

Title: PMO Implementation for Microsoft retail

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Abstract

A Project Management Office (PMO) is a group within a business that outlines and preserves standards for project management within an organization. It strives to regulate and introduce economies of repetition when executing projects. It is documentation, guidance and metrics that are used in project management. In this paper, a PMO for the Microsoft Retail enterprise is built. It is a virtual PMO that aims at being supportive, controlling and directive towards project management in this recently added area of Microsoft. Since Microsoft is so new to the retail industry, started in 2009, there are a lot of ways that projects can be improved and standardized therefore a great opportunity to create a PMO in order to help improve project management.

In this PMO, there are three phases: establishing, implementing and executing. The establishing phase is about the PMO justification, the implementing phase involves defining the PMO in different areas of the business and the executing phase defines the phases of deploying the PMO which turns into the operations side of the business. This last phase is going to be ongoing. The tools recommended for the planning phase are: scope definition, work breakdown structure, responsibility matrix, Gantt chart, project charter, cost estimate, risk response plan, critical chain diagram and Monte Carlo analysis. The tools recommended for the execution phase are: progress report: Gantt update, cost estimate update, risk evaluation update, earned value analysis and schedule crashing. For the close out phase the recommended tools are the following: postmortem, Gantt update, cost estimate update, risk evaluation update, progress report and earned value analysis. Having the right tools helps keep the schedule on time, the cost within budget and a good performance, it is crucial that the Project Manager ensures that everything is being addressed and used in the right way.

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MICROSOFT TODAY

COMPANY BACKGROUND

Microsoft was founded in 1975 by Bill Gates and Paul Allen. Its original location was in Albuquerque, New Mexico and in Jan 1st, 1979 it moved to its present location in Bellevue, Washington. It is an American multinational technology company that develops, manufactures, licenses, sells and supports computer software, consumer electronics, personal computers, gaming consoles, and services.

The company consists of three divisions. The clients division produces the Windows Operating System as well as Windows Live family products and services. The business division is in charge of Microsoft Office software including word, Excel, PowerPoint, SharePoint, Publisher, OneNote, Access and Visio. It also develops enterprise resource planning (ERP) and customer relationship management (CRM) software under the Dynamics brand. The entertainment and devices division produces the Windows CE OS for embedded systems and windows phone for smartphones. [1]

MICROSOFT RETAIL OVERVIEW

Microsoft Retail is a chain with and online shopping site and 113 retail stores worldwide, with the majority of location within the United States of America owned and operated by Microsoft. It involves dealing with signature computers (with no adware or pre-installed third party software), software, games, gaming consoles, consumer electronics, technical support, personal training and some offer free workshops as well. The goal of the stores are to improve the customer relationship with Microsoft, as well as to "improve the PC and Microsoft retail purchase experience for consumers worldwide and help consumers make more informed decisions about their PC and software purchases."

The first two stores opened in Scottsdale, Arizona and Mission Viejo, California within a week of Windows 7 launch, the year of 2009. The first store outside of the United States was opened in Toronto, Canada in November 16th, 2012 and the first outside of North America opened on April 2015 in Sydney, Australia.

This is a very new concept for this big corporation, which means that a lot of processes and learning are taking place. In 2009 Microsoft build a "Retail Experience Center" in their Redmond, WA headquarters and announced plans to build stores. They have some knowledge but there is much to improve in the areas of scheduling, shipping, timing, cost efficiency, waste management and project management in general. This PMO will help the Microsoft Retail Industry improve their processes and achieve their goals in a more efficient way. This will also serve as a basis to start other projects. [1]

CURRENT PROJECT MANAGEMENT APPROACH

The overall strategy from the new leadership at Microsoft is to have employee's commit and engage in a genuine way and to feel energy as a team. Teams are evaluated as a team, not individually although each individual is valued for their own skills and what they bring to the organization. [2] In the late 80s and early 90s Bill Gates and Steve Ballmer had a clash of ideas system as well as a ranking management system, this based employees off performance from a bell curve, which made people very competitive resulting in people climbing over each other and battling across divisions. This created a lot of negative results and tensed up the environment. After a few years, Ballmer started making some changes including getting rid of the ranking system.

Satya Nadella has a calming, collegial style which is different from Steve Ballmer's blustery, passionate and competitive approach. Nadella is trying to make the world of software more equal around Apple iOS, Google Android and Microsoft Windows. He is opened to new ideas, to listen and to help. The focus will be innovation as a key component for the company to grow. Nadella believes that the technology industry does not respect tradition. [3]

In terms of risk management Microsoft has a hedging program at a macro level based on FX exposures by the businesses (which send cash flow forecasts via the CFO) that involves using FX option to layer hedges against our cash flow forecast over 2 to years' time. Only a portion of the risk is hedged, and caution is taking very seriously as accuracy of forecasting and associated hedging has to be very accurate under standards (FAS 133). Natural hedges are used whenever possible between foreign currency revenues and cost. There is also intercompany exposures resulting from cash pooling in foreign companies, measuring FX translation is a requirement where gains and losses against the business unit's functional currency are measured. [4]

PROJECT MANAGEMENT OFFICE PROPOSAL

PROPOSAL SUMMARY

The purpose of creating this PMO for the Microsoft Retail line is to make any projects that start within this department more likely to succeed, to meet budget, scope, and schedule expectations, provide a formalized project management framework, documentation libraries with standard templatized tools, a toolbox of different project management tools that are proven to be effective, and an ongoing framework for project management that can be leveraged in the future in other business units within the organization.

