Comparative analysis of some Western versus Japanese management techniques in the context of Ethiopia

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Abstract

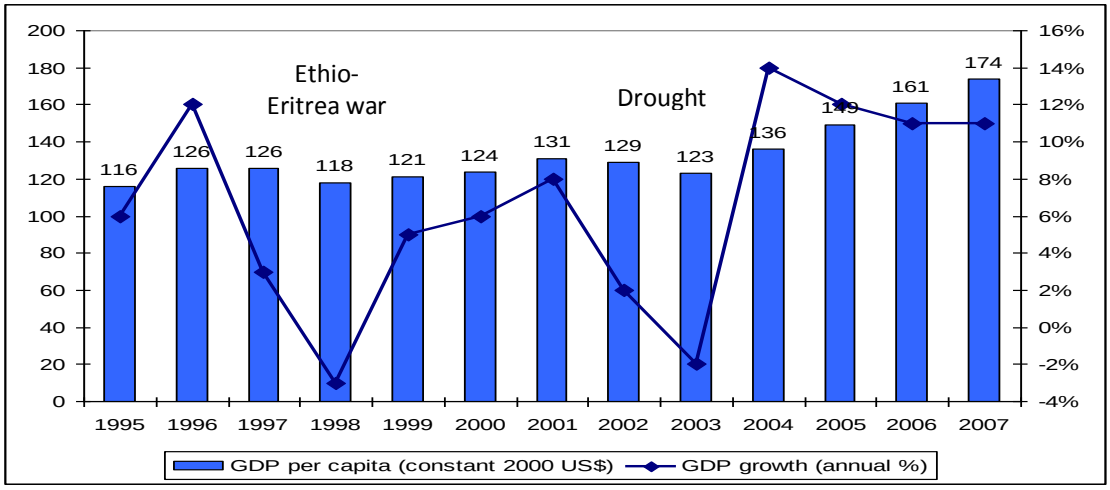
This study presents a comparative analysis of the two most revolutionized and institutionalized management techniques, Kaizen and BPR in the context of Ethiopia. The long term challenge of the Ethiopian economy is to sustain the current economic growth level. The solution to this challenge lies in building a vibrant industrial sector that becomes the engine of economic growth. Currently, the industrial sector is plagued by low – productivity which in turn is caused by lack of business skills among manufacturers. The East Asian experience shows that business enterprises solved such difficulties effectively by introducing business skills. This paper stipulates that there is no reason why the same problems faced by Ethiopia's industrial sector can't be solved by imparting on business skills (such as management, marketing, planning, costing, etc). The question is where can business enterprises learn such skills? Well, this study introduces and examines two prominent management techniques, Kaizen and BPR, and their international transferability. These management techniques revolutionized the private sector of Japan and U.S. respectively. In addition to comparative analysis, discussion of contextualization and tailoring of the management techniques to the Ethiopian setting is presented.

Key words: Kaizen, BPR, Ethiopia, industry, technology, international transferability

I. Introduction – country context

Ethiopia has witnessed high economic growth over the past six years (see figure 1 below). When we look into the sources of growth, we can see that growth in the non-traded sector is mainly driven by massive public investments in infrastructure, education and health care. Whereas the traded sector has shown little increase in output as growth in this sector is mainly driven by commodity price increases. As long as the Ethiopian economy is predominantly dependent on non-traded sector, the economic growth that Ethiopia has achieved for the last 6 years is public investment driven. Such massive public investments coupled with increased cultivation and increased uses of fertilizer have fueled growth by inflating the G part of GDP[1]. The next natural question one will ask is that whether such public investment driven growth can be sustained or not. Public investment driven growth may continue as long as there are niche public investment areas to be exhausted by the government. However, such niche public investment areas for the government are not many and hence will come to a halt soon. The moment such public investments are exhausted, growth will halt unless the private sector starts to be the engine of economic growth.

Figure 1. GDP per capita and GDP growth



Source: World Development Indicators (2006)

[1]The components of GDP are private consumption expenditure (C), government expenditure (G), Investment (I) and net exports (exports (X) – imports (M)). Huge public investment expenditures inflate G and cause growth of GDP.

