Part 1 – Foundation and Framework

Chapter 1 – Introduction to Project Operations

*The reader will understand the key principles of the Project Operations Solution and how it works.*

*This chapter will cover the key principles and concepts of Project Operations. Project Managers and Consultants alike will understand the value of the solution and how it will improve project planning and execution. Understanding where we intend to be is the first key to success. This chapter will define the success criteria of the Project Operations Solution.*

*Note for Packt team: are you able to provide stock photos or do I need to provide them throughout the text?*

Congratulations! You have just become the project manager of that great new project your firm has won! You have worked hard to get this project won and you want nothing but the best delivery of your solution for the client. You may be the Practice Manager who worked with the Project Manager to win the business and this is another of many customers or clients (depending on your terminology). The Chief Operations Officer may be looking at your portfolio as part of a larger segment of business and thus looking at this new project as part of an overall firm’s services portfolio.

<<Stock photo: Award/Ribbon/other “Congratulatory” picture>>

Now, how do you deliver effectively for the clients that you have worked so hard to bring on board and keep them happy? The phrase that it is one thing to “talk the talk, now you have to walk the walk” comes to mind. A hundred thoughts go through your mind. How do I turn an estimating worksheet into a project plan? How do I get the right people with the right skills on my project? What other projects am I competing with internally for the right talent? How can I manage all these moving parts?

Many project managers and others have lost many hours of sleep pondering these questions and trying to figure out how to deliver on the success promised to your client. Our goal with this book is to introduce you to a solution called Microsoft Dynamics 365 Project Operations that will be the tool you can use to relieve your mind and get more rest! The goal of this book is to identify the key principles and concepts for you as a project manager, leader or business executive in charge of the P&L (profit and loss) of an entire firm.

First off, what does a professional services firm do for their clients? Well, that answer is wide and varied. In fact, if you searched on professional services categories in either the SIC codes (old school codes for industry classification) or NAICS (more modern approach) you will find a significant variation of business types within almost the same classification. One of my favorite examples from history has been how some firms classify “AEC” as Architects, Engineers and Construction. Although classified “together”, AEC has about as much in common as bakers, butchers and farmers. They have some commonality but not common business processes. Thus, for the purposes of this book, let us identify the common thread within a Professional Services Firm. Professional Services Firms deliver skilled and certified services delivered by people to achieve a project’s purpose.

<<This is a mockup/a model. Please feel free to improve upon or if I need to, let me know>>

Within the Microsoft world, we have consultants who are skilled (read experienced) and certified (having achieved Microsoft Certification) on services (implementation and training) to setup and implement software for their clients.

Other examples are Management Consultants who provide business strategy and tactics to grow and build performance of businesses as a result of a merger or acquisition or simply to grow the business. Information Technology (IT) implementation firms may specialize in setting up cloud computing solutions for their clients. Further, some Point of Sale (POS) or Security Solutions companies may have massive hardware configurations they prepare for their clients to be deployed at a retail establishment which requires purchasing inventory, combining it with professional services and onsite deployment.

These are only a few examples of what Professional Services is. Let us also determine what Professional Services is not. Professional Services is not personal services, automotive services, health services or private services. These do not fit into the category of Professional Services primarily because they do not have the “project” orientation that requires a level of management not readily available.

Some outliers that fit into the overall “services” category but may or may not fit into this category of Professional Services includes motion pictures, legal services, educational services and membership organizations. These outliers needs to manage to a project are really the reasons they would fit into Professional Services for the discussion of this book.

So, what is this “Project Orientation” that is so important to identifying whether an industry is Professional Services or not? Well, it begins with the basics of a project itself. From the earliest of human history, we have been doing projects. From the pyramids to the Great Temple to the Great Wall, projects have been the backbone of great achievements! I sometimes have mused about the project plan for the great pyramids… how many laborers of stonecutters would I need to cut a certain amount of stones to achieve the result of not just an architectural monolith but also an engineering achievement! Oh, and to add pressure, it has to be done with relatively simple tools and within the lifetime of the Pharaoh! Now, talk about some pressure!

