

## PROJECT NOTE

### Summary:

Grass Roots Software is a service based technology solutions company. They are hired by companies to implement enterprise systems that fit their companies' specific needs. This involves tailoring existing software to each company or creating a proprietary software specifically for that company. This process requires a great deal of communication between Grass Roots Software and their clients.

Grass Roots Software was noticing a growing disconnect between their delivered product and what their clients needed at the time of implementation. This issue stemmed from a gap in communication on both sides. Grass Roots Software may not have been asking the right questions and gathering all of the information about the clients existing software and their vision with the new product. Conversely, their clients were not keeping Grass Roots Software informed with any changes that happened to their system while the development of the new solution was in progress.

### Intended Objectives:

#### 1. *Identify how the current process needs to be changed.*

At the beginning of the case Grass Roots Software (GRS) is using an Agile methodology. They had implemented Agile because of the fast paced nature of their services. They had recognized that the services they provided were done so in a fast paced environment where changes were often made mid-project. When these changes occur, GRS need to be able to pivot their development to accommodate such changes. They chose Agile because Waterfall cannot accommodate those changes easily.

Agile is not a solution in itself<sup>3</sup>. Agile is a methodology which can take form in the shape of many distinct and unique processes. GRS was merely utilizing the Agile process which seemed to fit their development style. However, just because a process is good fit, it does not mean that it is the *best* fit. Process models can fail for two general reasons:

- 1) The process model is not a good fit for the business need.
- 2) The process is not being executed properly.

In the case, it was decided that the issue was stemming from a lack of proper execution. For GRS it was an issue with the communication both internally and externally. With the Agile method GRS was using, communication is key. As stated earlier, one of the major advantages of Agile is the ability to react to change in a project. However, these changes were not being made aware to all parties involved, and therefore the project was not adapting well to them.

In GRS's case, it was not the process or methodology that needed to be changed, it was the execution. Their current model was falling short of expectations due to a gap in communication. The change that needed to be made was with how the communication flowed within current process.

#### 2. *Understand how to effectively manage the communication and thus the development lifecycle.*

Communication can be an issue for a company of any size. It must constantly be addressed and improved as a business evolves. Most major companies have continual training for employees to better their communication skills. Even in technology companies, where employees spend most of their workday developing code, the employees must be able to effectively communicate their progress to the team.

Communication can often get overlooked by management. If a business appears to be running smoothly, they may not feel the need to address the teams communication styles. However, this oversight can have big consequences, even if the impact is not felt immediately. Issues with communication can take a very long time to expose themselves and can take even longer to correct.

For GRS, their issue was not apparent on the surface. The business ran smoothly for the most part. They were able to manage relations with several clients and get work out on time. Their teams seem to get along and work well together. GRS did not have any glaring issues with client relations, and did quite a bit of repeat or continual business with clients.

However, once they identified their underlying problems, GRS needed to make several changes within their organization. Within their company they needed to make sure that each team working on a project fully understood what their product would do, and how it would interact with the other aspects of the project. This deep understanding was necessary to fully utilize the talent they had working on the project. When everyone on the project, all the way down to the coders, fully understands the project and how it works, it empowers them to be able to spot problems or areas for improvement within the project. This insight helps to identify issues early and address them before they have a large impact.

Communication from GRS to client needed to be improved as well. As a service based company, GRT does not want to share any issues with the client as it may put tension on the relationship and possibly delay the project. It is easy for GRT to take a "We'll handle this on our end, there is no need to get the client involved" standpoint. However, these issues need to be clearly communicated as early as possible. When the client is fully aware of the status of the project they can plan accordingly on their part to adjust for any changes. The real problems occurred when the issue was not communicated and then was unable to be fully avoided in the finished product, leading to a product that didn't fully meet expectations.

The third and most difficult change that needed to be made was the communication from client to GRS. This is particularly hard because GRS has very little influence on when a client gives them updates. However, some issues that they ran into where when a change was made on the client-side that they were not made aware of. This issue could lead to several problems when GRS delivered and tried to implement their solutions, only to find that changes to the existing system had been made without their knowledge. This problem can be addressed by setting expectations when getting the requirements for the system. GRS and their clients need to have a very open line of communication and regular meeting to discuss the project.

### *3. Learn to effectively distribute the roles/tasks between the team members.*

Grass Roots Software has several teams working on the same project. These teams are often working on sequential tasks. Team A has a task, and team B need the output from that task before they can begin working on their project. This system was incredibly inefficient. GRS needed a way to enable their teams to work on the project concurrently. The main issue was that the teams only knew what they needed to know to complete their task. Due to the fact that their task was only a minor part of the system, management did not see the need to involve them in the entire project and bog them down with details of the project that did not interact with their task. Due to the limited knowledge, they needed to wait until the tasks leading up to theirs were completed in order to start development.

