



# Continuous Auditing and Continuous Monitoring



Background



Executive  
Summary and  
Observations

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Khalifa University – Internal Audit Department

December 2021

# Continuous Auditing and Continuous Monitoring

## Background

Internal Audit Department adopted the digital tools and techniques to automate risk analytics and provide assurance on operations across key risks.

## Scope of Engagement

### Phase 1: Planning

1. Conjointly discuss on top risks to be continuously monitored and audited by Internal Audit Department in key areas such as HR, Finance, Procurement, Admissions, Registrar etc.;
2. Request documentation log and data files relevant to the risks identified; and
3. Consolidate data files in data warehouse and impute missing information (if applicable).

### Phase 2: Data Wrangling and Cleansing

1. Descriptive analysis of data files to identify clusters;
2. Identify correlations between datasets; and
3. Build master data files in data warehouse.

### Phase 3: Execution

1. Build tailored scripts using uni-variate and multivariate models to identify anomalies and exceptions;
2. Split data in training and testing models (if applicable);
3. Validate audit findings with process owners; and
4. Define optimal scripts for continuous auditing and continuous monitoring.

### Phase 4: Reporting

1. Build draft dashboards and digital report as required;

2. Finalize findings and exception reports;
3. Deploy final front-end dashboards to view report and exceptions;
4. Provide access to Internal Audit Department and other relevant stakeholders as required; and
5. Conduct a session on knowledge transfer for Internal Audit Department.



Planning



Data Wrangling  
& Cleansing



Execution



Reporting



**Automate the Digital Report**

# Continuous Auditing and Continuous Monitoring



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## Our Responsibility

We have conducted an internal audit in conformance with the International Professional Practice Framework (IPPF) issued by the Institute of Internal Auditors ('IIA'). These standards require that we plan and perform our audits to obtain reasonable assurance that, in all material respects, our overall findings are a fair reflection of the state of those areas reviewed. Our audit, therefore, includes all procedures we considered necessary in order to comply with these standards.

## Limitations

Our review was based on documents and information provided as on November 2021. Accordingly, we have no obligation to update our report or to revise the information contained therein to reflect events/transactions and additional initiatives undertaken by the internal stakeholders of Finance Department, Student Services Department, Human Resource Department, Procurement Department and Information Technology Department post November 2021.

Our engagement does not include creating any additional / new templates / reports. Further, our engagement did not entail providing opinion on services procured or on competencies of the vendors. Due to the inherent limitations in any internal control system, errors, fraud, or other irregularities may occur and not be detected. Our work was not designed specifically to investigate fraud or other irregularities. However, our work was designed in such a way that any control deficiencies that could lead to fraudulent risks would have been highlighted to the Management. Our engagement relies on the integrity of the data extracted from Khalifa University database.

During the engagement, analysis was conducted on 100% population of the data and all exceptions were reviewed and validated by Internal Audit with supporting documents prior to reporting.

## Risk Analytics Automated

### Student Services Department

1. Non-compliance to admission requirements for student admissions
2. Re-admission of academically dismissed students without authorized approvals
3. Conflicting course schedules for students during the academic semester
4. Non-compliance to student attendance requirements for undergraduate & graduate students
5. Enrollment of excess students in courses than maximum size of classroom
6. Incorrect student records for active students which may lead to funding issues

### Finance and Procurement Department

1. Multiple payments / purchase orders issued to the same vendor in a short duration of time
2. Duplicate payments / invoices issued to the same vendor
3. Creation of vendors after creation of purchase order / purchase requisition
4. Issuance of payments / creation of purchase orders for invalid vendors
5. Duplicate vendors based on vendor code, tax registration number, trade license and/or vendor address
6. Employees registered as vendors with corresponding payments excluding payroll
7. Purchase orders without purchase requisitions

### Human Resources Department

1. Duplicate employee information based on emirates ID, passport, employee ID etc.
2. Leaves availed beyond the maximum allotted leaves for the year by any employee
3. Payments issued to terminated employees
4. Employees working in Khalifa University without a valid contract / expired contract
5. Recruitment / structuring of employees as per KU Annual Manpower / Organization Chart
6. Same IBAN for multiple employees
7. Missing employee information such as Emirates ID, passport details etc.

