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Checklist to review Inhouse Developments

Pricing Engine

THE BENEFIT OF GETTING IT RIGHT

Our target as Nova Services is to help our financial institution partners in making well founded decisions on how to build their next generation system architecture.

To achieve this we provide you with services and materials based on our expertise in both, the development of customized as well as off-the-shelf solutions.

The goal is to ensure that your project is successful at the first attempt, whether you choose to implement an off-the-shelf solution or to develop your own solution - with or without our help.

From our combined experience across more than thirteen (13 !) successful core transformation projects, hundreds of successful custom developments as well as some failed projects, we have identified the following 3 planning elements to be vital for a successful project:

- 1) a realistic resource requirements and timeline planning
- 2) a realistic total lifetime cost assessment
- 3) a clear technology and architectural plan

While we provide support for the creation of all these elements as services to our partners (for more information on our planning support please click [here](#)) we also want to provide you with free resources like this checklist to help you plan realistically.

RESOURCE REQUIREMENTS

Many transformation projects, but especially inhouse development projects, fail or fall well short of expectations because during the planning stages critical and often scarce resources are not sufficiently planned for and / or become insufficiently available during the project.

Impact:

This typically leads to delays, budget overruns and very often scope reductions in order to at least deliver “something” with those insufficient resources.

To Check:

1.) Does your resource plan include enough capacity for these often scarce resources inside your organization:

- ☐ Solution architects (required to design the target solution architecture) - estimated 12 day per 100 developer days for an inhouse development
- ☐ Core system experts (required for the integration and changes to the core system data structure) - estimated 13 days per 100 developer days for an inhouse development
- ☐ Business analysts (required to collect the business specification and to design the pricing logic) - estimated 29 day per 100 developer days for an inhouse development)

2.) Can you ensure priority for these scarce resources over other mission critical projects in your organization?

FULL LIFE-TIME COST ESTIMATE

A common issue when planning inhouse developments, or when assessing inhouse solutions vs external solutions, is the omission of cost elements not directly involved with the development of the system, but occurring at later stages, over the life-time of the system.

Impact:

Not considering future life-time costs often condemns new systems already in the planning stage to being less future ready than desired. If you don't plan for future upgrades due to strategic or regulatory changes, then costs often become the driver for system decisions instead of your business opportunities or requirements, which leads to a setup where you have to make compromises and wait for available resources for any improvement instead of leading the market.

To Check:

1.) Does your cost estimate include:

- ☐ Budget for future developments to accommodate new pricing requirements
- ☐ Budget for integration into new systems with new data structures (e.g. new channel platforms, CRM, core systems)
- ☐ Budget for maintainance and technical upgrades for the next 5 years
- ☐ Budget to regulatory change updates

2.) Have you considered and commonly agreed lost opportunity costs (unavailability of resources for other potentially mission critical developments) to ensure the project stays a priority for the entire duration?

REALISTIC TIMELINE

Another, though often related issue, is a realistic timeline. In order to keep up with business expectations, especially when competing with an external solution, timeline estimates are kept shorter than they realistically should be.

Especially the initial planning phase is often planned too short, and then often actually conducted too short, which can lead to significant project delays or even failure, if important requirements have been overlooked or the complexity of technical solutions been underestimated due to insufficient planning.

Impact:

Not creating a realistic timeline generally leads to tension between the internal customer (business) and the provider (IT) when the delivery of the product gets delayed. In the worst case those unplanned delays can upset business objectives as they potentially delay the roll-out of important pricing changes which are depending on the new solution.

To Check:

Does your timeline include the time needed for:

- ☐ Product requirements (business and technical)
- ☐ Product definition and technical design
- ☐ Architecture approvals
- ☐ Security reviews
- ☐ Integration delays
- ☐ User Acceptance Testing cycles (often more crucial in inhouse solutions as users expect more comfort as from an off-the-shelf solution)

TECHNICAL FLEXIBILITY

To ensure you don't run into planning issue it is important to evaluate the capacity of your solution to accommodate, especially in the case of a Pricing Engine, the variety of technical requirements as well as a readiness for future technology changes, like new systems which need to be integrated with the solution or changes in server strategy.

Impact:

Ensuring technical flexibility is crucial for the longevity of your inhouse solution. The worst case scenario is a system with a lengthy development cycle, which becomes obsolete due to technical environment changes after the development.

To Check:

1.) Does your development model take into account:

- ☐ Peak performance requirements (maximum volume to be price in peak events to ensure operations run smoothly also at peak events)
- ☐ Scalability requirements (ability to scale up quickly in case of volume increases as well as scale down to prevent expensive unused server capacity)
- ☐ Changes in server strategy (cloud vs. on-prem)
- ☐ Ability to connect to new systems with different data structures

2.) Is commonly agreed in which technical area you are ready to make compromises in order to keep project costs from expanding?

3.) Is the core measurement of success for this project commonly agreed? Especially delivery in time and on cost vs. scope and flexibility?

PRICING FLEXIBILITY

Especially with a solution that serves directly a rapidly evolving business need, like a pricing engine or digital channel solutions, it is vital to ensure a strong level of flexibility to ensure the solution can accommodate those rapidly changing business needs.

Impact:

The reason for most institutions to introduce an independent pricing engine is that their pricing needs have outgrown the confines of their core system, which historically hosted pricing, and the business impact has become strong enough to warrant the expense of a separate solution. Not providing sufficient flexibility in the pricing abilities of a new inhouse solution can either cause significant re-development efforts or even the development of an entirely new solution, creating additional time during business faces the exact same pains that have led to the development of this solution in the first place.

To Check:

Does your development model take into account potential future pricing scenarios like:

- ☐ Accumulation of data (counting / adding) and verification of limits for behavioral pricing
- ☐ Cross product bundle pricing with multiple and/or conditions
- ☐ Usage of CRM and other system inputs into pricing in the future



INHOUSE DEVELOPMENT CHECKLISTS

Nova delivers more than technology —
we create a modular, agile, and compliant foundation that empowers
banks to adapt faster, operate smarter, and stay competitive in a
changing world.