

Agile Business Process Management (BPM)

Applying Agile in making BPM work for you
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1 Introduction

Most significant strategic business initiatives involve business process change. This generally implies changes which will impact upon the people, systems, culture and infrastructure of an organisation. These changes usually involve more effort than the creation of – or adjustments to – the actual process being implemented, and therefore a holistic approach to change is needed to enable real business value to be achieved.

Many process transformation initiatives begin with exhaustive requirements gathering, extensive documentation and highly-detailed descriptions of each process to be transformed. Unfortunately, the time required to generate this mass of paperwork can mean that the documented processes are already out of date, as business demands have changed in the interim.

Whilst useful documentation has its place, it is often a product of analysis of the *as is* – defined through the eyes of the *to be* designer. Almost without exception, success in the field of transformation is built upon continuous improvement based on measurement, analysis, modelling, review and refinement. Waterfall approaches to business process management (BPM) initiatives are therefore limited by the extent that continuous improvement is unfunded and thus does not form part of the implementation. Iterative implementations, on the other hand, assume that some lessons will be learnt, mistakes improved upon and ideas generated as experience is gained.

It has been the experience of SMS Management & Technology (SMS) that both an organisation's *culture* (style and maturity) and how it is *structured* will have a large bearing on the challenges it will face in delivering business value from BPM. The real challenge of BPM lies not with the technology, but in the ability of an organisation to listen and take account of the needs and constraints of business users and customers.

Agile BPM encompasses elements such as iterative prototyping, user stories and collaborative documentation – all supported by the right technology. The cornerstone of Agile BPM is a BPM Maturity Model that measures where an organisation *is* across multiple dimensions – from its culture through to infrastructure – and enables definition of a roadmap for organisational change.

2 You are here

Process maps and flowcharts can be used to document organisational functions at various levels of detail, from high level process to low-level activity or task instructions. Having documented a process it is possible then to model and test the process in any number of ways – by hand, by workshop, modelling tools, or even by putting it into effect. Modelling is, therefore, an essential component of BPM that enables a process to be adapted and improved based on sound metrics and performance.

2.1 Where to start?

“ If you cannot measure it, you cannot improve it.”

Lord Kelvin (mathematician, physicist, engineer)

It is surprising how few organisations have little more than anecdotal metrics on their processes – or the wrong metrics – before they begin adopting BPM. In fact, almost every organisation that embarks on the journey of adopting BPM begins that journey by defining the *as is* processes and then creating process maps to represent them. Ironically, this starting point is where you are which, by definition, is probably the *wrong* place, otherwise why change it? This start is then compounded further. Having decided to start at the wrong place, the next move is to continue to model the process that obviously needs improvement – often in unnecessary detail!

Whilst starting with what you know is often a nice comfort factor for people beginning BPM, it can be a wasteful activity. Most modelling of this type is incredibly time consuming, taking so long to deliver that the results are often subjective, inaccurate due to changes over time and based on evolution rather than design. You need to know when to stop modelling to get a sense of where you are.

Metrics, on the other hand, provide a great source of truth on the *as is* mode of operation and can be used to target areas for further analysis. Without the metrics, *as is* process maps are not of much use.

2.2 How much detail do you need?

An Agile approach to BPM assumes that the current processes are flawed, perhaps even wrong, but – at the very least – need some improvement. Having gathered some metrics on a process – time in motions, service level statistics, mean time to complete tasks, etc – the process improvement can begin.

These metrics should be your guide for specific sets of activities to improve in your end-to-end process. Improving processes should be a continuous activity taken in measured steps. There's no need to jump to the top of the mountain when the path is laid out before you. The target for a *to be* process should be based solidly on the metrics of the *as is* process.

Once the goal has been set, the next step is to model the *to be* process. Whilst the *as is* may provide some context for the uninitiated, there is no substitute for defining the problem as a set of high-level statements (or user stories) and then adding detail iteratively, until there is enough information to complete the business function using the model. When adding detail, the model is expanded to include information flows, actors (real people or high level services) and occasionally other artefacts (documents and data sources/sinks). At each iteration, it is useful to ask questions of the model to test its completeness. We can assume that these tests will result in changes to assumptions, corrections and the introduction of new information. The model is then corrected and the iterations continue until the model meets the business requirement.

