

Strategic Fundamentals of Knowledge and Information Management for Social and Economic Growth in Sub-Saharan African Countries

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ABSTRACT

This article critically analyzes the 10 fundamental pillars requisite for positive progression and creation of a knowledge society for socio-economic development in African countries. These pillars or basic rules, fundamental variables, and structures are identified based on the conceptualization of the key principles of knowledge management. The author asserts the transition to a knowledge society requires making investments and managing knowledge competently at the diverse micro-and-macro organizational levels within countries and even regions. However, doing so requires concurrent adherence to the rules and structures of knowledge management which form the fundamental pillars. The first part presents an empirical econometric analysis of knowledge-productivity nexus as an exposition of knowledge as a factor of production and national productivity. The second part presents a logical argumentation of the 10 fundamental pillars, supported by African regional and individual country data. This research then concludes by pointing out the 10 fundamental pillars in their extant state are inadequate and dysfunctional in most of the African countries and, therefore, socio-economic development efforts and resource allocation need to focus on nurturing and strengthening these pillars for the goal of transitioning to a high productivity and wealth creating knowledge society.

KEYWORDS

Knowledge, Knowledge and Economic Development, Knowledge Management and Economic Development, Knowledge-Productivity Nexus, Productivity and African Economic Development

INTRODUCTION

From time immemorial, performances of human economic and social activities have been inseparable from knowledge. For instance, performance of farm work, building houses, fishing, and hunting has all depended on specific type of knowledge, which was systematically passed on from one generation to next. Failure to generate, propagate, and use new knowledge corresponding to discontinuous changes in a socio-economic ecosystem, in the past and present, may as well spell decline, serious shortage of critical goods and services, or even a complete demise of a given society – the exception being that of instant flight to a conducive new environment. Nonaka (1995) brought knowledge to the forefront of intellectual discourse and gave it acceptance within economic studies as a factor of production. Drucker (1995) even went further to assert that knowledge has become the most critical resource that determines competitiveness for organizations.

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Bounfour (2003) asserted that knowledge is the most valuable intangible asset in any organization, and this can be said of countries as well. Though it is difficult to precisely account for knowledge as a factor of production, it is indisputable that knowledge is an important factor of production and, therefore, in economic and business management research knowledge is currently treated as being distinct from generalized labour-as-a factor of production. This is because it is practically verifiable that knowledge intensive economic activities are associated with higher productivity levels than purely labour-intensive activities.

It is also an obvious fact that workers engaging in knowledge intensive activities earn more per hour than workers in labour-intensive activities. The same logic applies to companies and countries. In the last two decades, we have witnessed the birth and exponential growth of knowledge intensive companies, some of which have not much to show in physical assets, but only intellectual assets held either as patents or knowledge residing in highly knowledgeable human resources. Companies like Microsoft, Google, Amazon, and Facebook, among others fit this characteristic. These companies experienced meteoric rise typified by unprecedented growth in their fortunes. On the same note, certain countries with relatively small population sizes such as Finland and Singapore have managed to increase their gross domestic product (GDP) and per capita earnings per worker due to higher level of infusion of knowledge into diverse economic activities.

Knowledge use in socio-economic activities is a critical determinant of the divide between countries and regions into low-productivity-low-wage and labour intensive socio-economic activity countries on the one hand, and high-wage-high-productivity and technology abundant countries on the other hand. Hausmann et al. (2011), in a research covering 128 countries to determine what explains differences in their wealth, found that the collective knowledge of a country is strongly correlated to national wealth, and actually accounts for 75% of the differences in income per capita between countries. The exception to this fact is high value natural resource-endowed countries such as oil producing countries from which their GDP largely derives from oil revenues. A good example is Equatorial Guinea which has nearly the equivalent income per capita as that of the United Kingdom. Essentially, if a country participates in economic activities involving high intensity of coordination and collective deployment of knowledge to produce specific goods or services, then such a country should have a higher productivity level as compared to a country that produce simple products requiring mere participation of single or a few individuals.

As a logical extension of this finding, a hunter and gatherer society surviving on basic natural resource extraction-related skills universally shared between its members may be said to have its collective communal knowledge being closely symmetric to that of its individual members. The amount of national knowledge can be measured by the amount of knowledge collectively entrenched in the national economy, which Hausmann et al. calls “economic complexity”, and can be measured by the economic complexity index (ECI). As such, a country’s capacity to produce goods requiring coordinated input of diverse strands of knowledge is what determines national level of prosperity. Today, Sub-Saharan African countries (SSA) exhibit a low level of ECI with the exception of South Africa.

The ECI reflects the amount of knowledge embedded in economic activities in any country. It therefore logically follows that a computer is a more complex product than exported raw cocoa beans, which is one of the main exports from some of the African countries. Production of cocoa takes mostly the labour input of a single or that of a few farmers. This sharply contrasts to production of a computer, which can never ever be produced by a single company, no matter how competent and resource endowed such a company can be. Diverse knowledge, technical capabilities, and a wide range of resources, including natural science and financial know-how must all be summoned in spatially disparate locations to manufacture a computer.

The amount of knowledge embodied in all the value points to make a computer is incomparable to producing cocoa. The essence here is that for any society to be materially advanced, it must improve its knowledge stock which would then be embedded in products and services. It is from such goods

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