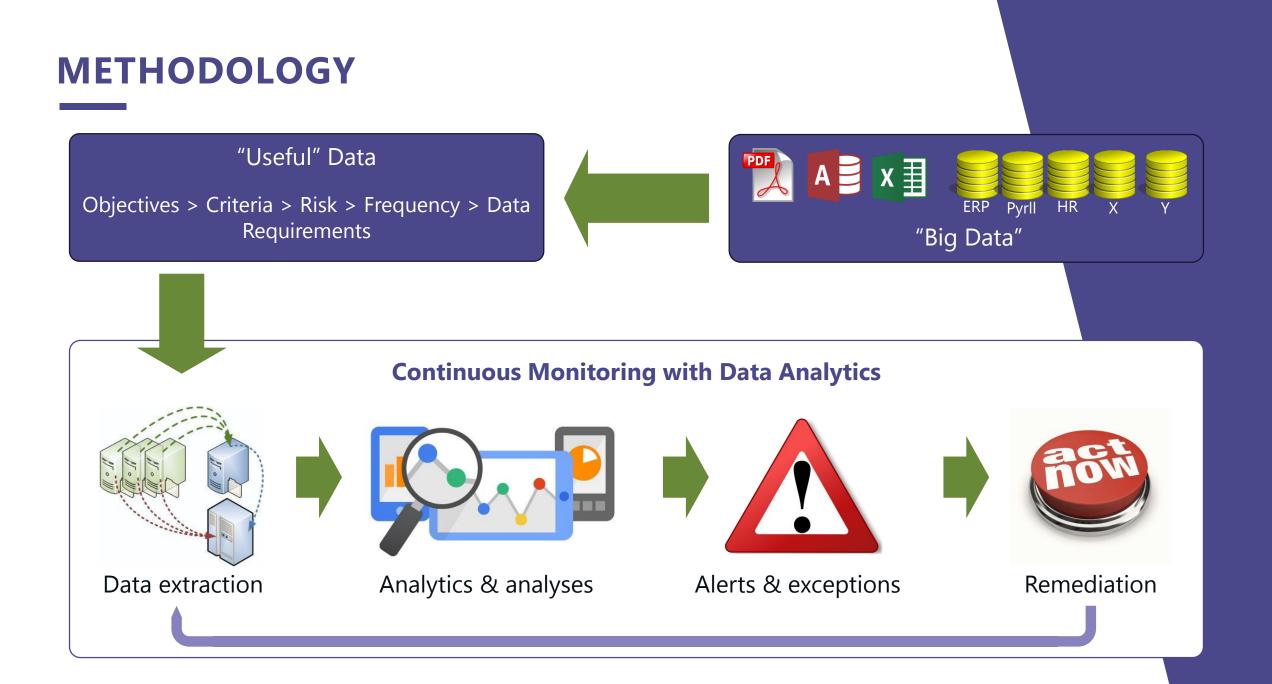


THE 3 PRE REQUISITES TO CONTINUOUS MONITORING



PRE REQUISITE #1 – PROCESS





PRE REQUISITE #2 – PEOPLE



DO YOUR TEAM HAVE THE RIGHT SKILLS?



ARE THEY DOING THE RIGHT THING?

