Executive Summary

In the year 2001, State Government implemented a Treasury Computerisation Project Khajane (K1) for automating the Treasuries in the State. During 2009, the State Government took the initiative to replace the existing K1 system with a new Integrated Financial Management System called Khajane-II (K2). The K2 Application was envisaged to bring all State Government departments in an integrated environment to enable direct system-to-system exchange of information without manual interactions. K2 also proposed to extend its reach to the citizens towards easing and streamlining processes for Government remittances. The Performance Audit (PA) attempted to ascertain whether the K2 realized the envisaged objectives of upgradation, integration and business process re-engineering, information system controls including security controls in K2, safeguarding the assets, data integrity and secure and uninterrupted treasury operations towards improving the effectiveness and efficiency of Government's financial operations. The K2 Application comprises of 24 modules and was proposed to be implemented in two Stages- Stage I comprised of 13 modules for achieving the K1 capabilities and Stage II consisted of 11 modules towards building additional capabilities envisioned in K2. Both the stages were intended to be rolled out by February 2013 after migration of entire K1 data, proper third-party performance audit, security audit and a declaration of "Go-live".

The Department did not undertake a business process re-engineering exercise. Though the revision of Financial Codes were envisaged as a preparatory activity, it was not completed.

(Paragraph 2.3.1)

The capability to support the implementation of Indian Government Accounting Standards remained limited as the associated business rules were not made part of the application.

(Paragraph 2.3.2)

Tracking funds drawn on grant-in-aid bills was not facilitated as there was no provision of monitoring the submission of utilisation certificates.

(Paragraph 2.3.3)

The agreement was not revised to accommodate the extension of time. Though the agreement envisaged declaration of 'Go live' after complete roll out of all modules before commencement of operation and maintenance (O&M) phase, 'Go-live' could not be declared.

(Paragraph 2.5)

The development was delayed, modules were rolled out partially, and the O&M was concurrently undertaken without modifying the agreement. The O&M was extended without considering the delay in development and roll out of modules. The Department lost a minimum of two years of O&M period and incurred an additional financial commitment of ₹38.75 crore.

(Paragraph 2.6.5)

The Department did not obtain the custody of application source code, detailed data dictionary which were critical in understanding the internal architecture of the application.

(Paragraph 2.6.8)

The State Government did not have adequate strategic control over K2 application, an important asset it developed out of its investment, which resulted in its continued dependency on the System Integrator for ensuring continuity of operations. The K2 was found to be implemented around a work-flow engine proprietary to the System Integrator. The Project's preparedness to avoid a vendor lock-in was inadequate. The dependency on proprietary software was not assessed and mitigation measures were not put in place.

(Paragraph 2.6.9)

The K2 implementation was impacted by the deficiencies in software contract management practices. While the Master Service Agreement was originally entered into adopting a Waterfall Model of application development with specified milestones for delivering Application in two phases, the Project completely deviated from the agreed development model and timelines rendering the contract redundant.

(Paragraph 2.7.1)

The important software quality assurance processes such as third-party audit and security audit were not in place. The Department deployed the modules and their updates without subjecting them to third party audit and security audit.

(Paragraph 2.7.3)

The Enterprise Management System and Service Level Agreement monitoring tools were not set up by the System Integrator which was required to assist the Department to monitor the operations on a continuous basis. The quality of the service delivered by the System Integrator was thus not measurable.

(Paragraph 2.7.4)

The K2 also did not obtain any knowledge transfer with reference to the K2 architecture and database. The envisaged expert team for coordinating with the System Integrator on application, database and security domains were not deployed by the Government.

(Paragraph 2.7.5)

The Project was expected to be developed and rolled out in all aspects by February 2013 but even as of March 2021, it was not completed. The first set of modules were rolled out only in September 2015. PA observed that development of 22 modules were completed at present (13 modules of Stage I and 9 modules of Stage II). Six out of the nine implemented modules of Stage II were not in use. As a result, K2 Project was yet to achieve all of its intended objectives and expected outcomes even after more than a decade since its conception.