GRS made steps to streamline this process. By fully educating the teams on the project, the teams were able to see the big picture and how their task well into the overall scheme of things. This allowed them to make certain assumptions about the tasks leading up to theirs in the process. Based on these assumptions they were able to generate estimated inputs to their tasks and could begin working based on those estimations. This allowed the team to create a framework for their task. When the time came for them to implement their task, all they had to do was make minor adjustments to their framework to accommodate the actual inputs from the previous task.

## **Analysis:**

### *1. Is it the responsibility of the service provider or the stakeholder to communicate any changes that are being made in the current environment?*

We believe that there needs to be a constant back-and-forth of updates from both the service provider and the client. If a change occurs on either end, it can adversely affect the entire project if it is not communicated clearly. If the service provider discovers that they do not have the capabilities to complete a portion of the proposed system, or they encounter unforeseen resistance that will extend the deliverable date, they need to convey that update to the clients.

However, if the clients' systems or requirements change over the course of the project development they need to communicate those changes to the service provider. The Service provider will have no way to know of any changes made after they have done their initial requirement gathering unless they are actively made aware of the changes and how it will affect the project.

This issue makes the firm lean more toward an agile methodology. With an agile framework, there can be constant communication between both parties that can provide a great way for both to receive detailed feedback. The end goal is to have the product which matches/exceeds the client expectations.

*2. How do you communicate your technical skill set to the stakeholder or does the stakeholder expects you to be versatile?*

It is very important to set realistic expectations for the projects. As a service provider you should be very open about your strengths and shortcomings from a technical standpoint. Often times, the sales team like to paint the picture that their business is a "one stop shop" for solutions and that they can handle any problem the client can throw at them. In most instances this is not the case. Most firms are specialized on solving one area of business needs. A company that deal is software may not be well equipped to solve an IT infrastructure problem. Unrealistic expectations lead to disappointment and can drag out the project or result in loss of business.

If a situation arises that the service provider is not well equipped to deal with, they should outline how they plan to overcome the challenge (outsource certain tasks, hire specialized contractors, purchase an existing software package). Just because the service provider does not specialize in an area, it does not mean that they cannot be flexible and solve the problem for their client. However, they should be open and upfront with how they plan to resolve the matter. If the client is unaware that you outsourced a portion of the work, and then that aspect of the project incurs an issue, it can be a very tough situation to resolve with the client. Most strain in providing service stems from a lack of clear communication or a gap in expectations and capabilities.

*3. While developing a software product how important are other aspects (customer circumstances, the IT model of the client etc.) apart from the basic requirement gathering from the client? (from article)*

The "other aspects" can be very critical to the success of a new system. The new system needs to be aligned with the core values of the business which will be adopting it.

1) There is a HBR article about Harley-Davidson choosing an IT consulting firm to help with implementing their new system. Their decision is heavily based off of how well the consultants meshed with the culture of their company. The companies that came in wearing suits and gave professional presentations were considered not a good fit due to their professional nature. The company was build by working men who like to get their hands dirty, and they want business partners that they can relate with.

2) Similarly, HBR has an article about Cirque du Soleil implementing IT across their business. There was a huge cultural resistance to implementing IT in the company. They are a performing arts company and felt that there was no need to disrupt their process with an IT system. There was an huge effort from their IT department to align the changes to fit the culture of the company. It was only through the useful incremental changes that IT was adopted by the company.

In addition to cultural aspects of the clients, their current business circumstances can greatly affect the project. If a company is relying on the enterprise system to run their business, even minor errors or shortcomings in the system could negatively impact their bottom line. Again, this is why the client must be up-to-date on any changes or delays in the project. If they are planning on migrating from one system to another the timing of the delivery of the new system is imperative.

When considering the clients' current IT model, it is important to look at how IT is viewed within the company and how much is utilized. If their current system isn't being utilized to its full potential, it may indicate that the system does not align to their business needs. Those needs should be explored by the service provider to ensure the new system will be a good fit. There is little point in designing and implementing a system that will not be used as intended by the client. It makes much more sense to deliver a system that the client *needs* not necessarily the one they think they *want*.

*4. How can the IT processes be changed if the results are not as expected? (from article)*

This depends heavily on a case to case basis when dealing with service providers such as Grass Roots Software. One of the measures of a great company is their ability to adapt and react to change. The

first issue is discovering where the problem occurred in the process. Within Grass Roots Software, they identified a problem: The resulting product was just meeting the expectation of the clients. What steps can they take to ensure this does not happen moving forward?

- Collaboration - This is key for any organization. The better teams are at working together the better the product that is created or service that is delivered. When it comes to teamwork, collaboration is key.
- Accountability between stakeholders - In this case, both parties need to hold each other accountable more. If changes are made on the client-side system, the service provider needs to be made aware of those changes. If a problem arises in the system while it is being developed, the client needs to be made aware of those changes. This accountability needs to be put in place in the initial negotiations of the deal.
- Constant communication - between both parties as well as within the teams at Grass Roots Software. Communication is the root of both of the previous two solutions. In order to collaborate, you need to communicate. In order to have accountability you need to have open lines of communication between parties.

