

## 4 Operator Models

### 4.1 Preliminary remarks

Transportation companies that decide for an electronic ticketing system are faced with complex technical and financial challenges. These can not always be mastered with conventional financial and organizational structures.

A potential solution lies in financial and operator models as a joint partnership of private and public enterprises (PPP) with private business sector contractual commitment.

Tight budgets and the simultaneously increasing system complexity make relatively large operator structures, with corresponding transaction volumes, seem the only sensible option. Although smaller operator models are conceivable, the difficulty of mastering the future complexity of the system cannot be neglected.

The general conditions for future state subsidization of sales and marketing systems depend on the budgetary situation in the respective German state.

Government funding is already subject to strict guidelines and is typically project-specific; the amount of subsidization depends on the corresponding benefit for the customer.

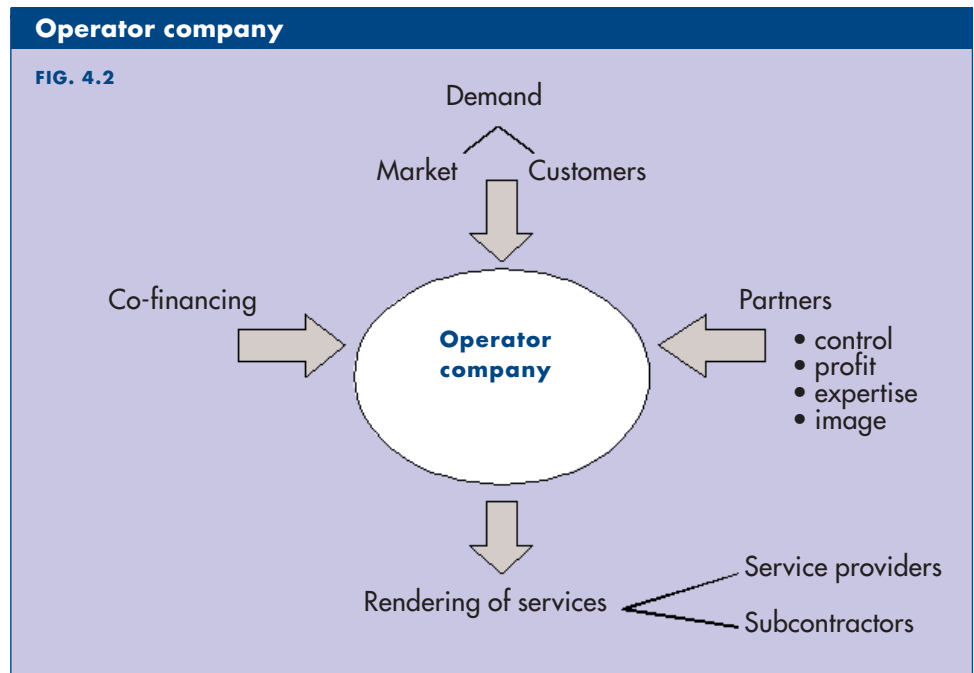
In the following chapter, the Recommendations for Action examine the range of characteristics of an operator company.

### 4.2 The term “operator company”

Operator companies are legally independent companies. They are commissioned to render services by public (city, community, county, municipal transportation companies) and/or private contract awarders. They can independently generate their services and/or perform them through contractual agreements with subcontractors. A contractual relationship exists between the contract awarders and the operator company.

If sales and distribution systems are publicly subsidized, they are usually subject to conditions of funding. If an operator company assumes responsibility for these systems, the conditions of funding must still be observed and taken into account in the company's profitability considerations.

If the operator company is the owner of the sales and distribution infrastructure, protection of investment for existing sales devices is a key issue. Usage in a certain region or for a certain purpose secures previous investments.



One objective of an operator company is to ensure profitable business management.

Other objectives may include:

- mastering complex systems
- consideration of interregional aspects
- pooling of contract partners' expertise and resources into a joint venture

The purpose, task, and allocation of responsibilities must be clearly defined and form the basis for a business case. The profitability of the operator company in the upcoming years can be derived from the business case. The involvement of private partners necessitates a profit-oriented business strategy.

Financers and system operators often found a joint company. Such a partnership is by no means mandatory, if the need for financing or services can be met through contracts with third parties.

