INTERNAL AUDIT REPORT

Finance Modernization Audit

May 2023

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FINANCE MODERNIZATION AUDIT

CONCLUSION AND SUMMARY

The audit has identified governance issues within the Finance Modernization Program that increases the risk that the program and individual projects will not be delivered on time or on budget. Due to the issues identified, the program and individual projects are at a greater risk of failing to meet expected outcomes and anticipated benefits.

There are several contributing factors:

- Although the objectives of the current Finance Modernization projects are necessary to improve the efficiency and effectiveness of operational service delivery, it has shifted the focus from the original program objective of modernizing the Finance function itself.

- At the time of the audit, the City did have a program management governance framework, but it had not been implemented across all City functions.

- Business cases have not been developed for all the individual projects or for the Finance Modernization program.

- A comprehensive program and resource schedule has not been developed that provides a general overview of the program, including the program tasks, dependencies, and assigned team members and stakeholders.

- Program financial reporting is currently being prepared manually, and the information is difficult to obtain.

It is recommended that the following improvements be implemented to enhance program delivery and to ensure that the Finance Modernization program can successfully meet its objectives and outcomes:

- Develop a detailed long-term road map, that goes beyond the current program scope, addressing the comprehensive Finance function improvements that were identified in the original program scope, and to leverage the technological and process improvements being implemented under the current program.

- Formally adopt a city-wide program and project management framework that will be a driver to set predetermined goals, improve outcomes and strengthen program management governance.

- Prepare business cases for the program. This exercise will be important due to the likelihood that this program will be extended beyond the current scope and timeline in order to achieve the objectives originally envisioned by the Finance Modernization program.

- Develop a detailed program roadmap, that includes a resource plan, that extends beyond the implementation of the JDE software.

- Simplify the process of creating and validating monthly variance reports. Additionally, the all-inclusive cost of system integration, expanded work activity, and earned value estimates should be included in the financial reporting provided to the program management team.

In 2018, as part of the Finance Modernization program, Deloitte was engaged to provide management consulting services to lead the Finance Portfolio in the development of a current state, future state, gap analysis, strategy map, implementation plan and comprehensive performance measurement framework. The original scope focused on the need for the City to invest in the Finance Portfolio to better support the Service Excellence Strategy by addressing gaps in the Planning, Budgeting, and Forecasting processes, Financial Reporting/Journal Entries/Statutory Reporting, Accounts Payable, Tax Billing and Collections, Development Charges, Miscellaneous Billings and Collections, Water, Wastewater and Stormwater and other areas.

Finance Modernization has evolved into something much different than what was envisioned in the original program. Although the objectives of the current Finance Modernization are necessary to improve the efficiency and effectiveness of operational service delivery, they do not address the fundamental gaps previously identified within the Finance portfolio. Not fully addressing the original program scope increases the risk that comprehensively updating financial processes will continue to be deferred. There is also the significant risk that Finance staff, already frustrated with manual and inefficient processes, are increasingly unsatisfied with the ongoing deferral of improvements that directly relate to their day-to-day work environment.

With the multi-disciplinary nature of programs like Finance Modernization, it is important that the management approach is standardized as much as possible to mitigate the risk of the program and individual projects not meeting expected outcomes and anticipated benefits. A standardized city-wide program and project management governance framework is essential for effectively managing capital projects, including cost, schedule, and performance risks. It provides direction and defines decision-making procedures and metrics for validating impacts to the program. It also enables the project team(s) to deliver on requirements and creates a forum for issue resolution to occur in a timely manner. Having an effective program management governance structure and lines of authority prevents unnecessary conflict and clarifies roles and responsibilities to help ensure that services are effectively delivered to residents. Program stakeholders must understand their roles and responsibilities and that of the other stakeholders, so everyone's expectations, accountabilities, and probable courses of action are predictable and can be relied upon.

Business cases have not been developed for all the individual projects or for the Finance Modernization program as it currently stands. Part of the reasoning for not having a business case is that the City did not have a business case policy in place when Finance Modernization was originally planned. It was also determined that JDE would continue to be the ERP system and other than for the Time & Attendance project, no alternative solutions were ever explored. Deciding on JDE as the enterprise system may have been considered the intuitive option, however having an objective business case allows management to evaluate this decision free of biases. Management did prepare project charters, and scope documents, but these are not business case substitutes. It should be noted that although there was no standardized business

case format at the City, the Program Manager took the initiative to prepare business cases for some Finance Modernization projects that were initiated at the time. This includes Electronic Pay Stub, Vendor Master Clean-up and a Questica update. However, these projects and the program itself, was significantly different than the projects that currently encompass the program.

An objective selection process for software solutions that includes a comprehensive evaluation criterion of options and selection process remains vital to avoid negative business impacts. Ensuring all stakeholders have input is also important. Research shows that a key element to a successful implementation is up-front planning. Taking the time to define the strategic vision, objectives, business case, and critical success factors will help the City achieve the positive outcomes that are expected. These steps will also prepare the City to manage time, cost, quality, risk, and acceptance most effectively as the program progresses.

