Developing a Regulatory Design Model to Enhance Indoor Environmental Quality in Factory Buildings

Research Abstract

The manufacturing sector plays a paramount role shaping sustainable development where it employs an average of 20% of countries’ workforces and contributes to more than 25% of world GDP. Factories represent micro-frameworks (business) that are nested inside a bigger macro-framework (manufacturing sector). Improving Indoor Environmental Quality (IEQ) is proved to be substantial to achieve sustainable development goals of businesses and economies.

Factories are subject to indoor pollution and contamination issues accompanied with the manufacturing processes affecting both workers health as well as products’ quality. This study proposes a regulatory model for factory building design to improve IEQ and help deliver safer facilities and work environments for the workers, support the industrial sector achieve sustainable development goals and improve business outcomes.

Supervisors

Dr Yasemin Nielsen and Dr Bilge Erdogan