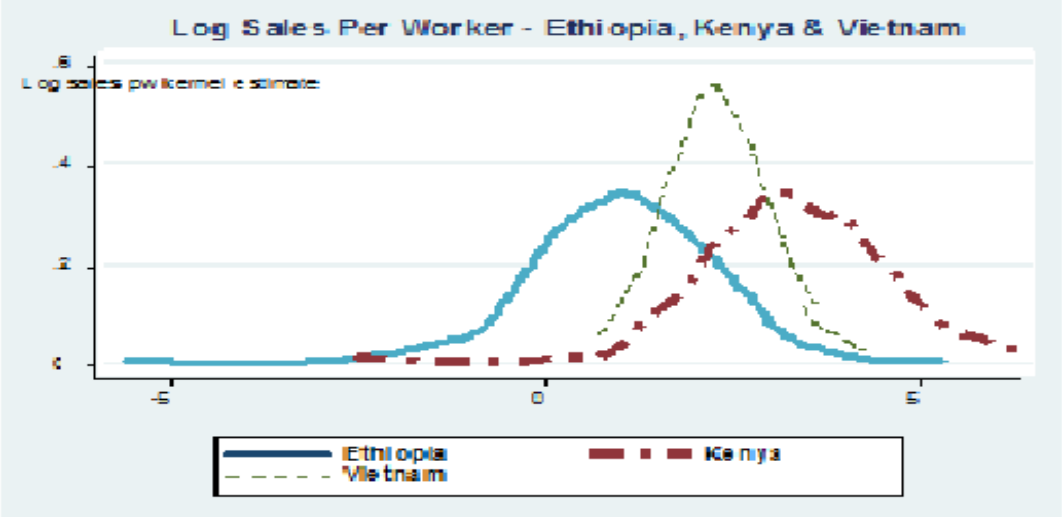
Given that Ethiopia's industrial sector lacks economic dynamism due to weak private sector and that the country's exports are highly concentrated in a narrow range of commodities, sustaining growth becomes the long-term challenge of Ethiopia's economy. Growth can only be realized and sustained as far as an economy is able to constantly generate new dynamic activities, and the private sector starts to be the engine of growth. The fact that growth hinges ultimately on the strength of the private sector means that growth agents (or manufacturers) need to be equipped with the necessary business skills to put the economy on a sustainable basis. It is in this context that this research work embarks on a comparative analysis of Western and Japanese management techniques to examine which may be more relevant and applicable to Ethiopia's industrial sector.

II. The rational for international transferability of management techniques to Ethiopia

Ethiopia's industrial base is still extremely narrow. Industry, including mining and quarrying, manufacturing, electricity and water as well as construction accounts for 13.12% of GDP at constant prices, and manufacturing alone accounts for only 5% of GDP (UNIDO 2009, WB 2008). The private sector is predominately small, informal and service-oriented, with a challenging environment for business expansion. Empirical studies (e.g. Sonobe and Otsuka 2009 and 2010; Bigsten and Söderbom, 2006; and Bigsten and Gebreeyesus, 2007) show that manufacturers in sub-Saharan Africa tend to stagnate in low - productivity and low - profitability status. This is so because they lack the necessary business skills (such as management and marketing skills). An industry plagued by low-quality producers ceases to grow as the profitability of producing such low - quality products sharply declines due to the absence of quality and productivity improvement, which in turn is due to lack of business (or management) skills. Many of the East Asian business enterprises faced the same problem during their early stage of development, but have successfully solved them by introducing business skills that enable entrepreneurs to escape the low-quality trap. Thus it becomes evident that imparting on such skills will

help Ethiopia's enterprises grow and engage in multi-faceted innovations, and will put the Ethiopian economy on robust and sustainable growth.

