Impact of the strategic direction of a captive provider on the adoption of new technologies and procedural models

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Abstract: Multinational Corporations as well as Small and Medium Sized Enterprises (SMEs) increasingly count on an internal organizational entity to assure the provision of IT services for the headquarter as well as for remaining entities. These captive IT providers act in a field of tension based on centralized and decentralized decision power. These two perimeters determine the scope for actions, upon which new technologies and procedural models like agile software development impact. Based on our project experience, we describe typical constellations for captive IT providers and how new approaches can be incorporated in a beneficial way.

1 Introduction

Based on [Do07], we define a captive IT provider as an independent organizational entity, able to provide IT services to the parent and all related subsidiaries. Services can be provided by the captive itself or third parties. Following a platform based approach [Br14], the third parties could either be software vendors, technologial consultancies or the parent/related subsidiaries. Strategic direction of captive providers is set by CIO of the parent company. Based on [DE17a], CIOs in 2018 are more focused on assuring the provision of services rather than being a co-innovator or change instantiator. Part of the CIO's decision is also the degree of binding force that is levied upon organizational entities who potentially consume services from the internal provider. The following characteristics regarding the binding force can be found in practice:

- High level of contractual binding force: An internal service provider is always preferred over external service providers. Every request is directed towards the captive provider who determines if it is able/willing to provide specific services. If the captive declines, the service is sourced tfrom third parties on the market
- No contractual binding force: The internal service provider is required to prevail against IT service provider competitors from the market. As a result the captive IT provider needs to keep pace with other market participants that usually adopt quickly to new developments in terms of methodologies and shoring locations.

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Real time IT-systems can either support trends towards centralization or strengthen local decisions [SF18]. Whilst SMEs tend towards a centralized structure [CM13], MNCs tend towards a decentralized structure [SF18]. In the following sections we assess the implications for captive providers on the three most important upcoming changes in the way of working [DE17b]: Increase in agility/speed, dissolution of boundaries between IT and business and creation of an innovation ecosystem.

2 Captive IT providers

In the past, a paradigm shift took place. Organizations initially provided all IT services by themselves and consequently went towards building capabilities in-house for value creation, whilst using the large market of IT realization to capture the value [ES98]. The outsourcing market has been analyzed in research and practice, aiming to determine the benefits. A literature review on outcomes of these research streams can be found in [WFL96]. Nowadays outsourcing is common, motivations for doing so shift from mere cost-cutting towards enabling innovation and allowing M&A transactions [TTS16].

The boundary between creating and capturing value is shown in Tab. , where the implications on IT service provision in centralized and decentralized environments are shown.

Actor	**Tasks of actor in centralized environment**	**Tasks of actor in decentralized environment**
CIO	• Decides which technology and services are used	• Provides guidance and sets guardrails
Captive Provider	• Provides business knowledge from headquarter downwards • Orchestrates service provision (own/market) • Executes CIO's desires	• Supports local Business Units in reaching their goals • Orchestrates services
Third party vendor from market	• Delivers services in accordance to captive provider via body leasing, hence employees of vendor appear to be from captive	• Delivers services mostly coordinated with business units • Sporadical exchanges with captive provider
Business Units	• Delivers services in accordance with captive provider, figuring as employees of captive	• Delivers services with loose coupling

Tab. 1: Usual tasks of actors in centralized and decentralized environments

Since the captive might not be able to provide all services by himself, the captive could consider third-parties to provide IT services under a co-sourcing agreement. The co-sourcing approach for a captive provider comprehends outsourcing services as well as insourcing services. Services could be insourced if needed resources or knowledge were built up at the captive and the respective service can be provided. As a result from applying the co-sourcing approach, the captive's position as a partner of the business side of the parent and other subsidiaries should be strengthened since expectations in terms of knowledge on core competencies, agility and speed for IT projects are met. Our project experience has shown that a co-sourcing of 25% for a period of 1-2 years allows a high degree of knowledge transition from external vendors to the captive.

Based on [Br14] and our project experience, the following six dimensions impact the decision regarding outsourcing a specific service: Monetary valuation, functional depth and breadth of the service, ability to steer the vendor, amount of available resources for required service, responsiveness to change and finally the content of the contractual agreements. Moreover, the captive should be able to steer multiple external vendors.

3 Upcoming changes in the way of working

In a recent study, [DE17b] derived three changes in the way of working that are described further on:

- Increase in agility/speed: The use of agile software development methodologies (e.g. SCRUM) is associated with a decrease in the time to market. Agile principles focus on innovation and provide a methodological bridge between the business and IT department, covering the phases 'ideation', 'design & requirements', 'development', 'build', 'deploy', and 'test'. From a business perspective, adding functionality in a short period of time to gain/extend a competitive advantage is of increasing importance for headquarter and local subsidiaries. Herein, DevOps play a significant role, since they combine development and operations of enterprise solutions, allowing a faster deployment of changes in comparison to traditional software development methodologies. DevOps extends agile principles and bridges between software development and daily operation of the developed solution by involving daily operations teams early on during 'infrastructure', 'built', 'deploy', and 'monitoring' activities. Central to DevOps is the idea of 'shifting left': earlier phases in the software lifecycle are typically located to the left of later stages in the process flow. By involving teams responsible for operation of the developed solution during earlier phases than they used to be traditionally (i.e. by "shifting left"), benefits such as an increased focus on quality and issue prevention by testing early and often are realized. Consequently the DevOps approach is especially suitable for immature software products requiring frequent changes.