Improvement Opportunity

Reasonable Assurance



# Overview of CACM



Data



Home  
Page

Select Department

Select for Instances

Finance and Procurement



Instances for Finance & Procurement

Human Resources



Instances for Human Resources

Student Services



Instances for Student Services

21

Risks Automated

14

Risks with Potential Issues

9335

Instances Identified

205M

Potential Impact (AED)\*

## Description of Risks Analytics Automated

1	● Non-compliance to admission requirements for student admissions
2	● Re-admission of academically dismissed students without authorized approvals
3	● Conflicting course schedules for students during the academic semester
4	● Non-compliance to student attendance requirements for undergraduate & graduate students
5	● Enrollment of excess students in courses than maximum size of classroom
6	● Incorrect student records for active students which may lead to funding issues
7	● Multiple purchase orders issued to the same vendor in a short duration of time
8	● Duplicate payments / invoices issued to the same vendor
9	● Same payment number for different vendors
10	● Creation of vendors after creation of purchase order / purchase requisition
11	● Issuance of payments / creation of purchase orders for invalid vendors
12	● Duplicate vendors based on vendor code, tax registration number, trade license and/or vendor address
13	● Employees registered as vendors with corresponding payments excluding payroll
14	● Purchase orders without purchase requisitions
15	● Duplicate employee information based on emirates ID, passport, employee ID etc.
16	● Leaves availed beyond the maximum allotted leaves for the year by any employee
17	● Payments issued to terminated employees
18	● Employees working in Khalifa University without a valid contract / expired contract

## Key Insights

Reasonable assurance on 95% of instances wherein the control environment is effective;

Governance controls are-in-place to ensure appropriate authorities are in-charge for key decisions;

Increased visibility into Student Operations;

Increased oversight is required on purchase orders and purchase requisitions raised within Khalifa University;

Employee payments should be routed through HR payroll instead of procurement as vendor payments; and

Student attendance, student records and student admissions require continuous monitoring.

Note: Potential Impact only refers to the total amount (value in AED) for the number of instances highlighted as exceptions

# Student Admission, Enrollment and Information



Data



Home  
Page



Summary

Select Risk

All

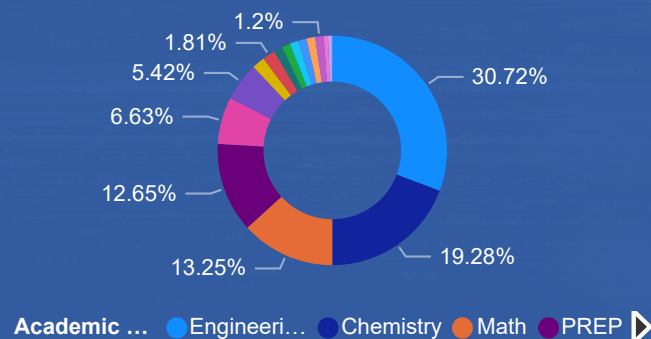
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Risks with Potential Issues

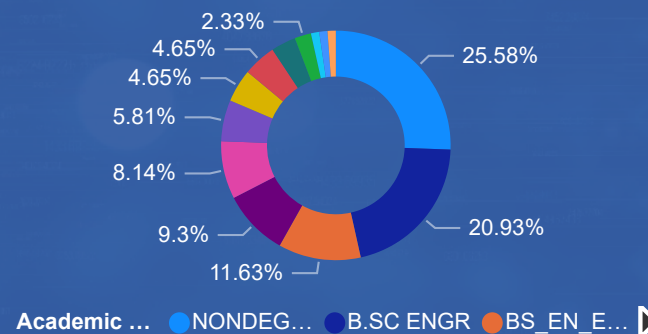
252

Instances Identified

Instances by Academic Department



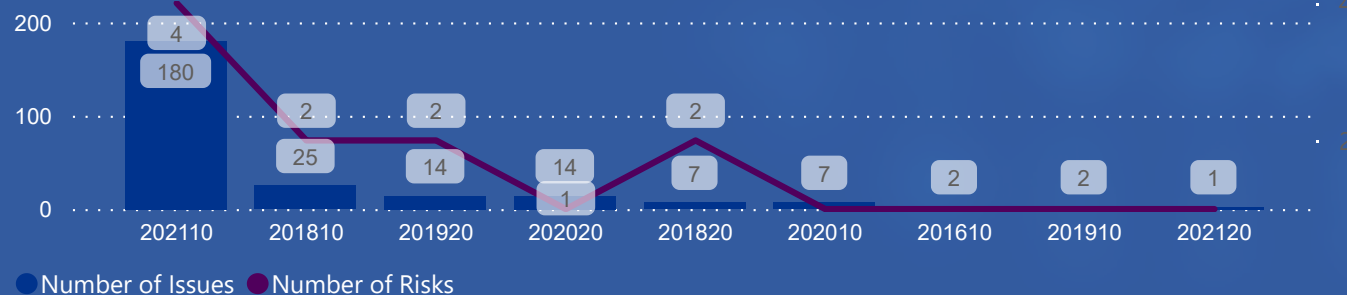
Instances by Academic Program



Instances identified by Academic Year

Admit Term

All



Observation

Noted 1 instance wherein an academically dismissed student was re-admitted within Khalifa University

Noted 12 instances wherein the students exceeded the student attendance criteria within the semester

Noted 166 instances wherein the excess students were enrolled with respect to the maximum classroom size

Noted 2 instances wherein the student Emirates ID was incorrectly entered within the student records

Noted 30 instances wherein the students did not meet in the expected IELTS / EmSAT scores as per Khalifa Universities admission criteria

Recommendations

Ensure authorized approvals are obtained to admit any student previously dismissed based on academic basis.

