

Rural Outsourcing Patterns of Engagement

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In recent times, although organizations are downsizing or tightening budgets, their workload is not getting any smaller. They are challenged to do the same amount of work or more with less human and financial resources. Skilled temporary staff provides great financial flexibility and expertise to eradicate extra work load and over expenditure in today's economy. Temporary workers can provide special skills and knowledge to carry out specific assignments. "The latest federal data show that 2.3 million people held temporary jobs in March 2011, up from a low in mid-2009 of 1.7 million, as companies seek to satisfy customer demand without making long-term commitments to worker salary and benefits"[2]. With this increasingly significant role of temporary workforce in today's enterprise, rural outsourcing patterns present a unique strategy to maximize the utilization of transient workers. For the past decade or so, hiring and retaining from the local consulting firms is not the only available option. Today, more and more organizations are looking for other economic and strategic options such as utilizing the off-shore firms to assist them with their immediate needs. When the term "off-site" or "off-shore" is mentioned, people think of China or India, but recently there is a growing trend of rural sourcing within the USA. These patterns present a unique opportunity to utilize the rural consulting firms and treat their skilled professionals as an extension of your team to satisfy customer demand without making long-term commitments to worker salary and employee benefits. These temporary expert professionals are kept in a "ready-state" at a rural location and can be activated at a moment's notice.

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1. INTRODUCTION

As more and more companies are trying to benefit from utilizing the temporary labor market, a relationship can be established between the client (companies in need of temp staff) and the temporary resource provider to create a winning situation that would benefit both organizations. Utilization of skilled rural temporary workforce is cost effective and is an efficient way to get the job done in a timely manner.

Rural Outsourcing Model

1. Set up a contract with a temporary staff provider located in Rural America.
2. Build a dynamic and flexible team. This team must be dedicated to the client.
3. All team members must be kept fully informed of all business and technical changes being made to the organization through continuous training and development.
4. If for any reason the client can't utilize all temporary staff members at any given time, the consulting firm pays for the consulting costs while the resources wait for the next assignment.
5. The hiring firm (client) would give the temp resource provider first opportunity to engage any consultants sitting on the bench.

Any small, medium or large organization can use these patterns regardless of their economic situation. They should always be able to use this model as it is beneficial to both organizations; the hiring firm gets the benefit of utilizing highly skilled rural professionals at a much lower cost and simultaneously the consulting firm gets the first call when the need (to assemble a team at a short notice) arises.

Janet-Lee Hatt, a senior vice president at C&L, says Reading, PA has a plentiful supply of skilled employees. The company chose the spot after analyzing locations within a 50-mile radius of New York City that had a much lower cost of living and a ready pool of programmers [1].

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Reading was a clear choice, with five universities nearby and more than 2,000 qualified IT professionals whom Ms. Hatt described as underemployed, or not interested in commuting to New York or Philadelphia. “Many of our programmers are willing to lose \$10,000 in pay so that they can go to their kids’ soccer games in the evening,” she said [1].

The following Rural Outsourcing Patterns of Engagement present some of the new best practices of utilizing the rural resources to be efficient and cost effective. The growing trend shows that this practice could become industry standard rather quickly. According to industry experts, about 20 companies around the country now provide outsourcing from rural areas [1]. Adapting to these practices would enable the organizations to continue their work without having to hire and train temp staff when needed, hence save a lot of time and money.

