

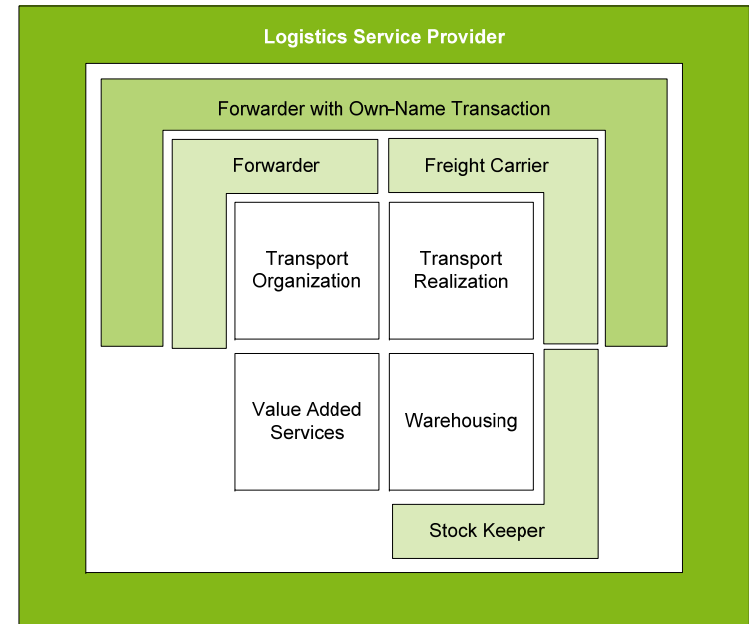
Performance Measurement for Logistics Service Providers

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- Market for Logistics Service Providers (LSP)
 - Definition and History
 - Figures
 - Controlling for Logistics Service Providers
 - Performance Indicators and Performance Measurement Systems (PMS)
 - Development of Performance Measures and a Performance Measurement System
 - Conclusion and Next Steps

- LSP's developed from forwarding agencies
- LSP's enlarge their product portfolio by value added services e.g. warehousing, packaging, kitting etc.
- Market for road transport in Germany was regulated until 1993

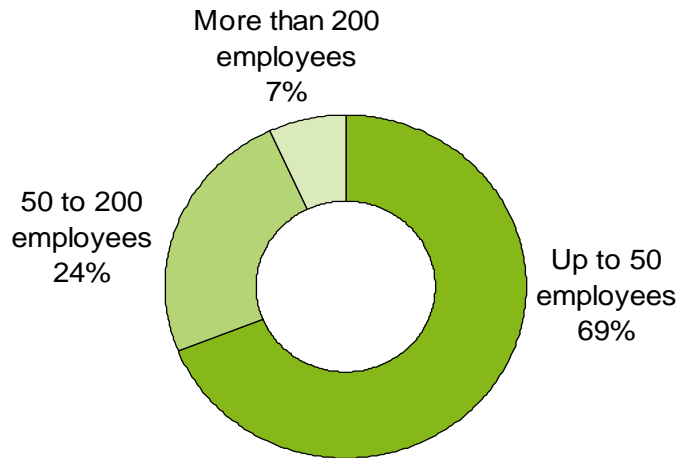


- Concession
- Quotation
- Fixed Tariffs



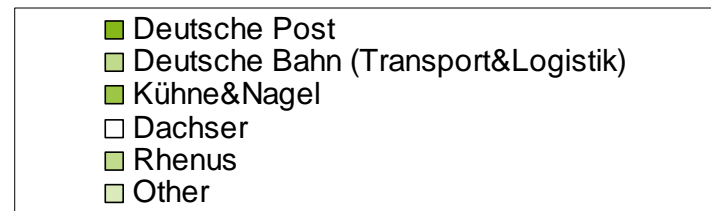
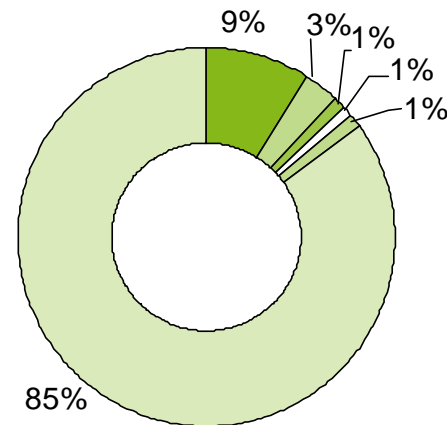
- Fragmented market
- Marginal enterprises
- Low competition and low innovation
- Artificial high prices
- Calculation of tariffs instead of cost-performance ratio

