Ottawa

Office of the Auditor General

Audit of Accounts Payable

Tabled at Audit Committee – November 26, 2015

Contents

Executive Summary

Introduction

The Audit of Accounts Payable (AP) was included in the 2014 Audit Plan of the Office of the Auditor General (OAG), approved by City Council in March 2014.

Background

The City of Ottawa ("the City") processes a high volume of accounts payable transactions annually – in 2014, 350,588 transactions were processed with a combined value of $3.08 billion[1]. Payments are processed through the Accounts Payable unit ("the Unit") of Supply branch, Finance department. The AP unit is comprised of approximately 28 personnel led by a program manager who reports to the Chief Procurement Officer.

AP activities are governed by the Purchasing By-law, Payments to Vendors Policy (revised February 12, 2015) and associated procedures. The policy and procedures apply to all City staff involved in paying a vendor for goods and services; although they do not apply to the City's local boards or elected officials. It is the responsibility of all City staff to ensure that the conditions for payment have been met before approving or proceeding to payment.

AP activities are conducted in accordance with the Delegation of Powers Policy and with the Delegation of Authority By-law (2013-71/2014-435).

Vendor invoices received by the City are processed in SAP, the City's financial information system, using one of the following methods:

- **MarkView (automated invoice processing)** (2014 activity – 157,356 transactions, representing $957 million). This process allows for the receipt of an invoice electronically from a vendor (or if received manually, scanned and submitted) and processed by MarkView, whereby the system will read key fields in the invoice for processing. Once processed, an AP clerk reviews the MarkView transaction details against the original invoice for completeness and accuracy prior to proceeding with the verification and payment process.

- **Direct Post (batch processing for high volume invoices or payees)** (2014 activity – 150,799 transactions, representing $1.04 billion). For some routine, high volume, low risk invoices (i.e., utilities, telecommunications), the batch details of an invoice are uploaded from the vendor or the applicable City department directly into SAP for review and processing.


[1] *Accounts Payable: 2014 Year in Review*, City of Ottawa

- **Non-MarkView (manual invoice processing)** (2014 activity – 42,433 transactions, representing $1.08 billion). Although not the preferred option, there continues to be a need for invoices to be received and input manually into SAP directly (e.g. for confidentiality purposes). The majority of these invoices are processed by the Financial Services Units (FSU) within individual departments across the City.

The two pie charts below depict the breakdown of the number of invoices and dollar amounts by MarkView, Direct Post and Non-MarkView in 2014. For the number of invoices the breakdown is as follows: MarkView 45%; Direct Post 43%; and Non-MarkView 12%. For the dollar amount the breakdown is as follows: MarkView 31%; Direct Post 34%; and Non-MarkView 35%.
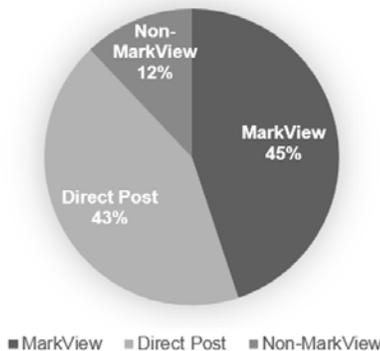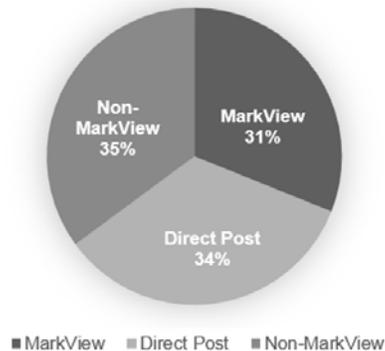
Audit Objectives

The overall objective of this audit was to provide an independent assessment of the control framework in place to ensure appropriate, accurate, timely and efficient processing of the City's vendor payables in accordance with its policy and legislative requirements.

There were two specific objectives established for the audit, as follows:

Audit Objective No. 1:

Assess whether the accounts payable control framework, including roles and responsibilities, has been designed to ensure compliance to applicable policy and legislative requirements, to mitigate identified risks and that it is operating as intended.

Criteria:

- Standards, procedures and tools related to the accounts payable processes are clearly documented, consistent and are made available to stakeholders which support compliance to applicable AP policy and legislative requirements.
- Roles, responsibilities and accountabilities are clearly defined and understood amongst stakeholders and employees have the necessary training, tools, resources and information to carry out their responsibilities.
- Segregation of duties (SOD) is adequate to reasonably mitigate the risk of potential inaccuracies and/or fraud.
- Effective risk management processes are in place to identify, assess, prioritize, mitigate and report on risks impacting AP.
- Appropriate key application controls embedded within the AP system have been designed and are operating effectively to ensure the accuracy of invoice processing and payments and adherence to applicable policy and legislative requirements.
- Appropriate manual controls embedded within the AP processes have been designed and are operating effectively to ensure the accuracy of invoice processing and payments and adherence to applicable policy and legislative requirements.
- Effective and timely reporting related to AP is provided to management and senior management to inform decision making.
- A program to monitor performance and compliance has been designed and is operating effectively to allow for the identification and follow-up on anomalies, trends and opportunities for improvement.

Audit Objective No. 2:

Evaluate the overall efficiency and effectiveness in the management and operation of the accounts payable function including identifying areas of potential savings in processes.

Criteria:

- Accounts payable has established performance standards throughout its processes and tracks and reports against them on an ongoing basis.
- Management of the AP program continuously assesses the function, including the design of manual and automated controls, for potential areas of savings/efficiencies.
- Best practices and identified opportunities for efficiencies have been implemented and are achieving the expected results.

Audit Scope

The scope of the audit included all business processes and systems related to the processing of vendor payments by the City – including MarkView, non-MarkView processed invoices and Direct Post. In addition, other forms of payments (i.e., EFT, cheque and pre-authorized payment) and duplicate payments were included in the audit scope as were the vendor maintenance process related to ensuring appropriate segregation of duties with AP activities.

Payments processed by Purchasing card (Pcard) and petty cash were not in scope for this audit. Further, the audit did not include reimbursements to employees or period end accruals. Finally, information technology general controls were not addressed as part of the audit.

The period under review for this audit was from July 1, 2014 to June 30, 2015.

Summary of Key Findings

The audit identified a management control framework for AP that has established roles and responsibilities, formalized policies and procedures, an embedded risk management program and has designed both automated and manual controls to enable the payment of approved and accurate vendor invoices. Opportunities were identified to strengthen specific controls in place and to enhance the automation and tools available to enable efficiencies/cost savings within the AP process. The key findings from this report are described below.

The roles, responsibilities and accountabilities of AP stakeholders are well defined and understood and are well supported by standards, procedures and tools.

Through document review and interviews with key stakeholders, the audit found that the roles, responsibilities and accountabilities of AP stakeholders, both internal and external to the AP unit, are clearly defined and understood amongst employees. Furthermore, the audit noted consistency between the documented expectations of those involved in the AP process and their understanding of their responsibilities. Reporting structures were also well defined through a maintained organizational chart and an established governance structure.

The roles and responsibilities of AP representatives are well supported by documented policies and procedures that are made available through the City's intranet site as well as through ongoing training/support. Detailed procedures for carrying out AP-related tasks are well documented and available to all stakeholders. Training materials related to MarkView 8.1 are available on the intranet and ongoing, in-person MarkView training sessions are provided to all staff upon request. AP unit staff noted that they felt well

supported by senior AP staff and supervisors who make themselves available when staff have questions or concerns. Training is also provided to stakeholders external to the AP unit, including FSU representatives and business unit managers.

Although the training is meeting the current needs of the AP unit, with increased process automation, the AP unit is re-focusing more on the use of data analytics and business intelligence, as further discussed below. As this shift occurs, it will become increasingly important for AP management to assess the skills/qualification and training needs of AP unit staff to ensure alignment with these new roles and responsibilities.

AP maintains a well-established risk management process that enables the identification, assessment, mitigation and monitoring of key risks.

