Digital agility in financial firms

Emmanuel Yoo
Orange

Abstract:

Agile methods appear to be the new paradigm for banking. According to most banking organisations, agility is now the key issue. This enthusiasm is attributable to the promised benefits of agility, which make it a workhorse in terms of internal communication and to attract new talent. However, implementing agile methods means defining new operating modes and therefore requires a transformation process that is not without risk for traditional organisations. Yet even for new, "natively agile" players, access to skilled resources and staff behaviour represent two challenges on an ever more competitive market.

Why is the banking sector moving to agility?

Agile methods bear substantial promises, such as taking the client experience into greater consideration, and especially providing a product that clients can use without a tunnel effect or timeframe control problems. The basic principle of agility is to deliver a product that can be tested by the bank's internal or external clients, within a predefined timeframe and with pre-allocated resources. This ensures results within a time and resource constraint, while complying with budgets and deadlines thanks to decisions made by the agile teams on a daily basis.

With the rollout of mobile apps, banks' performance is in fact compared with that of other digital players that sell their apps on the Apple or Android stores. These digital players were the first to move to agile methods and to issue frequent new releases of their products. Now, consumers expect banks to act rapidly to correct software bugs, improve the user experience and offer new features at a fast pace.

Multidisciplinary agile teams

Agile methods break with a traditional development model. The traditional model, also known as the V-Model, includes sequential steps whose timing is organised contractually (specifications, testing, etc.) between the business lines and IT. The V-Model organises resources by skillset. Agile methods are different in that they bring all the resources and skills needed to create a product together in multidisciplinary teams, with product delivery over a very short period of time (in "sprints" lasting a few weeks). Thus, an agile team typically includes a product owner (PO), who represents the business line and leads the rest of the development team, which includes IT business analysts, developers and DevOps engineers. The PO generally comes from the business line, and he or she consolidates and summarises all the business line requirements in an end-to-end approach to the processes in question. For a bank, in addition to the skills required for other organisations, the PO must also

handle risk and banking regulation issues. This multidisciplinary approach also exists in all the IT teams, which apply a cross-cutting collaboration within each team. Thus, development testers work alongside DevOps engineers, who are in charge of all IT operational aspects.

This grouping of resources in a single team, working together in a coordinated way every day, allows for immediate communication and avoids time-consuming "back and forth" communications with separate departments or teams. This enables an iterative working method and accelerated learning capacity, and especially, fluid decision-making, with no downtime. Thus, all the formal communication aspects of the development process are done away with. The agile method is characterised by communication focused sharply on action and rapid decision-making. This can be seen in a certain number of "rituals" and symbolic practices, such as visual management.

This flexibility results in a shorter time-to-market and more frequent and regular releases. While these releases admittedly cover a smaller scope, they avoid extended periods of time without software updates. The benefits of this way of working is fully visible to all the stakeholders connected to a bank: its clients, its regulatory authorities, its staff, etc.

This multidisciplinary approach requires traditional banks to implement organisational changes. New skills and new roles appear: product owners, scrum masters, agile coaches, development testers, and DevOps engineers. The repositioning of teams around these new job roles requires adjustments to both working methods and behaviour. Managers take on a new role, with partial delegation of decision-making to the agile teams. Their role becomes one of supporting the transformation, of developing rare skills; also, managers must coach their teams and ensure an uninterrupted flow of human and technical resources needed for the system to work fluidly.

Team set-up shaped by the IT architecture

Next, the dimensions of teams must be rapidly defined. The agile method relies on small-sized teams (around ten people) that can be easily managed. Therefore, several agile teams must be set up to cover the bank's chosen functional scope. Two organisation set-ups can be imagined: feature teams or component teams. Feature teams are set up so that each team's scope covers all the components of the architecture used to deliver a given product. This model is the closest to the agile philosophy. Conversely, component team are set up as specialist teams for each IT architecture component.

In reality, this organisational choice is entirely dependent on the IT architecture, especially its level of modularity. This factor is decisive for determining the team set-up. If the IT architecture includes cross-cutting monolithic components, a component team set-up will be required. However, if the architecture is modular, a feature team set-up can be considered from the outset. This all depends on the existing applications. It also gives a definite competitive lead to new players such as fintechs, which are not restricted by pre-existing architecture.

A deep-reaching change in working methods

Agile teams operate along a cycle of grooming, sprints and releases, along with a certain number of large-scale meetings, held on a regular basis, for goal alignment, sharing information and making decisions. This is the first operating level, which is generally rapidly understood by organisations that move to an agile method.

However, organisations often have greater difficulty understanding the extreme need for strict discipline in planning actions. After the agile teams have reached a stable level of performance and speed, they must constantly be given a prioritised backlog. To express this in more visual terms, an agile team is like a locomotive. It needs an engineer steadily shovelling in coal, or it will stop running. In other words, there is no use optimising part of the IT process if the upstream decision-making process does not follow suit. Therein lies one unexpected effect of the agile method: organisations often adopt the method thinking that the transformation needs will mainly be limited to the IT function, whereas in fact, this is just the start of a deep-reaching change that gradually spreads throughout the company to consolidate and scale up its benefits. In reality, this is natural if we adopt a perspective that covers the affected processes from one end to the other. The development and roll-out of new features corresponds to the final portion of a process that begins with the definition of a marketing and IT roadmap for the bank but does not include the definition of its strategy.