A comprehensive end-to-end program road map that outlines the timelines and resource requirements has not been developed. Some post implementation responsibilities have yet to be fully defined. One of the objectives of the program is to provide data for clear decision making. However, it is unclear as to exactly how and who will be monitoring and reporting on this data from an operational perspective. As JDE is more ingrained at the City, OCIO needs to consider having a development arm for the ongoing effective support of the JDE system. As it currently stands, the City is highly dependent on external resources and this resource dependency increases the financial and operational risk to the City and its ability to meet user needs in an agile and effective way. When program managers follow the best resource management and scheduling practices, it enhances productivity, program performance, and effectiveness. However, if program management shortcuts are taken and timely decisions are not made, there is a high risk that it will adversely affect the project objectives.

Financial status reporting is provided to project sponsors at the monthly sponsor meetings. It is the responsibility of the Program Manager to prepare the variance report by project. Although the schedule is a simple variance report, it is prepared manually, and the information is difficult to obtain. A common program pitfall is that project managers need to look at several places to monitor their project financial metrics instead of a central tool. Multiple spreadsheets complicate financial management further, while increasing the risks of human error. Project financial management goes beyond simply planning, capturing, and managing costs on individual projects or programs. It should also address the City's need to maintain a balance between the project investment and the expected benefits or returns associated with that project, the potential impact on other projects, and the overall impact on operations. Project and program financial reporting is effective if the data and information used to create them is accurate and can be collected efficiently.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing.*

Internal Audit will follow up on the status of outstanding management action plans related to this audit and will report the status to a future Audit Committee meeting.

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BACKGROUND

In 2013, as part of the Public Service Renewal (PSR) Program, the Commissioner of Finance, Director of Internal Audit and Director of Innovation & Continuous Improvement Department partnered in a collaborative effort to initiate a Procure to Payment (P2P) Operational Review. The final report recommended an implementation strategy and estimated costs to transform policies, procedures, processes, and technologies to realize efficiencies and controls within the P2P process. In February 2015, Council endorsed the P2P implementation strategy and recommendation to repurpose funds to support the cost of implementation[1].

In September 2015 a City reorganization changed the Commissioner of Finance and introduced a Chief Financial Officer (CFO) and City Treasurer responsible for Financial Services, Purchasing Services and Financial Planning and Analytics and Development Finance. The CFO reprioritized the P2P implementation strategy and focused on a new initiative called Procurement Modernization. In turn, between 2013 and 2021 the City experienced multiple Senior Management changes that impacted the focus and strategy to improve procurement and financial processes. In 2018, the focus on Finance Modernization was reinitiated with support and sponsorship from Senior Management. Deloitte was engaged to provide management consulting services to help lead the Finance Portfolio in the development of a current state, future state, gap analysis, strategy map, implementation plan and comprehensive performance measurement framework for demonstrating effectiveness, efficiency, and value of Finance services. At the time, it was generally agreed that all the financial processes and controls needed to be streamlined and working together to provide relevant, reliable, and timely information to all decision makers. The focus was primarily on the Finance Department functions. However, the current Finance Modernization program has evolved into a JD Edwards (JDE) Program that has a significantly different scope than what was originally envisioned.

JDE solution was implemented to support Financial, Purchasing and Payroll processes. Over the years, the solution has been leveraged to include: Human Resource Management, Case Management, Preventative Maintenance, Job Cost and Budgeting.

The JDE Program consists of five projects:

- **Employee Self-serve:** a secure web-based module that empowers employees to view and request updates directly into the system for their own personal work-related information.

- **Time and Labour:** Will automate the entire time and attendance record-keeping process and provide an intuitive, web-based interface for time entry and approval. It offers a simplified way to submit, review, track and approve timecards.

- **Job Cost/ Projects:** Will assist staff in managing projects and jobs while monitoring the costs and revenues associated with them.

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[1] *Microsoft Word - P2P_Final_Report_Implementation_Plan_FAA_FEB_9_2015.doc_(vaughan.ca); PROCURE_TO_PAY_(P2P) IMPLEMENTATION STRATEGY*

- **Fixed Assets/ Tangible Capital Assets (TCA):** Will handle asset registration, classification, tagging, retirement, and disposal for individual and merged assets. It provides an effective way to track assets for financial and reporting needs.

- **Work Orders/ Preventative Maintenance:** Will enable staff to integrate all aspects of creating and processing work orders with the rest of the business operations. It provides an up-to-the-minute status of all jobs and links to information, such as how many labour hours have been tracked and dollars spent.

These individual projects had been planned outside of the Finance Modernization program as singular endeavours. However, to expedite their implementation, they were added into the Finance Modernization program and have now become the principal deliverables of the program.

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OBJECTIVES AND SCOPE

The objective of the audit was to evaluate the adequacy and effectiveness of the controls, processes, and procedures in place to mitigate the risks associated with the implementation of the Finance Modernization Program.

The audit scope included assessing that:

- The program governance process and project management framework are well defined and consistently applied. This includes a framework for communication and training activities.

- Key performance indicators have been developed and management tracks, monitors, and reports on the critical success factors of the program. This includes identifying priorities, corrective measures and preventive actions that can lead to a positive outcome.

- Ensure that design concepts have been thoroughly reviewed and meet the specific objectives of the program, including the analysis of alternative designs.

