

# The Software Value Management Office (SVMO)

## Transforming the PMO into a Strategic Partner to Deliver Business Value

Driving value (of anything) is a key strategy and typically starts at the top of an organization. It is no different with driving software value in today's digital age. Executives (and even the board) need to expect the highest level of business value from the software their organization is developing, buying and/or selling.

In a McKinsey & Company article<sup>1</sup> published in July 2016, "Adapting your board to the digital age," Hugo Sarrazin and Paul Willmott reported that "less than one in five directors fully understand how the industry dynamics of their companies are changing." They quote Marc Andreessen's light-hearted, but pertinent observation that, "Software is eating the world." They also reported an expectation amongst one in three McKinsey clients that their business model will be disrupted in the next five years. Sarrazin and Willmott go on to assert that, "Board members need better knowledge about the technology environment, its potential impact on different parts of the company and its value chain."

What the board and the company need is a Software Value Management Office (SVMO), responsible for measuring and monitoring the value delivered by IT and specifically software development. Why specifically software development? Because IT is increasingly a utility – it needs to be properly designed, implemented and managed, and technical expertise is needed to do all of that well. However, most of the company's differentiated value will come from its software.

### **Where does the SVMO fit in the organization?**

When asked how the role of a SVMO is different from the role of the Project Management Office (PMO), we have to acknowledge that the PMO has made significant progress over the years in standardizing processes to ensure projects are executed efficiently and effectively. However, while the PMO has played an important role in streamlining organizations, its focus has been on process and utilization rather than on business value. An SVMO is key for ensuring that organizations maintain their focus on driving business value rather than merely operational efficiencies.

Ally Gill, a business consultant specializing in business improvement and change shares similar views. In February 2015, he floated the idea on his blog<sup>2</sup> of a VMO to

replace the project management office (PMO) in organizations. His blog was titled, “The PMO is dead! Long live the VMO!” Gill’s VMO would be,

*“...a business function, designed to oversee corporate governance, organisational change, quality, compliance and process management. The VMO is permanently staffed with a small core of Value champions to co-ordinate, act as gatekeepers and maintain continuity of the function but the ideas, requirements and solutions come from Value Action Teams from within the body of the organisation. These are virtual teams created from the people closest to the work, brought together to address real issues within their scope of expertise.”*

*“... a supporting function, providing genuine assistance to the wider business. VMO staff should look at every activity they are involved with and be able to clearly articulate why they are doing it, who they are doing it for, what value it brings, and whether it is genuinely a business necessity ...”*

Gill’s VMO concept is organizational rather than focused on software development and that fits with my view of the SVMO because the value of software development can only be evaluated in an organizational context – both the business and IT must be involved. Gill sees a functional VMO as a good replacement for dysfunctional PMOs and some of Gill’s ideas – business function, small core team enhanced with short-lived virtual teams – are included in the vision of the SVMO. The title of his blog post implies that Gill believes that VMOs can and should arise from the ashes of PMOs.

Gill’s article includes some stark criticism of PMOs (not repeated here). PMOs have been in existence in most

large organizations for a long time helping to standardize processes and increase performance. PMOs and project managers have played an important role in streamlining organizations, but they are often disliked. Interestingly, they are often disliked equally among executives and staff. Executives see the PMO as always delivering bad news about missed deadlines and hold the project managers accountable, or at least responsible, for those missed deadlines. The staff perceives the PMO as parasitic - someone always looking over their shoulder to ensure the proper boxes are checked without taking into consideration the challenges these workers face in accomplishing the task at hand.

The big question is whether the PMO is actually driving business value or if it’s more focused on progress and utilization. From a lean software engineering perspective, for maximum flow of value on a software development project, waste needs to be removed. In the “lean” world, waste means any activity that doesn’t add value.

In a waterfall organization, the PMO is justified because it has become the oil that keeps the software development engine moving. But even in waterfall organizations, the PMO is becoming increasingly commoditized. The PMO has an opportunity to transform from a group that standardizes processes to improve efficiency and measure compliance, to an SVMO that optimizes processes to maximize value flow and measures value.

