

KAIZEN, Skill Development, and Industrial Clusters

Tetsushi Sonobe

Foundation for Advanced Studies on International
Development (**FASID**) and National Graduate
Institute for Policy Studies (**GRIPS**), Japan.

Why do I believe the KAIZEN project will make an epoch?

- Industrial development is not what ministers achieve.
- It is achieved by managers and workers of enterprises.
- KAIZEN works on them directly and help them become several times as competent as they are now.
- How?
- By teaching them how to learn and by giving them incentives to learn production technologies, marketing methods, planning, managing. . .
- Are Ethiopian managers and workers good at learning?

Education levels of top executives

Country/City	industry	Years of schooling	Notes
Ethiopia	Garment	Export 16.0 Other RMG 13.1	Tailors 9.8 yrs
Ethiopia	Leather shoe	Large 14.0 Small 9.4	
Ethiopia	Cut flower	Domestic 15.2 Joint 16.0	Foreign 16.4 yrs
China/Chongqing	Motorcycle	Chairman 13.7 (Hired M. 15.2)	Top producer in the world
Vietnam / Suburb of Hanoi	Knitwear	11.3	Exporting to Russia, E.Europe
Bangladesh / Dhaka	Knitwear	15.0 (Hired M. 14.1)	In Woven sector, less educated

World # 2 vs. Ethiopian Garment industries

- Bangladesh is the world # 2 exporter of garments.
- Ethiopia has so far failed to follow suit, despite the high education level of the owners and managers. . . . Why?
- In 1979, Bangladesh dispatched 130 young able people to a company in Korea for 8 months to learn not only sewing and machine maintenance, but also factory management, international marketing, international procurement, . . . , everything about export garment business. After returning to the home country, they continued to learn more and more.
- They became managers or started their own companies and taught workers.
- By contrast, Ethiopian garment industry has learned very little from Mauritius and Indian.

Transfers of technology

- So, technology transfer is extremely important
- From economists' point of view,
industrial development \approx the process of technology transfers = continuous imitation and assimilation of ideas, techniques, designs, etc.
- When is technology transfer said to be truly successful?
- It is successful when workers master the transferred technology.
- Can we make workers learn, adopt, and add their ideas to transferred technology?
- This is easy to say but difficult to do.

Entrepreneurship

- Entrepreneurs see opportunities when others see problems. Entrepreneurs take initiative to transform these opportunities into profitable business situations.
- When Japanese businessmen attempted to catch up American and European competitors, they faced the problem of how to make technology transfer truly successful.
- Facing this difficult problem, they displayed entrepreneurship. After a long period of trial and error, their solution emerged.
- It is now called KAIZEN.

KAIZEN

- Their solution was to encourage everybody in the enterprise to be entrepreneurial.
- Imagine everybody is given a good incentive to think and behave like the owner of enterprise.
- Everybody would be serious about learning technology and serious about adding their own ideas to make it more convenient.
- Production workers and marketing workers would have different ideas. Engineers would have yet another idea. They would dispute and eventually reach an agreement as to which ideas to be adopted.
- The enterprise can successfully obtain technology transfer. Giving high incentives to employees may first appear costly, but it pays if it is done in a proper way.

Skill Development

- For KAIZEN to work well, it is ideal for all workers have good skills or at least basic skills.
- So, new workers are required to receive basic skill training.
- You may be worried about job hopping and poaching problems. New workers may quit soon after receiving training and leave nothing good to the enterprise.
- Now consider an enterprise practicing KAIZEN. New workers join KAIZEN after mastering the basics.
- With KAIZEN, they can feel that they are really essential, integral parts of the enterprise, and they can feel ownership.
- They are highly willing to continue to work at the enterprise.
- So, KAIZEN helps skill development.

Industrial Clusters

- As skill development and KAIZEN improve productivity, enterprises will expand in size and need more spacious production sites, larger buildings, better infrastructure, and more machinery.
- Don't let them move to new places randomly, but guide them to form clusters
- Why?
- Industrial clusters save the cost of building infrastructure.
- Industrial clusters saves the cost of investing in machinery by facilitating the division and specialization of labor among enterprises.
- Industrial clusters provide a lot more benefits as well.

Conclusions

- Technology transfer is the essential part of industrial development
- To achieve successful technology transfer, it is wise to adopt the Japanese method, KAIZEN.
- KAIZEN, Skill Development, and Clusters are not just useful individually but also highly complementary to each other.