

PRODUCTIVITY AND SUSTAINABILITY FOR THE BENEFIT OF HUMANKIND

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INTRODUCTION

- *Thanks to WAPS for the opportunity to speak at our KSF. Industry/PSA/Unisa*
- *Chair – please allow me to effect a small amendment to the themed title.*
- *I believe that in order to be sustainable, an organisation must be productive*.*
- *Hence, (I feel) enhanced productivity is necessary for sustainability.*
- *So – my address encompass **productivity and sustainability** & the benefits & challenges it poses for humankind.*

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- The world post COVID-19 continues to suffer the aftershocks of the pandemic disruptions that have revolutionized how businesses operate worldwide.
- This global shift, resultant from health & economic crises forced businesses to evolve or perish.
- However, the pandemic has also interestingly augmented the 4IR adoption process by businesses.

## INTRODUCTION..contd.

- Businesses anticipate that adopting the 4IR can deliver good results, such as decline in labour costs & increase in productivity & can lead to better resilience.
- Nevertheless, businesses markets are not invulnerable to volatility, uncertainty, complexity & ambiguity brought about by the disruptive ability of the 4IR.
- Henceforth, productivity & sustainability in the 4IR has become a research topic of interest to many researchers.
- *I am not going to redefine productivity in the presence of our esteemed productivity professionals; however, .....*
- *I find it necessary to elaborate on the necessity for productivity enhancement & the subsequent sustainability of organisations & the benefits for humankind.*







# Humanity heads to 11.2 bn<sup>1</sup>

<sup>1</sup>In 2100 - by which time Africa will  
be home to 40% of all humanity  
(today it's < 17%)

- In South Africa, about 40% of new business ventures fail in their first year, 60% in their second year, & 90% in their first 10 years of existence.
- In addition to this, about 75% of SMME's do not become established businesses, & as much as 80% fail in the first 10 years since inception.

***Can this trend be allowed to continue?***

- The answer would be a resounding “**NO**”, as the economy suffers due to the non-sustainability of organisations and subsequent job losses.

***So, what are the repercussions of job losses for humankind?***

- It has been stated that for every 1 job loss, an average of 4 individuals in a household go hungry.



- The industrial & business environments are continually changing & seeking efficient methods of working.
- This is owing to a number of factors, which include, amongst others:
  - **competitiveness,**
  - **4IR,**
  - **globalisation** and the
  - **ever-expanding applications of technology** in organisational processes.
- Organisations can grow & increase their profitability by increasing their productivity & subsequently ensuring their sustainability.



## Unpacking productivity

- Productivity improvement entails measures output per unit of input, such as labour, capital or any other resource.
- Productivity can be defined as the transformation of available materials & workforce resources into essential goods & services within an organisation.
- Human capacity development involves both organizations & individuals as an investment process that allows them to realize their full potential for increased productivity.
- *This speaks very eloquently our topic which alludes to productivity and sustainability.*
- Working smarter & working fewer hours may have a positive impact on productivity. However, working longer hours does not necessarily result in increased productivity.
- Less fatigue occurs among workers or if employees work harder during the shorter number of active hours.



## Unpacking productivity.... contd

- Organisations must attempt to reduce the consumption of resources, thereby reducing cost per unit output through utilisation of proper methods, ultimately ensuring their sustainability.
- The US has long enjoyed the world's highest productivity. Over the last century, productivity in the US has increased approximately 4% per year.
- In the past two decades, the US rate of productivity improvement has been greatly exceeded by that of China, at 13.4%. *Unfortunately, South Africa is far behind their first-world counterparts. In 2017, SA's economic performance was ranked 58th out of 63 countries*
- This necessitates urgent interventions to ensure that productivity is improved in individual organisations which, in turn, automatically improves the overall productivity of a country, again, ensuring their sustainability.
- It is incumbent on organisations to improve their productivity, which also contributes to competitiveness & their sustainability.

***I sincerely believe that increasing employee productivity should be on the forefront of any managerial mind.***



## Towards sustainability

- An organization's processes may be sustainable & continue to operate, but their work processes might not be productive. Will this eventually lead to the organisation not being sustainable? Ponder on this.
- The major cause of organisations getting into trouble with manufacturing is the tendency for many managers to accept simplistic notions in evaluating performance of their manufacturing facilities.
- The general tendency in many organisations is to merely evaluate manufacturing primarily on the basis of cost & efficiency.
- A performance measure means relatively little until it is compared against some kind of target.
- Therefore, work study/industrial engineering techniques can be used to develop these targets.
- One of the main weaknesses of current performance management systems used by organisations is that they normally adopt a narrow, uni-dimensional focus.

