Do you dare to ask your HR Manager to practice KANBAN?

The experience report of an offshore software company in Sri Lanka introducing agile practices into its Human Resource (HR) department

Thushara Wijewardena
Exilesoft (Pvt.) Ltd.
Colombo, Sri Lanka
e-mail: twi@exilesoft.com

Abstract – **This paper describes how a mid-sized offshore software development company in Sri Lanka, introduced agile practices to its HR department. The HR team now facilitates its own proactive agile project organization, thus overcoming most of the impediments often experienced by traditional HR departments.**

Keywords: project management; KANBAN; scrum; lean; management; Human Resource

I. BACKGROUND

Exilesoft is an offshore software development company in Sri Lanka which caters to the Scandinavian and Australian markets. Eighty percent of its 100+ staff is directly involved in software development (referred as project organization), while the balance 20% is in support functions such as HR, Information Technology (IT) infrastructure, Finance and other operational functions.

As with any offshore software service provider, Exilesoft faces many challenges on a day to day basis. Some of the key issues such as complexities associated with understanding user requirements, misunderstanding resulting from lack of transparency within the engineering phase, "Us against them" approach[1], longer working hours for both parties caused by time-zone and cultural differences, created a stressful environment for Exilesoft and its clients.

In order to overcome these issues and to improve its quality and productivity, Exilesoft project office transformed to agile process in late 2008. Upon successful completion of its first integrated offshore-Scrum project, the company scaled its agile practices to all the offshore development teams across the project organization.

The result: Within 2½ years Exilesoft increased its staff strength from 35 to over 100, improved business profitability, and improved the quality of the work climate for its employees as well as for its clientele.

With the rapid change from a traditional project culture to an agile one and the speedy growth of the project organization, supporting functionalities such as HR and operations were stressed out. When the HR department was not up to speed to support the demands of the project organization, a high degree of negative stress and frustration was created throughout the company. Engineers started losing respect of the HR Department, its services and its processes. HR started introducing stricter processes in order to cope with the situation. Yet their attempts often resulted in delays and a lack of quality in every aspect of their work – from deliverables to services. The project organization as well as the Chief Executive Officer (CEO) of the company had great concerns over this worsened situation. The HR manager herself understood that there should be a change in the operations model. The Project Director of the company, who is quite convinced with the success brought about by agile practices to the project organization, believed that employing the same agile concepts within the HR department would also deliver positive results. The CEO of the company also agreed that having one work culture across the organization will remove many challenges faced by Exilesoft. With this idea, Exilesoft senior management group launched an initiative to introduce agile concepts to its HR department.

This paper explains the issues faced by Exilesoft's agile project organization due to traditional HR department practices, the causes for such problems, the agile introduction to HR department and complexities faced in such endeavor and, of course, the outcome of this exercise.

---

[1] "Us against them" approach – this is quite a common problem where you have a supplier-buyer form of relationship. This is further aggravated by distance, time zone, cultural differences and approaches used in delivering service.

II. THE PROBLEMS

Several rounds of discussions were held and a detailed analysis was done by a combined team of engineering staff, Project Management and HR Management. This activity provided insight and clarity about the situation. Key impediments – direct and indirect – involving the HR department and affecting the agile project organization of Exilesoft were identified. A direct, confronting approach was used instead of a typical fact finding survey approach. Some of the identified problems are as follows:

A. Inefficient recruitment process

1. Latency in the recruiting process when sourcing Software Engineers for project requirements;

2. Advertising campaigns launched by the HR department failed to attract senior engineers from the market, despite the need for engineers of a higher caliber for the scrum teams;

3. Rigid HR interview process;

4. Rules and policies for new recruit induction which creates a "Someone is watching me" atmosphere.

B. Handling staff, attendance and leave process

1. HR department showed recognition for extra hours worked (very traditional and typical in software offshore companies). This created frustration in delivery staff because of this non-productive focus on time and schedules as opposed to flexible work hours that are customary for agile teams.

2. Leave notifications of engineers were routed directly to the HR department instead of their teams.

3. Policy formalities took leading importance over staff management, instead of human interactions and face-to-face casual discussions.