2. THE PATTERN COLLECTION

The patterns and their intents are:

- **Bench Strength:** Ensures new business critical programming projects can be started at a moment’s notice and without disrupting current development work.
- **Perfect Potion:** Addresses the importance of assembling a team of appropriate skilled workers to ensure timely completion of the project.
- **Council of the Wise:** Ensures that the temporary resources can be developed into Subject Matter Experts through continuous learning and development

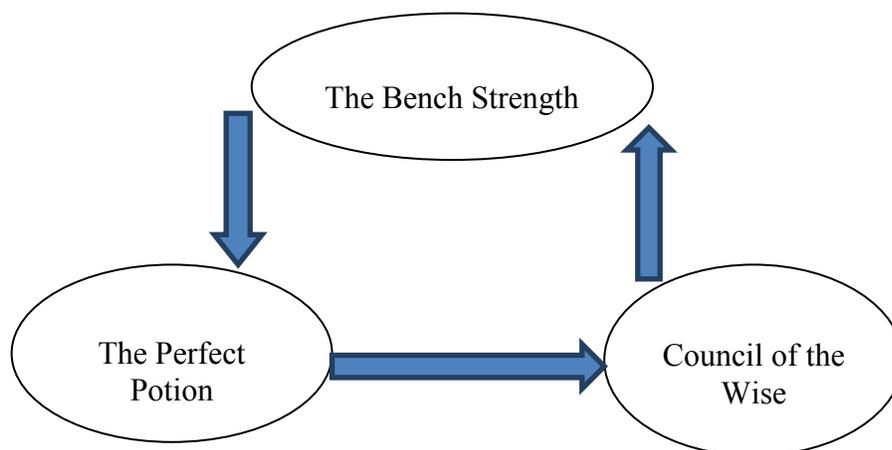


Figure 1: ROPE- Rural Outsourcing Patterns of Engagement

2.1. Bench Strength

Motivation

It is very difficult to find and assemble a team of appropriate skilled IS support staff at a moment’s notice. One viable solution to this problem is to retain a team of skilled temporary workers at a rural location and keep them in ready state at all times by engaging them in learning and development activities related to the technology and business of your organization. In rural areas of the country you can find skilled IS resources at a low wage since the jobs are scarcer there than in urban areas and the real estate is not as expensive as it is in urban areas.

This is very similar to the bench strength of any NBA team, where players get off the bench and join a fast paced basketball game at any given moment. They are all skilled resources and know their game. They constantly participate in practice sessions and learn new tricks of the trade. They provide

support to a tiring colleague or use their special skills in crunch time by drilling a couple of three pointers and winning the game for the team.

Context

You are an IT leader. Your organization needs to start a new “business critical” programming project. All of your IS resources (full time employees) are currently assigned to several other programming projects that cannot be stopped to accommodate this new request.

Problem

You need to start a new programming (business critical) project and you do not have any resources available.

Forces

- Loss of Revenue: If the FTE resources are pulled from their current assignment, the work will be interrupted and that would result in lost revenues. The organization will lose time and money that it has invested on those projects.
- High Consulting Costs: If local temporary resources are hired to address the urgent “business critical” project, it would be highly expensive.
- Cost Effective: Temporary resources out of an offsite rural location are relatively economical.
- Uncertainty: There is always a degree of uncertainty with the new hires and their skill set and previous experience.
- Lack of Systems knowledge: Local temporary resources will take quite some time to hit the ground running as they would not be familiar with your system functionalities and the nature of the business.

Solution

You can engage a temporary technology resource provider located at a rural location into a contract and utilize its temporary work force that is kept in “ready state” to address any business critical projects/needs. Through continuous training and development this skilled temporary work force (bench strength) can take over any situation at a moment’s notice. Continuous training of the temp staff is needed to keep them in a “ready state”.

Utilizing this team of skilled resources will solve the issue of not interrupting the current work and avoid paying premium dollars for expensive local resources. It would also save the time that any new resource would take to learn the business and technology.

Discussion

You will be able to start any business critical project immediately with little or no interruption to your current assignments by utilizing the skilled temporary resources located in a rural setting where jobs are scarce and wages are low. For example, if you reach out to local (urban) temporary work force vendors you would have to pay premium dollars for their services. The hiring process itself would take a long time because you need to provide the vendors with specific requirements, you need to interview and select the people that look appropriate for the job, and you need to train them on your system. You would also need to explain your business to them. By the time you start seeing real productivity, 4-6 weeks are gone. Contracting with a vendor located in a rural setting is the best economical solution to this problem. It enables you to assign the project to the rural experts at a moment’s notice, set up the VPN connection and off they go. While on the bench they are still watching and learning what their colleagues are working on. They are fully aware of the business and technology and can get on the floor as soon as the coach (IT manager) calls upon them. Having a similar set up in a big city would be significantly more expensive.