In 2014, in alignment with the City's ERM Policy, the AP unit created a risk registry that is currently maintained and supported by a broader risk management process. The registry is maintained as a living document that is updated by management within the unit and is provided to senior management and the Senior Management Committee on a bi-annual basis to feed into the Corporate Risk Profile. The risk registry identifies risks and opportunities to the unit and subsequently assigns a rating of the impact and likelihood, trend, status and mitigation action plan. In reviewing the AP risk registry, the audit found consistency between the key risks identified through interviews and the registry and that all medium-high and high risks had an established mitigation plan. The registry also demonstrated progress against the mitigation plans for all high risks and the majority of medium-high risks.

It was noted through documentation review that the risk registry was last updated in December 2014. While this may meet current business needs, new risks will emerge as AP shifts its role to increased reliance on data analytics and business intelligence. Accordingly, as this shift occurs, it will be important for AP to update the registry more often to identify, assess and mitigate emerging risks.

While access controls have been effectively designed within MarkView/SAP, there is an opportunity to more formally assess and resolve potential segregation of duties issues as access is requested.

The City has leveraged its existing Enterprise Resource Planning (ERP) solution – SAP, in conjunction with MarkView, the workflow solution, to establish Segregation of Duty (SOD) controls within the AP process. SOD was tested through the comparison of the pre-established roles/access determined by management against the actual access that a sample of AP staff had to SAP. We found that the ability to approve an invoice or to confirm goods/services receipt within the system is based on established delegation of authorities. As a result, depending on the nature of the invoice and the dollar value of

that invoice, only an approval from individuals with the sufficient authorization level can allow the invoice to proceed to the next stage of processing.

In addition to embedding invoice approvals and goods/services receipt within the system, the City has also embedded the SOD within the approval process so that an individual does not have excessive access within the system to allow them to control multiple phases of the AP process. These access rights reflect a recent exercise the City has undertaken to transition to position-based access, which means that system access is based on standardized expectations of an individual's role and responsibilities within the organization. Accordingly, the audit found that SOD has been well designed within the AP process and has leveraged the existing system capabilities to ensure that access to the system is based on the role held by the individual.

As a result of testing the SOD, we found that individuals did not have access to control the entire AP process and would require at least one additional individual to complete the processing and payment of a vendor invoice. Testing further confirmed that an appropriate process has been established and is operational to grant/remove access to the system in a timely manner.

There are situations where an individual might need additional system access over and above what has been assigned based on their position. For these cases, the City has a process to request, review, approve and grant such access through SAP. System tools are available to assist in the review process, which would highlight potential SOD issues that the granting of this enhanced access could cause. While this process was verbally described and it was noted that documentation is maintained through a SOD conflict report, no evidence could be provided to demonstrate that the process was consistently and formally applied. Although a process has been established to identify potential SOD conflicts annually, without formally maintaining documented evidence confirming that additional access requests will not cause potential SOD issues prior to the approval and granting of such access, there is the risk that granting this additional access will result in a SOD conflict.

While the key application controls in place within MarkView/SAP are operating effectively, there are opportunities to increase the use of application controls and reduce the amount of manual controls.

In leveraging the key system that supports AP processing across the City, AP alongside the IT team has implemented several key application controls within MarkView and SAP as a cost-effective way to improve data integrity and enforce appropriate authorization. The key application controls that the audit team tested and found to be operating effectively included:

- MarkView Workflow and Authorizations: Workflows have been configured to ensure that appropriate approvals (and secondary approvals where relevant) are obtained for invoice processing. Note that this control was tested through review of workflow documentation and observation of a sample transaction in the system.
- Three-way Match: A three-way match has been appropriately configured within SAP to require matching of the goods/service receipt and invoice against a purchase order (as applicable) in order for the payment to be processed. Furthermore, it was found that the account determination within SAP is appropriately configured to automatically post to the liability suspense account upon goods receipt and invoice receipt.
- Payment Proposals: To enforce SOD, AP has appropriately configured payment proposals within SAP so that the same person cannot initiate and approve the same transaction. This requires two people to be involved in the payment proposal process.
- Locked Vendors: While archiving is currently not performed within SAP, the AP unit instead locks vendors that have been inactive for an extended period of time to prevent any invoices from being processed against them.

While the audit found the key application controls listed above to be configured appropriately, the following were noted as opportunities to configure application controls to more effectively mitigate key risks within the AP process:

Duplicate Invoices

A key set of application controls within SAP relates to the check for duplicate invoices prior to payment. Within SAP, there is a field that can be configured to enforce a check of duplicate invoices for all vendors which would automatically identify potential duplicates attempted to be processed within the system. Under the duplicate invoice check, the system cross references a number of fields, such as vendor, currency, company code, invoice amount, document number and invoice date to determine whether the invoice that is being processed is a duplicate. Although this application control is available within SAP, it is currently configured as optional and is therefore, not automatically applied as a mandatory check for all vendors payments.

As a result, reliance is placed on AP staff to manually select this field when they are creating a new vendor record or updating an existing vendor record. If the field is not selected when creating a vendor, there is a risk that duplicate payments can be processed for that vendor and manual compensating controls must be relied upon to detect duplicate payments. Accordingly, the SAP system settings are not appropriately

configured to always enforce a duplicate invoice check and to prevent potential duplicate invoices from being processed.

A detective, compensating control is in place to identify duplicate payments that have been processed. The AP unit undertakes an analysis of potential duplicates using an analytics tool on an ad hoc basis. The last review of potential duplicates was performed in 2014 based on 2013 data. We performed data analytics to identify potential duplicates for the period under review. The audit found three (3) sets of invoices that were processed and paid twice, which resulted in a total of $13,989.78 in duplicate payments. The audit team noted that there were different reasons for why each of the duplicates occurred and no systemic issue was identified. While this amount represents a small percentage of the total dollar value processed through AP, it still represents overpayments by the City and demonstrates that the current, manual compensating controls are not fully effective.

Vendor Maintenance

A key application control within the SAP vendor maintenance is the configuration of the sensitive vendor master fields and whether particular data fields require approval by an independent person for new or updated vendors. Vendor master fields are critical to sound control over vendor payments as sensitive information, such as banking information, is maintained for vendors and forms the basis of payment. Access to modify this information requires strong controls (specifically SOD) to mitigate the risk of potential fraud.

The audit found that no sensitive fields have been defined for which a dual control is enforced. As such, when an employee creates a new vendor or updates the information of an existing vendor in SAP, no approval is required before the change becomes active in the system. This finding was also noted in a report issued by the City's Compliance Team in October 2014 when they undertook a process review of the Vendor Master File Maintenance process.

Instead of configuring the sensitive vendor master fields within SAP, a manual, detective control is in place. AP performs a secondary review of all vendor changes processed before 9:00 the following day, at which time payments against approved invoices are released. Although this manual control was found to be operating effectively, as further discussed below, there is still a risk that a senior AP staff member may not review vendor changes in time to detect errors in the vendor master information before an applicable payment may be released.

While the key manual controls related to the AP processes were effective in design, there are opportunities to improve the consistency of their operation.

The audit found that the manual controls in place within the AP process have been designed effectively and while some are operating effectively, others had some exceptions noted.

It was determined that from the sample of vendor invoices selected, 20% were paid late and 5% did not leverage an available discount. From examining the audit logs associated with these transactions, significant duration elapsed while the invoice was in the custody of the business unit for approval. There appeared to be multiple back and forth comments between the approver of the invoice (i.e. business owner) and the FSU representative, in place to support that individual. Upon discussion of the results with the AP unit, it was acknowledged that efforts are required to ensure the timely processing of invoices when they are in the custody of the business units and reliance is placed on these users' familiarity and comfort with the system. To address this, the AP unit has enhanced its training opportunities to users. For example, senior staff within AP regularly offer MarkView training course for business users focusing on coding and approving invoices within the system. In addition, the Finance 101 course required to be completed by all managers has an AP component included – focused on roles and responsibilities to ensure timely approval and accurate processing of vendor invoices.

Because it is known that delays in reviewing and approving invoices cause delays in payment and the potential to not lose potential discounts[2], AP management implemented priority functionality within MarkView to notify users when potential discounts were coming due. It was acknowledged that while this functionality was in place, the notifications were not effective in distinguishing the high priority invoices. Clarifying the message in the notification would highlight those invoices that require priority action – i.e., available discount coming due or invoice about to be paid late. This urgency associated with the notification will allow the business user to prioritize those specific invoices for immediate action.

