IMPROVE
Manchester

Case Study

Project Title: **Library Services Procurement Team Project**

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The Problem:

The Library Senior Leadership Team were keen to engage with the new Change Management and Process Improvement team to support their long term vision of a 'Lean' Library operation which built on their already high levels of customer satisfaction.

The first project that was identified as having potential to act as a test case to illustrate the benefit of this approach was a review of the Library procurement function.

The team were about to start amending their processes in response to a change in the librarian teams supporting Faculties and Schools and were also under considerable pressure because of the time taken to procure the 28,000 books a year that they purchased especially in comparison with domestic suppliers such as Amazon.

The problems were summarised within the Project charter as follows:

Customers: Students and Academic staff – the timeliness from order to delivery/ availability impacts on their performance.

Employees: Suppliers not helping; High level of work prevented innovation, Pressure from outside departments who do not understand processes increases stress levels. Lack of clarity on responsibility for process areas i.e. budgets/stocks.

Business: There is skills wastage on higher grades carrying out basic admin tasks. Wasted resources on checking which is adding delays but may not be adding value. In terms of delivery time, KPI's have been improved on slightly, but no step change improvement in several years.

The Improvement Process:

This project involved eight members of the library team including the procurement team manager and two of her staff, colleagues from the meta data team and library finance and a representative from the librarian staff who use the service on behalf of their academic customers.

Prior to the three day improvement event a survey was undertaken of the faculty librarians and data was obtained to illustrate the current wait time for different stages of the procurement process which showed that the current process could not deliver the speed of turn around required by the library's customers.

The use of control charts allows us to both identify trends and process performance and the impacts of any changes we may make.

The review made use of existing data collection from 2011 to create a snap shot of the processes performance. The control chart below plots the time interval between an academic librarian placing an order and the procurement team putting the order onto the library system. In September 2011 the team changed their process and this change is visible in the chart as a dramatic change in performance. The chart shows the change implemented delivered a clear reduction in the delivery time for the procurement of books from when the team implemented their own changes to the processes operation in 2011.