- Risk identification and mitigation methodology is being appropriately embraced by the project management team, including risks that may involve budget, time, scope, and quality.

- Information Technology systems are being leveraged, integrated, and used to their maximum capabilities.

- Budgetary and financial records appropriately reflect operational and capital objectives of the program.

This audit was conducted in conformance with the *International Standards for the Professional Practice of Internal Auditing.*

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DETAILED REPORT

1. *Expand the Scope of the Current Finance Modernization Program to Encompass the Original Program Outcomes*

   The program scope is the work that needs to be done to achieve a program's outcomes. The scope involves the process of identifying and documenting specific project goals, outcomes, milestones, tasks, costs, and timeline dates specific to the project objectives.   According to the Project Management Institute's Pulse of the Profession Report 2018 [2], 52% of the projects completed in 2018 failed due to scope creep [3]. This failure was a significant increase from 43%, reported in 2013. Usually, scope creep is an issue that ultimately leads to project failure.

   In 2018, as part of the Finance Modernization program, Deloitte was engaged to provide management consulting services to lead the Finance Portfolio in the development of a current state, future state, gap analysis, strategy map, implementation plan and comprehensive performance measurement framework. The total cost of this Deloitte engagement was $715,533 (including the Phase 1 Finance Modernization Strategy and Phase 2 the development of an IT Finance Blueprint and project management services).

   At the time, it was agreed that all the financial processes and controls needed to be streamlined and working together to provide relevant, reliable, and timely information to all decision makers. The ability to answer basic business questions has become very time consuming and often requires manual data extraction from multiple systems followed by additional manual steps to make the data usable.

   This was echoed by the Deloitte report that included findings such as:

   - Finance processes are highly manual which results in delays in the timing of reporting (e.g. Manual Journal Entry forms with documentation completed by departments; subdivision agreements are manual, and data is kept in paper files; Reserve fund allocations are manually calculated).
   - Excel is used throughout finance processes, causing duplication of effort, multiple data entry and time spent on reconciliation procedures (e.g. multiple bank reconciliations are completed manually in Excel; many manual accounts payable and account receivable processes).
   - Computer systems such as JDE and Questica [4] are used as repositories of data transactions and may not be utilized to their full potential (e.g. Questica is not well integrated real-time with other software).
   - Time consuming month end process (up to 3 weeks).
   - Departments missing reporting and analysis, or they produce it themselves manually in Excel (e.g. not many Finance staff are trained in report writing technologies to enable direct reporting from the JDE ERP and the Questica budgeting systems).

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[2] https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2018.pdf
[3] *Scope creep can occur any time after a project has begun and may ultimately affect any or all parts of the project, including the end goal and deadline. Examples of scope creep include: One requested deliverable becomes many deliverables.*
[4] *Budgeting software used at the City.*

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The report confirmed what management already suspected that the City needed to invest in the finance practice to support the service excellence strategy map. Finance did complete some projects to update the Finance function, including Electronic Pay Stub, Vendor Master Clean-up and a Questica update. However, the current Finance Modernization project has evolved into something much different than what was envisioned in the original program. The current projects[5] in the Finance Modernization program were originally stand-alone projects, outside of the direct finance function, which had not progressed as anticipated. It was thought that by incorporating them under the Finance Modernization umbrella they would progress much more efficiently. However, the original intent and objectives of the program has been overshadowed by the introduction of these new projects.

It can be argued that the objectives of the current projects are foundational changes that are required to modernize the City, but for the most part, these projects drive operational improvements, albeit with a financial component. Although the objectives of the current Finance Modernization projects seem worthwhile, achieving these objectives will fall significantly short of modernizing the Finance function at the City. This includes addressing the gaps in the Planning, Budgeting, and Forecasting processes, Financial Reporting/Journal Entries/Statutory Reporting, Accounts Payable, Tax Billing and Collections, Development Charges, Miscellaneous Billings and Collections, Water, Wastewater and Stormwater and other areas.

Not fully addressing the original program scope, increases the risk that comprehensively updating financial process will be again deferred. There is also the significant risk that Finance staff, already frustrated with manual and inefficient processes, are increasingly disillusioned with the ongoing deferral of improvements that directly relate to their day-to-day work environment.

Recommendation

We recommend that management develop a detailed longer-term road map, that goes beyond the current program scope, that looks at addressing comprehensive finance function improvements that were identified in the original program scope, that leverage the technological and process improvements being implemented under the current program.

Management Action Plan

Original scope of the program was based on the 2018 Deloitte Strategy which recommended 106 opportunities be explored to automate City processes. These opportunities were prioritized, and dependencies were identified to develop the original scope of the Finance Modernization Program. A number of those enhancement have been completed.

A 5-year road map had been developed for the program from 2019 - 2024. In preparation for the 2024 capital budget submissions, an OTS Business Case will be submitted in 2023 to request additional funds for 2024 based on an updated Finance Modernization 5-year Road Map. The 5-Year Road map will be updated based on the remaining prioritized Deloitte

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[5] *Capital Asset Management and Work Orders, JDE Fixed Assets and TCA Reporting Process Improvements, Human Capital Management Self-Service Portal and JDE Time and Labour Implementation.*

opportunities, and new related OCIO Business Requests. In addition, the program team has been reviewing the initial prioritization criteria and will provide recommendations if changes are required. The Finance Modernization governance/steering committee will approve the prioritized list required to develop the roadmap for Q2 2023.

