

IT Portfolio Management

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IT Portfolio Management is an approach created to obtain the most value out of investments in information technology. IT investments are measured using both financial and non-financial measures that take into account the value, risks, useful life and interrelationships of the IT investment portfolio. Using this type of method is similar to that of what a financial investment professional would be using to make investments in financial markets. In order to improve operations, managers must make decisions whether to start projects, cancel existing projects, or continue searching for a project that has the right payoffs for the company. Through the use of the methods included in IT Portfolio Management a company can align IT with the business strategy, focus resources on key projects, and increase the return on investment of each IT project.

One of the most important parts of IT portfolio management is during the strategic planning for the business. During this phase IT managers must work together with business managers to come up with a plan that aligns the goals of the business with the work that is being done by the IT department. According to Melissa Steinman of State Farm Insurance, the IT department was not always included during the planning of business initiatives and this caused the IT planning to be disconnected from the business planning and did not lead to an efficient use of resources within the IT department. Often companies would latch onto new technologies or techniques assuming that it is a cure all for their IT problems and can create tremendous value but these rarely led to the desired results. It is widely known that this sort of disconnect in planning was widely prevalent throughout many companies and led to much waste in IT spending and a belief by employees within organizations that IT was just a cost center

and did not understand the needs of the business.¹ In order to properly plan for IT the corporate and business level plans should be analyzed and the factors that can be impacted by IT should be highlighted for meetings with those managers. IT managers must also search through business and strategic documents for trends that will help to drive change within the organization and also try to find any areas where IT can support the strategy of the firm but has not been highlighted during meetings with business management. I believe that looking at these documents in addition to working with the business managers will ensure that the things that the business managers are saying they want from IT actually fit what they are telling the rest of the organization. Looking through the strategic plans and customer information could also allow the IT managers to gain a better perspective on the business and come up with new design ideas or just make IT understand the business use of the software better. This hands on search lets the managers find trends that business managers might not have seen and ensures that they are not just being told what to do but are also able to have enough knowledge about the needs of the firm to understand what needs to get done. After analyzing the needs of the business and the availability of resources within the IT organization the IT group can start to prioritize the necessary projects needed to accomplish the goals of the company and then try to fit that within the current IT budget.

Another key analysis that must be done is on stakeholders of IT portfolio management. In *IT Portfolio Management Step-By-Step*, Bryan Maizlish and Robert Handler say that the lack of stakeholder analysis has led to the total derailment of IT portfolio management initiatives because of a lack of stakeholder support. This analysis

¹ Maizlish, Bryan; Handler, Robert. *IT Portfolio Management: Step-by-Step*. Page 39

takes a look at key players who have a stake and then you must work to attempt and gain their support for the IT portfolio management effort. In order to gain their support you must first look at all of the issues that are important to the stakeholders are understood. You must then calculate the perceived level of support of these stakeholders. Once you understand the issues and know the level of support that you have for the process, you need to show the stakeholders that the IT portfolio management effort takes their side into consideration and does in fact benefit them to some degree. Using this method of speaking to them to increase their involvement and support for the process allows the IT portfolio management to go forward without seeing roadblocks in its way. Stakeholders with high support can be used as allies who can sponsor your efforts and participate in the planning of the project. Those that are at a middle ground should be addressed directly in order to try and increase their support before any of the enemies of the initiative try to change their minds to be opposed. Those who are against the IT portfolio should also be addressed in order to at least try to decrease their level of opposition and attempt to minimize the damage and slowdown that their negativity could have on the process. Key stakeholders, such as those with the ability to fund the projects or influence other must definitely be addressed because their support can ultimately lead to the success or failure of the entire IT portfolio. Project managers should also be brought in and consulted in order to figure out the best way to use metrics to measure the benefits of the project and the progress that is being made on the overall IT portfolio.

Once the IT planning has been aligned with the organizations goals then they must check to see that they have the necessary capabilities to complete the projects

and direct resources and deadlines to the project. Criteria for success must be created before the beginning of the project so that once the project is complete an assessment can be run to check for the project's success. Research has found that 70% of IT projects were deemed unsuccessful and of those that were successful only half did not have the objectives of the project changed during completion of the project.² The first step in creating criteria for success is to set baselines that will be used as a backdrop to measure any improvements against. Some of the most commonly baselined objectives are credibility of the IT organization in the eyes of the business, the capabilities of the enterprise based on current abilities and organization readiness, and IT portfolio management process maturity. Typically a firm that is just beginning to use the guidelines of IT portfolio management will have the CIO very directly involved in the beginning steps and it is recommended that one of the direct reports to the CIO be responsible for doing most of the early tasks. The direct report begins with getting the baseline for the credibility of IT in the eyes of the business by doing a stakeholder analysis. This analysis will allow them to see what people from around the organization have at stake during the implementation of IT portfolio management and also can help them gain allies and target those on the fence and those against the new way of thinking about IT by addressing their problems directly to help and increase support. The organization must also look at its degree of readiness for IT portfolio management and decide whether they want it to provide a strategic advantage or if they just need it to just provide day to day record keeping and communication tasks. Some key aspects of the firm to look at to see if the proper dimensions are in place are to see if the company