The priority routing could be more effective if the system was able to use the date the invoice was received in the payment terms rather than the date on the invoice. Currently, the new functionality in MarkView does not capture the entire population of potential discounts and invoices coming due because it relies on terms fed by SAP, which calculates based on the invoice date. While the City is currently tracking the amount of missed discounts, it is not tracking the amount spent on penalties as a result

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[2] It was highlighted in the *Accounts Payable 2014 Year in Review* that 16,243 discounts were missed, totaling a potential savings loss of $603,437.

of late payments. As a result, the City does not have a view to how much is being lost as a result of late penalties.

A performance monitoring program has been established for AP overall; however, there is an opportunity to provide business units with information on their results in order to remind users of their AP responsibilities and accountabilities.

The AP unit, on an ongoing basis, conducts analysis on the results of the City, relative to AP processing and associated performance indicators. This includes monthly dashboards which report on Validation Statistics (average validation queue volume, average invoices validated daily and days to turn over the validation queue), PO Queue Statistics (average PO queue volume, average PO invoices processed daily and days to turn over the PO queue), Vendor Maintenance (new EFT enrollees and payments: EFT vs. cheque) and Discount Analysis (total discounts offered, discounts taken – dollar value and number of invoices past due). Annually, an overall report is prepared to highlight the results and activities of AP during the previous year. This report highlights the number and type of invoices processed/payments made, lead times (i.e., duration between invoice date and first action taken by AP), discounts taken/missed and the status of initiatives taken during the year. Due to a lack of a holistic analytics tool, described below, the AP team is challenged to extract and manipulate the available data within existing systems to provide value added information and analysis to senior management on AP results.

While most analysis is performed on a City-wide basis, limited analysis and reporting results are provided to business units on their individual results. As noted above, delays in processing can be attributable to the length of time the invoice is in the custody of the business units; however, they may not have visibility to the overall impact of these delays as all they see are individual invoices to be processed. There is an opportunity to leverage the tools/analysis in place within the AP unit to provide periodic reporting to business units on their specific results relative to AP – i.e., discounts available but not taken, late payments, average days taken to approve an invoice. This type of reporting that is attributable to an individual business unit allows them to see their performance/impact and could initiate the conversation with their FSU representative and the AP unit on opportunities to improve their results.

To date, system functionality has been focused on the efficiency and effectiveness of controls within the AP process. There are opportunities to leverage existing and available technology to ensure the efficiency and effectiveness of AP operations.

A significant amount of automation has been leveraged to increase the efficiency and effectiveness of vendor invoice approval and processing. One example is the

automated workflow embedded within MarkView to move vendor invoices through their life cycle to payment. Another example is the scanning technology in place to scan key elements of an invoice to automatically populate within the financial system (in place of manually entering each key element of the invoice). Based on the results reported by AP, for the 2014 fiscal year, 45% of all invoices were processed (i.e. those processed through MarkView) using this automation.

While this level of automation has and continues to improve the efficiency and effectiveness of the controls, the monitoring activities that are in place continue to be more manual, requiring the use of different tools and reports to provide the information required. Examples of such situations are described below:

Monitoring for Potential Discounts

While the current system capabilities allow for monitoring of upcoming available discounts, there is a challenge with the key field used to monitor this. The default date for monitoring available discounts is the invoice date (i.e. the date noted on the invoice). The City's *Payments to Vendors Policy* states that the term of payment is "the date the invoice is received and accepted or the goods/services are accepted, whichever date is later". Many organizations default to the invoice date as a baseline for counting the due date of the invoice and the opportunity to leverage a discount if it is being offered and as a result, most systems are designed to monitor based on that field. Because of the current City policy, this default date is not appropriate as a baseline for monitoring. The current capabilities of the system do not allow for monitoring potential discounts as the receipt/acceptance date of the invoice is not currently being captured. As a result, a manual exercise of monitoring available discounts is performed by the AP unit and by the FSU representatives to highlight and prioritize these invoices through the process.

The AP unit is currently considering a potential system enhancement that would allow automated monitoring of available discounts based on invoice receipt/acceptance date.

Monitoring the Performance/Productivity of AP Activities

Recognizing the need to continuously monitor and strive to improve the overall performance of AP activities, the AP unit undertakes ongoing formal and informal monitoring activities to assess performance against past results and benchmarks. These activities are all undertaken with an aim to continuously improve productivity and efficiency of the AP activities. The range of information being monitored and reviewed by AP include aged payables, discounts available vs. taken and the productivity of individual AP staff members. The AP unit leverages their membership within the Ontario Municipal Benchmarking Initiative (OMBI) to share best practices and compare results. In OMBI's 2013 report, it benchmarked 14 municipal Accounts Payable functions to

assess how much it costs to process an invoice. The City of Ottawa was ranked as the second highest, with a cost of $8.71 per invoice.[3]

As noted above, the AP unit is challenged with the analytical tools currently in place to ensure the monitoring/reporting activities themselves are efficient and appropriate. Tools are needed to complement the existing system to allow more efficient and effective monitoring of performance against performance indicators and to identify cost savings/improved customer service opportunities. These tools and the associated support to enable them will be required to move the AP unit to a higher functioning AP organization.

<u>Invoice Validation</u>

As noted above, scanning technology has been implemented to allow for automated population of key fields in the financial system directly from an electronic invoice to avoid manual entry of the invoice into the system. While there continue to be some invoices that are manually processed, more invoices are being processed in this automated fashion, through MarkView. As the software scans the invoices, it looks for key pieces of information from the invoice and flags to the AP user what fields it is unsure of for review, validation and update, as required. The technology has been designed so that over time, it will "learn" how to read invoices from specific vendors to increase the accuracy of the interpretation of the software with the intention to decrease the amount of manual intervention required. This "learning" capability has been disabled due to a lack of training on this functionality and as a result, the workload involved in currently managing/maintaining this functionality is more cumbersome than manually reviewing invoices. However, because this functionality has not been enabled, AP staff are currently reviewing every field populated by the software to ensure accuracy prior proceeding through the AP process. This continued manual review of all fields does not allow the AP unit to maximize efficiency of the initial processing of invoices.

Overall, without the tools in place to allow for effective monitoring of the AP activities, the AP unit will not be in a position to assess and continuously improve these activities towards maximum effectiveness and cost savings.

Recommendations and Management Responses
Recommendation 1

That the City formalize the requirement to retain documentation which demonstrates that in cases where enhanced system access (beyond the standard

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[3] 2013 Performance Measurement Report – Accounts Payable Section, *OMBI,* http://www.ombi.ca/wp-content/uploads/Accounts-Payable1.pdf

access associated with the position) is granted, potential SOD conflicts have been assessed and resolved prior to approval.

Management Response

Management agrees with this recommendation.

The Financial Process, Compliance & Systems unit within the Finance department has a formal process in that all access requests are approved by the supervisor of the individual requesting the access and by the business process owner within the Finance department. All requests are submitted to the SAP Support Center within the IT department. A standard SAP report is run for each request that identifies any segregation of duties issues. If there is one identified, action is taken to remove the conflict. Effective immediately, the Financial Process, Compliance & Systems unit will retain on file documentation which demonstrates that in cases where enhanced system access (beyond the standard access associated with the position) is granted, potential SOD conflicts have been assessed and resolved prior to approval. Management considers this recommendation to be complete.

Recommendation 2

That the City enforce the mandatory duplicate invoice check for all vendors within SAP and that the City formally undertake a duplicate invoice check analysis at least on an annual basis.

Management Response

Management agrees with this recommendation.

AP has performed the duplicate invoice check analysis annually over the past two years. The requirement to perform this analysis has been formalized in the AP "List of AP Monitoring Reports".

AP has requested a configuration change be made to SAP that will default to apply the duplicate check to all vendors. IT has advised that, as per the current IT work plan and scope of work identified in this recommendation, this change will be completed by Q1 2016.

Recommendation 3

That the City configure the sensitive vendor master fields in SAP to require approval by an independent person before changes to vendor information go live in the system.

Management Response

Management agrees with this recommendation.

AP has requested that the system be configured to require a secondary review of all fields when a Vendor Master Record is created or changed. IT has advised that, as per the current IT work plan and scope of work identified in this recommendation this change will be completed by Q3 2016.

Recommendation 4

That the City refine system enhancements in MarkView to allow notifications to users to include a level of priority.

