MicroSave Briefing Note # 29

Process Mapping for Risk Management and Process Improvement[1]

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Introduction

Process mapping is a powerful management tool that looks beyond an organisation's functional boundaries in order to reveal its core processes and how the different parts work together to serve customers. Process Maps are visual representations of a process, that use symbols, arrows, and concise wording to show inputs, outputs, tasks performed, and task sequence.

Process Map Symbols tell the reader:
- **What is happening**
- **When it is happening**
- **Who is doing it**
- **Where it is happening**
- **How long does it take**
- **How it is being done**

Uses for Process Maps

Process mapping has broad applicability to many business functions, such as risk analysis, process improvement, training, developing activity-based costing system, documenting procedures, visualising future-state processes before changing current-state processes, new product development. Process maps can be used to document three states: **as-is** maps the current process as it is practiced; **should be** maps how procedures and processes should be performed as set out in the MFI's formal procedural manuals; **could be** maps how the process would look after making process improvements.

Risk Analysis

MicroSave has developed a four-tiered approach to process mapping for risk analysis: the symbols, the process description, the risks at each step, and the risk mitigation tactics (controls) each form a tier. This allows organisations to examine their processes for risks (both covered and not covered by current processing activities), how risks are affected by changing the steps, and understanding (from a risk perspective) why certain steps are performed. Introducing process improvements is closely linked to identifying risks, balancing optimum efficiency with effectiveness in meeting corporate objectives. A process, such as a savings withdrawal, may be very efficient if a teller is allowed to pay upon presentation of a passbook and withdrawal slip, yet the institution may not have the tolerance for the losses it may incur as a result of not introducing certain controls, such as teller limits, customer identification, and posting controls to insure the correct account and amount are entered to accounting systems.

Six Steps to Constructing Process Maps for Risk Analysis
1. **Draw flow chart of process**
2. **Describe process outlined in flow chart**
3. **Isolate risks associated with process**
4. **Evaluate risks for potential impact and likely frequency**
5. **Identify high impact and frequency risks**
6. **Identify control mechanisms to cover risks**

Ten Steps to Constructing Process Maps for Risk Analysis and Process Improvements

To gain significant benefits of a mapping exercise, MFIs must devote sufficient time and resources. It is better to map one process well with demonstrable outputs than many with no clear outputs.

1. *Identify and prioritise operational gaps.* How do you determine what are your key processes and where to begin? Identifying the problems within a function is a good starting point. These problems probably represent risk to the MFI in the form of customer dissatisfaction, inefficiencies, and errors. Process mapping allows you to look for the cause of problems, using a process perspective, eliminating internal politics and personalities from the problem-solving exercise. Once you know what is causing the problem, you can fix it. Without knowing the cause, you are only addressing symptoms.

2. *Choose process to be mapped based on prioritised operational gaps.* People selected to do the maps tend to select the processes they are involved in, thus mapping resources may not be devoted to processes that are in the best interests of the organization to improve. Obtain management approval of the priorities.

3. *Assemble an appropriate team.* People are busy with their daily duties and cannot always allocate the time required to create a map. They must have the approval of their senior managers to allocate required time. The "right" people on the team include all levels, from very junior, to senior staff involved in the process, with as much cross-functionality as dictated by the process itself.

4. *Define process to be mapped and mapping objectives.* What are the start and end points to the process? What state (as-is, should-be, or could-be) are you mapping? Why are you mapping this process? Your intended audience and use dictates the level of detail required to be put in the map.

5. *Gather required data.* Process maps will only be as good as the techniques used to produce the maps. Sources of data include:

- Interview everyone who touches the process. Leave assumptions and preconceptions behind, ask open-ended questions, and conduct interviews in a non-threatening environment.
- Observation Maps reflect a process as if a single transaction were occurring. Observation shows up where delays occur in the process, such as the batching of work before sending it to the next step. Use of a Mystery Shopper is an additional technique.
- Documents Identify, review, and follow the documents from where they enter the process, how they are used during the process, and how they exit the process. Forms drive processes. An examination of credit files will show you what forms are used, who signs them, and how they are used in the process; this is especially important when mapping a loan process, since the process occurs over a much longer span of time than can be observed from start to finish.

6. *Construct and Validate Maps.* Using a software program such as Visio reduces the actual time spent placing symbols in a map. Validation techniques include:
- Triangulate results using techniques listed in Step 5 so that the accuracy of the map is confirmed by three sources.
- Perform a walk-through of the map, explaining it to someone who was not involved in creating the map to point out flaws in the construction of the map itself.
- External review by someone experienced in process mapping.

7. *Analyse Process Map for Risks and Process Improvements.*
- Time What may seem very efficient on paper may not be in fact. This dimension becomes clear when time is added to the map. Show the minimum (optimal) time for each task, then show total time from start to finish; the difference is caused by delays and represents the process improvement opportunity.
- Internal auditors a good source for identifying risks, as is Tool 3a in *MicroSave's* Institutional and Product Risk Toolkit for product related processes.
- Broader risks that exist throughout the process become redundant to list at every step. Focus on the risks pertinent to that activity. Ask how often it occurs or what is its impact.
- Internal control questionnaires are a good source for control tactics (see Appendix in Risk Toolkit).
- Make sure process improvements address problems.
- Conduct interviews from the customer point of view (What does the customer do next?), not the staff point of view.
- Why is work batched? Batching is a source of delay. If you know why it is batched, then you have a better opportunity for eliminating that delay.

8. *Analysis of Should-Be and Could-Be Maps.*
There is usually not much point in mapping "should-be" if such a map is not already in existence at the time an as-is map is commissioned, unless management really needs to see where deviations to policy are occurring. (Such a comparison is also an important internal audit technique.) One of the most compelling reasons to construct an as-is map is when certain institutional stresses have caused problems or lead you to suspect that processes are not functioning as they should be. It is then just as efficient and effective to derive the could-be map from the as-is map.
- Could-be maps may not look a very different from the as-is maps, as what improves the process is not a step, but an improved physical environment, form, or equipment. For example, non-standard layouts for branches may mean that a process that works well in one branch may not work as well in another branch.

9. *Summarise and Distribute Findings.*
- Expressing results quantitatively, such as reduced cycle time, number of times customer must return to the bank to complete a loan, reduced number of handoffs (touch points that provide an opportunity to redeploy staff or increase staff utilisation) will get management's attention. You need to be able to measure what you want to improve.
- Quality measurements accompanied by quantity measures (error rate vs. transactions posted rate) balances efficiency and effectiveness.

10. *Implement Process Improvements.* Begin with a pilot test, monitor and evaluate results of pilot to ensure that processes are improved and no new risks emerge, then (and only then) roll out new process.

Tips
- Add a tier to your map for analysis points, as problems are pointed out along the way.
- Experience in mapping and in processes is a big help.
- Different processes have different degrees of complexity. Loan processes tend to be lengthy, while savings processes tend to be shorter and less complex. The same techniques that work for one process may not be as well suited for another process.
- Doing "quick win" process improvements could preclude longer-term redesign that may ultimately yield greater benefits to the organisation.

Considerations in institutionalizing mapping
- **People are too busy in their daily work; this is not a part-time task initially.**
- **People trained won't necessarily be the ones doing the maps.**
- **Requires management thought.**
- **Levels of people involved may impact degree and quality of participation – junior staff may not speak out freely in front of their supervisors.**