Company Size by Number of Employees



Source: DSLV 2005

Shares of Turnover of the Biggest Logistics Service Providers



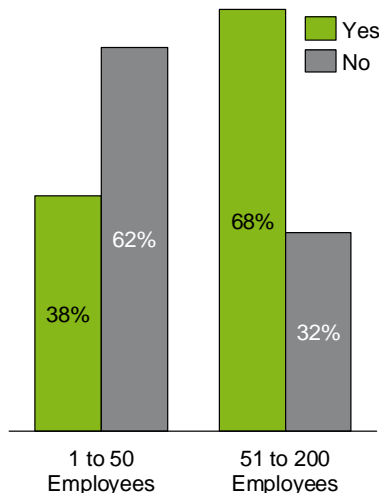
Source: TOP 100 der Logistik, 2008



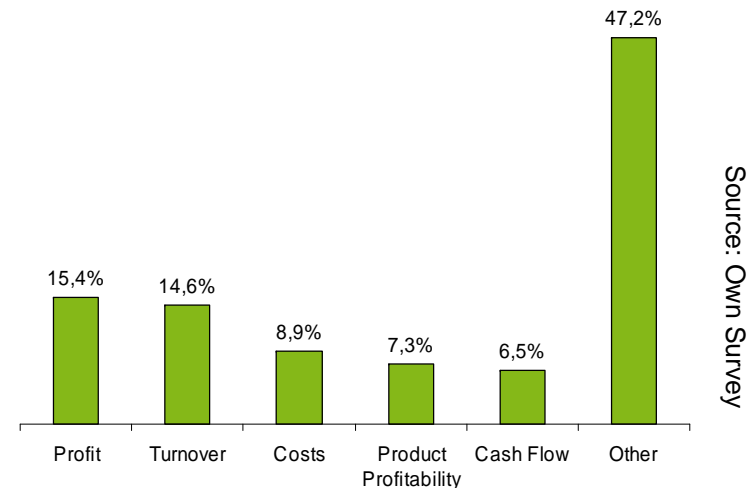
Company structure has some influence on the controlling

- Controlling is an abstract task
- Performance measures are used heterogeneously
- Knowledge of the benefit performance measures is not obvious
- Small and medium sized companies lack of resources and know-how to implement a performance measurement system

Implementation of Controlling in German Logistics Companies



Application of indicators for financial performance



Source: Own Survey



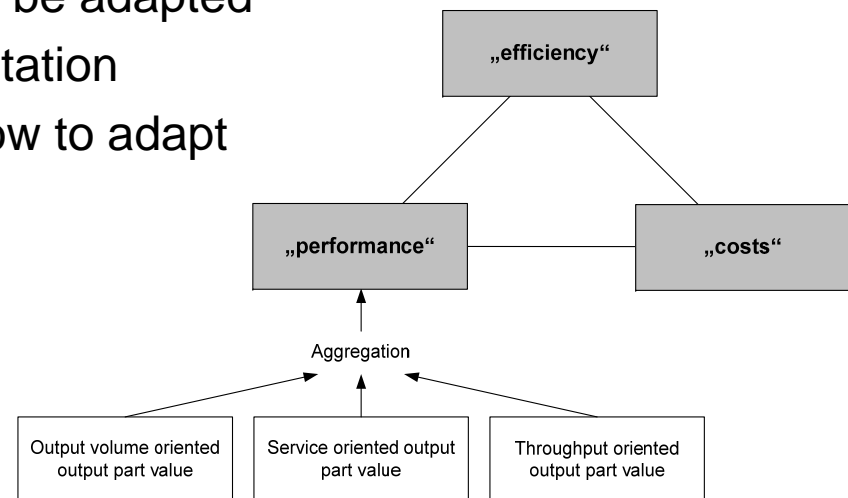
Due to missing resources and lacking understanding of the benefit, it is necessary to develop a PMS, which can be applied directly

