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# A SHORT REVIEW OF LEAN SERVICE

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## Introduction

The concept of lean has been expanded to the various organization sectors which is not restricted in manufacturing sector but can be applied in any organization (Emiliani 2006; Gupta and Sharma 2018) including service sector (Krishnan & Parveen, 2013). The aims of manufacturing and service sector are to improve their operations (Cavdur, Yagmahan, Oguzcan, Arslan, & Sahan, 2019) by eliminating non-value added activities (Gupta and Sharma 2018). Allway and Corbett (2002) has stated that service companies need to deliver a good quality service by confronting economic, market and regulatory challenges in order to meet customers' expectations. Besides, the implementation of lean services is to meet the customers' requirements in a profitable way (Petrusch & Vaccaro, 2019). Therefore, Bowen and Youngdahl (1998) introduced lean service in their pioneering article entitled; *lean' service in defense of a production-line approach*. They have also underlined the characteristics of lean service; reduction of performance tradeoffs, flow production and JIT pull, value chain orientation, increased customer focus and training and employee empowerment (Bowen & Youngdahl, 1998).

Lean service has been defined as the implementation of lean thinking in the service industry (Allaoui & Benmoussa, 2020). To recap, lean originated from Toyota Production System (TPS), a concept which was widely used in the manufacturing sector after World War II in 1940 (Shah & Ward, 2003). Following that, lean service emerged in the 1990s, derived from lean manufacturing which has then expanded to non-manufacturing sectors such as insurance, banking, financial, healthcare and other service sectors (Bowen & Youngdahl, 1998). Generally, lean service is a current concept that has been disseminated and actively used by practitioners in a service sector (Mansouri, 2014), some examples of service companies in US including Kaman Industrial Technology (distribution), St Francis Hospital (healthcare) and Rensselaer at Hrtford (higher education) (Emiliani, 2006) and while service businesses that have shown tremendous performance of lean service in their organization namely Lincoln Financial Group and retailer of

specialty coffees (Starbucks) (Swink et al, 2014). Similar work was also carried out by (Cavdur et al., 2019), lean service should be applied in public sector because all government in the world want to deliver a better service to their nations. Nevertheless, service sector has the issue on how to increase productivity as a profit margin where the applicability of lean approach is the answer to solve the firm problem (Carlborg, Kindström, & Kowalkowski, 2013). But the question is, can the lean approach is exclusively designed for manufacturing sector be copied or shifted into service sector? (Muthiyah, 2011). To answer the question, the discussion on the challenges of service sector (Carlborg et al., 2013) and the applicability of lean approach in the service sector still continued and being debated by scholars from various disciplines (Bowen & Youngdahl, 1998). Instead, some scholars have made their arguments for several aspects; the interpretation of lean practices into service operations (Ahlstrom, 2004) and conceptual clarification and definition operational of lean service are still scarce (Pilkington & Fitzgerald, 2006).

### **Previous Research On Lean Service**

Currently, the trend of publication in lean service has slightly increased since 1993 till now and it shows lean service has caught academicians' to do research and explore more about lean service (Mansouri, 2014). However, Malmbrandt and Åhlström (2013) have debated, even though many organization services have shown an interest in adopting lean practices but research on lean services is still in the beginning stage especially in empirical research. Hence, most research has presented lean service in the form of case studies and conceptual papers (Mansouri, 2014). A study done by Allway and Corbett (2002), has identified five challenges in applying lean service in the organization specifically in financial and insurance sector; rising customer expectations, revenue pressures, competitive pressures, increasing expenses and regulatory expenses. These challenges have to be overcome efficiently due to customers' demands increasing from year to year and if the superior or organization failed to meet the expectations, the profitability will be eroded and service deteriorated (Allway & Corbett, 2002). Thus, the change of operational approach or lean practices is significantly needed.

Research by Krishnan and Parveen (2013), a comparative study of lean manufacturing tools in manufacturing and service sector has found that human resource tools contributed the most important in the service sector as compared to the manufacturing sector. Whereas TQM and JIT were the most common tools used by both sectors. While a study done by Hadid and Mansouri (2014), has developed a conceptual framework for managers in order to embark on a successful lean service which was viewed as a socio-technical system that constitutes two different practices; lean technical practices (LTP) (VSM, root cause analysis, 5S, etc.) and lean supportive practices (LSP) (training, employee involvement, empowerment, etc). They found both practices positively have an impact in improving company's service performance. Another article by Hadid et al. (2016) in lean service, have found social bundles are able to improve firm performance while technical

bundles have positive impact towards operational performance in the service sector. Furthermore research by Allway and Corbett (2002), has proven that lean service managed to give a positive impact on a few service companies which exhibited in Table 1.

Research on lean service also has brought up Malmbrandt and Åhlström (2013) an idea to construct an instrument for assessing lean service adoption. The result of the instrument that contains 34 items enabled to classify between low or high lean service adoption and changes overtime during lean adoption. However, they suggested further empirical research is necessary to investigate on transferability of lean practices from manufacturing to services. In a nutshell, lean service is practically needed in all service sectors; financial, insurance, restaurants, healthcare, education, public sector and many more, where it has revealed the adaptation of lean practices from manufacturing sector enables to reduce waste in several aspects; cost, labor, material and time, from the shop floor to the upper floor and further it will contribute to higher profitability and keep the business extremely competitive.

Table 1  
*The Impact of Service Company Using Lean Service*

<b>Service Company</b>	<b>Impact</b>
Insurance	Operational improvements have caused the reduction of incomplete applications and processing time by 50 percent, as well as a reduction of labor costs by 10 percent.
Financial institution	Approximately around 20 percent of productivity improvement in loan processing center (commercial and automotive).
Commercial food service kitchens	Airline or hospital food service preparation managed to reduce about 20 to 40 percent of waste.

Source: Allway and Corbett (2002)

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