Knowledge Management in a Professional Services Organization:
Managing Intellectual Assets during the Consulting Project Life Cycle
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Overview

Professional service firms are recognizing that in today's world their primary differentiator is intellectual property, i.e. intellectual assets. How they manage these assets, leveraging them into products and market advantages, is a key factor in ensuring the long term viability of their firm. The technical professional services industry is evolving into a mature marketplace. Over the last decade, firms once considered hardware or software providers have morphed into services organizations. At the same time, companies with specific technical niches are proliferating. Whether you are a boutique consulting group or part of a multi-billion dollar software/hardware organization, I suggest that your ability to differentiate your product and sustain profitable margins is directly proportional to your ability to effectively manage your *intellectual assets*.

Intellectual assets? What are we talking about? Why should you care? And how should you manage them? Read on as I'll outline best practices gleaned from industry reviews and from my experience in growing Sterling Commerce's professional services organization.

Why Manage Intellectual Assets?

Knowledge management in a professional services organization is all about managing intellectual property, i.e. intellectual assets. Services firms can differentiate on price, quality, and/or time to delivery. Choosing price as a differentiator will force you to become a commodity - not something many people desire to do. This leaves you with focusing on quality and time to delivery. You can significantly improve your quality and time to delivery components by leveraging your intellectual property. *This means you must recognize your key differentiator is intellectual property. Effective management of that intellectual property will separate you from your competition.*

Managing intellectual assets will ultimately lower the risks in your project life cycle. What is managing intellectual assets? It is collecting, disseminating, and reusing assets across multiple engagements. Does your organization recreate the wheel at every engagement? Is each consultant a virtual island, with success solely dependent upon their talent? You must look at ways to increase your overall customer satisfaction through repeatable results by leveraging the intellectual property of your "top guns" across your consulting pool. This will decrease the training costs of new consultants, while raising the effectiveness of the delivery capabilities. When you develop and document clear delivery methodologies for your solutions, you drive consistent, efficient delivery, minimizing your risk. Lowered risks enable you to realize sustainable margins across your business.

Last but not least, intellectual assets for complete solutions can lead to productized offerings of that solution. Leveraging assets of previous engagements to create a marketable solution is the highest margin business you can participate in. It's consistent, repeatable, high quality work. You know how to estimate it. You know how to deliver it. It's your firm's sweet spot.

What exactly are Productized Services?

Productized services are the magic bullet of technical services firms. Let's face it; this is the magic everyone's trying to create: how to take what your "top gun consultants" do on a daily basis, capture it, bottle it, and disseminate it to the remainder of your consulting pool. These assets can then be distributed individually or as a services offering.

Do you have a plan on how to take assets and make them into a product? I would argue that unless your services organization has an established Solutions Development Life Cycle, you will struggle to be a long term profitable entity, ultimately competing in the marketplace as a price based commodity.

Productized services are solution offerings marketed and sold as a product. And they don't just happen. A dedicated Services Engineering team must work closely with your marketing team to identify and mold productized services.

Services Engineering

It's obvious manufacturing firms need product engineering groups. What's not obvious is that services firms need them, too. Services Engineering is the group responsible for productizing your services portfolio. In a services firm, they are responsible for managing the intellectual assets of the firm. This includes managing the asset repository, communicating and disseminating the assets to the consulting pool, developing productized offerings, and tracking metrics for the group.

The product engineering team manages the asset repository. They drive project reviews (usually at the end of an engagement) to understand the solution delivered by the consulting team, looking for intellectual assets to mine. Once discovered, the assets are cleansed and prepared for reuse. They also publish information on the assets and train the consultants on how to leverage them for their projects.

The product engineering team is also responsible for developing services solutions for the organization. To effectively productize your intellectual assets, you need to have a formal Solutions Development Life Cycle (SDLC). This is a key component of your knowledge management strategy. Without an SDLC, the product engineering team will struggle to deliver productized services. Thomas Lah [1] (**Figure 1**) outlines a typical SDLC for a services firm. When product offering candidates are identified during project reviews, the engineering team will submit them to product management as a potential offering. Once approved, the team creates the solution offering, using the collected assets as the base for the product.