Since Agile organizations don’t tend to use a PMO or inherit a PMO from waterfall whose ongoing contribution is questionable, the SVMO would be a new function. In Agile organizations, the function of the SVMO would be to get the business units to collaborate with the technical team on assigning value to features and epics and making that value visible so both are focused on driving value for the project.

### What is the mission of the SVMO?

To make software value visible and to maximize end-to-end software value flow to customers (internal and/or external).

### What are the functions of the SVMO?

With thanks to Pisello, Kaplan et al, the State of Ohio<sup>3</sup>, and Gill<sup>4</sup>, the key functions would include those set out in Figure 1.

Figure 1: Key functions of the SVMO

SVMO 1	To be the center of excellence aligning value measurement between business and software development
SVMO 2	To enhance an organization's ability to improve software outcomes and costs across the enterprise
SVMO 3	To set priorities for continuous improvement projects
SVMO 4	To facilitate the creation of value-based payment models
SVMO 5	To ensure that new information technology platforms are aligned with the value agenda
SVMO 6	To ensure that the SVMO mission extends across the lifecycle of an initiative
SVMO 7	To help organizations achieve the intended outcome of a program or an initiative
SVMO 8	To measure financial and non-financial benefits of initiatives
SVMO 9	To look across the organization to identify enterprise results and efficiency
SVMO 10	To ensure that software value management is integrated and aligned with other change initiatives
SVMO 11	To ensure that the software value management retains a results focus
SVMO 12	To ensure that software value management is sustainable over the long-term
SVMO 13	To manage changes in perceptions, relationships, management principles, and actions
SVMO 14	To demonstrate achievement of expected benefits
SVMO 15	To take a lean software engineering view and remove process steps that do not add value

The SVMO is a business function which needs to be permanently staffed with a small core of value champions to coordinate, act as gatekeepers and

maintain continuity of the function. The only way that this can be done is if some of the permanent staff in the SVMO have respectable business credentials and some have respectable software development credentials. By way of example, BT in the U.K. has a structure they call "CIO offices". These CIO offices are part of the business units and sit as the interface between the business and software development. They tend to be staffed by respected former members of the software development team seeking a temporary or permanent insight into the workings of the business as part of their career development. Their recent experience in the software development organization makes them invaluable for translating across the interface.

### How should the SVMO itself be measured?

The mission of the SVMO is "To make software value visible and to maximize end-to-end software value flow to customers (internal and/or external)." The SVMO should be measured against this mission, which can be broken up into its two constituent parts, the business unit and the software development team.



How do we measure if the SVMO is making software value visible? The success criteria here is whether or not software value is visible throughout the organization. If we invoke the SAFe model for software development, there are four levels for assessing this: portfolio, value stream, product/program, and team. While SAFe is a framework for scaling Agile, these levels are equally applicable to waterfall models. We also need to invoke two perspectives: Is the appropriate information available? Are individuals making decisions based on that data?

We can present the success criteria for this first set of SVMO metrics on the simple dashboard shown in Figure 2.

**Figure 2:** Dashboard for measuring SVMO success at software value visibility

	Portfolio	Product/ Program	Team
<b>Software Value Info. Available</b>	Yes/No	Yes/No	Yes/No
<b>% of Individuals with Access to Software Value Data</b>	0-100%	0-100%	0-100%
<b>% of Individuals Using Software Value Data to Inform Decisions</b>	0-100%	0-100%	0-100%
<b>Software Value Flow Increase vs. Last Quarter</b>	%	%	%

*Portfolio, Product/Program & Team Measurement*

Each of the metrics for the performance of the SVMO in Figure 2 needs to be measured for every level: Portfolio, Product/Program and Team, because the nature of the software value information required will be different. Certainly, some of the data can be aggregated in Agile implementations. However, just because all stories have software value data associated with them for all teams in the program, it doesn't necessarily follow that all epics at the portfolio level have software value data. In fact, this is probably close to the "best case" scenario today – all the product owners of all the teams in a mature Agile organization are assigning value points. It is better than nothing. It represents a sort of local maximum, though, because those value points should be derived in some way from business value data at the portfolio level. Put another way, the method for assigning value points at the team level will have to change before it can get better. There may be some resistance to this change amongst the teams.