Known Uses

An IT leader of a major healthcare organization located in New York City has 15 full time employees in his team. His organization has contracted a rural temporary resource provider “Cross USA” located in Eveleth, Minnesota. The IT leader engages/manages a team of 40 Cross USA consultants (temporary workers) and treats them as an extension of his IT team. This temporary work force is utilized from time to time on an as-needed basis to address business critical, state-mandated or any other urgent requirement. Typically over 95% of the temp staff are almost always involved with software development activities for the

healthcare organization and get paid by the client. If any of the consultants get moved to the bench due to lack of work; the vendor pays the salary and keeps the consultants on the bench with anticipation of immediate future needs (new projects). All consultants get paid, even on the bench. What is in it for the vendor? The vendor gets the first call when consultants are needed to work on new projects. Instead of going to the urban firms, the client prefers to utilize consultants who have worked on its system and keep them engaged in continuous training and development sessions. By keeping some of the consultants on the bench in ready state for a short time, the vendor also saves on recurring recruiting costs. This is a win-win situation for both; the client and the vendor.

These temporary resources stay on-site at the Eveleth development facility and participate in business requirements review sessions and technical specification discussions on active projects as part of their continuous development and training.

At C&L Group, Daniel Liebman helps companies outsource projects to technology workers in Reading, PA. C & L's 75 programmers are located in a facility in Reading. The costs there—typically \$35 to \$55 an hour—are comparable to those in India once overseas-oriented expenses such as travel and management time are factored in, but about 30% less than they would be if C&L maintained the operation in New York [1].

Resulting Context

Once the IT manager engages the skilled offsite rural temporary workers, he will be able to assemble a team at a moment's notice to address any urgent/critical business needs. The "bench team" members can assimilate seamlessly with the project team when they are called upon. This appears to be a cost effective solution since rural skilled labor can be retained at a very low cost.

"The Perfect Potion" pattern can be used to turn inexperienced workers into experts by pairing them with experienced employees and subject matter experts. "Council of the Wise" pattern can be used to transfer knowledge to the temporary staff by conducting training webinars and involving them with the business requirement and technical specification reviews.

2.2. Perfect Potion

Motivation

Even wizards like Harry Potter, Hermione Granger and Ron Weasley need to know the type, quality and quantity of ingredients to make the perfect potion that would enable them to take the shape of any object or any person. Similarly, as an IT leader you need to identify, mix and match your resources to assemble the "right" team. To complete the projects in a timely manner and within budgets, it is imperative that the team members possess the right skills. The experts must bring the best out of less knowledgeable staff by laying a strong foundation and a road map.

Context

You are an IT leader. You have to start a new programming project. You have several full time employees in your team. You also have contracted a rural consulting firm to provide additional resources to accommodate any urgent/critical business needs that cannot be accommodated by utilizing your full time staff alone.

Even though you have enough resources to address any urgent needs, it is important that you assemble the team of appropriate people for the job to complete the assignment in a timely manner. It is like creating a winning formula.

Problem

The temporary workers do not possess in-depth business and technology knowledge required to support the project.

Forces

- Cost: It would be costly for the organization to pay for someone's services that is not productive immediately.
- Lack of Systems knowledge: It will delay the project as significant time would elapse due to the "learning curve".

- Low Morale: It would be disappointing and frustrating for the transient worker to try to understand the Business and learn about the technology that the organization is using.
- Pairing with Subject Matter Experts: The team consists of experts who can lay the foundation and draw a road map to success would be the most cost effective strategy.