The founding of an operator company with complex structures, legal and financial forms is associated with high initial expenditures. The high expenditures for the sales and distribution infrastructure and its background system appear to be justified only above an investment volume of approx. € 50 million.

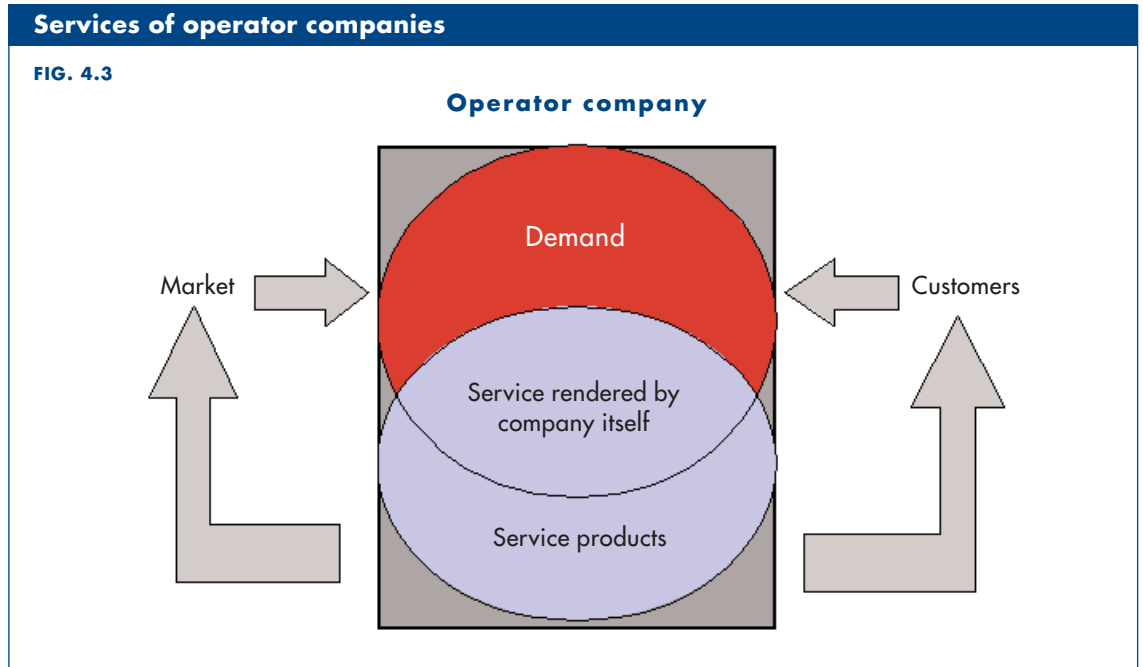
### 4.3 Services of operator companies

The organizational structures and processes of the operator company depend on the initial situation and the objectives.

In principle, operator companies can provide the entire range of services in an electronic ticketing system (Step 3 of the VDV core application). But operator companies with a limited palette of services are also conceivable.

In defining the services that the company should provide, the following chain of events should be followed:

- Market analysis to determine concrete demand
- Selection of services to be rendered by the company itself
- Definition of service level agreements
- Selection of service providers
- Configuration of the service portfolio



Expanding an operator company's product or service portfolio generally has the effect of creating new demand in the market and from the customer.

#### 4.3.1 Services within the framework of electronic ticketing

In the context of electronic ticketing, the company's services may include:

##### Assets

- Sales and distribution system components
- IT structures (networks, hardware, software)
- Communications technology
- Cards

##### Sales/service

Data processing services:

- Systems management
- Quality management
- Monitoring
- Clearing
- Customer service (contract awarder)
- Data consulting services
- Security of stored data against unauthorized access

Hardware-related services

- Maintenance
- Standard operation
- Services

- Logistics of consumable goods
- Repairs

**Planning, purchasing, coordination of the operating system  
Transaction management**

- Service accounts and management
- Sales of services to specialist customers on behalf of the transportation company or the responsible agent
- Clearing on behalf of the transportation company or the responsible agent
- Transaction processing
- Management information system
- Provision of information (route earnings summaries, reports, fare data simulations) to responsible agents, transportation companies, etc.

**Card management**

- Management of black lists/white lists
- Card logistics
- Personalization
- Management of card applications and issuers
- Key management
- Card issuance

**Acquisition and sales & distribution**

- Added-value services – acquisition (event organizer)
- New customer acquisition (passengers/end users) on behalf of responsible agents, transportation companies, etc.