Management Response

Management agrees with this recommendation.

Management has clarified the message that is sent to users when they are notified of a high priority invoice to be approved. Management considers this recommendation to be complete.

Recommendation 5

That the City establish a process to track and report on late penalties paid as a result of AP internal processes.

Management Response

Management agrees with this recommendation.

AP will establish a process to track and report on late penalties paid by the end of Q2 2016.

Recommendation 6

That the City enhance its current AP reporting program to include periodic reporting of AP results to individual business units.

Management Response

Management agrees with this recommendation.

AP currently prepares a performance dashboard that is shared with Finance senior management. The dashboard presents information at the City-wide level. AP will modify the dashboard and provide relevant information to the Financial Services Unit beginning in Q2 2016.

Recommendation 7

That the City implement the tools necessary to allow for efficient monitoring and analytics such as: automated monitoring of potential discounts based on invoice receipt date, enabling the population of invoices and validation of only those fields highlighted for review and productivity analysis, throughput analysis by individuals/activities against performance indicators.

Management Response

Management agrees with this recommendation.

In order to maximize the efficiency of operations through automation, AP has researched the following system enhancements;

- A configuration change to enable SAP to pay invoices based on receipt date rather than invoice date;
- A vendor self-serve package that will allow vendors to submit to and review their own accounts; and
- Analytics software that will allow tracking and monitoring of invoices, operations, errors, and productivity.

Management is preparing a business case for the tools identified above. The business case will be completed by Q1 2016 and will be presented to Corporate IT Management Team (CITMT) for review and approval at the next meeting.

Potential Savings

A strong management control framework in place over AP enables direct cost savings through the payment of invoices on their due date to avoid penalties, taking advantage of available vendor discounts and avoiding paying the same invoice multiple times.

AP has taken steps to ensure it identifies and prioritizes invoices for processing that have available discounts so that they are taken advantage of. This includes leveraging available modules within MarkView to highlight these high priority invoices.   Although this has increased AP's ability to take advantage of discounts being offered by vendors, it is limited to those invoices where the invoice date is close to the date received. To take full advantage of discounts being offered by vendors, AP recognizes the need for a system change to read the receipt date rather than the invoice date. It should be further acknowledged that to ensure discounts are taken, AP relies on departments to complete their responsibilities relative to invoice processing in a timely manner when notified of a potential discount available [4].

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[4] It was highlighted in the *Accounts Payable 2014 Year in Review* that 16,243 discounts were missed, totaling a potential savings loss of $603,437.

Additionally, although the amount may not be significant, visibility to penalties paid for late payments would allow the City to be aware of money that is being lost as a result of inefficient/ineffective internal processes. Prioritized, escalated notifications of invoices coming due for payment should help minimize these losses.

There are further opportunities to leverage existing technology to prevent the erroneous payment of vendor invoices more than once. Examples of duplicate payments were found and although there are mechanisms to collect this money back, the process to do so requires additional employee time.

Opportunities for potential savings have been identified by the AP unit through enhanced analytics/monitoring tools and were confirmed by this audit. The AP unit intends to leverage tools available to monitor activities and identify potential process changes intended to result in efficiencies and cost savings. An example of such monitoring includes throughput within the AP process. By identifying weaknesses in the process, opportunities to streamline will be identified and over time, this could result in net savings to the City through less people involved in processing a single transaction – impacting the total cost to process that invoice.

Conclusion

An appropriate foundation has been established to enable the processing of approved and accurate vendor invoices for goods and services received by the City. This foundation includes the formal establishment of roles and responsibilities, the design and implementation of manual and automated controls within the life cycle of a vendor invoice and back end monitoring to ensure the controls are working as intended. However, the audit noted specific areas where controls should be strengthened and consistently applied. Further, there are opportunities to leverage existing and available technologies to ensure the City is efficient in processing vendor invoices, maximizing opportunities for cost savings and monitoring performance of the activities across the City.

Acknowledgement

We wish to acknowledge our appreciation for the cooperation and assistance afforded the audit team by management.

The section that follows is the detailed audit report.

Detailed Audit Report

Introduction

The Audit of AP was included in the 2014 Audit Plan of the OAG, approved by City Council in March 2014.

Background

The City processes a high volume of accounts payable transactions annually – in 2014, 350,588 transactions were processed with a combined value of $3.08 billion[5]. Payments are processed through the AP unit of Supply branch, Finance department. The AP unit is comprised of approximately 28 personnel led by a program manager who reports to the Chief Procurement Officer.

AP activities are governed by the Purchasing By-law, the Payments to Vendors Policy (the Policy) (revised February 12, 2015) and associated procedures. The Policy and applicable procedures apply to all City staff involved in paying a vendor for goods and services; but do not apply to the City's local boards or elected officials. It is the responsibility of all City staff to ensure that the conditions for payment have been met before approving or proceeding to payment, including:

- The goods/services have been received
- The buying department is satisfied and has accepted the goods/services
- The invoice or receipt for these goods/services is accurate with respect to the items, quantities and prices, including tax
- Where an invoice is received, it includes key information to allow for the validation and approval of the invoice

AP activities are conducted in accordance with the Delegation of Powers Policy and with the Delegation of Authority By-law (2013-71/2014-435).

The Policy specifies acceptable billing and payment methods:

- Billing methods: purchase order invoice; non-purchase order invoice; Pcard statement, and; receipt for petty cash
- Payment methods: electronic funds transfer (EFT); cheques; Pcard, and; petty cash

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[5] *Accounts Payable: 2014 Year in Review*, City of Ottawa

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- **MarkView (automated invoice processing)** (2014 activity – 157,356 transactions, representing $957 million). This process allows for the receipt of an invoice electronically from a vendor (or if received manually, scanned and submitted) and processed by MarkView, whereby the system will read key fields in the invoice for processing. Once processed, an AP clerk reviews the MarkView transaction details against the original invoice for completeness and accuracy prior to proceeding with the verification and payment process.

- **Direct Post (batch processing for high volume invoices or payees)** (2014 activity – 150,799 transactions, representing $1.04 billion). For some routine, high volume, low risk invoices (i.e., utilities, telecommunications), the batch details of an invoice are uploaded from the vendor or the applicable City department directly into SAP for review and processing.

- **Non-MarkView (manual invoice processing)** (2014 activity – 42,433 transactions, representing $1.08 billion). Although not as preferred as the automated option, there continues to be a need for invoices to be received and input manually into SAP directly (e.g. for confidentiality purposes). The majority of these invoices are processed by the financial services units (FSU) within individual departments across the City.

The two pie charts below depict the breakdown of the number of invoices and dollar amounts by MarkView, Direct Post and Non-MarkView. For the number of invoices the breakdown is as follows: MarkView 45%; Direct Post 43%; and Non-MarkView 12%. For the dollar amount the breakdown is as follows: MarkView 31%; Direct Post 34%; and Non-MarkView 35%.

Number of Invoices

MarkView 45%
Direct Post 43%
Non-MarkView 12%

■ MarkView ▨ Direct Post ■ Non-MarkView

Dollar Amount

MarkView 31%
Direct Post 34%
Non-MarkView 35%

■ MarkView ▨ Direct Post ■ Non-MarkView
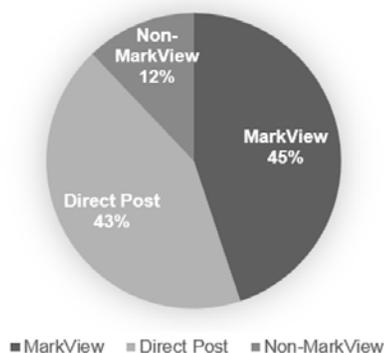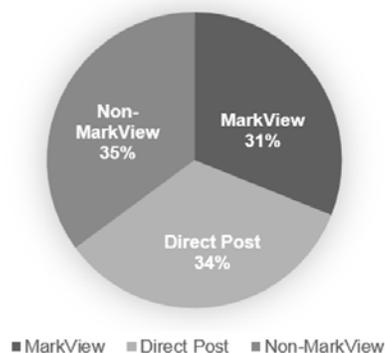
Once an invoice has been received and processed, it will either follow a path to be matched electronically to an associated purchase order and a goods/services receipt or if no purchase order exists, it will follow a workflow process. The workflow process has been established in MarkView to route the invoice to an individual to confirm goods/services receipt and then to an appropriate delegated authority for invoice approval.