<<Insert a stock photo of a project Gantt chart>>

The Egyptians were some of the earliest recorded project managers and with the results of their projects, I would say they have achieved much to their credit. They had to concern themselves with the project overall (a pyramid), the labor and organization thereof to achieve the pyramid result and had the pressures of a timeline, materials and environmental concerns pressuring their achievements. Their projects took on a life of their own including very much like our projects a ton of support systems to achieve their desired results. There were support workers building roads, equipment, baking bread and generally supporting the direct labor to the pyramid.

Therefore, dear readers, this is the challenge for you as you have won this new project, built additional business for your practice and your firm. I can imagine in that first project; someone was very passionate about their idea and project plan that they were selling to the client. This is not that different than you. You have passion for what you are doing or you would not be successful and reading this book. Let us capture that passion and turn it into the burning heart that delivers upon your success.

If you are like most of the project management world, you are probably well immersed into the Microsoft world by using many of their products in your day to day life. One of the first applications you will interface with in your day is your calendar and your e-mail. You will likely begin your morning (if you are honest with me) by looking at your smartphone and seeing what meetings you have on your calendar for the day or looking at e-mails that were delivered overnight. The infrastructure that supports this is what Microsoft calls its Microsoft 365 framework. We will go deeper in the next chapter on the overall infrastructure. However, just like you do not really think much of your electricity supplier when you turn on the lights, you really do not think much of Microsoft when you turn on your phone and see that someone put an 7:30 a.m. meeting on your calendar! (Thank you… you know who you are!)

Once you get your cup of coffee (or two) you will bravely fire up your laptop, surface, iPad or Mac to begin the work of your day. You will likely open Microsoft Outlook for your e-mail, calendar, contacts and other functions. During the day, you will use many of the Microsoft Office 365 solutions such as Microsoft Teams for meetings, files, collaboration and messaging. Further, the use of Microsoft Word, Excel, PowerPoint, SharePoint and maybe Microsoft Project to manage project plans.

Disclaimer to the public: there is no condemnation in how you manage projects today. I just mentioned Microsoft Project and some of you may be playing in your mind the most erudite of thinking. Oh, yes, I *should* be using Microsoft Project but because of… I cannot use Microsoft Project. Hey, there is no condemnation here! I have managed a great many of projects in Excel, Word, PowerPoint and many other tools so do not feel any need to “level up” to Microsoft Project before you read on! This is a safe place for all of us who are working hard!

<<Insert stock photo of multiple Microsoft office screenshots overlaying each other or something similar>>

Now that we have that out of the way, let us turn our attention to how we can grow through our project management capabilities. We know that we grow from level to level (or level up) throughout life. Where we are today is not where we will be tomorrow and we will grow from level to level to level as we progress in our careers. Thus, we should look at ways that we can grow quickly throughout the discipline of project management. We do know that to achieve more for our clients we must focus on delivery processes and repeatability of success to continue to succeed from project to project. It is here that we do need to interject some structure and tools to achieve the business objectives your firm has.

Enter: Microsoft Dynamics 365 Project Operations

Like Neo in The Matrix movie from 1999, you are about to swallow the “red pill”. The red pill represents an awakening that could be difficult and painful. Your world will be totally changed with the red pill and you will see the truth in the success you can have in your career with the right tools in place. You can take the blue pill if you want and go back to the cold comfort of believing that you have all your projects under control and you are delivering profitability to your firm. The choice is yours, Neo!

Welcome to the project awakening! Now that you are here, let us talk about some of the facts of the projects you have been managing. You have been doing a great job over the years and that is why you have been promoted so many times. However, the underlying understanding of your purpose is something that may be missing. Your purpose for the delivery of projects on time, on budget and meeting your client’s needs has been to meet and exceed the performance expectations of your firm.

With the tools you have had, you have achieved much. However, you are now on the verge of realizing your full potential by connecting with your firm’s purpose. Let us get that out of the way first. In a most capitalistic circumstance your firm may be engaged to make profit from every project, every time to a profit margin that is prescribed by the firm. In other firms, the purpose may be to provide the highest quality services and solutions to our clients within a given industry or solution segment. In yet other firms you may be directly connected to the welfare of our citizens and your ability to deliver will directly impact the success of real people and their lives and livelihoods.

