

Decoding the Lean Enterprise

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Abstract

Several factors, such as the rapid adoption of new and disruptive technologies, the COVID-19 pandemic, worldwide expansion of globalization, rising inflation, climate change, demographic shifts, geopolitical instability, and military conflicts, have deeply influenced the economic and business landscape at a global level. The appearance and development of lean philosophy, principles, and practices have proved to represent a turning point in the evolution of the business world and a possible solution for enterprises to cope with these challenges. The paper aims to define and briefly characterize the concept of lean enterprise. To attain the goals of the paper, the authors used a qualitative research method based on a desk research investigation. The paper contributes to a better understanding of the concept of lean, in general, and lean enterprise, in particular. Also, it briefly analyses some of the key characteristics of lean enterprises that lead to their business success.

Key words: lean enterprise, lean, business organization, enterprise, business

J.E.L. classification: L2, M00

1. Introduction

The last decades have testified the emergence of a highly competitive global market environment. Several factors, such as the rapid adoption of new and disruptive technologies, the COVID-19 pandemic, worldwide expansion of globalization, rising inflation, climate change, demographic shifts, geopolitical instability, and military conflicts, have deeply influenced the economic and business landscape at a global level (Giles *et al*, 2022; World Bank, 2022; World Economic Forum, 2022). Therefore, business organizations, irrespective of their size and industry, have to cope with numerous challenges and face serious threats all over the world (Săseanu *et al*, 2014; Toma *et al*, 2016). They are born, live and, eventually, die, being in close relationship with their capacity to provide ongoing value for their customers. In this respect, their top management has to think not only in a strategic manner (Toma *et al*, 2015) but also in an innovative and entrepreneurial one (Grădinaru *et al*, 2017; Marinescu *et al*, 2017; Toma *et al*, 2018a).

The appearance and development of lean philosophy, principles, and practices have proved to represent a turning point in the evolution of the business world. During the time, it has been proved that enterprises following a Lean path, irrespective of their size and industry, obtained long term improvements (Sayer *et al*, 2007). Consequently, "Going Lean" has become a mantra for any business organization that seeks to achieve business excellence. It shows how these organizations that provide products and/or services have abandoned the old way of doing things and embraced lean philosophy (Ruffa, 2008).

The paper aims to define and briefly characterize the concept of lean enterprise. The structure of the paper is as follows. The second section reviews the scientific literature. The research methodology is illustrated in the third section of the paper. The findings of the paper are shown in the fourth section. The last section displays the conclusions.

2. Literature review

During the past decades, characterised by hyper-competition and high uncertainty all over the world (Toma, 2013), various methods, tools and techniques have been designed, implemented, and updated in the business processes and activities of enterprises in order to obtain and preserve their competitive advantage. In this respect, quality management (Toma *et al*, 2009), Six Sigma (Toma, 2008), marketing mix (Catană *et al*, 2021a; Catană *et al*, 2021b), corporate social responsibility (Toma *et al*, 2011), balanced scorecard (Toma *et al*, 2010), organizational learning (Toma, 2012; Marinescu *et al*, 2013), and lean management (Marinescu *et al*, 2008) are only some valuable examples. Moreover, today's Fourth Industrial Revolution requires enterprises to rapidly implement lean manufacturing (Wiegand, 2016; Buer, 2021), digitalization and the Internet of Things (Tohănean *et al*, 2018; Toma *et al*, 2018b), and adopt green business models (Toma *et al*, 2019).

There is a plethora of scientific research in the literature related to the lean concept, in general, and the lean enterprise, in particular. Lean means "not using a lot of something" or "not wasteful" (The Britannica Dictionary, 2022, p.1) and is a „business management practice aiming to deliver greater value for customers with fewer resources" (David *et al*, 2016, p.1) that seeks to change the basic systems of a company to better satisfy the changing customer needs (Johnson, 2014).

As a managerial system that blends methods with culture (Hinds, 2017), lean management constitutes a "style of management, where few managers are employed, allowing decisions to be taken rapidly" (Collin, 2006, p.229) whereas lean production represents a methodology focused on waste reduction (e.g., overproduction) in order to allow a business organization to become more competitive (The Chartered Management Institute, 2004). It is worthwhile to emphasize that lean production systems can reduce overall costs at the same time as preserving quality standards (Jackson *et al*, 1996). Despite the inexistence of an agreed definition, the lean enterprise is considered as:

- „a group of individuals, functions, and legally separate but operationally synchronized companies" (Womack *et al*, 1994, p.93).
- a sum among lean development, lean procurement, lean manufacturing, and lean distribution (Karlsson *et al*, 1996).
- „a sociotechnological construct since it is based on the combination of human and technological subsystem" (Paez *et al*, 2004, p.304).
- an organization that not only does not waste money but does not have too many employees in relationship with its works (Brookes, 2011).
- "a business entity in which the internal organization and operations are always in synchronization with the needs of the market and geared to creating sustainable value for all stakeholders while eliminating waste in all activities" (Tsigkas, 2013, p.1).
- "primarily a human system" as "it is common for people to focus on specific practices and tools that lean and agile teams use, such as Kanban board, stand-up meetings, pair programming, and so forth" (Humble *et al*, 2015, p.9).
- a business organization that applies lean thinking methodologies in its production processes (Caldwell, 2020).
- a company that is concentrating on value creation while eradicating waste (Hayes, 2021).

