ROLE OF MANAGEMENT, TRAINING AND RESEARCH IN RAIL-ROAD OPERATIONS

By

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A B S T R A C T

Pakistan Railways have miserably failed to deliver the goods. They are no longer viable to cater for the growing transport needs of the country. Their passenger services have become uncomfortable and unpredictable too. Customers are reluctant to offer their goods for transport for fear of inordinate delays. These and many more apprehensions harbour the minds. It becomes all the more disturbing when the Railways of the Europe, Japan and our neighbour India on the contrary are known to have fully exploited the inbred qualities of the Railroad system by embarking on comparatively cheaper economical, pollution free and speedier speeds and have extricated their respective National economies from the present day energy and pollution crises.

The author has made an effort to analyse the ailments of the Pakistan Railways and has come to the conclusion that absence of the proper Management Charter of the system is largely to blame for all the apparent maladies. It is for this reason that in this paper an effort has been made to discuss management theories with their appropriate definitions and practices as evolved by the eminent scholars of the standing of Fayol. Their application to the requirements of railroad

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organizations has also been fully dwelt upon. Examples of the SNCF (French National Railways) have been propounded to assert that by practising the appropriate Management Science the Railroads have the go and gusto even to oust the most modern mode of transport viz Air services what to say of other surface modes. But since Management Science merits continuous research efforts and training of the personnel, these aspects too have been elaborately touched. In the larger interest of the nation, it has been advocated that the role of all modes of transport should be complementary to each other; there should be no competitive role/ spirit among them. Creation of an overall Transport Authority with two separate wings viz Highways and Railroads has, therefore, been appropriately suggested. It has been adequately brought home that no matter what material resources in infra-structure are ploughed or changes at the top level are affected these efforts are sure to falter without proper Management charter, research efforts and imparting of training.

If the stipulated for suggestions are put into effect in letter and spirit the Railroads can vouchsafe resuscitation of the National economy at phenomenal strides.

1. INTRODUCTION

Necessity or otherwise of management, with its nature and philosophy, has over the century been engaging serious attention not only of the semi, quasi and governmental agencies but also that of the autonomous bodies, private concerns, enterprises and industries, the world over. Little wonder the subject has remained the Core of long and heated discussions/debates in the business-school class rooms and enlightened forums. Paradoxically, however, management has not earned recognition even in those business concerns where it is defacto being practised. It is a travesty of reality that even good and top class managers have been ignoring the application of management; they consider themselves as an embodiment of management and boost to know all about without ever defining it explicitly.

There is yet another school of thought and those who profess it advocate little necessity for management. Certain Critics of modern management even go to the length of arguing that people could work together even in a much better way with more of personal satisfaction if there were no managers at all; and for that matter they outrightly discard

any necessity for defined theories, approaches, principles, functions and practices of management. Proudly they call this so called ideal group operation as a "Team" effort forgetting that even in the most rdimentary form of team play the individual players too have clear personal as well as group goals. Individual though, they are assigned certain positions and are required to follow certain game patterns, rules and guidlines; and all the same they allow some privil-edged one to call for them during the progress of game.

It follows, therefore, that it is essentially characteristic of every effective group effort, designed to attain the best group goals, that it adopts basic principles and procedures of management with due consideration for time, money and material appropirated and discomfort caused.

The analogy, as such, is that management is essential in all organised corporations and at all levels. To elucidate further: In the event of any difficulty or problem having cropped up in an enterprise the effective and intelligent management demands that right from a Corporate President, an Army General or a Shop foreman to the lowest rung, every one responsible for other's work, should regard himself as manager so as not to allow the affairs worsen further but, on the contary, to straighten them quicker and soon. Thus, basically the Managers, Executives, Administrators and Supervisors all stand in the same row of Managers with difference, however, in environments/levels in the same or various organizations/ enterprises irrespective of the scope of authority held or the field of activity viz Salesmanship, Engineering or financing or for that matter the nature of problems confronted/sorted

out. In other words whosoever, at any stage, establishes an authority, capable of deriving desired results by effective group endeavour, defacto undertakes/professes the very functions of a manager.