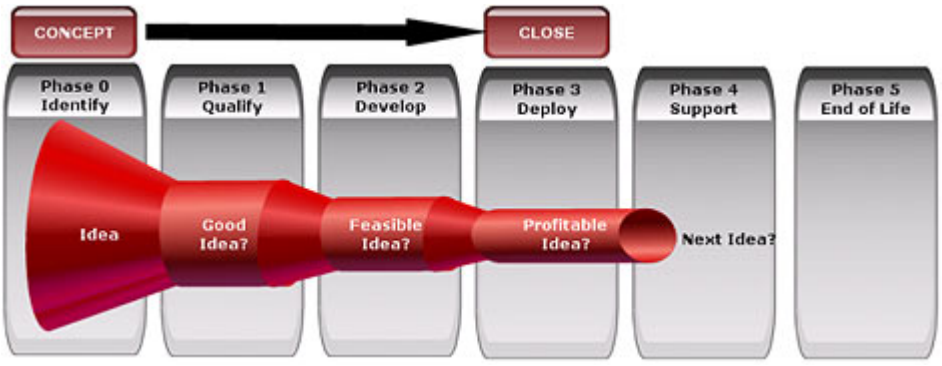

Figure 1: Solutions Definition Life Cycle *(Thomas Lah)*

[1] Thomas E. Lah, *Project Life Cycle Gaps*, Technological Professional Services Association, July/August 2006

Mining Intellectual Assets

Now we know why we want to collect intellectual assets. And we know who manages the process. But what do you collect? And when? The actual assets collected are determined by where the project is in the Project Life Cycle. **Figure 2** outlines Sterling Commerce's consulting services project life cycle, Rapid Returns Methodology (RRM). A project review is conducted at the end of each business release of the project life cycle. Each phase of the project provides an opportunity to harvest different assets.

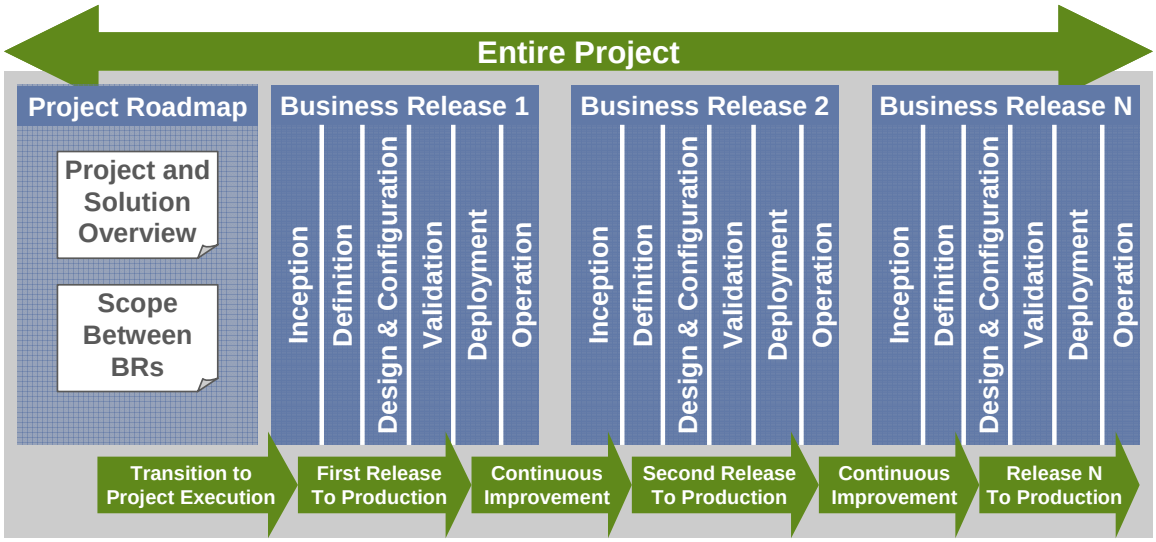

Figure 2: Sterling Commerce's Rapid Returns Methodology

Inception Phase

- Sales proposal presentations
- RFI responses
- Contracts
- Statements Of Work
- Proof of concepts

Definition Phase

- Project scope
- Solutions definition document

- Architecture diagrams
- Acceptance plans

Design and Configuration Phase

- Project schedule
- Programs
- Scripts
- Screen layouts

Validation Phase

- Test plans
- Performance tuning tips.

Reusing Intellectual Assets

It does no good to mine assets if your organization doesn't reuse them. This is the opposite of collection; shared assets must be available for reuse by your consulting team. The Services Engineering team prepares them for reuse. This includes cleansing and documenting them for the consulting team. They also prepare training on the assets, and manage their publication and distribution. Project managers and lead consultants are responsible for bridging the final gap of identifying reusable assets for their projects.

How Are We Doing in Managing Our Intellectual Assets?

As an industry, technical professional service organizations are doing a very poor job in managing intellectual assets. Thomas Lah of the Technology Professional Services Association (TPSA) reported initial findings from the association's Intellectual Asset Management Task Force in July 2006 (see footnote 1). The data and thoughts in this section are taken from the results of the task force's survey.

Our industry's lack of knowledge management has led to what Thomas Lah calls The Capture Gap:

"This gap occurs when valuable knowledge and artifacts are not being captured during the project life cycle for reuse."

The TPSA asked member firms which phase of the project life cycle they are most effective at: delivery, sourcing, or review. In addition, they asked what percent of projects received formal reviews. Over half of the companies noted only 10% of projects undergo a formal review. *Let's state the obvious: you have nothing to manage if you're not conducting project reviews and harvesting your assets.* See **Figure 3**.