² Maizlish, Bryan; Handler, Robert. IT Portfolio Management: Step-by-Step. Page 41

already has a plan for its IT, check if there is an IT governance committee, are there metrics on which to measure IT projects already, are there adequate resources in the IT department, and whether there is strong leadership within the business and the IT group to make decisions on IT projects. A business should also look at its IT portfolio management maturity level before beginning projects. There are several maturity models such as the Capability Maturity Model, developed by Carnegie Mellon University, and it can be used as a framework on which to compare IT's maturity level from applying IT portfolio ideas to the firm to optimizing IT so that metrics are evaluated and acted upon in order to improve the IT portfolio in future periods.³ This model may cause an over-fixation in achieving the very top level instead of actually improving the IT portfolio so managers must be cautious of this tendency to want to evaluate you division at the top level.

According to the presentation from Motorola, they begin with a business case about an idea for a piece of IT software. That business case is then put into a central database where all business cases are stored, reviewed, and approved. This centralization allows the company to know when there is an overlap in business case ideas and makes it easier to review their spending. Motorola then has a series of gateways that must be passed, called M-Gates, in order for a project to begin development. The M-Gates are a decision making framework that was designed to give project decision making common terminology and speed the process of getting projects approved or declined. The method is not only used by the IT department but also by the engineering department showing the robustness of the process. The first gate, M15

³ Maizlish, Bryan; Handler, Robert. IT Portfolio Management: Step-by-Step. Page 43

is where a high level business case is examined for business strategy, IT needs, and total amount of work needed for completion. Once approved, the project moves to M14 where the review team tries to filter out similar projects so that funds can be used to only develop one product that can be used by many divisions. Depending on the estimated cost of the project there is a review process that not only involves the IT organization and its subdivisions but it could also include the CIO's staff if the project exceeds the one million dollar mark. Once the request is approved by the applicable governance body it then moves on to M13, which means that a detailed business case must be created. The detailed business case includes things such as high-level customer requirements, deliverables, a staffing profile, budget, benefits, and issues. After all of these requirements have been detailed it is much easier to see how the project development is going to go forward and the true costs are able to be better understood. The M13 gate also requires that funding requests and contractual documentation, for things like outside suppliers that might be needed for any part of the project, also be completed. The team must also make a business case modeling template which is used by corporate to review their capital appropriation at year end. Once the M13 gate is passed then a project can begin development because the adequate business planning has been done, the technology planning has been completed, and the appropriate funding for the project has been attained. This process seems to give business managers an easy to follow guide in order to get their projects approved and I believe that it also does a good job of reducing redundant projects that are being approved. My concern would be that business managers would try to increase the business value of their cases but Motorola also tracks the project through

its lifecycle and makes attempts to realize the full project value and if a manager is known for increasing the projected value of projects then they will be rated poorly during their performance reviews. After reviewing the process I believe that Motorola is a great example of an IT Portfolio investment decision framework that focuses work on the most important IT initiatives and keeps the IT organization under budget.

State Farm Insurance, in their presentation on their IT portfolio management procedures, told us about a different way to make the investment decision for their IT portfolio which involves sequencing to focus resources on key initiatives, reduce redundancy, and increase the return on investment. Sequencing involves putting desired projects into sequences based on the companies operating divisions. This compartmentalization allows the company to see where money is being spent and allows them to choose projects that will create the best mix of initiatives to achieve the goals of State Farm. After the sequencing program was introduced there was a change of emphasis for business managers from trying to win as much funding as possible to trying to get the most from the funding that was already provided. The sequencing creates greater ownership and accountability because the company is taking a longer term view on their IT portfolio and looking to create an IT portfolio as opposed to just having individual projects that are performing well. The idea is to create a portfolio that will do well and take some risks in order to create the best possible IT mix for the company. At State Farm each sequence has a leader that is accountable for the performance of their part of the sequence. However, since each sequence cannot perform to the best of its ability without help from other business lines each of the portfolio leaders must work together to maximize the benefits that are realized. State

Farm is also looking to implement a system of continuous sequencing where projects can be approved and implemented mid-year instead of having to wait for funding before they can begin. State Farm's sequencing approach does give a great picture of where the money is being spent within the organization and then managers can look to see if that is where they would like to see growth or whether it has helped increase returns for their business units.

