



TOWARDS
GREATER
PRODUCTION
PRODUCTIVITY

Judged from any angle
Greater Production
and Productivity from
the existing resources
is an essential pre-requisite
for economic development



TOWARDS GREATER PRODUCTION & PRODUCTIVITY

A Symposium

Organised by the

Forum of Free Enterprise



POPULAR PRAKASHAN
BOMBAY

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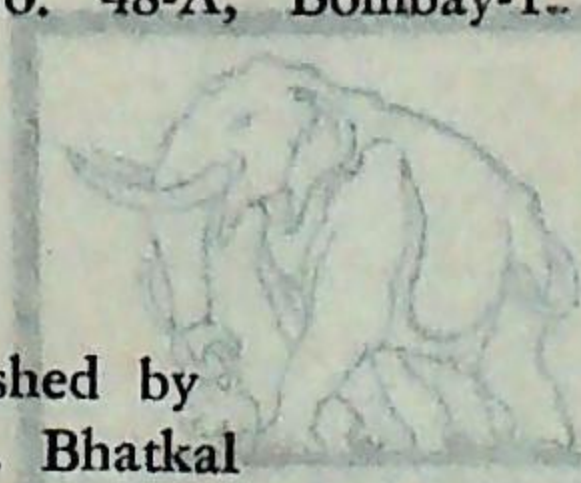
The Forum of Free Enterprise is a non-political organisation, started in 1956, to educate public opinion in India on free enterprise and its close relationship with the democratic way of life. The Forum seeks to stimulate public thinking on vital economic problems of the day through booklets and leaflets, meetings, essays competitions, and other means as befit a democratic society.

Membership is open to all who agree with the Manifesto of the Forum. Annual membership fee is Rs. 10/- and Associate Membership fee is Rs. 5/- only. *Bona fide* students can get Forum booklets and leaflets by becoming Student Associates on payment of Rs. 2/- only.

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INTRODUCTION

The objective of economic development in an underdeveloped country like ours is elimination of poverty. There is no royal path to economic development. Experience of totalitarian countries has shown that even the police power of the State cannot be used to defy the laws of economics. Economic development is the function of savings and investment in the context of the available resources of the people. Judged from any angle, therefore, greater production and productivity from the existing resources is an essential pre-requisite for economic development because only that way the wealth of the country can be maximised making possible greater savings and greater investment.

Ever since its inception in 1956, the Forum of Free Enterprise has endeavoured to arouse economic consciousness among the people. This book represents one more effort in this direction. It is a collection of essays based on a series of lectures organised by the Forum of Free Enterprise and designed to improve production and productivity of enterprises. Messrs Popular Prakashan have been good enough to bring these essays together in the form of a pocketbook so that it can be readily available to a large number of people at a popular price. The publishers deserve congratulations.

Incidentally, this is the fourth pocketbook sponsored by the Forum of Free Enterprise, three others being

"The Role of Joint-Stock Companies in India's Economic Progress", "Democracy in India" and "Elements of Modern Enterprise", all of which have been well received by the public.

A. D. SHROFF
PRESIDENT

235, Dr. D. N. Road

Bombay-1

FORUM OF FREE ENTERPRISE

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FORMS OF BUSINESS ORGANISATION : TAX, COMPANY LAW AND OTHER CONSIDERATIONS

H. B. Dhondy*

When the average businessman thinks of starting a new enterprise, he pays a great deal of personal attention to ensuring that he will have available proper technical resources, of both machinery and men; adequate finance; expanding markets for his products; and assured supplies of essential raw materials. But he rarely bothers very much about considering which of the alternative forms of organisation would be most suitable in his circumstances, and, more often than not, the actual form of his business organisation is decided on by chance or at the whim of his legal advisers. This is a pity, because many practical advantages may be gained, and several headaches avoided, if due thought is given to this matter and the form of organisation which is most appropriate to the case is adopted. I know of an extreme case of a fairly large international organisation whose Indian business suffered a serious set-back after it had been converted into a public company, largely because the nature of its business required almost continuous on-the-spot managerial decisions based on the undertaking of calculated risks of a type for which the Board of Directors form of management was

* Mr. Dhondy is a leading chartered accountant.

most unsuitable. The object of this study is to discuss, from the viewpoint of a layman who is about to set up a small or medium sized business, some of the factors which should be considered before deciding the particular form of his organisation.

"What," one may ask, "are the alternatives available, and what are the main points of difference?" Broadly speaking, the choice lies between doing business as a sole proprietor; or in partnership; or as a company, either public or private, and in the latter case either as a subsidiary or a non-subsidary of a public company. Each of these forms has certain broad distinguishing characteristics, each has some advantages and some drawbacks. Let us look a little more closely at these, one by one.

The owner of a sole-proprietory concern is, quite obviously, his own boss. He can run his business as he likes, with a minimum of legal formalities and restrictions. He has the largest measure of independence and flexibility in making policy decisions and in implementing them. In this form of organisation, due regard can be given to the personal circumstances and preferences of the owner and his family and dependants. Some businessmen who adopt this organisational form have been known to grumble on occasion that their concern is run mainly according to the personal preferences of their wives! But I do not think that this drawback, if it is one, is confined to sole-proprietory concerns. Companies, no doubt, do not have wives—but then a company never runs itself.

Nonetheless, if the sole proprietor is his own boss, he is equally, in most cases, the slave of his business. The continuity of the undertaking is generally affected vitally by his ill-health, absence or death. Having such a large personal stake in the business, he rarely learns to delegate his powers wisely and in time. And where he does place trust in an old and loyal employee, often he does this so completely, and with so little control retained, that cases are far from rare where the manager has ultimately usurped the business of the absentee-owner. The sole proprietor's personal liability is unlimited and his private wealth can be attached in settlement of his business debts. At the same time, he generally experiences the most difficulty in obtaining borrowed finance for his business at reasonable terms and has to himself provide the largest proportion of the working capital requirements of the business. Moreover, the limits of the financial and technical resources of the sole owner place severe limitations in practice on the scope for expansion or diversification of the business, and the inability to find cash for payment of estate duty based on the Department's estimate of the value of the business at the sudden and unexpected death of its founder may well ring the death-knell of the business itself.

The partnership form of organisation is probably as old as civilised society. The institution of marriage has often been referred to as the oldest form of partnership. I do not know if that can be truly said to be so in India, where the statute law is free from the

entanglements of the Limited Partnerships Act of 1907 of the U.K., since I imagine that, in a marriage anywhere, one of the partners (usually of my sex), while having unlimited liabilities, generally has very limited powers to bind the firm by acts done in the ordinary course of business. However, let us not mix business with pleasure, but consider the definition of partnership under the Indian Law. Section 4 of the Indian Partnership Act, 1932, defines partnership as "the relation between persons who have agreed to share the profits of a business carried on by all or any of them acting for all". "Persons who have entered into partnership with one another are called collectively 'a firm'." The Act makes it clear that the relation of partnership arises from contract, not from Status, and, "in particular, the members of a Hindu undivided family carrying on a family business as such, or a Burmese Buddhist husband and wife carrying on business as such are not partners in such business." It may also be noted that while the sharing of profits is an essential element in a partnership, the sharing of losses is *not*; nor is it compulsory that all the partners should take part actively in the business of the firm. The partnership form of organisation achieves the pooling of the skills and resources of the individual partners, each contributing to, and sharing in, a common pool as mutually agreed between them. This form is especially suited to the carrying on of professions such as by solicitors, accountants and architects; permitting specialisation by the partners of such professional firms in particular

fields of practice. It also provides for the continuity of the undertaking, the partnership agreement commonly containing a provision to the effect that the death or retirement of a partner would not dissolve the firm.

The main drawback of this form is that each partner has unlimited personal civil liability for not only his own actions and debts, but those of all or any of his partners in the course of the partnership business. This makes it imperative that a businessman choose his partners with the greatest care and circumspection. In spite of all precautions, clashes of personalities and temperaments have been known to disrupt the smooth working of even old-established firms, leading to a decline in their business. The partnership form of doing business also involves a certain element of double taxation of the same income, first on the "registered firm", which is a separate taxable entity charged at relatively lower rates, and again in the hands of the partners, to whom the rebate allowed for their share of the firm's tax often affords but little relief in practice. Moreover, in the matter of savings and provision for retirement benefits, our tax laws discriminate in favour of salaried employees and against the self-employed. Finally, even in the partnership form, there is a limit imposed on the size to which the business can be expanded by the provision of the Companies Act prohibiting the formation of an association of more than twenty persons (— in the case of banking, ten persons —) for the purpose of carrying on any business

that has for its object the acquisition of gain by the association or the individual members thereof.

This brings us to the corporate form of business organisation, in which the bulk of all large and medium-scale industrial activity is carried on in the western countries and also in India (particularly if one includes Government-owned corporations). The acceptance in law of the concept of the limited liability of the individual shareholders of a company is undoubtedly the most important single factor which has contributed to the phenomenal growth in the size and number of joint-stock companies in the democracies of the world. A company is in the eyes of the law a separate person from its members. Even if it is *de facto* a one-man company (— in law there must be at least two members in a private, and seven in a public company —) it denotes a Corporation aggregate and not a Corporation sole. "In the Corporation sole, it is the office which is personified to distinguish it from the individual holders, whereas in the Corporation aggregate it is the enterprise which is personified as distinct from the individual members." Incorporation can be used as the means by which an individual or a small number of persons is "personified", so that his or their personal assets cannot be made accountable for the liabilities of the company, even though the same person or persons continue to control and run the enterprise and receive its profits. Most companies are limited by shares, i.e. the liability of a member is restricted to the nominal value of his shareholding, although there can also be

companies limited by guarantee and companies whose members' liability is unlimited. For the benefit of those not familiar with the provisions of our Company Law, I may mention that a 'company' is defined as "a company formed and registered under" the 1956 Act or under any of the specified previous Indian Companies Acts, whereas a "body corporate" or "corporation" includes a company incorporated outside India. A private company is one which restricts the number of its members (subject to certain minor exceptions in respect of employees) to fifty; prohibits any invitation to the public to subscribe for shares or debentures; and restricts the right to transfer its shares. A private company must have at least two members and two directors. A public company is defined rather negatively as one which is not a private company, and it must have at least seven members and three directors. The statutory definitions of "holding" and "subsidiary" companies are fairly complicated, but in essence where one body corporate has—either itself, or through a subsidiary,—the power to either appoint or remove a majority of the Board of directors of another, or to exercise or control more than half the total voting power of that other, it is the holding company of the other, which becomes its subsidiary.

As there is no upper limit to the number of members a public company may have, and as a shareholder in it can sell off and transfer his shares without obtaining the consent of the other shareholders the corporate form of organisation is most convenient

where an enterprise on a very large scale is being established, which will require considerable finance to run, not all of which can be found by the promoters. Because their personal liability, in the event of the failure of the company, is restricted to the face value of their shares, and because they can sell off their holdings readily on the Stock Exchange should they need to do so, members of the public at large can be induced to subscribe to the share capital of companies, the running of the business of which they may have neither the time and capacity, nor the desire to take part in. This results in the divorce of ownership from management, leading to the growth of a specially trained and skilled class of professional managers. This in turn means more efficient management, and business decisions based on expert knowledge and a reasoned and scientific analysis of the material facts, rather than on hunches or guess-work or intuition.

On the other hand, there is no gainsaying the fact that the business which is run in a "Company" form does suffer from loss of flexibility in day-to-day operations as compared with the sole proprietorship or partnership forms. A company, even a private non-subsidiary company, does have to cope with a certain amount of exposure to the public gaze ; it has to comply with a large number of regulations and restrictions, which undoubtedly increase the costs of administration, hamper the manoeuvrability and freedom of action of the management, and often distract their attention from the actual running of the business to unproductive matters of forms

and formalities. In the case of public and private subsidiary companies particularly, the permission of the Government is increasingly required in a number of matters, many of which are considered in the more industrially advanced countries as being matters of internal policy, best left to the judgement of the owners and/or the management of the company. No reasonable person would seek to minimise the responsibilities which any business, no matter what its form, owes, beyond its owners, to the community at large. But many objective observers have come to the conclusion that an awareness of these responsibilities can be better spread through education and the persuasive force of public opinion than through bureaucratic regimentation and the threat of punitive legislation. The World Bank Mission did not mince words when it commented on this aspect as follows: "An inordinate amount of time and energy is spent by the management of enterprises—public as well as private, small as well as large—in negotiating their way through Government regulations. Many of the main controls, including those over investment and imports, unquestionably have to be continued for the time being in view of the overall shortage of resources. On the other hand, the mission has the impression that the multiplication of controls has been carried in recent years to quite unnecessary lengths and that many of the existing controls do not contribute materially either to the better functioning of the economy or to the fulfilment of the Government's social objectives. The experience

of other countries has shown the damage that can be done by excessive controls exercised by remote Government officials over the operations of business enterprises, even though each regulation, taken by itself, can be justified in terms of public policy."

The impact of these factors on the technical efficiency of an enterprise can easily be imagined. Even when, due to prevalence of monopolistic conditions, an enterprise does not make a loss, the economy is deprived of the higher gains which could have accrued if the management were not required to divert so much time and attention to unproductive matters.

(1) There are several serious drawbacks to the corporate form of business organisation for small and medium sized concerns in the sphere of taxation.

(2) Because a company pays tax at a uniform rate on its entire income, whereas individuals pay at increasingly heavy rates on successive slices of their income, beyond an initial exempt slice, in the past, incorporation was commonly used by businessmen in the high income brackets as a device for reducing the incidence of taxation by allowing profits to accumulate in a company's hands and yet enjoying the use of those profits by exercising control over the company's affairs. In plugging these loopholes, among other things, by levying a penal super-tax for non-distribution of dividend upto prescribed levels, the tax laws have gone to the other extreme. It is now very difficult for what are referred to as "closely-held companies" to genuinely

plough back profits adequately to finance their own normal growth.

(3) Even apart from this, as a company is a separate legal and taxable entity from its owners, there is always a considerable element of double taxation of income earned through a company. Thus for example if a company having ten members with equal shares makes a net profit before tax of a lakh of rupees, the company pays Rs. 50,000 tax first. Assuming it distributes the entire residue of Rs. 50,000 to its members who have no other income, each of them would receive Rs. 5,000 as dividend and pay Rs. 60 as tax—again assuming each of them is married, with no dependent children. Thus the total tax paid by the Company and its members on Rs. 1,00,000 would be Rs. 50,600, leaving Rs. 49,400 to the owners. If on the other hand, the form of organisation of this business had been a registered partnership with ten equal partners, the firm would have paid Rs. 6,250 as tax and each partner would have paid about Rs. 477, the total tax thus being about Rs. 11,025, leaving about Rs. 88,975 to the owners. Thus by adopting 'Company' status nearly Rs. 40,000 more tax would be paid.

(4) Where a new business is set up as a subsidiary of an existing company, yet another taxable entity intervenes between its profits and the eventual owners and the net amount they receive is reduced further.

(5) Besides this inherent disadvantage of double taxation applicable to all company forms of business organisation, in the case of the directors and substantial

shareholders (i.e. those owning 20% or more of the equity) and their relatives, the Income-tax Officer may disallow any expenditure by the company which results in providing them with any remuneration or benefit to them if, in his opinion, the expense is excessive or unreasonable having regard to the legitimate business needs of the company and the benefit to it from the expense. Despite the disallowance to the company, the amount could be taxed in the hands of the recipient.

(6) In the case of private companies, every director has now been made personally liable for any tax remaining unrecovered from the company when it is wound up, provided he was a director at any time in the previous year for which the tax is demanded, unless he proves that the non-recovery is not due to any gross neglect, misfeasance or breach of duty on his part in relation to the affairs of the company.

(7) Another dis-advantage, tax-wise, of the "company" form is that there is a statutory limit to the amount of entertainment expenditure which is allowed as a deduction in computing a company's taxable income, whereas no such maximum applies in the case of sole proprietary concerns or partnerships. This limit is the higher of: (a) Rs. 5,000; and (b) the total amount arrived at by applying diminishing percentages to three successive slabs of the company's profits (before development rebate), upto a maximum allowable expenditure of Rs. 1 lakh.

(8) Another provision in the Income-tax law which discriminates against company assesseees is that

concerning rebate of tax allowed on donations to recognised charitable institutions. On donations of not less than Rs. 250 and not more than the lower of $7\frac{1}{2}\%$ of the donor's taxable income and One and a half lakhs of rupees, donors other than companies are allowed a deduction from their tax liability calculated at the average rate of income-tax as well as super-tax applicable to their total income, subject to a maximum relief of 50% of the amount donated. In the case of companies, however, the rebate allowed is only in respect of income-tax, and not of super-tax.

