



Many organizations trying to become agile are
MISSING A KEY PIECE



LEADINGAGILE

PREMISE

Many organizations have accepted the need to transform from waterfall to agile software development. But these transformations will struggle if they fail to also transform how they define and prioritize their work.


KEY CHALLENGES

- Transforming from legacy to agile requires an overhaul of organizational culture, practices, and structure – that is not easy.
- The urgency of getting better at agile – getting it right, is increasing because what was once a competitive differentiator has become competitive table stakes.
- Most companies that have done transformations that fall short of the results they seek, consistently better software with faster turnaround times. But the organizational charts, scorecards, process maps that were transformational in prior years, have created a “this is how we do it” culture known to some as the “how trap” - that leads to false requirements and “shiny object” projects that are presented with limited organizational performance context.
- Many enterprise architecture teams, particularly their business architects, are in the IT organization and they lack the skills or tools to engage with the business about how to link organizational goals and metrics to selection of the right projects to feed the backlog.

RECOMMENDATIONS

- Top level goals and strategies need to be articulated and those need to be linked to specific capabilities. Initially linkages may have to be assertion-based, and over time a causal link should be established between specific capabilities and key performance metrics.
- Getting clarity in the backlog – confidence that team is working on the right things means creating a rich model of business capabilities, nested in parent/child format that can be linked to the organizational goals and strategies. Then with that nesting, they need to be rated based on their business value, performance, and other factors in a way that results in a clear “heat map” of where work will have the greatest impact.
- There will be different categories of work related to organizational goals. In addition to the things that explicitly link to top level goals and strategy that have references to revenue, profitability, and risk, there should also be a grouping of customer and experience capabilities that are “known bad” or sub-standard relative to the brand promise of the organization, that need to be improved - even when there isn’t an explicit link between those capabilities and performance. Finally, there need to be “roadmap” driven priorities when it comes to maintenance fees, compliance costs, and upgrades. Most large organizations spend millions on upgrades to outdated or duplicative systems without being purposeful in the role of those systems in long term plans. Capability modeling can help with these three distinct categories of work – strategic, known bad, and roadmap.
- It is increasingly necessary and affordable to capture real time, or near real time capability performance and customer experience feedback. Some call this the “sense and respond” model. With sense and respond, an organization can see a capability performance get outside of a defined threshold and immediately respond with a

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truly agile delivery organization. This is part of what is fueling the urgency to become more agile - organizations need to collect this data and act on the information as it relates to what is in their backlog. The frequency, or velocity of change of a given capability is becoming increasingly critical to know, and to get right, and this is a key attribute that can be attached to individual capabilities in addition to business value and performance.

- One of the key reasons artifacts like process maps are not as helpful as they need to be is that they don't share a common design element of the technology services they are used to help companies describe and define. Business capabilities should be defined with the same basic attributes of a technology service (explicit service boundary, explicit performance metrics and performance functions, and so forth), and when that is done, for the first time the organization has a representation of the business and its requirements in clear natural language that can decompose into very small capabilities, like capturing a signature - which is a capability that might occur several, even dozens of places throughout an organization for everything from employee expense reports to client agreements. These business requirements then align perfectly with the technology services because they share a common design structure.
- The Capability model needs to be owned by the business. One of the reasons business architecture and business capability modeling have not realized their full potential is because they live in the enterprise architecture team in the IT organization - non-executive level technology people who are not experts in the business. While that is useful and helps IT in some key ways, it isn't what's needed for an organization to get true clarity in what drives performance. When the business owns the inventory of capabilities- and the corresponding value/performance heat maps, they will use them in every meeting where priorities are discussed.
- Enable an organization to designate the goal state and manage the pace of change, based on business goals and business value over time