JUSTIFICATION

The retail side of Microsoft is a new concept for this large world corporation, and there is still a lot to learn and improve on. In order to manage all areas of this tier there needs to be guidelines, standards, policies, amongst other concepts; therefore dividing this work into three phases establishing, executing and implementing. With this PMO there is an expected improvement of about 50% on project completion dates as well as falling within budget. Another factor that will affect the Microsoft retail environment in a positive way is the training and the communication so that the whole team is on the same page.

EXPECTATIONS & RETURN ON INVESTMENT

At the moment the projects are not being as efficient and cost effective as it could be. More the 50% of the projects fall over 5% of the original budget at the moment since the planning phase is not thought out well before jumping into the execution phase which ends up hurting the schedule well since now there are error to be fixed. For example, any time there is a floor plan update there is a project for that. The assigned members develop a plan for the reset of what is on the floor for every store, since every store is different there should be customized equipment, different measurements, resulting in customized plans for different stores. The problem presents itself when the materials are sent and these do not work for the respective store. These materials either have to be sent back or stored in a limited space. The shipping costs and waste of time in this process is very common. Now the member has to contact the respective manager to explain the problem, and send the right information. Then these materials have to be made and shipped again, by that time the store is late on setting the appropriate floor plan which can affect the user experience and cause the store to not perform as well. This scenario would be avoided if the right tools and procedures in the planning phase are implemented.

PROJECT MANAGEMENT OFFICE IMPLEMENTATION

PROJECT MANAGEMENT OFFICE DELVIERABLES

PROJECT MANAGEMENT OVERSIGHT

The Project Management Office will require a small staffing contingent of senior leadership whose focus is the establishment and ongoing success of the Project Management Office. Led by the Director of the Project Management Office, this staffing will include a Manager of Communications, Manager of Risk Management, and a Manager of Project Management, as well as subordinate staff to include a Communications Consultant, Quality Manager, and two Project Managers. The organizational structure of the Project Management Office, including all contained staffing is illustrated in figure 1 below.



Figure 1. PMO staff

PROJECT MANAGEMENT TOOLBOX

The Project Management Office shall deliver standard tools for each phase of every project it facilitates through the utilization of a Project Management Toolbox along with a Project Sizing Guide. The intention of the toolbox is to provide numerous well recognized, effective, and appropriate tools for the Planning, Execution, and Closeout phases of each project. Due to the numerous project management tools which exist in the industry, it is important to highlight and focus the Project Management staff and teams on tools that are known to work effectively and produce positive results when used appropriately. By establishing a standard for what tools shall be used on all small, medium, or large projects, the Project Management Office is able to measure and analyze project performance consistently and make the necessary adjustments to ensure the most productive use of the tools provided.

The following tools have been selected for use in the Project Management Toolbox:

Planning Phase Tools

- <u>Scope Definition</u>: A written narrative of the goals, work, and products of the project. This tool answers the question for the project team of "What do we produce in this project?" See Scope Definition examples available on the Project Management Institute website at <u>www.pmi.org</u>.
- <u>Work Breakdown Structure</u>: This tool groups project deliverables and defines the total scope of the project. If a project element does not exist within the work breakdown structure, it is outside

the scope of the project. The Work Breakdown Structure can be presented in both written and graphical formats to illustrate the flow of steps from project start to completion. See the Work Breakdown Structure in this paper for an example of this tool, or refer to the Project Management Institute website at www.pmi.org.