- VDI 4400 & VDI 2525 provide performance indicators
 - No system, only collection of performance ratios
 - Developed for industry
 - Do not fit transport and transship requirements
- Performance indicators for works transport (Weber 1993)
 - No system, only collection
 - Developed for works transport → different target system than logistics service providers



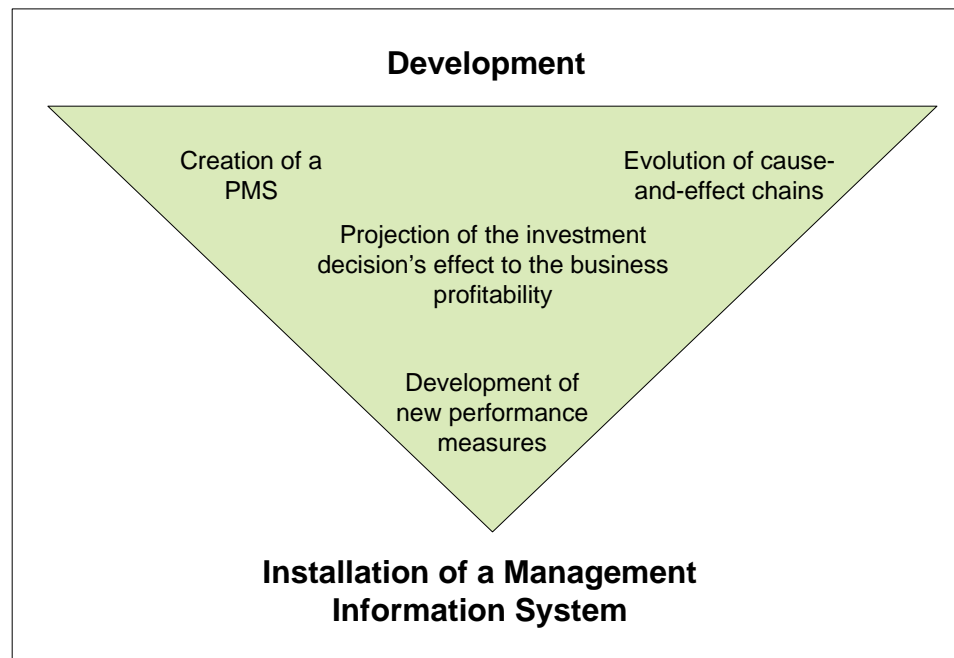
Performance indicators for commercial transport and warehousing
have to be developed

- Existing systems for performance measurement were developed from industry logistics e.g. Syska, Reichmann
 - Transport is not included
 - Focus on material handling and management
- System of Weber is generic and can be adapted
 - Too abstract for direct implementation
 - Too less resources and know-how to adapt



A PMS for LSP's needs to include transport, warehousing and value added services and it should be applicable without a lot of effort

- Provision of adequate performance measures and an implementable performance measurement system
- Support the search for potential for optimization
- Allow the prognosis of effects of investments on financial data



