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Manufacturing: a weak or strong link in your value chain?

By Marius Lombard

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Manufacturing can (and should) be a catalyst for South Africa's future GDP growth. With a GDP that fell by 0.7% in the second quarter of 2018, following a <u>decrease of 2,6%</u> in the first quarter, it is imperative to look towards this industry as a key contributor.



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What sets manufacturing apart from other industries is that it is the highest job multiplier out of any industry sector, states the <u>World Bank</u>. Currently, South Africa imports an astounding \$83.2 billion worth of products, which, if manufactured locally, would have created over 1.3 million jobs.

For every rand invested in manufacturing, fiscal revenue increases by R0.35; for every R1 million invested, 3 jobs are created. Statistics mentioned on the <u>Specialised Exhibitions Montgomery</u> blog magnifies the urgency to tap into the full potential of the country's manufacturing industry.

Considering external factors such as the depreciating rand, political volatilities, increasing input costs (such as water and electricity), and investment policies, it is clear that South African manufacturing companies must aim to avoid the production pitfalls of the past.

A chain is as strong as its weakest link

The manufacturing process can create a challenging link in a company's value chain, because it can create a potential threat due to various obvious – and not so obvious – activities. Due to organisations' ability (or lack thereof) to optimise processes and systems, they tend to add non-value-add activities to an already broken value chain.

Management turnover also creates the threat of adding new improvements to current processes without a proper assessment to ensure optimisation actually can and will take place.

If not effectively rectified, the aforementioned approaches can lead to the following pitfalls:

Reduction in resource productivity: Adding activity to an existing process that is inefficient will naturally lead to longer lead times to perform that activity. Similarly, introducing additional reporting requirements will increase administration time for management teams. If the root cause of lost time isn't identified, it will further reduce the efficiencies in a manufacturing environment.

Reduction in overall plant efficiencies: Cumbersome processes increase inefficiencies in the planning and scheduling of raw materials, the end-to-end process and also lowers the throughput capabilities. These factors lead to lost time. Even the implementation of active supervision throughout the process will not solve the issues, as problems will be identified too late in the process. This, in turn, has cost implications.

Increased inventory levels and costs: Due to delays and lost time with inventory production, more storage space will be needed for longer periods of time; this also leads to increases in input costs and capital needed.

Increased overtime: In this type of scenario, normal working hours will not be enough for production, due to the many inefficiencies in the various processes. Additional hours will likely be needed to meet the required demand, which leads to overtime labour costs.

Increase in wastage: In general, organisations don't focus on the eight forms of waste, but only on waste's value or quantities. This error is usually a symptom of increased production costs not being ring-fenced to determine the actual cost of non-conformance. With this type of mindset, many companies will also delay identifying ineffective production standards, which results in unrecoverable products such as scrap.



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Creating a positive chain reaction

In a manufacturing environment, it is important to consider the following before embarking on a manufacturing optimisation journey, as these potential barriers can limit success or even lead to failure:

- Buy-in and commitment from executive and senior management
- Organisational readiness for change
- Support from all required functions
- The budget
- · Sustainability and a continuous improvement strategy and plan
- A dedicated team to execute

If these barriers are not hindrances or can be overcome, manufacturing companies can start the process of implementing

improvements in the production space. Once completed, companies can look forward to benefits such as reduced costs in the total value chain, with various measurable and immeasurable benefits, such as:

- · Improved staff morale and a more motivated workforce
- Increased customer satisfaction
- On-time-in-full delivery of goods
- Increased profitability
- Cost reduction
- Procurement improvements
- Working capital reduction
- · Improved warehousing and logistics

Manufacturing has high economic multipliers

Not only does the manufacturing industry in the country provide income and job opportunities to those people directly employed in the sector, but it has high economic multipliers in its linkages to upstream production sectors, such as mining and agriculture, as well as downstream sectors, including services, as stated in <u>this article</u> by Engineering News.

It is therefore crucial for the country's economy as a whole that manufacturing companies smooth out any links in this value chain and commit to a resource-focused approach.

ABOUT THE AUTHOR

In addition to his consulting role at DB & Associates, Marius is also Chief Operating Officer. Marius has delivered successful projects in various industries including industrial manufacturing, integrated mining operations, financial services, security services, pharmaceutical manufacturing, metal processing, food and beverage manufacturing, warehousing, retail, logistics and distribution.

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