SUPER USER

IT Auditor Databases Tables Field names Scripting

CONSUMER

General Auditor Results files

Excel driven Filter

Follow ups

Let the data analyst **ANALYSE**

Let the consumers **CONSUME**



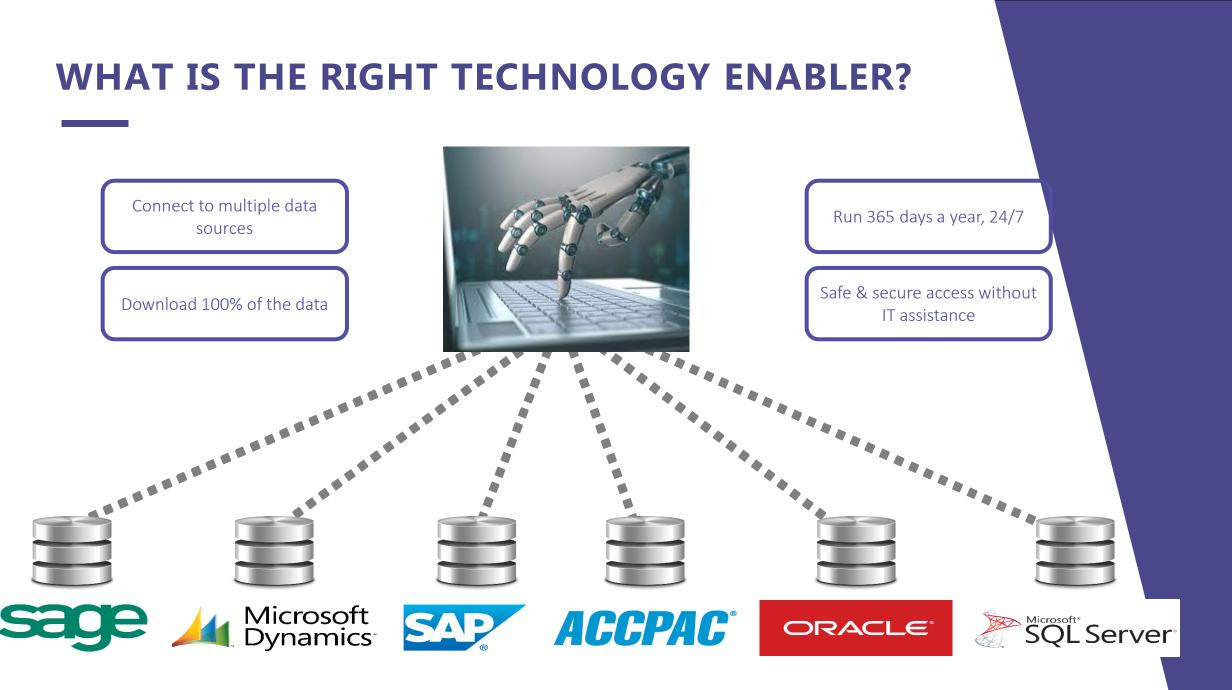
PRE REQUISITE # 3 – SYSTEM

DO YOU HAVE THE RIGHT TECHNOLOGY ENABLER?



Vs.





ROBOTIC PROCESS AUTOMATION : THE NEW AGE AUDIT TECHNOLOGY

WHAT IS ROBOTICS PROCESS AUTOMATION (RPA)?

RPA is not...

Computer Coded Software

RPA is...



Automation of activities performing repetitive rule-based tasks



Cross-functional and cross-application macros



paper

Physically existing machines processing



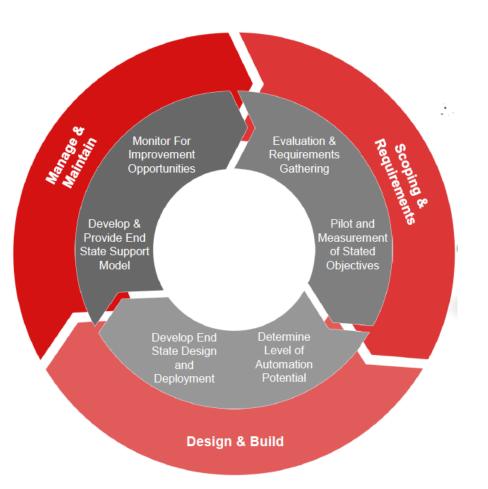
Artificial intelligence or voice recognition and reply software

Walking, talking auto-bots

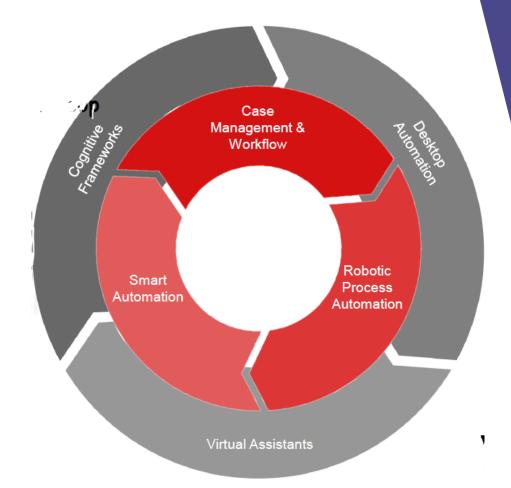
IMPLEMENTATION OF RPA

The Delivery Cycle

The Automation Cycle



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RISK ASSOCIATED WITH RPA

What are some of the risks:

- Ensure there is a focus on data privacy and security.
- ➢ Re-visit controls as part of any required re-engineering of process
- Ensure business continuity takes account of a robotic workforce in the design stage

But RPA can also be a risk mitigant:

- > Avoid manual handling errors using a digital workforce
- Consistent application of rules and controls for decision making.
- Time to competency is significantly reduced with a corresponding reduction in cost and change risk when processes change.