(1) In spite of all these disadvantages, which are very real, and yet are not sufficiently widely known and appreciated by businessmen who own small but expanding concerns, and for whom somehow the limited Company image has a certain glamour, there can be cases where, even from taxation considerations, the company form of organisation is advantageous. For persons who already have very large incomes, on which they are paying tax at the highest slab rates, it could be beneficial for them to start a new small or medium-sized business in the "company" form and allow the company's taxed profits to accumulate as their savings for eventual transfer in capitalised form to their beneficiaries, if need be even by paying gift-tax. The reduction of the tax on the issue of bonus shares from 30% to $12\frac{1}{2}\%$ could be helpful in such a scheme. Let us illustrate this with an example: If the company in

such a case has a profit of Rs. 100, it pays the ordinary income-and-super-tax thereon at 50%, leaving Rs. 50 available for distribution as dividend. If it chooses to make no distribution at all, it would pay penal super-tax on these Rs. 50 at 37%, so long as its accumulated undistributed profits to date did not exceed its contributed capital or the book value of its fixed assets, whichever is higher. This penal super-tax amounts to Rs. 18.50 nP., leaving Rs. 31.50 nP. in the Company's hands. If the owner is already paying tax on his other income at a rate in excess of 68.5%, he may prefer to let the company pay the penal super-tax and go on accumulating 31.5% of every rupee of the company's profits for some years. Then seven-eighths of these accumulated profits could be capitalised by the issue of bonus shares, after paying the remaining one-eighth as bonus tax. These shares could either be gifted to the intended beneficiaries or even sold for a long-term capital gain which would be taxed at relatively lower rates. All very ingenious, but in practice the number of cases in which it could be done to advantage is very restricted indeed!

(2) As regards long-term capital gains, (— i.e. those on assets held for more than 12 months before their sale —) the taxation of these differs for companies and for other assesseees. A company is taxed on every rupee of such gains whereas in the case of other assesseees the first Rs. 5,000—or where the total income does not exceed Rs. 10,000 the whole amount—of such gains are exempt. The rate of tax on such capital

gains by companies is 35%, whereas for individuals and firms it is the lower of 25% and the average rates of income—and super-taxes applicable to the total income as reduced by short term capital gains and compensation for termination of managing agency, if any, included in the total income. A company can carry forward and set off long-term capital losses against similar capital gains in the four succeeding years regardless of their amount, but other assesseees cannot do so if the loss is of less than Rs. 5,000. Capital gains arising to a holding company by transfer of assets to its 100% subsidiary Indian company are not taxable.

(3) The exemption of the income of industrial undertakings newly established between 1-4-1948 and 31-3-1966 (— or such extended date as Government may notify —) for the first five years from commencement of manufacture, upto 6% on the capital employed, computed in the prescribed manner, is available to all classes of assesseees, whether sole proprietary, partnership or company, provided the requisite conditions are fulfilled. The corresponding exemption in respect of new hotels started after 31-3-1961 is restricted to Indian companies with a paid up capital of not less than Rs. 5 lakhs, again provided certain prescribed conditions are fulfilled. Dividends out of such exempt income are also exempted from tax in the hands of the shareholders. In addition, where the shareholder is itself a company and the dividend is received from an Indian company registered between 1-4-1952 and 1-4-1967 and wholly or mainly engaged in certain

specified industries, or in fresh capital raised between 28-2-1953 and 1-4-1967 by public subscription by an Indian Company registered before 1-4-1952, super-tax will not be payable on such dividend, not just for the first five years but indefinitely, or, if that particular industry is removed from the list, for the first ten years.

(4) In the case of companies which do not declare dividends in India, royalty received from an Indian concern under an agreement made after 1-4-1961 and approved by the Central Government is taxed at the concessional rate of 50%, instead of 63% which is the rate applicable to such companies for all their other income (except of course dividends from Indian companies).

Having considered at some length the Tax considerations, advantageous and other-wise, applicable to the company form of business organisation, before leaving this subject, let us sum up the broad comparable considerations applicable to the other two forms.

In a sole-proprietorship concern it makes no difference Tax-wise whether the owner's income from the business comes as salary for his personal exertions in it, or as profit. However, since a person cannot pay a salary to himself, or be his own employee, the tax would be payable under the head "Profits and gains of business or profession" and not under the head "Salaries".

In a partnership, assessment would be either as a registered firm or as an unregistered firm. In the latter case the tax payable would be much more, as the total income of all the partners would be added together and charged as if it were the income of only one individual and, of course, as the total income increases, more of it is taxed at the higher rates, and so the average rate of tax is also higher. A registered firm pays no super-tax, but only income-tax at specially prescribed rates, which differ according to whether it has more or less than five partners. On income over Rs. 1.5 lakhs a registered firm with less than 5 partners pays tax at 10%, and one with 5 or more partners pays at 12%. Under section 40(b) any interest, salary, bonus, commission or other remuneration paid by the firm to a partner is not deductible. However, in allocating the firm's income amongst the partners such interest, salary, etc. will form part of the share of the receiving partner alone, and not of the other partners. In addition to the registered firm's tax, of course each partner pays tax on his share, but gets a rebate at the average rate of income-tax on his share of the firm's tax for income from business, and also a rebate at the average rate of super-tax for income from all other sources, including the exercise of a profession. He also is allowed to deduct from his share any interest paid by him on capital borrowed for investment in the firm.

As regards direct taxes other than income-tax, although wealth-tax on companies has been discontinued from assessment year 1960-61 onwards, this does not

confer an advantage on the company form as compared to the others, because the individual owners continue to be charged to Wealth-tax—though at slightly concessional rates—on the value of their shares in a company, as also on their share in a partnership. In fact, from assessment year 1962-63 the exemption previously given for the first five years in respect of shares in newly established industrial companies has been withdrawn, and now individuals will have to pay wealth-tax on the value of their holdings of such shares even in the first five years, when probably they will not receive any dividend from the companies.

Thus, contrary to what seems to be the general belief among laymen, on purely tax considerations, the company form of organisation for small and medium sized concerns is likely to be the most costly.

However, in the context of the growth in the size of businesses and the complexity of modern industrial activity, if the initially successful small concern wants to perpetuate itself, the owners have, at some stage in its history, sooner or later, got to think in terms of converting it to a public company. It is important that they do so at the right point of time. Too early might mean unforeseen costs and restrictions which may cripple the growth of the business instead of contributing to it. Delaying till too late may prove even more costly. When the time appears ripe, it

would be as well if the owners have some idea of the likely implication of the change. So let us have a look at some of these, particularly in the background of the Companies Act.

The first thing to remember is that the very act of forming a public company and transferring the business to it is bound to involve quite some time, expense and effort. Apart from the care and thought of legal and financial experts which should go into the drafting of the Memorandum and Articles of Association, the stamp duty, registration fees and incidental formation expenses add up to a far more substantial amount than many suppose. Even the proposed name has to be got approved, and for applying for this a fee is charged.

If one is going to the public for finance,—and this, it seems to me, would be one of the most important reasons for converting to public company form,—the services of a good and reputed firm of Stock Brokers are almost indispensable. The issuance of a prospectus which complies with the numerous and technical requirements of the law and at the same time successfully persuades the public to invest in the concern is well-nigh impossible without competent professional guidance. It should be remembered that the liability for mis-statements in the prospectus can be both civil and criminal.

A company has to comply with the legal provisions regarding the maintenance of a Register of

Members, transfers of shares, Register of Charges, and a host of other statutory Registers and the filing within the prescribed time-limits of numerous forms and documents with the Registrar of Companies, accompanied, of course, in each case by the appropriate prescribed filing fee! It has to comply with detailed and complicated provisions re: maintenance of proper books of account, periodical Statements of account, etc., their audit by qualified Auditors and issuance to members. All this inevitably adds to the costs of administration of the company.

Then there is need to obtain the requisite permission from Government for various domestic matters, such as the appointment and remuneration of managerial personnel, such as a managing or whole-time director, managing agents, secretaries and treasurers or managers; their re-appointment and increases in their remuneration; loans to directors; their relatives, partners, firms and private companies; investments in companies in the same group in excess of stipulated limits (20% of the investing company's subscribed capital); and allowing extended time for repayment of loans to managing agents or their associates, etc., granted before 28-12-1960.

In addition to the matters where Government's permission is required, there are a number of matters where the Central Government has the power—*suo moto* or on application by third parties—to call for information or clarifications and compel the company to

do, or not to do, certain things. Examples are found in Section 294(5) and (6) (— terms and conditions of appointment of sole selling agents —); and in Section III (— deciding, on appeal by a transferee, whether the transfer or transmission should, or need not, be registered by the Company).

Lastly, it should be remembered that, if for any reason it is desired to close down the business, even this can only be done in the case of a company by following certain prescribed procedures for the conduct of its liquidation, unlike a sole proprietorship or a firm which may just pull the shutters down if the owner so decides, or if the partners so agree.

The businessman considering what form his proposed concern should take has to ponder over the following question:—

First, what is the *nature* of the activity? Will it be in greater need of prompt, risk-taking, one-man decisions based mainly on personal knowledge and judgement, or a combination of varied technical and entrepreneurial skills and a committee form of management? In the former case it would generally be better to choose the proprietary, rather than the corporate form.

Second, what will be the *optimum size* of the business, what will be the size at the start and the projected rate of growth? If the beginning will be small, it would be wiser not to form a company, at least initially. And if the financial and technical resources

required for the optimum size are within the means of the promoters the balance of advantage is likely to be against the company form.

Thirdly, what are the requirements of finance, and who will provide it? How much of the total capital requirement is to come from the owners and how much from borrowings? If the promoters intend contributing the major part of the owners' funds, and seek 'company' form to limit their personal liability while retaining control, the object may be defeated if, for substantial amounts which are intended to be obtained through bank facilities, they are required to give personal guarantees to the bank.

Lastly, a very important factor, perhaps the key one, is: "Who are the promoters? Is it one individual? Has he several minor dependents? Or some adult family members who can partake in the ownership and management of the concern? Or is it a group of unrelated persons coming together with a view to individual gain? What is the nature and extent of the promoter's interest in the activity, and what will be his role in the continued running of the business and the sharing of its fruits? How large is his other income and his personal wealth in relation to that of those for whom he wishes to provide out of the new business?"

I would venture to suggest that if the Tax, Company Law and other considerations I have outlined are kept in mind, and the answers to the above questions

are considered in the context of those factors, a businessman should be able to arrive at a reasoned conclusion as to the form of organisation which is most appropriate in his case.

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INGREDIENTS OF A SUCCESSFUL PURPOSEFUL PERSONNEL POLICY

B. S. Kalsi*

There is a story of a man tired after a hectic day in the office and trying to relax with a newspaper. But his 7-year-old son who would not be considerate to the daddy kept on asking question after question. Not finding any other way to get relief, the father tore a portion of the news-paper with a world map, tore it to few pieces and told the son to put the map together. That, he thought, would keep the youngster busy and give him enough time to relax in peace. But to his astonishment, the youngster came running along only after a few minutes with the world map neatly reassembled. "How did you do this?" he asked the son, who hardly knew the elements of geography. "Daddy" replied the son, "on the back of the map was the picture of a man; when I put the man right, the world was put right automatically." This is the crux of the subject—man's relationship with the enterprise, it is, in other words, the personnel policy of the enterprise.

With a few exceptions, most of the industrial or commercial managements hardly feel the need of a personnel policy. Even the appointment of a Labour Welfare or Personnel Officer is tolerated more as a

* Mr. Kalsi is the Chief Personnel Officer of Raptakos, Brett Co. Pvt. Ltd., Bombay.

statutory compulsion by many rather than a step to meet the needs of the enterprise. It is a pity that while the other factors comprising an enterprise—money, machines and materials—are generally governed by a policy, the most important factor, “men”, is treated casually. There are policies about money—its procurement, budgeting, investment and disbursements; machines—their installation, modernisation, depreciation and replacement; and materials—their purchase, storage and utilisation. But “MEN”, without whom all the other factors cannot work, are left to be dealt with in a slipshod manner.

This neglect is all the more regrettable when we realise that if any of the factors does need a well thought-out policy or a systematised approach, it is “Men”. We can handle money, machines and materials by well-developed mass techniques and methods and can be sure of the results but not so in the case of men. Any mass approach, application of techniques or method is almost bound to fail. Every human being demands to be treated individually and rightly so.

A personnel policy has to be a purposeful one. It should have an objective. This objective is not merely to have a satisfied workforce which will produce more, at less cost, but a section of the community who are allowed to be developed as responsible and useful citizens. A man may be an employee, but at the same time he is a son or a husband and father at home and perhaps a social worker in the community. We can-

not say that our personnel policy is going to be aimed at the employee-part of the man and not the rest of him. The purpose of a successful personnel policy, therefore, would be that it distinguishes between the management using techniques and skills to give the employee a "feeling" of recognition and participation to achieve higher productivity—just like lubricating a machine—on the one hand and on the other the management giving recognition and participation to them because as fellow human beings they are entitled to it in their own right.

The contents of a purposeful personnel policy are to be studied carefully. The management function can be divided into two parts. The line managers and the staff managers. The former are those who carry out the basic activities of the enterprise. For example, production and sale in a pharmaceutical firm are the line functions. The staff functions are those which advise and assist the line organisation in their task. For instance, personnel and purchase are staff functions. Personnel, therefore, is basically a staff function and can be broadly divided into two parts: (1) technical personnel services to the line organisation, (2) advising line and top management.

The technical personnel services to the line organisation are the routine day-to-day personnel functions which generally fall under the following heads:

- (a) Employment & Placement
- (b) Training and Communication

- (c) Wage & Salary
- (d) Human Relations
- (e) Health and Welfare

Employment and placement comprise of recruitment, interviews assessment, testing, employee records and processing of changes in status such as promotions, transfers, termination, lay-off etc. A sound recruitment and placement policy can be the foundation stone for good industrial relations, if it ensures that the right type of people come into the organisation. There is always the problem of friends and colleagues strongly recommending a certain candidate. One fair way to meet it is by giving the recommended candidate the chance to come in the preliminary interview along with others called on merit. Nothing more is to be promised to such friends and colleagues. A personnel officer need feel no embarrassment in being frank. However, other things being equal, a candidate whose reference are known to the personnel officer or any of his colleagues is to be preferred.

The selection also generally causes problems of line and staff conflict. While the personnel man may argue that he is technically qualified for interviews and assessment of candidates and that, being responsible for industrial relations, he is the person to finally decide as to what kind of person should come into the organisation, the line man may insist that since the selected man has to work under him he knows best about selecting the right man. This problem can be

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solved by a system of committees. The selection committees for all jobs include the Personnel Officer and the departmental head where the vacancy exists.

By far the most important factor in a sound policy would be the recruitment to the managerial cadre, for instance, the management trainees. Giving allowance to the weakness of human nature, they should be drawn from different backgrounds and language groups as far as possible to make a heterogenous group to insure against formation of cliques or factions of any kind, which in turn will lead to favouritism etc.

Another important point is that we must fit a man to the job and not the job to the man. This is particularly relevant to middle and higher appointments. The pay scales and duties of a job many a time change according to the man recruited. If the new recruit has a foreign degree he is put on a higher pay scale than his predecessor who had only an Indian degree. The better course would be to determine the duties and responsibilities of the job, its salary and other benefits, and then select a person who will fit the job.

The first step in the formulation of a sound recruitment procedure is the preparation of an application form, which should enable the employer to get uniform information from all the candidates. The information generally needed is (1) Mechanical 'Data'—name, age, education, experience, extra curricular activities, whether married, number of dependents etc., and (2) Personality Data—any vital experience in life, how

is the spare time used, difficult situations in life, why does he want to join the Company, and what he is doing to improve himself. This later data could be used for a detailed interview of the candidate.

Interviewing, with its various methods and implications, is a very vast subject in itself. A structured interview can be used with advantage by a great majority of the interviewers. A structured interview is conducted with a interview form in which for all the traits that we would like to assess, there are questions. The interviewer has to observe the movements, gestures and assess the replies given to questions. For example, an interview form may require the following observations to be made to judge the "poise" of the candidate.

"Does the applicant slump in the chair, or sit naturally and easily erect? Does he have extreme nervous habits such as constantly shifting positions, swinging a leg, coughing, pulling at his clothes, fiddling with a pencil, biting his nails or similar behaviour."

Some firms employ quite a good number of Representatives or Salesmen. Being persistent is a trait required of such employees. To find whether a candidate is "persistent" or not, the interview form can have the following questions!

"Point out the difficulties of salesmanship. Tell him that you do not think the job would suit him as it is far too difficult. Does he accept your decision or does he persist in trying to get the job? Does his talk and record indicate that he gives up

when faced with difficulties? What difficulties has he met with in life and how has he handled them?"

