Transport and Logistics: ICT and Business Strategies

**Occupational Health and Safety Consequences**

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Context and purpose

• Road haulage transport
  ■ An important part of economic and social development in France
  ■ Subject to strong competitive pressures within continuous changing socio-economic and regulatory contexts

• Companies choose business strategic which
  ■ Define organisation, employee’s activity and the way to use information system
  ■ Impact on occupational health and safety

• Purpose
  ■ Identify effects of these business strategies and organisation on activity
Method

• Ergonomic based research method
  ■ 2 road haulage transport companies were compared
  ■ Interviews with the executive management, the management and the planners
  ■ Focus on the planner’s activity
    > Observed and formalised

• Business strategy
  ■ Porter’s classification
    > Cost leadership strategy (volume, intensification)
    > Differenciation strategy
    > Focus strategy
Results: strategy, organisation and tools

**Company A**
- Cost leadership strategy (volume, intensification of the production)
  → organisation of work is taylorist

**Company B**
- Business strategy based on differenciation to offer customers a personalised and flexible service
  → learning organisation of work

- Planners working in pair
- Same informatic tools
  - Same Information and Communication Technology
  → an on-board computer system (OCS)
Results: planners’ activity (1)

Company A

• *Same results for both companies*
  - Activity: same repartition of operations, same duration (less than 1 min)
  - Communication represents 50% of the overall activity, which is partially done in parallel with other operations
  - Informatic tools: same use in terms of frequency and duration (switch every 30 sec on average)

→ *Segmented activity, dual tasks, tool use is intensive and brief*
Results: planners’ activity (2)

**Company A**

- **Tracking activity** (14%) : to control the drivers’ activity
- **Communication between the planners working in pair** (14%) : limited to the necessary coordination

**Company B**

- **Tracking activity** (22%) : to update their knowledge about the rounds in progress, to prepare the construction of the following rounds and to support the drivers (management of unforeseen events)
- **Communication between the planners working in pair** (23%) : to share information, to support colleagues and to manage unforeseen events

**Differences**

The strategy and the organisation define the way of using the tool

* A tool to monitor the activities (of the planners and the drivers)
* A collaborative tool (which supports the planners and the drivers)
Conclusion

• About the results
  ■ Planners’ activity
    > Highly intense levels of work and work overload were risk factors in both companies
    > Operators are subject to stress, psycho-social risks and musculoskeletal disorders
  ■ Consequences of the strategy
    > The “cost leadership strategy” potentiates other risk factors, such as a weakening of interpersonal relations and monitoring reinforcement
    > The “differentiation strategy” proves to be a factor of protection against exposure to stress and psycho-social risks since it supports group reinforcement
    > The same tools (on the same activity) are used with different purposes (control or support)

• To remember
  ■ Integrate the business strategy into the analysis
Thank for your attention