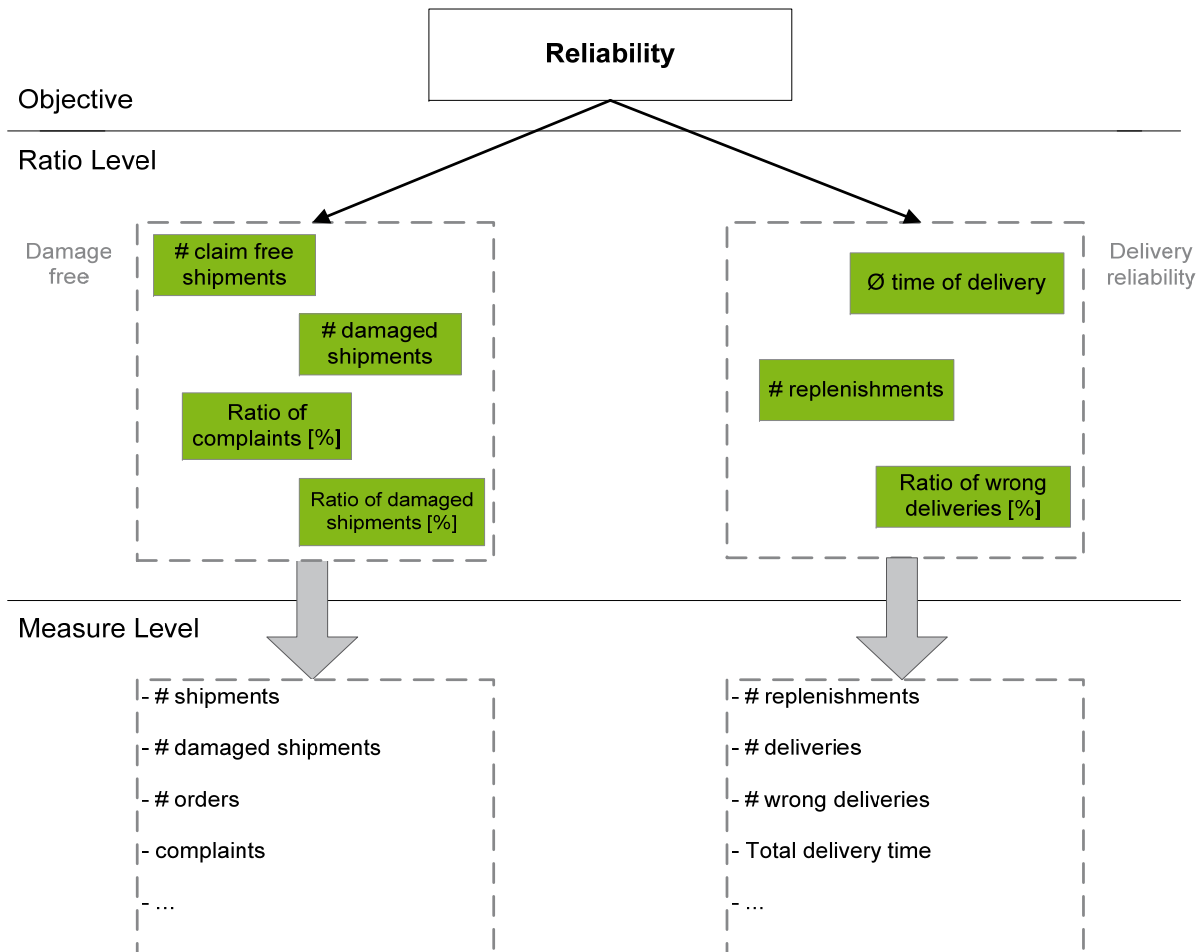
Requirements for Performance Indicators - Company Targets

Target Level	Objectives
Financial Level	Profit Gaining
Performance Level	Velocity System Utilization Flexibility Sustainability
Quality Level	Reliability Robustness
Structure Level	_____