After observing the gestures and assessing the replies, the interviewer gives the candidate a score. For instance, 100 for excellent, 80 for good, 60 for fair.

One form cannot be used for all types of jobs. Different jobs require different traits in the incumbents. While being an "extrovert" may be an asset for the post of a salesman, it may be a disadvantage for the post of a Research Chemist, where being an "introvert" may be a better qualification.

Suitable environment and privacy are essential for a successful interview. Signing of papers and phone calls should be avoided during the interview. While the interviewer may make notes as soon as the candidate leaves, too many notes should not be made in his presence. It is the interviewer's responsibility to create conditions during the interview that every candidate gets a fair chance of competing.

Once recruited, the question of promotion is important to an employee. It is important that there should be a promotion policy. Not that it should be necessarily acceptable to all the employees. Promotion involves appraisal of performance of the employee which is purely a management function. It is neither possible nor desirable to delegate it to the employees. Employees are likely to be quite satisfied if there is a definite promotion policy and it is consistently followed.

Promotion from within should be the rule for

filling vacancies in higher cadres, exceptions to be made only if, in the opinion of the management, no suitable person is available in the organisation. Merit should be the major consideration for promotion, seniority being an important consideration second only to merit. For smaller and medium sized industries, there is another kind of seniority problem—of choosing between an employee who is senior in the Company and the other who is senior in the department where a vacancy in a higher cadre has occurred. It would be good generally to give preference to the latter.

It is the responsibility of the Personnel Department to interpret, clarify and communicate the policy to the department heads and to other employees as and when needed. Considering and deciding promotions, however, should be left to the departmental head and the top management, Personnel Department being available to all—from the first line supervisor to the chief executive for factual information about the eligible employees. Besides supplying the factual information, the role of Personnel Department should be purely advisory. The Personnel Manager must, however, ensure that the proposed promotion is in consonance with the policy of the company and if asked he may also give his assessment of the eligible employees.

One of the criteria of employee satisfaction with management's promotion policy is the number of petitions being made for promotions or upgrading. In one company, for instance, before it had outlined a clear-cut promotion policy, it used to get a large number

of petitions. Now there are hardly any. Petitions are made out of a fear of insecurity that if the employee himself did not move in the matter, nothing good would happen to him. But once he knows the management's policy, he knows where he stands. It is an important responsibility of the Personnel Department to see that the policy is communicated and understood by all. The cardinal principles in the enforcement of the policy and winning the employees' faith is that as soon as a higher vacancy occurs or a job is to be upgraded, the departmental head must immediately send his recommendation and the management must take a prompt decision. The matter should not be left hanging till the eligible candidates make their petitions.

Training and Communications

Training and communications are an important part of a personnel programme. Communication is a continuous process. Much of the bitterness that we usually find between labour and management is due to misunderstanding. What is required is a successful two-way communication system—management being in touch with the problems of labour and the labour having an adequate knowledge of the company's policies and practices. There is no need to confine ourselves to any particular media for the purpose. Notice boards, house organs, employees' handbook, personal meetings—all these may be used with advantage. What is important is not to be satisfied with what the members of the management group *think and say*, but what the

employees *understand*. For instance, when a company started a second factory it took a policy decision that for manufacturing activity all the workmen would be appointed in the unskilled category and after about two years when they had gained experience and skill in processes, they will be put in the appropriate categories, unskilled, semi-skilled or skilled. But when some tradesmen like fitters, welders, electricians and drivers for plant maintenance were recruited the company naturally put them not in the unskilled but in the appropriate category depending on their experience, because the above decision was not applicable to them. The company thought that as it understood the distinction, the employees also did. Later when jobs in the manufacturing departments were evaluated and employees promoted to the appropriate cadres, the maintenance staff became very unhappy and protested that they had not benefitted from the chain of promotions effected in the production department. This was a case of faulty communication. While the decision might have been conveyed to employees casually, no systematic communication of the policy decision was made and the result was an avoidable unhappiness.

Communication must be co-ordinated. All managers and supervisors who are expected to communicate personnel policies or procedures must keep in touch with the Personnel Department as and when in doubt. Instead of giving wrong information, it would be better to refer the employee to the Personnel Department. There should not be any loose talk.

Suggestion system is another tried communication medium by which the employees can communicate their ideas and suggestions to the management.

Merit-rating programmes are also generally mentioned as an important communication medium. A formal merit rating programme is, however, open to serious doubt: with the present standard of education of our manual labour particularly, the programme is more likely to backfire than do any good. In spite of assurances to the contrary, the workers are likely to treat the rating of the supervisor as a permanent record of the management. Once rated adversely, he is likely to adopt a hostile attitude towards the supervisor and become worse as he would feel that the supervisor had spoiled his record permanently.

Another drawback is the almost certain lack of real objectivity. If there would be 20 supervisors rating their workmen, they will have, in spite of training, 20 different judgements. The degree of performance which is rated as 'good' by one may be rated as 'average' by another. This again is likely to cause bitterness among the rated.

An informal appraisal and counselling of the employees by the supervisors and departmental heads must be done. This would involve no forms or systems. Whenever the supervisor finds the employee at fault he can point it out to him and guide him towards correction. There should be maintained in the Personnel Department a record sheet for entering the annual records of the employee under two heads, performance

and conduct. How the employee fares inspite of the informal appraisal and counselling must be entered in this record sheet which should be a confidential document.

In any programme of training, the training of the management group must precede the training of operatives. A training programme developed within the organisation suited to its needs is preferable to sending the supervisors and managers outside. In the absence of a full-fledged training officer, the Personnel Manager in co-operation with one or two line managers could develop and carry out the programme. Small or medium sized concerns could benefit by deputing their managers and supervisors to the courses conducted by the T.W.I., the National Productivity Council and the consultants.

An in-plant management development programme could more appropriately be called self-development programme. The object of the programme would be not to train head workers, but leaders who will *lead* and not *drive*. Self-development is nothing but a change—a change from being guided by expediency and relative values to being guided by one's conscience and moral values. The process can be brought about by planning a number of conference sessions and discussing self-development itself followed by a number of case-studies. Personal example of the top management would accomplish more than any part of the formal programme.

Many a middle manager after attending an outside training course finds to his consternation that he cannot get his new ideas accepted by his superiors who have never cared to expose themselves to any kind of training. In such cases, not only is the benefit of training to the middle managers lost, but bitterness and frustration also usually creep in. Therefore, either the training of top manager precedes the middle manager or they have an open mind and the willingness to give the middle managers freedom to make mistakes.

Even in concerns where training programme of any kind cannot be introduced for some time, induction of new employees must be undertaken. This could comprise of an hour's session in which the Personnel Manager or any other suitable officer welcomes the new employees and tells them everything about the concern that a new employee needs to know—salient features of the terms and conditions of service, canteen and other services, products of the concern, management set-up in brief and ends by introducing the employee to his departmental head. One point which must be stressed at these sessions is that in case of any doubt, difficulty or grievance, the employee must approach his supervisor and if still dissatisfied the Personnel Department. New employees should be warned against approaching the next man in such situations because his clarifications, solutions or advice are likely to be highly subjective and, therefore, misleading.

Wage and Salary Administration.

A sound principle of wage administration is

that wage-scale should be attached to the jobs and not the men. As soon as an employee is transferred to another job, he must get the wage scale of the new job and not carry his previous wage scales with him. This, however, anticipates that all jobs are evaluated according to the skill involved and have appropriate grades attached to them. For carrying out a job evaluation programme, it would be a good policy to have wages for all categories fixed on the industry-cum-region basis, i.e., wages paid should be comparable with those paid in the other units of the same industry in that particular region. A job evaluation programme in which the Union would participate may prove more practical. To begin with, a programme in which the wage-scales for all categories are negotiated and settled with the Union is desirable. For this purpose, wages prevailing in similar units of the industry in the same region may be collected and a set of comparable wage scales fixed according to the capacity of the concern. A job evaluation programme may follow confined to the evaluation of the degree of skill involved in each job. This seems to be a simpler process for introducing a scientific wage-system than evaluating the money value of each job.

There are various job evaluation methods. The one which is used with considerable success is a variation of the Point Method. Each job is divided into various factors required for its performance such as Education, Training, Initiative, Physical Effort, Mental Effort, Responsibility for Raw Materials, Responsibility

for Tools and Equipment, Working Conditions, Visual and Unavoidable Hazards. Each factor has 4 to 5 degrees describing the measure of requirement and score points in arithmetical progression. To achieve maximum objectivity, it is necessary that each degree must be described with as much definiteness as possible. There would, however, be suitable variations in factors and the description of degrees for evaluating manual, clerical or supervisory jobs.

To illustrate this point, let us take the factor "education" for evaluating manual jobs. The 5 degrees may be like this—1st degree—no education, ability to sign his name, 2nd degree—reading and writing mother tongue; 3rd degree—reading of mother tongue and 2 standards of English and so on. For a clerical job, the description of the three degrees may be Matric, undergraduate and graduate.

The first degree points for all the factors total 100, second degree 200, 3rd 300 etc. The percentage each factor will have will differ between manual, clerical or supervisory jobs. While for manual jobs, the education factor may have 10 points, for clerical it may be 20. Similarly, physical effort may have 15 points for manual jobs and only 5 for clerical.

Suppose we want to divide the manual jobs into three categories—unskilled, semi-skilled and skilled. The next step, therefore, is to fix the score limits for each category. For this purpose, we select three key jobs each of which, in the opinion of the evaluation committee, represents one category. These jobs are

evaluated and the points scored by them become the guiding factor for fixing score limits.

Human Relations.

Human Relations simply mean relations at human level between man and man in any group, be it industry, community, a family or a home and not industrial relations as is usually understood by the phrase. We cannot isolate this subject of human relations from what it should normally mean and tack it to industry, because the men and women who work in industry, be they workmen, supervisors or executives, cannot be different inside and outside the factories and offices. For instance, a man cannot be a dictatorial husband, an unfaithful friend and a kind-hearted supervisor or worker in the industry. The problem of human relations is, therefore, essentially one of developing men and not teaching and experimenting with supervisory or executive skills.

Development is nothing but accepting absolute moral values as the guiding force for all our action: In fine, it is becoming honest, conscientious, humble and loving. These are of course ideals which could inspire us for the highest possible achievements. But if you even talk of absolute moral values people look at you with a grin of ridicule. People want to be honest and selfless to the extent it does the trick, that is, establish them as good men and bring them rewards. This tendency has resulted in the employment of techniques

which enable people to "act as" and not "be" good men.

The result of this technological approach to the problem of human relations is that the management is seldom able to win the faith of the employees. If the management's attitude towards labour is based on make-believe and not sincerity, it is bound to be exposed one day. Giving the employee recognition, participation, credit and respect, as tools of the management to motivate him, is an approach which is not likely to fool all people for all times.

When there is lack of faith, even the best intentioned steps of the management cause trouble. In one concern, for instance, where the management decided voluntarily to give a far-reaching amenity without the employees even demanding it, immediately a whisper went round that the Government must have coerced the management to give the amenity. Faith is a thing which is not won in a day but built up brick by brick over a period of years by management men who care for the employees because they want to.

A sound personnel policy would include giving the employees not the minimum facility provided in the labour legislation but much more as may be possible within the capacity of the concern.

This brings us to the second but more important part of the personnel function—providing an efficient consultative service, which aims at creating mutual faith among those who work in the enterprise by :

- (1) Developing management leadership, which is

bold and imaginative and guided by moral values.

- (2) Effectively delegating the human relations aspect of the personnel function to the line managers.
- (3) Enforcing discipline not by the rod but through cooperative understanding and human application of rules and regulations.
- (4) Providing the climate for happy relationships at all levels.

Compared to the technical personnel services, this task is difficult and demands a person holding a senior position in management. In small concerns, it may be the proprietor-manager but where there is a Personnel Manager, he must be able to speak and act with the authority of a senior and responsible manager. In actual practice, there are difficulties with older and senior members of the group. They may be not only cynical but even contemptuous of any formal development programme. Still they cannot be neglected and allowed to manage in their old ways. The Personnel Manager, however capable, cannot bring about good industrial relations. It is the joint responsibility of all those, who deal with the employees and get work out of them. Continuous wrong behaviour on the part of a first line supervisor may undo the patient work of years done by others. The Personnel Manager, therefore, should never give up. He must initiate and co-ordinate all development steps.

One of the things which is most likely to help in dealing with older colleagues is the personal friendship of the Personnel Manager. Once he has won their confidence at a personal level, he can go on to give informal suggestions. His personal integrity and example is another thing which will be very valuable.

The idea of development is to create leaders, who will not think of personal popularity at the cost of efficiency, who will not have prejudices and whims, biases and sectarianism, who will not make prestige issue out of every small thing, and who will not suffer from a status bar.

A frequently overlooked but important factor is the need and the aspirations of the management group. They are the people in command of the execution of any policy. Nothing can be accomplished without their cooperation. But they too have their needs—recognition, fair compensation, opportunity and good working conditions. To say that they are part of the management and, therefore, should be loyal is to oversimplify the matter. They are generally taken for granted because they are too near to the top management. A sound personnel policy will ensure that their interests are receiving careful attention, that their individual performance is being watched and outstanding merit recognised and rewarded.

Delegating the human relations function to the line is another important step. For one thing, it may be physically impossible for the Personnel Manager to deal with all the employees. He can be effective only

through the line people. Delegation is necessary for another reason. The worker must have only one man to whom he should be responsible and not two. It must be noted that the line supervisors and managers would be mainly concerned with their immediate jobs—it may be sales or production. They cannot drop all that and concentrate on developing their subordinate. They cannot be expected to do that only if they understand that handling a grievance is as much a production process as turning on a machine. However, the Personnel Manager's job is to help and assist and even take over where his colleague has given up.

Enforcement of discipline by cooperative understanding is vital to the creation of mutual faith on which alone the foundation of good industrial relations can be laid. Broadly, this means that issue of warnings, chargesheets and suspension notices should be an exception rather than the rule. The Personnel Manager himself may politely refuse to play the role of a policeman and instead be what he actually is—a social worker. Rules and regulations must be applied humanely. While we may be strict, we should never lose sight of the human angle.

Without the sincere acceptance of those who must execute it, no personnel policy can succeed. People generally accept ideas which they help to develop. It is advisable, therefore, that there be minimum participation of the line managers in the formulation of the personnel policy. Initiated by the Personnel Manager,

the policy should be finalised after discussion in the meetings of the management group. Regular reviews and appraisals are necessary to secure continuous acceptance.

To sum up, a purposeful personnel policy will not recognise the men and women working in an enterprise as Management and Labour but as human beings engaged in a common endeavour and entitled to mutual faith and respect. Greater Production and productivity should not be the motive behind a sound personnel policy. A motiveless policy ensuring human dignity is certain to result in greater production and productivity.

FINANCIAL MANAGEMENT THROUGH STANDARD COSTING

S. V. Ghatalia*

I. INTRODUCTION

Financial management implies planning and the control of :

1. Cash in flow.
2. Movement of cash within the organisation.
3. Cash outflow.

No matter, how efficiently the production, personnel and the distribution of goods are managed, an entity will not be adequately profitable unless the money in the business is handled with equal efficiency. The tendency, more often, is to bring to prominence, the production of goods and its marketing and relegate to the background the money, upon which the entire proceedings are really based. The financial dangers are slow in growth and equally slow in remedy and the trick lies in arresting the dangers before they grow into such proportion that the business is beyond redemption.

II. THE ESSENTIALS OF MANAGEMENT.

The success or failure of an enterprise is measured to a large degree in terms of return on capital employ-

* Mr. Ghatalia is a leading chartered accountant and also a Professor at Sydenham College of Commerce, Bombay.

ed and the period for which the return will be maintained. The financial hazards of industrial enterprise lie in unwise investment.

(a) Expectation and Performance.

Before undertaking any venture, profitability is forecast on the basis of certain evaluations or estimates of the expected costs and the expected revenue and, on this basis, a cash flow is forecasted showing for what purpose, how much money will be required at which point of time.

The estimates of cost depend upon certain assumptions of performance, e.g., plant capacity, labour output, machine utilisation, productivity per worker, consumption of raw materials, prices of materials, time involved in the manufacturing process, overhead costs and anticipated sales revenue.

Thus, in the case of every enterprise, something similar to a standard is implicit in any scheme of investment or venture. The difference between guesswork or estimate and the standard is that the estimate is made on a rough and ready basis and not by a scientific method, i.e., not based on adequate information. A standard gives a scientific precision and practical bias to the expected performance.

(b) Standards.