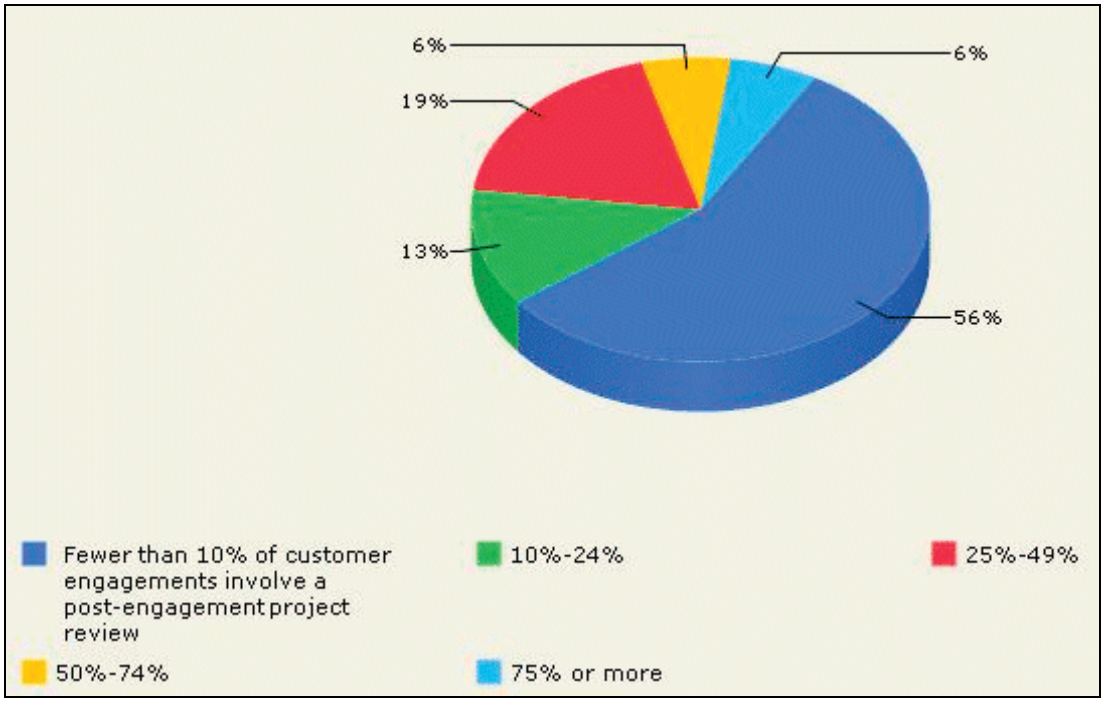

Figure 3: Project Reviews Are Not Occurring: 69% of Engagements are Never Reviewed.

Best Practices in Managing Intellectual Assets

Managing intellectual assets must become an executive priority to narrow The Capture Gap. Here are my recommendations, looking at it from the traditional management philosophy of improving you organization through the management of people, processes, and technology.

People. Your consultants must have the mindset that contributing and reusing assets is required – necessary for them to be successful in your organization. This is

accomplished when their performance objectives include metrics for the contributions and reuse of intellectual assets. You drive it home by having promotions (e.g. to Lead Consultant) dependent upon asset management in your engagements. If they don't contribute or reuse assets, they don't get promoted.

Hiring strategy is important. You're looking for people of high integrity, people who enjoy collaborating to implement solutions. These are people who believe in continuous improvement through the sharing of ideas. Be wary of "coding cowboys" that aren't willing to share their expertise. And stay away from people who always want to re-invent the wheel. For example, we don't need to develop another sort algorithm. Looking at it another way, many guitarists believe they can play "Stairway to Heaven" better than Led Zeppelin. Personally, I say leave excellence alone.

Processes. Project reviews must be incorporated into the methodology to collect assets. Same thing for the reuse of assets – only in reverse. Project managers must be held accountable for the reviews. A dedicated Services Engineering team to manage your knowledge management is critical. Their focus is collect, improve, and distribute the assets.

Establish a project and solutions life cycle. The project life cycle ensures you incorporate the collect and reuse activities to your engagements. The solutions development life cycle is followed by your engineering team in the development of service offerings.

Technology. A repository for managing your assets is required. Microsoft's Sharepoint is an effective, low cost introductory option. It's important the repository has the ability to report on metrics. Metrics we use at Sterling Commerce include how many times the asset description is viewed, and who extracts the asset.

Communication and training of your consultants on the assets is necessary if you're going to be successful. When it comes to training, look at keeping your costs down by leveraging webinars, and capture them for future training opportunities.

Conclusion

Professional service firms must understand that managing their intellectual property is critical to realize long term viability in the marketplace. It's not an option if

you're going to survive. I challenge you to take a hard look at your organization, and see if you're doing everything you can to provide leadership in this area.