Project Title

Compliance Review enabled with Data Analytics (CReDA)

Project Lead and Members

Project lead: Mr Daniel Tan Kwan Wei

Project members:

Organisation(s) Involved

National University Health System

Healthcare Family Group(s) Involved in this Project

Healthcare Administration

Applicable Specialty or Discipline

Healthcare Administrators

Project Period

Start date: Not Indicated

Completed date: Not Indicated

Aims

• To monitor vendor performance against the agreed service outcome, compliance review is conducted to through the validation of vendor-reported KPI.

• The manual compliance review process is often tedious and prone to error, hindering the organisation's ability to effectively manage third- party vendor.

Background

With manpower shortage as a prevalent challenge in healthcare, healthcare organisation often rely on third-party vendors in providing specialised and labour-intensive functions.

Methods

See poster appended/below

Results

The automation allowed repetitive tasks to be streamlined and standardized with the click of a button. This significantly reduced the time and effort required for compliance review with elimination of human errors, thus improving efficiency.

- Tasks that used to take 1 hour can now be completed in under 5 minutes.
- The ability for CReDA to scale across NUHS translated to a total estimated saving of 2,960 manhours per year.

Beyond automation which brought about quantifiable manhour savings, CReDA also deliver additional qualitative benefits.

- CReDA tools are capable of flagging out operational anomalies as red flags for process owner's proactive investigation.
- Such valuable insights empower stakeholders to make informed and data-driven decisions.

Conclusion

Following its successful implementation and demonstration of its benefits, the initiative was subsequently scaled progressively across other institutions within the NUHS cluster which took place since January 2021.

Another dimension of scalability is the option for customisations that allows the use of CReDA to expand into other functions including Patient Billing, IT security and Financial Planning and Analysis.

Project Category

Technology

Digitalisation, Automation, Robotics Process Automation

Keywords

Manpower Shortage, Compliance review, Vendor-reported KPI, Data Analytics Tool, Accuracy, Scalability, Repetitive Tasks, CReDA tools

Name and Email of Project Contact Person(s)

Name: Ms Soo Jie Yi

Email: jie_yi_soo@nuhs.edu.sg

Compliance Review enabled with Data Analytics (CReDA)

Group ERM and Compliance, NUHS

⚠ Problem Statement

With manpower shortage as a prevalent challenge in healthcare, healthcare organisation often rely on **third-party vendors** in providing specialised and labour-intensive functions.

- To monitor vendor performance against the agreed service outcome, compliance review is conducted to through the validation of vendor-reported KPI.
- The manual compliance review process is often **tedious** and **prone to error**, hindering the organisation's ability to effectively manage third-party vendor.

💡 The Solution

In 2020, NUHS Group ERM & Compliance spearheaded CReDA which **leverages data analytics tool** to **automate** the compliance review process.

With the desired key features of **enhancing accuracy and scalability** in mind, the deliberate choice of automation using VBA in Excel was targeted at eventual **sustained adoption** by end user as well as **ease of scaling up**.

The solutions were implemented through the following steps:

1) Development of the data analytics tools in house, including the design and coding of Excel macros tailored to each team's specific needs.
2) Testing and validation of the tool to ensure functionality, accuracy, and usability.
3) Deployment of the tool to end users, complemented with training sessions and support resources to facilitate adoption and usage.

Turning raw data into actionable insights with a few clicks of the mouse, completed in under 5 minutes
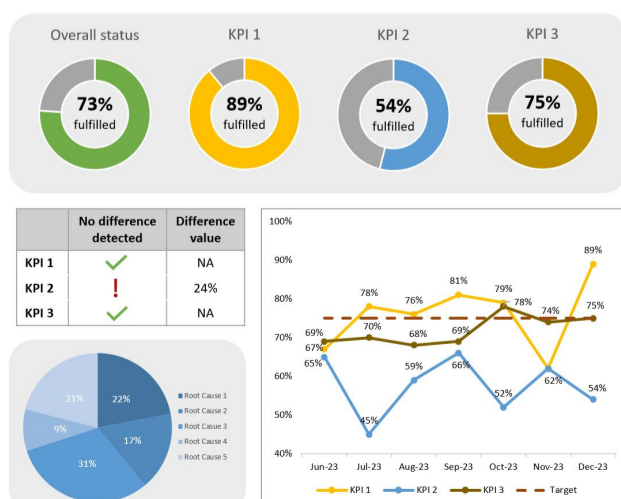
🏅 The Outcome

The automation allowed **repetitive tasks to be streamlined and standardized** with the click of a button. This significantly reduced the time and effort required for compliance review with elimination of human errors, thus improving efficiency.

- Tasks that used to take 1 hour can now be completed in under 5 minutes.
- The ability for CReDA to scale across NUHS translated to a **total estimated saving of 2,960 manhours per year.**

Beyond automation which brought about quantifiable manhour savings, CReDA also deliver additional qualitative benefits.

- CReDA tools are capable of flagging out operational anomalies as red flags for process owner's **proactive investigation**.
- Such valuable insights empower stakeholders to make informed and data-driven decisions.

Success factors of CReDA

- 🕐 Reduce review time by >90%
- ⬇ No costly new software required
- 📚 Minimal training for staff to use the tool proficiently

📈 Scaling Up

Following its successful implementation and demonstration of its benefits, the initiative was subsequently scaled progressively across other institutions within the NUHS cluster which took place since January 2021.

Another dimension of scalability is the option for customisations that allows the use of CReDA to expand into other functions including Patient Billing, IT security and Financial Planning and Analysis.