

**Dr. Tariq Banuri**

*Chairman, The Higher Education Commission of  
Pakistan*

August 01, 2018

Dear Dr. Banuri,

In the Pakistani academia, experimenters' blues are a common occurrence. The environment in our campuses is generally not conducive to experimental research in the physical sciences and engineering. We would like to bring your attention to what perhaps might be the last straw on the camel's back in bringing our academia to a permanent halt. We like to highlight one particular aspect dealing with sourcing and purchase of equipment, especially in the light of a recent directive issued by the State Bank of Pakistan which is attached to this letter. This circular prohibits advance payment for international purchases. We believe this is a death knell to our already gasping enterprise of experimental research.

To elaborate on the situation, it is well-known amongst the academic community that imported apparatuses are routed through local vendors who organically sprout whenever there is a tender document floated in the public sphere. These vendors add a layer of insane profiteering and administrative complication. For an academic, the torment of procurement does not stop at that, rather, once the equipment arrives, its installation awaits expert intervention. Very quickly, the equipment becomes a white elephant languishing in the campus corridors for the want of usage, repair and maintenance. There is also a complete inability to tinker with the instrument for the dread of converting malfunctioning apparatus to a complete write-off. Furthermore, there is no provision for hiring, glorifying and training technicians. The meltdown does not stop here as there is the lack of capacity to purchase small technical supplies, costing a few thousands of rupees which could potentially resurrect abandoned equipment worth millions. Indeed, pennies wise pounds foolish, we end up in a vicious cycle of replacing old apparatuses with new ones which only languish in the university corridors again.

It may sound counter-intuitive, but indeed, there is no major dearth of heavily priced scientific equipment in the country. Our laboratories become ivory towers showcasing the Rolls Royces of tools for scientific inquiry which never work! All around the country, students undertaking graduate theses are found running around university campuses in search for working apparatuses to churn data from working apparatuses to fill up their dissertations.

In recent years, we have seen a growing movement towards building low cost, accurate, fully functioning scientific equipment. The open source hardware movement is gradually turning the tables in favor of a more egalitarian, democratic and inclusive research culture. Our Universities will inevitably catch up with this movement, they will have to, they must. But an important aspect of this reawakening is the ability to source small-scale technical supplies from abroad and remold them into a working system. This exercise involves acquiring or producing components and crafting them into a value-added working system. Likewise, supplies and spares for repair and maintenance must be continually replenished into the system. All of these acquisitions necessarily demand foreign purchases from international businesses producing science ware and payments are always in advance.

In light of the aforementioned directive of the State Bank which makes advanced payments cumbersome and convoluted, one is left wondering how would the experimenter who cuts costs by building his own hardware, or someone who is on the route to scientific discovery can conduct his

research. For example, how could a chemist undertake any scientific endeavor without importing synthetic chemicals which are hardly produced in the country? What if during the course of an experiment she feels the need to change one functional group with another? She will write to her Department head, who would write to the university administration and then onward to the State Bank of Pakistan for an approval. The predicament of forbidding advance payments and routing them through a long procedure is tantamount to immolating the small community of researchers in this country who dare to explore the unknown and contribute towards building a scientifically aware society; a society that values critical inquiry, the craving for understanding the universe and harnessing physical phenomena for the betterment of the society.

Dr. Banuri, Pakistani Universities' expenditure on research is a mere iota of what the nation pays on infrastructure, energy, construction, transportation and buying raw materials for the industry. There is no financial advantage in prohibiting this small, currently ineffectual community of scientific investigators from purchasing science ware from abroad. The restriction will discourage small purchases and favor expensive purchases further adding to our financial worries. But beyond the financial implications, the fallout on our capacity to do research will be immense and irreversible.

Our scientific community is currently facing a severe strain of resources. It is also felt that there is a need to create a scientific culture that foments discussion, inquiry (some of which will be exploratory) and the need for a bureaucracy that facilitates the acquisition and movement of resources. Let's not make ourselves prisoners of a process. We request you to impress upon the Government and the State Bank of Pakistan to lift this restriction on advance payments. This will help all of us, and prevent us from considering that we, as experimental seekers of the truth, have made the wrong decision of adopting a thoroughly enjoyable profession.

Yours Faithfully,

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