

The 'Grey Box' Concept

1. Introduction

In the parlous financial state in which today's container carriers find themselves, it would have been thought that far greater efforts might have been made to cut operating costs, whilst simultaneously improving operating efficiency.

Some action is admittedly being taken within the alliance groupings towards reducing the number of service strings using specific trade routes, but even this is being done on a piecemeal basis, with many of the carriers having a paramount fear of the loss of market share.

Little attention seems to be afforded however to other operational aspects regarding improvement to their management, such as joint logistical services and common container pools.

Although the 'grey box' concept has been muted for the last 25 years, it has been practiced by relatively few of the major container carriers. Whilst much of this reluctance to have a 'common' asset stems from the perception of a loss of the carriers' market image and the fact that the price of general purpose containers has been relatively cheap, there is also a view that the participants in such a venture, might 'lose control' of the individual service standards which would affect their customer retention. The cost benefits of such an operation have until now seemed of lower importance than the 'brand name' and the 'inconvenient' fact that nearly 50% of the world's container fleet belong to the leasing companies with their individual logos seems to have been entirely overlooked.

The 'grey box' concept, where it has been professionally introduced, has together with common logistical services, produced 15 to 20% reductions in container management and hinterland operational costs. The concept itself will achieve its maximum benefit with carriers engaged in consortia or alliance workings, but it would be almost as effective with the major independent corporations which operate a number of separate trade route profit centres.

Cost savings are achievable, but to be fully maximised, they must be accompanied by 'cultural acceptance' and considerably greater internal discipline within the companies concerned.

2. Areas of Cost Saving

In the main, experience would suggest that the greatest cost savings are to be found in the following areas of direct expenditure:

- overall container fleet reduction of both owned and leased units, particularly in the field of specialised equipment
- reductions in repositioning movements of equipment on a global, regional and intra-area basis
- lower overall M and R expenditure

- improved logistical operations in terms of reduced 'dead-heading', triangulation and vehicle scheduling
- reduced incidence of container yards and 'off-dock' storage areas
- lower staff overheads etc

There are also consequential cost savings through improved forecasting techniques (both supply and demand) and reductions in 'abortive' service movements.

Although there are direct cost savings to be made in both communication and system costs, these are to a greater extent 'off set' by the requirement to introduce new and separate 'grey box' IT solutions.

3. Initial Research Evaluation

To achieve the required benefits of the 'grey box' concept it will be necessary for the consortia or alliance members, or separate section in the case of an independent operator, to establish a joint project team.

The prime focus for such a team will be to analyse the trade route services of each member carrier or individual trade division, their mode of operation and the costs currently being incurred.

The data required is likely to cover at least the following elements:

- quarterly equipment volumes and costs/trade route/container type
 - the above information should differentiate loaded/empty units in both the inbound and outbound direction on a port pair basis
 - area distribution patterns/exports and imports/trade route
 - average percentage of carrier/merchant and merchant induced haulage/area/trade route
- average overall container fleet size/unit type/age for both owned and leased equipment
- average per diem costs of owned/leased equipment
- average M & R costs/unit type/area
- annual repositioning expenditure/unit type/ analysed by
 - global (inter-regional)
 - regional (intra-regional)
 - local (intra-area)
 - on a trade route basis
- standard/actual container dwell times/unit type/trade route and the key area nodal points involved
- standard port pair times/trade route
- average annual number of container 'write offs'

- annual insurance costs

So far as hinterland logistics and feeder services are concerned, each carrier/trade division should supply details of all contractual arrangements and the services to which they are committed.

Other information should be made available to the project team, which shall include details of:

- related IT systems and communications
- existing forecasting procedures and advance 'windows' of prediction
- overview of CSC/ACEP procedures
- details of existing contribution analysis systems and procedures for updating standard costs

Once the project team has evaluated the data provided (and inevitably there will be large gaps in the information and it will certainly be of a variable standard) it will be necessary to develop a computer model of the existing operational patterns and the overall costs involved. This then forms the base upon which projected service schedules and their costs can be evaluated.

Optimal modelling techniques can then test the size of the 'grey box' fleet for different traffic volume forecasts of the intended service patterns of each trade route. The future potential cost savings can then be presented to the companies involved and decisions made as to the viability of the project. Experience would suggest that the groups and companies which have opted to follow this route have not been disappointed with the cost savings that have materialised.

4. Mode of Operation for the 'Grey Box' concept

As previously implied, the most successful 'grey box' schemes are those which have the full support of the participating company's senior management and this must be established from the outset of the project.

In practical terms, each participating carrier's existing container fleet is merged into a common 'container pool' and in theory the equipment is painted 'grey' – hence the derivation of the project name.

Thereafter, as a container is required by each of the carriers/trade division, the units are 'on-hired' from the common equipment pool. At the end of the journey, once the box is 'stripped,' the empty container is 'off-hired' at a common container yard/deport, to there await the next call for its services. The concept is very similar to that successfully practiced by the industry's leasing companies.

Each trade department is only charged by the 'pool operating company' for the container they actually use.

The tariff of charges therefore cover the following:

- amalgamated per diem fee from the date of 'pick up' to the time of 'drop off'
- depot handling charges

- 'pick up' charge (credit or debit)
- 'drop off' charge (credit or debit)
- cost for container repair in the event of the unit being returned in a damaged condition

It will be appreciated that the amalgamated pier-diem fee will include the following:

- depreciation/leasing charges (total costs/days in use)
- system/communications
- insurance
- 'pool' administration
- unrecovered M & R expenditure
- allowance for surplus equipment (difference between a trade divisions forecast and actual container utilization)

The 'depot handling' charges will reflect the actual lifting costs and the storage expenditure occurred at each location.

The 'pick up' and 'drop off' charges would take into account the overall equipment repositioning costs for the locations concerned. This 'Kobe' factor may take the form of either a 'credit or 'debit' depending on the areas collective trade imbalances.

The concept of 'charging' each carrier's trade route in this manner more clearly focuses their management on the accuracy of their forecasting techniques and provides greater transparency for their revenue management and contribution analysis systems.

Although the 'grey box' common pooling concept should be established as a stand-alone profit centre, it is in reality 'owned' by its stakeholders, ie the participating carriers. Any 'profits' which might accrue are therefore returned to the carriers and distributed to their trade divisions as they see fit.

For even greater savings to be achieved, then the hinterland logistical service function in each region/area should be similarly 'outsourced' to the 'container pool' organisation. They will therefore be responsible for the intermodal operations which would ideally also cover the 'hub and spoke' feeder activities.

5. Summary and Conclusions

The 'grey box' concept and the operation of a common hinterland logistical function have been in operation for over 25years. Those companies which have participated in such a scheme, either through the medium of consortia or alliance agreements or as large independent carriers, have sampled at first hand the operational savings which can be achieved. They have also found that such an 'outsourced' functions has allowed the trade to be more focused on their marketing and commercial activities and this has manifest itself in improved 'customer retention'.

New comers to the 'grey box' concept should be aware however, that there are no 'short cuts' and in consequence, a detailed analysis must be undertaken of the existing operational process of each participant carrier/trade division. The concept, if it is to be developed and progressed, must have the support of the group's senior managers and thereafter the participation of all players, whatever their position within the organisation.

Although 'guarantees', especially in falling market conditions should be treated with caution, experience would suggest that the operational savings of at least 15 to 20% can be achieved. Potential reduction of costs of this magnitude must surely warrant further examination of the 'grey box' concept.

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