Once ready for payment, the preferred method is to pay invoices by EFT (daily run based on invoice due date or available discount date), as it represents the most efficient method to transfer payment to vendors. In 2014, 34% of all vendor invoices were paid by EFT[6]; however, due to recent recruiting initiatives to encourage enrollment, more vendors have registered for this payment type since the year-end. For vendors who request cheques as their payment method, one regular and one special/rush cheque run is processed weekly. SOD, reconciliation and approvals have been embedded in both the EFT and cheque payment process. For cheque processing, the cheque generation process has been outsourced to a third party. In 2014, 52% of all vendor invoices were paid by cheque[7].

On an ongoing basis, management of the AP unit monitors its activities from a workload/efficiency perspective and to ensure all potential discounts are being leveraged (cost savings perspective). The AP unit produces monthly dashboards for key measures and prepares a detailed year-end summary of its activities. The AP unit has initiated actions to improve processing reliability and efficiency of invoice processing and payment, including, but not limited to:

- Encouraging vendors to enroll for EFT payments to reduce the volume of payments by cheque
- Expanding the use of Pcards to more vendors to reduce the volume of invoice processing
- Conducting a vendor payment terms review to identify opportunities to leverage early payment discounts

Audit Objectives

The overall objective of this audit was to provide an independent assessment of the control framework in place to ensure appropriate, accurate, timely and efficient processing of the City's vendor payables in accordance with its policy and legislative requirements.

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[6] *Accounts Payable: 2014 Year in Review*, City of Ottawa
[7] Ibid

There were two specific objectives established for this audit, as follows:

Audit Objective No. 1:

Assess whether the accounts payable control framework, including roles and responsibilities, has been designed to ensure compliance to applicable policy and legislative requirements, to mitigate identified risks and that it is operating as intended.

Criteria:

- Standards, procedures and tools related to the accounts payable processes are clearly documented, consistent and are made available to stakeholders which support compliance to applicable AP policy and legislative requirements
- Roles, responsibilities and accountabilities are clearly defined and understood amongst stakeholders and employees have the necessary training, tools, resources and information to carry out their responsibilities
- Segregation of duties is adequate to reasonably mitigate the risk of potential inaccuracies and/or fraud
- Effective risk management processes are in place to identify, assess, prioritize, mitigate and report on risks impacting AP
- Appropriate key application controls embedded within the AP system have been designed and are operating effectively to ensure the accuracy of invoice processing and payments and adherence to applicable policy and legislative requirements
- Appropriate manual controls embedded within the AP processes have been designed and are operating effectively to ensure the accuracy of invoice processing and payments and adherence to applicable policy and legislative requirements
- Effective and timely reporting related to accounts payable is provided to management and senior management to inform decision making
- A program to monitor performance and compliance has been designed and is operating effectively to allow for the identification and follow-up on anomalies, trends and opportunities for improvement

Audit Objective No. 2:

Evaluate the overall efficiency and effectiveness in the management and operation of the accounts payable function including identifying areas of potential savings in processes.

Criteria:

- Accounts payable has established performance standards throughout its processes and tracks and reports against them on an ongoing basis

- Management of the AP program continuously assesses the function, including the design of manual and automated controls, for potential areas of savings/efficiencies
- Best practices and identified opportunities for efficiencies have been implemented and are achieving the expected results

Audit Scope

The scope of the audit included all business processes and systems related to the processing of vendor payments by the City – including MarkView, non-MarkView processed invoices and Direct Post. In addition, the scope of the audit included the payment methods of EFT, cheque and pre-authorized payment forms. Duplicate payments were included in the audit as were the vendor maintenance process to ensure appropriate segregation of duties with AP activities. The scope of the audit did not include the system controls associated with EFT payments.

Payments processed by purchasing cards and petty cash were not in scope for this audit. Further, the audit did not include reimbursements to employees or period end accruals. Finally, Information Technology General Controls (ITGC) were not addressed as part of the AP audit.

The period under review for this audit was from July 1, 2014 to June 30, 2015.

Audit Approach

The audit was designed so that sufficient and appropriate audit procedures were conducted and evidence gathered to provide reasonable assurance of the accuracy of audit findings and conclusions, as they existed at the time of the audit. The audit was conducted in accordance with the Institute of Internal Auditors' (IIA) *International Standards for the Professional Practice of Internal Auditing.*

Audit criteria were developed to address the key risks identified during the planning phase and were established from leading internal control guidance such as the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The COSO Integrated Framework enables organizations to effectively and efficiently develop systems of internal control that adapt to changing business and operating environments, mitigate risks to acceptable levels and support sound decision making and governance[8]. The key elements of this framework include:

- **Control Environment** – Represents set of standards, processes and structures that provide the basis for carrying out internal controls across the organization

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[8] COSO: Internal Control – Integrated Framework (May 2013).

- **Risk Assessment** – Involves the ongoing process for identifying and assessing risks to the achievement of objectives
- **Control Activities** – These are the actions established through policies and procedures that help ensure management's directives to mitigate the risks to the achievement of objectives are carried out
- **Information and Communication** – This represents the relevant information that management generates and uses to support the functioning of other components of internal control. Communication is the ongoing process of providing, sharing and obtaining necessary information throughout the organization
- **Monitoring Activities** – This represents the ongoing assessments; built into business processes, at different levels of the organization, which provide information about the effectiveness of the controls established

Methodology

The audit was undertaken in three phases: the Planning Phase, the Conduct Phase and the Reporting Phase, which spanned from July 2015 to September 2015. . During the Planning Phase of the audit several interviews were conducted and documents reviewed to inform the risk-based audit plan, which outlined the audit objective, criteria and procedures. During the Conduct Phase the audit team executed against the audit procedures, which included several lines of enquiry such as interviews with key stakeholders, document review, controls testing and data analytics. Based on the evidence gathered and analysis performed, the audit team shared their findings with management for validation.

Detailed Findings, Observations and Recommendations

Finding #1: The roles, responsibilities and accountabilities of AP stakeholders are well defined and understood and are well supported by standards, procedures and tools.

Through document review and interviews with key stakeholders, the audit found that the roles, responsibilities and accountabilities of AP stakeholders, both internal and external to the AP unit, are clearly defined and understood amongst employees. Well maintained job descriptions exist for all AP roles, all of which contain a job summary and detailed key duties and include position qualifications such as education, experience, knowledge, competencies/skills and abilities. Furthermore, the audit noted consistency between the documented expectations of those involved in the AP process and their understanding of their responsibilities. Reporting structures were also well defined through a maintained organizational chart and an established governance structure.

The roles and responsibilities of AP representatives are also well supported by documented policies and procedures that are made available through the City's intranet site as well as through ongoing training/support. The key policies and procedures applicable to the AP process include the *Payments to Vendors Policy*, *Payments to Vendors Procedures* and the *Payment with Reference to Delegated Authority "FPO" Procedure.* Detailed procedures for carrying out AP-related tasks are well documented and available to all stakeholders. The AP unit is currently undergoing an exercise to consolidate these documents into an integrated "AP Training Guide". Training materials related to MarkView 8.1 are available on the intranet and in addition to the training received at the launch of MarkView 8.1 (Fall 2014), ongoing, in-person training sessions are provided to all staff upon request. AP unit staff noted that they felt well supported by senior AP staff and supervisors who make themselves available when staff have questions or concerns.

Although the training is meeting the current needs of the AP unit, with increased process automation the unit is beginning to focus more on the use of data analytics and business intelligence, as further discussed in finding #6. As this shift occurs, it will become increasingly important for AP management to assess the skills/qualification and training needs of AP unit staff to ensure alignment with new roles and responsibilities.

Training is also provided to stakeholders external to the AP unit, including FSU representatives and business unit managers. The City currently requires new managers to attend a Finance 101 course, which includes a section on AP. At the time of the launch of MarkView 8.1 in October 2014, AP staff provided system training to managers and FSU representatives on how to use the system. Senior AP staff are also made available to these stakeholders if they have questions about MarkView or require additional one-on-one training. Overall, external AP stakeholders interviewed feel well supported by the AP unit and noted that there were mechanisms in place for ongoing communication and support.