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2. ***Establish a City-Wide Program Management Framework***

Program management is sometimes confused with project management. A project is a temporary endeavor undertaken to create a unique product, service, or result, such as implementing a work order management module. Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.

A program refers to related projects, subsidiary programs and program activities that are managed in a coordinated manner to obtain benefits not available from managing them individually. Program management entails application of knowledge, skills, and principles to a program to achieve the program objectives and obtain benefits and control not available by managing a program component individually. Since programs are linked to strategic initiatives, they are often long running and possibly permanent.

A strong Program Management Office (PMO) underpins the project and program delivery mechanisms by ensuring that business change in an organization is managed in a controlled way[6].
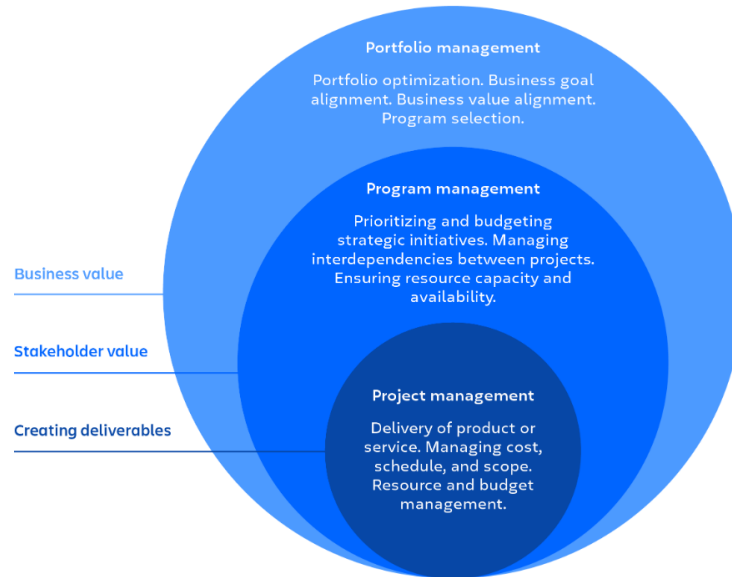
A PMO builds and maintains a set of standards and best practices for internal project and program management and oversee their adherence across all projects. As more and more projects gain strategic importance, PMOs help to manage and execute them in a more predictable, systematic, and controlled way, ensuring standardization of project management practices to achieve economies of scale and thus improving the overall project success rates.

This structure typically includes the program manager role who oversees the planning, executing, and monitoring of programs. Program managers do so from a high-level view that allows them to understand how projects fit into their organization, and more importantly how they can be best executed simultaneously.

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[6] https://www.atlassian.com/agile/project-management/program-management

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At the time of the audit, the City did have a program management governance framework, but it had not been implemented across all City functions. As a result, program and project roles and responsibilities are not clearly defined, resourced, or understood.

The audit noted the following:

- The projects that currently make up the Finance Modernization program were originally intended to be individual standalone projects. Most of the projects had seen significant delays, prior to them becoming part of the Finance Modernization Program. One of the reasons that the individual program projects were delayed was due to a lack of project and program management resources available to support the effective and efficient execution of the project.

- Due to the delays in the original individual projects, staff turnover, and a lack of experienced project managers, the DCM Corporate Services, City Treasurer and CFO asked the Office of the CIO to assist with the program to provide project management resources to ensure that the program was implemented as intended. Because of the nature of their work, the Office of the CIO is accustomed to managing system-based projects. However, this assistance was provided at the project level and not the program level.

- From a governance and accountability perspective, Program Management and Program Sponsor roles and responsibilities are not clearly defined.

- Not all project clients/stakeholders have been being appropriately engaged. For instance, Public Works were not initially identified in the program governance structure and Public Works subject matter experts were not engaged on a timely basis.

- The Program Management Office has been working on implementing a City-wide project management methodology, but as it currently stands, it is being used principally within Infrastructure Development. Additionally, the precise role of the Program Management Office in supporting programs like Finance Modernization has not been clarified and formally established. This can result in misperception and confusion regarding the project/program management role that the Program Management Office, Office of the Chief Information Officer, the Corporate Services Portfolio and the Office of Transformation and Strategy play in supporting programs.

Having an effective project and program management governance structure and lines of authority prevents unnecessary conflict, clarifies roles and responsibilities, and helps ensure that services are effectively delivered. A clearly defined and resourced hierarchy creates a path of accountability for every project related activity.

Recommendation

We recommend that management formally adopt a city-wide program and project management framework that will be a driver to set predetermined goals, improve outcomes and strengthen program management governance. This includes clarifying roles and

responsibilities as well as overall communication with the various stakeholders, including but not limited to Program Management Office, Office of the Chief Information Officer, the Corporate Services Portfolio and the Office of Transformation and Strategy.