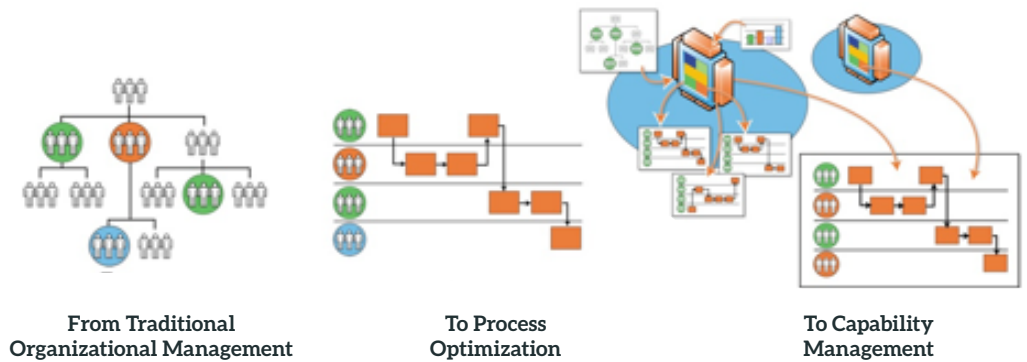


INTRODUCTION

Agile transformations can lead to perfectly re-structured, re-trained teams that produce working tested software, but if the work in their backlog is not the things that will have the greatest impact on organizational performance, the transformation is not on a path to success. This is even worse, but common, when different business units operate in silos and there is a lack of governance enforcing linkage of overall organizational performance goals to strategies that link to the specific work items that are in the backlog. Within the silos, are the teams, and departments that impede collaboration and agility – these are the people in the cubicles and often they know where change is needed – but lack empowerment or accountability to drive those changes. They also lack a tool or model that allows them to view the organization holistically so they can assert which specific changes will, and won't, lead to better performance. When given a business capability model, everyone can literally get on the same page of what changes will drive performance change. This does not mean there will always be agreement – it simply gives them a level playing field for their discussions. Using capabilities defined with the same structure as a service, gives the business the tools it needs to link the capabilities to performance and goals and then prioritize their work accordingly.

IMPROVEMENT TECHNIQUES

Companies have been creating charts and models to improve operations since the mid 19th century when Daniel McCallum created the first organizational chart. But as businesses gained efficiencies into the 20th century, using an organizational chart actually masked problems and opportunities for improvement. In the 1990s Michael Hammer & James Champy launched the era of process reengineering – recognizing the many processes span teams and organizations. Yet while process models helped to cut through many of the limitations of organizational view – they were still rooted in “how” the company did what it did. When a process map included things like “send a fax” – that described how it accomplished something such as communicate a status or confirm an order. But when requirements were being collected –and someone asked if sending a fax was a requirement – the practitioner of the work would often say “yes” – when in fact the real requirement was the “what” of confirm order.



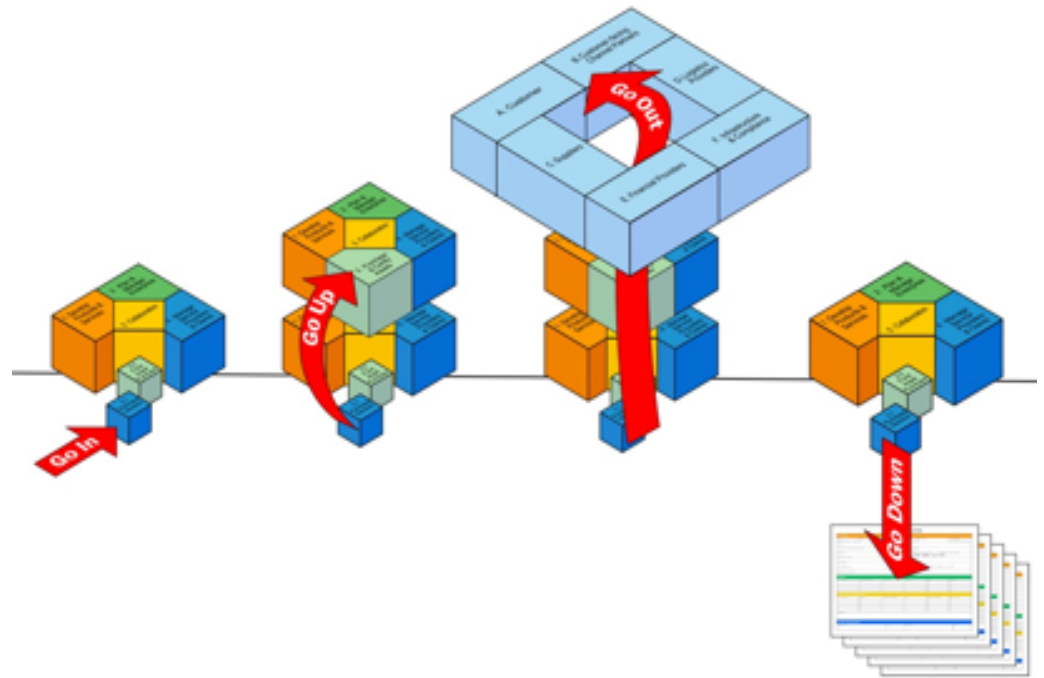
In the diagram above, the organizational chart and process shapes on the left will be familiar. The rectangular shape on the right represents the complete view of the business – a collection of its business capabilities. The organization chart and process maps that reflect “how” the groups are organized and “how” the work flows today link to the capabilities describing “what” the work is, as complementary but distinctly different, views.

