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Combining ITIL and Lean.The pursuit of perfection through continuous improvement

Master's Thesis

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Combining ITIL and Lean: The pursuit of perfection through continuous improvement

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Der zunehmend wettbewerbsorientierte Markt im Bereich Servicebusinesses zwingt multinationale Unternehmen (multinational corporations) dazu, verbessernde Massnahmen zu implementieren, um den Kundenanforderungen in puncto gesteigerter Servicequalität und Geschäftsanforderungen gerecht zu werden. Die Information Technology Infrastructure Library (ITIL) wurde von MNCs zur Gänze oder hinsichtlich der notwendigen Geschäftsanforderungen implementiert, um Prozesse effektiver zu managen und zu kontrollieren.

Dennoch vernachlässigt ITIL eine klares Kundennutzerversprechen und die Einbindung der Mitarbeiter. Lean wird in diesem Kontext als Mittel zur Problemlösung vorgeschlagen, nämlich um Kosten zu reduzieren, Produktivität zu steigern und in der Ausübung der täglich anfallenden Businessroutine flexibler bzw. „agiler“ zu werden. Die Anwendung von Lean innerhalb von ITIL gewinnt zunehmend an Popularität in wissenschaftlichen Kreisen, vornehmlich durch Lean's Erfolg in der Fertigungsindustrie.

Das Hauptaugenmerk dieser Untersuchung liegt bei der Dienstleistungserbringung der MNCs, welche komplexe prozessgesteuerte Industriezweige darstellen. Ziel ist es, ITIL's 7-Stufen Verbesserungsprozess zusammen mit Lean zu kombinieren, um einen beweglicheren und in kontinuierlicher Verbesserung begriffenen Prozessansatz darzustellen.

Gewählt wurde dazu eine qualitative Untersuchungs- und Forschungsmethode, bei welcher in Form von Interviews mit 20 geschäftsprozesserprobten Experten und nachfolgendem Sampling der Texte unter Anwendung eines Coding-Ansatzes der gesammelte Input evaluiert wurde.

Die Ergebnisse dieser Studie ergaben Erkenntnisse bezüglich der Abhängigkeiten von Lean und potentieller Vorteile in Kombination mit ITIL. Die Hauptschlussfolgerung zeigt, dass durch Lean Mitarbeiter mehr motiviert und im Zusammenhang mit einem hybriden Modell mit ITIL's 7-Stufen Verbesserungsprozess in vorteilhafter Art und Weise massgeblich zum Lernkreislauf und fortlaufendem Optimierungsprozess innerhalb einer Organisation beitragen konnten.

Abstract

An increasing competitive market in service businesses is driving multinational corporations (MNCs) to implement business improvement philosophies and methodologies in order to address customer requirements for better quality service and organizational demands for rising profit margins through cost reduction.

The Information Technology Infrastructure Library (ITIL) has been implemented by various MNCs, in full or as per business requirements in order to manage and control their processes more effectively. However due dynamic economic influences in recent year's these companies require to step up in their ability to become more agile and continuously improve their processes in order to react in an agile way to shifting market demands.

Although ITIL stands for a framework of best practices, it neglects a clear customer value proposition and provides only limited significance towards change. Lean, on the other hand, is a management methodology that has been suggested as a means to resolve these problems, by reducing costs, increase productivity and becoming more agile within daily business routines.

Lean's application within ITIL is becoming progressively popular among researchers, but despite the application of Lean approaches to different contexts within manufacturing industries, the specifics of Information Technology Service Management (ITSM) in the services industries remains largely untested.

Focus of this study is worldwide the service delivery industry of MNCs, which present complex process driven industries. The aim is to determine in which relation or what kind of potential there is for a hybrid ITIL seven-step improvement process and Lean model, in order to accomplish a more agile continual service improvement approach.