Going beyond requirement gathering and taking an in depth look at the clients' culture, how IT is used within the company, and seeing what they truly need in a new system vs what they think they want.

### **Events: Decision made and outcome**

Grass Roots Software created and implemented a new system that revolutionized the way they do business. The new system, named ENCORE, focuses on more of a partnership approach to their service model. The aim is to drive collaboration and allows GRS to gain a deep understanding of the client's business and the issues they face. ENCORE is not a new methodology, but rather a new approach to the way in which GRS interacts with it's clients.

### **ENCORE: Engage, Collaborate, and Realize:**

The encore approach is designed to match the existing work culture and the development methodology of the stakeholder firm. It sets up basis of collaborative plan that leads to a successful project. It is build up on a very simple but powerful ideology of ENgage, COLlaborate, and REalize. ENCORE approach has given them confidence that they can achieve the best possible strategic solution that will make the stakeholders happy and guarantee repeat business.

Taking a deeper dive into the ENCORE approach and three principles surrounding it:

#### **Engage:**

- Engaging with the stakeholders at multiple levels to understand the project goals.
- Engaging with the stakeholders at multiple levels to understand the Business processes and infrastructure involved.
- Engaging with the stakeholders to understand the culture and values of the stakeholder firm.

#### **Collaborate:**

- The Domain insights and technical expertise of the Grass Roots software along with business insights of the stakeholders ensure that the project milestones are aligned with the business objectives.
- Collaborated work on this part can guarantee adaptation to any changes that happen during the course of setting goals and milestones.

#### **Realize:**

- Implementation phase obviously gets special attention, working together on this phase ensures that the solution is aligned to the business requirements.

- This approach reduces any risk of misaligned as any changes on the stakeholder's side are communicated promptly.
- This approach reduces time required to develop the solution by avoiding iterations.
- Reduces development time directly translate to reduced cost of development.

### **Collaborative Engagement Model:**

Having ENCORE approach at its heart, this methodology is a simple yet powerful methodology. This methodology overcomes the traditional weakness related to the lack of communication and lack of collaboration. It is designed to optimize costs of operations and deliver high quality solutions that are perfectly aligned with the business requirements. Also, adding a tiny bit of adaptability to the culture and processes followed by the stakeholder firm guarantees success.

The key features of collaborative engagement model that Grass Root software boosts about are:

- Flexible and Collaborative Workflow.
- Minimize Governance and Control.
- Professional with Right Skill Set.
- Trusted Partnership.
- Right Team at the Right Time.

### **Personal IT Learnings:**

Over the duration of this course we have learned several valuable IT lessons. We learned to focus on the underlying issues rather than the problems on the surface. When working with a company you need to take a very hard look at the culture and mindset of the company, not just their IT environment. Over the course of this project we have learned the following key points:

- IT follows a similarity to earlier technologies like electricity. With time these don't matter as these are ubiquitous. The challenge then becomes how to implement IT in a way that your business derives the most value possible. IT is constantly evolving and changing the way businesses work, but if you do not align IT to your business needs, it can be a waste of time and resources. Knowing how and when to implement IT can be much more impactful than having the "latest and greatest" IT system.
- It is equally important to factor-in the environment for which the IT is being implemented. You can deliver a great IT solution, but if it is not adopted and used by the client then it is a waste. You need to take into consideration the mindset and work habits of the end-user. You need to design the IT solution with the user in mind. If you build a system that is fast and powerful, but has a UI that is too confusing, it may not be utilized to its full extent.
- IT should gel with the methodology of the client and it should be a collaborative effort to implement IT solutions
- As per the findings by interviewing, to deliver a great product it is important to have an accountability among the stakeholders.
- Following these approaches not only enables a great product delivery but it also optimizes the involved costs. The faster the product can be made, the less expensive it will be to create. With reductions of mistakes and rework will add to the overall speed of development.
- Engagement (to be culture fit or to understand the structure of systems which will use the solutions developed by IT) is critically important to deliver a great product

- Documentation (which is often ignored) can prove to be an efficient tool if done correctly. It should not be very cumbersome or overwhelming and simultaneously it should provide all the necessary details.
- Adaptive learning is thing to go for. Learn from the mistakes. If every mistake is viewed as a learning experience, your company will constantly evolve to become faster and more efficient. No company can operate without mistakes, but it is what you do with those mistakes that can make a company great.
- No silo work. When working on projects that need to be cohesive, your teams need to work together and be in constant communication.

Taking all of these lessons into account, we feel that the areas we learned most are: Innovation, Collaboration, Adaptation. Innovation in the form of finding new ways create competitive advantage or to improve processes. Collaboration with how companies interact both internally and externally. Adaptation in applying IT in ways that solve existing business problems. Moving forward, we feel that we will be able to apply the lessons learned in these case studies to our respective careers.

**References:**

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