Library Improvement Project Test Report

Project: library procurement project.MPJ; Worksheet: Worksheet 1; 29/02/2012 10:43:29
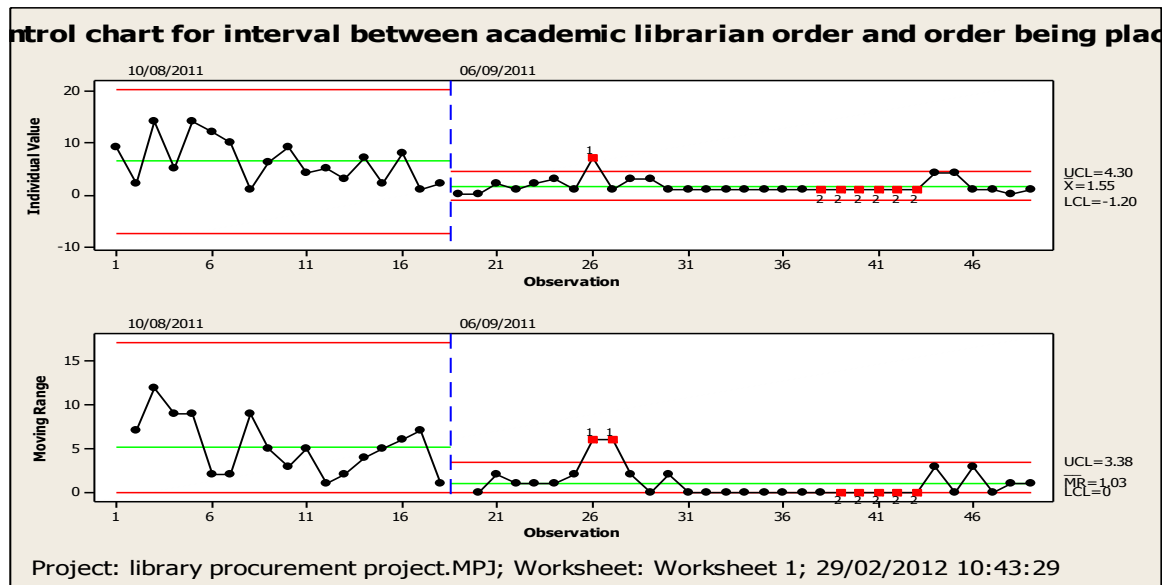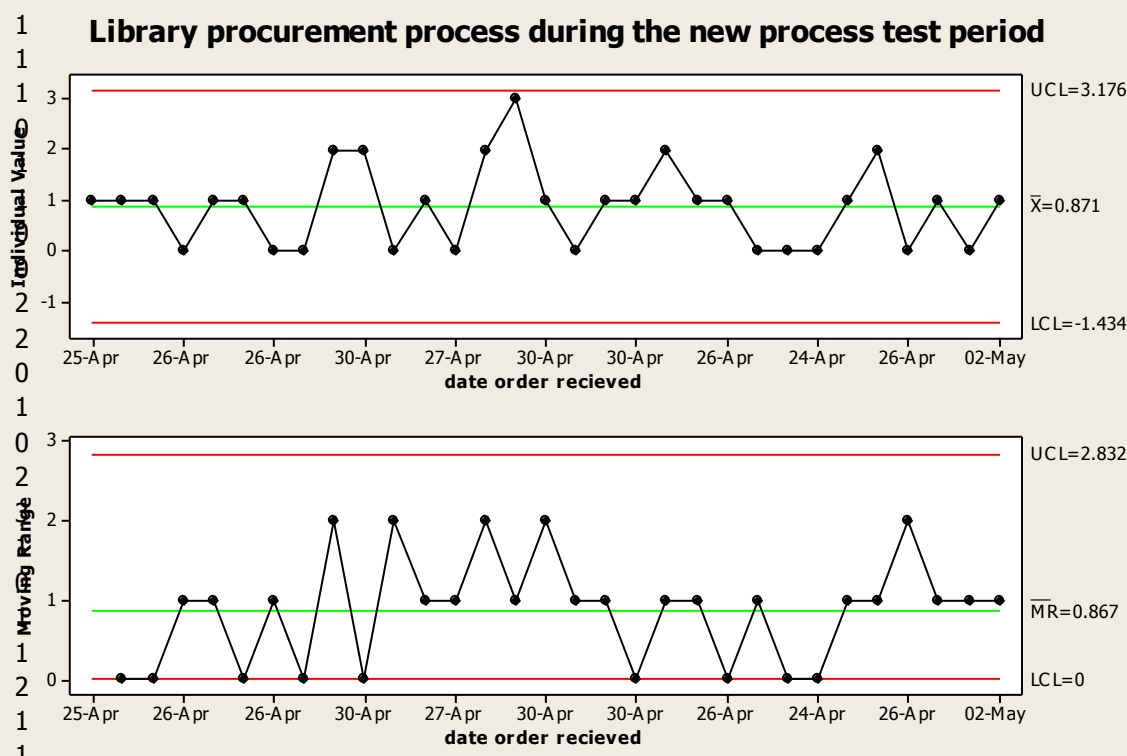
Observations

During the period of data analysis the average cycle time taken to undertake the procurement process from receipt of request through to placing of an order with the relevant supplier was 1.55 working days .

New Process Test

After developing a new process the team decided to test its capability and once again recorded data throughout the two week test to try to understand the impact of the changes they had made.

The new process trial took place during April 2012 was a success as the graph below shows interval time as 0.87 (less than 1 day) which is an improvement on the previous performance of 1.55 days.

Library procurement process during the new process test period

Individual Value

UCL=3.176

X̄=0.871

LCL=-1.434

| 25-Apr | 26-Apr | 26-Apr | 30-Apr | 27-Apr | 30-Apr | 30-Apr | 26-Apr | 24-Apr | 26-Apr | 02-May |

date order recieved

Moving Range

UCL=2.832

M̄R=0.867

LCL=0

| 25-Apr | 26-Apr | 26-Apr | 30-Apr | 27-Apr | 30-Apr | 30-Apr | 26-Apr | 24-Apr | 26-Apr | 02-May |

date order recieved

Observations

The data taken during the test suggests that the process average time or mean has now reduced to 0.87 of a working day which is a reduction of 50% of the time taken to process each order.

The chart also suggests that the variation to be expected of the process has also reduced with a statistically predictable upper expected limit of only just over three days as opposed to four days for the pre altered process.

Conclusion

The test demonstrates that the performance of this stage of the procurement process has been successfully improved and its process time halved. The success of the trial led to the new process being adopted immediately by the library team.