After you have chosen the projects you must work to decide on project metrics that the project will be compared against. Using prior data on the returns of similar projects is a good place to start in order to decide on ways to measure the performance. For a project that is meant to drive traffic to your website you would want to have metrics that measured things like website hits, length of stay, and increased website sales in order to evaluate the performance of that project. Other projects such as software that keeps the IT infrastructure running should be evaluated based on the service level that has been attained and how many times the system goes down or experiences periods of dramatically slow performance. You must also make sure that these metrics make the project's goals align with the overall business goals. If the business thrives on the development of IT in order to drive growth as is the case with companies that are developing a website or IT companies then there must be a particular focus on ensuring that once IT projects have fulfilled the requirements of the overall portfolio that they are then measured in such a way that will cause the owners to try and get the most value out of the project. Projects must also have some person that is accountable for the project so that when they apply for funding and obtain it they are not just doing it to secure funding for their division but to actually drive increased value for the firm. The

best way to do that is to align the goals of the company with those of the project and the employee. If the employee's performance is evaluated partially on whether an IT project meets certain metrics then the employee will spend more time working to improve the effectiveness of that IT initiative. Another way to ensure that project metrics are met and the company realizes value is that the developers and the manager responsible for the project should be brought in to help determine the project metrics so that they have a stake in the metrics used and cannot complain that they are overly harsh or that the metrics are somehow unattainable. These goals must be collected and stored in a centralized area so that they cannot be changed and the IT portfolio management team has access to them if the project does not meet critical thresholds.

Once the investment decisions have been made then a company can begin the projects that they approved for the IT portfolio. As these projects are being developed they should be compared during regular meetings and through reports to the project metrics that have been setup to gauge the performance of the developers and of the final piece of software that is being produced. These meetings and reports will allow the IT portfolio management team to see how the IT portfolio is progressing during the year and will allow them to make any changes that they believe must be made or reallocate resources to get the best return for their investment. When choosing projects having a focus on creating options within those projects will also allow the company to have more flexibility during the creation of the software so that if one particular project is failing and not meeting its deadlines and looks to be losing much of its positive return on investment the company can decide whether to limit the scope of the project or end the project entirely and put the designers on a different project that has a higher chance of

creating value for the firm. When creating an IT portfolio there are several projects that are taken on because of a high risk to reward ratio but those projects are balanced by other projects that have lower risk. If the projects are implemented and planned using options from the start of the project then during actual design these high risk projects can be continuously evaluated during their creation and have their objectives changed or abandon the project entirely just as a stock portfolio might have an investment in a company that has announced poor earnings and the fund manager decides to sell the stock and invest elsewhere. Creating options can also allow the company to complete a project to a point where it has some functionality but hold off on creating all of the desired features because of a downturn in the economy or uncertain market conditions that might lead to innovations that would make the project obsolete if it was taken to completion. As projects are being evaluated the information that is collected about them should be stored in the central database so that in the future when projects are being planned the company can better estimate the speed and effectiveness that its IT organization can complete various types of projects with. Sophisticated data mining and analysis tools can then be used to analyze trends in performance and highlight areas where the company has not been effective in reaching their targets. This information can then be fed into dashboards that will give managers and the IT portfolio management team an idea of how their investment is doing in a way that they could not normally do if they did have software do an analysis on the information that they had stored in the database.

After a project is completed then for the remainder of its life it must be scored based on the metrics set before the project was completed to ensure that it continues to

produce an acceptable rate of return and is effective in doing the job that it was intended to do. This step is crucial to IT portfolio management as it allows the returns from the portfolio to be managed and maximized. A key part of doing this analysis is that the company should not wait until year end or the end of a quarter to do this analysis but should always be looking to make improvements wherever they see something that could be modified to better meet the needs of the company. The information gained in assessing the execution of the software in the portfolio as well as the portfolio as a whole allows the managers to modify and enhance future IT portfolio decisions. Future IT portfolios that are modified are then able to gain even higher returns on the investment because the firm has gained experience in the process of IT portfolio management and can move through the phases faster and make more accurate judgments about future returns and guidelines that will make the portfolio as a whole meet the needs of the business. Another area that the company should look at is data from the users of the IT applications created using the IT portfolio management process. The users of the applications are some of the best judges of the software because they use it on a day to day basis and are better able to compare it the processes that they had to do to complete the same steps in the past. They are also able to give feedback about shortcomings of the overall IT portfolio that they interact with on a day to day basis and through the surveys and interviews the company can decide where improvements could be implemented. The workforce should also be evaluated to see the extent with which they complied with the guidelines set forth at the beginning of the work with IT portfolio management and throughout its use. No company can expect that all of its employees are following the guidelines of a new