Ensure classroom size are maintained as per maximum allotted capacity to ensure students faculty ratio is maintained

Explore the possibility to develop an automated alert for all students with incorrect student details. Additionally, ensure student information is up-to-date without missing fields for all students.

Explore the possibility to develop an automated control within the system to restrict the

Management Action Plan

Enter Management Action Plan (including responsibility and timelines)

# Human Resources Department

Year

All



Data



Home Page



Summary

Select Risk

All

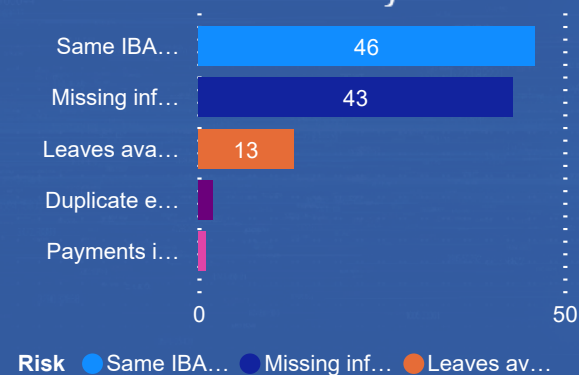
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Risks with Potential Issues

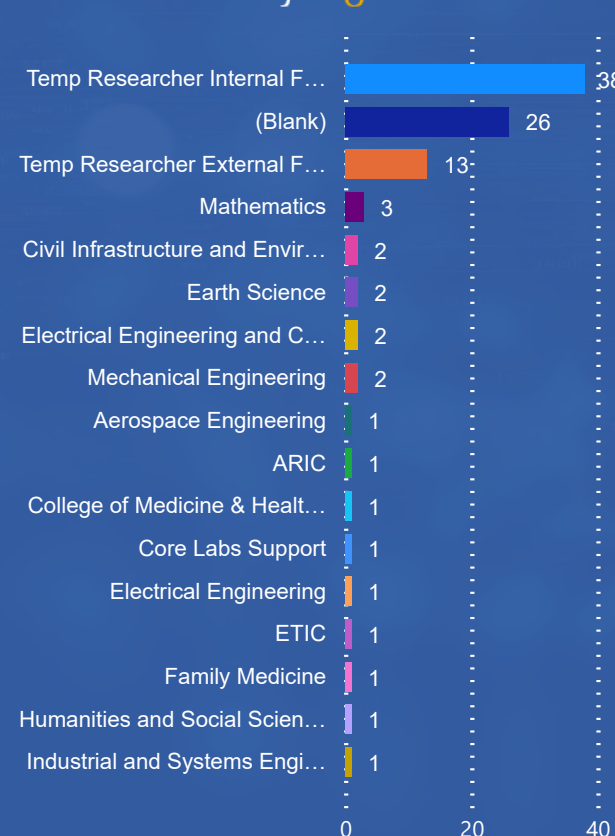
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Instances Identified

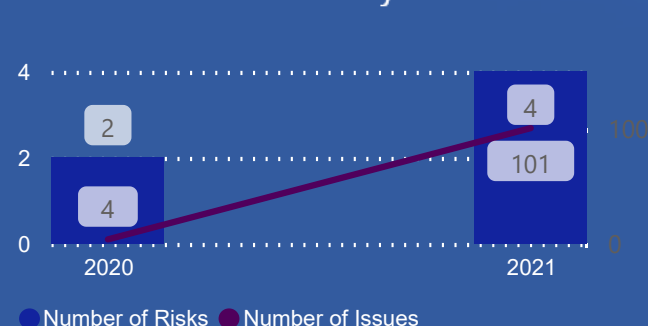
## Instances by Risk



## Instances by Organization Unit



## Instances by Year



## Observation

- Noted 1 instance wherein payment was issued to employee with invalid vendor account
- Noted 13 instances wherein the employees availed more than 60 days of annual, unauthorized and/or unpaid leave.
- Noted 2 instances wherein the Emirates for 2 different employees were same
- Noted 43 instances wherein critical employee information such as emirates id, passport details etc. are missing
- Noted 46 instances wherein 2 or more employees shared the same IBAN