Figure 2. Average productivity (value added per worker)



Source: Results of Ethiopia Investment Climate Survey, Africa Financial and Private Sector Development, the World Bank, June 2007

Figure 2, which draws productivity levels on the horizontal axis and productivity distribution on the vertical axis, depicts at least two important facts about Ethiopia's industrial sector. First, compared to the other two countries, Kenya and Vietnam, Ethiopia's enterprises have lower average productivity; i.e. the peak value of the bell-shaped distribution of Ethiopian enterprises is lower than the other two countries. Second, Ethiopia's productivity distribution is so wide which tells us that both unproductive and relatively productive enterprises coexist in the industrial sector of Ethiopia. In other words, stiff competition among enterprises that makes less productive firms more productive and that derives out unproductive firms from the market is largely absent. If there exists stiff competition among firms, the economy will embrace only the productive and innovative ones and hence the bell – shaped productivity distribution curve will be compact (narrower) as it appears to be the case for Vietnam in figure 2. However, it is not easy for manufacturers to get out of low – productivity traps by themselves. They require business skills to do that; and such business skills need to be imparted on them. Thus, the

solution of sustaining robust growth lies in building a vibrant private sector; and this in turn requires instituting skill development and management techniques in a meaningful way among other things.

III. Examination of Western versus Japanese management techniques

In response to globalization and growing competitiveness of world markets, enterprises are continually looking for different management techniques to make their business operations competitive. A wide range of systems such as Kaizen, benchmarking, Business Process Re-engineering (BPR) and so on have been deployed as drivers to improve competitiveness (Lee and Oakes, 1996). Two management techniques, Kaizen and BPR, are the most developed and institutionalized by the private sectors of Japan and USA respectively. Kaizen is based on continuous improvement principles to facilitate change on a constant and progressive basis. BPR, on the other hand, advocates large step changes using structural process re-design and a fundamental rethinking of the business. In spite of their differences, these two approaches are seen by some researchers as being compatible. For example, Love and Gunasekaran (1997) have presented total quality management (TQM) - one of the Kaizen toolkits - as a good starter for BPR.

Wide range of literatures (e.g. Hammer, 1990; Chan and Peel, 1998; Childe et al., 1994) indicate that BPR is normally used on a once-and-for-all basis. Put another way, the application of BPR to a large extent involves considerable upheaval in the company and it is not a technique that can be used whenever a flaw is found in a process. Given that process flaw or product defect is an everyday life in less developed countries, BPR seems not to provide much help in this respect as it can't be used whenever a flaw is observed in a process. However, Kaizen is tailored to identifying any flaws in a process in an incremental basis.

In the study of international transferability of management techniques, there are some questions that I would like to address further. These questions relate to compatibility and applicability when two or more different management techniques are jointly implemented across different cultural settings.

First, I would like to address the issue of applicability and compatibility of these foreign management techniques in the Ethiopian setting. Second, which management technique - Western or Japanese - is the appropriate way to transform a company operating along traditional lines such as the Ethiopian industrial firms? And third, since the possibility of implementing both management techniques is probable, I also analyze the possible complementarities and synergy between the Western and Japanese management techniques. Put differently, is a company that has undergone BPR (Kaizen) suitable platform for the application of Kaizen (BPR) principles? Let's start answering these questions using the following tabular analysis and the detail explanations follow the table.

Table 1. Tabular analysis of Kaizen and BPR

Comparison variables	Kaizen	BPR
International applicability/compatibility	Kaizen is applicable across different cultural settings. This is so because the most important defining factors for Kaizen are workers' skills, motivation, and top management commitment rather than cultural elements. Kaizen helps enterprise become several times as competitive as they are now.	BPR is about technology or innovation, hence has almost nothing to do with cultural differences. BPR helps to become more productive as the level of automation increases with BPR
Level of development	Suitable for developing countries whose enterprises perform along traditional lines and works well for slow-growth economies in particular.	Better suited to fast changing economies and economies that can invest in new technologies and innovations.
Pace of change	Slow, continuous and incremental	Abrupt, once-and-for-all, large step
Stability	Changes are Highly stable and predictable	Changes are spontaneous and less predictable
Investment orientation	Kaizen directly works on workers and managers and makes them several times as competent as they are now	BPR focuses on technology and automation. By automating, BPR increases

		workers' productivity
Cost	Less costly i.e. with current resources Kaizen can be implemented	Requires huge investment outlays.
Everyday application (Time horizon)	Kaizen is practiced every time. This continuous application nature of Kaizen helps solve whenever flaws arise in the process	BPR can't be used on everyday basis. Hence, it can't be used whenever flaws are detected in the process.

