February 2005



CORE BRIEF

For more cost-effective management of metro operating staff

Faced with the need to cut costs and generate a reasonable return on investment, transport firms - and metro operators in particular are looking for new management solutions. For operating staff, one of these is to restructure the various human resource-related functions from the organisation of training through to better staff management.

Introduction

Whilst justified under certain circumstances, the growing trend towards staff cuts seen in recent years can have a negative impact on the personnel as a whole. In the case of operations-related jobs, however, the problem is somewhat different as these functions are generally tailored by companies to suit their particular needs. Developments in technology and services along with the recruitment of highly-qualified labour are opening up new perspectives for companies in this field.

New technologies have transformed old networks and offered up new solutions: CCTV, remote control of equipment, the collection, centralised storage and processing of information, automated equipment for customers, outsourcing of certain services, and use of the most recent technologies, including full automation, have made it possible to reduce "in-house" means to a minimum and exploit market resources.

To an ever greater extent, operating staff are being called upon to perform duties other than ticket sales, operations control or customer care. This multi-functional approach, which involves direct or remote control of equipment as well as supervision of outsourced activities, is bringing about major changes.

Where human resources are concerned, of course, there are neither general rules nor optimal solutions. Only afterwards is it possible to talk in terms of positive outcomes or negative results.

However, new cost-cutting solutions should not be pursued to the detriment of service safety and quality.

State of the art

In order to implement new solutions, we need to turn to the job market and find partners who are willing and able to keep pace with technological developments. Making the most of staff involves organising services in a way that will increase system availability - in other words, by trying to modulate the opening and closing of halls, stations and even lines to match demand – and improve safety in the zones affected.

New resources, such as automatic ticket sales, CCTV, remote control of equipment, and information collection and transmission, have radically changed working methods and job specifications to the point where some staff have become surplus to requirements.

Trends

Modernisation

Rapid technological evolution is making equipment obsolete at a faster rate and forcing firms to remodel, replace and modernise. Staff may fear technological evolution when its development pace is high. Networks therefore need to explain to staff the nature and extent of the changes envisaged as well as how these will be implemented. This is particularly necessary in large companies owing to the social impact these changes have.

As a rule, companies endeavour to find solutions for staff who have become surplus to requirements following the abolition of their jobs. Extending the network or taking on extra activities on top of the core business (for example, parking/park+ride management, etc.) enable new jobs to be created.

Service outsourcing

Two types of service are outsourced to service providers outside the company:

In the case of relatively unsophisticated or **supplementary services**, a general trend is perceptible towards outsourcing and exploiting the potential of existing commercial networks.

However, staff cuts resulting from this externalisation of activities, the abolition of posts in less busy stations or during off-peak hours, and job conversion serve to heighten feelings of insecurity among customers. This perception is more subjective than real and can be attenuated by deploying mobile teams that cover more widespread areas and provide customers with a reassuring security presence.

Electronic payment methods and AVMs are increasingly commonplace throughout the public transport sector. User-friendliness, a multifunctional system, an end to the problem of giving change and lower risks during fare collection are major arguments in favour of extending automatic ticket sales.

In the case of **highly specialised services** for equipment maintenance, these generally take the form of maintenance contracts with the suppliers. Rapidly evolving technologies, black box systems, and maintenance systems based on on-site component replacement and repair, make executing such contracts easier.



a) Train crew

Full system automation frees up the driver from conventional duties and he/she can devote this time to other tasks. Moreover, progress in train visibility both at stations and in tunnels has dispensed with the need for second staff on board.

A reduction in driver duties and technical advances in automatic driving have made it possible to extend the traditional tasks of the driver into other areas such as assistance in the event of breakdown, fault diagnosis and repair. The driver's role increasingly involves monitoring equipment and passenger flow.

b) Sales staff

Ticket sales is an area that has changed dramatically. The use of existing sales networks and automatic sales (electronic cards, Internet) – encouraged by a raft of incentives – has allowed the number of station staff to be reduced and personnel re-deployed for other duties

The emergence of ticket vending machines (TVM) and external sales networks has led to a drop in counter sales and seen staff removed from their static counter positions and entrusted with additional functions such as customer service and information,



Athens

operational support, surveillance or CCTV monitoring of installations and equipment, alarm management, reporting on maintenance irregularities and the supervision of interventions by internal or external maintenance teams.

c) Station staff

Remote-control systems and CCTV mean that station staff are now able to control the range of equipment related to customer comfort, such as ventilation, escalators, lifts, TVMs, and access devices. Staff are being given responsibility for command-control signalling on sections of line via local control centres.

Operational aid, primarily in the event of an emergency when station staff intervene as front-line representatives of the operation control centre, and the control of tasks performed by external service companies, are important missions that emphasise the service side of transport.

d) Surveillance and security staff

The trend is towards outsourcing these services by placing them in the hands of outside service providers and global management of the means available. Deploying mobile security teams across the network as a whole has become a widespread practice.

e) Staff working in operation control centres (OCCs)

The traditional role of the OCC is to manage passenger flows, route control, train crew assistance, energy management, customer relations, CCTV surveillance of stations, and contacts with external agencies (e.g. the emergency services).

The nature of the duties performed by staff assigned to the OCC has changed with the introduction of new tools, which make it possible to verify equipment status more easily, along with automated systems (e.g. ATS), remote control systems, and CCTV.

The traditional boundaries between the various functions of a central control room, i.e. traffic management, route control, train crew assistance in the event of breakdown, energy management and customer liaison, are becoming increasingly blurred. The trend now is towards the concentration of duties.

Out of all operating staff, those assigned to the OCC are the closest to the actual core business of transport operator. This explains the absence of known examples of the main activities associated with a central control room being transferred to firms outside the operator.

Outsourcing dependency

Transport firms using external service providers run the risk of finding themselves in a situation of dependence vis-à-vis the outsourcing market. This dependence varies according to service type:

- a) "low-tech" services such as cleaning, security, and cash collection and transportation, and more technical services such as maintenance of rolling stock, signals, track, lifts, escalators, and so on. For these types of service, the company is able to negotiate contracts, seek better offers on the market, and change supplier as and when it sees fit. The dependency link may be broken at any time;
- b) **ultra-specialised services** that involve sophisticated equipment. The company's possibilities and choices are limited and the adoption of an internal solution is highly difficult owing to the absence of know-how. Here, the company depends more heavily on outside suppliers. A link of dependency of this kind is not easy to break.



Hong Kong



Londoi

Conclusions

Human resources are a major cost factor. As a result, companies are endeavouring to alter some of their traditional practices and make the most of new technologies so as to improve staff performance.

At present, an upward trend towards the outsourcing of non-specialised services like cleaning and station security can be seen – in this field, networks are also attempting to work with the police and fire brigades on training and joint practice drills.

It seems inevitable that the maintenance of equipment delivered by suppliers will be subcontracted and vehicle modernisation invested in to derive maximum benefits from new technologies. On the other hand, companies must retain control over services and operational safety.

As far as staff relations are concerned, a communication policy needs to be put in place that will keep staff fully informed about technology changes. In this way, staff will be less wary and their opposition less fierce. Furthermore, training remains the buzzword when it comes to increasing staff versatility and productivity.

Finally, networks that carry out regular surveys are able to measure customer satisfaction vis-à-vis service quality and also make staff a part of this.