The standards, on the basis of which revenue, costs and profit are forecasted, must, therefore, be formulated on some scientific method. Standard is

the basis for measurement or comparison. Comparison is a vital part of the control mechanism. It is comparison and contrast which gives the effect of light and shadow and creates a three dimensional business picture. This emphasises the need for intra-firm comparison, i.e., the comparison of performance within the organisation and inter-firm comparison which implies the comparison of performance of a unit with another unit in the same industry.

Standards are established by experience, authority or general consent as a model or an example of what is proper and adequate for a given performance. If the standards are not correctly determined then the very basis of investment might turn out to be incorrect. The fixation of standard is also essential for the purpose of ultimately measuring the actual performance against the standard performance. When a project goes into actual operation, constant comparison of the actual performance against the planned performance and the study and the analysis of variances and the ascertainment of the reasons thereof would act as a guide to appropriate corrective action and for formulating the right policy.

(c) Accountability.

When an investment is proposed, one would plan the capital structure and the long-term borrowings on the basis of profitability and the expected cash flows. When finance is obtained for a project, it implies a certain commitment with the investing public, financial

institutions and the banks. If the expected performance is not, in fact, achieved, the entrepreneur might find it difficult to obtain further capital either for the same venture or for other ventures or might find it difficult to negotiate a loan on a future date.

In modern times, the persons who furnish the capital are not necessarily persons who are in charge of management. There is a divorce of ownership and management. One set of persons furnish the capital and another set of persons are entrusted with the use of the capital. It, therefore, follows that there should be an accountability by the management to the owners of the capital in regard to the use that they have made of the capital. Financial management implies taking and giving an account of the stewardship of the total capital employed i.e. the economic resources entrusted to the management.

All levels of management must be cost-conscious, profit-conscious, aware of the impact of their performance on the finances of the company. It is the function of the financial management to measure this impact, report it and devise means of controlling it.

(d) Delegation of Authority.

In a large industrial organisation, between the top management and the persons who are on the job, there is a long line of intermediate authorities. To enable the top management to give an account of the use of capital to the owners of capital, it is equally essential that the top management must department-

alise the organisation so that the 'Departmental Heads may be held accountable in respect of the capital entrusted to their charge. This implies that in any scheme of management there must be well defined responsibility centres—determined on the basis of the persons who are in charge of the resources allocated to the department. Accordingly, the internal accountability should be well defined in terms of : (1) who is in control of the assets of the Company; (2) who sanctions the expenditure; and (3) who is responsible to show the results or earn the revenue or achieve a given performance.

The modern concept of management is to treat each departmental head as if he is a separate entrepreneur who should be responsible for investment in his department, for the costs and the revenue of his department, and ultimately the return on capital in his charge. This creates cost-consciousness at each important level of management.

Once a target has been set, measurable either in terms of so many rupees of expenses, hours of work or units of output, the management would expect the departmental heads and the foremen to reach their results.

The top management would merely guide the policy and render any help or advice that is required, but it would not interfere with what is properly the responsibility delegated to the Departmental Heads. Subject to the Company's over-all policy, they are left to their own initiative and their work is judged in the

light of their success. The top management is merely concerned with the examination of the variances from the standards. This system makes it unnecessary for the top management to interfere in every small detail of management and permits it only to keep its watch on those areas of operations where a sizeable variance is noticed. This is known as management by exception.

(e) Organisation.

In the light of this, every Company normally has, broadly speaking, five major departments viz., (i) Production, (ii) Personnel, (iii) Purchase, (iv) Sales and (v) Finance.

When the organisation is so departmentalised it must necessarily have an organisation chart, responsibility chart and work flow chart with the object of defining very clearly the lines of authority, the areas of responsibility and the extent of accountability.

Thus, accountability travels from section heads to junior managers, then to heads of major departments like purchases and sales etc., then to the top executive, then to the Board of Directors and ultimately to the shareholders of the Company.

III. STANDARD COSTING.

(a) Cost Standards.

In order to take an account of the performance one must consciously or unconsciously compare the

performance with some standard, to find out whether the performance is above or below the expectations. Whether a company has a standard costing system or not, the judgement or evaluation of performance of every person, every plant, every material, every department, must have some basis of comparison. The comparison may be :

(i) on the basis of past experience or performance,

(ii) on the basis of scientific standards evolved by the company itself, or

(iii) on the basis of average performance of the industry. Sometimes, standards fixed by the Company are based on the standards furnished by the foreign collaborators or the basis of experience in their own country.

The standards so fixed may be either physical standards, e.g., level of production, output per machine, percentage of material wastage, productivity per worker, etc., or the standards may be expressed in terms of money values, e.g., cost of materials, cost per machine hour, cost per man-hour, cost per unit of production, etc.

The standards in terms of money are known as cost standards which are scientifically pre-determined costs of materials, labour and overheads chargeable to a product or service. Cost standards are not recorded in the books of accounts but they are used as statistical bases for evaluation of actual performance. The

technique is to prepare the accounts—Balance Sheet, Profit and Loss Account—before the industrial activity is undertaken—which will furnish a blue print of thinking and planning, of what is possible to achieve, what is the target, how you want to achieve it and what is ultimately the plan of performance. It means a built-in image of the future and a plan to translate it into a reality.

Since a standard is implicit in any scheme of scientific management, it will be readily accepted that a standard should be determined before the operation is undertaken and not afterwards. The fixation of the standard before a performance, implies a duty on the part of the management to ensure necessary pre-conditions to attain the desired target and also a duty on the part of the persons in charge of operations to attain the standard performance when the given conditions are fulfilled. The philosophy is to become wise before the event and not after the event. The management must be oriented to a forward look which implies capacity :

- (i) to anticipate and foresee what is to happen;
- (ii) to plan for it;
- (iii) to watch that the plan succeeds; and
- (iv) to measure the extent of the success.

(b) Variance Analysis.

Once a standard is fixed, it is possible to measure a variance. We may have what is called (1) a

quantity variance, i.e., a measure in terms of physical units or; (2) a rate variance, i.e., a measure in terms of time factor or; (3) a price variance—reflecting change in the price of material, labour, power etc. and (4) ultimately with the combined result of all these variances, the cost variance. The variance analysis gives a complete x-ray picture of exactly where the things have gone wrong, why and how and to what extent. This facilitates the location of the area requiring remedial action and the fixing up of a responsibility on certain persons and tracing the cost variance to specific causes. Thus, the laying down of standards is linked up with the basic management philosophy.

Since a standard may be laid down either in physical terms or in terms of money, it is quite possible that one may have only physical standards not converted into money. This means that the company is operating only on standards but not on standard costing. When the physical standards are converted in terms of money, one has what is called standard costing.

To a layman, standard costing implies a very complicated system—a very expensive system which can be adopted only by a large concern. But this is a fallacy. As I have indicated before, the standard costing is merely a process of expressing physical and time standards in terms of money. The extent of complexity will depend upon the size of the concern and the circumstances of each case. It is not, as if the introduction of a standard costing must necessarily be

accompanied by a paraphernalia of a full-fledged and a very complicated costing system. What is more, that the standard costing can be adopted only in respect of a few selected cost factors, e.g., material or labour and it is not necessary that it must all at once be extended to the entire area of cost.

A Standard Costing system must be specifically designed for a particular unit and initially it must be simple in conception. It must grow with the organisation. It cannot be imported wholesale into an organisation. The success of a standard costing system depends upon the management being able to accept and adopt the basic philosophy behind the standard costing. The impression that the standard costing is another method of merely finding out the cost per unit is not correct. Its function is not only a cost function, i.e., to merely throw-out the cost data very quickly. The standard costing system has a much deeper significance, viz., it has an important aspect of management function. It is a tool in the hands of the management which achieves the following objectives:

- (i) expeditious collection of cost data
- (ii) control over the operations
- (iii) control of costs
- (iv) delegation of responsibility and system of reporting back and ultimate co-ordination of the various departments
- (v) management by exception.

(c) Historical costs versus Standard Costs.

Historical costs indicate what has happened in the past whereas the standard costs indicate what is expected to happen in the future under the operating conditions anticipated by the management. If the historical costs are used, the management will know the profit or loss at the end of the month which will reflect what has happened but it is a historical information only and may apply to the conditions that no longer exist and may not apply to the future.

If standard costs are adopted the profit and loss statement will show the actual profit or loss earned or sustained for the month, in analysed detail, revealing the anticipated results and the actual happenings and analysis of reasons for the difference. This will keep the management posted currently, not only of what has happened but also, how the results varied from the anticipations and how the resulting *future trend* may be different from the programme originally planned.

(d) Standard Costing System.

"Standard Costs" are scientifically pre-determined costs of each factor of production. Standard costs can be defined as "An estimated cost, prepared in advance of production or supply, correlating a technical specification of materials and labour to the prices and wage rates estimated for a selected period of time, with the addition of an apportionment of the overhead expenses estimated for the same period within a prescribed set of working conditions."

"Standard Costing" can be defined as * "The preparation of standard costs and their use to clarify the financial results of a business, particularly by the measurement of variations of actual costs from standard costs and the analysis of the causes of the variations for the purpose of maintaining maximum efficiency by executive action."

The standards are usually fixed having regard to the past experience and scientific study. The historical data of costs are suitably modified having regard to the plan and policy to be pursued during the period for which the standards are to be fixed. In fixing the standards normally one must proceed by stages. It is recommended that first an analysis of various costs should be made and it should be found out what are the most significant costs which may be either materials or labour. The most significant cost factors must be first brought under the standards so as to bring 60 to 70% of the area of cost within control.

Thereafter, the standards should be fixed for other direct manufacturing costs and then the system should be extended to the different types of overheads, viz., production overheads, office overheads, sales overheads and the finance overheads.

Material estimates are usually prepared from technical specifications furnished by the production department; raw materials price standards are given by

* Paras 71 and 72, page 21, 'Introduction to Budgetary Control, Standard Costing, Material Control and Production Control' by the Institute of Costs and Works Accountants.

the purchasing department; standard labour hours are computed on the basis of work studies by the Industrial Engineering Department and the standard labour costs are worked out on the basis of the wage rates.

The material cost standards are computed with reference to the quantity consumed and the standard rate at which the materials are priced. The quantity standard provides a control on wastage and loss in production, and facilitates quicker collection of data on the materials consumed. The standard rate of price measures the efficiency of the buying department and the extent of price fluctuations.

The wage standards are based on standard time required per worker for a given output. This standard measures the extent of idle time, productivity per worker and efficiency of labour. The standards for other expenses are based on historical records adjusted in accordance with the changing conditions.

The standard costing is extremely useful for the purpose of control through study of variances and the reasons given for the variances. A careful variance analysis yields fruitful results, viz., reduction of costs, improvement in efficiency or changes in the policy. This makes it possible to make a correct evaluation at an early date and several times in a year.

Fixing standards is a technique. It takes quite some time for the management to acquire an ability to fix reliable cost standards and until such time the standards may be considered only provisional in nature.

IV. BUDGET.

(a) Budgetary Control.

A "Budget" can be defined as * "A financial or quantitative interpretation prior to a defined period of time, of a policy to be pursued for that period to attain a given objective."

"Budgetary Control" can be defined as * "The establishment of departmental Budget relating the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objective of that policy or to provide a basis for its revision."

The budgetary control has its roots in 'planning' for the future. In these days of rapid expansion and consequent demand for more and more finances, it is found that by budgetary system a strict control over the finances is obtained. As a result the financial resources do not remain idle and it is possible to ensure that maximum use of available finances is made.

(b) Objectives.

The budgetary control implies the following :

- (i) allocation of operations; determination of performance; and allocation of responsibilities

* Paras 3 and 4, page 7, 'An Introduction to Budgetary Control, Standard Costing, Material Control and Production Control' by the Institute of Cost & Works Accountants.

for a given performance to individual managers.

- (ii) It provides summarised picture of the results to be expected from the operations.
- (iii) It serves as a measure of performance and a basis for comparison of actuals with the budgeted performance at regular intervals.
- (iv) It ensures adequate control over the operations.
- (v) It highlights important areas where improvements can be effected and where corrective action is needed.
- (vi) It furnishes an estimate of financial requirements for the future.

The philosophy behind the Budgetary Control is that each manager is a separate entrepreneur and therefore :

1. There must be a measure of his performance.
2. He must be given adequate authority co-extensive with his responsibility.
3. In spite of specialisation and delegation of authority there must be a complete co-ordination with other departments.

According to this concept, the budget must travel upward from the level of section head or departmental heads to the top management instead of imposing the same from the top by the Finance Department. It operates on the basis of self-imposed control.

V. TIME FACTOR.

In Financial Management, apart from technical performance and standard costs another important factor which is significant is the time-factor. It is too well-known to emphasise that if an investment remains idle even for a short while the interest charges thereon mount up, risk increases and the cost becomes unproductive.

The time factor manifests itself in various areas of management.

(a) Labour.

In regard to labour, one has to consider the time taken to do a particular job and as a result we have what is known as 'time and motion study'. When the worker is on the job, it is equally essential that there is no idle time either through his own default or through the plant not being in working condition.

(b) Plant.

In respect of machines one has to measure when the actual capacity reaches the installed capacity. The difference between the two measures the loss of output due to investment remaining idle or unutilised. It is possible that the actual capacity may be less due to the frequent breakdowns of the plant. The management, therefore, must carefully measure the machine utilisation at regular intervals.

(c) Process-time.

The time taken for converting the raw materials into a finished product and ultimately making it ready for marketing the same is relevant for the purposes of costs. If more time is taken the labour cost may go up, the machine utilisation will be less and there may be unnecessary locking up of stock and the expected rate of output may not be achieved. If excess stocks are held or if the material remains unutilised, then also the cost of working capital increases.

(d) Sales and Collection of Debts.

The time-lag between production and sales is also relevant. If the sale is not effected within the expected time, there is a danger of stock-piling. Once the sale is effected, one must also measure the time taken to realise the cash against sale and, therefore, there must be a strict control on the efficiency of collection of book debts.

(e) Capital Expenditure.

It is equally important to see that not only one must control the capital locked up during operations but it is equally true of locking up of capital during the stage of construction. The construction of a factory takes a long time say from 1 to 2½ years and during this period the capital which is locked up in the buildings, plant and machinery remains unproductive. The shorter the period of installation the less will be the burden of interest charges, the less will be the

pre-production expenses and quicker the earning of revenue. On the basis of the estimated period of installation and the target date of operation, a concern would have made a forecast of the cash-flow on the basis of which loans are obtained from the financial institutions. Any disturbance in the cash flow would mean the shortage of capital for the smooth running of the operations and inability to honour the commitments with the financial institutions. In one company with a proposed expansion of Rs. 2 crores, it was found if there was a delay of one year in starting the operations, the shortage in cash at one stage would be of the order of Rs. 30 lakhs.

VI. FINANCIAL MANAGEMENT.

(a) Scope.

In essence, financial management means: (1) procurement of adequate capital, (2) furnishing capital for financing the various operations adequately and in time, (3) recovering the capital and either re-investing it or repaying it to the sources from which it was obtained. The function would imply that the financial management is engaged in converting the long-term and short-term plan of utilisation of physical resources in terms of money.

Financial management can be put on scientific basis only if there is a reliable plan of utilisation of economic resources, a forecast of cost and revenue and

profit, a forecast as to how and when the cash will be required and how and when it will be obtained.

In absence of standard costing system, the financial management can remain at best an *ad hoc* arrangement without a reliable data on which to base the estimates of sources and application of funds.

(b) Functions.

The functions of the Finance Department are as under:

1. To estimate the requirements of capital from time to time and devise ways and means of finding out adequate capital and in a proper manner. The requirement of long-term capital and short-term capital must be estimated in advance. The capital structure should be planned, i.e., to take policy decisions as to various types of share capital, when it is to be issued and the terms thereof. How much profit should be retained and if and when it should be capitalised. To make arrangements for long-term and short-term loans and the terms as to interest, security and repayment.
2. To furnish capital to finance various operations in such a manner that the right amount of cash is made available at the right time. If the standard costing system is in operation, it will be possible to frame a reliable cash budget on the basis of forecast of costs, revenue and profit.

3. To exercise control over the capital employed. It must constantly watch the rate of turnover of entire capital. It must ensure that there is no over-investment or under-investment. Over-investment means you require less capital to make more profit; under-investment means that you require additional capital to earn normal profit.

It must constantly watch that the investment in the fixed capital is being fully utilised and that there is no idle plant capacity and the operating plant is utilised according to plan.

4. To exercise control over the working capital, the requirements of which very often far exceed the requirements of fixed capital. The control on the working capital can be achieved only if there is a standard of costs to be incurred on important items like materials, wages and other important manufacturing costs. It is also essential to have standard levels of stock of raw materials, finished products and semi-finished products. It must measure the time lag between the purchases of raw materials and its ultimate conversion into cash. It would also exercise a control over the rate of sales per month and the collection of the book debts. The amount of credit given and taken must be carefully balanced. The estimate of working

capital can be more reliable if there is a proper plan of costs, revenue and profits and standards of performance are fixed for each area of operation.