“ Our life is frittered away by detail.
Simplify, simplify!”

David Henry Thoreau (author, poet, historian, philosopher)

Sounds like common sense? This is a typical Agile approach to solving many problems: focus on a working outcome, retain openness to change, collaborate and interact.

The level of detail required for a *to be* process will depend on the purpose of the process map/model. Rather than aiming to exhaustively document the business function, processes, tasks, activities and instructions, it is important to recognise when enough is enough – that is, to be able to determine whether information is relevant and useful. This is not an exact science; it is 'common sense'.

2.3 How should you map?

Process maps aren't a complete waste of time however, and when well designed can make the transition to BPM very easy indeed. Too much detail, and the map can be hard to read; too little, and it doesn't provide enough information to design with.

There are as many process map standards as there are consultants and, as with all standards, one can (unfortunately) end up with maps in one or more of the standard formats. Further, the maps created are often only as good at representing the processes as the skill level of the drafter.

Having a common way to define all processes enables greater understanding between the business and IT people involved in modelling, refining and developing solutions for delivering business functionality. The Business Process Modelling Notation (BPMN) provides a graphical notation for specifying business processes in a diagram format based on a flowcharting technique very similar to activity diagrams from Unified Modelling Language (UML). It provides an intuitive and simple notation that can be understood by non-technical people but can be used to express complex process semantics.

“ The nice thing about standards is that there are so many of them to choose from.”

Andrew S. Tanenbaum (computer scientist)

Just like there are many standards for process modelling, there are many software tools for drawing BPMN process models – many of which do not understand each others’ products, thus making portability of models difficult. Thankfully, XML Process Definition Language (XPDL) is becoming a means to exchange models between tools as a generic construct.

The ideal modelling environment is one where business models are not only portable between modelling tools but can also be used to generate executable business processes to support real business functions. Whilst Business Process Execution Language (BPEL) is a feature of some modelling tools, not all support generation of BPEL and not all BPM engines support BPEL. It is early days as yet, and there is still time for more standards to emerge.

In short, pick a standard – a good standard – and train your business and IT people in its use, then settle on common tools and vocabulary to describe your processes. Aim for full round-trip process engineering – for example: model, test, implement, measure, model and so on.

2.4 Rules and Process Portfolios

“ If the only tool you have is a hammer, you tend to see every problem as a nail.”

Abraham Maslow (psychologist)

It is worth considering the value of Rules Engines which allow rules to be defined *separately* to core systems and processes, but be reused and configured to fit the needs of the enterprise. Developing a reusable Rules and Process portfolio will enable extension of process automation across business silos to delivery greater business agility.

Reusable artefacts, such as rules and common processes defined within a common process portfolio, can form the common building blocks of the enterprise-wide BPM solution – build these as you go and refine them as common services.

3 BPM Maturity

3.1 The Model

“ It takes a long time to bring excellence to maturity.”

Publilius Syrus (a Latin writer of maxims, circa 100 BC)

There has been a lot of talk of maturity models in recent years, particularly in relation to IT – Capability and Maturity Model (CMM) and Service Oriented Architecture (SOA) Maturity among them. All are designed to show the increasingly positive impact on an organisation of adopting certain business or technical processes and technologies. There are, in fact, several BPM maturity models: some old some new. Not many of them are particularly useful.

SMS has been involved in the forefront of BPM implementation for a number of years, so has witnessed a number of technologies, methodologies, processes and frameworks come and go. We came to the conclusion that, in order to be successful in implementing BPM, we needed to create a model which enabled organisations to build a roadmap based on sound pragmatic experience – experience built on success and failure in implementing BPM.

The BPM Maturity Model we have developed provides a framework for defining how to implement business and IT changes that are necessary to support successful BPM. It defines seven maturity levels across seven dimensions that allow business and IT people to collectively discuss where their organisation’s capabilities are, and then identify how to advance those capabilities within BPM for their mutual benefit.