Finding #2: AP maintains a well-established risk management process that enables the identification, assessment, mitigation and monitoring of key risks.

The City maintains an Enhanced Risk Management (ERM) policy and framework with the aim to create a risk-aware corporate culture where the management of risks in integrated into operations and administration. The objectives of the City's ERM are to embed risk management into the culture of the City; reduce events or conditions that create uncertainty; and ensure that unplanned events are managed effectively.[9]

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[9] *Enhanced Risk Management Policy,* City of Ottawa, April 6, 2010

The main vehicle for ERM reporting is the Corporate Risk Profile, which is refreshed once per term of Council and updated annually. It is expected that departments report regularly on their risks via the Corporate Risk Profile, reporting on both the impact and likelihood of risks occurring and what mitigations are proposed, planned and/or in progress. To support the implementation of the ERM Policy, managers are accountable for the effective management of risk within their units and are responsible for the identification, assessment, mitigation, and reporting on risk. Accordingly, effective management of risk is considered a core competency for managers across the organization.

In 2014, in alignment with the City's ERM Policy, the AP unit created a risk registry that is currently maintained and supported by a broader risk management process. The registry is maintained as a living document that is updated by management within the unit and is provided to senior management and the Senior Management Committee on a bi-annual basis to feed into the Corporate Risk Profile. The risk registry identifies risks and opportunities to the unit and subsequently assigns a rating of the impact and likelihood, trend, status and mitigation action plan. In reviewing the AP risk registry, the audit found consistency between the key risks identified through interviews and the registry and that all medium-high and high risks had an established mitigation plan. The registry also demonstrated progress against the mitigation plans for all high risks and almost all medium-high risks. It was noted through documentation review that the risk registry was last updated in December 2014. While this may meet current business needs, new risks will emerge as AP shifts its role to increased data analytics and business intelligence. Accordingly, as this shift occurs, it will be important for AP to update the registry more often to identify, assess and mitigate emerging risks.

Specific AP management job descriptions were also reviewed to assess whether risk management was identified as a key competency. In reviewing the job descriptions for the AP program manager and AP supervisor, we found that a competency for these positions is to demonstrate business sense through the assessment and effective management of financial, reputations and operational risks. Accordingly, the relevant AP unit job descriptions align with the City's requirement to have management demonstrate core risk competencies. Overall, it was found that the AP unit maintains a well-established risk management process that aligns with the City's ERM Policy and allows for the ongoing identification, assessment, mitigation and monitoring of risks.

Finding #3: While access controls have been effectively designed within MarkView and SAP, there is an opportunity to more formally assess and resolve potential segregation of duties issues as access requests are processed.

A fundamental element of internal control is the segregation of certain key duties. The purpose of SOD is to prevent fraud in the form of asset misappropriation and intentional financial misstatement. Traditional systems of internal control rely on assigning certain responsibilities to different individuals or segregating incompatible functions. The general premises of SOD are to prevent one person from having both access to assets and responsibility for maintaining the accountability of those assets. For example, the following functions should be segregated custody of assets, authorization or approval of related transactions affecting those assets, and recording or reporting of related transactions. SOD also prevents a single person from having control over all phases of a process. In general, flow of transaction processing and related activities should be designed so that the work of one individual is either independent of, or serves to check on, the work of another. Also, SOD prevents a single person from being in a position both to perpetrate and to conceal errors or fraud in the normal course of duties.

The City has leveraged its existing Enterprise Resource Planning (ERP) solution – SAP, in conjunction with MarkView, the workflow solution, to establish SOD controls within the AP process. SOD was tested through the comparison of the pre-established roles/access determined by management against the actual access that a sample of AP staff had to SAP. We found that the ability to approve an invoice or to confirm goods/services receipt within the system is based on established delegation of authorities. As a result, depending on the nature of the invoice and the dollar value of that invoice, only an approval from individuals with the sufficient authorization level can allow the invoice to proceed to the next stage of processing. This process is aligned with industry practice as embedding invoice approvals and goods/services receipt within the system is the most efficient approach to ensure only authorized individuals have acknowledged goods/services receipt and approval of the invoice for payment.

In addition to embedding invoice approvals and goods/services receipt within the system, the City has also embedded the SOD within the approval process so that an individual does not have excessive access within the system to allow them to control multiple phases of the AP process. Furthermore, these access rights reflect a recent exercise the City has undertaken to transition to position-based access, which means that system access is based on the expectations of an individual's role and responsibilities within the organization. The exercise also involved a review to assess whether by granting the access, an SOD conflict would be created. As such, by granting access by pre-established positions, the risk of granting access that would cause a SOD conflict is minimized. Accordingly, the audit found that SOD has been well

designed within the AP process and has leveraged the existing system capabilities to ensure that access to the system is based on the role held by the individual.

As a result of testing the SOD embedded within the system, we found that individuals did not have access to control the entire AP process and would require at least one additional individual to complete the processing and payment of a vendor invoice. Testing further confirmed that an appropriate process has been established and is operational to grant/remove access to the system in a timely manner.

There are situations where an individual might need additional system access over and above what has been assigned based on their position. For these cases, the City has a process to request a change through a ticketing system, review the request to assess whether an SOD conflict would be created, approve the access based on appropriate managerial sign off, and grant such access through SAP. System tools are available to assist in the review process, which would highlight potential SOD issues that the granting of this enhanced access could cause. While this process was verbally described to us and it was noted that documentation should be available through the ticketing system and SOD conflict report, no evidence could be provided to demonstrate that the process was consistently and formally applied. Although a process has been established to identify potential SOD conflicts annually, without formally maintaining documented access approvals and confirming that additional access requests will not cause potential SOD issues prior to the approval and granting of such access, there is the risk that granting this additional access will result in a SOD conflict.

Recommendation 1

That the City formalize the requirement to retain documentation which demonstrates that in cases where enhanced system access (beyond the standard access associated with the position) is granted, potential SOD conflicts have been assessed and resolved prior to approval.

Management Response

Management agrees with this recommendation.

The Financial Process, Compliance & Systems unit within the Finance department has a formal process in that all access requests are approved by the supervisor of the individual requesting the access and by the business process owner within the Finance department. All requests are submitted to the SAP Support Center within the IT department. A standard SAP report is run for each request that identifies any segregation of duties issues. If there is one identified, action is taken to remove the conflict. Effective immediately, the Financial Process, Compliance & Systems unit will retain on file documentation which demonstrates that in cases where enhanced

system access (beyond the standard access associated with the position) is granted, potential SOD conflicts have been assessed and resolved prior to approval. Management considers this recommendation to be complete.

Finding #4: While the key application controls in place within MarkView and SAP are operating effectively, there are opportunities to increase the use of application controls and reduce the amount of manual controls.

While the use of information systems has increased the effectiveness and efficiency of data processing for organizations, these systems also pose an inherent risk to data integrity, including the completeness, accuracy and availability of data. As such, application controls, which are checks that are embedded within the application (in this case, MarkView and SAP), are implemented as a cost-effective measure to reduce the risks associated with system-based processing as well as to reduce the burden of manual controls, which can be time consuming and prone to human error. Accordingly, the key objectives of application controls are to ensure that:

- Input data is accurate, complete, and authorized;
- Data is processed as intended in an acceptable time period;
- Data stored is accurate and complete;
- Outputs are accurate and complete; and
- A record is maintained to track the process of data from input to storage and to the eventual output.

In leveraging the key system that supports AP processing across the City, AP alongside the IT team has implemented several key application controls within MarkView and SAP as a cost-effective way to improve data integrity and enforce appropriate authorization. The key application controls that the audit team tested and found to be operating effectively included:

- MarkView Workflow and Authorizations: Workflows have been configured to ensure that appropriate approvals (and secondary approvals where relevant) are obtained for invoice processing. Note that this control was tested through review of workflow documentation and observation of a sample transaction in the system.
- Three-way Match: A three-way match has been appropriately configured within SAP to require matching of the goods/service receipt and invoice against a purchase order in order for the payment to be processed. Furthermore, it was found that the account determination within SAP is appropriately configured to automatically post to the liability suspense account upon goods receipt and invoice receipt.