Using a simple verb-noun construct to describe what the work is, such as Capture Signature, is the first step in establishing explicit boundaries around that work, in much the same way a technology service has explicit service boundaries. From there, adding owner, performance measures, value, input and output requirements further enables the organization to see the work as a “service” with explicit service expectations. The people, process, and technology used to implement that capability are the “how” it is done today, and there may be multiple implementations of the same capability in an organization. Withdraw Cash is a capability a bank has – and historically there was only one implementation of the capability Withdraw Cash – where the customer went up to the bank teller and either through dialogue or a withdrawal slip, got funds. Today the ATM is another common implementation of that same Withdraw Cash capability. What’s important to note is that even though those two examples are of the same capability – the performance measures and service expectations may be different for each implementation. The role they serve can overlap – where a person might simply choose to use an ATM at Noon on their lunch break, but if someone wants cash at Midnight, the bank will be closed – so the ATM is the only way for the customer to withdraw funds at that time. So when a bank is considering changing a given implementation of a capability – they need to be explicit about its role in the overall organizational performance. Because organizational goals and strategies can be mapped to specific capabilities – even implementations of capabilities, treating them like services makes it much easier for organizations to test both correlations and causes of overall performance in a way that is harder in other performance improvement techniques such as process reengineering.

Conventional business performance improvement and application development techniques; Theory of Constraints, Six Sigma, Total Quality, Lean Production, Business Process Reengineering all;

- Start from a hierarchical and organizational (internal) basis and decompose within that context
- Focus on a specific area of work and typically do not associate the specific situation with the rest of the overall business
- Create views that often exclude resources and connections across the entire business ecosystem
- Solve efficiency / improvement within the “8 ½ x 11 sheet of paper” used to describe the problem, but do not put the problem/opportunity in full business context and rarely expose opportunities for innovation.

As organizations build out their inventory of capabilities, the model of the business starts to take shape. Because capabilities all share a common service definition, it becomes both fast and easy to assemble a model of the entire organization. Process models often take much longer because of the extensive interviews needed to capture “how” things are done – while the “what” ends up being surprisingly clear and easy to document. With a complete map of the business, and the business ecosystem – teams now have a much clearer way to define context – the role of a given capability in the overall system. With that context, and with value and performance scoring of each capability – linking specific capabilities to specific performance goals becomes clearer and easier.



Earlier there was a description of other methods sticking to the “8 ½ x 11” sheet of paper that is used to describe a particular problem or opportunity. The above diagram refers to that as the entry point for “Go In” and instead of “Go Down” within that context, a thorough mapping of business capabilities allows the team to first “Go Up” to set the context of the problem/opportunity in greater context of the business, then “Go Out” to see the external parties such as customers, partners, regulatory bodies and the like that inform the behavior of the business – then with that richer context, then “Go Down” to better identify the best solution to the problem.

With those things clear – it then also becomes clearer which capabilities need to be changed to achieve the desired performance goals – and at the implementation level – the team can be specific about whether the change that is needed is a people change (either different people or more training) a process change (too many steps, steps that are no longer needed or useful), or a technology change. With this discussion in place, decisions about what to put into the backlog, and with what priority, becomes a much smoother and easy conversation.