Figure 1: SMS BPM Maturity Model

	BUSINESS	ORGANISATION	METHODS	APPLICATION	ARCHITECTURE	INFORMATION	INFRASTRUCTURE
DYNAMIC	MIX & MATCH BUSINESS PROCESSES	POLICY DRIVEN/AUTO GOVERNANCE	DYNAMIC PROCESS MODELLING	RAPID APPLICATION COMPOSITION	DYNAMIC RECONFIGURATION ARCHITECTURE	DYNAMIC DATA EXTENSIONS	AUTOMATIC PROVISIONING OF INFRASTRUCTURE
STP	SPECIALIST PROCESSING UNITS	BPM DRIVEN GOVERNANCE	BAM, BPA	VIRTUAL APPLICATIONS	CROSS-ENTERPRISE BPM	VIRTUAL INFORMATION MANAGEMENT	VIRTUALISED BPM INFRASTRUCTURE
CASE MGMT	MULTIPLE PROCESSES FOR A SINGLE CASE	CONTINUOUS IMPROVEMENT	SIMULATION & OPTIMISATION	PROCESS ORCHESTRATION	BUSINESS SERVICES	COMMON DATA MODEL FOR INTERGRATION	COMMON BPM PLATFORM
WORKFLOW	FUNCTIONAL AREA PROCESSES MAPPED	COMMON GOVERNANCE MODEL	PROCESS MODELLING & RATIONALISATION	HUMAN/SYSTEM WORKFLOWS	SERVICE INTERGRATION	CANONICAL MODEL DEFINED	PROJECT-BASED BPM IMPLEMENTATIONS
CONTROLLED	SLA MONITORING & REPORTING	DEFINED STANDARDS & GOVERNANCE	AS /S PROCESSES MAPPED	IMAGING, DOCUMENT MANAGEMENT	ENTERPRISE APPLICATION INTERGRATION	MANAGED STRUCTURED & UNSTRUCTURED	REUSABLE INFRASTRUCTURE
MEASURED	BUSINESS LINE DRIVEN	DEPARTMENTAL/LOB STANDARDS	QUALITY & METRICS CONTROL	COMMON USER INTERFACE	LAYERED ARCHITECTURE	LOB SPECIFIC	SOE DEFINED
AD HOC	ISOLATED TEAMS	AD-HOC PROCESSES/ NO STRATEDGY	FEW DEFINED & USED METHODOLOGIES	MULTIPLE SILOED APPLICATIONS	MONOLITHIC	APPLICATION SPECIFIC	LOB SPECIFIC

3.2 Holistic Change

It is widely felt by business people that IT systems are the bane of their lives and that if these systems were more *flexible*, things would be a lot easier. It is also a common thought amongst IT people that business processes should be designed *better* so that they match their system's capabilities. The purpose of the SMS BPM Maturity Model is to build a roadmap for change that considers *all* of the constraints in which the organisation operates.

“ If the facts don't fit the theory, change the facts.”

Albert Einstein (theoretical physicist)

We've all been involved in large IT projects where, somewhere along the way, we seemed to have reached a point where we had forgotten in which direction we were going, and discovered we had ended up where we didn't really want to be.

Most of the time this occurs because in a waterfall world we believe:

- requirements are correct because somebody signed them off;
- not much will change once we start to develop the solution;
- we are all in agreement as to what the solution will look like;
- the business doesn't need to know how the solution is developed;
- if there is anything *wrong* with the solution then we'll find it in testing;
- there better *not* be anything wrong with the solution; and
- these requirements better be right!

Back in the real world implementation of BPM, we need to consider the following:

- requirements and processes will change when the business needs them to;
- we will have a better idea of how we need things to work once we've built the solution;
- the business and IT both need to adapt to change to support the solution;
- we should test our assumptions early and often; and
- we should build what we know and then adapt it when we figure out everything else.

This approach requires:

- flexibility within the organisation's culture to embrace change;
- continuous collaboration between the business and IT – not just a hand-off;
- the business provide domain expertise, while IT provide technology expertise;
- commitment to continuous improvement (and the funding to enable it); and
- workable and pragmatic governance processes to manage the change.

It is a common misconception that, in order to be Agile, documentation is thrown aside, processes are non-existent and decisions are made on the fly. In fact, with Agile BPM there is considerably better governance, clearer and more useful documentation supporting decisions and change (artefacts) and greater vitality to ensure that risk and deliverables are managed effectively.