- <u>Responsibility Matrix</u>: This is a complimentary tool to the Work Breakdown Structure, which defines the responsibilities for each member of the project team as related to the various tasks outlined in the Work Breakdown Structure. See the Responsibility Matrix in this paper for an example of this tool, or refer to the Project Management Institute website at <u>www.pmi.org</u>.
- <u>Gantt Chart</u>: A visual representation of all tasks on the Work Breakdown Structure placed on a timeline to represent both the hierarchical nature of tasks and the timeframe for each task completion. See Gantt chart examples available on the Project Management Institute website at www.pmi.org.
- <u>Project Charter</u>: A document that outlines the scope, objectives, and participants in a project. This document is critical to ensure that all project members have a common understanding of the project's purpose and objectives. See Project Charter examples available on the Project Management Institute website at <u>www.pmi.org</u>.
- <u>Cost Estimate</u>: An assessment based on specific facts and assumptions of the final cost of the project. This tool relies heavily on factors such as accuracy of scope, quality of available estimating data, stage of the project, time allowed for the estimate, desired accuracy, estimating tools used, etc. See the Cost Estimate in this paper for an example of this tool, or refer to the Project Management Institute at www.pmi.org.
- <u>Risk Response Plan</u>: A document that assess risks and identifies actions to increase opportunities and reduce threats to project goals. This plan should be realistic, timely, cost-conscious, bought into by all players, and owned by the appropriate person. See the Risk Response Plan in this paper for an example of this tool, or refer to the Project Management Institute at <u>www.pmi.org</u>.
- <u>Critical Chain Diagram</u>: This tool is a network diagram that assists in expedited schedules for project completion. It achieves this by focusing on the critical chain of tasks, and utilizes estimates with 50% probability. See Critical Chain Diagram examples available on the Project Management Institute website at www.pmi.org.
- <u>Monte Carlo Analysis</u>: This tool assists in the analysis of risk through the utilization of randomly sampled probability distributions of each activity and provides expected values of each activity's duration. See Monte Carlo Analysis examples available on the Project Management Institute at <u>www.pmi.org</u>.

Execution Phase Tools

- <u>Progress Report:</u> The Progress Report is a communication tool used to provide a status update to
 project team members and stake holders on the current status of the project and related tasks.
 The depth and breadth of this tool varies depending on project size and complexity. See Progress
 Report examples available on the Project Management Institute at www.pmi.org.
- <u>Gantt Update</u>: This item refers to incremental updates of the existing Gantt Chart as the project progresses. Update frequency depends on the project size and complexity and should be done as frequently as is determined to be necessary by the Project Manager. See the Gantt Chart referenced above for more details.

- <u>Cost Estimate Update</u>: This item refers to the incremental updates of the existing Cost Estimate as the project progresses. Update frequency depends on the project size and complexity and should be done as frequently as is determined to be necessary by the Project Manager. See the Cost Estimate referenced above for more details.
- <u>Risk Evaluation Update</u>: This item refers to the incremental up dates of the existing Risk Response Plan as the project progresses. Update frequency depends on the project size and complexity and should be done as frequently as is determined to be necessary by the Project Manager. See the Risk Response Plan referenced above for more details.
- <u>Earned Value Analysis</u>: This tool periodically records the past of a project in order to forecast its future. It measures a project's schedule and cost performance determine if a project is ahead or behind schedule. See Earned Value Analysis examples available on the Project Management Institute at <u>www.pmi.org</u>.
- <u>Schedule Crashing</u>: This tool is a method for shortening the total project duration of a project without changing the project logic. This is achieved by compressing task durations through the utilization of more resources, resulting in tasks being completed faster but at a higher cost. See Schedule Crashing examples available on the Project Management Institute at www.pmi.org.

Closeout Phase Tools

- <u>Postmortem</u>: This tool is intended to drive future project improvements through an analysis of a complete projects successes and failures, and the reasons behind them. The depth of the postmortem depends on the project size and scope. See Postmortem examples available on the Project Management Institute at <u>www.pmi.org</u>.
- <u>Gantt Update:</u> This item refers to incremental updates of the existing Gantt Chart as the project progresses. Update frequency depends on the project size and complexity and should be done as frequently as is determined to be necessary by the Project Manager. See the Gantt Chart referenced above for more details.
- <u>Cost Estimate Update</u>: This item refers to the incremental updates of the existing Cost Estimate as the project progresses. Update frequency depends on the project size and complexity and should be done as frequently as is determined to be necessary by the Project Manager. See the Cost Estimate referenced above for more details.
- <u>Risk Evaluation Update:</u> This item refers to the incremental up dates of the existing Risk Response Plan as the project progresses. Update frequency depends on the project size and complexity and should be done as frequently as is determined to be necessary by the Project Manager. See the Risk Response Plan referenced above for more details.
- <u>Progress Report:</u> The Progress Report is a communication tool used to provide a status update to project team members and stake holders on the current status of the project and related tasks. The depth and breadth of this tool varies depending on project size and complexity. See the Progress Report referenced above for more details.
- <u>Earned Value Analysis:</u> This item refers to the incremental up dates of the existing Earned Value Analysis as the project progresses. Update frequency depends on the project size and complexity and should be done as frequently as is determined to be necessary by the Project Manager. See the Earned Value Analysis referenced above for more details.

Strict project sizing guidelines are intentionally not provided as the organization requires flexibility to interpret if a project is small, medium, or large depending on the specific details of the project including scope, breadth, depth, and timeframe. Depending on what size the Project Management Office leadership determine a given project is will determine which set of tools will be leveraged to best facilitate the successful completion of the project. Each set of tools associated with small, medium, and large projects is illustrated below in tables 1-3.