Each company re-engineers its processes in a different way; however, there are some similarities and common characteristics that can be found in any re-engineering process. Then it becomes worthwhile to analyze to what extent these characteristics favour or impede the implementation of Kaizen. Grover and Malhorta (1997) consider that continuous improvement can often serve as the building block for subsequent innovation efforts. On the other hand, Leach (1996) argues that continuous improvement is a better and less risky means of making changes in a company than re-engineering, claiming that a continuous improvement process helps to maintain stability. Re-engineering does not allow workers to assimilate the changes made and that when re-engineering leads to downsizing, the commitment of employees decreases.

MacDonald and Dale (1999) indicated the main differences between Kaizen and BPR as follows. Firstly, large step changes (BPR) are riskier, more complex and more expensive than continuous improvement (Kaizen). This implies that Kaizen may be preferable for developing countries for certainty, cost and simplicity reasons. Secondly, BPR places more emphasis on equipment and technology rather than people; Kaizen is the opposite. Given that developing countries are relatively technology scarce and labour abundant though workers in developing countries may not be highly skilled, their comparative advantage appears to lie in implementing Kaizen. Thirdly, re-engineering tends to concentrate on one process at a time using a project planning methodology, whereas Kaizen

takes a more holistic view of the organization, building improvement into all aspects of business operations.

IV. Complementarity and synergy between Kaizen and BPR

The purpose of introducing a new management technique is to boost productivity and hence to remain competitive in the global market. When an enterprise implements Kaizen, workers develop certain important qualities such as team working, problem analyzing, finding a solution independently, acquiring training skills, etc. Therefore, workers become more conscious that a static position can't be maintained if the enterprise wishes to successfully compete in the global market. This gradual but continuous change with in enterprises and workers' cumulative knowledge helps to realize large step innovations by implementing BPR or benchmarking. Conversely, one may also argue that a re-engineered enterprise might have acquired a culture for change and improvement which is conducive to implement Kaizen. In other words, although BPR is fundamentally designed and controlled from the top of the organization, BPR principles must be communicated company-wide and training and education programmes implemented to teach employees their tasks in the new process design (Grover and Malhotra, 1997). In this way, organizations develop effective vertical and horizontal communication channels, and training and education infrastructures which are very useful for the implementation of Kaizen.

In the western approach (e.g. BPR and benchmarking) changes are dictated by top management whereas the Japanese approach (e.g. Kaizen) requires the active participation of the entire workforce (including executive's commitment) across the organizational hierarchy. The fact that top management commitment is important for the implementation of Kaizen shows that the barrier might be less in companies that underwent BPR, where top managers are more aware of the need for radical improvement in processes to maintain competitiveness. Childe et al. (1994) note that one of the benefits of BPR is that it "establishes mechanisms to ensure continuous improvement of the re-design processes.

This is so because BPR is regarded as a direct method to introduce dynamism and awake the organization from its traditional position. After a radical change in the design of the process, continuous improvement would perhaps be seen as contributing to adjustments and improvements to the re-engineered process.

V. Possible challenges in international transfer of management techniques

One of the main criticisms against BPR is that it frequently brings about downsizing and, as a consequence, the opposition and lack of commitment of employees emerges (e.g. Leach, 1996). If Kaizen is to be implemented after BPR, then such lack of employees' commitment due to downsizing effect of BPR might present a barrier to the introduction and development of Kaizen as it is likely that employees will not be too eager to participate because of distrust from the previous bad experience of BPR. With re-engineering, many non-value-adding activities and operations are eliminated and this leads to displacements of employees from their current positions. Perhaps, those companies that are able to relocate their employees in other positions can contribute to improving the working atmosphere and levels of trust. According to Martinez et al (2008) the application of Kaizen can also lead to similar changes in some cases, however, they also presented the example of a U.K. automotive industry supplier which motivated its employees to participate in continuous improvement by guaranteeing sustained employment. This has been possible by the continuous growth that the company has experienced over many years. In the case of BPR, the application of this employment strategy would require radical growth, which is not so easy to businesses.

