Realize the potential of Global Agile in financial services
Capitalize on a global talent pool for smooth implementation

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Global Agile imperatives for financial services institutions (FSIs)

The IT ecosystem of financial services institutions faces several challenges in aligning business needs with IT solutions. The challenges span regulatory compliance (Basel III and SEPA), technology platforms (delivery channels, core systems, payments processing, risk management, trading, pricing, and valuation), and management (cost, time to market and business transformation). Financial companies address these challenges by adopting Agile development methodologies such as Scrum, Feature-driven Development (FDD), Agile modeling, lean development, Extreme Programming (XP), and Microsoft Solutions Framework (MSF). In this point of view, we find out how financial institutions can use their globally distributed workforce to implement the Global Agile development methodology.

Challenges of Global Agile

Financial services institutions that adopt Global Agile realize that managing the people / team dimension is more challenging in Global Agile projects than in a collocated Agile environment. Global institutions face bigger challenges due to the complexity of system requirements. In addition, several companies do not proactively focus on the people / team dimension of Global Agile execution.

People issues arise due to aspects endemic in Global Agile. Global Agile teams span functional, organizational and cultural boundaries. The absence of face-to-face interactions leads to the lack of trust and confidence among team members. Cultural differences, physical distance, and temporal distribution compound the challenges of Global Agile development. Exhibit 1 summarizes the challenges faced by financial services institutions executing Global Agile development.

### Exhibit 1

**Challenges of Global Agile development**

- Lack of team cohesion
- Limited communication and knowledge sharing
- Sub-optimal team configuration and task division
- Sub-optimal governance
- Sub-optimal support from organization and business users

Global Agile project stakeholders

- Development team
- Business analyst
- Project managers
- Project management office
- IT operations
- Business users / clients
- Senior managers
**Challenge 1
Lack of team cohesion**

Team chemistry suffers when institutions do not proactively identify the right Global Agile team and work toward developing it into a coherent unit. In such projects, some team members may lack technical, interpersonal, functional, and process skills. In other members, the ability to learn on-the-job may be poor. Cultural differences (national, professional, attitudinal, etc.) may further hamper cooperation within the team. Moreover, silos in an organization make the formation of a cohesive, cross-functional Global Agile team a difficult proposition. For instance, several development teams experience reluctance on the part of IT operations / infrastructure teams to adapt to the project needs of Global Agile. Consequently, development processes are not integrated with IT operations / infrastructure processes.

**Challenge 2
Limited communication and knowledge sharing**

In the absence of formal communication channels, avenues of training, and knowledge management (KM) practices, team members do not communicate effectively or share knowledge with each other. As a result, the team lacks contextual technical and Agile knowledge. For instance, team members may believe that Agile methodologies need to be followed in a rigid manner. Others may focus on waterfall methods (rigid document templates, mandatory requirements sign-off, etc.), leading to interference with their work. The absence of advanced infrastructure can adversely impact the quality and frequency of communication. Ideas and knowledge cannot be shared across the organization without appropriate documentation and knowledge sharing tools. Moreover, communication with business users and senior leaders can also face obstacles.

**Challenge 3
Sub-optimal team configuration and task division**

Tasks such as configuration management require meticulous planning. Pair programming, where two team members work alongside each other on the same code, is difficult within a distributed Global Agile team. When equivalent practices (e.g. code review) are not implemented, it results in a substandard code. In many situations, task allocation is sub-optimal – work gets allocated based on location rather than user stories. It results in siloed over-specialization and dependence on a specific location’s team members for implementation of a particular component.

**Challenge 4
Sub-optimal governance**

The lack of a robust governance structure and practices leads to issues in coordination, control and oversight. It’s common for there to be almost no symmetry in the methods of the development team, project manager, and project management office (PMO). For instance, developers may insist on ‘minimal process overheads’, which increases the business risk of the project. The PMO may insist on the team adopting several processes, all of which may not add value. PMO members may follow conventional development processes (e.g., waterfall). Project managers (PMs) may not be able to manage expectations of senior management, or may make unrealistic commitments, which the development team cannot meet. The PMO may not trust PMs and believe that they furnish inaccurate status reports. Moreover, members of the PMO may not be trained in Global Agile methodologies. Consequently, PMs focus on traditional project management and adhere to the project management body of knowledge (PMBOK). In project situations, PMO members tend to get overly involved in hands-on project management and ignore the big picture. They fail to conceptualize and implement support systems for project managers or extend the existing Agile frameworks.