(c) Interpretation.

It is the function of financial management to interpret the operating results. Figures cannot talk but they speak volumes. They are mute witnesses offering the evidence. It should present the results in an analysed form with explanations for changes therein and through this device service the different levels of management to enable them to evaluate their own work.

(d) Measurement of return on capital.

The maximum utilisation of economic resources should be planned. For this purpose, it is necessary to measure the relative profitability of different funds, different departments and investments. It should be seen that there is a proper control over costs and revenue and ultimately on the profit.

With this object in view, it should ascertain :

1. Gross profit on sales.
2. Net profit on sales.
3. Rate of profit on total capital employed.
4. Turnover of all capital, i.e., Ratio of sales to total assets.
5. Rate of profit on Net worth.
6. Net Return on own capital after tax.

(e) Cash Flow Statement.

The Finance Department should prepare a statement of ways and means position very often known as a 'fund flow statement' or a 'cash budget'. While framing it, it must take into account the element of time factor. This can be constructed only on the basis of plan of operations of various departments, e.g., production, purchase, sales, personnel etc. Having prepared the cash flow statement, the financial management would ultimately compare the cash budget with the actuals by preparing a statement of sources and application of funds which is very often called 'a statement of funds supplied and funds applied', or 'where got' and 'where gone' statement. The variances between the two will reveal the areas which require corrective action.

(f) Disposition of Surplus.

In a large concern, expecting a profit of several lakhs, the decision regarding the investment of cash generated consisting of profit and depreciation cannot await until the close of the year. A decision should be made as to how much cash is to be ploughed back, how it will be utilised and what should be the dividend policy. The measurement of the cash generated from time to time and its utilisation is an important function of the financial management. Per chance, if a company makes losses it is a matter of equal importance to determine how the resulting cash deficit should be made good.

(g) Repayment of borrowed capital.

The financial management must plan on the basis of expected cash flow, the rate and the timing of return of capital borrowed—short-term and the long-term—on the basis of the commitments already entered into. It must constantly keep a watch on its liquid position to ensure that it is adequate to meet the obligations in respect of loans as and when they arise.

(h) Measurement of Rate of Growth.

The financial management as a matter of long-term policy must also measure the rate of growth. This can be done on the basis of analysis of past performance and long-term forecasting for—say three to five years. The finance required for growth takes a long time to arrange. Issue of further capital, negotiations for long-term loans may require a planning for one to two years.

(i) Tax-Planning.

When half the profits of the company have to be paid away by way of taxes, it is also important that the tax obligations must be very carefully taken into account in any forecast of cash requirements.

The financial management will be able to efficiently discharge its functions only if there is a plan, analysis and comparison which can be scientifically furnished by a system of **STANDARD COSTING AND BUDGETARY CONTROL.**

Books Recommended for reference and further reading

<i>Name of book</i>	<i>Author</i>	<i>Publisher</i>
1. Accountants' Cost Hand Book.	Robert I. Dickey	The Ronald Press Co., New York, U.S.A.
2. Industrial Accountants' Hand Book.	W. P. Fiske & J. A. Beckett	Prentice Hall Inc. U.S.A.
3. Productivity Report on Management Accounting.	Report of the Team	Anglo-American Council on Productivity.
4. Cost Accounting and Financial Control in U.S.A., U.K. and West Germany.	Report of the Team	National Productivity Council, India.
5. An Introduction to Budgetary Control, Standard costing, Material control and Production Control.		Institute of Cost & Works Accountants, London.

ELEMENTS OF MODERN MARKETING

Dr. F. S. Noorani*

Greater production and productivity are not in themselves the ends of a business enterprise; for whatever is produced must be consumed if more is to be produced. And continued production and productivity can only be achieved if there is efficient marketing.

There have been several definitions of the functions or objectives of a business organisation. Many of these are high-sounding and speak of its social purpose and its moral responsibility. Undoubtedly, a business organisation, as much as anyone else in the community, does have some social purpose and moral responsibility but neither of these can be reasons for its existence. First and foremost a business firm is designed to make profits; if it is not successful in making profits it can make nothing else—certainly no contribution to the public good. Modern marketing is a tool by which business becomes profitable. It covers every aspect of the organisation and has been defined, therefore, as a point of view with an ultimate goal—the development of maximum profitability. This it does by efficiently selling whatever is produced. Marketing uses several methods to get information and arrive at vital decisions at every stage and it is these correct marketing deci-

* Dr. Noorani is a Manager in Glaxo Laboratories Pvt. Ltd., Bombay.

sions which alone can make for greater production and productivity.

For the purposes of easy description, I shall separate the various components of the marketing operation but it must be remembered that it is only through the smooth and integrated functioning of all ingredients that successful marketing is possible.

THE PRODUCT

The first part of marketing is the product itself. It will be readily recognised that the decision on the kind of product to be made can only be taken by the marketing man since it is he who will be called upon to sell it.

Broadly speaking a product worth marketing can be one of three kinds:

- (1) It can be something new.
- (2) It can be something better and
- (3) It can be something cheaper particularly in a field where price has been a restricting factor to greater potential.

All these three are usually the results of technological advance either in product development or product manufacture.

DETERMINING THE MARKET

Having decided on the product, the next question to be answered is how much shall we manufacture of

it. To get this information, use is made of Marketing Research. This research is of two kinds; the first is quantitative market research whereby the physical size of the market and its location are determined. The best method available today for doing this is what is known as the Shop Audit. A representative sample of retailers and wholesalers is visited and an audit is taken of the stocks they purchase and hold of the kind of product it is proposed to market. From this information the physical size of the market and, therefore, Marketing Department's order on Production is arrived at.

The second aspect of Marketing Research is qualitative and aims at finding out what people buy and why they buy it. This is known as Consumer Research and is carried out by issuing questionnaires to selected samples of consumers or by having consumer panels whose members record their purchases usually in the form of a diary. Why people buy what they do is a little more difficult to find out; this is the area of Motivation Research. Today, there is some controversy about certain aspects of Motivation Research caused largely by the lunatic fringe of its exponents. But the value of Motivation Research has certainly been established beyond any doubt particularly in the marketing of products which have either social connotations or which afford personal satisfaction. For instance, one buys a motor-car as a means of transportation—this is the primary objective; but there is also an equally important objective, namely, that of status: One buys

a motor-car befitting one's real or imagined place in society. Similarly, the house one lives in, the furniture one uses, the clothes one wears are common examples of consumer preference being influenced by considerations of status. It will be fool-hardy, therefore, for someone marketing products like these to ignore their social or motivational aspects.

DEFINING THE MARKET

Flowing directly out of Marketing Research is the process of definition of the market for the product which it is proposed to make. Here we intend to arrive at the group of people who will be buying the product in terms of their social status and income group. Defining the market for a product in terms of the people who are going to buy it is most important in determining the strategy and tactics one is going to use in selling it. For instance if it is proposed to market a costly and luxurious motor-car one knows that only people of a certain income and social level are going to buy it and, therefore, the design of the motor-car and its advertising campaign are made such that they will appeal to this particular group. Also, the advertising is channeled only *via* the various media which reach these particular people.

On the other hand, if it is proposed to market something which everyone can use, the strategy will naturally be different.

THE PRICE

The next marketing decision is the price of the product. There are, of course, certain immutable factors in determining the price such as the cost of manufacture and marketing and, equally important, the price of competitive products. The differential which one is going to offer to the public must be related directly to the advantages of the product over existing ones if one's product is better than these. Calculation of the worth of the advantages of your product in terms of what people are willing to pay for it is a crucial marketing decision and calls for considerable experience and knowledge of the trade.

We all know that the price of the majority of products is important in influencing the decision of the consumer to buy it and that the lower the price the more people will buy it. But there is a group of products where lower prices do not mean bigger markets. These are usually the luxury items where a high price is usually regarded as an important indication of quality. Let us consider an instance. Many years ago a well-known Perfumery House in America was purchased by an organisation which owns a chain of low-price retail shops. Operating as they do on the dictum that lower prices mean bigger sales, they decided that if the price of these perfumes were sufficiently low, there would be a vast market for them. So they proceeded to slash prices; but the result was the very opposite of what they ex-

pected: people stopped buying the perfumes altogether. Being wise after the event, we know that this organisation had disregarded the very important social connotations which influence the choice of a perfume. To put it another way: no lady will use a perfume which she knows is also being used by her washer-woman. Indeed, even the washer-woman will be reluctant to buy it! Thus it is that luxury products usually require to be marketed at luxury prices.

BRANDING AND PACKAGING

Having decided on the product to be made, determined the size of the market, defined it, and arrived at the price, the next step is to decide on the brand name and the packaging.

The brand name of a product is most important, indeed it is as important as the product itself because the brand name is what the customers are going to ask for. It goes without saying that the brand name must be simple and easy to remember. Manufacturers usually arrive at brand names in one of three ways or a combination thereof. Firstly, from the constituents of the product; secondly, from its functions; and thirdly, the brand name may be totally unrelated to the product or its functions. An instance of the last is the name Veronal—a brand name for a sleeping tablet. The story is told of how the scientist who developed it woke up at the station of Verona in Italy and decided to call his product Veronal! Nearer home, one of

the most successful brand names is Dalda which has become synonymous with vegetable cooking medium—often, to the annoyance of the manufacturers when customers ask for Dalda of another company!

The packaging or design of a product must help to sell it by reflecting its virtues and its quality. Not many, however, outside the marketing field realise the influence which packaging has on buying decisions of consumers. Let us consider an instance: A company in America decided to market chocolate biscuits but were not quite sure whether the packaging should be basically red or basically blue. They, therefore, decided on a consumer test. The biscuits were put into the two different packs and the indirect question to consumers was which of the two biscuits did they prefer. The overwhelming opinion was that the biscuits in the red package were far better than those in the blue. The firm, of course, knew that both packets contained the very same biscuits, and, therefore, the preference for one over the other was due solely to the packaging. Coming nearer to my own field, I am sure none of you would buy a medicinal product if the packaging does not inspire confidence and suggest quality. For consumer products the importance of packaging and design cannot, of course, be too greatly emphasised.

SALES PROMOTION

Having got our product, determined the extent and character of its market, having priced it, branded and

packaged it, the next thing is to sell it. The sales promotional programme, naturally, should flow directly from the steps which have preceded it if the entire operation has been one of marketing. Indeed one is not quite sure whether the product determines the promotional programme or whether the promotional programme determines the character of the product—the two are so closely inter-related. There are various methods of Sales Promotion and the choice will depend on the kind of product to be marketed. There is direct consumer advertising *via* the newspapers, the cinema, the radio and in more advanced countries, television, or there are the methods of direct mailing, direct calls on consumers and direct sampling. In my particular field, promotional activity consists of direct mailing and personal calls due to the nature of the products and advertising as such is restricted to professional journals.

Every manufacturer will naturally, and legitimately, ask himself the question how much is he going to spend on promoting the sales of his product. There is the much talked of advertising to sales ratio which, in some organisations, has been made sacrosanct and is as unquestionable as a Papal Bull. This attitude to advertising and promotion is quite incorrect. Basically, advertising expenditure is determined by the target to be achieved. If you want a large number of people to buy your product then you must aim to reach them and to convince them of the advantages of your product and it is only when you have achieved this objec-

tive that you can regard advertising as having been successful. Good advertising by enlarging the market helps to a very great extent in lowering costs both to the manufacturer as well as to the consumer and it cannot be regarded as overhead expenditure.

You may well ask "What is good advertising?" The answer is very simple—That which sells the product. But, of course, in practical terms there would be a great deal of difference of opinion between one professional advertising man and another as to what kind of advertising will sell a product. I shall, therefore, restrict myself to the fundamentals. A good advertisement is one which clearly presents, to the public, the product and its advantages in a manner designed to create demand. If one's job is to pass advertising campaigns then one can only judge these by mentally putting oneself in the place of the people who are going to read it. The final verdict on advertising will be delivered in the market place where its effectiveness or otherwise will soon be evident. And at this stage advertising which does not sell must be ruthlessly ruled out.

There are two or three other methods of sales promotion which I will now deal with. The first is "consumer promotion". Here a direct appeal to buy is made to consumers by offering them either a price advantage or a gift. The object is to get people to your product and see for themselves how good it is. The second is known as "dealer promotion". Here the retailer is offered an incentive usually in the form of

a special discount. The object being to get your product into the retail outlets and to have it recommended by the dealer to his customers. Effective consumer or dealer promotion is only possible if it is short-lasting because otherwise it will lose its impact and become merely a price reduction. The commonest example of consumer promotion losing its impact is that of a shop-keeper who advertises a sale all round the year and ends up, very naturally, by not getting any extra business.

The other methods of sales promotion are product displays, points of sales aids and participating in exhibitions. The purpose of all these is to draw the attention of potential consumers to your product with the object of getting them to buy it.

TEST MARKETING

We have now reached the final stage before the launching of the product and it is important to know whether any of our decisions have been wrong. To find out mistakes and to assess the product and its promotion, it is test marketed. The product is launched in a small area known to be a good market for such products and the various aspects of it including advertising are subjected to the test of field performance under actual conditions. Today in India, very few companies resort to Test Marketing but it is a device which costs little and saves the manufacturer from mistakes, the consequences of which, in financial

terms, can often be very big. Test marketing also enables us to perfect our marketing strategy so that when the product is launched all over the country, we can be reasonably sure of success.

DISTRIBUTION

The next stage of marketing is making the product available to consumers. In other words we distribute it in our market.

The first method of distribution is the direct one whereby the manufacturer supplies his products directly to consumers either through the postal service or through his own shops. Mail order business and manufacturer's own stores are both examples of this.

The next method of distribution is one in which the manufacturer directly sells his product to the retailers who in turn sell it to consumers. In India, with its vast distances and communication problems, direct distribution to retailers is a difficult undertaking and entails considerable expenditure in terms of staff, depots and, most important, the manufacturers, at any given time, will have considerable capital tied up in the big stocks they must hold.

The commonest method of distributing goods is the indirect one. The manufacturer selects all over the territory a number of stockists or wholesalers who will distribute his product to retailers for a commission. This system of distribution has the advantage of lower costs. The manufacturer deals with only a limited

number of wholesalers to whom he sells his products for cash and who in turn make his product easily available to the retail outlets and, in some cases, supply the goods on credit. Thus the manufacturer quickly turns over his capital and makes a profit. At the same time the retailers have the advantage of easy availability and credit—two important factors in marketing.

There are, however, certain things to guard against in marketing ones products through stockists or wholesalers. Firstly, a stockist or wholesaler never knows how much stock he should have in his shop because he has no means, save intelligent guesswork, of determining how much he can sell. Here the manufacturer can assist him by his knowledge of the market and by keeping an accurate account of what the wholesaler buys from one month to the next. The manufacturer has also to help the wholesaler by having Salesmen who will periodically inspect his stocks and see that they are adequate, who will help him to sell his product to retailers and who will ensure that the wholesaler or stockist faithfully carries out the manufacturer's policies particularly in regard to the price and non-discrimination between one retailer and another. This last function of the Salesman is important because often a wholesaler or stockist, in his enthusiasm to sell, will end up by creating ill-will and dissatisfaction against the manufacturer.

The other method of indirect distribution is to appoint one distributor either for the whole country or

a very large portion of it and let him look after the physical distribution of goods.

The system of distribution we choose will be determined by the kind of products we have, the market we are aiming at, and finally by our financial and other resources.

In the field of marketing the distribution of goods is perhaps the most prosaic of all activities. It has not the glamour of advertising and promotion but it is nevertheless important because creation of demand without availability of the product only means loss of sale to the manufacturer. In India more so than anywhere else, efficient distribution by itself will often enlarge the size of the market. This is because of the transportation problems.

KEEPING AND ENLARGING THE MARKET

Successful marketing necessarily means that the manufacturer not only gets a share of the market but that he keeps it and that he enlarges it. This demands the continuous process of product development in the light of technological advance as well as the changing pattern of consumer tastes. Side by side with all these, the marketing strategy must undergo appropriate changes to ensure continuing consumer acceptance.

In free economy there are neither captive customers nor captive markets, but there is free competition for the available market and there is nothing better than free competition to provide an

incentive to the manufacturer to keep his product and his marketing strategy up-to-date. Free competition also ensures that the consumer always gets a square deal.

The broader part of product marketing is the image which the public has of the organisation which makes it. And in successful marketing it is of great importance to project the image of your organisation so that through it people come to accept the quality of your products and have confidence in your integrity. The image of a Company is projected by everything it does. The kind of Office it has, its Reception Room, the kind of people whom the customer meets and the kind of letters that go out from the company to its customers. Successful business enterprise must necessarily pay attention to these wider aspects of marketing.