Small Projects

Phase :	Planning Phase Tools	Execution Phase Tools	Closeout Phase Tools
	Scope Definition	Progress Report	Postmortem
	Work Breakdown (WBS)	Gantt Update	
	Responsibility Matrix		
	Gantt Chart		

Table 1. Small Project tools

Medium Projects

Phase :	Planning Phase Tools	Execution Phase Tools	Closeout Phase Tools
	Project Charter	Progress Report	Progress Report
	Scope Definition	Gantt Update	Gantt Update
	Work Breakdown (WBS)	Cost Estimate Update	Cost Estimate Update
	Responsibility Matrix	Risk Evaluation Update	Risk Evaluation Update
	Cost Estimate		Postmortem
	Gantt Chart		
	Risk Response Plan		

 Table 2. Medium Project tools

Large Projects

Phase :	Planning Phase Tools	Execution Phase Tools	Closeout Phase Tools		
	Project Charter	Progress Report	Progress Report		
	Scope Definition	Gantt Update	Gantt Update		
	Work Breakdown	Cost Estimate	Cost Estimate		

(WBS)	Update	Update
Responsibility Matrix	Risk Evaluation Update	Risk Evaluation Update
Cost Estimate	Earned Value Analysis	Postmortem
Gantt Chart	Schedule Crashing	Earned Value Analysis
Risk Response Plan		
Critical Chain Diagram		
Monte Carlo Analysis		

Table 3. Large Project tools

WORK BREAKDOWN STRUCTURE & PROJECT SCHEDULE

1. M	icrosoft Retail PMO	Cost (Days)	Start Date	End Date
	1.1 Establishing			
	1.1.1 PMO Justification		10/1/2015	11/11/2015
	1.1.1.1 Current Assessment			
	1.1.1.1 Gap Analysis	5	10/1/2015	10/7/2015
	1.1.1.1.2 PM Needs Analysis	5	10/8/2015	10/14/2015
	1.1.1.2 Objectives Definition			
	1.1.1.2.1 PM Budget Objectives	5	10/15/2015	10/21/2015
	1.1.1.2.2 PM Schedule Objectives	5	10/22/2015	10/28/2015
	1.1.1.3 Organizational Buy-in			
	1.1.1.3.1 Marketing Plan	5	10/29/2015	11/4/2015
	1.1.1.3.2 Management Sponsorship Plan	5	11/5/2015	11/11/2015
	1.2 Implementing			
	1.2.1 Define PMO		11/12/2015	6/3/2016
	1.2.1.1 Mission, Vision, & Values	5	11/12/2015	11/18/2015
	1.2.1.2 Strategy & Objectives	5	11/19/2015	11/25/2015
	1.2.1.3 Sponsors, Clients, & Stakeholders	5	11/26/2015	12/2/2015
	1.2.1.3 Organizational Structure			
	1.2.1.3.1 Staffing Plan	2	12/3/2015	12/4/2015
	1.2.1.3.2 Roles & Responsibilities	3	12/7/2015	12/9/2015
	1.2.1.4 Products & Services			
	1.2.1.4.1 PMO Toolbox	10	12/10/2015	12/23/2015

1.2.1.4.2 Project Sizing Guide	10	1/4/2016	1/15/2016
1.2.1.4.3 Standards Library			
1.2.1.4.3.1 Document Management System	5	1/18/2016	1/22/2016
1.2.1.4.3.2 Templates	10	1/25/2016	2/5/2016
1.2.1.5 Change Management Plan			
1.2.1.5.1 Training Plan			
1.2.1.5.1.1 Curriculum Design	10	2/8/2016	2/19/2016
1.2.1.5.1.2 Course Design	10	2/22/2016	3/4/2016
1.2.1.5.2 Communication Plan	5	3/7/2016	3/11/2016
1.2.1.6 Define PMIS (Project Mgmt Information System)			
1.2.1.6.1 Select & Acquire Software	30	3/14/2016	4/22/2016
1.2.1.6.2 Select & Acquire Hardware	30	4/25/2016	6/3/2016
1.2.2 Deploy PMO		6/6/2016	8/19/2016
1.2.2.1 Establish PMO Department			
1.2.2.1.1 Marketing & Change Mgmt	30	6/6/2016	7/15/2016
1.2.2.2 Deploy PMIS			
1.2.2.2.1 Deploy PMIS Hardware	5	7/18/2016	7/22/2016
1.2.2.2 Deploy PMIS Software	10	7/25/2016	8/5/2016
1.2.2.3 Train Employees	10	8/8/2016	8/19/2016
1.3 Executing	-	_, _,	-, -,
1.3.1 Project Management			
1.3.1.1 Project Selection			
1.3.1.1.1 PM Tool Selection			
1.3.1.1.1 PM Standards / Documentation Selection			
1.3.1.2 Project Resource Management			
1.3.1.2.1 Resource Allocation			
1.3.1.2.2 Project Team Onboarding & Offboarding			
1.3.1.3 Project Monitoring			
1.3.1.3.1 Status			
1.3.1.3.2 Budget			
1.3.1.3.3 Schedule			
1.3.1.3.4 Risk			
1.3.1.3.5 Trend			
1.3.1.4 Project Communication			
1.3.1.4.1 Status / Progress Reporting			
1.3.1.4.2 Change Management			
1.3.2 Continuous Improvement			
1.3.2.1 Project Team			
1.3.2.1.1 Auditing			
1.3.2.1.2 Ongoing Training			
1.3.2.1.3 Coaching			
1.3.2.2 PMO			