Management Action Plan

An RFP for a consultant to prepare a PMO integration plan has been awarded. The consultant will begin this project in Q2 2023, with a scheduled completion Q4 2023. Although the integration plan will be ready in Q4 2023, PMO has and will continue to integrate departments into the Program Management Framework. In the interim PMO has focused on integrating with Development Engineering. This department was selected as it was moved into the iDev Portfolio due to the City's 2022 reorganization and will complete the iDev integration. In Q4 2022 PMO initiated discovery to better understand the Tri-Annual Reporting Projects, now called Enterprise Projects. The Enterprise projects and programs have been reviewed by PMO and project artefacts have been updated or developed to align with the PMO methodology and integrate with the PMO. Finance Modernization is one of the Enterprise Projects and Programs. On May 4th, 2023, the Finance Modernization program was reported to the Program Management Committee – Enterprise. Program updates are scheduled monthly. Discovery activities will kick-off in Q2 2023 with the Public Works Portfolio to identify their project inventory and practices.

In addition to an integration plan, the same consultant will be enhancing the existing Program Management framework for all types of projects and programs within the City. This project will phase in new processes and procedures working with the various stakeholders within the organization, including those mentioned in the recommendation. Completion of the Enhance Program Management Framework is scheduled for Q4 2024.

3. *Develop Business Cases for Evidence Based and Transparent Decision Making*

The Finance Modernization program has a budget of $4.3M, however, comprehensive detailed business cases have not been developed for the individual projects or for the Finance Modernization program as a whole. Part of the reasoning for not having a business case is that the City did not have a business case policy in place when Finance Modernization was originally planned. However, this program has evolved significantly over many years, and it does not resemble the Finance Modernization project originally envisioned by management.

It should be noted that although there was no standardized business case format at the City, in 2019, the Program Manager took the initiative to prepare business cases for some Finance Modernization projects that were initiated at the time. This includes Electronic Pay Stub, Vendor Master Clean-up and a Questica update. However, these projects and the program itself was significantly different than the projects that currently encompass the program.

A business case provides the City's leadership with a management tool for evidence-based, objective, and transparent decision making. A business case is not just a record of the return on investment from a financial perspective, but it presents a summary of all the benefits and various options and alternatives available to the City.

A common way of thinking about a business case is using these five elements:
- **Strategic Context:** The compelling case for change.
- **Economic Analysis:** Return on investment based on investment appraisal of <u>all viable options and alternatives</u> (i.e. – option of doing nothing or maintaining status quo, option of implementing various ERP systems, feasibility of fit-for-purpose systems etc.).
- **Commercial Approach:** Derived from the sourcing strategy and procurement strategy.
- **Financial Case:** Affordability to the City in the time frame.
- **Management Approach:** Roles, governance structure, life cycle choice, etc.

Business cases validate that decisions are being made in a systematic and objective manner. Further, program financial reporting should be supported by a business case. By mirroring the structure of costs in the business case for both tracking and reporting, the program manager ensures that what is reported is meaningful to the sponsors and stakeholders receiving the reports. A review of the business case in conjunction with a discussion with the Finance department (in case something was missed in the business case) about which expenses will be charged to the project narrows the universe of possibilities and lets the program manager focus her tracking and reporting efforts on what is most important.

In 2018, Deloitte prepared what it called a business case for the Time and Attendance project, and it was determined that the ERP system would remain as JDE, and the payroll module would remain in place. The Deloitte report goes on to outline the capabilities of various vendors and recommends that an RFI/RFP be issued to vendors. This document provides good information on how to proceed, but it is not a complete business case (i.e., outlining specific costs for development, implementation, and integration of all viable options). You

would develop a business case once you had this information at hand so that management can make an informed decision.

The value from ERP[7] programs and initiatives come from the adoption of new and/or improved ways of working. A properly implemented ERP system will enable digital business and deliver a measurable business impact. The goal is to reduce the number of peripheral, disconnected, siloed data systems and in doing so deliver a fully integrated, flexible, intuitive solution that will facilitate service delivery improvements.

The Finance Modernization program determined that JDE continue to be the ERP system that should and would be used. For example, the October 15, 2015, "Assessment of JDE as Enterprise CMMS" memorandum from the Manager of Corporate Asset Management to the Deputy City Manager and Project Sponsor for CMMS Initiative acknowledged that "many different technology solutions existed for work order management and are marketed as Computerized Maintenance Management Systems (CMMS)". The report goes on to say that before considering procurement of any additional technologies, the City is assessing the potential to leverage its existing JDE enterprise license for work order management. Based on this assessment, the Manager of Corporate Asset Management concludes that: "JDE sufficiently meets the City's business requirements for IR and WO management at this time". The report also outlines the pros and cons of selecting JDE, however it does not detail or consider any other non-JDE options or cost out the JDE option and associated development costs. This is particularly significant when the Financial Applications Blueprint Report created by Deloitte stated that the City only utilized 45% of JDE since its initial implementation in 1999 and that we could increase that to 80% by automating manual processes. It would have been beneficial to objectively assess the potential for automation (i.e. beyond the 80%) of other options in a business case. An ERP assessment, via the business case process, would have allowed the City to evaluate the existing ERP system, systematically assess business requirements to determine feasibility for a successful implementation and optimal utilization, and provide an objective estimate on how much a replacement or upgrade of the existing system would cost.

