

Pakistan: Expensive Labour and High Costs

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Pakistan continues to be one of the less attractive investment opportunities in the world. Behind the superficial appearance of economy in resource use, ingenuity, chaos and untidy appearance of much of Pakistan's urban and industrial development lies an insidious problem that deters investment: high real costs. The same high costs also make it impossible to sustain even basic living standards for much of the population.

Take domestic drinking water for example: a prime example of a basic service provided by engineers. The notional water cost of a few rupees per month is illusory. When water does flow from the water authority pipes, it needs to be filtered and boiled to make it safe to drink at a cost of around 2 – 4 Rp per litre (including typical labour or opportunity costs). When the pipes run dry, water deliveries costs around 400 Rp for about 800 litres, including the necessary "facilitation fee" to avoid a week or so waiting for the water truck to arrive. Add the cost of filtering and boiling the water. Yet, in the driest cities of Australia, safe drinking water flows from the tap at a marginal cost of around 25 Rp for 1000 litres, about 100 times cheaper. (Including connection charges, the difference in the cost per litre is about 30 times for a typical poor family).

Providing safe drinking water is the work of engineers. If drinking water is so much more expensive in Pakistan than Australia we need to find ways for engineering to work better in Pakistan.

Electricity is another engineered commodity: the cost at the meter is about the same in Pakistan as it is in Perth, Australia's most expensive city for electricity supplies. However, in Pakistan you need a standby generator to have electricity when you need it, doubling or tripling the real cost, even if the generator is only used a few hours per week. Add to that the damage to electrical appliances caused by supply interruptions and power surges.

The most energy-hungry domestic appliances are used for heating or air-conditioning. However modern buildings in Pakistan are well designed to cook their occupants in summer and freeze them in winter. Pakistan homes, offices and factories take more energy for the same degree of comfort than equivalent buildings in industrialised countries.

These cost comparisons apply equally to the industrial sector.

Many Pakistanis think their country provides attractive investment opportunities with low labour costs. Think again! The real comparison is not the hourly cost of labour but the value of what the labour produces per hour, called productivity. If labour productivity really *was* high in Pakistan, the world's corporations would be lining up to build factories here. Instead, cars are made in the USA, Germany, Japan and Sweden where hourly labour costs are nearly the highest in the world. That's because it is cheaper to build cars there – real productivity is higher.

The World Economic Forum surveys about half of the world's nations every year to compare productivity and many other measures of economic efficiency. Pakistan used to be included. However, Pakistan was dropped from the list because the reliability of the statistics was so poor that they were no longer comparable. If it were listed, it would come somewhere near the bottom of the list, behind India, perhaps a little ahead of sub-Saharan Africa (without South Africa).

Yet, the biggest problem just might be entirely psychological. If, as most people in the decision-making circles of Pakistan believe, unskilled labour is a cheap, abundant resource, there is little incentive to make good use of it. If you see labour as expensive, which in reality it is in Pakistan, you would think of better ways to use it. Thinking like that leads to education: skilled labour is much more productive. Skilled labour knows how to make effective use of tools and materials. Skilled labour can make sensible decisions without having to be supervised every minute of the day.

On the other hand, *because* labour is seen as a cheap commodity in Pakistan, there is little incentive to provide for education and skill development. The elite is strongly committed to the notion that 'education is vital for my children'. Private education is a booming industry. However if we probe a little deeper, private education is perhaps more accurately seen as an insurance policy, a way to ensure a future for "our children" to save them from neglect in the emasculated public education system. Education for others receives scant consideration. The entire university budget of the Pakistan Higher Education Commission serving a country of nearly 150 million people is about half the budget of a small to medium sized university in Australia. Yet Australia has about 35 universities for 20 million people.

Engineers play a crucial role in the Pakistan economy because they supply water, energy, transport, communications, construction services and maintenance for homes, farmers and industries. Engineering is also a fundamental part of food and textile processing, fertilizer, metal and cement production, defence and the oil and gas industry. Engineering also relies on an army of skills from plant operators to maintenance workers, as well as the financial services industry.

There is plenty of evidence to show that engineering skills in Pakistan are well below international standards and this leads to the high costs that impoverish both rich and poor alike in Pakistan.

The sub-standard workmanship and cheap, even re-used, materials give a superficial appearance of economic use of resources, low costs and what is often labelled as 'appropriate technology'. However, when combined with low skill levels, the result is poor quality work, low performance and energy efficiency, premature breakdown, and then unsustainable maintenance costs. This is often attributed to corruption and

dishonesty, but lack of education and skill shortages provide a more accurate explanation for high cost levels.

Often this problem starts with inadequate engineering design skills, and components and materials poorly matched to the skills and abilities of operators and available construction or manufacturing facilities. More importantly, there is insufficient experience in forecasting costs and delivery times. This results in under-estimates for the cost of construction or manufacture and subsequent maintenance. A third factor is client expectations of price: the business owner may insist on an unrealistic price level.

Given that real costs are often higher than many people would expect in Pakistan, even using industrialized country cost levels as a guide can lead to a significant under-estimate of acquisition and maintenance costs.

Pakistan engineers are often required to pass responsibility to a finance department for purchase or negotiation of the supply/construction contract where there is significant downward pressure on acquisition cost. Engineers are usually neither expected or permitted to have in-depth understanding of finance. The finance department will attempt to squeeze down the contract price without being aware of consequential performance loss and maintenance cost implications. (Unless the engineer is highly skilled and experienced, he may also fall into this trap even if he is involved in negotiations.) The supplier or contractor will yield to downward price pressure because he depends on contracts for his income. There is always another contractor or supplier who is sufficiently desperate for work to under-price the job.

Engineers in industrialised countries have primary responsibility for their operating budgets. Experience has shown that engineers will only devise cost-effective solutions if they have the necessary business know-how, financial experience and responsibility.