initiative immediately and so that company needs to look to see if every is buying in to the process and making it as effective as it can be. These surveys will also allow the IT portfolio management team to create training tools and communications that will be able to better show employees the potential payoffs of using the IT portfolio management process and how it will make the company stronger as it focuses on projects that fulfill their needs. There must also be a process that gets all of the information from the project evaluations and surveys and brings it back to decision makers and process owners so that they can act upon the information to improve the IT portfolio management process.⁴ A good example of information that could be obtained is that while the innovative products in the IT portfolio performed well, the products that were used to run the business saw lots of downtime. After this information was collected the IT portfolio management team would then try to refocus part of the portfolio spending on IT that would help run the business and keep downtimes at a minimum so that employees could focus on doing their jobs instead of calling the help desk to fix a problem or waiting as their download from the central database is competing with too many others on a network that does not have sufficient bandwidth. This use of feedback to refine future IT portfolio management projects is what makes the process so powerful and an increasingly popular method that is used by many of the top companies in the world. The company should also work to benchmark their IT portfolio management against their peer firms and see how their IT investment is doing in comparison but it might be difficult to obtain this information as some firms may want to keep it private.

⁴ Maizlish, Bryan; Handler, Robert. IT Portfolio Management: Step-by-Step. Page 273

IT portfolio management has become so popular that there is now a large market for software that can be used by business managers to help make IT portfolio management decisions based on criteria that they setup within the software beforehand. The IT portfolio management applications are also offering project and resource management tools that can give a company an all-in-one solution to their IT portfolio needs. Before choosing a piece of software a company must first fully understand their existing IT portfolio and decide if they actually need a piece of software purchased from outside sources or if they can setup their own guidelines to make a process to make IT portfolio decisions. There is still much room in growth for the software provided by vendors and there is also likely to be a higher level of integration of the software with a company's existing software which will allow the software to have more features and functionality. Before choosing a software solution the stakeholders must be brought together and all agree on the choice to even choose a vendor. Once the decision to use an outside vendor for IT portfolio management software the company must come up with a list of all the features that they believe they need in order to have an effective application to run their IT portfolio management. After all of the requirements have been set, the company can go to the market and find a software solution that fits their needs and will keep costs the lowest. Costs such as software costs, training, and adoption costs must all be evaluated against the features that each piece of software contains.

Going forward it seems that there is going to be a stronger focus on real time data in IT portfolio management as the software becomes more sophisticated and data about projects can be automatically uploaded to the database in real time as each

deliverable is completed in the development of software. The use of options in the development of IT should also be increasing as the technology environment is becoming more dynamic and the interconnectedness of the global economy can lead to major changes to a firm in a very short period of time. The proliferation of service-oriented architecture will give companies much more flexibility in their IT decisions as they can design their systems to be compatible with a wide array of software choices that have been standardized to use a particular type of architecture. If the company believes that the software that they are currently using to fit a particular need is not giving the company the full benefit then they can simply contact another supplier that has software compatible with the architecture that they setup and can implement that replacement very quickly. IT portfolio management software will also begin to be integrated with the ERP, CRM, and SCM applications as the need for information increases and the drivers of business become increasingly intertwined. The bottom line is that metrics taken from IT portfolio management will be needed quicker and the company will be able to make changes to their IT investments much faster than in the past, therefore making the investments in IT much more effective at accomplishing the goals of the enterprise.

Overall, IT portfolio management seems to be an incredible way to lead a turnover in the investment decisions used for a company's IT choices. IT portfolio management has actually helped businesses reduce IT costs by up to 30% and increase the value of their IT by 100%-200%.⁵ The framework can make ordinarily complex IT investment decisions much easier for managers and IT personnel. During

⁵ Maizlish, Bryan; Handler, Robert. IT Portfolio Management: Step-by-Step. Page 321

the Motorola presentation, five key success factors for IT portfolio management were outlined. These factors include driving a discipline of portfolio management, developing a strong performance management system, understanding the needs of the customer, ensuring that leadership buys into the programs goals, and a process that includes regular review and the ability to cease non-performing initiatives. These success factors have allowed the IT division at Motorola to excel at IT portfolio management and continue to make improvements in their IT portfolio. The focus on looking at IT investments in a portfolio view, the same way that an investor would look at stock investments to create a portfolio, ensures that the most value is obtained from the portfolio while also keeping it within a certain acceptable risk. Business and IT objectives must both be weighed in making the investment decisions and this means that the process must bring in decision makers from across the firm so that the right decisions can be made.