Chapter 10
A Cognitive Analytics Management Framework (CAM–Part 1):
SAMAS Components, Leadership, Frontier Performance Growth, and Sustainable Shared Value

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ABSTRACT

In this chapter, the current world's challenges, shortcomings of strategic performance measurement, and management methodologies are analyzed to introduce the new Cognitive Analytics Management (CAM) framework. CAM uses five components (SAMAS): Shared values to stakeholders; cognitive Analytics to generate applied insights; Mission, vision, and goals to develop corporate strategy; Activities to create—innovative models, products, and services—using various organizations' supporting Structure from people, process, regulation, and technology to develop smart organizations. The efficient frontier data envelopment analysis is proposed to generate performance measures and derive insights from best practices. The input-efficiency and output-effectiveness performances are used to prioritize scenarios. Insights from the best scenarios are used to improve inefficient ones, to manage performance, and to boost productivity growth. CAM also introduces a new cognitive leadership concept to help making informed decisions in a smart competitive world while alleviating societal challenges. Finally, CAM implementation roadmap, supporting literature, and new research innovations are provided.

You may say I am a dreamer / But I am not, [I have goals]. (John Lennon, [Ibrahim H. Osman])

INTRODUCTION

Dynamically increasing world challenges derived from changing demographics, accelerating globalization, rising environmental concerns, expanding impact of new technology, evolving societal relationships, and growing threats of stability and order have led to financial deficits, disparity in income, economic depressions, uncertainty in the provision of basic needs (water, food and energy), scarcity of resources, increasing poverty, decreasing well-being of individuals, shortage in job creation, and increasing inequality in income distribution, where the rich people are getting richer and the poor people are getting poorer. Forbes Magazine on (March 3rd 2013) published a report on the richest people in 2013. The list contained the names of 1426 billionaires with an aggregate net worth of $5.4 trillion, which is more than 3300 times the gross domestic product (GDP) of the 8th poorest country in the world, Liberia, with a GPD estimated at $1.6 billion and a population of over 4 million person. Such challenges are reshaping businesses, governments and non-government organizations and inviting business leaders, policy makers and entrepreneurs to develop new socially inclusive business models for generating performance growth and creating better shared values to address such societal challenges,(Michelini & Fiorentino, 2012; Porter & Kramer, 2011; and Pfitzer et al. 2013). A shared value of an organization can be simply defined as the total sum of business value to internal shareholders and the social impact value to external stakeholders. Socially inclusive business models involve all stakeholders in a complex process to generate sustainable shared values on a win-win basis among all stakeholders rather than traditional limiting focus on economic value creation to only internal shareholders. (Michelini & Fiorentino, 2012, and Lee et al. 2012).

What are the behavioral factors hindering performance growth? Organizations are viewed as decisions making entities/units striving for "optimal" decisions through information gathering and processing where human decision behaviors are assessed using economic utility models (Boudreau, 2004). Cameron (1986) earlier showed the systematic deviations from such economic utility models and highlighted the needs for consideration of human factors related to managers' greedy attitudes and subjectivity behaviors, organizational culture and learning strategies, structures and performance inefficiency and unequal income distribution. *Greedy and risky* behaviors of managers are recently highlighted in recent studies with enormous negative impacts. For instance, the report by the Daily-Mail newspaper (July 13, 2012) on JP Morgan Bank mentioned that the "London Whale Trader – Mr. Bruno Iksil" took an extremely aggressive risk betting on the credit market. Such acts prompted a massive loss of $5.8 billion to the bank. Further, the bank's employees were found to have lied about the trade values in effort to cover up the losses. Further, the Halifax Bank of Scotland (HBOS) was labeled the worst bank in the world by Fraser (2012). The failure of HBOS was due to the *obsession* of its management team to deliver *maximum short-term growth of profits and maximum rewards for executives*, irrespective of whether the bank had a chance of surviving in the long term or whether its stakeholders, creditors, depositors and customers were harmed. A similar report by the Independent newspaper (April 7th, 2013) on HBOS estimated its losses at a value of nearly £50billion in write-downs and impairments for the period 2008-2011. Similarly other big companies, such as Anderson, WorldCom, Dotcom companies and several banks in other parts of worlds have failed due to similar greedy and unethical behaviors caused by top managements with big negative impacts on stakeholders rather than shareholders alone. De Waal (2007) reported that the public *trust* in private companies has dropped from 60% in the 1980s to 40% in the 2000s due to various scandals, also people trust in business leaders telling the truth was also very low at 28% and the trust in politicians was much lower at 18%. Another factor hindering performance growth

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