Objectives affect the choice of performance measures and the PMS

Deduction of Performance Measures from Company Targets



For each aim and process performance measures are deducted

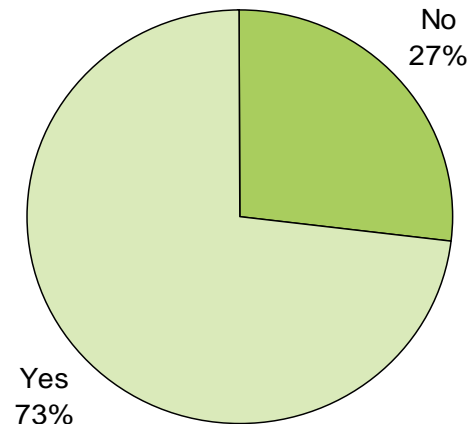
Requirements for a PMS - Practicability

- Mostly small and medium sized companies
- Lack of know-how and personal resources
- Controlling seems to be abstract, the benefit is not obvious



- Easy handling during implementation and operation
- Realization in a standard software solution e.g. MS Excel
- Comparison of data needs and data availability

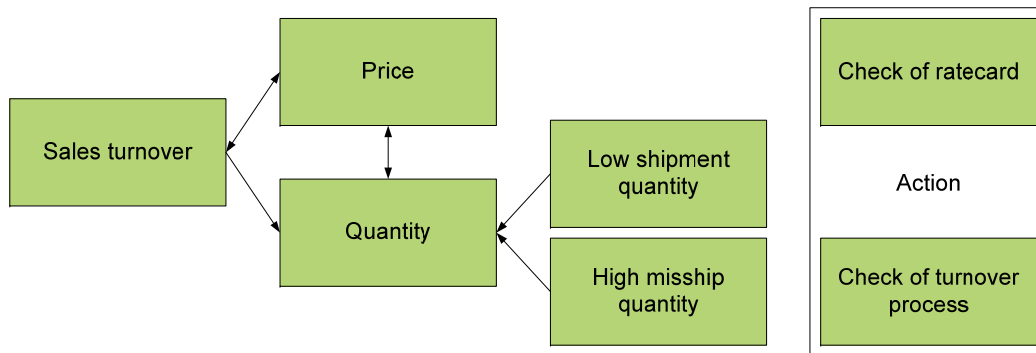
Deployment of Logistics Software



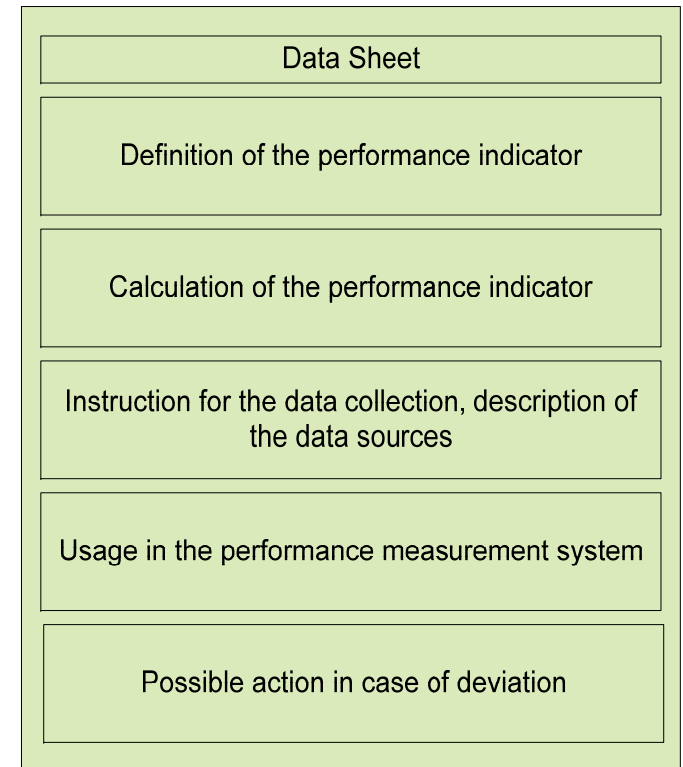
Requirements for a PMS - Practicability

- Description of each performance indicator in a datasheet
- Provision of cause-and-effect chains to support the optimization

