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SCIENTIFIC BUSINESS

A quarterly review of the applications of scientific method in business

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Why Scientific Business?

Why "Scientific Business"? A great many words have been used to describe business, but "scientific" has rarely been among them. Perhaps this is because most people regard business as an intensely personal affair, in which a manager or boss is someone who argues with, threatens, cajoles or coaxes his fellow men into doing what has to be done to keep the concern ticking over. Science, on the other hand, is frequently seen as something cold and impersonal, remote from, even alien to, the cut and thrust of daily human contact in the office. Science is something which goes on over in the labs.

Why science should have this image is something of a mystery. The early scientists were not mere calculating machines, but often uncommonly humane people, who tended to make their discoveries by the good old process of taking a hunch at random and then proving it right. (We never hear about the ones whose hunches were wrong!) In the course of doing so, they elaborated and perfected an intellectual system which has turned out to be the most potent tool known to man since the possibilities of flint were first realised.

Scientific method has done for modern man what the flint axe did for his forebears; it has extended his possibilities a hundredfold. It shines like a searchlight through the cloud of mystery, ignorance and prejudice with which most of us like to surround ourselves. The sensation is akin to having our clothes stripped off, for mystery and prejudice are humanity's favourite wear, the sports jacket and flannels of the mind. Science seeks the truth which, besides being elusive, is prone

to turning out cold and hard and no respecter of anyone's feelings. Perhaps that is why science seems to be cold.

In case this seems a trifle idealistic, we hasten to add that scientific method is only a tool and, like all tools, is mostly used for making things. These things tend to reflect the men who made them rather than the tools they were made with. So it is not at all inconsistent that we should have scientific medicine and scientific torture, scientifically produced pleasure and comfort and scientific warfare. These are all things in which men engage and they tend to use the most effective means of pursuing them. Whether these things are good or bad, science has not so far been able to tell us.

Now, at long last, it seems that men are beginning to use science to help them run their affairs. They have not much choice, really. The new technology has produced such a profusion of goods, is supporting such numbers of people at standards of life that would have been unimaginable to our forebears, that government and business, the two principle means by which society's affairs are regulated, would hardly be able to function without the aid of that same science which has produced this inconvenient degree of complication to life.

As far as business is concerned, science was first applied mainly to production. In recent decades, however, it has been realised that scientific method can be used to study much more than the behaviour of matter. The searchlight can be turned on man himself, on the societies he lives in and the work he does. There have

arisen a number of new sciences, or quasi-sciences, which although they cannot often elucidate laws of behaviour like the natural sciences, are nevertheless characterised by the use of scientific method, i.e. theories are founded on truths which are established as far as possible by objective measurement and analysis, using strict rules of evidence.

These new sciences and the techniques which have been evolved by them are vital tools of business management. For example, statistical techniques, which are the handmaidens of many scientific disciplines, are rapidly becoming as vital to management control an instrumentation is to the pilot of an aircraft. Now that vastly superior means of processing data are coming along, management is able to exercise a degree of control over large enterprises which was physically not possible before.

In marketing research and operations research, scientific method is being used to help management reduce the areas of uncertainty in the taking of decisions. Even though these are by no means new applications of scientific method, it is still early days yet and we are in fact witnessing the creation of a whole new complex of management sciences. Those who think that these things are mere fashions which come and go while life goes on much as it always has done had better think again. These things are here to stay and grow. The fact is that the industrial revolution we learned about in school has some years since entered into a new and sharply accelerating phase. In another generation the business manager will need to be a highly trained professional, using management techniques his grandfathers never dreamed of.

These techniques are already with us in the more advanced firms and public corporations, but it is becoming clear that failure of British managements generally to utilise them is a big drag on the performance of the whole British economy. As the National Economic Development said in its first report, "A specific obstacle to productivity improvements is the inadequate use of the newer management techniques, especially by small and medium-sized companies."

Understandably, many of these ideas are somewhat novel to most business managers. Most of today's Chairmen and Directors grew to maturity before the computer as we know it was invented. Few executives have time to keep up with the developing techniques of their profession. Yet it is now that really striking advances in productivity are required if this country is not gradually to become relatively backward industrially. So it is the present generation of managers which must achieve them.

What this Journal seeks to do is to propagate the use of scientific method in the management of business by providing a vehicle for the dissemination of the new ideas. An essential stage in the development of a new professionalism among business managers is the creation of a serious business literature. It is here that the JOURNAL OF SCIENTIFIC BUSINESS can make a contribution. Each issue will consist of up to twelve articles written by authorities in their own fields, plus several features of general interest to business people. While it is obviously intended that all articles should be fully intelligible to the non-specialist, they will have sufficient density of content to interest the specialist as well. The object, however, is not communication between specialists. There are several excellent publications which do this. The intention is to provide a means whereby the intelligent non-specialist manager can keep in touch with what is going on in the new scientific disciplines which are growing up to serve him.

This is National Productivity Year and this Journal hopes to take an active part in the current crusade for better management and higher productivity. It intends to play this part, not in a hectoring or exhortatory manner from the sidelines, but by providing a platform for those doing creative work on business problems. Every member of the Editorial Board has a full-time job in business. Our aim is to provide the kind of fare which will enable managers to see the possibilities for practical application in their own businesses, whether they are large, medium or small.