



## Organizational support and virtual project teams: a report based on case studies

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## Table of Contents

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- Research background
- Research question
- Conceptual framework
- Research methodology
- Results and findings
- Main conclusions
- Future directions and practical issues
- Questions

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## Research background

- Growing numbers of Virtual Project Teams (VPTs) in today's organizations
  - Widespread use of collaborative technologies
  - Organizational relationships are more geographically dispersed
  - Competitive advantages to be gained by bringing together virtual project teams

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## Research background

- A wealth of insights into the ways in which VPTs work
  - Technological perspective (Kock & Nosek, 2005)  
Investigating the impacts of technology
  - Managerial perspective (Hertel et al., 2005)  
Issues: VPT management and processes
  - Virtuality perspective (Martins et al., 2004; Workman, 2007)  
The debate: What is and what is not a VPT?

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## Research background

"Organizational support is **part of the organizational infrastructure that facilitates carrying out the processes necessary to do the work; to manage, control, coordinate and improve it; and to manage people who are doing it.**"

(Morhman et al., 1995)

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## Research background

- Organizational support recognized as key factor in project's success \*
- Few OS typologies found in literature\*\*
- Management literature focused on job satisfaction, commitment and performance\*\*\*
- No research explained links between OS and VPTs

Sources: \* Hobbs et al., 2006 Englund & Graham, 1999.

\*\*Hall, 1998; Hackman & Oldman, 1980; Sunstrom & Associate, 1999; Mankin et al., 1996; Beryerlin et al., 2003; Duarte & Snyder, 1999. \*\*\*Stinglhamber & Vanderbergue, 2003; Randall et al., 1999; Roadhes & Eisenberger, 2002; Armeli et al., 1998; Eisenberger et al., 1986,1990.

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## Research background

- Organizational support is essential to VPT's success

*"The top management team was very supportive of our project ... with an open-minded attitude. They knew it was not an easy project... They were good collaborators and scheduled periodic reviews to help us resolve major issues." PM Project C*

*"The phrase that best summarizes top management's support was: 'We trust you, but make sure it will work.' This support was essential for the project's success." PM Project H*

- Conclusion: further investigation is necessary

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## Research question

- Research question:

- How does the organization support virtual project teams?*

- *What practices are implemented by organizations to support virtual project teams?*

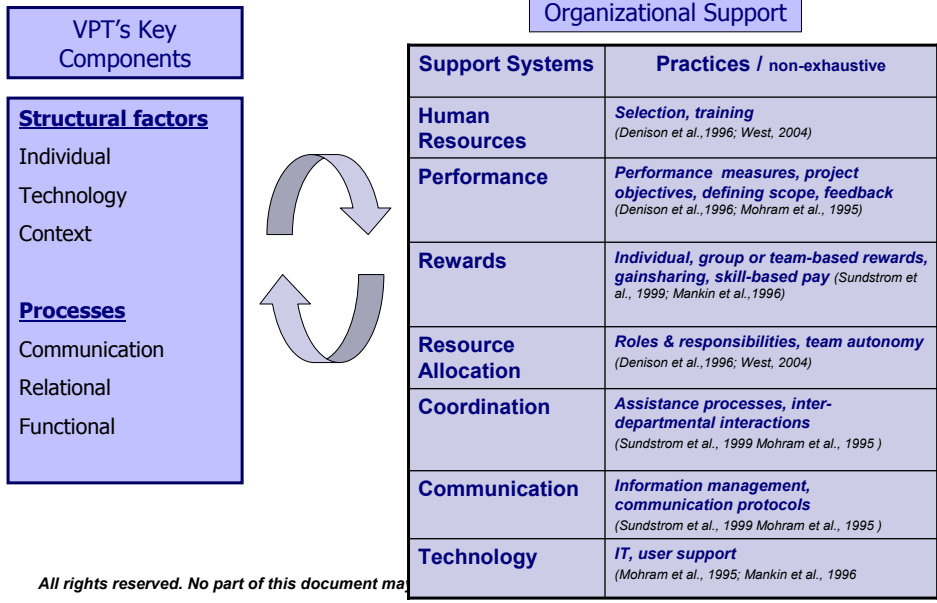
- Specific objectives:

- To gain an in-depth understanding of each firm's **organizational support**

- To investigate **support systems and practices** related to organizational support for VPTs