We have seen the challenges coming from the management techniques themselves so far; however, there are also a lot of challenges from the recipients' side. The management techniques presuppose the existence of some acceptable level of technology, workers' motivation and skill. Such basic conditions such as motivated workers, some level of skill for them to be able to understand trainings and team discussions, top management commitment, good worker – management relationship,

etc are quite essential. Kaizen highly depends on the motivation and skill of workers and top management commitment while BPR depends on the level of technology possessed and top management commitment. These distinctive features of Kaizen and BPR have pertinent implications on which management technique should be chosen and when by developing countries. The fact that, generally, traditional enterprises do not attach great importance to training means that their workers' level of skills and knowledge is likely to be low. This implies business enterprises need to invest in workers' training which may first appear costly; but it rewards if it is done appropriately. One the issue of workers' level of education, Ethiopia appears to have better performance; i.e. the average years of schooling of workers for the customer – order – based tailors in Addis Ababa is about 9 years whereas for the readymade garment producers is about 14 years (GRIPS/EDRI survey, 2007). Such better level of education encourages every company employee to come up with ideas – however small – that could improve his/her particular job activity, job environment or any company process for that matter.

VI. Lessons from BPR implementation in the public sector of Ethiopia

BPR has been widely implemented in the public sector of Ethiopia. This is so because Services delivered by public institutions are very sluggish, costly (in terms of money and time), incompetent (not up to the needs of customers) and unresponsive. I would like to remind the reader that private firms have not adopted BPR yet in Ethiopia. So the stories/experiences presented here are from the public institutions (government offices and public institutions such Telecom corporation). I presume that such experience will help other public institutions and private firms who plan to implement Kaizen or BPR or any other management technique for that matter.

There are good examples to tell about the positive changes brought by the implementation of BPR in some of the public offices. The experiences of the Ministry of Trade and Industry (MOTI) and the Ethiopian Investment Commission are instructive examples of how institutions can be transformed to be more responsive, efficient and effective. These two public institutions were taken as good

examples in the IMF Country Report No. 06/27 for Ethiopia (2006). For instance, in the License and Registration Department of MOTI, it used to take a company 26 working steps and 35 days to secure a trade license before BPR implementation, but after BPR it takes only 6 work steps and 34 minutes.

However, there are a number of problems that the government needs to address during BPR implementation. Here I present the responses I (personally) collected from government workers whose offices have implemented BPR. I went around in Addis and Mekelle, and asked workers what they think about BPR and how they evaluate BPR implementation in their offices. What I present here are the most cited problems by the workers I asked randomly.

First, some BPR teams were inappropriate. There were frequent cases where the BPR team does not comprise people from the operations level. It is a commonsense that an employee working at the operations department knows much better about the processes in that particular operation and is able to identify the possible problems in his work department. BPR teams mostly comprised executives who do not have detail knowledge of actual operations.

Second, no salary adjustment was made that can motivate workers following the BPR implementation. Workers ended up having more workloads than they had before BPR implementation but compensations were not adjusted accordingly. Third, there are some public offices that are highly inter-connected (either horizontally or vertically interrelated) in the services they provide. For example, import/export companies visit the Ethiopian Customs Authority (ECA), MOTI and banks (e.g. National bank) one after another to get their import/export processes accomplished. In such cases, reengineering only one or some of the interrelated service providing public institutions does not bring the desired effect. BPR implementation can bring the desired change if only implemented by all the interrelated institutions.

Fourth, executives (especially heads or directors of departments) were observed to resist every effort to improve the public institutions and reject expert suggestions if the change/suggestion was going

to have negative impact such as downsizing or demoting on themselves, their relatives or friends employed in the institution. The first issue they were observed to analyze was that whether the new system will impact them negatively or not. If it does, then they make every effort to hinder it or at least delay it.