**Customer Care Center**

- Service center (call center) for central processing of customers’ or end users’ questions

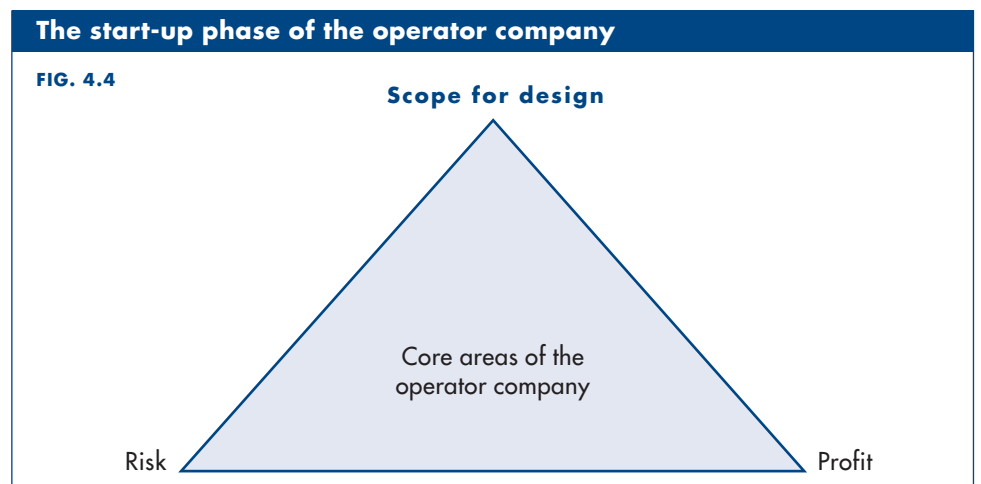
**Marketing**

- Product design
- Customer retention management (correspondence with customers, advertising, information)

**4.4 The start-up phase of the operator company**

In addition to deciding on the company’s services, other issues must be clarified:

- What underlying framework must be created for the partners?
- How much latitude in design is there as a result?



Other key issues have already been addressed in the conceptual formulation in Chapter 2.

The extreme cases of net added value are:

- no own net added value (management society)
- high degree of own added value (sales & distribution company)

A detailed cost-benefit analysis is essential for the (potential) partners of an operator company.

#### **4.5 Underlying conditions**

Tax law, company law, and public law are especially important for an operator company in public transportation.

As partners in the operator company, communities and municipal companies are subject to the provisions of the respective municipal code. The municipal code of the German state of North Rhine-Westphalia (Art. 108 GO NW, Gemeindeordnung Nordrhein-Westfalen), for instance, specifies among other things that communities/municipal companies may only found or participate in private-law entities if the community's liability is limited, they maintain a reasonable amount of influence (especially in a supervisory body), the entity or the business purpose is oriented toward public interests, and an annual account and company report are issued and audited according to the provisions of the Third Book of the German Commercial Code (HGB, Handelsgesetzbuch). Hence the municipal supervisory authority, in most cases the district president, must be involved.

In founding the company, German antitrust law is to be observed accordingly. It is recommended to involve the antitrust authorities (e.g. the State Cartel Office) early on in the process and to present and coordinate the operator model with them. Obtaining a declaration of no objection from the Cartel Office may be helpful, depending on the situation.

A conflict of interest, especially between the interests of a private partner of an operator company and the requirements of public transportation, should be avoided through appropriate contractual form.

#### **4.6 Customers**

Conceivable customers for an operator company are:

- responsible agents
- transportation companies
- integrated transportation networks
- ad-hoc associations

As a direct user of public transportation, the "passenger" is not considered a customer from the operator company's point of view.

#### **4.7 Motivation**

A transportation company/integrated transportation network may have a range of motives for founding an operator company.