To sum up, modern marketing concerns every single aspect of a business enterprise. Like modern war, it is a total operation and the price of success is constant vigilance. At every stage crucial decisions have to be made, decisions which will mean the difference between profit and loss—success and failure. And in spite of the advances in marketing techniques, no method has yet been found whereby the exercise of critical judgement has been done away with. Thus in the final analysis a product or a service, to the consumer, will only be as good as the people who market it.

PROBLEMS OF DECISION-MAKING

Dr. R. M. Shah*

Management is always faced with the problems of decision-making. In fact, what distinguishes a Manager from others is that he has to make decisions; and the future of an enterprise may well depend on how well he makes decisions. From the point of view of management as a whole, or of individual executives, attainment of an enterprise's objectives could be divided up into three stages :

- (i) Setting correct goals and sub-goals, or decision making;
- (ii) Goal acceptance, or acceptance of decisions made, and motivation for specific attainment;
- (iii) Goal realisation, or process of implementation, review and control.

Success of the last two aspects would in turn depend upon the quality of the decisions made. The success of the management in attaining the overall goals of the enterprise will therefore depend upon the quality of decision-making.

Let us review some of the aspects of decision-making so as to understand it better in the proper perspective and to put it to practical use in our daily working life. These aspects briefly are :—

* Dr. Shah is a management counsel.

- I. Characteristics of a good decision.
- II. Decision-Making process.
- III. Basis of Decision-Making.
- IV. Operations Research.
- V. Decision-Making "TOOLS" — Their Use and Limitations.
- VI. A Practical Methodology To Optimise Choice, involving (a) decision-making as a Co-operative Process; (b) Structuring Aspects Governing Decision-making; and (c) Process of Deducing Decisions.

We can summarise the characteristics of a good decision as follows :—

- (i) It should integrate long-term and short-term aspects of the goals.
- (ii) It should integrate the tangible and intangible aspects of the whole matter;
- (iii) It should integrate objective possibilities, as well as subjective factors, viz., capacities of individuals, viewpoints, motivations, acceptance, etc.
- (iv) Decisions should aim at best fulfilment of goals in terms of *actual realisation*; thus lowering the target to make it achievable, which is better than to have a high target and too little action, so that the practical results would be lower than otherwise.

- (v) It should integrate the following characteristics of good planning: (a) a clear and well-defined objective; (b) simplicity in execution; (c) clear analysis of requirements in action (in relation to time and place), and correlation with available resources and feasibility; (d) flexibility to cover unforeseen circumstances; (e) avoidance of over-planning; and (f) realism.

A plan without such prerequisites will involve; (a) irritating delays in realisation; (b) frequent piecemeal modification; (c) waste of effort and loss of zeal; and (d) practical results beyond possible identification with the original target.

- (vi) Decisions should be based upon best available facts and judgments. However, where adequate data is not available or would take time and effort which may not be possible, decisions have to be taken on the best judgment on probability basis, bearing in mind the planning tenets of alternative courses of action. Of particular importance in such a situation is the factor of flexibility to cover unforeseen circumstances, on account of the decision being based without adequate facts and data.
- (vii) In other words, a decision should structure within itself, the requisites of genuine planning, along with the aspects of quality of

organisation and men in relation to long-term and short-term goals.

- (viii) The process of implementation of the decisions should be periodically reviewed, and the decisions suitably adapted and/or revised. This fact should form a part of the original decision itself.

By way of illustration, we can see how short-term planning and its tardy execution, at social or Government levels, affects the common man every day. For example, for crowding of roads, transport congestion, etc. remedial action is initiated after the problem becomes acute. After that it takes a long time to discuss, and get agreed remedial solution, pass it through red tape for acceptance and then execution. By that time, the need has outstripped the remedy, thus exposing the public to perpetual stress. It would be obvious that if the problem is to be resolved to relieve stress in practice, we should integrate long-term aspects by aiming at getting to remedy the situation as it would take place somewhat after the execution is *likely to* take place. If such a view can be inculcated in the Government Administration, it could materially change our well-being, both economic and otherwise.

In Bombay, for instance, there are continuous repairs of roads, sometimes the same road almost every year. There is also a continuous pressure of traffic, aggravated due to road-building programme, accompanied by a public feeling that roads are repeatedly open-

ed for different work by different departments. A consolidated programme would go a long way to mitigate some of these difficulties. For example, a kind of coordination committee of different departments can be formed so that when any department opens a road, it can advise all the others within a certain time limit, and the other departments concerned would reply within a certain time limit about their interest in that programme. Also the repair of roads can be expedited by working two or three shifts with suitable ancillary facilities, cutting down time by 50% to 67%. Again, proper decisions about road repairs and control could save lakhs of rupees, besides the intangible loss due to a sense of dissatisfaction on the part of public, traffic congestions, wear and tear on vehicles, etc.

Another example is that of a hospital in a large city. Having spent large funds on the building and capital outlay, there are no adequate funds for medicines or day-to-day service or upkeep of the building. A good decision would have been to put a limit to the total funds, both capital and recurring, and to work out a plan which would reasonably provide for both.

Another illustration is that of our Public Sector steel plants. We have spent crores of rupees and taken foreign aid for these steel plants, but we do not seem to be getting out of a sense of crisis. An analysis of the Solveen Report on the Rourkela Plant shows that there is nothing in the situation that cannot be rectified

with a good system and good management by Indians. A good decision would have been to provide this at the best available level so as to raise the productivity of crores of rupees spent, with economic benefit as well as greater satisfaction to the country, and also the satisfaction and well being of those who have been associated with the project from foreign as well as Indian side.

Thus we see how good decisions can be taken on a systematic basis. In this context, corresponding to the general organisation set-ups, the decision making process also can be authoritarian or democratic. While no set-up can be purely authoritarian or purely democratic, they can be roughly placed somewhat in between these two extremes.

Contrary to general expectations, authoritarian administration may often be very efficient and have excellent morale too. But this would be so where by convention and practice, employees are, by and large, content to accept instructions or commands without undue questioning or criticism, and where commands are not unduly harsh in relation to expectations of the group members. A clear example of such cases is the army, where high morale is achieved among soldiers in spite of rigid discipline, and lack of individual considerations.

This would not however, hold good where the necessary conditions are satisfied, and in modern climate they tend to be less and less so satisfied. When this

is so, the operating staff who have no chances to reflect, voice their opinion, or get their viewpoints corrected, would not be really convinced about the desirability and feasibility of the operational programme, would feel it is not their own programme, and would even find *bona fide* difficulties, or worst still, would tend to find possible excuses.

In any case, this kind of authoritarian set-up would have the disadvantage that: (i) the people may not be sufficiently motivated; (ii) they are less likely to develop their optimum potentialities; and (iii) the co-ordination between men, sections, and initiative at lower levels will not adequately take place, except through continuous pressure from relatively higher levels.

In case of a democratic or consultative set-up, there are bound to be differences of opinions between members. And unless adequate care is taken, the different viewpoints taken by individuals from their individual vantage points tend to be loaded very much with feelings, personalised attitudes, and bias for or against one or the other of the propositions. In such cases, it can sometimes become very difficult to get an agreed decision, as it tends to involve self-respect, prestige or ego considerations of the individuals concerned, consciously or unconsciously, this is particularly so after a certain stage of discussion when firm opinions are expressed by them. And paradoxically this would be all the more so, where opinions are less objective and more subjective.

If the matter is set into a reasonably objective framework from the beginning, there will be less chances and scope for such a situation arising. In that case, from the beginning each individual would be led to consider matters from the point of view of facts, realities of the situation, and on objective judgment as far as possible. This would be so as hardly anybody could contest such basic tenets, and having agreed to them, the matters could proceed relatively smoothly on that basis. Besides, even where the difficulties would arise, they would be of limited nature, and the facts and judgements required to resolve the same would be very much more specific and tangible, thereby facilitating co-ordinated, agreed decisions. It is thus that the goals, and the means to attain the goals, can be optimised, and members' personal motivations geared to the common course of action, thereby maximising objective results as well as subjective satisfaction at the same time.

This can be illustrated by reference to the Indian context. We have lost much by controversies about linguistic states. If the objective rules had been first decided upon in general for India as a whole, exposed to public opinion in a democratic climate for agreement on *principles only*, then all people concerned would have had to come round to a reasonable objective framework. Subsequently application of such agreed principles to fix up details through impartial agencies, would have led to much less controversies than have

taken place, and which have very materially affected our national life.

As we have discussed earlier, decisions should be based upon best available facts and judgments, but where these are not available within the time limits of practical needs, we have to use judgments on probability basis. In this connection, it is of note that often for policy decisions, it is difficult to get accurate facts or data on which more precise judgments can be based.

It will thus be seen that the factors which are amenable to measurable basis as well as those which are not so amenable have, of necessity to be assessed on exercise of judgment on the best available data, estimates and surmises. The only justification for use of estimates or surmises can be, that they will be used only where more reliable information is not available, but some adjustment on that score is indicated, i.e., where lack of such adjustment would be worse than adjustment even on basis of estimates or surmises.

To the extent of using surmise, assessment and exercise of judgment, the deductions would lack finality. But an analysis based upon such estimates, as can be had, would provide a framework to bring into focus various factors bearing on the matter to facilitate overall judgment; or, where views differ on a particular matter, it would help focus issues for further discussion on a rational and cooperative basis. While settling issues, we should particularly keep in mind the princi-

ple, that when integration is needed between conflicting considerations, we should aim at optimising the overall objectives, long-term as well as short term.

A powerful tool for decision-making in complex situations is operations research. Operations Research can be said to be a continuous search for optimum decision-making in a complex set of circumstances where alternative courses of action are available. It may be broadly defined as an application of scientific methodology to industrial and business problems for scientific evaluation of alternative plans or courses of operations or actions, so as to enable the management to be in a position to make sounder decisions.

The problems to be analysed by application of Operations Research may be of varied kind, e.g., (a) programming of production, (b) assigning of capacities, (c) deciding product-mix, (d) predicting-performance of a new venture or a new line of production, (e) organising the work, (f) determining the areas of ineffectiveness which need improvement; and (g) working out optimum sales campaign, etc.

One of the approaches of Operation Research is to express the problem in a mathematical model which should satisfy certain requirements.

Operations Research thus guides decision-making, particularly in cases where all considerations can be reduced to mathematical terms in some way. However, even operations research cannot by itself decide matters which have tangible as well as intangible aspects to

be integrated. The basic technique we have discussed combines both, but in this the operations research can help to crystallise the tangible aspects of the matter with greater degree of precision and optimisation.

It is necessary, however, to distinguish between decision-making and methods, approaches or tools which help decision-making. Results yielded by a method or tool will depend also upon the correctness and the effectiveness with which the tool is used. Thus, faulty or erroneous data or assumptions are bound to lead to correspondingly erroneous conclusions; this is besides the need for broadest possible experience and imagination to be brought to bear in structuring data for use in decision-making and using any methods or "tools" in that process. The results thus finally depend, both upon the "tool" or "tools" as well as the "user of the tools", e.g., the executive or the manager or the decision-making group.

In the light of these considerations, we can arrive at a good methodology to develop optimum choice for available alternatives—optimum from the point of view of objective needs and subjective acceptance. This involves three different phases and aspects, as follows:

ASPECT I : *Decision-making as a Co-operative process* : We should develop the alternatives for choice as far as possible, as joint venture of a group who have or should have a major say in the matter—either due to *de jure* or *de facto* authority, or whose work and responsibility will be largely affected by decisions to be arrived at.

ASPECT II : *Structuring Aspects Governing Decision Making :*

- I. We should clearly lay down available facilities and restrictions;
- II. We should evolve tangible objectives in the light of existing set-up and ideas, facilities available, and restrictions unavoidable;
- III. We should list all possible factors—tangible and intangible—which will substantially affect or should affect the decision from all possible points of views in terms of the objectives, considering technological, technoeconomic, business, and managerial factors.
- IV. A very important point is that while selecting alternatives, we should give full freedom to imagination and not unduly restrain our thinking nor reject any alternatives hastily; on the other hand, while selecting the alternatives for implementation, we should be rather conservative and accept only those for which we have reasonable ground to believe about their feasibility.

ASPECT III : *Process of Deducing Decisions :*
First of all, we should eliminate the alternatives which are obviously impossible or impracticable, in view of the practical position and restrictions in the given set-up. In this it is important to bear in mind that often what is considered impossible or impracticable, may, by

application of careful considerations—applying logic as well as imagination—often be made practical; and it is sometimes these aspects that are likely to yield notable results in terms of final objectives. Therefore, we should be very cautious while eliminating alternatives as impracticable.

We should evaluate effects of as many items as possible for different alternatives, in terms of cost differentials, both capital and recurring—later to include interest and depreciation charges on capital cost differentials.

Other tangible factors which cannot be reduced to cost aspects, we must express in terms of other physical measures for different alternatives.

The remaining factors which cannot be so treated, we may grade on a four or five point scale for different alternatives.

Finally, we can prepare a table showing for all possible alternatives the indices of capital cost differentials, recurring cost differentials, measures of other tangible factors, and grades of remaining intangible factors.

This will reduce choice to very few options, if not point to a single best choice. In any case, it will facilitate exercise of rational judgment to the optimum; and also enable discussion of differences of opinion, on a specific and clear-cut basis.

This approach can be best illustrated by an actual example. For this purpose let us consider the choice

Factor	Whether they may affect capital or <i>recurring cost or have to be graded</i>		
1	Capital cost.	Recurring cost.	Grading.
	2	3	4
1. Land and its cost	yes	yes	—
2. Building construction cost	yes	yes	—
3. Capital equipment and its transport costs	yes	yes	—
4. Raw material availability and cost (including transport costs)	yes (if a transport fleet is envisaged)	yes	—
5. Marketing and distribution facilities and Cost			
6. Higher inventories (raw material and finished goods) due to transport or market			

11. Labour productivity—climate, physique and cultural milieu —effect on costs	—	yes	—
12. Taxes of all types	yes	yes	—
13. Climate—cost of climate conditioning for process	yes	yes	—
14. Legislation and Govern- ment attitude	—	—	yes
15. Proximity for liaison with Government authorities	—	—	yes
16. Proximity for liaison with Head Office	—	—	yes
17. Labour Union attitudes	—	—	yes
18. Proximity of ancillary indus- tries for sub-contracting faci-			

lities etc.	—	—	yes
19. Ready availability of scientific, technical or other advice in case of difficulties	—	—	yes
20. Educational facilities for employees' children	No	—	yes

of location of a new plant in relation to various pros and cons.

The factors affecting location of a factory will vary from unit to unit, depending both on technological process as well as other considerations. In connection with a general case, only a broad indication of factors is possible, but in specific cases, these may have to be supplemented, deleted, or modified.

The tabulated statement on pages 96 to 99 giving factors which may be relevant in choosing location for a new plant can be analysed as follows for arriving at a good decision :

- I. The factors which affect capital as well as recurring cost are :—

Sr. No. of
Table

1. Land and its cost.
2. Building construction costs.
3. Capital equipments and its transport costs.
6. Higher inventories (raw material and finished goods) due to transport or market bottlenecks.
13. Climate—cost of climate conditioning for process.

- II. Factors that affect recurring cost but not capital

—: are cost

Sr. No. of
Table

8. Fuel availability and costs.
 11. Labour productivity—climate, physique and cultural milieu— effect on costs.
 12. Taxes of all types.
- III. There are factors that affect recurring cost, and also affect capital cost, but only if certain specific facilities are to be provided. These are :—
4. Raw material availability cost (including transport costs)

Involved capital cost if transport fleet is envisaged.
 5. Marketing and distributing facilities and costs.
 7. Power availability and costs; involves capital cost if it needs putting up power house etc.
 9. Water of requisite quality—availability and costs; involves capital cost if it needs putting up tube wells, etc.
 10. Skilled labour availability and costs; capital cost if it involves putting up a training school.
 20. Educational facilities for employees' children; would not involve capital cost unless a school is envisaged.

IV. Factors that do not affect costs directly, but have an important bearing and have to be graded are :—

Sr. No. of
Table

14. Legislation and Government attitude.
15. Proximity for liaison with Government authorities.
16. Proximity for liaison with Head Office.
17. Labour and Union attitudes.
18. Proximity of ancillary industries for sub-contracting facilities, etc.
19. Ready availability of scientific, technical or other advice, in case of difficulties.

Some of the aspects show that capital costs will be involved if certain specific facilities are provided and that facilities which are not available can sometimes be provided with adjustment in relative costs. This illustrates our original point earlier, while discussing process of deducing decisions, that we have to be very careful in rejecting alternatives as impracticable or impossible.