2. Necessity of Management Reforms on Pakistan Railways.

The stark revelation about Pakistan Railways, one of the biggest employers in the country, not practising the accepted management principles with consequent steady degeneration, came to the author when he had the privilege of working in the Sofre-rail Implementation Cell created in 1974. The Cell was charged with the job of implementing various recommendations, made by the renowned Consultants M/s. Sofrerail of French National Railways, for bringing about operational improvements on the Pakistan Railways. These were based on the study carried out by them in 1971, at the instance of Government of Pakistan and in collaboration with the World Bank.

The proposed reforms covered only various operational and technological fields of the Pakistan Railways without an iota of reference to Management aspect. The Consultants, however, did not leave the subject of formulating these reforms unbroached; they knew that objectives of operational improvements, entailing far reaching administrative-cum-management and substantial financial implications, could not otherwise be effectively viable. In their considered opinion, supported by current thinking in International bodies like U.N. and World Bank etc., the provision of capital and/or technology alone, without the quality and vigour of effective management, fails to bring about the desired development,

more so in developing countries like Pakistan. They had, therefore, providentially apprehended the upheaval of insurmountable difficulties in the execution of recommendations in various operational and technological fields.

As it is, and unfortunately too, the reasoning of the Consultants did not find favour with the Railway Administration on one count or the other due, most probably, to lack of clear cut awareness. No management study could, therefore, be entrusted to them with the result that for want of simultaneous management reforms the Administration is finding itself on the horns of dilema in carrying out the much delayed operational reforms. It is not surprising that declining trend continues to be registered in various productivity indices such as:

- Average daily mileage performed by all engines.
- Mileage performed by diesel electric engines employed on goods trains.
- Turn round time of freight wagons.

These retrogressions started appearing in 1965 and still continue despite induction of new and modern technologies in various fields of railway operations and working such as:

- Diesel Electric Traction.
- Electric Traction.
- Manufacture of modern all steel and all coil coaches.
- Strengthened Track structure using 100 lbs welded rails supported on pre-stressed concrete sleepers.
- Mechanisation of track maintenance.
- Modern Signalling involving track circuiting, power signalling, All-relay interlocking and Centralized Traffic Control.
- Mechanised Marshalling Yard.

The declining trends have been taken serious note of by the Planning Commission while formulating their 5th (1978-79)plan. In chapter 'Transport and Communication', under the caption past performance 1970-78, they observed that;

> " The performance of the Railways, particularly, with respect to freight traffic remained stagnant over the last decade. Inspite of about 20% increase in traction power, there was virtually no significant increase in traffic carried. The average daily mileage performed by all engines during 1974-75 though remained at the same level as in 1960-65, the mileage performed by goods diesel electric engines declined from 184 in 1955-60 and 153 in 1960-65 to 122 in 1974-75. The turn round time of freight wagons has increased from 8 to 15 days."

The author had recently the honour of presenting a paper namely "Prospects of High Speed Operations on Pakistan Railways" in the 23rd Annual Convention of the Institution of Engineers Pakistan held at Lahore on 10th March, 1980, during the discussion of which questions regarding the management issues were quite expectedly raised. Since the paper was aimed at covering only technological/operational aspects of the high speed operations on Pakistan Railways, the management aspect, a subject in itself, was left out on purpose except for a peripherial treatment and could not be dwelt upon in detail during the discussions.

Since the operational recommendations made by M/s. Sofrerail have gone by default for want of simultaneous Management study/reforms as visualized by them, the Author

the budget year 1961-62. The basic spirit of the separation Convention provided.

- that the government is entitled to a reasonable return on investment in the Railways,
- that the government is responsible for providing additional capital
- that foreign loans are repaid from the General Revenues,
- that the railways themselves finance their replacements and repay foreign loans obtained for rehabilitation programmes.