## Towards sustainability...contd.

- Organisations need to beat their competition with superior operations using its people, assets & technologies to compete more effectively in the marketplace.
- Despite these pressures, few organisations appear to have systematic processes in place to ensure that their performance measurement systems continue to reflect their environment & strategies.
- This places organisations under tremendous pressure to **reduce their costs, increase their service levels & supply goods of superior quality** to be sustainable & challenge their competitors.
- In order to meet these goals & remain more competitive & sustainable, organisations embark on the use of many different tools, techniques & strategies to make their production processes more efficient & subsequently,....

**.....provide superior quality outputs that meets customer satisfaction.**

## Towards sustainability...contd.

- In addition, organisations are always searching for ways to optimise business processes so that they can reduce manufacturing costs.
- The way management performs its activities can have a significant effect on an organisation.
- When standard times are unrealistic & unachievable, production schedules fail.
- Setting standard times for operations aren't just a major challenge for today's performance improvement personnel, it is critical.
- Some operations require high-cost, high-tech, traditional work measurement, but you can often employ a low-cost, low-tech method using the basics of work study/industrial engineering.



## Leadership and motivation wrt productivity

- The productivity & sustainability of an organization is closely related to the effective management, motivation & strong competence of the members of the organisation.
- Productive & sustainable organizations usually have leaders who are able to lead the team, provide clear direction & show confidence in team members.
- Motivation also features as a key factor when it comes to productivity & organizational sustainability. motivated employees work harder & produce better results.
- Motivation can come from many sources, such as rewards, challenges & opportunities to grow & develop.



## Leadership and motivation wrt productivity...*contd.*

- Work motivation is a process that encourages & maintains performance.
- Intrinsic motivation pushes employees to help them achieve the goals or tasks set, a person is highly motivated, he/she will do his job to the fullest & vice versa.
- If a person is not motivated to work, they cannot do new things to achieve the goals of the organisation.
- This motivation is needed because each individual employee is expected to work hard with full enthusiasm to achieve high work productivity.



## Efficiency defined

- Now one cannot speak about productivity & sustainability without speaking about efficiency & its impact on the effectiveness of an organisation.
- One cannot ignore the concept of efficiency here. In terms of productivity & organizational sustainability, the competence of team members is also very important.
- Qualified & competent team members are usually able to complete tasks more effectively & efficiently, which can help improve the overall efficiency of the organization.
- However, to achieve long-term sustainability, organizations must also consider environmental & social factors.
- Sustainable organizations must pay attention to their effects on the environment & surrounding communities.

- In addition, the organization must also consider financial sustainability, that is sufficient income for long-term continuity of activities.
- Efficiency means doing something at the lowest possible cost & must not be confused with the term “effectiveness” which means doing the right things to create the most value for the organisation.
- Efficiency is the ratio of the actual output of a single operator, line of operators or group of lines expressed in standard minutes produced, divided by attended minutes over the full duration that work has been carried out.
- In order to avoid confusion, it is also important to separate the terms “*efficiency*” & “*utilisation*” as an organisation’s effectiveness is defined by these two measures.



....Efficiency can be likened to how well a machine or worker performs according to a set standard,

*whilst*

....Utilisation refers to the percentage of available working time that a worker actually works, or a machine actually is operational.

- It is the ratio of actual output to effective capacity.
- Efficiency is the ratio of actual output to effective capacity.

- **Efficiency** =  $\frac{\text{Actual output}}{\text{Effective capacity}}$





- The following example shows the method of calculating operator efficiency:
  - *One operator works 8 hours in a day.*
  - *The standard time to produce 1 unit is 3.5 standard minutes.*
  - *The operator is produces (output) 86 units during this period.*

**Therefore:**

86 units x 3.5 standard minutes = 301 standard minutes

$301 / (8 \times 60) \times 100 = \underline{\underline{62.71\% \text{ operator efficiency.}}}$

## CONCLUSION

- Organisations in South Africa are affected annually by labour unrest with employees in constant demand for increased remuneration. **“Strike season”** seems to have become a norm on the South African calendar year. I am of the opinion that an increase in remuneration must be combined with a simultaneous increase in productivity to allow for a **“win-win”** situation between the employer & employee.
- *Revisiting our topic*, I can state that productivity enhancement is crucial in economic growth as the spinoff is that it assists to raise the living standards of people (*humankind*).
- It is common knowledge that enhancing productivity subsequently results in **higher output, reduced costs, improved employee morale, better customer service, & increased overall profitability** - positioning businesses for sustained growth (*sustainability*).
- Productivity is key to an organisation’s profitability & long-term success.
- It measures how much output an organisation can produce from resources such as labor, capital or raw materials.

***An organisation improving its productivity, results in it generating greater output from its resources, & subsequently enhancing its sustainability.***

## Questions