Table of contents

1 Introduction

Although Henry Ford may not have invented the assembly line technique of mass production, he certainly transformed the way we work today (The Henry Ford Org., 2015) and (by some means) initiated the thinking of modern process improvement. During the 1920s quality control supported by effective implementation of statistical theory emerged to support the pursuit of perfection. In 1924 Shewhart made the first sketch of a modern control chart, which was later further developed by Deming. Shewhart, Deming, Dodge and Romig constitute much of comprises today the theory of statistical process control (SPC) (Chapman, 2015). Though, there was only small use of such quality control methods in manufacturing companies until the late 1940s.

During the 1980s manufacturing industries deployed process improvement programs such as Total Quality Management (TQM), Lean Manufacturing, Just-in-Time (JIT) amongst others (Marrone & Kolbe, 2011); around the same time the Information Technology Infrastructure Library (ITIL) was first introduced by the UK's Central Communication and Telecom Agency (CCTA, which is now changed its name as Office of Government Commerce, UK). However Hubiak and O'Donnell (1996) debated that the majority of these efforts were not effective and did not provide anticipated benefits. Hayes (1994, p. 77) even specified "If managers pin their competitive hopes on the implementation of a few best-practice approaches, they implicitly abandon the central concept of a strategy in favor of a generic approach to competitive success".

1.1 Current market situation

The unstoppable development of globalization and accordingly resulting growing competitor market situation currently drives businesses in different industries to reassess their strategies and operations (Karmarkar, 2004). According to Marrone & Kolbe (2011) best practices utilization is becoming more and more common, hence a number of studies have focused on adoption of IT Service Management (ITSM) as well as on specific service oriented best practices. Service management, which is defined as "a set of specialized organizational capabilities for providing value to customers in the form of services" (Lloyd, Wheeldon, Lacy, & Hanna, 2011, p. 15) can therefore be understood as a service provider or "an organization supplying services to one or more internal or external customers" (Lloyd et al., 2011, p. 15).

The impact of ITSM on product or service quality is described as: "IT Service Management (ITSM) is the discipline that strives to better the alignment of IT efforts to business needs and to manage the efficient providing of IT services with guaranteed quality" (Brenner, 2006, p. 19). Nowadays, attention towards customer requirements better not be left out of scope for sustainable economic advantage. "Increasingly, service companies need to focus on delivering service and quality that meets or exceeds customer expectations. Customers expect no less, and, inevitably, they'll go where they can get it. But service companies also must confront unprecedented economic, market, and regulatory challenges that have accelerated cost-cutting and capacity constraints and fostered dysfunctional operations that have increasingly lost sight of the customer, let alone the ability to deliver to customer expectations" (Allway & Corbett, 2002, p. 45).

"Competitive advantage can be defined as the result of a business being either a particularly able player in f its market and/or being differentiated in what it offers", (Lewis, 2000, p. 964). As a result an organization's infrastructure and operations teams are implementing disciplines of service delivery to provide modern applications and services in order to satisfy customers ask on agility and product or service quality. In order to support, if not even drive, a continuous business improvement process from business leadership, these efforts throughout the lifecycle or a product or service, needs to adopt an approach based on Deming's Plan-Do-Check-Act (PDCA) model to build and test recurring improvements to processes (DeMartine & Oehrlich, 2015). Therefore in order to manage a company effectively it denotes using defined processes to manage business operations – a necessary transformation for most organizations (Richardson, Miers, Cullen, & Datta, 2014).

A business itself is not static, it lives and breathes per market default, so processes must evolve at the same pace in order to effectively support this ecosystem, remain aligned with it. Conducting process improvements is a taxing process, recent ITIL literature suggests some methodologies that can be applied (Pillai, Pundir, & Ganapathy, 2014) "…and need to be adapted as a response to market needs and exploit business opportunities that arise".

1.2 Problem statement

Pillai et al. (2014) state "services are frequently criticized for being delivered at a slow pace because there is too much waste in the service processes such that not only the costs of services are inflated but also service quality deteriorates. Moreover, one of the