Continuing with JDE as the enterprise system may have been considered the intuitive option, however having an objective business case allows management to evaluate this decision free of biases. This is particularly important in an environment where other inhouse options (such as Microsoft) were available to be assessed, as well as multiple products in the marketplace (including: Sage 300 Cloud, Workday, and SAP Business One). It is often assumed that Tier 1 ERP systems are expensive and targeted to larger companies or government agencies. However, some software companies in this space have retooled their software for smaller cities.

Management did prepare project charters[7] and scope[8] documents, but these are not business case substitutes. In fact, the charters also assumed that JDE was the solution. This is even reflected in some of the project titles, the Fixed Asset project charter is called "Implementation

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[7] A project charter is a formal, typically short document that describes the project in its entirety, including what the objectives are, how it will be carried out, and who the stakeholders are.
[8] The project scope outlines all the work required to deliver a project. It may include the functions and features of the final deliverable, as well as any factors that define project success.

of JDE Capital Asset Management and Work Orders". That is not to say that JDE is not the right solution, it may very well be. However, the business case would have outlined all the options available to the City and provided justification for the option selected.

An objective selection process for software solutions that includes a comprehensive evaluation criterion of options and selection process remains vital to avoid negative business impacts. Research shows that a key element to a successful implementation is up-front planning. Taking the time to define the strategic vision, objectives, business case, and critical success factors will help the City achieve the positive outcomes that are expected. These steps will also prepare the City to manage time, cost, quality, risk, and acceptance most effectively as the program progresses.

Recommendation

We recommend that management prepare comprehensive business cases for the projects being considered under the Finance Modernization program that are currently in the initial stages of implementation. This exercise will be important due to the likelihood that this program will need to be extended beyond the current scope and timeline in order to achieve the objectives originally envisioned by the Finance Modernization program.

Management Action Plan

The PMO has retained a consultant to and will initiating a project to develop a Business Case Framework (BCF) for the City in Q2 2023. The BCF framework will include the development of governance structure, processes, procedures, roles and responsibilities and tools. Business Cases will provide the case for change, including options analysis, and feed the Portfolio Programming Phase of the Program Management Process. Approved business case recommendations will be assessed to determine if new programs and/or projects are required and develop draft charters to support capital and resource investments. Draft charters and their associated business cases will support a robust and consistent approach across the organization in selecting the "right" growth related investments in infrastructure, services, technologies, and resources.

Staff recommends continuing with automating processes through the Finance Modernization Program and transitioning from manual and paper-based processes to automated and system related processes which collect data into databases. Updates to the Finance Modernization road map will continue to be justified through the existing OTS Business Case process. When a corporate Business Case Framework is introduced in Q1 2024, the Finance Modernization Program will begin using the new standardized processes, templates, and tools to continue delivering on the program's outcomes. Any future projects within Finance Modernization will be justified through the use of a new business case format.

4. *Enhance Project Scheduling and Resourcing*

A program roadmap provides a general overview of the program, including the program tasks, dependencies, and assigned team members and stakeholders. It also considers skills and the number of resources required for each task, their order of occurrence, milestones, interdependencies, and timeline.

A third-party vendor has been contracted by the City to assist with the implementation of this program. City staff have worked with the program sponsors to assess and prioritize the JDE projects. The consultants also have developed a schedule based on their contract with the City, however, this schedule is used to manage their own mandate with a focus on system implementation not long-term program management. The projects were planned to be released in the following order.

Release	Project	Delivery Date
1	Employee Self-Serve	June 2022
2	Time and Labour (All staff, except Recreation and Fire)	November 2022
3	Work Orders, Fixed Assets/Equipment and Job Cost	June 2023
4	Time and Labor (Recreation and Fire)	September 2023

It should be noted that as of the date of this report, the release date for the Time and Labour Project has been delayed to May 2023. This will also result in delays in implementing the 2nd release of Time and Labour Project. Additionally, for Release 3, the Work Order Management module, Public Works was descoped from this specific deployment to ensure engagement through Change Management activities was executed to explore if the current approach of leveraging JDE will satisfy the Corporate Asset Management department requirements as well as Public Works' requirements.

At the project level, the assigned IT based project managers have developed individual project schedules, that typically focus on work to be completed by each project within the next year. However, a comprehensive end-to-end program level schedule/roadmap that outlines the timelines and resource requirements has not been developed. For instance, some post implementation responsibilities have yet to be fully defined. One of the objectives of the program is to provide data for clear decision making. However, it is unclear as to exactly how and who will be monitoring and reporting on this data from an operational perspective.

A resource plan has not been developed for the Finance Modernization Program. At the program level, the project is under resourced with one Program Manager and no established program management framework in place. This creates a significant level of employee dependance risk for a long-term project such as Finance Modernization. Whether dealing with a voluntary or involuntary exit or sudden leave due to emergencies, it makes sound business sense for the City to be as person independent as possible. Indeed, project management, and software project management in particular, demonstrates that unless

organizations reduce their dependence on individual employees, chances are high that projects will suffer.

Further, the Program Manager reports directly to the DCM, Corporate Services, City Treasurer and CFO, despite the fact that the City has a Program Management Office. By reporting into a specific City department on a cross-functional project, there is the perception that the Program Manager is representing the interests of the Corporate Services portfolio and not taking a corporate wide, holistic approach for managing and delivering this program.

