

Transcending Scientific Analytics and Models During Extreme Turbulence and Complexity; Management Lessons from the Covid-19 Crisis

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Abstract

The realm of management is awash of many models and frameworks that aid decision making process. Over time, these important tools have been ‘tried’ and proven to be effective. However, most of these tools are limited especially in their presumption of a stable or a fairly predictive business environment. This paper is a reflection and a collection of some of the lessons on management decision making in the face of a monumental crisis as demonstrated during the Covid-19 pandemic. The paper is a desk review of some of the already documented lessons from research and scholarly presentations and publications on the subject of management decision making during major environmental turbulence. One of the key lessons learnt during the Covid-19 crisis is that strict adherence to established scientific models should not be the single guide in decision making. The wisdom of transcending scientific analytics and models as the norm may involve considering other factors outside the scientific equation including taking a leap of faith which may seem to be scientifically illogical in the face value. Mutating from a complex system to operating smaller, lean and simple models that might be easy to understand and facilitate rapid decision making. Consider reviewing and modifying existing plans and priority areas for instance, shifting from profit orientation focus to “survival orientation focus.” Most important is for the organization to identify and empower a “Biblical Joseph” to navigate the Vessel.

Keywords

Transcend, Analytics Models, Complexity

I. Introduction

“We are fighting for survival not profits.” These are words of James Mwangi, the Equity Group Chief Executive captured by the standard Media on August 18th 2020. Ordinarily, such a statement could be highly unlikely from a corporate titan of James Mwangi’s stature who is at the helm of a bank that registered a net profit of Ksh 22.6 billion for the year ended December 2019 translating to a growth of 13.8% from the previous period. Well, such is an indicator of the covid-19 effects in the world of business and one of the profound lessons from the crisis. Covid-19 shifted the ground from rapid uncertainty and instability to what feels like a massive explosion and a chain of an endless blast waves that instantly set the entire globe off balance. The crisis has had profound negative effects and longterm damage to lives and livelihoods. The business world has experienced inexplicable challenges forcing managers to make decisions with huge ramifications to organizations. The use and application of various decision-making approaches including analytics and models has never been so desired yet its limitations so revealing. One of the limitations of these scientific models is their presumption of a stable or a fairly predictive business environment. The current trend has provoked business consultants, researchers and scholars to rethink the existing approaches to

business management decision making. Strict adherence to established scientific models should not necessarily be the single guide in making management or strategic decisions. The wisdom of transcending scientific models or business analytics and taking a leap of faith are some of the lessons learnt during the Covid-19 crisis as discussed in this paper.

II. Methodology

This paper is a reflection and a desk review of the already documented research and scholarly presentations and publications on the subject of management decisions making in the face of a monumental crisis. The paper makes specific reference to the covid-19 considering its huge effects that have made the business environment highly uncertain and complex than ever before.

A. The Covid-19 Crisis and its Economic Effects

While Covid-19 has had profound effects to different spheres of society, its weight on economic activities have been radical and almost instant. For instance, According to National Bureau of Statistics of China, in the first two months of the Covid-19 pandemic, the total value added of the industrial enterprises above the designated size dropped by 13.5%, the value added of the state holding enterprises went down by 7.9%, share-holding enterprises down by 14.2%, enterprises funded by foreign investors went down by 21.4%, and private enterprises down by 20.2% (National Bureau of Statistics of China 16 March 2020). Considering the position of China in the global business web, these effects must have been felt far and wide. As the pandemic spread to other parts of the globe, most African countries like other continents, moved swiftly, enforcing quarantines, lockdowns and border closures as measures to curb the spread of the disease. These measures further had compounded effects on economy and businesses. For instance, according to the insights by Deloitte on the Economic impact of the COVID-19 pandemic on East African economies, GDP growth in Kenya is expected to decline to 1.0%. This is majorly due to: Reductions in household and business spending (about 50%) due to liquidity constraints; Disruption in supply chain for key inputs in machinery and chemicals (about 30 percent); Decline in imports from affected countries (about 3.1% estimated decline in total import value); A decline in tourism activity (about 20 percent) due to a standstill in the global aviation industry; and A decline in government spending in different sectors.