3.3 The Roadmap

By using the SMS BPM Maturity Model, you can establish where you are as an organisation and where you need to *be*. By then applying commonsense Agile governance, Agile BPM enables rapid and repeatable improvements using BPM technology. The key to all this is to make the incremental changes in key areas of the organisation that support improvements in others. As illustrated in Figure 1 on page 6, an organisation can move from one level of maturity to another *only when it improves its capability in all of the dimensions to that level of maturity*. Thus, advancement in IT applications does not necessarily deliver full business benefits without corresponding capabilities in the business, organisation, methods, and so on.

“ I have an existential map. It has 'You are here' written all over it.”

Steven Wright (actor, author, comedian)

The question is then: what needs to change and how much change is required? The answer is not entirely simple, and depends on the required outcomes for the organisation. The benefits achieved (quality, throughput, cost reduction, etc) at each level of maturity may differ and, by using the model as a guide, we can aim to address the areas that will drive the required benefit.

In utilising the SMS BPM Maturity Model, it is possible to determine what is feasible, what is cost-effective and what benefits can be delivered. Thus, each organisation must decide what benefits it wants to achieve – and then utilise the model to determine not only where they *are*, but which level they need to *advance* to in each of the domains in order to deliver those benefits. This is the roadmap to Agile BPM.

4 Be Agile

Committing to an Agile methodology is not to be taken lightly, as the cultural change required in many organisations is significant. Having an IT Agile delivery *without* the business being fully supportive will not yield any better results than waterfall methods. Following are some basic Agile success factors.

4.1 Collaboration

“ No one wants advice, only collaboration.”

John Steinbeck (Pulitzer Prize-winning novelist)

Requirements are inherently inaccurate and incomplete. Stakeholder collaboration and validation throughout the development lifecycle are key factors in achieving successful outcomes from BPM projects. Co-location of the business and IT people working on developing processes is essential – so that both teams can workshop needs and solutions, as well as provide feedback to each other during the process development lifecycle.

4.2 Embrace Change

Process requirements should be dynamic, just like the business. This means that, rather than locking down requirements for a long period between analysis and deployment of the solution, we should *expect* changes and manage them better. This is best achieved through an Agile change process which allows the business owners to prioritise the features they need delivered, and to add or remove functionality, on demand, as required. Similarly, the IT process designer and builder must anticipate change and be flexible in design and implementation. This calls for standardisation of process patterns, application of rules engines, rapid prototyping and implementation of flexible application frameworks.

“ Nobody expects the Spanish Inquisition!”

Monty Python

4.3 Develop a Common Business Vocabulary

BPM is a shared implementation responsibility of both the business *and* IT. It is not uncommon, however, for different business units within the same organisation to use different terms to describe the same or similar process, artefact or data.

“ It is simplicity that makes the uneducated more effective than the educated when addressing popular audiences.”

Aristotle (Greek philosopher, 384-322 BC)

Establishing a common vocabulary that describes business processes is key to more effective communication. A Common Business Vocabulary Glossary should be created, published centrally and modified to define the meaning of business terms and jargon used throughout the organisation. This is especially useful when multiple terms in use essentially mean the same thing.

4.4 Apply the Pareto Principle

“ Have no fear of perfection – you will never reach it.”

Salvador Dalí (Surrealist)

The Pareto Principle is based on the 80/20 rule, which states that 80% of the effects are due to 20% of the causes. Whether you interpret this as ‘20% of the effort will deliver 80% of the benefit’, the message is clear: 100% coverage of a problem is not necessary to deliver significant value.

Exhaustive attention to details, whether in Agile or waterfall, has diminishing returns – and it is therefore better to avoid exhaustive attempts to address a single area for improvement before moving onto another. This is particularly true in relation to BPM. It is very tempting to aim too high in the maturity model when a lower level may deliver most – if not all – of the value required. If the target is too high, resources will be expended on achieving benefits that are outweighed by the effort to deliver them.

4.5 Develop Incrementally

BPM can be delivered incrementally, as inferred by the SMS BPM Maturity Model. There is no reason to hold back from implementing features or functionality that deliver real business value because they are not 100% complete. In fact, deploying a partial solution that makes business users' lives easier will likely trigger feedback to the designers and developers for enhancing subsequent functionality that will result in increasing the value of the end solution.

