

INDUSTRIAL PSYCHOLOGY IN SOUTH AFRICA:

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1. INTRODUCTION

Although industrial psychology has been taught at South African universities for over 40 years, many business men in the country are only vaguely aware of what is meant by the term and have little idea of the extent to which it is being practised in South Africa. The present article is an attempt to remedy this situation.

In the first place, industrial psychology is simply the scientific study of behaviour as it occurs in industrial and business settings. As far as management is concerned, the significant contribution of the industrial psychologist lies in the fact that he brings with him, not so much a set of rules or specific facts, but rather a **method** of attacking problems, the so-called scientific method. This means that he relies on empirical observation, rather than subjective opinion, that he collects data as objectively as possible and that, whenever possible, he carries out experiments to verify the hypotheses he forms from his observations. For instance, his choice of a certain personnel selection test or certain training method is not based on mere commonsense or the recommendations of so-called experts, or on 'hundreds of satisfied clients' but instead on the data he gathers empirically about the actual effectiveness of different tests and different training methods for the particular job and firm.

2. EVALUATION OF INDUSTRIAL PSYCHOLOGY

Too often businessmen do not see industrial psychology correctly in the above way, but instead adopt either one of two 'extreme' positions. The first 'extreme' position is held by those businessmen who naively attribute 'special powers' to industrial psychologists; the other by those businessmen who regard industrial psycho-

logy as merely a fancy way of spelling 'commonsense'. Both these 'extreme' positions are obviously incorrect. With regard to the first position, although industrial psychologists can frequently predict better than untrained persons how individuals are likely to behave in various situations (because of their knowledge of psychological principles), they do not possess any special powers of insight or intuition. With regard to the second position, commonsense views not only lead to contradictory predictions if not put to the empirical test (the task of industrial psychology) but have frequently been shown to be wrong by psychological research.

The number of businessmen who hold these 'extreme' views, both of which are incorrect, will be considerably reduced if the following four basic points are constantly borne in mind:

Industrial psychology is not a special discipline **on its own**, but is rather an area of inquiry within the broad framework of general psychology. This should make it clear that industrial psychologists base their research firmly on the 'basic' findings of experimental psychology.

Industrial psychology is not just a reflection of what is done in businesses, but is rather the practical application of 'basic' findings, which are established by academic research done (usually) at universities. This should ensure that there is close cooperation between industrial psychologists working in university settings and those working in business and industrial settings.

Industrial psychology is not just a useful tool for management, but is also a scientific discipline, within general psychology. This should convey the idea that, like all sciences, industrial psychology is to be judged by its success or failure in contributing to repeatable generalizations about man's behaviour.

Industrial psychology has practical benefits for businessmen in a wide variety of areas and not just in the traditional area of personnel selection. This should ensure that industrial psychology is seen as a wide-range discipline that can be useful in the areas of job analysis, personnel testing and selecting, performance appraisal, employee training, machine design, time and motion study, wage determination, the establishment of 'optimum' organizational structures, management development, industrial relations and its improvement, consumer analysis, motivation research, questionnaire design, advertising strategy, and effective salesmanship.

If industrial psychologists and management bear these points in mind, it will become apparent (perhaps too clearly) that industrial psychologists are **not** people who are content to 'please' managers, especially if this can only be achieved by not making the fullest use of available knowledge and techniques, but are people who expect to be judged by their own standards of professional and scientific conduct (rather than the varying standards of different business firms).

3. POSITION IN SOUTH AFRICA

Despite ignorance about industrial psychology on the part of many South African businessmen, the level of acceptance of industrial psychology in South Africa seems to be at about the same level as in the United States and considerably higher than that in Britain and the rest of Western Europe. For instance, a recent survey by the author of a fairly representative sample of South African executives found that 64% of them were willing to engage an industrial psychologist; this is slightly higher than the figure of 62% reported in United States studies and much higher than the figure suggested by studies done in Britain and the rest of Western Europe.

The relatively high level of acceptance of industrial psychology in South Africa, despite the fact that we are supposed to 'lag behind' the more developed countries of North America and Western Europe in other respects, is due to the combination of a number of factors:-

Firstly, the proportion of registered psychologists in the country who regard themselves as industrial psychologists (30%) is much higher than the proportion of registered psychologists in the United States, Britain and the rest of Western Europe who regard themselves as industrial psychologists (8%).