1.3.2.2.1 Reporting & Analytics			
1.3.2.2.2. Annual Organizational Assessment			
1.3.2.2.3 PM Toolbox Enhancements			
1.3.2.2.4 Process / Support Enhancements			
1.3.2.2.5 Standards Enhancements			
Project Sum and Start to Finish			
Dates	225	10/1/2015	8/19/2016

Figure 2. Work Breakdown Structure

RESPONSIBILITY MATRIX

Proje	ct Task	PMO Director	Communications Manager	Communications Consultant	Risk Management Manager	Quality Manager	Project Management Manager	Project Manager A	Project Manager B
Pı	oject Management and Requirements								
1	PMO Justification	0						[]	
2	11111 Gap Analysis	C1	I		I	I	T	I	I
3	1.1.1.1.2 PM Needs Analysis	C1	I		I	I	I	I	I
4	1.1.1.2.1 PM Budget Objectives	C1	I		I	I	I	I	Ι
5	1.1.1.2.2 PM Schedule Objectives	C1	Ι		Ι	Ι	Ι	Ι	Ι
6	1.1.1.3.1 Marketing Plan	0	C1	C2	Ι	Ι	Ι	Ι	Ι
7	1.1.1.3.2 Management Sponsorship Plan	C1	Ι		Ι	Ι	Ι	Ι	Ι
	Implementing	1	1				1		
1	Define PMO	0							
2	1.2.1.1 Mission, Vision, & Values	C1	Ι		Ι	Ι	Ι	Ι	Ι
3	1.2.1.2 Strategy & Objectives	C1	Ι		Ι	Ι	Ι	Ι	Ι
4	1.2.1.3 Sponsors, Clients, & Stakeholders	C1	Ι		Ι	Ι	Ι	Ι	Ι
5	1.2.1.3.1 Staffing Plan	C1	Ι		Ι	Ι	Ι		
6	1.2.1.3.2 Roles & Responsibilities	C1	Ι		Ι	Ι	Ι		
7	1.2.1.4.1 PMO Toolbox				Ι	Ι	C1	C2	C2
8	1.2.1.4.2 Project Sizing Guide				Ι	Ι	C1	C2	C2

9 1.2.1.4.3.1 Document Management System				Ι	Ι	C1	C2	C2
10 1.2.1.4.3.2 Templates				Ι	Ι	C1	C2	C2
11 1.2.1.5.1.1 Curriculum Design		C2	C2		C1	Ι	Ι	Ι
12 1.2.1.5.1.2 Course Design		C2	C2		C1	Ι	Ι	Ι
13 1.2.1.5.2 Communication Plan		C1	C2			Ι	Ι	Ι
14 1.2.1.6.1 Select & Acquire Software	0			Ι	Ι	C1	C2	C2
15 1.2.1.6.2 Select & Acquire Hardware	0			Ι	Ι	C1	C2	C2
16 Deploy PMO	0							
17 1.2.2.1.1 Marketing & Change Mgmt	C1	Ι				Ι		
18 1.2.2.2.1 Deploy PMIS Hardware			C1			0	Ι	Ι
19 1.2.2.2 Deploy PMIS Software			C1			0	Ι	Ι
20 1.2.2.3 Train Employees		C2	C2		C1			
Executing								
1 Project Management	0							
2 1.3.1.1.1 PM Tool Selection				Ι	Ι	0	C1	C1
3 1.3.1.1.1 PM Standards / Documentation Selection				Ι	Ι	0	C1	C1
4 1.3.1.2.1 Resource Allocation				Ι	Ι	0	C1	C1
5 1.3.1.2.2 Project Team Onboarding & Offboarding		Ι	Ι	Ι	Ι		C1	C1
6 1.3.1.3.1 Status		Ι		Ι	Ι	0	C1	C1
7 1.3.1.3.2 Budget		Ι		Ι	Ι	0	C1	C1
8 1.3.1.3.3 Schedule		Ι		0	Ι		C1	C1
9 1.3.1.3.4 Risk		Ι		0	Ι		C1	C1
10 1.3.1.3.5 Trend		Ι		Ι	0		C1	C1
11 1.3.1.4.1 Status / Progress Reporting		0	C1	Ι	Ι	Ι	Ι	Ι
12 1.3.1.4.2 Change Management		C1	C2	Ι	Ι	0	Ι	Ι
13 Continuous Improvement	0							
14 1.3.2.1.1 Auditing				Ι	0	Ι	Ι	Ι
15 1.3.2.1.2 Ongoing Training		Ι	Ι	Ι	0	Ι	Ι	Ι
16 1.3.2.1.3 Coaching		Ι	Ι	Ι	0	Ι	Ι	Ι
17 1.3.2.2.1 Reporting & Analytics		Ι	Ι	Ι	0	Ι	Ι	Ι
18 1.3.2.2.2. Annual Organizational Assessment	C1	Ι	Ι	Ι	Ι	Ι	Ι	Ι
19 1.3.2.2.3 PM Toolbox Enhancements		Ι	Ι	Ι	Ι	0	Ι	Ι
20 1.3.2.2.4 Process / Support Enhancements		Ι	Ι	Ι	Ι	0	Ι	Ι
21 1.3.2.2.5 Standards Enhancements		Ι	Ι	Ι	Ι	0	Ι	Ι
Legend					~			
Creates the deliverable C1: primary creator; C2: contributo					outor			
Input required								
Owner	0							