The overall solution value including the connected organization, better decisions and more profitable projects

Let us now connect this with the tools we use to gain more success and align more tightly the end to end processes in your firm. Microsoft Project Operations is an end to end solution built upon the Microsoft Common Data Service utilizing Dynamics 365 Customer Engagement (CE) for Project Sales, Resource Management, Planning, Scheduling, Time and Expense Entry, Billing and Project Accounting functionality in one solution. Integrated with the Microsoft 365 Framework, Project Operations provides an encompassing solution to the project professional’s daily life! The reason this is important is that when a solution is designed to work together in your daily life and support the end to end processes of a project, it provides that infrastructure needed to succeed.

Imagine, if you will, your home. Would you tolerate different settings on your faucets in different rooms? Hot on the right, cold on the left in one room while the opposite is true in another? How about your light switches? What if, randomly, room by room they were different? More so what if your kitchen was wired for 220 volts while the rest of the home was 110/120 volts and had different plug configurations! Sounds like a mess does it not?

Technologically, this is what business tolerates every day when they use one vendor for the sales force, one for project tasks management, one for billing and yet another for accounting. Yes, you can produce a “best of breed – integrated environment” but the results are highly dependent upon the technology skills to pull this solution together. Further, the solution is only as good as its weakest link and will break (not may break, will break) at the most inopportune time! These solutions proliferate through business today. Small armies of technologists support these solutions to keep them running and even at the best of their performance, they simply ensure an end to end transaction works through the system without error.

Contrast this with a solution that is built, end to end, to succeed in the project operations world! In this world, the project selling is conducted in a connected solution with the rest of the ecosystem. The people selling projects are typically business development managers seeking to sell new projects to new clients. These can also be partner level players in a firm who are both landing or winning new accounts for the firm and/or keeping existing accounts active and happy with the firm’s results.

Therefore, the project seller is working in the part of the overall Project Operations solution that includes Account Management, Contact Management, entering and processing Opportunities and Quotes which become the projects that you deliver against. The project seller is concerned with receiving Leads in the system from the marketing team and qualifying them against the firm’s known sales methodology. The sales methodology will determine how to qualify or make sure that the lead is worth the time to pursue business with. This will involve having contacts with the lead’s main contact person or potentially a team of people who are asking you to pursue business with them. The kind of information shared at this beginning step in the process is critical to have throughout the entirety of the project delivery. Expectations set at the beginning of the sales cycle will be the same or more that you are expected to deliver against in the project delivery cycle.

Once a project seller has qualified the lead, meaning that the lead truly intends to buy a service that your firm provides and has the budget, authority and intention within a given timeframe to do so, it becomes an opportunity. Note that this qualification process may take days, weeks or even months to process through. Therefore, capturing all the information from the beginning is important as the project seller will be working many leads and opportunities at one time. This will be critical to the success of the client relationship and communication that happens on an ongoing basis after this point.

When the opportunity is created, existing information persists and is visible from within the account, contact and opportunity workplaces. The account is simply the business demographic and main information of the potential buyer. The contact or contacts related to the account are the persons who you have been working with throughout the lead qualification process. In some scenarios, you may be working with one, fully empowered buyer who has the ability to make the decisions and see them through to completion. In other scenarios, you may be working with a committee of people who will make these decisions. Either way, being able to track their known preferences, buying habits and other information will greatly increase your selling success.

The opportunity is the monetary element of this triumvirate. This is where selling methodologies meet project methodologies. Selling a project is different than selling a product. A product has known specifications, quantities and delivery methods. Project selling involves a team of people to be successful. The project seller will frequently pull in project estimators, delivery leaders and others to build out a project plan that will be presented to the potential client. This involves a lot of different dynamics that combine together to win business.

Foremost is the currency of credibility. Every great project begins with building the credibility of the firm and its delivery teams. This begins with the firm’s solid understanding of the project and being able to estimate out the work that comes in at a budgetary number that the client has allocated funds. The better the estimation, the greater the credibility of the firm from the outset. Estimating too high, you lose credibility. Estimating too low, you lose the business. This may seem counter-intuitive, but a potential client needs to know that you know their business, their project and the complexity of the work involved.