Solution

You can team up the temporary workers with your subject matter experts (full time employees) who understand the scope of the project and have great knowledge of what is involved to address the business requirements. This mix and match creates a winning combination as the team leaders/subject matter experts lay the foundation and set the direction for the temporary staff and the whole team is able to hit the ground running without any delays. For example, on a new software development project, the IT leader can assign an experienced Project leader and one Systems Analyst as subject matter experts to work with two or three developers (temporary workers).

Discussion

You can start any business critical project at a moment's notice with little or no interruption to your current assignments by assembling a team of your experts and appropriate temporary staff.

You, as the IT wizard should be able to review the business requirements and select a subject matter expert (project leader) in that area. You can then add appropriate staff from the temporary pool that have worked on similar assignments before or have some knowledge of that system. For example, in a Claims Development shop there are three main sub systems; Professional, Hospital and Dental Claims adjudication systems. If you are given the requirements to modify the Professional Claims Adjudication system, you would identify/assign the SME in that area; someone who has worked on professional claims processing before. Working with experts in the area, the temp staff will be able to comprehend the business needs and how the technology works rather quickly. It will also provide confidence and comfort to them as they will be able to understand the inner workings of the system right away rather than trying different things and learning by "trial and error". All this good work would result in providing better estimates, fewer missed dates and delivery of higher quality code.

Known Uses

A healthcare organization located in a major U.S. City has contracted a rural outsourcing consulting firm to provide temporary workers to accommodate its urgent business/IT needs. The IT leader of the organization treats this temporary work force as an extension of his core (full time employees) team. These temporary workers stay at the rural development facility and participate in business requirement document review sessions and technical specification discussions on active projects as part of their continuous development and training.

When the need arises to start a new software development project, the IT leader reviews the business requirements and selects a subject matter expert (project leader) in that area and one Systems Analyst who has worked on similar assignments from the core team. He then selects two appropriate Programmer Analysts from the temporary pool of resources to work under the leadership of experts.

Working with experts in the area, the Programmers are able to comprehend the business needs and how the technology works rather quickly.

"Lower hourly wages are just the beginning of the benefits for customers. Rural sourcing provides easier access to programmers and eliminates many of the problems encountered when dealing with overseas services, such as different time zones and language capabilities" [1].

Resulting Context

Organizations can expect to address their immediate needs by keeping the skilled temporary workers in "ready state" at a rural development facility. These "bench" team members working alongside the experts in the area can assimilate seamlessly with the project team and the projects can be completed in a timely manner and within budgets.

To resolve other forces, organization should also consider adopting patterns like "Council of the Wise" that would ensure adequate knowledge transfer and development of subject matter experts.

2.3. Council of the Wise

Motivation

The lack of company's business and technology knowledge can cause problems for the temporary staff and delay the projects. One viable solution to this problem is to keep them in a ready state by engaging them in all the learning and development activities related to the technology and business of your organization. Over time, these temporary workers can be developed into strong Subject Matter Experts and form a "council of the wise". This Council of the Wise then can contribute to the success of future projects. Having a team of experts with "right" skill set shortens the Systems Development Life Cycle and increases the likelihood of implementing projects within deadlines and budgets.

Context

You are an IT leader. Your organization has contracted a temporary resource provider located in a rural setting. You need to keep this pool of transient workers ready by providing them continuous learning and development opportunities to develop them into strong subject matter experts.

Problem

You are an IT Leader. You have a pool of temporary resources. You need to develop them into strong Subject Matter Experts.

Forces

- Learning Curve: The temporary workers should welcome the opportunity to learn the technology and business from the subject matter experts.
- Knowledge Transfer: Some knowledge transfer will naturally occur through the dynamics of working together with the temporary resource.
- Time is of the Essence: The time for knowledge transfer is often viewed as an impediment to the immediate goal of meeting deadlines.
- Growing Pains: It would be time consuming and a painful experience for the temporary workers to become system "experts" on their own.

