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Challenges and opportunities in adopting and implementing sustainability plans in engineering, mining and processing companies in Zimbabwe

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Abstract

Zimbabwe is endowed with a plethora of natural resources sufficient to provide raw materials and inputs to its engineering, mining and processing companies. Despite having inherited functional industries at independence, over the last 15 -20 years, the country has been grappling with recession, low capacity utilization, liquidation of companies and failure to export, let alone meeting local requirements. Although political instability has been largely attributed to this failure, ongoing research through surveys, interviews and direct observations at five companies involved in different business portfolios namely, furniture manufacturing, general engineering and foundry, assembly and manufacture of bus and truck bodies, backup and service of heavy vehicles as well as mineral processing, similarly revealed not only the lack of sustainability plans but also lack of involvement of all stakeholders in decision making in a systems thinking approach to ensure business continuity in different situations. The research also revealed that the failure to meet current needs without compromising the needs of the future could have contributed a great deal to low capacity utilization and eventual liquidations. Recommendations made to the companies were welcomed as clear opportunities to learn from the past and these are helping the companies to gradually recover and regain economic value in spite of the difficult operating environment.

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1. Introduction

Sustainability is often broadly referred to as the development that meets the needs of the present without compromising the ability of future generations to meet their own needs [1]. It is therefore the capacity and ability to withstand or endure any setbacks that may arise in ensuring the continued operation of companies from generation to generation [2]. The implementation of sustainability plans is based on systematic assessments and evaluation processes through stages such as assessment, development, implementation, evaluation, reassessment and modification to address issues that are commonly encountered in sustaining changes or innovations [3]. Sustainability planning helps in ensuring and maintaining the continuity of organizations over time and their ability to provide the same or better services [4]. The principles of sustainability can be applied in different organizations using different focus routes but ultimately ensuring the continued survival of the organizations. Sustainability planning has been applied and successfully implemented in many organizations in the developed world such as Distributed Manufacturing Systems (DMS), now commonly in use in many manufacturing companies [4] and the Seru production systems in Japanese manufacturing companies [5]. However, due to capacities and weak links between industry and research and development units, the implementation of sustainability planning in developing countries fell short of expectations [6].

Engineering, mining and processing companies in Zimbabwe have been on a downward spiral over the last decade following the global financial crisis that affected most countries in 2008 [7]. Apart from the crisis, Zimbabwe's poor economic policies, corruption and the unrestricted printing of money resulted in the second highest hyperinflation rate in the world [8]. This led to the collapse of the country's currency in 2009 and low capacity utilization at most Zimbabwean companies [9]. The macro-economic situation in the country contributed to the rapid increase in imports at an annualized rate of 13.2% from 2009 to 2014, as shown in Fig. 1(a) with a widening of the trade balance during that period [10]. This trend was a mirror reflection of other Southern African countries albeit at different scales as shown in Fig. 1(b), with the declining Gross Domestic Product (GDP) per capita, buoyed by the semi-developed South Africa and diamond rich Botswana [11]. Although the collapse of the Zimbabwe dollar and the subsequent introduction of a basket of multiple currencies was expected to provide a relief to many companies, this was short-lived and only sustainable in the first few years [12]. Evidently, this chronology seem to point to some other causes and reasons for engineering and manufacturing companies' low capacity utilization and reduced productivity. Politicians have blamed external forces such as sanctions and the list goes on. However it was sufficient to note that failure to plan for such eventualities and the absence of sustainability plans can significantly affect the continued existence and operations of engineering and manufacturing companies. This paper is part of ongoing research at 5 engineering, mining, manufacturing and processing companies in Zimbabwe. The research focused on sustainability planning with the aim of establishing the challenges that the companies faced in sustaining operations and how to overcome and turn these challenges into opportunities despite the harsh economic environment.

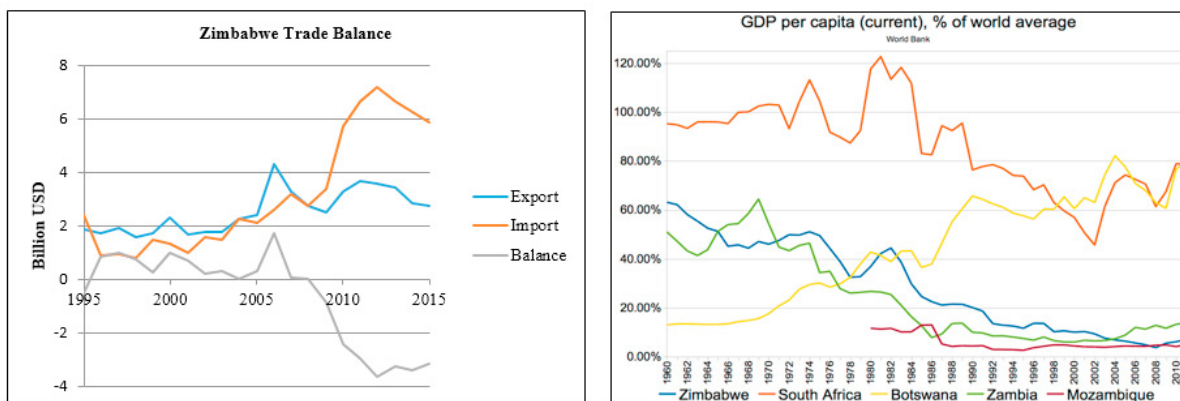


Fig. 1. (a) Zimbabwe's Trade Balance (1995 – 2014); (b) Southern Africa GDP per capita (1960 – 2102).

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