- Payment Proposals: To enforce SOD, AP has appropriately configured payment proposals within SAP so that the same person cannot initiate and approve the same transaction. This effectively requires two people to be involved in the payment proposal process.
- Locked Vendors: While archiving is currently not performed within SAP, the AP unit instead locks vendors that have been inactive for an extended period of time to prevent any invoices from being processed against them.

While the audit found the key application controls listed above to be configured appropriately, the following were noted as opportunities to configure application controls to more effectively mitigate key risks within the AP process:

Duplicate Invoices

A key set of application controls within SAP relates to the check for duplicate invoices prior to payment. Within SAP, there is a field that can be configured to enforce a check of duplicate invoices for all vendors, which would automatically identify potential duplicates attempted to be processed within the system. Under the duplicate invoice check, the system cross references a number of fields, such as vendor, currency, company code, invoice amount, document number and invoice date to determine whether the invoice that is being processed is a duplicate. Although this application control is available within SAP, it is currently configured as optional and is therefore, not automatically applied as a mandatory check for all vendors.

As a result, reliance is placed on AP staff to manually select this field when they are creating a new vendor record or updating an existing vendor record. If the field is not selected when creating a vendor, there is a risk that duplicate payments can be processed for that vendor and manual compensating controls must be relied upon to detect duplicate payments. Accordingly, the SAP system settings are not appropriately configured to always enforce a duplicate invoice check and to prevent potential duplicate invoices from being processed.

A detective control is in place to identify duplicate payments that have been processed. The AP unit undertakes an analysis of potential duplicates using an analytics tool on an ad hoc basis. The last review of potential duplicates was performed in 2014 based on 2013 data. As such, we performed data analytics to identify potential duplicates for the period under review. We found three (3) sets of invoices that were processed and paid twice, which resulted in a total of $13,989.78 in duplicate payments. The audit team noted that there were different reasons for why each of the duplicates occurred and no systemic issue was identified. While this amount represents a small percentage of the

total dollar value processed through AP, it still represents overpayments by the City and demonstrates that the current manual compensating controls are not fully effective.

Recommendation 2

That the City enforce the mandatory duplicate invoice check for all vendors within SAP and that the City formally undertake a duplicate invoice check analysis at least on an annual basis.

Management Response

Management…

Vendor Maintenance

A key application control within the SAP vendor maintenance is the configuration of the sensitive vendor master fields and whether particular data fields require approval by an independent person for new or updated vendors. Vendor master fields are critical to sound control over vendor payments as sensitive information, such as banking information, is maintained for vendors and forms the basis of payment. Access to modify this information requires strong controls (specifically SOD) to mitigate the risk of potential fraud.

We found that no sensitive fields have been defined for which a dual control is enforced. As such, when an employee creates a new vendor or updates the information of an existing vendor in SAP, no approval is required before the change becomes active in the system. This finding was also noted in a report issued by the City's Compliance Team in October 2014 when they undertook a process review of the Vendor Master File Maintenance process.

Instead of configuring the sensitive vendor master fields within SAP, a manual, detective control is in place. AP performs a secondary review of all vendor changes processed before 9:00 the following day, at which time payments against approved invoices are released. Although this manual control was found to be operating effectively, as further discussed in Finding #5, there is still a risk that a senior AP staff member may not review vendor changes in time to detect errors in the vendor master information before applicable payments are released.

Recommendation 3

That the City configure the sensitive vendor master fields in SAP to require approval by an independent person before changes to vendor information go live in the system.

Management Response

Management agrees with this recommendation.

AP has requested that the system be configured to require a secondary review of all fields when a Vendor Master Record is created or changed. IT has advised that, as per the current IT work plan and scope of work identified in this recommendation this change will be completed by Q3 2016.

Finding #5: While the key manual controls related to the AP processes were effective in design, there are opportunities to improve the consistency in their implementation and ongoing operation.

Most processes cannot rely exclusively on the system-based controls. The AP process within the City is no different. The decentralized environment of AP relies on many individuals to complete their assigned tasks within the AP process in a diligent and timely manner. Examples of these manual key controls include:

- Verification of changes to vendor master data to approved source documents
- Appropriate and timely acknowledgement of goods/services receipt
- Approval of invoices by a delegated authority
- Review of the payment proposal (listing of all payments to be released) by a supervisor
- Reconciliation of payments released

The effectiveness of these controls are critical to ensure that invoices are processed accurately and payment is only released for valid, approved invoices where goods/services receipt has been confirmed. The effectiveness of these controls also impacts the ability of the City to be as cost efficient as possible by leveraging early payment discounts and not paying penalties/interest as a result of late payments.

We found that the manual controls in place have been designed effectively and while some are operating effectively, others had some exceptions noted. It was determined that from the sample of vendor invoices selected, 20% were paid late and 5% did not leverage an available discount. From examining the audit logs associated with these transactions, a significant amount of duration elapsed while the invoice was in the custody of the business unit for approval. There appeared to be significant back and forth between the approver of the invoice (i.e. business owner) and the FSU representative, in place to support that individual. Upon discussion of the results with the AP unit, it was acknowledged that efforts are required to ensure the timely processing of invoices when they are in the custody of the business units and reliance is placed on these users' familiarity and comfort with the system. To address this, the AP

unit has enhanced its training opportunities to users. For example, senior staff within AP regularly offer MarkView training course for business users focusing on coding and approving invoices within the system. In addition, the Finance 101 course required to be completed by all managers has an AP component included – focused on roles and responsibilities to ensure timely approval and accurate processing of vendor invoices.

Because it is known that delays in reviewing and approving invoices cause delays in payment and the potential to not take advantage of potential discounts[10], AP management implemented priority functionality within MarkView to notify users when potential discounts were coming due. It was acknowledged that while this functionality was in place, the notifications were not effective in distinguishing the high priority invoices.. Clarifying the message in the notification would highlight those invoices that require priority action – i.e., available discount coming due or invoice about to be paid late. This urgency associated with the notification will allow the business user to prioritize those specific invoices for immediate action.

The priority routing could be more effective if the system was able to use the date the invoice was received in the payment terms rather than the date on the invoice. Currently, the new functionality in MarkView does not capture the entire population of potential discounts and invoices coming due because it relies on terms fed by SAP, which calculates based on the invoice date. While the City is currently tracking the amount of missed discounts, it is not tracking the amount spent on penalties as a result of late payments. As a result, the City does not have a view to how much is being lost as a result of late penalties.

Recommendation 4

That the City refine system enhancements in MarkView to allow notifications to users to include a level of priority.

Management Response

Management agrees with this recommendation.

Management has clarified the message that is sent to users when they are notified of a high priority invoice to be approved. Management considers this recommendation to be complete.

Recommendation 5

That the City establish a process to track and report on late penalties paid as a result of AP internal processes.

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[10] It was highlighted in the *Accounts Payable 2014 Year in Review* that 16,243 discounts were missed, totaling a potential savings loss of $603,437.

Management Response

> Management agrees with this recommendation.

> AP will establish a process to track and report on late penalties paid by the end of Q2 2016.

Finding #6: A performance monitoring program has been established for AP overall; however, there is an opportunity to provide business units information on their results to remind them of their responsibilities and accountabilities for the AP process.

The AP unit, on an ongoing basis, conducts analysis on the results of the City, relative to AP processing and associated performance indicators. This includes monthly dashboards which report on Validation Statistics (average validation queue volume, average invoices validated daily and days to turn over the validation queue), PO Queue Statistics (average PO queue volume, average PO invoices processed daily and days to turn over the PO queue), Vendor Maintenance (new EFT enrollees and payments: EFT vs. cheque) and Discount Analysis (total discounts offered, discounts taken – dollar value and number of invoices past due). Annually, an overall report is prepared to highlight the results and activities of AP during the previous year. This report highlights the number and type of invoices processed/payments made, lead times (i.e. duration between invoice date and first action taken by AP), discounts taken/missed and the status of initiatives taken during the year. Due to a lack of a holistic analytics tool (described in more detail in Finding #7), the AP team is challenged to extract and manipulate the available data within existing systems to provide additional, value-added analysis to senior management on AP results.