Fifth, some of the benchmarks chosen were to some extent unrealistic and/or obsolete. The first step in BPR implementation is the analysis of the current situations; the second step is studying what to do to solve the problems and the third is taking benchmarks. The main problem observed was in taking benchmarks. The benchmarks were either unrealistic or obsolete. Let me give the example of the implementation of BPR in the Customs Office which seems to have taken unrealistic benchmarks. In customs practices, England was taken to have the best customs practices. It is evident that in England the major objective is not to collect tax; the main objective is be to boost trade or to facilitate trade. In England import taxes are almost zero which is also a requirement of the WTO[2]. However, in Ethiopia (or generally in developing countries), collection of taxes is a major objective and import duties are generally high. Therefore one can imagine that there are tremendous differences in policies and objectives between England and Ethiopia exist. If import duties are high, then traders or importers tend to evade taxes by producing a lot of fake documents in the process. Customs workers spend a lot of time, energy and resource on detecting such fakes and frauds and end up providing less facility and service to customers. On the other hand, if we take India's customs duties and rates, they are roughly similar to that of Ethiopia's. However, India delivers more improved and transparent services to customers than Ethiopia does. The World Customs Organization (WCO) accepts India's customs duty system and recommends other developing countries to adopt Indian type. So isn't India a more realistic benchmark than England is for Ethiopia? The second aspect of benchmarking problem is taking very old practices as benchmarks. For example SME practices of the Germany 1960s were taken as best practices

[2] Import duties are almost zero; if they need to restrict imports, they impose quotas for some products

for the current Ethiopian SMEs, a lot of things have changed and old practices have less room for improvement and updating.

VII. Conclusions

The long term challenge of the Ethiopian economy is to sustain the current growth level. The question of sustainability becomes relevant since the growth fundamentals of the economy have not yet developed. The current growth is mainly public investment driven; and the typical feature of public investment driven economic growth is that it tends to increase the demand side of the economy much faster that the supply side of the economy. This would mean the economy faces macroeconomic imbalances such as high domestic prices (inflation), shortage of foreign currency and raw materials. This is so because the private sector is weak. Empirical studies show that the industrial sector has stagnated in low – productivity mainly because of lack of business skills such as management, marketing, planning, costing, etc. These problems are not unique to Ethiopia's industrial sector; East Asian experience shows that a number of business enterprises have successfully overcome such problems by introducing business skills. Japan is one of the most well known economies in revolutionizing and institutionalizing kaizen in its private sector. Thus the shortest cut to creating a vibrant private sector is to borrow modern management techniques such as Kaizen from parent countries.

The application of BPR involves considerable change (rethinking) in the company and it is not a technique that can be used whenever a certain process goes wrong. However, though successful re-engineering has the potential to bring about a better process design but perhaps it may not be the optimal one. Re-engineering a process is not a mathematical optimization procedure and, therefore, any new process will be amenable to further improvements once it has been implemented and subjected to operating experience. Then kaizen becomes a proven way to help make these further changes, on a continuous basis. Moreover, Childe et al. (1994) note that one of the benefits of BPR is that it "establishes mechanisms to ensure continuous improvement of the re-design processes. This is so

because BPR is regarded as a direct method to introduce dynamism and awake the organization from its traditional position. After a radical change in the design of the process, continuous improvement would perhaps be seen as contributing to adjustments and improvements to the re-engineered process.

Large step changes can only be realized at wide intervals of time. When an enterprise implements Kaizen, workers develop certain important qualities such as team working, problem analyzing, finding a solution independently, acquiring training skills, etc. Therefore, workers become more conscious that a static position cannot be maintained if the enterprise wishes to successfully compete in the global market. This gradual but continuous change with in enterprises and workers' cumulative knowledge helps to realize large step innovations by implementing BPR.

Which technique to choose depends on many factors. This study tried to make a comparative analysis between the two management techniques from cost, stability, compatibility, level of development, risk, and nature and existing conditions of enterprises in the industrial sector, etc point of view. Presenting such lucid comparative analysis helps enterprises and countries make the right choice of technique and / or make the right mix of the techniques.

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