Figure 3. Responsibility Matrix

DETAILED ESTIMATES

Detailed estimates for the Project Management Office launch are focused on the tasks outlined in the Work Breakdown Structure starting at "1.1 Establishing" and continuing through "1.2.2 Deploy PMO". The tasks contained between these two boundaries are those tasks associated with the establishment of the Project Management Office. All tasks beyond 1.2.2 are part of the Executing phase, which are the ongoing continuous operations associated with operating the PMO. For this reason, cost estimates can be broken into two categories, establishment costs and ongoing operating costs. In order to establish these cost estimates, the first step is to outline Project Management Office employee annual salaries. These salaries can be seen in Chart 1 below. Given the size and market position of Microsoft, the organization is able to pay competitive wages in order to hire and retain highly skilled Directors, Managers, Project Managers, and Consultants.



Chart 1. Annual Salary Rates

The next step in calculating cost estimations involves an analysis if the Work Breakdown Structure and Schedule and the Responsibility Matrix to determine the amount of effort required from each Project Management Office employee for each month of the tasks prior to the Executing Phase. Chart 2 below illustrates an analysis of this information, and presents both the total number of labor hours required for each month of the project, as well as the amount of hours for each individual in each month. Based on this information, it's possible to observe that the project follows a typical bell curve regarding labor hours, with the majority of the effort being performed in the middle of the project, however there are significant initial labor hours at the start of the project required in order to lay the foundation for the remainder of the project.



Chart 2. Start Up hours required

The table shown below in table 4 provides a more detailed look into the labor estimates anticipated for each employee for each month of effort required to deliver the Project Management Office to the organization. Labor hours were achieved by multiplying the number of days required for each task by 8 to obtain the total hours required. An observation that can be made between the figure above and below is that given the initial significant effort required to being the project, some employees will be required to work overtime initially. However because these employees are salaried and exempt, the costs do not increase for overtime labor.

Role	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug
	(Hrs)										
PMO Director	160	200	40	0	0	120	160	200	160	80	0
Communication Mgr	160	200	40	0	120	80	0	0	160	80	80
Risk Mgmt Mgr	160	200	120	160	160	160	160	200	0	0	0
Proj. Mgmt Mgr	160	200	120	160	160	200	160	200	160	160	40
Quality Mgr	160	200	120	160	40	120	160	200	0	0	80
Proj. Mgr A	160	200	80	160	160	200	160	200	0	80	40
Proj. Mgr B	160	200	80	160	160	200	160	200	0	80	40
Comm. Consultant	0	40	0	0	120	80	0	0	0	80	120

Table 4. Hour Breakdown

After determining the total number of labor hours required for each employee, we can determine the total estimated labor startup costs for the Project Management Office by multiplying the labor hours by the hourly rate associated with each employee. The hourly

rate was determined by dividing each employee's annual salary by 2,080 hours. Table 6 below illustrates several important elements regarding cost. Each employee's total labor hours for the entire project up to the Executing phase is provided, along with the corresponding total cost per employee, and the total project startup cost as well as total labor hours, which are \$524,230.77 and 9640 respectively. Additionally, we are able to observe that once the Project Management Office reaches its Executing phase, the ongoing labor costs to operate the department will reach approximately \$890,000 annually.