- Strong cost pressure
- Concentrating on the core business
- Political pressure to use modern technologies
- Synergistic effects

- Achievement of critical mass for using certain technologies
- Complexity of novel systems
- Transportation policy specifications
- Requirements and needs of passengers
- Minimization of economic, strategic, and technological risks
- Pooling of industry and process expertise (unique selling point)

**4.8 Potential partners**

Partners in an operator company can be:

- industrial companies
- transportation companies
- integrated transportation networks/ad-hoc associations
- credit services sector
- venture capitalists

**4.9 Partner structures**

The legal business form of the company should be the GmbH (Gesellschaft mit beschränkter Haftung, German limited liability company) or the AG (Aktien-gesellschaft, German joint-stock company). In choosing the legal business form or structure, balance must be maintained between dynamics and openness to innovation, on the one hand, and the need for security, especially for public financing, on the other.

**4.9.1 Joint venture**

If several small companies would like to participate in an operator company, one possibility is for them to pool their interests into an affiliated company or joint venture. The operator company’s capacity to act is nonetheless maintained.

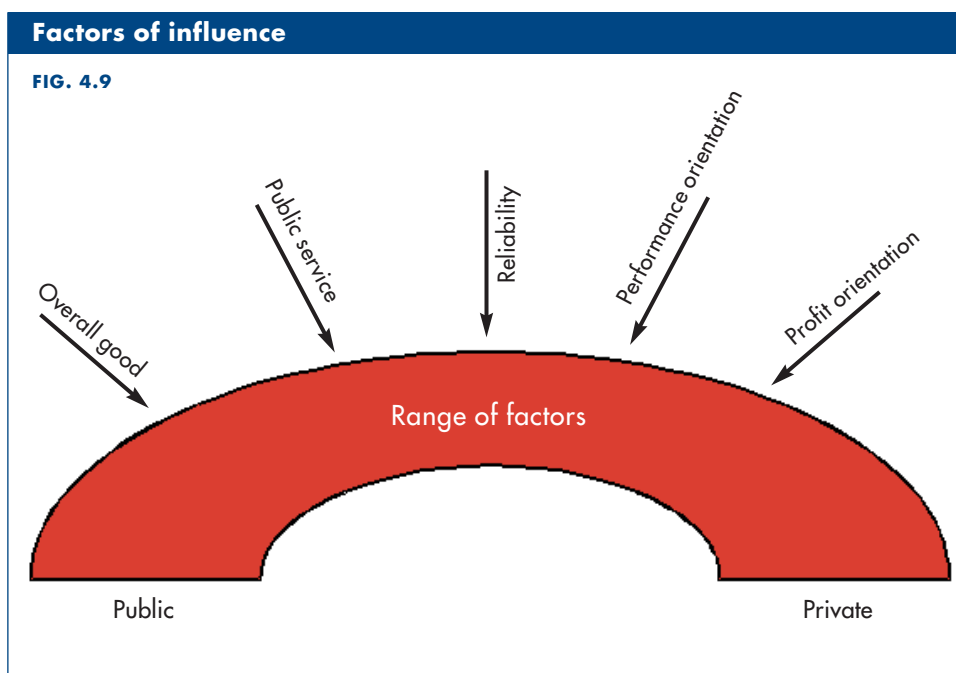
**4.9.2 Evaluation of partners**

In assessing partners, it is important to take into consideration whether orders

from participating transportation companies awarded to the operator company are subject to legal stipulations governing public contract awards.

The following criteria should generally be observed in deciding on the inclusion and suitability of potential partners:

- Technological competence
- Issues related to tax law
- Legal stipulations
- Economic situation
- Mentality, flexibility of the partners
- Cultural differences



The success of the operator company lies in the pooling of knowledge, in financial strength, and in the balance of cultural differences.

#### **4.10 The partnership agreement**

In the start-up phase, companies from the private and public sectors enter into a partnership agreement that ensures the joint balance of interests.

In this process, the different motivations for founding an operator company are analyzed; in particular, the key areas of market, customers, and demand are evaluated.

#### **4.11 Financing the company**

The financing of an operator company can take place through

- private funding
- funding through existing structures of the municipal partners (e.g. municipal loans, etc)
- funding through tax-optimized models (taking advantage of tax advantages in the international market)
- funding through a silent partner with venture capital
- leasing (Caution! Leasing is the most expensive form of financing)

To use the tax-optimized models, a financing volume of approx. € 50 million is necessary. The operator company must be able to cover its costs through earnings.

These may include:

- commissions (x% of turnover)
- fixed prices (e.g. for each card issued or each transaction)
- mixed forms of fixed prices/commissions
- revenues from added value services
- flat fee for the overall operation of a ticketing system