The Convention further stipulated that the Railways would pay to the General Revenues a fixed return of 4 percent on capital at charge, including investment on strategic lines, channelling the surpluses to railway funds and reserves. The Convention once again vindicated the principle that " It is detrimental to efficient working and business methods of a commercial enterprise to have financial control imposed by an outside agency rendering a clear-cut distinction between administrative control and financial control impossible". The ball had hardly rolled when on 22nd February, 1962, the Government of Pakistan, under the new constitution, transferred the Railways to East & West Pakistan Provinces or to an authority constituted under them with such conditions as the President of Pakistan might determine. Instead of the earstwhile Railway Board, duly constituted under the Central Government and invested with the management authority, powers and prerogatives now only a facade remained under West Pakistan Province. This

situation dragged on till 1973, when due to the break-up of single West Pakistan administrative unit, the Railways again became a Federal subject under the 1973 Constitution. A separate Railway Ministry was, therefore, set up at the centre in 1974 to manage the Railways. The Railway Board became a part of the Central Railway Ministry only to present a confounded situation of diarchy in administrative and managerial control, causing serious setback in the organizational realm and violating the very fundamental principle of clear-cut chain of command. These circumstances and scenario are yet other reasons which prompted the author to bring home its readers the importance and necessity of the proper management and training efforts necessary for economical, comfortable and speedy service to the vast clientale of a Railroad industry.

4. Management Fundamentals

4.1 General

Managing is probably the most important area of human activity, for it is the task of the manager to establish and maintain an internal environment in which people working together in groups can effectively and efficiently attain group goals. In other words, it is the manager who is charged with the responsibility of taking actions as enable individuals make best contributions towards group objectives. While maintaining emphasis on the creation of a clean and smooth internal environment in the enterprise as a whole or in a department of it, no manager can truly perform his task well for the achievement of desired goals unless he is fully alive to the

realities of external environment i.e. Policy regulations in accordance with the act of the Government or charter of objectives of the Board of Governors/ Trustees under which the enterprise is to be managed and run. Besides, the management has to be responsive to many elements of the ethical, social, economic as well as political and technical nature which too come under the purview of external environment. This paper will naturally be dilating extensively upon aspects of management under these two environments as far as rilroad industry is concerned with particular reference to that of Pakistan.

4.2 What is Management

Classically Management may simply be defined as the art of getting work done from the people by the people. The protagonists of this definition claim that proficiency of management depends on the accumulation of years of experience and the ability to make subtle, intuitive and unverbalised judgements. In their opinion such an art could never clearly be "reduced" to a science.

Under the impact of modern scientific and technological developments, these views may literally hold no longer good but one cannot but concede that acquisition of scientific knowledge, engineering skills, technical abilities or even vast material resources will be of little avail unless the quality of managing the organised groups permits effective coordination of all available resources. It hardly needs to be emphasized that modern civilization has increasingly become one of co-operative endeavour. Whether in business or governmental concerns, philanth-

ropic institutions, defence organizations or other forms of enterprise, the effectiveness with which people work together for the attainment of stipulated goals is largely determined by the ability and management skill of those who hold managerial positions.

4.3 Management an Art or Science.

Notwithstanding certain distinct compromises between exponents of Art & Science respectively claiming to own management, the controversy whether management is art or science still remains irreconciled. The compromises having universal acceptance by exponents of both schools of thought are as under;

- Art and Science instead of being mutually exclusive are complementary to each other. As science improves, so does art as has been the case in the physical/biological sciences. The physician without the knowledge of science becomes a witch doctor; but with science he is an artful doctor.
- There is nothing such as 'Scientific Management'. There is a good management or a bad one, the difference between the two being that of complacency. A good manager is fully alive to the right problems and proceeds to solve them soon they show face whereas the bad manager is usually unaware even of his objectives, let alone the problems.
- Nevertheless Science can, logically, help the management by rendering decision making process easy and eliminating uncertainty to a good extent. This version in modern times is termed as "Management Science" rather than "Scientific

"The Principles of Scientific Management" was published in 1911. Despite apparent intent to provide principles applicable to management, his main concern was for achieving efficiency of human beings and machines through time and motion study which has been referred to as the corner stone of scientific management. In developing his theory, Taylor pointed out that a new philosophy of management was involved; a philosophy under which management would take more responsibility for planning, supervision and for reducing the knowledge of labour and machine techniques to rules, laws and formulae, thereby "immensely" helping employees to work at lower cost to the employer and with higher returns to themselves. Taylor saw several new functions for managers such as:

- replacing rule of thumb methods causing scientific deterioration of each element of a man's job,
- Scientific selection and training of workmen,
- Co-operation of management and labour to accomplish work in accordance with 'scientific method;
- a more equal division of responsibility between managers and workers, the formers left with planning and organising work.