Corruption cannot be ignored as a factor, of course, especially at the contracting stage. In many government departments (not so much in private firms) there is also an expectation that contractors will pay about 5% of the contract price as a reward for receiving the contract. There may also be political interference in awarding contracts. However the effects of this type of corruption on cost levels may be small compared with the effects of skill shortages.

The supplier or contractor now has to complete the task within an inadequate budget, but he quite probably does not have the skills or knowledge to realize that the budget is inadequate until it is too late. The contractor may not be able to obtain skilled workers. In Pakistan, proficient trade skills are often not available *at any* price: the law of supply and demand fails because supply is so small or non-existent. The market then adopts a resigned acceptance of a chronically inadequate skill level. With the price insufficient to complete the job, the contractor is forced to take short cuts, use sub-standard materials, and force labour to work long hours without adequate supervision. If there is supervision from the client, there is now an increasing risk of corruption to cover the inevitable shortfalls. The contractor will blame the faults on his work force who in turn deny responsibility.

The shortage of trade skills is accentuated by inflexible pay scales in most enterprises. Engineers work hard to lift skill levels only to find their newly skilled workers leaving for higher pay outside Pakistan. Engineers usually have little or no authority to pay their skilled workers enough to remove the incentives to leave.

Finance and legal skill shortages also play a significant role. It is difficult (but becoming easier) to obtain reasonably priced overdraft and credit facilities to cover contract expenses incurred long before the client pays for the completed work. The legal system offers little protection from defaulters: it can take years to even get a case heard, and perhaps decades to get resolution. "Facilitation fees" often have to be paid to get payments from clients, particularly government departments. Finally, lack of skills in banking combined with poor skills in handling loan financing make it difficult to obtain large chunks of credit. This results in a large number of poorly designed, poorly managed small enterprises rather than a smaller number of more efficient enterprises. The number of newly constructed petrol and gas stations on the GT Road is a good example: there are so many that they alone provide almost continuous street lighting at night on some stretches of the road. On a recent trip I noticed that nearly all were empty of customers.

Once a job is completed, any sub-standard work or quality will soon be evident. The contractor may then get a reputation as dishonest or corrupt, even though the problem may have originated with unrealistic cost estimates in the first place.

Once in the maintenance phase, the cost of maintenance can be much higher than predicted as a direct consequence of poor construction or manufacture. Sometimes there are so many breakdowns and other broken parts that it is difficult to see which ones need to be fixed first. Much will depend on the resourcefulness of maintenance technicians which can be very impressive. However, it is unlikely that the design performance levels will be maintained for long.

However, inadequate maintenance budgets (arising from insufficient estimating skills) and maintenance skill shortages add significant further costs. Though they often look ingenious, repairs are often completed with low quality replacement parts and materials that reduce plant performance and durability. Often the objective is to minimize up-front repair costs without considering future production losses from sub-standard performance efficiencies and breakdowns.

In public organizations, capital works budgets may even be partly spent on salaries to supplement inadequate operating and maintenance budgets, causing delays in construction, apparent cost blowouts or only partial completion of capital works projects. By the time anyone discovers this situation, the responsible officers will have already moved on to another posts and the incumbents will not know by whom or why these decisions were taken.

The lenders of last resort in Pakistan, the ones that make it possible for the smallest "cottage workshop" and the largest factories to still produce something in this high cost country, is the health of the workforce, pension funds (or the lack thereof) and the local environment. Many Pakistan industries rely on being able to support their subsistence profits that they scrape off the top of exorbitant production costs by dumping the bills they cannot pay onto the local environment and allowing their

labour force to walk home with sudden or long term cumulative occupational injuries. Safety for workers and environmental protection measures cost money, particularly hazardous waste and chemical disposal. Even though some employees and managers know they are damaging their environment and poisoning water supplies, they cannot afford the costs of safe transport, disposal and destruction of these wastes. And, it is hard to justify safety measures if the company escapes the real cost of occupational injuries.

The usual response is "Pakistan is a poor country: these are luxuries that only rich countries can afford". With about 150 million people, and a huge proportion of young people, Pakistan is a rich country.....potentially. But by dismissing Pakistan's most precious resource as "cheap labour" Pakistan is trashing its treasure, and most of all, its future.

Pakistan faces a relentless economic decline if this continues. The slight but apparent economic progress made in the last few years could be wiped out by the current surge in steel and energy prices that reflect ultimate global resource limitations. The fundamental reason for this decline is lack of investment opportunities caused by high costs and low labour productivity in comparison to other countries. Pakistan cannot even attract investment from its own diaspora – overseas Pakistanis – except perhaps in property. And the fundamental reason for high costs lies in the lack of skills at all levels of the population.

Yet, as I have suggested, perhaps only a psychological change is needed to begin a reversal. Simply abandoning the myth of cheap labour would provide a good start. Much more is needed of course but once Pakistan people recognize the need for educating everyone, not just their own children, half the battle would be won.

Pakistan spends far more on military defence than education because India is thought to be a clear and present military threat. Perhaps the myth of cheap and abundant human labour blinds many in Pakistan to the reality that ignorance is the country's real enemy. Without an educated population there would be little worth defending.

There are some encouraging signs. The huge increase in IT skills and near world-class digital data communications infrastructure provides great potential for business efficiencies. The financial services industry is making big improvements. Government has recognized the need for skills training.

Pakistani humour thrives in the worst of circumstances, though the recent humiliation of the cricket team in Australia has severely tested that resilience. However, unless resources several times the defence budget are mobilized for education, as they are in most other countries, life for most of the population will continue to be a miserable and their sense of humour will even more severely tested.

Re-engineering safe drinking water supplies would seem a good place to start.