This is where Microsoft Project Operations comes in to solve this problem by providing all these front-end processes in a connected environment with the estimating of the project. Over the many years of a project firm’s success, they know what has worked in the past. Which kinds of projects like this have succeeded and they have templates that can be used and reused as a basis to begin. In Project Operations, we are continuing to build the data around the project being sold.

In a project seller world, the estimates will be worked through potentially many different versions before a draft version to move forward is agreed upon. At this point, the project estimates will become a draft work breakdown structure (WBS) that will be summarized and presented to the potential client. The level of detail presented and the level of detail tracked in the estimates are usually different. The client presentation is more summary level and can easily be translated to hours, rates and project pricing.

<<<May need to find a picture of a project estimate… or I can provide an anonymized example>>>

Having the work breakdown structure properly structured is a key element of project success. It provides the project team with the ability to show summary level estimates that integrate into the Statement of Work (SOW) while simultaneously becoming a task level plan the team can succeed with.

<<< Insert WBS Example>>>

With each project there are a number of contract types that can be used to execute upon the project. Contract types are legally binding contractual obligations of performance and financial remuneration. A simple contract type can be a fixed fee contract where the firm charges a fixed amount of money to perform generally a fixed amount of work. Time and materials contracts are generally billed as hours are performed against a contract/project. In a time and materials contract for every hour worked a rate is applied and those hours are billed. Time and materials may also include materials or products bought to perform the work and typically direct expenses onto the project.

There are variations of each of these including milestone billing, percent complete, time and materials to WIP (Work in Progress) and not to exceed types of variations. These are all really important to determine up front as the Contract Types feed directly into the Project Operations Project Billings functionality.

Further, later in the project changes invariably come into play causing yet other accounting and project operational changes to apply to the projects.

Now that we have successfully sold the project and have a signed contract from the client, we need to onboard the project into the firm’s delivery team. In the Project Operations environment, the becomes a natural extension of the project selling. Since we have been using Project Operations functionality all along, we have consistent process flow from sales to project delivery.

Receiving this in project delivery means first off, reviewing the work breakdown structure with the statement of work and the project team roles outlined. Since we are using the Microsoft 365 framework, integrated document management carries you right to the statement of work. The statement of work aligns with the summary of the work breakdown structure and you have a proposed team of people that may be explicitly stated by name or may be more implicitly stated by role or function. Either way, you have what you need to begin!

Now it is time to plan further and staff your project! Will the project kickoff when it was projected? If there are variations to the kickoff date that will adjust your project plan’s start date or maybe the start date of the tasks. Because you have dependencies built into the tasks of the plan, no worries! All of your successive dates change and your plan is still intact. With the new dates you have roles of people that you know you need to work the project. Their hours, duration and plan are totally visible to you which means that you are able to view the team member’s availability through the Schedule Board in Project Operations.

The project may have begun with specific team members who were soft booked on to the project to begin with. At this point, it is a good time to hard book them and commit their time to the project. This is a “must” to protecting your project’s resourcing so that others in the system will not be able to overbook your resource/team member.

While managing the work breakdown structure, you have the flexibility to manage the project in a traditional Gantt Chart view while simultaneously viewing data as timeline and board views. This is important to be able to support today’s agile project management. This is conducted through embedded Microsoft Project for the Web functionality which provides the most valuable functions of what many people have worked with previously, Microsoft Project. Integrated into the financial and project components of Project Operations, this solution pulls together and is the glue of the entire system.

Within the project management functionality you will continue to collaborate with sales around any client expectations and this is all native to the Microsoft 365 Framework. Your team can collaborate together with Microsoft Teams and OneDrive. As the project manager, you can see very clearly into the project schedule, potential overcommitments and other schedule pitfalls.

You can also see the project’s financial health of budget versus actual, project sales estimates, project labor cost estimates (with permission) and overall project status. Communicating the project delivery success is native through dashboards and views of data within Project Operations.