Secondly, despite the country's small white population, it has an internationally-recognized research and training centre for industrial psychology in Johannesburg — the National Institute for Personnel Research (NIPR).

Thirdly, relatively more time and effort is devoted to industrial psychology, especially at the undergraduate level, at South African universities than at American, British and European universities.

In South Africa, unlike other countries, courses in industrial psychology are offered as part of the undergraduate programme in every Department of Psychology of the major universities. Moreover, the Universities of South Africa, Potchefstroom and Port Elizabeth have separate Departments of Industrial Psychology whilst industrial psychologists are also attached to the graduate business schools at the Universities of Witwatersrand, Stellenbosch and South Africa.

A certain amount of research in industrial psychology, especially in the area of test construction and validation and manpower utilization, is being undertaken by the Human Sciences Research Council (HSRC), working within the Department of National Education (formerly the Department of Education, Arts, and Science). Although this institute is more concerned with broad social and educational problems and the coordination of research undertaken in various universities and institutes, a lot of their work has fairly direct implications for industrial psychology.

4. THE NATIONAL INSTITUTE FOR PERSONNEL RESEARCH (NIPR)

The NIPR is run under the auspices of the Council for Scientific and Industrial Research, but is an autonomous body with its own headquarters and staff. It is divided into a number of units, each of which is devoted to a specified

field within industrial psychology like personnel selection, vocational guidance, management, work study, and equipment design.

In addition, there are a number of units devoted to more fundamental research in areas like perception, human abilities, psychometrics, and neurophysiology. There is close liaison between the applied and basic units, with many of the ideas of the basic units being tested in the field by the applied units.

The NIPR publishes its own journal, called *Psychologica Africana*, which has an international circulation. It contains research articles written by South African psychologists working at the NIPR and South African universities. In addition to its own research, the NIPR also carries out industrial psychological studies for particular business firms who approach them with a fairly well-defined problem. The NIPR also offers a two-year internship programme in industrial psychology for graduates in psychology.

5. OTHER ORGANISATIONS CONCERNED

There are two national organisations of psychologists in South Africa, both of which provide for the registration of industrial psychologists. They are the South African Psychological Association (SAPA), which is affiliated with the International Union of Psychological Sciences, and the Psychological Institute of the Republic of South Africa (SIRSA).

The SAPA is mainly responsible for the *South African Journal of Psychology* and SIRSA for the *South African Psychologist*, two scientific journals which occasionally include articles covering industrial psychological topics. In order to be registered as an industrial psychologist with either of these societies, an individual must have obtained a masters degree in psychology and have spent at least a year in 'approved' practical training, preferably in industry.

6. REQUIREMENTS FOR PRACTICE

Members of these professional societies are expected to adhere to a strict code of ethical practice and to act in such a manner as to further the aims of the societies, which broadly

are 'to advance psychology as a science, as a profession, and as a means of promoting human welfare'.

Unfortunately, at the moment it is still possible for anyone in South Africa to present himself to the public through the certified telephone directory or any other outlet as a psychologist. This is not the case in the United States, where it is a criminal offence for an individual who is not licensed (registered with the American Psychological Association) to practice industrial psychology. Although this is not yet the situation in South Africa, it is still illegal for an untrained and unqualified individual, even though he may present himself as a 'psychologist', to claim registration with the SAPA or SIRSA.

The above indicates that in South Africa today the businessman should first make certain that an individual is registered with the SAPA or SIRSA as an industrial psychologist before employing him in this capacity.

7. SUMMARY

In summary, to make the most out of what industrial psychology has to offer, the thoughtful businessman needs to remind himself of the following points:

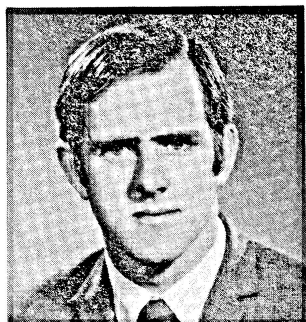
- (a) Industrial psychology is simply the scientific study of the behaviour of individuals in business and industry. Although it is not a cure-all, it has been found to be very useful in a wide variety of areas ranging from personnel selection to buying behaviour.
- (b) The fact that in a recent study twice as many South African executives said they would hire an industrial psychologist as said they would not, indicates that the usefulness of industrial psychology is recognized by many businessmen.
- (c) Industrial psychology is relatively well-developed in South Africa. This is mainly due to the fact that many of the registered psychologists in South Africa are industrial psychologists, that South Africa has an internationally-recognized training and research centre in industrial psychology in the NIPR,

and that the subject is thoroughly taught at most of the universities.