C. Latency in delivery

1. Offshore agile projects demanded various co-location requirements in each team. Handling visa processing and other logistics for customers visiting Sri Lanka and for teams visiting customers was not being done on a timely basis. Extending these timelines created chaos in the project organization.

2. Major time-consuming tasks, such as employee handbook creation/updating and revamping recruitment processes were delivered over several months (the reason was due to the burden of day-to-day tasks). This created organization-wide inefficiencies and frustration within the project organization. This imbalance created a sense of hyper-productivity in the Development staff and a sense of significant inefficiency in the HR staff.

D. Incompatible employee evaluation process

HR department focused heavily on a traditional, form-based, 360 degree employee evaluation process which was supplemented by individual performance matrixes at Exilesoft. Numerous discussions were conducted with the objective of changing this to comply with the team culture. However, all these efforts ended up without a clear commitment to changing the process. The HR department resisted change, mentioning that "Anyway, we do have a process in place."

III. THE CAUSES

The root causes for the problems identified above were carefully analyzed by the management team. Fishbone diagram technique was used in complex scenarios. Most of the findings had similarities to the problems of traditional offshore development process, before adapting agile practices. Some of the key problems are as follows:

A. The HR department was isolated from the project organization, except for a monthly meeting with the project director (quite similar to customer and offshore-team isolation).

B. Clearly, what agile meant to the HR department was totally different to what it was to the project organization. Even the new recruitment advertisements, published by HR department, failed to reflect company's agile branding efforts.

C. Most requests such as recruitment needs were sent to HR department over email (note the similarity to a traditional onshore-customer sending a requirement specification via email to offshore-developers). Due to this distant approach, HR department didn't have an appreciation for the needs of the project organization – it was merely another task to be performed.

D. A larger number of tasks were initiated but many remained as work-in-progress (WIP), sometimes as long as several months, while some were not delivered at all. This created a backlog of obsolete tasks.

E. Frustration created by HR staff involving recognition (from a lack of transparency) resulted in losing sight of progress and an assumed lack of effort on the part of HR.

IV. PROPOSED SOLUTION

HR, as a facilitating organization to the project organization of Exilesoft, needed to have more integration with the project organization practices. A new strategy to increase the productivity of HR operations was essential. To achieve this goal, three prerequisites had to be fulfilled.

A. Improve the knowledge of agile concepts among HR staff

It was understood that Exilesoft could not proceed with a traditional and isolated HR department while trying to capitalize on agile practice in their sales and development processes. To understand agile practices of project organization, HR staff needs to have sufficient knowledge on agile concepts which have been embraced by the project organization. This would help the HR department to communicate better with the project organization and deliver based on common goals and expectations.

To understand the gap in knowledge, the company conducted an anonymous survey among the HR staff. Based on the answers given, the knowledge gap was understood and a training program was carried out to bring all staff up to level 'C' as shown in the following diagram.
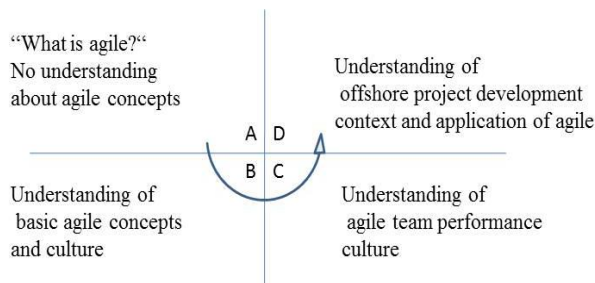

Figure 1.   Stages of knowledge improvments

The project director conducted several workshops to provide necessary understanding to the HR staff. Instead using engineering examples for training, some simple examples which they can relate with: Making a toy bird to the market using agile concepts was used to highlight the value of timely deliveries and team work.

B. Implement lean concepts to work with HR functions

To improve the productivity of the HR functions, HR department agreed to try out selected agile methods for their day-to-day operations.