**Challenge 5:
Sub-optimal support from senior leaders and business users**

A flat organization structure is imperative for Global Agile project execution. In many institutions, several management and organizational layers exist between development teams and business users. On one hand, the departmental structure may be inflexible; on the other, the development team may lack autonomy. A siloed approach inhibits formation of cross-functional Global Agile teams and impacts the decision-making capability of teams. In addition, senior leaders and business users may not be aware of Global Agile practices and the support required by the team. Consequently, expectations and understanding of project deliverables differ among stakeholders. Moreover, the resource allocation model of the institution may prevent an Agile development team from working on a project for long.
1 Team composition:
A Global Agile project requires an optimal team structure. Team size, location mix, ramp up / down considerations, and diversity (social skills, functional expertise, work experience, and personality type) are critical dimensions. The project must be staffed with motivated individuals capable of performing multiple roles. The capability of institutions to facilitate role interchangeability and team reconfiguration is crucial. In addition to task-related technical skills, team members must have sound interpersonal and conflict management skills. They must be good communicators and capable of working with members of diverse cultures. Only team members who can add value must be inducted. Business analysts at both the business users’ site as well as collocated with the distributed development team (at least, at major locations) are highly recommended. Similarly, QA analysts must be involved from the formative stages. It is advisable to have small teams or break large teams into smaller sub-teams. The team must be structured by functionality (user stories) rather than SDLC activity. Moreover, a team member must not be shared across two parallel sprints. Global teams must be located in a manner that there is some degree of overlap in working hours. Rotation of team members across locations is recommended.

2 Team processes
Processes for coordination, management, communication, collaboration, feedback, decision making, and centralization / autonomy must be well defined. Short iterations, constant feedback, continuous integration and build, daily meetings, story-based requirements, burn down lists, and white boarding are processes followed in Global Agile projects. In sprint planning meetings, the team must agree on the backlog. Planning must be done repeatedly and feedback of each sprint must be the input for re-planning in the upcoming sprint. Ongoing and regular feedback must be sought during daily stand-up meetings, iteration demos and iteration retrospectives. Such inputs improve the quality of software.

The team must hold quick and regular check-ins. Sprints can be managed through 15 – 20 minute daily stand-up meetings. Wherever required, replacing Agile practices with equivalent practices is recommended, e.g. replacing pair programming with code reviews. In projects involving large and complex systems with several integration points, teams can perform stabilization sprints for extensive validation and testing before release. It is advisable to organize processes into a series of practices. IBM’s new release of RUP follows a practice approach that enables a higher level of modular adoption. Distribution of work must not be based on location because teams become over-specialized in specific components, resulting in knowledge silos. Tasks related to a single story must be distributed across the global team. The level of documentation in Global Agile execution must be higher than a collocated Agile project execution (provide user stories with use case diagrams). It avoids ambiguity in the understanding of dispersed teams. Project artifacts can be supported with demonstrations, examples and simulations (e.g. visual prototypes, storyboards, etc.).
Compatible ICT infrastructure and project tools at each team location are a must. Technology tools are convenient to schedule synchronous meetings across locations and provide team members with access to conference phones and hands-free headsets. Danske Bank’s IT department selected IBM Rational Team Concert, a teaming tool. The tool helps team members interact, and enables the PM to manage tasks, collect data, and access reports via dashboards. Whenever possible, teams must use video conferencing rather than voice conferencing. The ‘team room’ or ‘war room’ must be made accessible at each location for the team to collaborate, share context and review. Tools for seamless transition of work across geographies and time zones, prototype evaluation and sharing of Agile artifacts must be accessible across locations. The backlog – the sum of work in an Agile project – can be automated and stored for ready access. Stakeholders must be flexible and use tools that are most convenient for the situation. For instance, software architecture can be described in a recorded presentation. Similarly, videos of a JAD session and user stories can be used to describe the scope. A shared environment for business users and development teams is a boon. Exhibit 3 outlines the tools required for Global Agile project execution.