Key Outcomes

The following information summarises the benefits of this project which are significant and long lasting. Perhaps most important amongst them is the staff time saving equivalent to at least half an FTE worth £20k and a halving of the book order process time from 1.5 days to 0.8 days combined with a major reduction in backlog and over burden during the summer months. Full details are included below

Skills Development

- The IMPROVE process has provided us with processes and templates for: identifying wastage, summary benefit tables, developing communication plans etc.

- A culture of 'value for money' already established in the Purchasing Team who proactively investigate and secure substantial savings on inappropriate subscription expenditure (£12,571.52 in 2011/12). Training in IMPROVE thinking helped the team to apply 'value for money' thinking to processes as well as to prices.

- The Purchasing Team Leader received theoretical training in streamlining activities at a ProcessFix Masterclass. The IMPROVE project enabled her to build on this skills set, learning the Manchester Improvement Process version and applying it in her working environment. As process owner and project manager the Purchasing Team Leader was given the opportunity to develop this skills set further.

- Project team members have adopted the IMPROVE mindset and have applied this to other processes (SPT have streamlined the thesis cataloguing process, cutting out paper records and training members of Book Processing Team in this process). Evidence is that LEAN thinking has spread beyond the project team members.

Change Awareness and Buy In

- Encouraging the team to be candid about their fears at the start of the process (e.g. cost cutting process, experience ignored, no improvements found) enabled them to measure the degree of change achieved via the project.

- Placing those most experienced in daily purchasing transactions at the heart of the change process ensured meaningful buy in from the whole team. Project team members acted as champions for the new process, non team members embraced changes positively.

- Benefits were immediately obvious to the wider team. The little negative feedback that was received was quickly remedied.

- Empowered project team members to question all processes, new and embedded, right up to the point at which their value could be proved.

- Identifying streamlined procedures was a highly rewarding process for the team. Testing and fast tracking the implementation of these new procedures motivated the team to effect further changes. Extending this process to other team members and other teams will secure wider cultural change.

Creation of Networks etc.

- Ensuring equal representation from the Acquisitions and Serials team members was another step forward in the creation of a unified Purchasing Team.

- Drawing together key stakeholders provided a unique opportunity to spend time identifying and analysing the requirements of the various teams involved.

- Meeting in a neutral environment helped stakeholders to take a wider perspective of the purchasing process, rather than defending the positions of their respective departments. This resulted in cross departmental, customer centric, grade appropriate, value for money solutions.

- The project group provided the perfect forum to gather data about the information needs of RLS staff, Academic Staff and the Purchasing Team and to identify mechanisms that would address these apparently conflicting needs. It was also an opportunity to investigate how RLS staff enriches the data that they are presented with and the extent to which this could be replaced by an automated means.

- This project group was a vital component within the success of the Content Budget Transition Group: the data gathered during IMPROVE enabled us to produce the acquisitions survey sent out to all RLS staff and to define the extent to which transactional purchasing duties within RLS could be transferred to CM staff.

Communication

- First opportunity for survey specifically relating to the purchasing process, gathering customer

requirements and prioritised suggestions for improvement and providing feedback on the service standards for purchasing.

- Resulted in better and more regular communication with Research and Learning Services staff.

- As a result of the process we articulated a Value Proposition Statement that we incorporated into the text on the purchase request portlet on MyManchester: 'we commit to providing our customers with the resources they require in the most timely, accurate, transparent, flexible and cost effective way possible to support teaching and research at the University of Manchester'.

- We failed to communicate one change in process to Customer Services. This was resolved quickly and served as a catalyst for implementing bi-monthly Customer Services/Collection Management meetings.

Positive Customer Impacts

Speed of response and service delivery

- Although we secured no discernible reduction for the period from which the order was placed to the date which it was received, we secured significant efficiencies and reductions at the pre-order stage. During the test period a 50% reduction in turnaround times from the point the FTL submits an order to the placement of that order, was recorded.

- For orders submitted via the newly devised purchase request form on MyManchester the RLS librarian is removed from the purchasing process. This drastically reduces the interval from the date that the purchase request is sent by an academic to it being ordered by Purchasing staff: the original service standard for FTLs to send academic requests through to purchasing was 'within 7 working days'.