At the operational level, the implementation of highly operational projects such as Fixed Asset and Work Order Management have also been initiated without the development of a resource plan. Operationally, the program expects that departments will implement the solution and be trained using existing resources, without full consideration to their ongoing responsibilities. Moreover, key stakeholders, such as Public Works, were not fully engaged in the program governance structure and Public Works subject matter experts were not identified on a timely basis. Effective program management instills the engagement of the stakeholders at the start of the program and as progress is underway.

Additionally, as JDE becomes more ingrained at the City, the OCIO needs to consider having a development arm for the ongoing effective support of the JDE system. As it currently stands, the City is highly dependent on external resources and this resource dependency increases the financial and operational risk to the City and its ability to meet user needs in an agile and effective way.

When program managers follow the best resource management and scheduling practices, it enhances productivity, program performance, and effectiveness. However, if program management shortcuts are taken and timely decisions are not made, there is a high risk that it will adversely affect the project objectives.

Recommendations

We recommend that management:

- Fully engage the Program Manager in the development of a detailed program roadmap that includes a resource plan, that extends beyond the implementation of JDE.

- Centralize and expand the role of the Program Management Office across all departments. This includes
  - Establishing a City-wide Program Governance Structure,
  - Provide management reports, dashboards, and other monitoring tools,
  - Plan and schedule project resource efficiently,
  - Forecast and enable resource capacity planning, and
  - Facilitate knowledge transfers and train Project and Program Managers.

- Expand OCIO and business level resources to accommodate future development/support requirement and limit the risk of external resource dependency.

- Ensure the accountability and resourcing of the business analysis function within the City to leverage the improvements facilitated by the Finance Modernization Program, streamline processes, reduce duplication, initiate greater employee productivity, and ultimately support business information systems that provide solutions to a variety of business issues across multiple departments.

- Ensure that the change management process is the mechanism used to initiate, record, assess, approve and resolve project changes. Project changes are needed when it is deemed necessary to change the scope, time or cost of one or more previously approved project deliverables. It is crucial that the program uses a robust change management process since most changes will affect the budget and/or schedule of the project or program.

Management Action Plan

The Finance Modernization Program Manager has been and continues to be engaged in the development of a program road map that includes a program resource plan and extends beyond the implementation of JDE. See Recommendation 1's Management Plan for dates.

With the 2022 reorg the PMO was moved under the City manager with the goal of centralizing the function City wide. The PMO Integration Strategy and Plan Project is scheduled for completion Q4 2023 and a revised roadmap to integrate City wide.

In scope for each project will be the assessment of the impact on operational resources based on the evolution of the program.

OCIO will work with the Finance Modernization Program team to submit an ARR for the 2024 budget process to solidify the current System Analyst/Project Leader position. Currently, this position is funded through the Finance Modernization capital budget.

OCIO will also work with the Finance Modernization Program team to refresh the JDE Strategy by Q2 2024, which will identify the future resource requirements that will be submitted for the 2025 budget process.

The City will review and consider approaches to resource the business analysis function to continue to explore improvements, streamline processes, reduce duplication, initiate greater employee productivity, and ultimately support business information systems that provide solutions to a variety of business issues across multiple departments within the Finance Modernization Program by Q4 2024.

Additionally, given the complexities that were discovered during the first release of Time and Labour, a comprehensive lessons learned sessions will be conducted, by Q3 2023, to assess a viable and realistic go-live date for the 2nd release of Time and Labour Project.

Further, Public Works was descoped from this specific deployment of the Work Order Management module. Currently, at a project level, the team utilizes project change orders when there are changes to the schedule, costs, and scope. If the project change affects the

overall program, then at a program level, the program utilizes the PMO Program Change Approval forms. Currently, a project and program Change Order is in development and will be completed by Q2 2023.

5. *Improve Program Financial Reporting*

Project financial management[9] goes beyond simply planning, capturing, and managing costs on individual projects or programs. It should also address the City's need to maintain a balance between the project investment and the expected benefits or returns associated with that project, the potential impact on other projects, and the overall impact on operations. Project and program financial reporting is effective if the data and information used to create them is accurate and can be collected efficiently.

Financial status reporting is provided to project sponsors at the monthly sponsor meetings. It is the responsibility of the Program Manager to prepare the variance report by project. Although the schedule is a simple variance report, it is prepared manually, and the information is difficult to obtain. A common program pitfall is that project managers need to look at several places to monitor their project financial metrics instead of a central tool. Multiple spreadsheets complicate financial management further, while increasing the risks of human error.

Moreover, project financial management policy is not always clearly defined. For example, at the October 27, 2022, program sponsor meeting, the program financials were reviewed. They indicated a $86.4K budget surplus in the Employee Self-Serve project. It was suggested that management use that surplus as contingency in other projects (although a $100K contingency has already been established for the program – SE-0091-19). There is no clear policy indicating if this can be done without getting specific approval or if this is in compliance with City policy. For instance, had these projects been done individually, management would not have considered arbitrarily reallocating surplus from Employee Self-serve to projects like Fixed Asset management. Even though this was proposed at the sponsor meeting, there was little discussion or conclusion regarding this suggestion.