Besides, there are some other interesting features about these factors, e.g.,

- (a) Labour and union aspects are the basis of three factors, viz. No. 10 (skilled labour availability and costs) No. 11 (labour productivity—climate, physique and cultural milieu) and No. 17 (labour and union attitudes) respecti-

- vely. However, the first two factors relate primarily to cost aspects, but not the last one.
- (b) There are two factors which relate to climate, viz., No. 11 (labour productivity—climate, physique and cultural milieu), and No. 13 (cost of climate conditioning for process), and both are amenable to cost. Indian industry does not normally pay adequate attention to these even though the second factor relates to quality of product and probably quantity of production as well; naturally, they pay much less attention to climatic conditions for employees.
 - (c) The assessment of cost effect on account of labour productivity (item 13) may have to be largely based on surmise. In this connection, the earlier observations on using estimates or surmises are relevant;
 - (d) In factor 18 (educational facilities), in reality, the problem for purposes of deciding location, will relate to children of executives, supervisory and clerical staff.

Based upon detailed methodology, we can finally prepare a table showing possible locations, v/s capital cost differentials, recurring cost differentials, measures of other tangible factors, and grades of intangible factors. The tabulated form indicating this is given below :

Sr. No.	Aspects	Alternatives					
		A	B	C	D	E	F
1.	Capital cost differentials						
2.	Recurring cost differentials including charges on capital outlay, e.g. depreciation, interest, etc.						
3.	Intangible factors not covered by above e.g.						
	(a) Facilities for future expansion from national point of view;						
	(b) Proximity of ancillary industries;						
	(c) Educational facilities for children of employees—particularly executives;						
	(d) Labour and Labour Union attitudes.						
	(e) etc.						

In an actual case of location survey for a new plant of large outlay, it was found that the decision could not be taken and the matter protracted because different people at policy level would point out to benefits of a particular location from different points of view, e.g. climate, facilities of education, availability of skilled labour, nearness of ancillary industries, nearness

to New Delhi for liaison with the Government, nearness to head office, etc. When an analysis was done on the above basis, it was found that some of the tentative locations selected would involve recurring cost differentials of the order of say 0.1% to 0.4% per year for one group, 0.7% to 1.0% for another group, 1.5% for the third, and 2.5% for the fourth. The other intangible factors were also graded. It was obvious that the choice should lie preferably within first two groups unless one is prepared to bear perpetually a burden of 1.5% to 2.5% of recurring cost, which may well amount to 15% to 20% of the profits. This factor, with other factors, immediately crystallised a decision.

It is evident that correct decision-making is a good guide for modern enterprises to play their role effectively. It can raise the productivity of men, machines and money several times, which in turn can materially raise our achievements in lesser time and with lesser money. What is more, it can help set common goals and gear men's motivations towards achieving them.

INDUSTRIAL RELATIONS IN INDIA

T. V. Lalvani*

Industrial Relations can be defined simply as relations of individuals in the industry, and the partners in industry are Labour and Management. Therefore, essentially it is a problem of human relations between one partner and the other. It is important that good relations should exist between the partners to achieve the aims and objects. Unless the rights and obligations of both the partners are properly defined and a sense of belonging created amongst the workers who contribute to the success of the industry, there can be no industrial peace and without industrial peace it is idle to talk of increasing production.

An analogy will make the position clear. Just a man, woman and some children thrown together in a house do not make a happy family, unless they are tied by the bonds of affinity and know their rights and obligations towards each other. The same also applies to the two partners in industry who have to work under a common roof to carry out the tasks assigned to them which could be done effectively only when each knows his rights and obligations.

In human society there are unwritten rights and obligations such as in the case of a family where each member follows an un-written code of rights and obli-

* Mr. Lalvani was till recently the Employee Relations Manager of Caltex (India) Ltd. At present he is a Labour Relations consultant.

gations and the conduct of each is moulded in a particular manner. The same happens in organised human society where also written and unwritten rights and obligations govern the social activities of the members.

In our country, there are three agencies which play dominant role in evolving and shaping industrial relations, viz., Industrial Legislation, Industrial Law and decisions of Tripartite bodies. The Government has also used these agencies to shape the labour policy in the country. It is necessary to have a background of the working of these three factors which, as it were, form the three pillars of industrial relations in India.

INDUSTRIAL LEGISLATION

In India, industrial legislation has made rapid strides especially after Independence and it can be said that the benefits of such legislation have penetrated every facet of life of the industrial worker. For instance:

(1) *Factories Act 1948* — Important features of this act are:—

- (i) Approval/Licencing/Registration of Factories—
- (ii) Health, Safety and Welfare which covers cleanliness, fencing of machinery, washing facilities, first aid, canteens etc.
- (iii) Working Hours—regulation of working hours, shifts, payment of overtime.

(iv) Employment of women/young persons.

(v) Leave with Wages

Similarly provisions are made in the Shops & Establishment Act and also Motor Transport Workers' Act to protect the workers working in shops and transport undertakings.

(2) *Payment of Wages Act 1936* — Industrial workers before the passing of this Act often suffered from the withholding of wages or delays in payment by the employer. The Royal Commission on Labour in 1931 recommended legislative regulations governing the payment of wages and hence the Act was passed in 1936. Currently it covers those whose wages are below Rs. 400/-.

Main provisions of this Act are—

1. Wage period is considered as one month.
2. Payments to be made within a definite date.
3. Only prescribed/permissible deductions to be made.
4. Procedure for imposing/collecting fines provided.

(3) *Social Security Legislations* — The legislative enactments under this series are—

(i) *Workmen's Compensation Act 1923*.

This is the first and most important social insurance legislation in India. The Act provides for payment of compensation for

accidents arising out of and in the course of employment resulting in the death or total/partial disability. Certain occupational diseases are also covered. The quantum of compensation is correlated to the worker's wages and nature of injury suffered by him.

(ii) *Employees' State Insurance Act 1948.*

The Act provides for the following benefits—

- (a) sickness benefit
- (b) maternity benefit
- (c) disablement benefit
- (d) dependent's benefit
- (e) medical benefit

This scheme is also contributory in nature wherein worker's contributions are correlated to his earnings.

(iii) *Employees' Provident Funds Act 1952 :—*

The object of the Act is to provide the worker at the time of retirement, or for his dependents in case of death, and lays down that contributions will be made to the Employees Provident Fund at the rate of $6\frac{1}{4}\%$ of total wages both by employees and employers.

(4) *Industrial Employment (Standing Orders) Act 1946 :—*

The Act is designed to require employers in industrial establishments to define conditions of

employment such as recruitment classification, holidays, leave, shift working, closure, layoff, termination, disciplinary action, redress of grievances etc.

(5) *Industrial Disputes Act 1947 :—*

Disputes or differences are bound to arise between workers and employers. Industrial Disputes Act serves as a mechanism to investigate and settle such differences either through conciliation machinery or judicial proceedings in a Labour Court, Industrial Tribunals and National Tribunals. Certain States have their own settlement machinery under State Acts.

(6) *Minimum Wages Act 1948 :—*

The Act provides for fixation of minimum wages in industries where sweated labour is most prevalent or where there is a big chance of exploitation of labour.

(7) *Indian Trade Unions Act 1926 :—*

The general scheme of the Act is that a Trade Union making the necessary application will, on compliance with certain stated conditions designed to ensure that the Union is a *bona fide* Trade Union and that the adequate safeguards are provided for the rights of its members, be entitled to registration. The unions and its members thereupon receive protection in certain cases from civil and criminal liability.

From the foregoing it is very clear that legislation protects the worker at the work premises from all possible contingencies that may be detrimental to his interests. The legislation is so comprehensive that it not only takes care of his health, safety, welfare, payments but also provides for compensation in case of accidents, provision for future, after retirement or ultimately death; means for resolving of disputes etc. The legislation, however, lays down the minimum rights and obligations of the employer and employee.

Industrial Law

Industrial Law takes industrial legislation a step further. The rights and obligations laid down in legislation are amplified and extended further and also adjustments are made in mutual relations of the partners through collective bargaining/conciliation/Tribunals/Court proceedings. The awards/decisions of Tribunals and Courts have established norms and principles in the matter of terms and conditions of service such as wages, dearness allowance, leave, retirement benefits etc. and have also defined the rights and obligations of each partner. For instance, in the Indian Iron and Steel Company case, the Supreme Court has laid down the principles as to when interference by the Tribunals in the matter of disciplinary action taken by employers will be justified. The Punjab National Bank Case settles the rights and obligations of the parties in the case of legal and illegal strikes, while in the case of ACC, the court has exhaustively dealt

with the LAT formula on Bonus and has amplified the principles governing the demands for Bonus.

Instances of such cases could be multiplied. It will be easily seen that the courts also play an important part in the field of industrial relations by not only interpreting legislation, but also in the process, defining the rights and obligations of the parties concerned.

Tripartite Conferences

The Third agency which also plays an important role in the field of Industrial Relations are the Tripartite Conferences. The Tripartite bodies not only deliberate on the problems arising out of industrial legislation as well as Industrial Law, but also help to bring the parties together to evolve ways and means of improving industrial relations as a whole.

Some of the important contributions made by the Indian Labour Conference and Standing Labour Committee are the Code of Discipline and Grievance Procedure. The inter-union Code of Conduct was also evolved to ensure harmonious relations between rival unions. The Code of discipline lays down certain principles to be observed by both parties for maintenance of discipline in industry. This has contributed in a large measure to the maintenance of industrial peace and improvement in labour relations. The Code also envisages an implementation machinery to see that the principles laid down therein are properly observed by the parties concerned.

Workers' Participation in Management

A scheme of workers' Participation in Management has been evolved and is being implemented in certain selected units and is designed to improve Labour/Management relations and thus help productivity. The workers' Education Scheme is another one to achieve the same object.

Industrial Truce

In view of the Emergency, an Industrial Truce Resolution has been passed at a Tripartite meeting to achieve maximum production and secure collaboration of management and workmen in all possible ways to promote the defence effort of the country.

Thus Industrial Relations in our country revolve round three important institutions, viz., Industrial legislation, Industrial Law and Tripartite Conferences. Again, it is interesting to note these three institutions are interdependent and functioning in cyclical fashion, which fact has escaped the notice of many experts in the Industrial Relations field. Industrial legislation does not emerge by itself like a rabbit out of a magician's hat. One or two examples will make this clear. In 1953 Government amended the Industrial Disputes Act to provide for compensation in case of retrenchment of workers. Subsequently the Supreme Court in the case of Barsi Light Railway and Pipraich Sugar Mills held that retrenchment connotes surplus labour and when the concern itself is closed, it cannot be said that there is discharge of surplus labour and as such no

retrenchment compensation will be payable in the case of closure.

The position arising out of this decision of the Supreme Court was considered by the Tripartite body and thereafter the Industrial Disputes Act was further amended to provide for compensation in case of closure also. Some other instances are also noteworthy.

1. *Amendment to Industrial Disputes Act :*

The various amendments in the I.D. Act such as Notice of change, Arbitration, National Tribunal, Definition of Workman, were also discussed in the Tripartite Conference.

2. *Motor Transport Workers'*

Legislation to regulate working conditions of Motor Transport Workers was discussed at the 17th Session of the Standing Labour Committee but no agreement could be reached in respect of hours of work, spread over, etc. and it was decided that a decision be taken by the Central Government. Later on, the Motor Transport Workers' Act was enacted by the Central Government.

3. *Raising of P. F. Contribution and Wage Limit from Rs. 500/1000 :*

The raising of P. F. contributions from $6\frac{1}{4}\%$ to 8% in respect of four industries which has been effected by the Government since January 1, 1963 as also the raising of wage limit from Rs. 500/- to Rs. 1,000/- was

also discussed previously at the 18th and 20th Sessions of the Standing Labour Committee.

4. *Bonus Commission*

The Bonus question was being decided according to the LAT formula as amplified by the Supreme Court. The formula however, could not bring about a lasting solution to the problem and at the 18th Session of the Standing Labour Committee it was agreed to set up a Bonus Commission to go into this question. The recommendations of the Commission may be considered further by the Tripartite body and Government may then undertake legislation.

From this it will be evident that an intimate knowledge of the three institutions mentioned is essential for any industrial Relations expert. His knowledge will be incomplete if he skips any one of these because each branch of this trinity projects into his mind the entire background without which things cannot be appreciated in the proper perspective. Besides, if the principles established by these institutions are followed in spirit by parties concerned, it should certainly pave the way for sound industrial relations and increase in productivity which is very essential at this critical juncture.

BETTER MANAGEMENT OF MATERIALS

S. P. Hatte*

Materials are inanimate and are devoid of interesting human attributes like attitudes, aspirations, behaviour and other psychological aspects. However, it offers a tremendous scope and challenge for managerial abilities. This subject is of particular interest to us today in the face of fast economic development and scarce resources.

Findings of some Special Committees and Study Teams bring out the immensity of the problem.

- (1) US-AID Team of specialists which visited our country in 1961 estimated that, out of a total outlay of Rs. 10,800 crores, Rs. 5,000 crores will be spent on materials and equipment during the Third Plan period. Out of this, Rs. 200 crores of foreign exchange could be saved in addition to more than Rs. 300 crores in terms of Materials cost if efficient Materials Management techniques are used.
- (2) British fuel experts under the Colombo Plan reported to the Planning Commission that about a lakh of tons of coal and 1.2 lakh tons

* Mr. Hatte is the O & M Department Manager of Voltas. This is the text of a talk delivered under the auspices of the Forum of Free Enterprise. Although this was not part of the series on "Towards Greater Production and Productivity", since the subject was in line with others in the series, it has been included in this pocketbook.

of furnace oil could be saved per year in India by introducing simple economy measures.

Japanese Industries brought down the cost component of Materials from 61% to 58% within a short span of 2 years by persistent and conscious efforts. If we examine the cost composition of Indian industries, we will find that Materials component of cost forms the biggest chunk of the sales rupee and is as high as 70-80% in certain industries.

According to the latest statistics published by the Reserve Bank of India, Rs. 1,300 crores were spent on Materials out of the total revenue of Rs. 2,370 crores by 1,001 public limited companies during the year 1960-61. This means that 55% of the revenue was spent on Materials, while only 16% was spent on salaries and wages, 21% towards taxation, depreciation, etc., the remaining 8% being gross profit.

Let us assume that we plan for a direct saving of 10% both in labour expenses as well as material expenses. A 10% reduction in labour, viz., 1.6 nP. in a rupee will give an increase of 20% in the profit at 8% profit margin, while the same 10% chopping off in the Materials cost will give us 5.5 nP. in the rupee or 70% increase in the gross profit. Every one per cent decrease in the labour cost will need tackling the manifold complexities of human nature and employing a number of techniques while the corresponding efforts on Materials will be more impersonal, fruitful and yield results in much shorter time.

Materials Management is that aspect of Industrial Management which is concerned with the activities involved in acquisition, possession and use of all materials and may include functions like purchasing, receiving, handling, warehousing, production control, inventory control, consumption control, packaging and traffic. Materials Management, unfortunately, is one of the least understood and attended activities in business today even in advanced countries. This concept has been developed only during the last decade or so.

To understand the concept of Materials Management, let us examine the Materials Cycle right from the receipt of blueprints and specifications to the despatch of finished products to customers. The main stages of this cycle may be reckoned as :

- (i) spotting sources of supply and acquisition;
- (ii) possession and inventory control;
- (iii) utilisation and shipping.

These stages are, in turn, composed of the following operations :

- (i) *Spotting Sources of Supply and Acquisition :*
 - (a) Exploring market and deciding whether to make or buy
 - (b) Preparing bill of materials
 - (c) Placing orders
 - (d) Following up.
- (ii) *Possession and Inventory Control*
 - (a) Receiving and Inspection of goods
 - (b) Warehousing and Record-keeping
 - (c) Inventory Control.

(iii) *Utilisation and Shipping :*

(a) Issuing and Handling

(b) Consumption Control

(c) Salvage

(d) Storage and Shipping of finished goods.

Since the responsibility of managing materials lies in the fact that the right type and quality of material is provided at right time and at optimum cost, it is imperative that the above operations are managed in the most efficient manner.

When we deal with material cost, it is usually, but mistakenly, understood as its buying price. Actually, the various operations involved in the material cycle, as mentioned earlier, add progressively to the cost of material, but not to its value and, therefore, the real cost of material is much higher than the buying price.