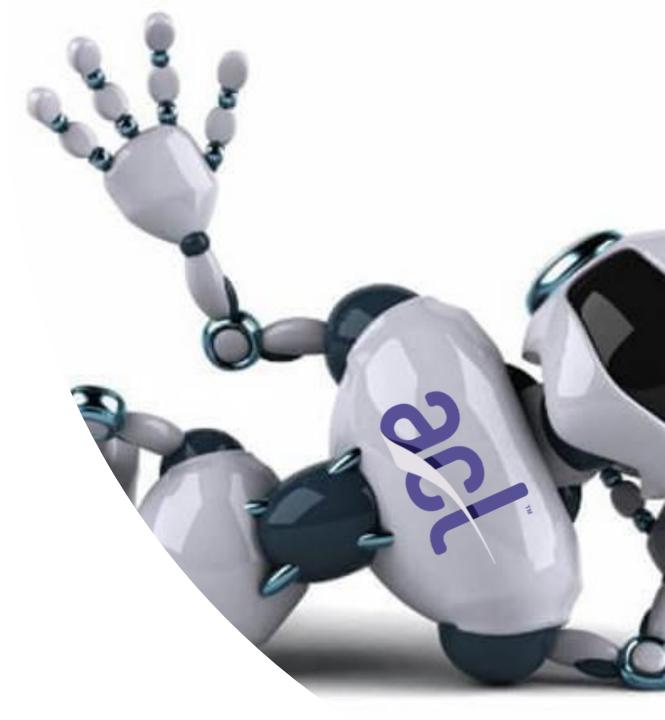
And Internal Audit will need to focus on additional questions

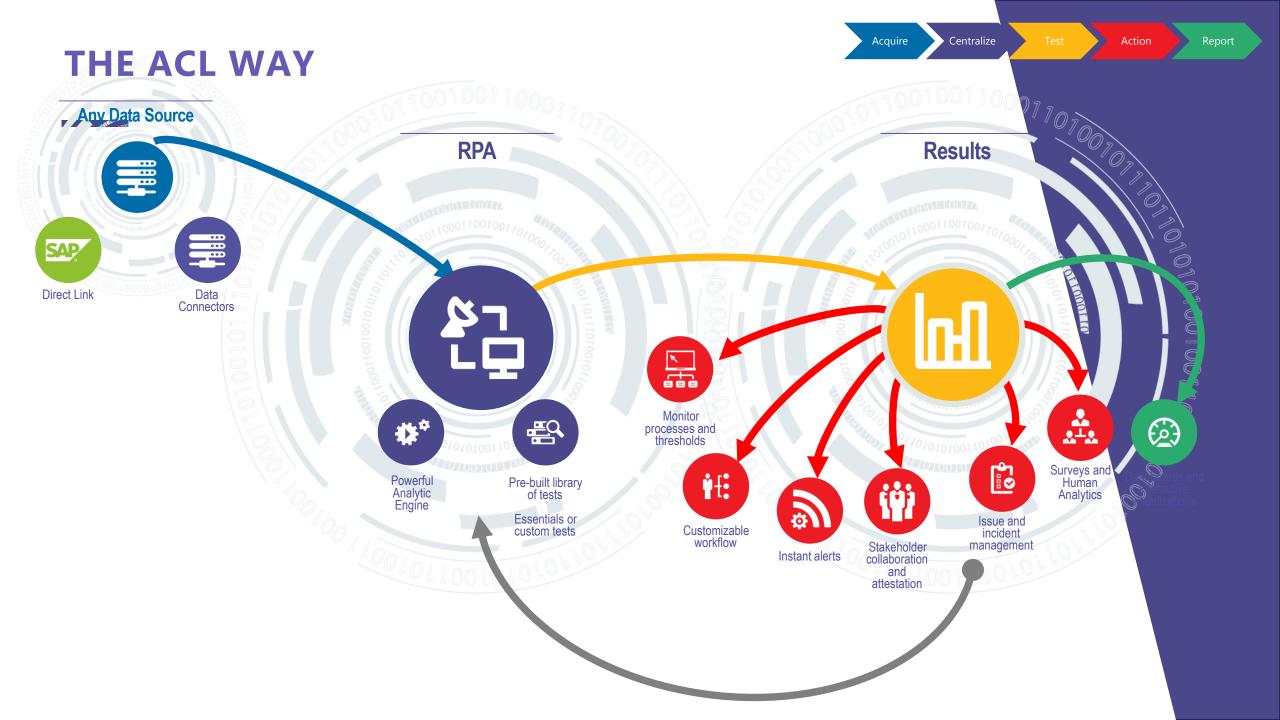
Additional questions will be required across Technology, Risk and Compliance and IT Security.

KEY CONSIDERATIONS FOR INTERNAL AUDIT WITH THE INCREASING PREVALENCE OF AUTOMATION

- How many robots can a business unit or company realistically manage. Uncontrolled development can lead to significant vulnerabilities and risks to a business. Be considered in the approach!
- Which processes are suitable for automation. Business will always have areas of interaction, complexity or subjectivity where humans can fulfil the task better, however this may open up opportunities for robotic assistance!
- How does the *automation design handle errors*. Data and processes do not always follow the 'happy path' and design needs to cater for that with smart exception handling, it is not simply a case of automating what humans do!
- Where robots have the ability to learn, audit needs to understand both what it is learning, and what are the guardrails being placed around that. We don't always want our human workforce to show initiative, the same applies to digital workers!