In practical terms, this requires setting up strict processes for handling requests in order to make stringent, consistent choices at each stage from the setting of annual objectives and budgets, to building a marketing and IT roadmap, to building a portfolio of projects and development requests. The eternal need to adjust requests to fit with available resources does not disappear in an agile method. Agility enables much more to be accomplished with the same level of resources and investment, but it has its own inherent limitations in terms of capacity. Therefore, management – in its enthusiasm for implementing new processes – must not neglect all the systems and governance structures that ensure a proper alignment of demand and capacity.

Nevertheless, this does not mean that bank's operations must be totally revolutionised. The transformation approach can be gradual. Agile teams always have a period for learning and moving forward before they reach a point where their efficiency is held back by all of the bank's processes. Thus, changes can be scheduled in phases.

Also on this aspect, we can see that small-scale organisations or start-ups have an advantage over traditional banks that must adapt. The gap widens with the size of the organisation and depending on whether the teams work in silos. Typically, fintechs stand out from traditional banks in adopting agile methodology at the proper scale. Traditional banks face greater challenges in this respect.

Technical choices and IT tools

The basic goal of the agile method is to enable a high frequency of new feature releases, while removing obstacles to making decisions and acting rapidly. As we have seen, this requires changes in set-up and working processes, with a focus on greater and more frequent sharing of information with a view to efficient decision-making across the bank's extended scope.

However, the requirements of the agile method do not stop there. The entire IT process is affected and must be redesigned to achieve efficiency at every level, from the design to the deployment phase. For instance, agile practices include test automation, the possibility to create on-demand environments ("Infrastructure as Code", IaC) and automated releases. These capacities require

implementation of an efficient CI/CD (Continuous Integration/Continuous Deployment) chain, including major gains in productivity and efficiency, and resulting in teams working faster and ultimately a shorter time-to-market. This is a key part of the agile method that causes a complete break in the choice of IT tools and operations in order to achieve the targeted gains.

While a gradual transformation approach is possible for some points, implementing an efficient CI/CD chain is a priority because it enables the initial positive effects to be achieved, setting off a virtuous circle to push the various stakeholders to adopt an agile method. This is also a priority to recruit the most talented staff, who will only decide to sign on with a company if these technical choices have already been made.

Make vs. Buy, or, the crucial human factor

Acquiring agile skills in-house requires striking a balance between the desire to move ahead rapidly and the necessary conditions for setting up permanent teams and a sustainable operating model.

Very often, it is tempting at first to resort to outside resources. The best practice is to use outside resources within a well-defined framework in terms of knowledge transfer over a specified timeframe. The role of high value-added outside resources is to make the transition easier by sharing best practices and adapting them to the bank's specific circumstances. The aim is to implement all segments of the agile methodology, to train staff through practice and to assist during the changeover. From this standpoint, internal staff is crucial for all management positions and for a core team of in-house experts. A good mix of in-house change agents and external consultants will then allow the nascent agile model to take root. This requires a certain amount of overinvestment, with experienced resources, on the one hand, and staff being trained, on the other hand, in order to bring the teams up to critical size.

The main pitfall to avoid is extending the transitional period. This transitional period, when the organisation relies on outside resources, may seem comfortable but it should not last too long. External service providers have no greater control over these high-demand resources than do the banks themselves. Millennials, changing behaviour, cyclical phases when employees have the upper hand: the job market for this kind of profile is very volatile. People with the right expertise manage their careers without second thoughts. This means that employers must offer attractive career prospects to these employees, allowing them to develop their knowledge of best practices and to leverage their experience. This is why the transitional phase must not last too long so that the organisation can rapidly reach cruising speed and achieve relative stability in its teams. It thus avoids the vicious circle of employee turnover.

High demand also leads to high staff costs. Nearshoring can be a solution, but it requires a degree of expertise in remote working methods, and even in that case, the risk of employee turnover is quite real.

On this point, regardless of the stakeholders involved, there are no guarantees because the key success factor on this highly competitive job market is the ability to foster an attractive business proposition.

Conclusion

The agile method is comprehensive and demanding because it radically changes the decision-making processes by broadly resorting to multidisciplinary teams that have decision-making power over the products they are responsible for developing. The banking sector's specific features make the PO role even more crucial. For the relevant IT scope, the agile method coincides with new job roles and behaviour for operational teams and managers. However, it is not just an organisational issue because the choices in terms of IT architecture and tools have an impact on the way that agile teams are set up and their level of performance. If its first stages are successful, the path towards a fully agile approach cannot be restricted to IT alone, but will also require gradual changes in all the bank's processes and its management culture for it to strengthen its competitive lead. What does not change is the need to align capacity and demand even if the level of productivity is higher. In the end, one of the biggest challenges in today's job market – where high level profiles have the upper hand – is to remain attractive as an employer.