STATISTICAL EDUCATION - ITS MANAGEMENT (SOME OBSERVATIONS)

By

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Educational expansion in any direction, as we learn from the past, should not be simply the consequence of one sided decisions of political leaders or those in power who may do whatever they like. Education can best serve a community if it is justly guided by widespread popular demand. The case of statistical education cannot possibly be very different particularly in modern times when we are beginning to admit that the use of quantitative scales provides us a much better visibility of all that surrounds and encompasses our life.

1. Statistical Perception :

When Statistics was conceived by someone as a discipline to be introduced for teaching at the university level, its worth may not have been realized as much as it glitters now. After the birth of this century, it has undergone a major development both in theory and practice. Especially during the last few decades the importance of statistics has been increasingly acknowledged by government, scientific, industrial, business and other organizations with the consequence that this subject is now being taught in the West to almost every graduate student of science and arts. There, not only every country has a Federal Statistics Office collecting numerical information on a large number of parameters that are important and useful for the national development, but the basis of the important decisions is mostly statistically oriented. Organizations where research, inquiry or investigation embodies quantitative aspects, statisticians remain integral components for assistance. An ambitious organization feels uncomfortable in formulating a development plan that is not based on reliable forecasts, and for this purpose it has to

bank upon past or current information. The idea is: "Get reliable data and derive maximum benefit from it."

In developing countries, which is also the case with Pakistan, the importance of statisticians should have been rather more profoundly felt for the purpose of careful, intelligent and objective planning. Strangely enough, here the need for statisticians appears to be underrated and least emphasized. These countries may have independent Statistics Departments in their teaching institutions, and their catalogues may preach in support of Statistics but the fact is when their graduates leave the corridors of a university, it does not take them long to see how important they are to their society. A fraction of them may get suitable positions, but there are many others who end up unhappily either holding jobs that bear no compatibility at all with Statistics, or join the formidable queue of those bitten by unemployment.

At times one cannot but wonder why it is so in a country that has a high illiteracy rate and where the treasure of accurate statistics has not been even significantly discovered for its healthy, purposeful and objective development. Does it imply an over-saturation of statistical graduates in such places? Or is it that Statistics should not be viewed as functional or enormously useful as commonly proclaimed in textbooks or in class rooms? These queries are often made in the developing countries, but for our understanding let us attempt to look at the present role of various sources of statistical education as well as the attitude of employers towards the statisticians in Pakistan.

2. Universities and statistical education :

In many countries a high priority is given to the university education when compared with secondary and primary education. Whether it is a developing country or a developed one, a realization is building up that the power growing out of the groves of an academy is much higher than that coming out of the barrel of the gun. This hypothesis seems well qualified where the educational system of a country strikes a reasonable balance between the educational output and its development needs, and where the divergence between the skills or specialities available in the teaching institutions and the requirements for the national progress is not alarmingly serious. In Pakistan a student bears only a small part of the expenditure on his higher education, and a university has to meet the remaining high

cost to produce a science graduate - a tax that falls on every body in one way or the other. But a university assumes mainly one function, a sacred duty, that it must maintain the process of turning out graduates in vrious fields. One may wonder how many teaching institutions bother to investigate whether the community needs or accommodate all its graduates or not. In addition to this exercise, does it really determine whether the type of education imparted meets the requirements of the employers and keeps them satisfied. With the passage of time an imbalance in this respect keeps on growing. Some sort of investigation must remain a continual feature, and progressive measures be taken by a university so as to promote a happy acceptability of its graduates in the government and private sectors.

As a matter of fact the same holds true in the case of statistical education. The syllabi of Statistics in most institutions (beyond any exaggeration) have remained mostly untouched over more than two decades, even when the challenge of life in the kaleidoscopically changing world has been exponentially mounting both in its size and quantity. The balance in this context has been worsening, and no concerted effort has been seriously and effectively made to attune the statistical education to the economic, agricultural or social development. If a teacher fresh from abroad joins an institution, we notice that he is often tempted by his desire to include in the syllabus the topic he has majored in; he might even recommend without examining the genuine necessity for it. If at conferences or seminars there have arisen recommendations for changes in the syllabi, no one knows whether the concerned authorities have ever taken the trouble to seek further advice on these issues. We hear sarcastic jokes that some teachers in universities show so deep a respect, an attachment, a love for their class notes, that they have never bothered even to correct the mistakes which their parents noticed when they had the honour to be students there. About four years before, in its report on the Statistics syllabi and postgraduate teaching in the "----" University, a committee recommended that "the teachers' notes should be burnt or destroyed in the first place as a part of the cleaning and standard improving operation." The measure seems drastic but the fact is that the level of material taught to the graduate students in the Western or even African and Middle Eastern institutions is much higher when compared with what we teach here.

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4. Our Employers:

In Pakistan an employer of today when compared with the one about three decades ago, has certainly more knowledge regarding Statistics as to what it is and what its broad functions are. This awakening in employers has been growing over the past years. Previously, if one had some idea of this subject he would take a pleasure in displaying his understanding through the phrase that "Statistics are lies, damn lies and statistics". Even now, most of the employers may not precisely know as to how a statistician can serve their interests.

No wonder, any body who takes a course in Statistics may not really know the benefits this subject can render, because it depends a lot on where and how it is taught. It is through applications that one learns the usefulness of Statistics and for that matter it again depends on what field is considered and where it is applied. In a good university the same course in Statistics is offered separately to different groups of students; that is, students of agriculture obviously need applications different from those in medical sciences. But definitely the exposure to the student through one course does not make him a statistician, nor should a few more courses be expected to do that magic. I remember once I was asked a question by a Vice Chancellor of the Punjab University in the early sixties "Do all roads lead to statistics?" At my puzzled look, he said he had met a statistician with no formal training in Statistics but surely he had a Master's degree in English. But that was more than thirty years ago. I guess we do not come across funny experiences of this kind any more. What is important for the employers to know is that statistical quackery cannot yield a desirable fruit. The contribution from Statistics is bound to be a question mark where the so called experts exist.

Graduates in Statistics are employed in teaching institutions, statistical bureaus, and a few in research institutions. Some of them may be accepted in banks, industries and other places where the nature of their work is hardly statistical. Yet many graduates with Master's degrees never find jobs befitting their training. With a large number of graduates coming from the universities but

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evolution; and the other is that the system of education here assigns no priority at all to mathematical sciences in the case of Arts degrees.

On the contrary a few private institutions in management sciences are showing a free hand in their struggle to keep up their standards as high as in good universities abroad. Times are changing fast, and so is the nature of challenges. It is therefore befitting to tailor education according to an employer's requirements. Yet to be on the safer side, could we attempt to plan our education in view of:

> We live in the present and cannot avoid future; the decisions we make today will affect tomorrow. Indeed many of them look toward a longer-range future...
>
> Simon Kuznets

A modern manager who does not have an insight of a basic numerical fact cannot have a deep cognition for creating, formulating or designing a reliable development plan. About the dependence of managerial activities upon statistical information a prominent American executive once remarked about half a century ago that when the history of modern times is finally written, it will begin with the age of steam and then progressing through the age of electricity to that of Statistics. This is an overexagerated view but the truth is that in managerial work it is generally the statistical information that has to be a basis for administration, policies and plans.

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