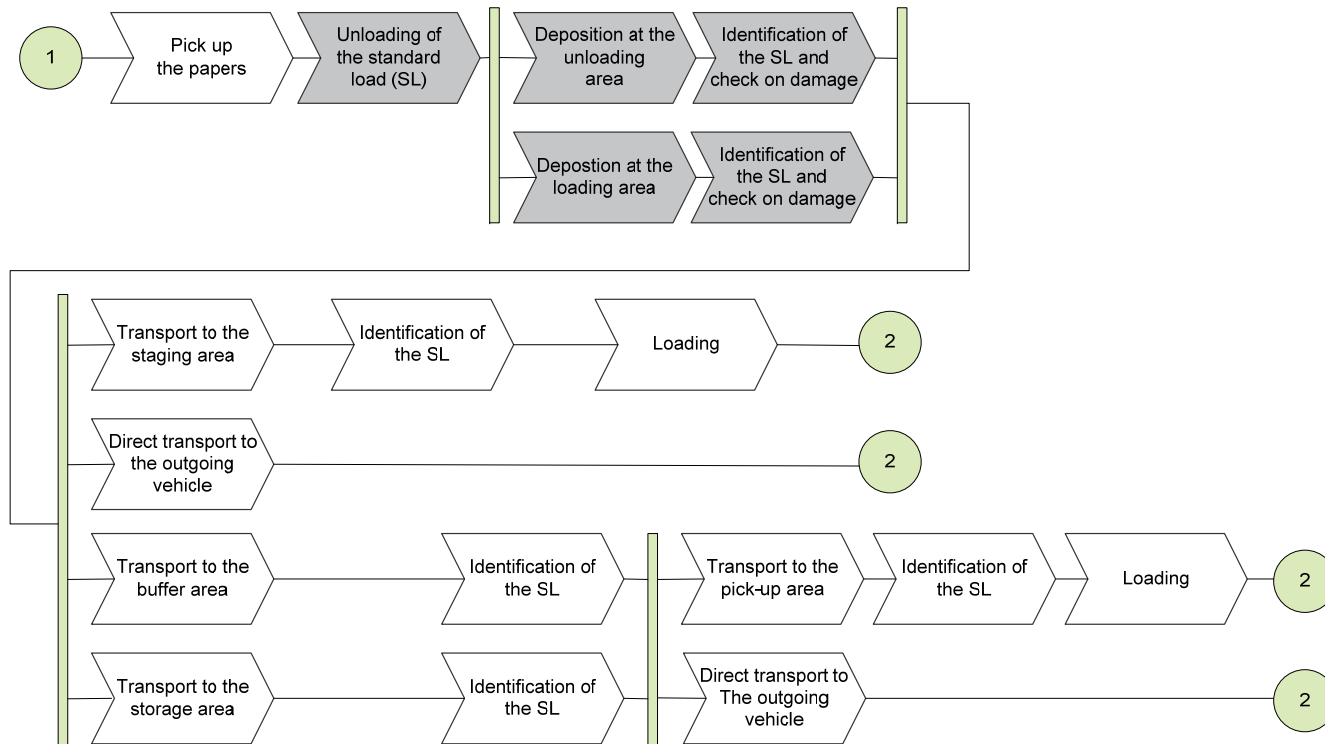
Cause-and-effect chain



Data sheet for performance indicators



- Core processes and their descriptions are defined
- Target Levels and Objectives
- Currently all kinds of indicators are collected, described and grouped by objective



- Market of logistics services is fragmented and characterized by small and medium-sized companies
- Existing PMS do not fit the needs of LSP's
- A new PMS for LSP's has to consider
 - Objectives of LSP's
 - Indicators characterizing the transport area as well
 - Practicability in implementation and daily operation
- Selection of performance indicators
- Comparison of data needs and data availability
- Creation of PMS
- Description of cause-and-effect chains
- In a next stage the prognosis of effects of investment decisions will be implemented