Another financial consideration for a program of this size is that projects often get expanded or rescheduled or experience a change in funding levels. The implementation of the Time and Labor project was delayed from November 2022 to May 1, 2023. Additional costs, if any, should be identified and revised in a timely manner. It is difficult to imagine that a project can be delayed by 6 months without incremental costs.

Further, although the cost of system integration has been discussed, it has not been fully costed out. For financial transparency, this is something that is typically done at the beginning of a program of this magnitude (for example as part of the business case). This issue becomes even more relevant as the different projects within the program progress.

Additionally, the program reporting does not estimate earned value [10]. Earned Value Management (EVM) is a way to measure and monitor the level of work completed on the Financial Modernization program against the plan. EVM is an accepted and commonly used project management tool that integrates schedule, costs, and scope to measure project performance. Because earned value management recognizes project variances, it also

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[9] *Project financial reporting is concerned with disclosing financial information to different stakeholders about the true financial position and performance of a project over a given period of time. The purpose of project financial reporting is providing information regarding the financial performance and position of a project or program.*
[10] *Earned value, also known as Budgeted Cost of Work Performed (BCWP), is a measure of how much value you've made from the money spent on a project to date.*

enables a project and program manager to control the impact of risks that present themselves in real time.

Recommendations

We recommend that management:

- Simplify the process of creating and validating monthly variance reports.

- Ensure expanded work activity is clearly stated in the written portion of the project financial report so that the effectiveness and success of the project can be clearly determined.

- Ensure that the cost of system integration be estimated and included in the program cost.

- Investigate the feasibility of utilizing EVM as a method to measure the amount of work performed on a project/program beyond the basic review of cost variance and schedule reports.

Management Action Plan

The PMO has introduced monthly project and program reporting to integrated departments and will continue to rollout standardized reporting as departments are integrated. The PMO is on schedule to report on the Finance Modernization Program through corporate dashboards in Q2 2023. In addition, changes to scope, budget or schedule will be aligned with the PMOs Change Approval Process which will use the Program Management Committee to approve changes.

The costs of the overall Program are comprised of the sub projects within the program. System integration costs are and will continue to be reflected at the project level, based on project scope.

EVM can be explored within the PMO's enhancement of the Program Management Framework. This will be done by Q4 2023. The PMOs approach thus far has been to manage the change in project and program management processes within the organization and mature the organization strategically.

6. *Standardize Risk Registers and Risk Management Process Across the Program*

Project risk management is the process of identifying, analyzing, and responding to risk that arises over the life cycle of a project to help the project remain on track and meet its goal. Risk management isn't reactive only; it should be part of the planning process to determine the risk that might happen in the project and how to control that risk if it in fact occurs.

A risk register is typically created at the start of a project/program and is regularly referenced and updated throughout the life of a project through deliberate risk monitoring and control. The main purpose of a risk registers is to serve as the database for specific risks.

The Finance Modernization program has developed risk registers at the program, project, and consultant level. A program risk register was originally developed in September of 2020. However, it was replaced with the current risk register being used by the program. The status of some of the risks identified in the September 2020 register do not appear in the new risk register. In order to maintain continuity, it would have been beneficial to have a complete transfer of the risks from the original risk register into the new format, this is particularly important since some of the original risks were classified as high.

Project Managers have also developed risk registers. Although these risk assessments included key project risks, risk ratings and mitigation strategies, the criteria for establishing the risk ratings have not been clearly defined. The original September 2020 program risk register did have a risk matrix and scoring, but it isn't clear if this methodology is being used in the current risk registers.

The consultants also prepare a risk register and use yet another format to capture the risks from their perspective. The format is different from the program and project registers. This register should be consolidated into the individual project risk registers to ensure transparency, continuity, and consistency.

Further, the actual current risk registers should be discussed and reviewed at the Sponsor meeting. Although risks are summarized and discussed, they are not the current risks or activity milestones, but the risks and activity milestones noted from the previous month. These should be updated to reflect the current status, so that they can be acted upon if needed.

The risk registers enable the program and project manager(s) to list all potential risks and then identify and outline important components of these risks. This results in a risk rating. Applying a comprehensive risk rating methodology supports a consistent assessment of risks and lends to improved decision making and risk mitigation strategies.

Recommendations

We recommend that management use a consistent format and rating methodology for all program related risk registers and that all identified risks are maintained on the register indicating their current status. Additionally, the complete updated risk register, and updated activity milestones themselves should be presented at the sponsorship meetings as a standing agenda item.

Management Action Plan

The Program Management Process involves the use of portfolio management tool to capture and monitor project risks. Reporting through the corporate dashboard monthly will provide tools for the Program Manager to review risks with the Program Sponsor and other governing bodies, such as the Program Management Committee.

The Finance Modernization Program will continue to use their existing tools until they are fully integrated with PMO in Q2 2023. As new program and project management processes are introduced during the Enhance Program Management Process Project, the tools and techniques to deliver the Finance Modernization Program will also be updated to the City's new standards. The Enhance Program Management Process Project will be phasing in new processes with estimated completion in Q4 2024.