As summarized in Table 1 below, the direct and indirect effects of the Covid-19 to business organizations and the wider economy are boggling. The measures by governments and other statutory organizations, combined with other factors have instantaneously caused major tremors and unpredictable complexity in the business environment. This phenomenon has provoked a re-evaluation of the existing approaches and models in business management and strategic decision making.

Table 1: Economic Consequences of Covid-19 in Africa

First Order Economic Effect	Second Order Economic Effect	Third Order Economic Effect
<ul style="list-style-type: none"> Trade Balance Worsens Job and Livelihood Losses Wealth Depletion Increased Health Related Spending 	<ul style="list-style-type: none"> Domestic Supply Chains Collapse Economic Activity Stalls Increased non-Formal Activity 	<ul style="list-style-type: none"> Recession Debt Crisis Financial Distress

Source; United Nations (2020). Policy Brief: Impact of COVID-19 in Africa

B. Scientific Approach in Managerial Decision Making

Online business dictionary defines scientific decision making as a Systematic approach to collecting facts and applying logical decision-making techniques, instead of generalizing from experience, intuition (guessing), or trial and error. Scientific approach to decision making has become a popular subject in the world of business and management. With the advancement in technology, application of logical and predictive models in management decision making is seen as a panacea to huge margins of error especially in the current fluid business environment. The discipline of quantitative and data analytics has made a tremendous contribution towards improving the quality of decision making. Good management decisions are guided by a clear scientific method. Such decisions are supported by data often generated from a scientific method of enquiry. In corporate organizations that are meticulous observers of the scientific approach, instincts play a minimal role in boardroom decisions. However, how does one decide to keep an organization afloat for unknown period even when science and any logical approach indicate that the situation can only worsen? Where is the wisdom of holding to hope in a scientific equation? What happens in instances where the manager has no time to engage in a rigorous scientific analysis and projections? Connect the dots and understand the complexity or jargon often associated with complex scientific models. What happens when the environment suddenly presents too many uncertain variables that disproportionately escalate the degree of complexity of the decision?

C. Operating Simple in Complexity

Handling a highly complex system is time consuming and requires a sophisticated approach. Corporate organizations are complex systems that contain various constituents which are interdependent and often interact nonlinearly. The complexity of the system does not arise from complex rules, but rather from the interaction among the large number of entities or subsystems that the entire system is composed of (Mukherjee, 2008). It will be important that managers decompose and isolate issues to gain some clarity. For example isolating unpredictable from predictable ones, determine what is within its control and what might be beyond the manager's control, what is most urgent and what can wait. With such an approach, it might be clear which of those are not suited for resolution through a standard organizational procedure applicable during normal circumstances. One of the mistakes managers make during

heightened uncertainty include the haste conflation of issues which end up compounding an already complex situation.

D. Transcending the Usual Scientific Approaches and Models

While scientific approaches and models are often profoundly useful, they are often limited but their limitations become even more glaring during extreme uncertain times. The world of strategic management for example has many models and frameworks that aid business management decision making process. Most of these models taught in our business schools and strategic management programs have an inherent component of measurability that exploit quantitative methods in making better decisions. Over time, these important tools have been 'tried' and proven to be effective. However, most of these tools are limited especially in their presumption of a stable or a fairly predictive business environment. During a major crisis, the so called tried and proven scientific models might appear to be a hoax.

In a chaotic and complex crisis like the case of Covid-19, even the best of predictive models are highly likely to suffer from lack of specificity and accuracy. According to Courtney (2001). "Tried-and-true" approaches, designed to optimize strategic decision-making in predictive environments, systematically fail in times of high uncertainty. Further Courtney avers that a typical strategic decision-making process assumes that a deep analytical understanding of today's market environment and today's company capabilities is the key to developing a foresight about the future. Transcending a scientific model will mean considering other factors outside the scientific equation like instinct and holding to hope. One of the lessons learnt during the Covid-19 crisis is that strict adherence to established scientific models should not be the single guide in making management decisions during an extremely turbulent scenario.