Kaplan and Norton are credited with creating the “balanced scorecard” approach for tracking organizational performance. That approach is another excellent complement to the capability model because of the inherent parent/child relationship of business capabilities. Without an ability to explicitly link performance from top level down to the more granular levels – which you can do with business capabilities, a balanced scorecard risks not being anchored on a stable, detailed model of the organization, and thus risks measuring the wrong things.

MATURITY LEVELS MATTER

CRAWL, WALK, RUN

Organizations will be at different levels of maturity when it comes to having top level goals and strategies and how to execute on those. In most cases today there is at least some disconnect between the work that is in the backlog and the overall goals and priorities of senior leadership because they lack a common tool, model, or framework to create a linkage between the two. When this linkage is highly immature, an organization may only start out with 100-200 business capabilities to begin to develop this discipline – while it is easy to buy a pre-packaged inventory of 2,000 capabilities from the internet – that will usually overwhelm an organization that is not accustomed to having discussions about what will cause the organization to perform at a higher level. Given the unique language and terminology of each company – many people are also reluctant to relate to a purchased or “canned” larger set of capabilities. One of the other benefits of smaller inventories of capabilities is that they can be printed on a single piece of paper – while the large inventories have to be printed in poster format that’s less easy to take to a conversation about priorities. Someone from the business needs to own the capability model and its content and this will be a shift for many organizations who have their business capabilities owned by business architects in the IT organization, usually in the enterprise architecture team.

DURABILITY

In addition to the earlier point that process maps lack a common design principle with technical services, they also tend to have a short half-life in terms of how often the process is the same process. As discussions with agile transformations talk about shifting from a project mentality to a product mentality – one of the key changes in that approach is that unlike projects that have start / stop dates – products, like an iPhone, are always changing and improving. Capabilities share that ongoing durability of products, and while their performance may change, the capability itself does not.

AGILE TRANSFORMATION

In many cases the transformation to Agile is a transformation away from a waterfall delivery method serving a legacy environment. While most organizations have at least started to create SaaS, or SaaS-like services that complement their legacy environments, the transition away from large, monolithic

legacy systems is both hard and daunting. Breaking the legacy functions into explicit services that map back to business capabilities is an effective way to define the work in manageable pieces, and helps organizations become less fearful of the transformation. Migrating from waterfall to Agile requires clarity in the backlog which is made much easier with capabilities linked to strategies, but it also requires a significant restructuring of the delivery teams and how they are held accountable, and regular releases of working tested software. Having a team attend a week long workshop or having one person come in to lead large scale transformation is going to fall far short of goals. These transformations will often require a year-long effort and significant engagement from top leadership.

INCREASED URGENCY

Early and successful adopters of Agile often benefitted with lower overall costs, and lower overall software defects. The massively successful companies such as Google, Netflix, and Amazon who talk about continuous integration and continuous delivery, releasing new code every hour, compared with the monthly or quarterly software releases of many other companies – initially those companies were seen as “them” – nothing like the business other organizations are in. But continuous integration and continuous delivery have become mainstream – companies across most, if not all industries, will have to succeed at Agile, and tend toward the continuous integration and continuous delivery model – simply to survive. This won’t happen tomorrow for most companies – but because Agile transformations can take a year or more – the clock is ticking.

GOALS AND STRATEGIES

The need for companies to embrace continuous integration and continuous delivery as they move away from their waterfall delivery using legacy systems is not going to happen overnight. But with increased use of driving applications like Waze, social networking applications like Facebook and Snapchat, entertainment solutions like Netflix and Amazon, retail experiences like Amazon, and search and other services provided by Google – customers will expect and embrace similar experiences in other industries from banking, to travel, to logistics. But knowing who your customer is today, why they are your customer, whether they will be your customer in the future, whether they are profitable or not – those are all things organizations can and should be collecting information about. Part of that means knowing which customers to ignore. In three to five years, entire business models may change, so setting goals and strategies is different than it was even