Taylor's contributions to the field of

management, however, proved to be a mixed package of blessings and misfortunes. His stresses on efficiency at the shop level and achievement through time and motion study, caused attention to be so completely drawn to the shop that for some time the study of economics management in effect became the study of shop management. This overlooked general and vital aspects especially in the United States and Great Britain.

4.4.3 Phenomenal Advancement.

The unhealthy over-enthusiasm for Taylorism overshadowed the monumental work done by a French scholar, Henri Fayol who promoted the cause of principles of general managements in France under title 'Administration Industrielle et Generale' as early as in 1916. This monograph, reprinted several times in France, was not rendered into English until 1929, when it was printed by the International Institute of Management at Geneva. No English translation was published in the United States until 1949. Fayol found that all activities of industrial undertaking could be divided into six groups as under:

- Technical (Production)
- Commercial (Buying, Selling and Exchange)
- Financial (Search for, and optimum use of capital)

- Security (Protection of property and persons)
- Accounting (including statistics)

And

- Managerial (Planning, Organisation, Command, Cordination and Control).

Pointing out that these activities exist in businesses of every kind and size, Fayol observed that the first five were so well-known that they hardly merited any elucidation. He, therefore, devoted himself to analyse the last and his observations can be grouped under the following three headings;

- Managerial qualities and training
- General principles of management
- Elements of Management.

Fayol distinguished principles from elements by using former for rules and guides and the latter for functions. A brief description of his observations under the above-stated headings is considered highly essential to illustrate the modern version of management field in its broader spectrum.

4.4.3.1 Managerial qualities and training

Fayol considered the managers to have the following qualities:

- Physical (Health, vigor, address).

- Mental (Ability to understand and learn, judgement of mental vigour and adaptability).
- Moral (Energy, firmness, willingness to accept responsibility, initiative, loyalty, tact, dignity).
- Educational (General acquintance with matters not belonging exclusively to the function performed).
- Technical (Peculiar to the function)

And

- Experience (Arising from the work proper).

As confirmed in more recent studies, Fayol, with foresight, observed that while the most important ability of a worker is technical one, the relative importance of managerial ability increases as one goes up the scalar chain, attaining the most important skill necessary for top-level executives.

4.4.3.2 General principles of Management

Observing the principles of management as flexible and not absolute, which must be used judiciously in changed conditions, Fayol with all the experience, laid down the following fourteen cadinal rules ;

- Division of work; managerial as well as technical.
- Authority and responsibility - Authority derived from charter of Management - Manager's position and personality

compounded of his intelligence, experience, moral worth and past services etc.

- Discipline - a mark of respect for agreement which is directed at achieving obedience, application, energy and the outward mark of respect. Discipline requires good superiors at all levels.
- Unity of Command. meaning that employees receiving orders from one supervisor only.
- Unity of Direction meaning each group of activities having the same objective must have one head and one plan. As distinguished from Unity of Command, it relates to the organization of the 'Body Corporate' rather than to personnel.
- Subordination of individual to general intest. This is self-explanatory. When the two are found to differ, management must reconcile them.
- Remuneration - This and methods of payment should be fair and afford maximum possible satisfaction to employees and employer.
- Centralization - meaning the extent to which authority is concentrated or dispersed. Individual circumstances will determine the degree that will give the best overall yield and results.

-	Scalar Chain	- meaning chain of supervisors from the higher to the lowest ranks. Although to be observed in earnest, it should be short-circuited when its rigid following is apprehended to be detrimental to the cause of enterprise.
-	Order	- meaning a place for everything (everyone) and everything (everyone) to be in its (his) place. This is essentially a principle of organization in the arrangement of things and people.
-	Equity	- Loyalty & devotion should be elicited from personnel by combining kindliness with justice while dealing with subordinates.
-	Stability of tenure	- Its dangers and costs in terms of both the cause and effect of bad management should be kept in view.
-	Initiative	- It is conceived of as thinking out and execution of plan. Managers have to " sacrifice personal vanity" in order to permit subordinates to exercise it.
-	Esprit de Corps.	- This is the principle "In union there lies the strength". Moreover this is an extension of the principle of unity of command emphasizing the need for team work and the importance of communications in achieving it.