While most analysis is performed on a City-wide basis, limited analysis and reporting results are provided to business units on their individual results. As noted in Finding #5, delays in processing can be attributable to the length of time the invoice is in the custody of these business units; yet, they may not have visibility to the overall impact of these delays as all they see are individual invoices to be processed. There is an opportunity to leverage the tools/analysis in place within the AP unit to provide periodic reporting to business units on their specific results relative to AP – i.e., discounts available but not taken, late payments, average days taken to approve an invoice. This type of reporting that is attributable to an individual business unit allows them to see their performance and could initiate the conversation with their FSU representative and the AP unit on opportunities to improve their results.

Recommendation 6

That the City enhance its current AP reporting program to include periodic reporting of AP results to individual business units.

Management Response

Management agrees with this recommendation.

AP currently prepares a performance dashboard that is shared with Finance senior management. The dashboard presents information at the City-wide level. AP will modify the dashboard and provide relevant information to the Financial Services Unit beginning in Q2 2016.

Finding #7: To date, system functionality has been focused on the efficiency and effectiveness of controls within the AP process. There are opportunities to leverage existing and available technology to ensure the efficiency and effectiveness of AP operations.

A significant amount of automation has been leveraged to increase the efficiency and effectiveness of vendor invoice approval and processing. One example is the automated workflow embedded within MarkView to move vendor invoices through their life cycle to payment. Another example is the scanning technology in place to scan key elements of an invoice to automatically populate within the financial system (in place of manually entering each key element of the invoice). Based on the results reported by AP, for the 2014 fiscal year, 45% of all invoices were processed (i.e. those processed through MarkView) using this automation.

While this level of automation has and continues to improve the efficiency and effectiveness of the controls, the monitoring activities that are in place continue to be more manual, requiring the use of different tools and reports to provide the information required. Examples of such situations are described below:

Monitoring for Potential Discounts

While the current system capabilities allow for monitoring of upcoming available discounts, there is a challenge with the key field used to monitor this. The default date for monitoring available discounts is the invoice date (i.e. the date noted on the invoice). The City's *Payments to Vendors Policy* states that the term of payment is "the date the invoice is received and accepted or the goods/services are accepted, whichever date is later". Many organizations default to the invoice date as a baseline for counting the due date of the invoice and the opportunity to leverage a discount if it is being offered and as a result, most systems are designed to monitor based on that field. Because of the current City policy, this default date is not appropriate as a baseline for monitoring. The

current capabilities of the system do not allow for monitoring potential discounts as the receipt/acceptance date of the invoice is not currently being captured. As a result, a manual exercise of monitoring available discounts is performed within the AP unit and by the FSU representatives to highlight and prioritize these invoices through the process.

The AP unit is currently working on a potential system enhancement that would allow automated monitoring of available discounts based on invoice receipt/acceptance date.

Monitoring the Performance/Productivity of AP Activities

Recognizing the need to continuously monitor and strive to improve the overall performance of AP activities, the AP unit undertakes ongoing formal and informal monitoring activities to assess performance against past results and benchmarks. These activities are all undertaken with an aim to continuously improve productivity and efficiency of the AP activities. The range of information being monitored and reviewed by AP include aged payables, discounts available vs. taken and the productivity of individual AP staff members. The AP unit leverages their membership within the Ontario Municipal Benchmarking Initiative (OMBI) to share best practices and compare results. In OMBI's 2013 report, it benchmarked 14 municipal Accounts Payable functions to assess how much it costs to process an invoice. The City of Ottawa was ranked as the second highest, with a cost of $8.71 per invoice.[11]

As noted above, the AP unit is challenged with the analytical tools currently in place to ensure the monitoring/reporting activities themselves are efficient and appropriate. Tools are needed to complement the existing system to allow more efficient and effective monitoring of performance against performance indicators and to identify cost savings/improved customer service opportunities. These tools and the associated support to enable them will be required to move the AP unit to a higher functioning AP organization.

Invoice Validation

As noted above, scanning technology has been implemented to allow for automated population of key fields in the financial system directly from an electronic invoice to avoid manual entry of the invoice into the system. While there continue to be some invoices that are manually processed, more and more invoices are being processed in this automated fashion through MarkView. As the software scans the invoices, it looks for key pieces of information from the invoice and flags to the AP user what fields it is unsure of for review, validation and update, as required. The technology has been

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[11] 2013 Performance Measurement Report – Accounts Payable Section, *OMBI,* http://www.ombi.ca/wp-content/uploads/Accounts-Payable1.pdf

designed so that over time, it will "learn" how to read invoices from specific vendors to increase the accuracy of the interpretation of the software with the intention to decrease the amount of manual intervention required. However, due to a lack of training on how to properly use this functionality, the current workload involved to maintain the functionality is more cumbersome than manually reviewing invoices. As such, the "learning" capability has been disabled. However because this functionality has not been enabled, AP staff are currently reviewing every field populated by the software to ensure accuracy prior proceeding through the AP process; instead of just reviewing those field highlighted for validation. This continued manual review of all fields does not allow the AP unit to maximize efficiency of the initial processing of invoices.

Overall, without the tools in place to allow for effective monitoring of the AP activities, the AP unit will not be in a position to assess and continuously improve these activities towards maximum effectiveness and cost savings.

Recommendation 7

That the City implement the tools necessary to allow for efficient monitoring and analytics such as: automated monitoring of potential discounts based on invoice receipt date, enabling the population of invoices and validation of only those fields highlighted for review and productivity analysis, throughput analysis individuals/activities against performance indicators.

Management Response

Management agrees with this recommendation

In order to maximize the efficiency of operations through automation, AP has researched the following system enhancements;

- A configuration change to enable SAP to pay invoices based on receipt date rather than invoice date;
- A vendor self-serve package that will allow vendors to submit to and review their own accounts; and
- Analytics software that will allow tracking and monitoring of invoices, operations, errors, and productivity.

Management is preparing a business case for the tools identified above. The business case will be completed by Q1 2016 and will be presented to Corporate IT Management Team (CITMT) for review and approval at the next meeting.

Potential Savings

A strong management control framework in place over AP enables direct cost savings through the payment of invoices on their due date to avoid penalties, taking advantage of available vendor discounts and avoiding paying the same invoice multiple times.

AP has taken steps to ensure it identifies and prioritizes invoices for processing that have available discounts so that they are taken advantage of. This includes leveraging available modules within MarkView to highlight these high priority invoices. Although this has increased AP's ability to take advantage of discounts being offered by vendors, it is limited to those invoices where the invoice date is close to the date received. To take full advantage of discounts being offered by vendors, AP recognizes the need for a system change to read the receipt date rather than the invoice date. It should be further acknowledged that to ensure discounts are taken, AP relies on departments to complete their responsibilities relative to invoice processing in a timely manner when notified of a potential discount available[12].

Additionally, although the amount may not be significant, visibility to penalties paid for late payments would allow the City to be aware of money that is being lost as a result of inefficient/ineffective internal processes. Prioritized, escalated notifications of invoices coming due for payment should help minimize these losses.

There are further opportunities to leverage existing technology to prevent the erroneous payment of vendor invoices more than once. Examples of duplicate payments were found and although there are mechanisms to collect this money back, the process to do so requires additional employee time.

Opportunities for potential savings have been identified by the AP unit through enhanced analytics/monitoring tools and were confirmed by this audit. The AP unit intends to leverage tools available to monitor activities and identify potential process changes intended to result in efficiencies and cost savings. An example of such monitoring includes throughput within the AP process. By identifying weaknesses in the process, opportunities to streamline will be identified and over time, this could result in net savings to the City through less people involved in processing a single transaction – impacting the total cost to process that invoice.

Conclusion

An appropriate foundation has been established to enable the processing of approved and accurate vendor invoices for goods and services received by the City. This foundation includes the formal establishment of roles and responsibilities, the design and implementation of manual and automated controls within the life cycle of a vendor

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[12] It was highlighted in the *Accounts Payable 2014 Year in Review* that 16,243 discounts were missed, totaling a potential savings loss of $603,437.

invoice and back end monitoring to ensure the controls are working as intended. However, the audit noted specific areas where controls should be strengthened and consistently applied. Further, there are opportunities to leverage existing and available technologies to ensure the City is efficient in processing vendor invoices, maximizing opportunities for cost savings and monitoring performance of the activities across the City.

Acknowledgement

We wish to acknowledge our appreciation for the cooperation and assistance afforded the audit team by management.