*Software Value Information Available*

The first of the four success metrics for the SVMO, as described in Figure 2, is determining the software value

information that is available. This is an entry-level metric for the SVMO – something to work on immediately. In a fairly stable organization, it should be quite easy to "switch on the lights" for these binary input metrics and keep them on. In a more volatile organization, perhaps with lots of new initiatives or in an outsourcing scenario, keeping these metrics positive will require ongoing diligence and training of new staff.

*Percentage of Individuals with Access to Software Value Data*

The second success metric is the assessment of the percentage of individuals with access to the software value data. This is an input metric and provides more granular data than the "information available" metric, because all individuals must have access if the software value data is to influence their decision making.

*Percentage of Individuals Using Software Value Data to Make Informed Decisions*

The next metric is the percentage of individuals that are using the software value data to make more informed decisions. This should be considered as an output metric, but there is a case for considering it as a "soft" metric, because the only way to gather the metric data is by surveying the individuals, perhaps quarterly. Like all surveys, it is reasonable to expect that some individuals will not be entirely truthful, especially when the desired behavior is so obvious. This metric is worthwhile because, as a soft metric, it has the purpose of encouraging the right behavior rather than imposing it – always a good change management tactic.

*Software Value Flow Increase versus Last Quarter*

Measuring the software value flow increase compared to the last quarter is the final metric. This is the ultimate "hard" output metric for the SVMO – is the SVMO making a difference to the flow of value? The underlying value flow metric here needs to be normalized for reasonable comparison of historical data.

One simple normalizing approach could be to use an ROI type methodology by measuring software value delivered per \$100k of budget spent on software development in that quarter.

Another simple normalizing approach that might be useful at the portfolio and product/program levels (and team level for waterfall) is to measure software value delivered per function point of software functionality delivered.

While the ROI approach represents the bottom line, it can hide nuances in the “software value productivity” of different parts of the software development team or vendors because of differences in hourly cost rates in different geographic regions. Executives reading this (including the author!) might initially say that the ROI is “the bottom line”, but exchange rates and local hourly rates can change so both metrics are recommended. For example, it would be wrong to credit the SVMO with the 10 percent improvement in ROI-based value productivity for U.K. teams that was a result of the drop in that country’s exchange rate after the Brexit vote.