ACL ROBOTIC TECHNOLOGY



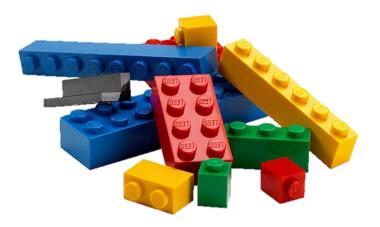


IMPORT DATA FROM MULTIPLE SOURCES



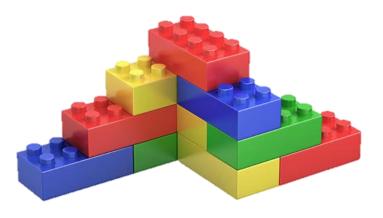
ANALYTIC CONTENTS

Inspirations



An online library of ideas and instructions for over 500 analytic tests across process areas (i.e. GL, purchases, vendors, payroll, HR, fixed assets, inventory, etc.).

ScriptHub



An library of hundreds of actual ACL analytic scripts that are prewritten and ready to use to "jump start" analytic development. **Essentials**



Completely pre-built and preconfigured analysis apps that "just run". Each app covers a given process area (GL, disbursements, etc.) with a suite of 5-20 analytic tests.

AUTOMATE DATA EXTRACTION & ANALYTIC RUN THROUGH SCHEDULING

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AUTOMATE WORKFLOW FOR REMEDIATION & ESCALATION

WHAT vents are you monitoring?						Record	∧ 7 Metric
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INCORPORATE HUMAN ANALYTICS THROUGH QUESTIONNAIRE

Dairy Farm / Dairy Farm				
Dairy Farm				
Collection Details Collection Members	Questionnaire Details			
Questionnaires	NAME Void Transaction Validation RECORDS VISIBLE			Edit Preview
What is a Collection? A Collection is a container used to organize records that relate to different departments, business processes, or data sets. Access to a Collection depends on your assigned role in Results.	LINKED STATUSES	 RESPONSE TYPES Single choice Dropdown 	 Date Email Attachment 	
How can I control who has access to a Collection? You can specify the level of access each user has to an individual Collection by assigning roles in Results. Learn more.	Questions Add -	 ✓ Multiple choice IT Short answer 	Signature	
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VISUALIZATION & DASHBOARD FOR EASY ANALYSIS

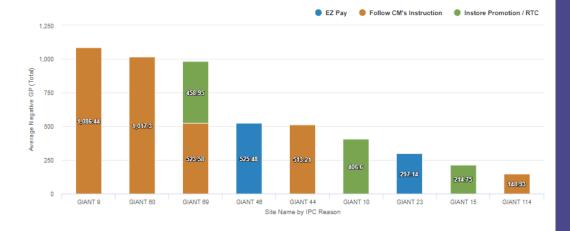
Average -GP of IPC Transactions per Store

1. The Table on the right shows the Store with the Highest Average Value of Negative GP from IPC Transaction. We can note that Store "Giant 9" has the highest Ave -GP amounting to \$1,086 with Total Negative GP of \$8,363 on total of 81 IPC transactions

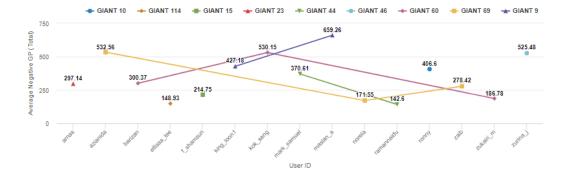
2. The chart below left shows the User ID per Store that Created IPC Transactions with more than \$100 Ave Negative GP. We can not that User ID "maslan_a" of Store "Giant 9" has an average value of \$659

3. The table on the right below shows the common reason for IPC Transaction with Ave Negative GP of MT \$100. Consistently, Follow CM's Instruction is the common reason.

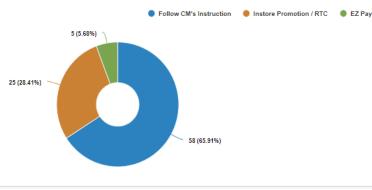
TOP STORE WITH HIGHEST AVERAGE NEGATIVE GP PER IPC TRANSACTION BY REASON CODE



USER ID CREATED IPC TRANSACTION MORE THAN \$100 AVE -GP PER STORE



IPC REASON FOR MORE THAN \$100 AVE -GP





- Big Data is the electronic life-blood of every organization
- Data Analytics deliver great value to Internal Audit
- Using Technology such as RPA is a key to have an efficient implementation of Continuous Monitoring
- Using Data Analytics raise the level of respect for Internal Audit Department

Thoughts & Questions?

Robert Luu, Director, Solution and Customer Success ACL Asia Pacific

