

Waste management is about being more efficient with raw materials and making the most of each stage of the production process.

Consider all stages of waste material, from the time it is made through to its disposal. Think about how you use the product, and if your processes could be more efficient for each stage in its 'life-cycle'.

Environmental management is a business practice that is all about measuring the performance and outcomes of your processes – what goes in and what comes out. It's fundamentally grounded in data management and applies a scientific methodology to your everyday activities.

An environmental manager has specialized knowledge about the impact of industrial activities on the local air, water, and public health. They combine chemical and natural sciences to business processes to calculate and report emissions and find ways to make those processes more sustainable. Environmental managers are data experts, but care must be taken not to spend all day collecting data rather than analyzing it.

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LEAN MANUFACTURING

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The term «lean» was coined in 1990 following the exploration of the Toyota model that had developed the concept that the manufacturing problems and technologies are universal problems faced by the businesses. Lean is a multifaceted concept and it requires organisations to put efforts in implementing lean production in the world.

Lean aims to enhance productivity by simplifying the operational structure enough to understand, perform and manage the work environment. To achieve these three goals simultaneously, one of

Toyota's mentoring methodologies can be used to foster lean thinking throughout the organizational structure from the ground up. The closest equivalent to Toyota's mentoring process is the concept of «*Lean Sensei*», which encourages companies, organizations, and teams to seek third-party experts that can provide advice and coaching.

This article describes the challenges and drawbacks faced by the organisations that intend to implement lean management principles. It also shows the various opportunities for the companies to use lean production method for increasing efficiency in the business.

Lean manufacturing is a systematic method for waste minimization within a manufacturing system without sacrificing productivity, which can cause problems. Lean also takes into account waste created through overburden and waste created through unevenness in work loads.

Lean manufacturing attempts to make obvious what adds value, through reducing everything else. This management philosophy is derived mostly from the *Toyota Production System* (TPS) and identified as «lean» only in the 1990s. TPS is renowned for its focus on reduction of the original Toyota seven wastes to improve overall customer value, but there are varying perspectives on how this is best achieved. The steady growth of *Toyota*, from a small company to the world's largest automaker has focused attention on how it has achieved this success.

Lean production is an approach to management that focuses on cutting out waste, whilst ensuring quality. This approach can be applied to all aspects of a business – from design, through production to distribution.

Lean production aims to cut costs by making the business more efficient and responsive to market needs. Lean manufacturing is based on a number of specific principles, such as Kaizen, or continuous improvement.

Toyota took these ideas and combined them with the works of Deming, Shewhart, and Juran to give employee involvement and a drive towards continual improvement.

With Taiichi Ohno's identification of inventory through overproduction as being the biggest waste in manufacturing the principles of Just In Time (JIT) were born, producing what the customer wants when they want it without it being delayed or caught up in inventory. Lean manufacturing was brought to the west in the 1980s as many

companies began to realise that they were slipping far behind their Japanese competitors and they needed to gain the benefits of Lean.

Although lean manufacturing is becoming a popular technique for productivity improvement, SMEs are still not certain of the cost of its implementation and the likely tangible and intangible benefits they may achieve. Most of these companies fear that implementing lean manufacturing is costly and time consuming.

The Toyota Production System laid out *seven wastes*, or processes and resources, that don't add value for the customer. These seven wastes are:

- unnecessary transportation;
- excess inventory;
- unnecessary motion of people, equipment or machinery;
- waiting, whether it is people waiting or idle equipment;
- over-production of a product;
- over-processing or putting more time into a product than a customer needs, such as designs that require high-tech machinery for unnecessary features; and
- Defects, which require effort and cost for corrections.

The operations of the lean strategy should be so balanced and reasonable that your company does not become counterproductive. Evidently, the pros for *lean manufacturing* surpass the cons, making it an ideal approach to modern manufacturing. Implemented correctly Lean does not identify and remove waste it prevents the waste from happening in the first place.

However, the business will need to build a good relationship with the supplier because they will be reliant upon them. If they are not this could lead to a bad reputation and damaged brand image.

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СТИМУЛИРОВАНИЕ РАЗВИТИЯ МАЛОГО ПРЕДПРИНИМАТЕЛЬСТВА В РЕСПУБЛИКЕ БЕЛАРУСЬ

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Мировой опыт доказывает значимость малого бизнеса и предпринимательства в обеспечении экономического роста страны. Исследование развития экономик развитых стран показало, что малый бизнес в них играет очень важную роль. Он активно воздействует на экономический рост, ускорение научно-технического прогресса, насыщение рынка товарами требуемого качества, создание дополнительных рабочих мест. Именно этот вид предпринимательства решает многие неотложные задачи, экономические, социальные и другие проблемы.

Признание важности развития малого бизнеса есть и в Республике Беларусь. Его роль и значение в экономическом росте очень важны с целью искоренения бедности, создания рабочих мест, развития сельских районов и создания регионального баланса в продвижении и росте различных видов деятельности. При этом в 2018 г. организации малого бизнеса дали экономике Республики Беларусь 14,8 % ВВП [1]. Это ясно показывает важность стимулирования развития малых предприятий для повышения экономического благополучия страны. Наиболее важные из таких ролей следующие:

1. Создание новых рабочих мест.
2. Мобилизация ресурсов и предпринимательских навыков.