1. Feasibility of implementing Scrum

The initial idea was to implement the Scrum process for the HR department. However there were many foreseen difficulties to implement Scrum in the context of their work:

a) Time boxing

HR department has difficulties to commit to a specific time box and deliver only the committed tasks within the time box. Nature of HR functionalities had a greater amount of ad-hoc requests and some of the tasks demanded immediate deliveries.

b) Scheduled releases

Services of the HR function needed all time-based deliveries; it's difficult to achieve any scheduled deliveries of group of tasks in every 5 days or 10 days sprints.

c) Story point estimation

Estimating the story of recruiting a software engineer as point 20 or another story of addressing a leave issue as point 100 didn't make much sense. Relative estimation [3] was difficult as stories carried functions in different context (e.g.: comparing sizes of buildings vs. T-shirt sizes).

d) Sprint burn down

In a sprint, it needs to burn all the tasks to 0 and then commit to a different set of tasks in the next sprint. Simply put, it is impossible in HR operational activities. Activities flow every day and every moment.

e) Involvement of multiple teams

It was discussed to bring multiple teams together from the HR department and the project organization to facilitate integration. There were many tasks carried out by the HR department which needed support and expertise from the project organization.

2. Studying KANBAN

It's understood that KANBAN could be a better fit for the HR department over Scrum process practiced by Exilesoft's project organization. Some of the key findings were as follows:

a) Flexibility

KANBAN supported everyday planning required for HR functions. Planning on a daily basis and discarding previous day's plans was possible with KANBAN approach. Further, KANBAN did not demand stacking and delivering of specific block of tasks at a time. Instead it allowed time-based delivery. Most of the HR tasks could not wait for planned releases. When something was done, it was required to be delivered as soon as possible.

b) Lean thinking

KANBAN brought more Lean thinking needed for the HR Management over Scrum.

c) Estimation is optional

Having Story point estimation/ Relative estimation was not meaningful for many of the tasks to be carried out by HR department. KANBAN did not demand such estimation.

d) Cycle time monitoring

Cycle-time monitoring and transparency of cycle-time for each task was required (e.g.: time taken for a new employee to sign in with Exilesoft, from the time the request for the vacancy was raised by the project organization)

e) Limiting Work-In-Process level[2]

This concept could solve one of the biggest issues in the HR department. A huge stack of tasks were initiated whenever there was a request. However, most of them were never delivered and stayed in WIP stage for long periods. This was a key indicator that made KANBAN a better fit for HR. Limiting the WIP level and defining a maximum WIP level could prevent the HR department from committing to work on various tasks which would exceed their capacity. Selecting the right priority instead, focusing on them and delivering them faster could deliver better results.

f) Visibility of work via KANBAN board

KANABAN board allowed all the stakeholders involved to create a clear picture about what HR department is currently working on and when expected deliveries would occur.

g) Purging the backlog

There would be low priority stories that were not delivered. Delivering these items later than expected timelines did not deliver value (e.g.: employee awareness program was needed before announcing the upcoming acquisition had no value of delivery after the announcement was made to the staff). KANBAN allowed purging the backlog periodically to get rid of those obsolete items.

3. Remove isolation between HR department and the project organization

Bridging the distance between HR department and the project organization – two critical components of the company – was imperative to achieve better performance levels. A proposal was made for a representative of the project organization, such as Project director or the Head of Deliveries, to participate in daily KANBAN meetings in front of the HR KANBAN board. The expectation was to reduce any dependencies between HR and project organization which may create latency. Further, this would avoid "requirements-over-the-wall" approach and expected to create better understanding, respect and

communication between people working in both organizations.

V. IMPLEMENTATION OF KEY KANBAN VALUES

Real implementation was carried out in several stages.

A. Setting up guidelines

HR department receives requests from various stakeholders. Some of these requests come without declaring its purpose. Eighty percent of the staff at Exilesoft was already familiar with the product backlog stories and the standard format[3]. It was agreed to use the same to create the backlog for HR functions. See Table 1 for a set of sample stories.

When the requests were collected in such improved manner, it reduced the level of misunderstandings by the HR staff about the requests and tasks. Especially, when the HR team was aware why they needed to do such work, it helped them to increase the quality expectation of the delivery.