" I keep the subject of my inquiry constantly before me, and wait till the first dawning opens gradually, by little and little, into a full and clear light."

Isaac Newton (mathematician, physicist)

Incremental delivery of working solutions allows for business benefits to be delivered early and reduces the risk associated with 'big bang' implementations. By applying the Pareto Principle, Agile BPM also allows business users to adapt their own processes as they implement BPM – while refocussing on their *real* needs rather than on what they may have *thought* they needed at the outset.

4.6 Implement Agile Governance

BPM facilitates a symbiotic and synergistic relationship between business processes and IT systems. Governance is about doing things right – or at least doing them the way that the organisation has agreed is the right way.

Agile BPM not only requires rapid deployment of BPM, but also a framework to govern change in the business and in IT. Achieving practical governance involves understanding the 'style' of the organisation, and then implementing a governance plan accordingly. This includes making maximum use of existing governance bodies, standards and mechanisms. It is especially important to involve everyone who is a potential governance stakeholder in establishing the BPM governance plan.

" Rules too soft are seldom followed; rules too harsh are seldom executed."

Benjamin Franklin (polymath)

There is a thin line between governance being too prescriptive and being too flexible. A model that is overly-prescriptive will inevitably lack agility, and one that is too flexible will be ignored as exceptions become the rule. Agile BPM outlines key governance principles and processes (including a vitality process for continuous improvement) that can be adapted to an organisation to enable it to prepare for the changes involved in implementing real BPM solutions.

5 Conclusion

BPM is fast becoming one of the major areas of development for many organisations. Unlike traditional application development, BPM requires broader business and IT skills to deliver – as the to be conceptualisation, rather than the *as is* model, becomes increasingly critical to success. This requires the addition or development of new skills and tools to assist in the transformation.

The current processes of an organisation are more likely to be a symptom of that organisation's maturity and capability in BPM, rather than the starting point upon which to build. Therefore, having a BPM Maturity Model is essential in determining a starting point for an organisation's journey. Because the SMS BPM Maturity Model was developed on the basis of real-world observation and implementation experience, it is able to be leveraged by other organisations to define their starting point, set incremental targets and provide a roadmap for successful BPM.

Agile is well-suited to mitigating the risk of managing new technologies, processes and thinking. Agile BPM provides a business and IT framework to support this. Anyone considering implementing BPM should consider using the SMS Maturity Model and Agile Governance Model to boost productivity, reduce risk and improve quality.

6 Glossary

BPEL	Business Process Execution Language
BPM	Business Process Management
BPMN	Business Process Modelling Notation
CMM	Capability and Maturity Model
SOA	Service Oriented Architecture
UML	Unified Modelling Language
XML	eXtended Markup Language
XPDL	XML Process Definition Language

7 Information

7.1 About the Author

During a career that spans nearly 25 years in technology, Fergus Porter has earned an enviable professional reputation as a consultant, manager and technology executive. His areas of particular expertise include IT strategy, architecture and project delivery. He has also applied his management knowledge internationally, having lived and worked in Europe, the US, Asia and Australia. Prior to joining SMS Management & Technology, Fergus held a variety of senior management positions with Renewtek, Superpartners, AXA and DST International. He was a Principal Consultant with Computer Science Corporation (CSC) in Singapore, Japan and Australia. He holds a B.Sc. in Computer Science from Trinity College Dublin.

7.2 About SMS Management & Technology

SMS Management & Technology Limited (SMS) specialises in improving operational performance and IT delivery. We do this by improving the way you use people, processes and technologies. This means we address everything from business integration to compliance, process improvement to change management and technology strategy to systems integration and application development.

Established in 1986, we're Australia's leading publicly listed [ASX:SMX] Management Services company. We employ in excess of 1,500 permanent and contract staff in offices throughout Australia, Hong Kong, Vietnam and Singapore. All of our people are experienced professionals, and each is an expert in their field.

We have the experience and the industry expertise to affect real, measurable and profitable outcomes for your business. **SMS... 'your vision. Delivered.'**

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