five years ago. The other side of continuous integration and continuous delivery is continuous feedback loops from what customers like and don't like. This is yet another example of why detailed capability models are so important today. In the earlier example of the banking capability where the different implementations – going to the teller and using an ATM, organizations need to track which customers are using each capability and the extent to which they link to loyalty, profitability, satisfaction, and other measures. In near real time organizations will be able to know all of these things. This real time monitoring of use and feedbacks opens the door to the “sense and respond” approach, where an organization is able to “listen” in real time to what is going well and not going well with their customers, and because they have reached a level of agile that allows for rapid response, when something is going wrong, they can respond to that today - not in the next release in three months – today. One of the most valuable things organizations will be able to do – that was very hard to do before – is know which customers and customer segments they can ignore. When you have real time data, and you are clear about which customers are most and least important to you – using sense and respond allows you to prioritize the urgency with which you respond to issues – as they happen. Having good analytics linked to capabilities will enable organizations to make informed decisions about goals and strategies – and also help them make small and large course corrections very rapidly. And with a successful Agile team executing on their goals and strategies – they will be very well positioned for success.

THREE CLASSES OF WORK: STRATEGIC, KNOWN BAD, AND ROADMAP

For a large organization, making sure an internal delivery team is working on the right things is more complex than it sounds. In large part that's because investments in technology must be in some form of blend of spend. While most might want to focus their entire investments in the strategic and differentiating things that their capability heat maps say they should, the reality is there are often two other classes of work that also require investment – we'll call them lifecycle, and known bad. Lifecycle investments are the renewals and upgrades of existing solutions. Even though most organizations are moving toward cloud platforms, some legacy investments will need to endure for several years. While capabilities should help identify where different business units are investing in different technologies to do the same thing – that won't always make it easy to stop paying for renewals and upgrades of some of those systems – be they core or supporting. What's critical in these discussions about getting clarity in the backlog is a three to five-year roadmap of where things will be. With

a roadmap, an organization can be much smarter about decisions about maintenance, upgrades, and renewals for legacy solutions. It may be that maintenance costs and defect rates for some legacy systems are consuming an increasing amount of the overall IT budget – a successful transformation to agile will help to stem that growth, but a three to five-year roadmap will help to inform whether an organization can sunset a technology – which can free up significant resources for other work. The other class of work that is neither strategic nor maintenance/lifecycle/upgrade investment is the “known bad” capabilities. When you interview people in an organization, and ask them if there are things they do today, either customer facing or employee facing that they are embarrassed to tell other people about – because they are below the standards or the brand promise of the organization – those are the known bad capabilities. You might say those known bad should show up on the value/performance heat maps as needing attention, and while some do, it's not always the case. That's because some of these known bad capabilities (which may be manual processes that should be automated or work that requires re-keying of data, or something customer facing that's simply worse than what competitors offer) may sit in side of a parent that's already performing adequately.

Figure 1. Manage Customer Financial Transactions



In the above example, from a bank, the parent capability Manage Customer Financial Transactions (which sits inside of Manage Customer Experience) has a red border, indicating high value, and green fill, which indicates good performance. Three of the four children of that parent have the same coloring, only one Conduct Payments – has a red fill to indicate poor performance. In most cases, but not all, when the majority of the children have a good performance color, and the parent does as well, one red child should not be enough to invest in that one red child. That's the classic “shiny object” issue where people invest in something that's underperforming, not realizing that investing in it won't impact overall performance (it won't “flip” the color of the parent to a better color) and thus it's probably a waste of funds to invest in that. Known bad are the exception to that. Even though there's no evidence that investing in the known bad class of work will improve overall performance – because it's substandard and people are embarrassed about it relative to the brand promise – that is enough to invest in those capabilities and that is why it belongs as a third class of work in the blend of investments in the project portfolio.

SUMMARY: CALL TO ACTION FOR CLARITY IN THE BACKLOG BY ALIGNING ORGANIZATIONAL GOALS WITH CAPABILITIES ?

Completion of a successful Agile Transformation requires that the delivery team be working on the right things. Working with the business to develop an inventory of business capabilities they own, with measures of business value, performance, and change velocity will make them better at managing the business, and also better at feeding the backlog with the right things.