TABLE I.   TABLE 1: SAMPLE STORIES:

ID	As a/an/the	I need	So that
1	CEO of the company	The employee training program to contain coprorate vision, mission and the company values	All the employees will have constant reminders of those values in order to pull together as one corporate body.
2	Operations Manager of the company	All the employees to be aware of the company administration policies	The day-to-day issues to be handled with regard to disciplinary issues would be minimal.
3	Team lead of star team	To have an event organized for the team to celebrate the upcoming final release of the project	We can recognize the team effort.
4	Staff	To produce a letter to the Australian Migration office before end of November	I can prove my work experience needed for the PR application
5	Project director	5 new recruits in Java techlead caliber by 1st week of December 2009	We can initiate the new Automated warehouse product development.

a) Usage of "Done"

Defining what it means by "Done" found to be very useful on all the tasks. As an example, in user story ID 2, "Done" mean that the employee handbook should cover all the administrative policies, they should be discussed with

the staff and should be posted to the company intranet in order to facilitate easy access to it by all employees.

A strict rule was enforced to keep the stories marked with its priority by the HR team based on the understanding with the required stakeholders.

b) Team

Initially, one team was formed with the HR staff. The Operations Manager of the company acted as the product owner as and when needed, and the HR manager acted as the team lead. However, there were certain tasks which they had to work with temporary teams of project organization as well. HR team was given sufficient training to convert from traditional management thinking to agile leadership and team play thinking during the workshop mentioned in section IV -A.

c) Task board

HR manager's office wall was used as the task board. Task board was managed by the team. The stories were pasted in the stack column. Based on the priorities the stories were broken in to tasks and pasted in the "To do" column. Sticky notes of the same color were used to identify tasks pertaining to a single user story.

TABLE II. THE TASK BOARD COLUMNS.

Stack	To do	WIP	Done
The stories of the backlog	Valid stories to be executed based on priorities after breaking them to tasks	Tasks which are in WIP status	The user story is moved to Done when all the tasks of the story are moved to Done

A sticky note for a story has following time stamps and guidelines as shown in the Figure 2.

[Date this was introduced to the stack]

[Date this was Moved to To Do]

[Priority]

Story

[Date this was Moved to WIP]

[Date this was Moved to Done]

Figure 2. Story Card

This approach helped to create visibility of how the stories were moving from the Stack to Done column [4].

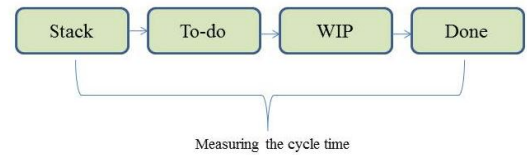Stack → To-do → WIP → Done

Measuring the cycle time

Figure 3. Cycle time

Further, it helped to move many HR activities, which were stuck in the WIP stage for months, to Done column within days. Any task staying in WIP stage for over a week is given special attention and the blockers are identified and dealt with in an effective manner to remove them.

d) Daily meeting

HR team conducts daily meetings in front of the KANBAN board at 9.30 AM Sri Lanka time. Project director or a delivery manager from project organization participates in the HR KANBAN meeting frequently. The meeting is limited to 20 minutes. When there were other teams involved for certain tasks, those teams also participated the same meeting to update the HR team about their progress and dependencies.

B. Issues and complications

The HR team initially faced several issues with the changes in style of management as well as the process. However, the HR team was in a mindset of overcoming these issues, instead trying to throw the concept out by saying "this does not work for us". The key contributor for such motivation was the extensive amount of training received by them prior to the implementation and the self-evident benefits within a short time frame. The key challenges are as follows:

1. Challenge of making certain tasks transparent via the KANBAN board

Some tasks contained information possibly sensitive to the staff. To avoid displaying of such tasks on the HR manager's office wall, later on, it was decided to have a web-based KANBAN tool. Exilesoft Project organization developed a tool called "Lean Leak", using HTML 5, which is now in use by most of the team.