Solution

You can develop strong Subject Matter Experts to form a council of the wise by keeping the transient workforce engaged in all learning and development activities related to the technology and business of your organization.

You can do a number of things to keep all your temporary workers trained and knowledgeable about your technical environment. You can team up the temporary workers with your subject matter experts (full time employees) who have great knowledge of your business and technology. You can conduct learning and development Webinar sessions where the FTE Subject Matter Experts share their knowledge about different modules of your applications and other technical systems. You can have the inactive temp resources shadow the active resources so they attend the Business Requirement/Technical Design review sessions for active projects to learn about the new changes being made to the system.

Discussion

You can continue to train your temporary workers by engaging them in Business requirement review sessions, sharing knowledge with them by conducting Webinar sessions, and by teaming them up with the experts when they are assigned a project.

Known Uses

In addition to the core team of full time staff, an IT leader manages a team of several offsite consultants located at "Cross USA" development facility in Eveleth Minnesota. To be able to assign these temporary workers to any new initiative, it is imperative for the IT leader to train and develop these resources on a constant basis. He conducts learning and development webinar sessions twice a month where subject matter experts from various IS areas are invited to speak to the group.

In these Webinar sessions, subject matter experts explain to the team the inner workings/aspects of the system to enhance their technical and business knowledge. The documents from these training sessions are stored on project website (SharePoint) and department Wiki sites.

Working with the leadership of Cross USA, the IT leader makes sure that all bench resources attend the requirement/design review sessions along with their colleagues to continue to understand/learn the new enhancements to the system. Also, when the time comes to call upon the bench resources, they are teamed up with the experts who help set the direction for the temporary workers.

This has been working out great as both the client and the temporary resource supplier benefit with this unique arrangement. The Healthcare organization does not lose time and money in waiting to hire local expensive resources that have no clue about their technology and the temp resource provider benefits by getting the first opportunity to keep its consultants engaged/hired most of all the time.

“You need a constant supply of the right, cheap talent,” said Brandi Moore, a New York outsourcing specialist” [1].

Resulting Context

Once the IT manager keeps the temporary resources engaged with all learning and development activities, they will become subject matter experts rather quickly. That will enable the IT leader to assemble a team at a moment’s notice to address any urgent/critical business needs. The expert “bench team” members can assimilate seamlessly with the project team when they are called upon.

3. CONCLUSION

The Rural Outsourcing Patterns of Engagement present strategies that could be used to utilize and manage the temporary workforce effectively. These practices ensure that you have a pool of transient workers in ready state. You will be able to mix and match these temporary resources with the full time employees to create winning teams. These patterns will help maximize the utilization of the temporary workforce.

“It’s always easier to work with people from the same business culture,” Ms. Moore said. “It makes communication a lot simpler, with fewer misunderstandings.” C & L hopes to expand by adding an operation in the Midwest. “We’re building a national footprint,” Mr. Liebman said, “and bringing jobs back to the U.S.” [1].

Rural outsourcing provides the flexible temporary staffing that supplements your core team of full-time employees with skilled temporary workers. When the demand is up, you can count on your bench strength to get on the floor immediately and when the demand drops, these team players can go back to the bench and keep themselves abreast of what is going on around them by participating in training webinar sessions or by doing a peer review of what their colleagues are working on. I believe these patterns would become industry standard in no time.

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REFERENCES

- [1] Field, Ann, “*Some work, at least for those off beaten path*”, Crains New York, 2/20/2011, For Complete article please see, <http://www.crainsnewyork.com/article/20110220/SMALLBIZ/302209985>
- [2] Olson, Elizabeth, “*The rise of the permanently temporary worker*” Fortune Magazine, May 05, 2011. For Complete article please see, <http://management.fortune.cnn.com/2011/05/05/the-rise-of-the-permanently-temporary-worker/>

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