- Dissolution of boundaries between IT and business: The dissolution of the boundaries started when business users bought cloud-based CRM applications to

keep track of their sales and increase the overall income stream. Business side continuously contracted more applications. The dissolution of the classical purchase behavior, where the IT department is responsible for the acquisition, is increasingly putting business in the driver seat. Reactive IT departments are increasingly put under pressure since they need to integrate more and more applications they were not aware of. In addition, reactive IT departments are not seen as trusted partners for new purchases, hence not considered within the purchase process.

- Creation of an innovation ecosystem: An ecosystem can extend the reach of an enterprise by allowing others to provide products/services on the corporate platform [ABD13]. In addition, other subsidiaries or the parent company could provide functionality to the platform.

4 Impact of new ways of working on captive IT providers

The presented three new ways of working affect Captive IT providers. In order to show the implications of adopting the new ways of working, we analytically derived the impact on centralized and decentralized organizations.

The increase of agility/ speed might be well suited for a decentralized environment, since local subsidiaries can request fast developments to respond to local market requirements. Centralized environments do appreciate the increase of speed, though their need to evaluate and prioritize requirements from multiple locations is not fostering the increase in speed. DevOps extends the agile concept of cross functional teams by bringing in operations teams early on in the delivery lifecycle and is as such beneficial for both centralized and decentralized organizations.

The dissolution of boundaries between business and IT is already happening since business units disconnect from central purchasing, acquire their own solutions and request IT to run the solutions afterwards. In a centralized environment, the captive provider can strive to enforce its inclusion in IT-related projects via the CIO. In decentralized environments, the captive provider can provision IT expertise in each project by offering an agile working mode, having at least one member of the solution team from the captive involved.

Firm-specific innovation ecosystems are foreseen to foster in a centralized environment, since requests from all parts of the organization are bundled and solutions provided for all via the ecosystem. In a decentralized environment, additions to the central platform happen in a way that duplicate functionality might be added to the systems.

5 Captive of the future

After determining the impact of the new ways of working on captive providers, we propose the following set-up, depending on the degree of centrality.

In centralized environments the captive provider should be able to serve requirements from all subsidiaries whilst being orchestrated in a central fashion. Since centralization requires pooling requirements and local subsidiaries count on fast implementation of functionality, an approach to service all parties at the proper speed should be implemented like the RightSpeed approach [DE17]. Boundaries between business and IT should blur since the captive provider centrally demands to be part of all purchases with an IT relation. An innovative ecosystem is established on a central basis, allowing local subsidiaries to submit requests for additions.

In decentralized environments the captive provider shall act on an agile basis, since requirements are defined locally and do not need to be orchestrated in a centralized fashion. The introduction of a business-led IT lets the boundaries between business and IT fade. An innovative ecosystem should be created for each organizational unit, allowing local entities to add functionality to their solution

Based on our project experience, captive providers are usually able to increase the speed of service provision. Figure 1 shows two possible options for a captive to increase speed.

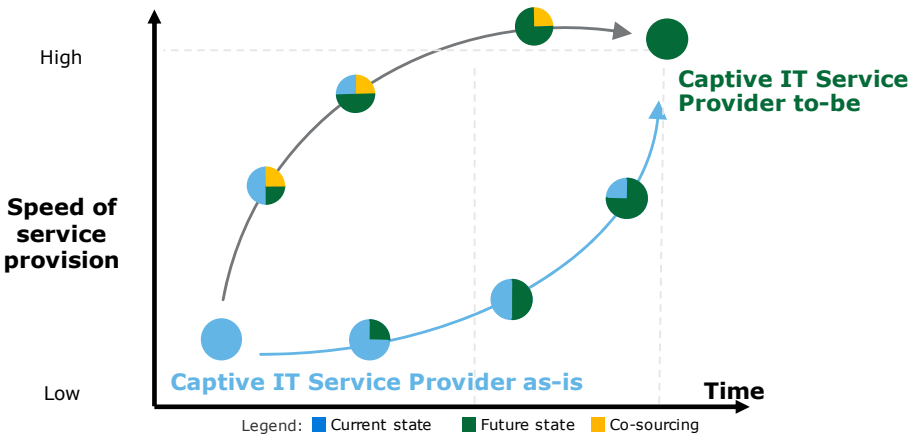

Figure 1: Evolution of a captive provider aiming to become faster

The first option is to induce the increase in speed without external assistance, resulting in a lengthy change process since the chain of command is used to introduce changes. Benefits are obtained at a very late stage.

Applying the co-sourcing approach, captive providers are able to achieve the target state faster and obtain benefits quickly due to:

- Short term skill availability, possibility to partially bypass chain of command via externals
- Early knowledge provision to increase agile way of working
- Captive IT provider's resources are enabled to focus on stabilizing and improving services since repetitive tasks are performed by externals

6 Conclusion and future research

In this article we described centralized and decentralized captive providers as well as the impact of new ways of working on them.

Future research could be dedicated to describe the Target Operating Model for captives in a centralized and decentralized environment. In addition, case studies could be used to undermine findings from this conceptual paper.

Increased agility is a topic not only relevant for the IT department. Insurance companies for example rely on a lengthy ideation and product design process. Given that such processes may become much more agile and faster paced on the business side, the implications on the captive provider in terms of strategy and on and tactical positioning could be analyzed in the future.

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