Role	Annual Rate	Hourly Rate	Project Startup Cost Est	Total Hours
PMO Director	\$150,000	\$72.12	\$80,769.23	1120
Communication Mgr	\$120,000	\$57.69	\$53,076.92	920
Risk Mgmt Mgr	\$120,000	\$57.69	\$76,153.85	1320
Proj. Mgmt Mgr	\$120,000	\$57.69	\$99,230.77	1720
Quality Mgr	\$100,000	\$48.08	\$59,615.38	1240
Proj. Mgr A	\$100,000	\$48.08	\$69,230.77	1440
Proj. Mgr B	\$100,000	\$48.08	\$69,230.77	1440
Comm. Consultant	\$80,000	\$38.46	\$16,923.08	440
Sum (\$Dollars)	\$890,000	\$427.88	\$524,230.77	9640

Table 5. Cost Breakdown

For another view into this data, after calculating the total cost estimate per employee, we can determine the total cost estimate per month, and therefore phase, of the project up to the Executing phase. Chart 3 below illustrates the total startup costs per month for the Project Management Office project. As expected, the curve of this figure is similar to the total labor hours illustrated above. We can observe through an analysis of this information that the most expensive months are November and May, at \$79,000 and \$66,000 respectively which both encompass tasks in the Implementing phase.



Chart 3. Total Startup cost for PMO

Finally, for another view into the financial estimates for the project startup, we compare the total startup cost and total hours worked per employee to gain insights into which employees generate the most cost, and a comparative analysis of cost vs hours worked. This information is displayed below in Chart 4. We can observe from this information that although the PMO Director retains the highest annual compensation, the Project Management Manager is responsible for the most hours related to the project and thus generates the highest startup cost of any PMO employee.



Chart 4. Total Startup cost and hours per employee

TRAINING PLAN

A training plan is important to a business in order to teach the team the right way to do the work and also to improve their skills. Training has to be done in different groups within a team, since there are different specialties within a team and various areas of focus. Training is a part of the business that never ends. There is an initial training which is a onetime project, but then there is the ongoing trainings after that when changes get implemented in the business which becomes an ongoing procedure. It is crucial to have a goal before starting a training session. The table below will show a general view of what the training plan for this PMO will look like.

Phase Tasks, Milestones and/or	Start Date	End Date	Responsible Role
Deliverables			
Implement Readiness Activities	8/8/2016	8/10/2016	Project Manager
Prepare for Roll-Out	8/9/2016	8/9/2016	Project Manager
Decide on Training Facilities	8/9/2016	8/9/2016	Project Manager
Have Session Materials Ready	8/9/2016	8/10/2016	Project Manager
Contract Communications Manager	8/8/2015	8/10/2016	Project Manager
Prepare Communications Manager	8/10/2016	8/12/2016	Project Manager
Create Training Schedule	8/12/2016	8/12/2016	Project Manager
Create and Distribute Materials	8/11/2016	8/12/2016	Project Manager
Divide the team into different training sessions	8/12/2016	8/12/2016	Project Manager
Hold Training Sessions	8/15/2016	8/18/2016	Communications Manager
Evaluate Training at intervals	8/19/2016	8/19/2016	Project Manager, Communications Manager (CM) and Quality Manager (QM)

Table 6. Training Plan

In order to carry out this training plan there are a few steps involved in the planning and implementation of this. Such as:

- 1. Instructor Selection and Preparation Plan
- 2. Tools to be used:
 - SharePoint
 - Company Website
 - PowerPoint Presentation
 - Word Files
- 3. Training Facilities Plan
- 4. Session Scheduling Plan
- 5. Participant registration Plan
- 6. Hold training sessions Plan
- 7. Evaluation Plan

RISK MANAGEMENT PLAN

PROBABILITY IMPACT MATRIX

A risk management plan helps companies' asses the risks and identifies which risks need more attention in order to develop a response plan for the high severity ones. It allows identifying actions to improve the opportunities and reduce the threats affecting the goals of the project. Smaller projects decide to manage the top three risks, larger projects focus on the top ten highest-ranked risks. Although, if the projects have more than ten risks and three of they are in the red zone, then there are chances of disregarding some significant risks. On the contrary, if the projects only have one risk in the red zone and the rest are all green then they are wasting their resources looking at the top ten and three risks since there is only one.

Scale	1- Very Low	2- Low	3- Medium	4- High	5- Very High

Table 7. Probability Impact Matrix

- 1- Slight Schedule delay
- 2- Overall Project delay <5%
- 3- Overall Project delay 5%-14%
- 4- Overall Project delay 15%-25%
- 5- Overall Project delay >25%

The previous table identifies the risks for this PMO; the table below shows the responses that the team can have towards these risks in order to minimize their impact.

	Risk description	Probability	Impact	Response	Action	
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High Low	High High	Mitigation Avoidance	Have good planning for the project, good communications on requirements and solve issues as soon as they come up. Making sure resources are sufficient by using the responsibility matrix and communicating with the
High	Medium	Mitigation	Making sure errors are minimized so that tasks do not (CM and QM) have to be redone.
Low	High	Avoidance	Project Managers should be responsible that the PMO is implemented and the CM make sure that this is used by the team, and QM follows up by performing audits.
Low	High	Transference	Can hire a 3 rd party trainer to make sure every team member gets the right training.
Low	High	Avoidance	PMO Director and stakeholders make sure that the proper guidance is there for the team and that the PMO gets utilized.
Medium	High	Mitigation	Have the communications manager create a pan on how to reach the team members to inform them of the change and encourage them to do so.