2. Minor ad-hoc tasks

There were many smaller tasks flowing in to the HR department on a daily basis. Posting those trivial tasks on the KANBAN board was overkill. A guideline was given to the team members how and when a task should be

posted on to the KANBAN board. Minor tasks (which do not make on to the KANBAN board) were attended by the team based on the level of priority and their availability.

3. Dealing with daily routine tasks

It was decided that, routine tasks, such as checking the cleanliness of the office, be handled outside the KANBAN board. The members decided on a six-hour KANBAN day instead of the usual eight hours in order to leave room for such work.

VI. OUTCOME

The agile implementation delivered visible and positive results within a mere six months. The HR department and the project organization of the company started to work more closely, with a better understanding of each other's capacity, priorities and the expected level of quality. This created a culture, which is focused more on solutions, instead of different entities trying to pass the buck. Some of the key visibilities are as follows:

A. HR department achieved a marked improvement in productivity. The task progress visibility is very high.

B. All members of the HR department work as a team to move tasks forward as efficiently as possible. They have a clear understanding of the expected quality by different stakeholders.

C. Communication and delegation within the HR department is greatly improved. The HR department culture is now closer to what is practiced in the project organization.

D. Most the HR related issues with the software developers are now handled as casual discussions instead issuing formal letters and calling for formal meetings.

E. HR department and the project organization together has formed a committee to revamp its form-based 360-degree evaluation process, to a employee performance building process, which will facilitate more frequent reviews among the teams. This rapid feedback loops are expected to reinforce and energize the culture in a positive manner.

F. Company's agile maturity is more visible in the recruitment process, to attract better candidates who wanted to work in a different culture against the typical offshore software factory culture.

G. HR department attaches a high value to team activities in the organization, such as arts competitions and games among the teams.

H. HR department introduced a new concept to the project organization. This is to identify a key recognition factor for each team, so that it creates a sense of pride within the team. Each project was recognized with a unique value. Some examples: one team was recognized as the highest revenue generation project team of the company; the Unstructured Information Management Application project team was identified as the team using out-of-the-box technology; the application support team working to client-oriented calendar was recognized as the highest committed team; the automated warehouse development team was recognized as a team working with robots; etc. This created pride within the teams as well as individuals for this unique recognition. It helps increasing the self-motivation of the developers towards working for their committed projects instead of frequent requests to change projects.

I. HR department now has more recognition and respect from the project organization due to their genuine effort to facilitate the performance of the project organization.

VII. CONCLUSION

Nowadays, software companies adapt agile concepts for their development teams rapidly. However, the lack of understanding of such concepts by other facilitating entities of the organization, such as HR department, may create complexities and slow down the expected return of such agile transformation by its production staff. Further, with current dynamic business climate, the entire organization – including supporting departments – is challenged to deliver more with less. Unless agile culture is introduced not only to the core departments but to all facilitating entities, it will be impossible to avoid conflicting work cultures within the same organization.

Today, Exilesoft has overcome most the key challenges of agile transition of the project organization, by standardizing the same concepts across its other facilitating entities, such as HR department. This transformation has resulted in significant improvement in productivity and highly motivated teams across the organization.

It would be interesting to observe how this transformation continues at Exilesoft. Further, the approach towards a similar situation within a much larger organization is also an interesting subject to study.

ACKNOWLEDGEMENT

REFERENCES

[1] Mike Cohn, Agile Estimation and Planning, 3rd ed., Robert C Martin Series, 2008, pp.35–47.

[2] Crisp [Article on the Internet]. Henrik Kniberg, "Kanban vs Scrum – how to make the best of both" [updated 2009 June 29; cited 2010 May 12]. Available from: http://www.crisp.se/henrik.kniberg/Kanban-vs-Scrum.pdf

[3] Mike Cohn, User Stories Applied: For agile software development, 2009, pp.75–83.

[4] InfoQ [Article on the Internet]. Kenji Hiranabe, "Visualizing Agile Projects using Kanban Boards" [updated 2007 Aug 27; cited 2010 Apil 22]. Available from: http://www.infoq.com/articles/agile-kanban-boards