Your team members log their time, as you will, through the time and expense entry functionality. Time and expense entry is critical to billing and revenue recognition. Your team members can input a time entry through their Outlook Calendar or through a simple to use weekly view of time in the Project Operations Team Member App. This makes their life simple as they can input time during the week and not bunch it all up at the end of the week. Across a team of 1,000 team members, if you save 15 minutes each and you bill out $200 per hour the savings over a 52 week time frame is $2,600,000! This is baseline math as there are other productivities gained in time and expense entry beyond this example.

As a team member, I want to enter my timecard and get on with my weekend! I want it to be quick, accurate, complete and not rejected by the project manager. My managers do not want to remind me to enter my time and I do not need to spend weekend time on my timecard.

For the project manager, saving time and improving accuracy are the most important factors of their success. The project needs to be managed and delivered accurately and that means being able to keep your fingers on the pulse of the project success. Further, keeping the project inputs (team member’s time and expense) accurate will improve the overall financial benefit of the project. In a time and materials contract, team members’ time descriptions generally flow through to the project invoice. The project invoice is the most important client document to be generated on a regular basis. It needs to be accurate and timely generated. If inaccurate, you risk the client rejecting the invoice. If not timely, the firm’s cash flow is reduced. Therefore, how you manage the billing interactions with the finance and accounting team will determine your project’s financial health and performance.

Project Operations billing modules tie all of your accurate work and timely approvals into project billings that are accurate and delivered electronically to your client’s customers. In the finance and accounting side of the solution the receivables management functionality allows for a streamlined experience tailored to the project accountant’s needs. Project profitability reporting gives the firm a project by project view of profitability rolling up into the practice and the firm’s profitability.

Encircling all this functionality are Customer Insights and Power BI capabilities to have visibility into customer satisfaction as well as overall practice and firm health. Power BI is part of the Microsoft 365 Framework that will provide you with the information you need to manage projects successfully. Having information is only one element, though. Acting upon it is another and that is where the power of the Microsoft Power Platform comes into play. Critical components of the Power Platform that play most well with the Project Operations system are Power Automate, Power BI and Power Apps development.

Combining these components into Project Operations automates the mundane and accentuates the already great components of a robust project management solution. Gone are the days of reminding team members to input their time, manually generating invoices or physically moving data from one system to another. Back to the house analogy, this is really the “smart home” version of project management and operations functionality.

As the Chief Operating Officer, Practice Manager, Firm Partner or other vested interest in the success of the firm after implementing Project Operations you should expect a number of things to benefit the overall firm. First is that you should expect the firm to grow through this experience and be able to move “up level” by one or two levels in your project management maturity. Typically, firms start off at Level 1 by performing very entrepreneurially in their style and systems. This is how they succeed! As the firm grows, structure and policy replace ad-hoc systems to bring the firm into some compliance. Growing from Level 1 through to Level 5 where you are able to not just collaborate but really benefit from collaborating across the firm brings value to every aspect of the business. With this, you win more business, more consistently and more profitably.

Gone are the days of having revenue leakage, missing targets and deadlines or having low productivity solutions in place. Leadership – Client Relations – Team Members – Delivery and Finance and Operations are all aligned and working together toward the firm’s goals. Further, each of these areas are working together to drive the business strategically.

Bid to Win ratios improve as core Utilization rises and Project Profitability increases which flow directly to the bottom-line EBITDA. The firm is able to deliver on projects with a level of optimization which makes the firm an attractive place for the best talent thus producing further healthy growth of the firm. Utilizing the Project Operations system should provide the firm with bigger, predictably deliverable projects that add to the bottom line.

A solution like Project Operations should bring value to the topline, operational, utilization and bottom line with value concentrating in the areas most lacking today in your firm. Meaning, if you are struggling today with winning new projects, focusing on the front end, customer engagement processes will likely result in more business up front that can be delivered through your delivery teams. Frequently, we see that the focus moves from one end of the project implementation process to another as we grow within the solution. Today, you are fixing sales. Tomorrow, operations… thus you can see the continuous growth opportunities this will uncover for the firm.

The remainder of this book is designed to lay out for you the plan to begin taking advantage of Project Operations in your firm or business. We are going to cover the Microsoft Framework in the next chapter and then get into the setup and configuration of the system. This will not replace the technical expertise of certified individuals but will complement strong implementation methodologies in Microsoft Project Operations.

So, let’s continue!