Table 8. Risk Response Plan

PROBLEM SOLVING

CSP TRADE-OFF MATRIX

For this project the main importance is schedule, which means that this is "fixed" there can be a lot of flexibility in this area. The reason why that is the case is that this PMO is going to be helping the retail side of Microsoft which is a key component in the success of the company as it is the face of Microsoft by trying to repair the relationships with its users and expand the market. The second most important is performance where there is some flexibility. It is important for projects to show high quality so that the image of the company stays high. Lastly, is cost in a stage of "accept". This means that it is not a main concern to the PMO as the priorities are in schedule and performance, since this is a customer facing business. The company has the money to make things go the right way; therefore if the price goes higher than it is accepted.

	# 1 Priority	#2 Priority	#3 Priority
Cost			\bigotimes
Schedule	\bigotimes		
Performance		\bigotimes	

 Table 9. CSP Trade-off Matrix

If the schedule falls behind by more than 2 weeks then the PMO has failed its purpose by not addressing the schedule-driven purpose of the company and having customers upset since the stores cannot keep up with the schedule. From table 9 there is a high risk of the schedule falling behind.

EARNED VALUE

Earned value would be a helpful tool in this PMO since the monitoring of the project plan, actual work and work completed can optimize the schedule and the performance to future projects therefore minimized two of the most important risks: falling behind schedule and going over budget as seen in the detailed cost estimate in the Appendix. The earn value would give a great estimate on how much budget and time should have been spent with regard with the amount of work done for the project. This might not be needed for every project that this PMO is going to be utilize for, but for bigger crucial projects it would be a very advantageous tool; for micro to small project it would not be necessary.

CONCLUSION

A Project Management Office is a very important element for project success in medium to large organizations. Every business in the world deals with project at some point, therefore the awareness of project management and the use of the right tools for the business is a responsibility that has to be taken seriously in order to lead the organization and its projects in a positive manner. Microsoft recognizes a gap in their existing retail space where improvements in project management can be made to increase the overall success and efficiency of the organization. The recognition of this gap provides an opportunity to implement an internal project management organization to address these needs, and provide value to the organization through improvements in project success.

The Project Management Office proposal described in this paper achieves this by providing a formalized project management approach. This approach, along with dedicated project management staff, and tools like standards libraries, a project management toolbox, and ongoing methods to ensure projects are completed successfully, will help the organization to achieve completed projects going forward that are within +- 5% of cost and schedule estimates. Additionally, through a successful implementation of this Project Management Office, a template approach for implementing a project management office within Microsoft that can be leveraged inside other business units for similar benefits.

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APPENDIX

Detailed Cost Estimate Spreadsheet:

Role	Annual Rate	Hourly Rate Oct	(Hrs)	Nov (Hrs)	Dec (Hrs)	Jan (Hrs)	Feb (Hrs)	Mar (Hrs)	Apr (Hrs)	May (Hrs)	Jun (Hrs)	Jul (Hrs)	Aug (Hrs)	Project Startup Cost Est	Total Hours
PMO Director	\$150,000	\$72.12	160	200	40) (0	120	160	200	160	80) 0	\$80,769.23	1120
Communication Mgr	\$120,000	\$57.69	160	200	40) (120	80	0	C	160	80	80	\$53,076.92	920
Risk Mgmt Mgr	\$120,000	\$57.69	160	200	120	160	160	160	160	200	0) () 0	\$76,153.85	1320
Proj. Mgmt Mgr	\$120,000	\$57.69	160	200	120	160	160	200	160	200	160	160	40	\$99,230.77	1720
Quality Mgr	\$100,000	\$48.08	160	200	120	160	40	120	160	200	0	0 0	5 80	\$59,615.38	1240
Proj. Mgr A	\$100,000	\$48.08	160	200	80	160	160	200	160	200	0	80	40	\$69,230.77	1440
Proj. Mgr B	\$100,000	\$48.08	160	200	80	160	160	200	160	200	0	80	40	\$69,230.77	1440
Comm. Consultant	\$80,000	\$38.46	0	40	0	0 0	120	80	0	0	0	80	120	\$16,923.08	440
Sum (\$Dollars)	\$890,000	\$427.88 \$	62,307.69	\$79,423.08	\$32,500.00	\$41,538.46	\$47,307.69	\$62,115.38	\$53,076.92	\$66,346.15	\$30,000.00	\$30,384.62	\$19,230.77	\$524,230.77	
Sum (Hours)			1120	1440	600	800	920	1160	960	1200	480	560	400	9640	9640
Avg Cost per Hour			\$55.63	\$55.15	\$54.17	\$51.92	\$51.42	\$53.55	\$55.29	\$55.29	\$62.50	\$54.28	\$48.08	\$54.30	