## Recommendations

- Conduct a comprehensive review of the employee master data to ensure all critical fields are captured in the system
- Ensure continuous monitoring of leaves availed by the employees to ensure appropriate approvals are-in-place
- Explore the possibility to automate the system control to restrict duplicate Emirates ID. Additionally, conduct a review of the existing employees for duplicate emirates ID
- Explore the possibility to automate the system to restrict duplicate IBAN number in the system. Additionally, all active accounts for similar employees should be terminated



## Management Action Plan

Enter Management Action Plan (including responsibility and timelines)



# Finance and Procurement Department

4/25/2017

11/24/2021



Data



Home Page



Summary

Select Risk

All

4

Risks with Issues

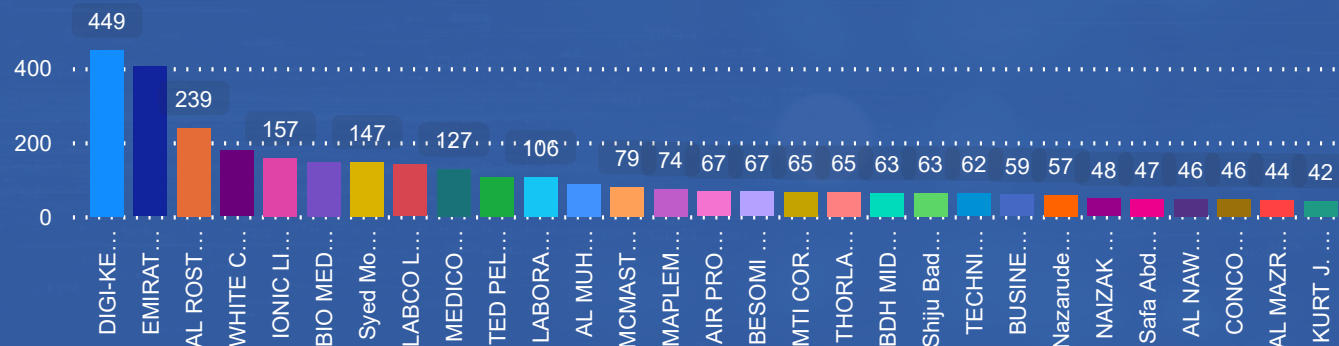
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Instances Identified

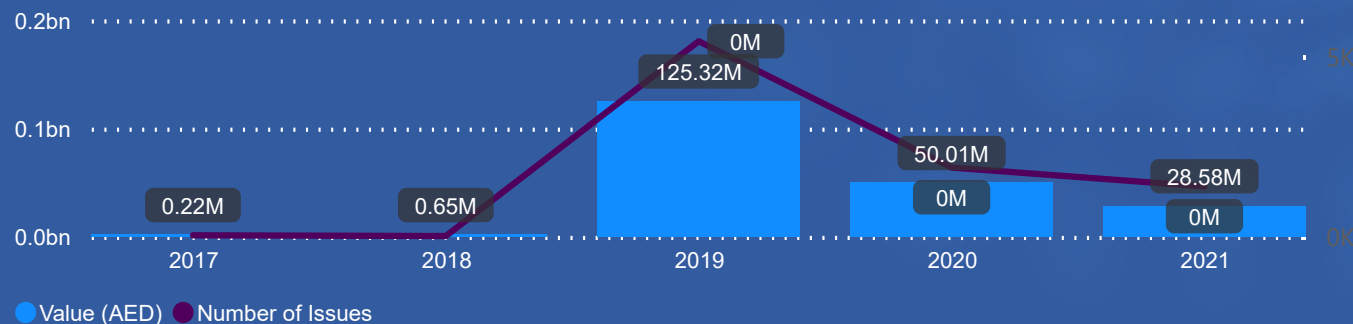
204.78M

Potential Impact

## Instances by Vendor



## Potential Impact by Year



## Observation

Identified 3760 instances wherein purchase orders were raised without a purchase requisition amounting to AED 67 Million (2019 to as on date review)

Identified 1139 instances wherein the multiple purchase orders were issued to the same vendor within 7 days (2019 to as on date review)

Identified 3845 payments released to employees as a vendor payment amounting to a total of AED 29 Million (2019 to as one date review)

Identified 69 instances wherein the vendor was created on the day or after the creation of purchase orders / purchase requisitions (2019 to as on date review)

## Recommendations

All employee payments / reimbursements should be processed through HR payroll to ensure adequate review and documentation are-in-place

All purchase orders created / approved should be associated with purchase requisitions to ensure adequate review and planning steps are ensured

Explore the possibility to restrict buyers for creating or awarding purchase orders / purchase requisitions prior to creation of vendor accounts

Purchase orders for the same vendor should be processed as one transaction if within 21 days period to ensure adequate approvals are obtained as per Delegation of Authority and there are no splitting of purchase orders

## Management Action Plan

Enter Management Action Plan (including responsibility and timelines)