- (d) There are industrial psychologists at the NIPR and at the various universities who are well-equipped to help business firms with

their problems.

- (e) Before employing an industrial psychologist, it is necessary to check on his qualifications and establish whether he is registered with either of the local professional bodies.



'N VERDEDIGING VAN DIE TERUGVERDIENPERIODE-METODE AS 'N BEOORDELINGSMAATSTAF BY KAPITAALINVESTERINGSPROJEKTE

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SYNOPSIS

The evaluation of capital investment projects is one of the main pillars of company profitability. The financial evaluation of projects by the recoupment-period method is universally accepted, but is however often subject to severe criticism.

This article gives an intensive analysis of the recoupment-period method, and indicates the correct methods which should be applied to achieve optimum results.

Dit word algemeen aanvaar dat die toepassing van die terugverdienperiode-metode (TV-metode) as 'n winsgewendheidsmaatstaf by die evaluasie van kapitaalinvesteringsprojekte onderhewig is aan 'n aantal redelik ernstige gebreke. Eerstens neem dit nie die volledige verwagte projekleefte (ekonomiese leefte) van kapitaalinvesteringsprojekte in aanmerking nie. Tweedens word die tydswaarde van geld ook nie in aanmerking geneem nie. Hierdie twee gebreke gee daartoe aanleiding dat die TV-metode nie in alle gevalle korrekte prioriteite aan onderlinge uitsluitende projekte toeken nie. Ten slotte geskied die bepaling van die kritiese TV in baie gevalle op 'n hoogs subjektiewe wyse.¹

Ten spyte van hierdie redelik ernstige gebreke het die TV-metode 'n wye toepassingsveld.² Die doel van hierdie artikel is om die TV-metode krities te ondersoek om sodoende te bepaal welke faktore tot die gewildheid daarvan aanleiding gee. Alvorens die verskillende aanleidende faktore behandel word, sal op die berekeningsaspekte van die TV-metode gelet word.

Berekeningsaspekte van die TV-metode

Deur die TV van kapitaalinvesterings te

bereken, word die omlooptyd bepaal, dit wil sê die periode wat verloop vanaf die vaslegging van fondse tot die vrykoming van die vasgelegde fondse. Die klem val dus op die terugwinning uit die inkomstestroom wat die gevolg is van 'n spesifieke investering en nie op die winste nie. Die TV is dus daardie tydperk wat dit neem alvorens kumulatiewe inkomste (wat die gevolg is van 'n spesifieke investering) gelyk is aan die totale investeringsbedrag.

Die bepaling van die inkomstestroom geskied deur middel van die aanpassing van winste. In baie gevalle word wins plus depresiasie gebruik as 'n benadering van inkomste. Dit is egter nie heeltemal korrek nie en voorsiening moet ook gemaak word ten opsigte van items wat nie dieselfde invloed op inkomste en winste uitoefen nie. Ander aanpassings wat onder andere gemaak moet word, is die byvoeging van dalings in die netto vlottende bate (aftrekking van styging in die netto vlottende bate), realisasie van reswaardes en die verlies met die verkoop van vaste bate (aftrekking van wins met die verkoop van vaste bate).

Aangesien die terugwinning van die investering geskied uit die inkomstestroom wat daaruit ontstaan, behoort kapitaalvergoeding ook in aanmerking geneem te word. Hierdie kapitaalvergoeding word nie van die inkomstestroom afgetrek nie, maar in die berekenings ingesluit deur middel van die toepassing van die teenswoordige waarde beginsel.³

Investerings gee aanleiding tot kapitaalvergoeding in die vorm van rente en dividende. Omdat laasgenoemde egter nie 'n kontraktuele