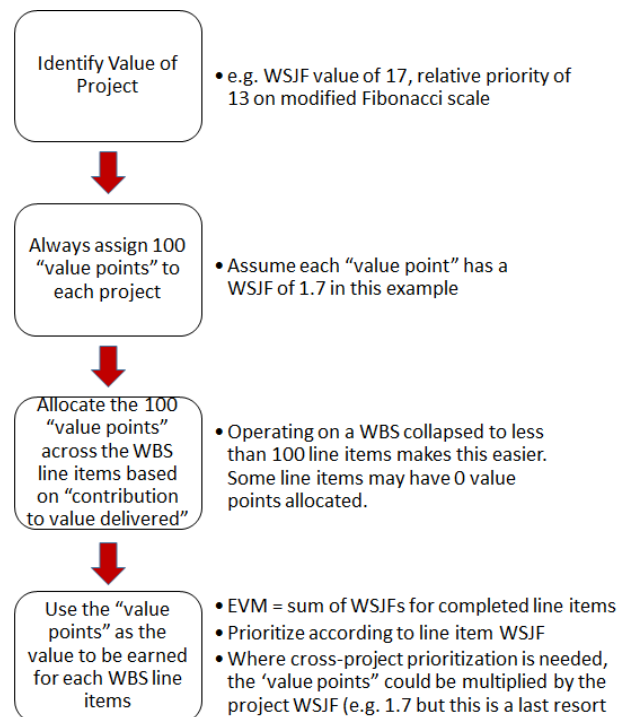
### SVMO and Earned Value Management

As we talk about SVMO metrics, “Earned Value Management”<sup>5</sup> (EVM) comes to mind. It is a specialized discipline that is most often used in the context of long-running U.S. federal government projects to enable the measurement of progress and, in some cases, enable stage payments based on that progress. For organizations that use EVM, the SVMO would be a great place for EVM to be monitored and managed but, at face value, it is hard to see how value information could be gathered unless each line item in the Work Breakdown Structure (WBS) has a true or relative value metric associated with it. Based on value metrics described in previous [white papers](#), the granularity of a typical WBS does not really lend itself to separate value metrics for each line item. A typical WBS line item is too detailed and small to sustain an independent value. For readers with an Agile rather than waterfall background, WBS line items are typically as small as or smaller than user stories. Clearly, trying

to assign even relative independent value to individual line items in a WBS would be difficult, time-consuming and ultimately counter-productive.

Is there any way that an SVMO can work with a requirement for EVM and use it to build good value data? Perhaps. The key is to remind ourselves that if we have built a process to maximize value flow then we only need to establish relative value for decision making. We can assume (somewhat heroically) that the project (for which we are doing EVM based on a WBS) has already been prioritized against other projects for maximum value delivery. How, then, can we develop an algorithm or process for translating the relative value of the project into values for each WBS line item? One possible solution based on Weighted Shortest Job First (WSJF) assessment is suggested in Figure 3.

**Figure 3:** Assigning relative value to line items in an EVM WBS



Clearly, the assignment of 100 “value points” to each project is arbitrary, but some sense of the percentage value of different parts of the WSJF is desirable. Additionally, a pragmatic compromise needs to be struck between the huge WBSs that exist in many government projects and the time that could be wasted subdividing value when the subdivisions are increasingly unjustifiable and meaningless.

### Summary

There is no question that software has become an integral part of almost every business in today’s digital economy. As a result, executives and board members need to have a clear understanding of the organization’s software development initiatives and how they are impacting its value chain.

The Software Value Management Office can fulfill the role of measuring and monitoring the value delivered by software development by bringing business units and IT together to collaborate on the same value-based goals. The SVMO provides the opportunity for the PMO to transform into a more strategic partner within the organization, focusing less on the tactical processes and more on optimizing those processes to deliver business value.

In order for organizations to stay ahead in today’s competitive environment, they must focus on delivering value. By implementing a SVMO,

organizations will be able to maximize the end-to-end software value flow to their customers and ensure that software value is visible throughout their organization.

### References

1. <http://www.mckinsey.com/business-functions/business-technology/our-insights/adapting-your-board-to-the-digital-age>
2. <https://www.linkedin.com/pulse/pmo-dead-long-live-vmo-value-management-office-ally-gill>
3. <http://www.obm.ohio.gov/vmo/faq.aspx>
4. <https://www.linkedin.com/pulse/pmo-dead-long-live-vmo-value-management-office-ally-gill>
5. *Practice Standard for Earned Value Management – 2<sup>nd</sup> Edition*. 2011. Project Management Institute.



### Michael D. Harris, President & CEO, DCG Software Value

Michael Harris has more than 30 years of broad management experience in the IT field, including periods in R&D, development, production, business, and academia. An author and speaker on a range of topics related to the Value Visualization of IT, Mr. Harris is considered a thought leader in the software development industry.

He became president, CEO and majority owner of DCG Software Value in 2006 and previously held numerous senior executive positions in Fortune 500 companies, including: Fidelity National Information Services (NYSE: FIS), Sanchez Computer Associates (NASDAQ: SCAI) and MasterCard International (NASDAQ: MA).

Contact: [mharris@SoftwareValue.com](mailto:mharris@SoftwareValue.com) or 610-644-2856 x22