4 Team training

Team members and project stakeholders must undergo training in Global Agile principles. It is advisable for institutions to invest in certifications such as PMI-ACP for PMs and members of the PMO. Knowledge resources on Agile practices must be made readily available to stakeholders. Publishing internal Agile process and approach documents for stakeholders – including the IT organization – is recommended. The documents must explain Agile principles, how these deliver higher business value, and provide FAQs. At the outset of a project, development team members and stakeholders can undergo cross-cultural training. The IT group must be made aware of how Agile practices impact the project from the standpoint of infrastructure, operations and project management. It is imperative to train team members who have worked on projects using only traditional approaches such as waterfall. Activities of signing off requirements and performing detailed design reviews must not be followed during the Agile project. Project managers can perform the role of a coach. Similarly, business analysts can become ‘product owners’. Capital One developed internal SCRUM coaches to oversee Agile development. Institutions can use existing Agile practitioners from the firm to mentor new members. Learning Agile practices from existing Agile projects is an experiential learning approach that can be adopted. An external Agile consultant can be hired to guide the project initially. The IT division of BNP Paribas in the UK engaged Exoftware, an Irish IT consultancy, to train programmers in Agile methodology.

5 Team engagement

The expectations and roles of team members and stakeholders must be established at the outset. However, the team’s shared norms of conduct must be allowed to develop naturally. Mentoring and guiding the team must be a focus area. A senior person in the team can be assigned as a mentor. PMs and the PMO must excel in this crucial role. Institutions must encourage team members to broaden their horizon. For instance, business analysts need to understand how a technology constraint can cause design limitations. As far as possible, it is advisable to bring a majority of team members together at critical milestones of the project. In addition, staff rotation across locations is advisable. Organizing social events and off-sites for all stakeholders enhances team dynamics. The
The PMO, PMs and the development team must establish close ties and implement open communication strategies. PMOs should perform a mentoring role and support PMs. They can use communication methods such as the Kanban dashboard for insights at the macro and micro levels and to share information with stakeholders. The PMO must understand the context of status and the reason why PMs may not undertake factual reporting. If there is pressure, the PMO must garner executive support. The main focus of the PMO must be strategic rather than operational and hands-on project management. If getting a dedicated person as the PM is a challenge, one of the senior team members can be assigned the additional responsibility of the PM. Institutions must provide appropriate Agile project management tools to PMs for better execution of tasks.

A single set of shared measures for both client / business users and internal reporting is recommended. A governance dashboard for real-time status (issues, team progress, etc.) can be made available to stakeholders, including business users and senior leaders. Senior management must support Agile project execution throughout project execution. Leaders must create a flat organization by replacing the siloed department structure with communities of practice. Business users / clients must be fully engaged with the development team and become an intrinsic component of the solution.
Conclusion

Financial services institutions can execute Global Agile projects and develop world-class software by harnessing their distributed talent pool. However, Global Agile practices do not work in isolation. The success of Global Agile projects will be determined by the people dimension and project goal. Institutions can realize the benefits of Agile projects by proactively focusing on the people / team dimension and adopting the right approach.

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Anjani has 16 years of rich IT, domain and process consulting experience. Currently, he manages several strategic initiatives, including the Competency Development Program and Thought Leadership showcasing efforts. Over the years, he has provided consultation services and managed many large and critical client IT engagements. He was also recognized as the lead process auditor for the consumer banking division of a major global bank. He has rich techno functional skills and an in-depth understanding of quality and process models – CMMI, Six Sigma, ITIL etc. Anjani holds a bachelor of engineering degree from IIT Roorkee, and over the years he has earned many reputed and industry recognized domain and process certifications.

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