In the last decades, more and more business organizations have become lean enterprises in order to boost their performances (MacInnes, 2002).

3. Research methodology

To attain the goals of the paper, the authors used a qualitative research method based on a desk research investigation. The desk research was based on the study of secondary sources of data (Hague, 2022). In the beginning, the authors detected and gathered various secondary data by deploying a wide literature review. Then, they revised numerous articles and books identified in several Romanian libraries (e.g., the Central University Library Carol I of Bucharest) and electronic databases (e.g., SAGE, Taylor & Francis). In the end, the authors classified, analyzed, and synthesized the information and, devised their paper.

4. Findings

A comprehensive literature review allowed the authors to reach several interesting and valuable results. They identified the following main characteristics of the lean enterprise:

- The roots of lean enterprises are to be found in Japan. After the end of the Second World War, the Japanese automotive industry succeeded in becoming one of the most successful in the world largely due to the emergence and development of the Toyota Production System (TPS). During the time, the TPS was transplanted abroad by the Japanese automakers and parts makers. The 1980s witnessed the appearance of numerous elements of TPS in the United States of America and Europe: „slimmed-down inventories, smaller processing lots and shortened changeover times, bar-coded kanban cards, „idiot-proof” features on equipment, lighted andon display panels above factory workplaces to indicate where problems were occurring, and sequenced withdrawal of parts and materials in accordance with the „pull” precepts of just-in-time manufacturing” (Shimokawa *et al*, 2009, p.xv). This is why some of the practices of lean are originated from the TPS such as (David *et al*, 2016):
 - total quality management (TQM);
 - Just-in-Time (JIT);
 - reduce stock waste;
 - reduce in-process travel etc.
- Lean thinking is at the core of lean enterprises. It can be encapsulated in five major principles (Table no. 1). The creation of lean enterprises imposes a new way to think about the relationships between companies, principles regarding their behaviors, and greater transparency (Womack *et al*, 2003).

Table no. 1. The five principles of lean thinking

Principle	Content
1	Precisely specify value by specific product. Value can only be defined by the ultimate customer.
2	Identify the value stream for each product.
3	Make value flow without interruptions
4	Let the customer pull value from the producer.
5	Pursue perfection.

Source: (Womack *et al*, 2003, p.10,16)

- A lean enterprise is primarily a business organization. It is focused on a plethora of specific elements as follows:
 - quality increasing;
 - waste elimination;
 - delays reduction;
 - total costs reduction;
 - unnecessary bureaucracy elimination;
 - continuous improvement;
 - JIT delivery;
 - lead times reduction;
 - customer-focused and driven;
 - unused warehouse spaces elimination;
 - efficient response to market demands etc.
- Lean enterprises are fundamentally human and learning organizations. They cultivate and nourish an organizational culture that welcomes well-trained, motivated and conscious employees who fully understand the importance of lean philosophy, principles and practices. This is why their commitment to lean values is essential. It is basically a culture of „trust and empowerment, rather than command and control” (Jones *et al*, 1999, p.15). Through the continuous improvement of their skills, employees can take action to find solutions to operational problems and, therefore, contribute to the business success of the enterprise. The best lean professionals have to continuously learn by reading articles and books, taking

classes and putting theory into practice. In other words, lean means learning continuously (Grabau, 2016).

- A lean enterprise encompasses several lean processes and activities such as lean procurement, lean manufacturing, and lean distribution. All of them are parts of a lean system in which products and services are not only created but also delivered in the right quantities, to the right destinations, in the right moment, and in the proper conditions (MacInnes, 2002, p.1). For example, lean manufacturing highly contributes to delivering the needed products and/or services and a higher value to the customers at the highest possible quality using the least amount of resources of the enterprise.
- As business organizations, lean enterprises establish their specific goals. In this respect, the following purposes are essential:
 - „- Improve quality.
 - Eliminate waste.
 - Reduce lead time.
 - Reduce total costs.” (MacInnes, 2002, pp.3-4)

These characteristics show that lean enterprises have succeeded in becoming successful business organizations in a hyper-competitive global business world.

5. Conclusions

The topic of lean has become a subject of interest for numerous researchers and practitioners worldwide, mostly in the last decades. Lean refers not only to principles and values but also to practice. As a consequence lean enterprises have appeared and expanded in all sectors all over the world.

The paper contributes to a better understanding of the concept of lean, in general, and lean enterprise, in particular. Also, it briefly analyses some of the key characteristics of lean enterprises that lead to their business success.

This study may be broadened by future researches that can take into consideration the identification and analysis of other characteristics of lean enterprises.

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