One of the attributes of a scientific model is strict adherence to procedure and facts. In an explosive crisis, the order of things is often altered and therefore ordinary procedure can be impossible to follow. During a major crisis like the Covid-19 scale, organizational goals can radically shift within a very short time. For instance, a quick shift from profit orientation to survival focus. Going beyond scientific decision-making models requires a sharp critical thinker. It doesn't mean failure to logically interrogate a situation or remaining indifferent. It may require holding to rational hope and fortitude even when in the circumstances, it might not make a logical argument within a scientific framework.

E. An illustration using Porter's Five Forces Model

Johnson et al. (2011) contend that Porter's five forces model is the most strategic tool used to analyse industry environment. Strickland et al. (2005) suggest that the five forces holds the state of competition in an industry to be a composite of competitive pressures operating in five key areas of the overall market. The five forces are: Pressures associated with the market racing for buyer patronage, Pressures associated with the threats of new entrants, Pressures from the attempts of companies in other industries to win buyers over to their own substitute products, Pressures stemming from supplier bargaining power, Pressures stemming from buyer bargaining power.

The Five Forces tool is a simple but powerful tool for understanding where power lies in a given business situation. This is important, as it helps an organisation understand both the strength of its current competitive position, and the strength of a position sought. With a clear understanding of where power lies, one can take

fair advantage of a situation of strength, improve a situation of weakness, and avoid taking wrong steps. This makes it an important part of a business planning toolkit.

Porter's five forces model is undoubtedly one of the most tried and proven practical tools taught in most business schools and MBA programs. The model has been and still is instrumental in strategic planning and decision making for many business consultants and executives. However, in an extremely chaotic and uncertain environment, how does one employ such a tool? Take for example the events after the declaration of Covid-19 as a global crisis, each of the constructs provided for in the five forces model must have experienced an explosion whose effect and navigation could be extremely difficult to discern in the circumstances. For example, some players in the industry may have totally shut down, some may have shifted focus of production, some may have had to radically scale down operations, some may have totally been starved of suppliers, the market dynamics changed significantly within a short span in most industry value chains.

F. The Analogy of The "Biblical Joseph"

The story of Joseph is told in the Bible in the book of Genesis 37:1-1. Joseph is presented as the favorite son of his Father Jacob. Like in most organizations, Jacob's house had its fair share of internal conflicts. Joseph's brothers plotted to kill him. In a plot orchestrated by his brothers, Joseph finds himself in Egypt as a slave. Again, in another conspiracy, Joseph is put in prison in Egypt. Despite his precarious circumstances, Joseph stood out as a man of absolute integrity and gifted with extraordinary abilities. He remained deliberately hopeful in the face of hopelessness. His moment came when he helped interpret the Pharaoh's dream on the imminent danger that was about to befall the land of Egypt. The turning point was his advice to the King at a moment of a major crisis "let Pharaoh look for a discerning and wise man and put him in charge of the land of Egypt." Pharaoh recognizes Joseph's God-given ability and prompts his promotion to the chief administrator of Egypt. Not only did Joseph provide a plan and an ingenious solution to an impending catastrophe, he turned a crisis to a profound opportunity.

During a crisis the best has to necessarily take the leadership. At such a moment, organizations have to go beyond analytics and established models. Important to note is that the best may not necessarily be the one at the helm. In the case of Egypt, the best was a foreigner slave in prison. Identification and empowering Joseph was all the Pharaoh did to save a situation. This is a great lesson for managers and leaders during a time of a monumental crisis. Identifying and empowering a Joseph to navigate the vessel through turbulent waves of a dreadful crisis. This simple analogy makes a contribution to what those in management can do when making key management decisions.

III. Conclusion

Beyond doubt, the theme of management decision making amid uncertainty has been a subject of interest among business scholars, researchers and consultants. However, no crisis in the recent history of business management and strategy has provoked and clearly demonstrated the challenge and complexity of decision making during extreme uncertainty like the Covid-19. Decision making amid such a monumental crisis is not easy, yet there are no choices except to make tough decisions. This paper has discussed a few lessons on how to approach a mega crisis. The main lessons presented in this paper include; going beyond scientific analytics and models, breaking down the complexity

into small understandable units, holding to deliberate hope, and finally identifying and empowering a "Biblical Joseph" to navigate the organization through turbulence.

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