- To pass on service efficiencies to the Metadata Team, the Purchasing Team reorganised their shelving workflow: rather than the old subject fund categories we now use Monday-Friday shelves. Book processing also now use this shelving workflow. The 5 day service standard for throughput of material and delivery to site is now firmly embedded into the workflow and this new shelving method makes it easier for the Metadata Workflow Co-Coordinator to identify and address any backlogs in the department.

- The new ordering system provides the date on which a request is first submitted rather than the date when it was submitted by an FTL. This will allow us to calculate and provide the simple, transparent service standard that our customer's desire: interval from initial request to item availability.

- We discussed the IMPROVE project with our suppliers and, having established robust monitoring procedures and clear service standards, the project gave us the confidence to be explicit that levels of business awarded to suppliers would be commensurate with their performance against these KPIs.

Mistake Proofing

- Affixing scannable barcodes at the receipting stage replaces manual inputting of barcodes (by both Purchasing Team and Book Processing) and the capacity for errors therein.

- Removing all handwritten data from the ordering process (e.g. barcode, home site, loan type) and relying on the data in the LMS reduces the capacity for mistakes within the process.

- The standardised format for purchase requests (rather than multiple formats) reduces the opportunity for mistakes in the ordering process.

- The request portlet enables academic staff to request a purchase directly with Purchasing;

removing RLS staff as intermediaries in these instances reduces both their transactional workload and the increased opportunity for mistakes in this double handling.

Increased Capacity

- We removed the bottleneck of orders that build up between the end of April ordering deadline and the start of the new financial year by creating orders on supplier databases and then triggering these orders at the onset of the new financial year. Our capacity for dealing with new orders received in August increased noticeably.

- Reductions in ordering and receipting time ensure that staff are able to prevent backlog in August.

- We increased Purchasing Team resources for this critical period by increasing the minimum staffing level in August and start of September and by discontinuing Purchasing Team assistance for Thesis Binding.

- We increased capacity within RLS by virtue of the new request portlet, removing the obligation for academic staff to send their purchase requests to RLS staff to convert into new stock orders.

- We helped remove the bottleneck within Finance, with Caroline Riches previously expected to complete the auditing trail by signing invoices for all orders. This procedure is now automated and shared amongst the RLS Managers.

Project Legacy and Next Steps

New approaches to communication/team work/ strategy development

- The creation of a forum to get the perspectives of RLS staff and academic staff was a desired outcome of the IMPROVE project. This forum existed temporarily in the form of the Content Budget Transition Group and now exists in the fortnightly CM/RLS meeting.

- Identifying and achieving specific strategic goals using cross-team working groups was the key to the success of this project and will be the mechanism used to achieve the wider strategic aims of the UML.

- The momentum for change that the review helped to encourage was also in evidence in the suggestions arising from the CM Book Club.

Team commitment to future improvement

- This year's Collection Services Away Day, scheduled for January 2013, will be focused on LEANing existing workflows, providing all team members with key skills to map processes, identify wastage and identifying mechanisms to ensure that this streamlining is a regularly repeated process.

- The positive feedback about service standards within the Customer Service Excellence report will ensure that we look to create further efficiencies in process and more demanding service standards as evidence of our continuing commitment to this aim.

Visibility and ongoing ownership of processes

- Process maps for the original workflow and the streamlined workflow are prominently displayed in the Purchasing Department to prove, at a glance, the effectiveness of the system, both to the team and to any visitors to the Department.

- As Process owner, the Purchasing Team Leader will ensure that the process manual is fully documented and updated.

- The Purchasing Team Leader will maintain an ongoing data regime for:

    o   Ordering & receipting unit times (quarterly - manual)

- o Request – order date, order – receipt date (monthly-automatic); receipt – loan able date, request-loan able date (monthly – automatic)

- o Monitoring prices on supplier databases (comparative report, manual, quarterly)

- The Processing and Projects Team Leader will check book processing unit times on a quarterly basis.

- LEANing of existing processes (and capturing these changes in process maps in electronic team manuals) will be an objective in the PDRs of each Collection Services Team Leader.

- IMPROVE champions are to be chosen from each Collection Services team to carry forward IMPROVE initiatives, to proactively seek suggestions from their teams and to ensure that review changes continue to achieve timesaving's in reality as well as on paper.

- The visibility of Purchasing Team has increased by virtue of the direct link between Purchasing and academic staff via the portlet. We need to introduce a feedback facility on this section of the portlet with regard to both the process and the service standards advertised.