(Paragraph 3.1.1)

The K2 implementation covering the functions of budget preparation, expenditure tracking, cash management, management of Government debt and guarantees, financial assets management was incomplete even as of March 2021 affecting its ability to serve the expectations of an Integrated Financial Management System. The K2 was yet to build the capability for tracking expenditure along multiple years as the expenditure tracking module was not operational.

(Paragraph 3.1.3)

Though integration was a key component of the Project, the strategy for its implementation and timelines were not specified. As a result, the implementation of integrations was delayed/partial with Public Finance Management System, Human Resource Management System and integrations with Accountant General, Planning Department was absent. The K2 was yet to achieve the envisaged capability for preparation of daily accounts.

(Paragraphs 3.2.1 and 3.2.2)

While the Project was successful in digitizing transactional level treasury processes and capturing financial data, the value of the data collected could not be unlocked and fully utilized as they were not used for gaining analytical insights.

(Paragraph 3.3)

The Project, instead of launching as a complete package, was rolled out in an incremental manner for a prolonged period from 2015 to 2021. This impacted the changeover from K1 to K2 application and resulted in capturing of financial data in two separate silos with no interconnectivity, thus, limiting the capability of the K2 to provide comprehensive financial information. The Project was yet to implement the planned business processes into the K2 and as a result, several business processes still remained outside the K2 Application.

(Paragraph 3.3.2)

Grants are being drawn on payee receipts bills impacting the monitoring of utilization of these grants.

(Paragraph 3.6.3)

The voucher information captured by K2 was incomplete as it did not have reliable sanction order and sub-voucher information creating a continued dependency on manual records for referencing and tracking. There was no facility to upload the manual sanction orders and manual sub-vouchers impacting the referenceability of the voucher data.

(Paragraph 3.6.10)

PA noticed instances of weak application controls leading to excess release of funds, case of double payment of General Provident Fund bills, double payment of refund bill, continued payment of salaries even after retirement of employees *etc.,* in respect of the selected modules for test check.

(Paragraphs 3.5.5, 3.6.4 and 3.8.1)

PA observed non-completion of Management Information System reports and deficiencies in Management Information System reports developed in K2.

(Paragraph 3.11)

Information Technology Act, 2000 and Rules thereunder require the conduct of security audit by an independent auditor duly approved by the Central Government atleast once a year or as and when significant upgradation of the infrastructure happens. K2 processes sensitive financial information and security breaches would result in serious implications for the financial assets and may also cause reputational damage to the Government. PA observed that the third party security audit of K2 covering application, network components was not conducted periodically and the coverage was not comprehensive. Since the periodicity and coverage of the security audit was insufficient, PA was not in a position to derive assurance on the robustness of the security controls over the K2 application.

(Paragraph 4.1.2)

PA noticed that Digital Signature Certificate implementation, a crucial aspect of authorization and non-repudiation, was deficient as components of voucher data such as recipients, sub-voucher information were kept outside the coverage of the digital signature. Though online exchange of data with encryption and digital signing was introduced, the procedures for establishing the non-repudiation was not in place. Audit observed instances of transactions without digital signatures which impacted the overall reliability of the digital signature process.

(Paragraph 4.2.2.3)

Audit also demonstrated weaknesses gaining administrative level privileges exploiting password vulnerabilities, breach of the restrictions placed on treasury network, the weaknesses of bill processing to tampering *etc.* The security weaknesses noticed in the Application have the potential to expose critical financial information to inappropriate access and therefore, poses the risk of compromising the confidentiality and integrity of the information.

(Paragraph 4.8.3)

Monitoring of the Project at the Government level lacked vigour as evidenced by the lack of periodical timely review of the Project by the empowered committee during the crucial period of project implementation

(Paragraph 5.1)

PA noticed that the Department did not specify performance indicators for measuring and monitoring the efficiency of various processes. PA noticed that lack of timelines for processing of the bills, re-processing of the failed payments, *etc.*, affected the efficiency of Application System.

(Paragraph 5.4)