It will be observed that, if buying price is taken as Rs. 100/-, it progressively inflates to about Rs. 125/- to Rs. 135/- before material is available for use. Various components that contribute to this rise in cost are :

(i) Taxes and Insurance	.. 2 to 5%
(ii) Sourcing & Acquisition Cost	.. 1 to 2%
(iii) Packaging, Transportation & Handling	.. 7 to 10%
(iv) Possession Cost	.. 15 to 18%
Total	.. 25 to 35%

In the process of acquiring and possessing, material actually costs about 30% more than the buying price—which is usually not realised by industries. The root causes of this misconception are, firstly, an accounting practice wherein these costs are usually allocated to different heads and, secondly, an organisational practice to manage these functions independently and in piecemeal manner.

In the cost structure of Indian industries, it will be appreciated that the real cost of material is not 55% of the total revenue, but is actually 70% if the secondary costs of material are included. The realisation of this concept of real cost, which is about 30% more than the basic cost of the material, is a vital factor in the philosophy of Materials Management.

The process of acquiring and possessing material represents only half the story, the other half being its utilisation and disposal. Material Utilisation may be defined as efficient and economic use of materials of all kinds—those which form directly a part of finished products and those which are indirectly used for production and maintenance.

Let us now see what happens to the materials in the process of consumption. In any process, the output cannot be equal to input as there are bound to be some losses at various stages. Such losses in case of materials occur by way of :

	As percentage of quantity	As related to "real cost", i.e. 130.
(i) Deterioration, Pilferage, Handling Losses	2 – 3%	3 – 4
(ii) Obsolescence and Depreciation	8 – 10%	10 – 13
(iii) Various types of Scraps	20 – 25%	26 – 32
(iv) Avoidable Wastages	8 – 10%	10 – 13
(v) Unrecovered Salvage Value	8 – 10%	10 – 13
	46 – 58%	59 – 75

The figures on the left represent percentage losses quantitatively while those on right are their corresponding values in terms of real cost, i.e., increased by 30% to reflect acquisition and possession costs. It can easily be worked out that, if the losses can be controlled within the limits of lower figures, the utilisation will be 55% and, on the basis of higher limits, 42%. This clearly brings out the importance of control on use of materials as, by maintaining the losses within the lower limits of the range, the utilisation can be improved by about 13%.

The ranges of figures used by me in building the

general cost structure of acquisition and utilisation of materials are collected from different sources and personal experience to make a homogeneous picture and could best be taken as indicators. It will be a worthy contribution to the field of Materials Management if every enterprise works out its own set of figures.

Having got an idea of various cost elements and the factors affecting utilisation, one may wonder as to what can be done to reduce the cost and get a better return. Specialists in this field have made sporadic efforts to develop certain techniques as applied to individual aspects. The main areas so far tackled from the point of view of cost reduction are purchasing, inventory control, handling, packaging and transport, and operational personnel. Much, however, remains to be exploited in areas of distribution, consumption, scrap control and salvaging. Various areas and techniques to be applied may be summarised as :

Area	Techniques
Purchasing	(i) Value analysis (ii) "Make" or "buy" decision
Stock Levels	(i) Inventory Control (ii) Standardisation
Possession	(i) Improved store practices (ii) Upkeep of goods
Handling	(i) Mechanisation (ii) Proper layout

Consumption	(i) Waste control (ii) Setting up of standards (iii) Substitution (iv) Cost control
Salvage	(i) Salvage scheme (ii) Scrap control
Transport	(i) Economic mode of transport (ii) Economic packing materials & methods (iii) Linear Programming

Purchasing

Purchase organisations today have also become cost-conscious and have developed certain techniques with the help of which they try to reduce the cost of materials purchased. Two of these important techniques are "Value Analysis", and "Make or Buy Decision".

"Value Analysis" is defined in many ways, but for our purpose it is enough to describe it in simple terms. Value Analysis is a technique applied to define the particular function for which an item is purchased and then to determine any other way by which that function can be performed more economically. In other words, it is a scientific approach to determine the real worth of each item in terms of its functional utility and to attempt at achieving the same functional performance in a cheaper way. This involves a systematic

analysis of utility and cost of each item from the point of view of its function, design, specifications, etc.

To clarify this concept further, let us consider a simple case of an office Envelope. An envelope, from the value analysis point of view, is nothing but a wrapper to protect its contents. It is possible to have different sizes of envelopes made from different types of paper with varying costs. It is here that value analysis comes to our aid in deciding the right size of envelope having the right quality of paper with least cost.

Value analysis has great scope in the Indian conditions obtaining today. By an intelligent application of this tool, imports could be reduced, saving valuable foreign exchange. The prices of products could be made more competitive by reducing purchase cost of materials and using cheaper alternatives wherever possible.

The technique of "Make or Buy Decision" is adopted to determine whether a particular item should be made or purchased. Make or Buy problems arise from the fact that no company can economically afford to manufacture all items, components and products by itself. Various considerations enter into the process of deciding on "making or buying" such as estimated manufacturing costs versus purchase costs, availability of technical skill and capital resources as against the advantages of purchasing.

By tradition, most of the companies would like to make everything that they possibly can, but experts

feel that buying is better for certain ancillary items as prices are governed by competition and specialised manufacturers bring to bear all technical skill and mass production techniques to face competition in their field. While deciding on "making or buying", it must be kept in mind that the capital resources invested in the facilities to manufacture parts or components that can be purchased are denied to more profitable investments.

Stock Levels

The average business has about more than 30% of its working capital tied up in inventory. The most efficient utilisation of inventory is naturally very important as funds tied up in excessive inventories are denied to other profitable investments. At the same time, a company with higher inventory incurs higher cost in carrying stocks. It is, therefore, very important, particularly at the present juncture in India, when there is acute scarcity of finance, to exercise control on the inventories.

Inventory Control means a planned method of determining what to indent, when and how much to indent, and how much to stock so that procurement and hoarding costs are the lowest possible consistent with the availability of material. There are two aspects of this problem, viz., the cost of carrying inventory and the rolling of capital that is invested in stocks over

and over again, which is otherwise known as turnover ratio.

The cost of possession or carrying of inventory as established by authorities may vary from 15 to 20%, which takes into consideration the cost of storage, insurance, labour, obsolescence, depreciation and interest on capital. If sufficient attention is given to the aspects like better storage methods, reduced handling, better upkeep and maximum utilisation of space, this cost can be brought down to some extent.

There is no gainsaying the fact that, in general, Indian industries do not pay enough attention to inventory control, due to which huge amounts of money are locked up, resulting in poor turnover ratio. Calculations on the basis of Reserve Bank's figures show that the average turnover ratio for the Indian industries is of the order of 3.2. That is to say, money equivalent to about 4 months' sales is locked up in raw materials, works in progress and finished goods. Similar ratios in Western countries are of the order of 6 to 8, sometimes going as high as 12. It is estimated that the total money locked up in inventories in India in the private sector alone may be anything above Rs. 1,000 crores.

If it were possible to reduce our inventory levels from 4 months' equivalent of sales to just 3 months, i.e., if we try to raise the turnover ratio by only 1, about Rs. 250 crores of the national wealth would be released for more fruitful investment. Therefore, the

scope for increasing the turnover ratio and reducing the cost of carrying inventories is a very important field to which all managements should give prompt attention to end the present circumstances of financial stringency and strain on capital investment.

While inventory control will help to reduce the level of stocks of a particular item, standardisation of items aims at eliminating the item entirely. The main advantage of standardisation is the fewer number of items that need be purchased, stocked, accounted and controlled. A periodical review to weed out non-standard and obsolete items and to promote the incorporation of standard products and components will go a long way in reducing the cost of materials.

Possession

Improved stores practices contribute substantially towards reducing the "cost of carrying materials". A few of the important aspects which can yield considerable savings are mentioned below :

- i. The layout of the Stores is as important as the layout of an office or Works. The important considerations in having a good stores layout are maximum utilisation of space by storing vertically as high as possible, properly designing aisles, racks and the movements required to be made between the points of issue and storage. The fast-moving items should be stored in such

a way that they are stored near the issue point to reduce the labour requirements.

- ii. Maintenance of minimum records with proper design of forms and procedures so as to provide accurate and economic records of stores transactions.
- iii. Sufficient and suitable storage equipment taking into consideration the size, weight, volume and nature of materials to ensure their proper maintenance.
- iv. A good procedure to review the slow-moving items and weed out the obsolete and deteriorated articles.

Materials worth thousands of rupees are wasted imperceptibly because of inadequate attention to smaller but in no way unimportant factors such as corrosion, deterioration, pilferage and climatic conditions, the ill effects of which can be substantially reduced by instituting suitable protection measures.

Useful materials can turn into heaps of scrap if proper storage facilities, equipment and adequate care are not provided. The stores staff needs to be trained in the maintenance of different materials and articles, and to have the knowledge of the elements or factors that cause damage and deterioration to the different classes and types of materials.

While the machine castings, forgings, bearings, etc., require to be stored in dry places to protect them against rust and corrosion, in certain cases they have

to be even smeared with oil or grease. The other class of goods like rubber needs to be protected against hardening by ageing and adverse weather conditions.

Apart from the good security measures, provision of suitable equipment for particular type of goods act as deterrent to the attitude of pilferage. For example, costly non-ferrous metals such as silver, lead, copper, mercury, etc., require special storage and issuing arrangements. Articles handy for personal use and having a demand outside such as stationery, soap, small tools, will perhaps require special storage arrangement and better vigilance for issuing.

Handling

Material Handling is another important field where considerable economies can be effected. It is well known that, every time material is handled, it adds to its cost and not to the value and also that, on an average, more than 30% of wage bill is spent on material handling. On this basis, Indian industries are estimated spend about Rs. 200 crores annually for this activity. There are three important aspects of this problem.

First, it is necessary to shed out the usual misconception that mechanisation is the only way to reduce material handling cost. There is, in fact, tremendous scope for reducing handling cost by Method Study and right and judicious use of less costly equipment such as trolleys, hoists, wheel barrows, gravity chutes and roller conveyors. Secondly, materials handling and

plant layout are so intimately interconnected that a good layout can make all the difference in the price of the product. Unnecessary handling can be substantially eliminated by careful study and rearrangement of work places, storage areas, equipment and machines. Thirdly, absence of accurate handling costs at different stages makes it difficult to exercise any control as these costs usually get merged into manufacturing expenses. It is, therefore, necessary to undertake a general survey of company-wide handling activities and to establish stage-wise costs before embarking on a plan for reducing them. If we aim at reducing handling by 25%, Indian industries would get a relief of about Rs. 50 crores annually.

Consumption

A more fascinating avenue that offers good scope for economy is Waste Control. The study of materials waste is the kingpin of the problem of reducing materials costs. If we make keen observations in our working environments—be it office, factory or workshop—it will be easy to convince ourselves about the enormous waste going on unnoticed through innumerable instances like leaky bearings, idle running of equipment, heaps of scraps, costly paper used for scribbling, pencils and other stationery items half used or misused. It is unfortunate, however, that these do not attract Management's attention to the same extent as a few idle hours of workers do.

The problem of best utilisation of materials is the problem of curtailing and eliminating waste. Wastage of materials is the sin of industry today. Extravagance in the use on the one hand and waste on the other in both large and small concerns reflects indifference and ignorance of the Management and labour alike. To illustrate:

- (1) In an electric motor factory, the mixed turnings of copper and iron obtained by machining the rotor were just thrown away. A simple idea of magnetic separator was used to segregate iron and copper turnings. The sale of copper turnings yielded a saving of about Rs. 10,000/- per annum.
- (2) In a chemical factory manufacturing caustic soda, electrolytic cells were being flushed and salt brine was being drained. Flushing of cells and draining of brine was considered as a normal operation and no one thought of recovering this brine until it was suggested by a methods specialist that a pipe-line to convey this brine back to the feed tank could save brine worth about Rs. 30,000/- per annum.

Wastage takes place in many more ways such as :

- (i) Purchase of inferior materials at the sacrifice of quality.
- (ii) Excessive handling and wrong methods of use.
- (iii) Incomplete utilisation of life of materials.

- (iv) Improper attention to maintenance and repairs of equipments.
- (v) Negligence of wastage points like leaky bearings, taps and cocks, steam pipes and valves, etc.
- (vi) Uncontrolled running of machines.
- (vii) Absence of standards, etc.

Innumerable examples could be quoted on these. Absence of standards is the greatest single factor which contributes substantially to waste of materials. It is usually not realised that standards of consumption can also be specified for materials on the same lines as workload standards for labour performance.

In a quarry, where 8 dumpers were employed to transport stone, the fuel oil consumption of these machines was on an average about 2.6 gallons per hour per dumper. Studies showed that, apart from loss of fuel oil while fuel tanks were being filled manually and due to leaky fuel tanks, there was a definite loss due to bad performance of engines, fuel pump, idling of engine, etc. Maintenance on these was tightened up, losses due to leaky fuel tanks, spillages, etc. were eliminated by repairing tanks, providing hand-pumps, etc. Dumper drivers were instructed to switch off engine if a dumper was to remain stationary for more than 5 minutes. The consumption standard per dumper was laid at 2.2 gallons per hour on the basis of actual test after controls on other losses were introduced.

The result of this was a saving of nearly 12,000 gallons of fuel oil equivalent to about Rs. 30,000/- per annum.

Another technique of cost reduction is economic substitution of one material for another without affecting the quality. Substitution of gunny pieces or cotton rags in place of costly cotton waste for cleaning purposes saved Rs. 20,000/- per annum for a large company with a number of units.

Salvage

Salvage is one of the very important tools in recovering and reusing the material, thereby avoiding fresh purchase or consumption of material. However, it is found that very scant attention is paid to this aspect in most of the industries. If only an agency is created in the organisation to check up every old material before its disposal in terms of (i) whether it can be reclaimed or reused, (ii) it can serve the purpose of some other material which has to be purchased, and (iii) it can fetch a good price if sold to outside parties, a sizable saving can be effected in materials consumption.

Any amount of stress will not be enough to show the importance of the human factors in the effective utilisation of materials. It must be recognised that waste does not just occur by itself, but is caused. Therefore, by far the most important aspect which has to be tackled is that of human failures. Tremendous waste in different forms occurs in industries just be-

cause of the lack of interest and knowledge, carelessness and laziness of the employees, indifference and inabilities of the workers. Reorganisation of the attitude of the staff towards materials costs, therefore, is of paramount importance. The spirit of cost consciousness plays a great role in the cost reduction drive. Hence, it is for the consideration of the enlightened managements whether it would not help to start a campaign against waste by conducting training courses, by forming waste reduction committees, by exhibiting posters, and organising lectures. This is all the more necessary in our country where we come across illiterate workers, uneducated lower management, and untrained supervisors.

One of the main hurdles in tackling the materials problem is the traditional organisation pattern. By putting barriers of departmentalisation when a number of units are concerned with activities in the same field, we are creating local interests, dissipation of loyalties, increase in paper work resulting in waste of energies. Therefore, co-ordination of different activities concerned with materials is the nerve centre of the concept of Materials Management. This can be solved only if we change our thinking on organisation and adopt the concept of unified materials management function.

Transport

In a vast country like ours, with concentration of certain industries in certain zones, transport cost can

well decide the profit or loss of a company if it is not properly tackled. It is necessary to decide the most economic mode of transport, viz., sea, rail, road or air, for the incoming raw materials and the outgoing finished products. Its choice will depend on the nature of materials, and the location of the company with respect to others and the transport facilities available. In certain cases another aspect that has also to be considered is the economics of employing company's own transport or hiring it from outside.

The third important aspect that provides scope for considerable economy is the classification and packaging of materials to take advantage of the restrictive rules and regulations of public transport. A proper study of sizes of parcels, and proper selection of the mode between post, rail and road so as to take advantage of the minimum size stipulation consistent with cost, can bring about a substantial saving in transport cost.

The latest technique of linear programming provides a tool for working out the whole system on an optimum cost basis, which takes into consideration the capital invested in goods in transit as also different sources of or destinations of distribution points vis-a-vis the manufacturing units.

If any worthwhile economies have to be effected, it is the field of materials that provides the real scope. Placed as we are today under the peculiar circumstances of fast industrial development, stringent economy,

meagre balance of payments and national emergency, we are called upon to tighten our belts to save every rupee that is possible. Therefore, every rupee that we save on imported goods goes to serve the national cause by saving foreign exchange and every rupee that we save on indigenous material will help preserve the national resources for posterity. What Frank Gilbreth said 50 years ago is as true today as when he said it : "To be most profitable, activities must be planned and directed. It must be based on measurement and willingness to abide by it. Nothing will stand for a long time and continue to exist unless there is a real reason for its so doing. It may stand for a while because no one has changed it, but the day of comparison and struggle for survival will come and unless it can show logical reason for its existence, it must go."

TOWARDS GREATER PRODUCTION AND PRODUCTIVITY

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Executives, company directors, and businessmen who invest a few hours in reading this book will find themselves amply rewarded by the stimulus of practical ideas which they will get to improve production and productivity in their enterprises.

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