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# Conceptual framework



# Research methodology

- Preliminary field study with 10 firms, 13 projects
- Case studies with 2 firms: CAN1 and CAN2
  - Multinational firms
    - CAN1: One of the leading independent information technology and business process service firms in the world; operates in 16 different countries
    - CAN2: Leading supplier of a broad range of products and services used in a substantial number of aerospace and defense platforms; more than 60,000 employees
  - 2 projects
  - 9 respondents
    - 4 within CAN1
    - 5 within CAN2

## Research methodology / selection criteria

- Global or multinational firm
- Project-oriented
- Uses virtual project teams:  
*"Teams whose members use technology to varying degrees in working across locational, temporal and relational boundaries to accomplish an interdependent task."*

(Martins et al., 2004)

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## Research methodology / sample characteristics

	CAN1	CAN2
<b>Firm profile and industrial sector</b>	<ul style="list-style-type: none"> <li>•IT and business process services</li> <li>•IT Sector</li> </ul>	<ul style="list-style-type: none"> <li>•Product and service supplier</li> <li>•Aerospace Sector</li> </ul>
<b>Project type</b>	<ul style="list-style-type: none"> <li>•Internal clients</li> <li>•Development of an integrated information system (worldwide)</li> <li>•2 years</li> </ul>	<ul style="list-style-type: none"> <li>•External clients</li> <li>•Maintenance and development systems</li> <li>•Multi-year contracts</li> </ul>
<b>Number of team members</b>	<ul style="list-style-type: none"> <li>•Core team: 4-5 members</li> <li>•Total: 80-100 members</li> </ul>	<ul style="list-style-type: none"> <li>•Core team: 15 members</li> <li>•Total: approximately 800 members</li> </ul>
<b>Virtuality/distribution</b>	<ul style="list-style-type: none"> <li>•5 sites (USA, Europe, Canada)</li> <li>•Core Team: Montreal (Canada)</li> </ul>	<ul style="list-style-type: none"> <li>•5 sites (Canada, USA)</li> <li>•Core Team: Montreal (Canada)</li> </ul>
<b>Project performance</b>	4/7	6/7

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# Results / within case analysis

## CAN1

	<b>Formal system*</b>	<b>Informal system**</b>
<b>Specific to VPT context</b>	<u>Resource allocation system:</u> <ul style="list-style-type: none"> <li>Core team centralization</li> </ul>	<u>Communication system:</u> <ul style="list-style-type: none"> <li>Informal communication management</li> </ul>
<b>General to PT context</b>	<u>Human resource system:</u> <ul style="list-style-type: none"> <li>Selection</li> </ul> <u>Performance system:</u> <ul style="list-style-type: none"> <li>Defining scope and objectives</li> <li>Performance measurements</li> <li>Feedback</li> </ul> <u>Resource allocation system:</u> <ul style="list-style-type: none"> <li>Defining roles and responsibilities</li> </ul> <u>Coordination system:</u> <ul style="list-style-type: none"> <li>Process standardization</li> </ul> <u>Communication system:</u> <ul style="list-style-type: none"> <li>Communication protocols</li> </ul>	<u>Coordination system:</u> <ul style="list-style-type: none"> <li>Decentralized decision - making process</li> <li>Team's autonomy</li> </ul>

**Specific:** OS system specifically adjusted for VPT context. **\*Formal system:** system is defined and communicated by organization (routines)  
**General:** OS system had minimal or no particular adjustment **\*\* Informal system:** system is socially organized by VPT

# Results / within case analysis

## CAN2

	<b>Formal system*</b>	<b>Informal system**</b>
<b>Specific to VPT context</b>	<u>Communication system:</u> <ul style="list-style-type: none"> <li>Information management (document sharing, communication protocol, information access)</li> </ul> <u>Resource allocation system:</u> <ul style="list-style-type: none"> <li>Core team centralization</li> </ul>	<u>Coordination system:</u> <ul style="list-style-type: none"> <li>Empowerment</li> <li>Mutual adjustment</li> </ul>
<b>General to PT context</b>	<u>Human resource system:</u> <ul style="list-style-type: none"> <li>Selection</li> </ul> <u>Performance system:</u> <ul style="list-style-type: none"> <li>Defining scope and objectives</li> <li>Performance measurements</li> <li>Feedback</li> </ul> <u>Resource allocation system:</u> <ul style="list-style-type: none"> <li>Defining roles and responsibilities</li> </ul> <u>Coordination system:</u> <ul style="list-style-type: none"> <li>Best practice management</li> <li>Partners' involvement</li> </ul>	<u>Coordination system:</u> <ul style="list-style-type: none"> <li>Decentralized decision-making process</li> <li>Political issues management</li> <li>Inter-departmental collaboration</li> </ul>

**Specific:** OS system specifically adjusted for VPT context. **\*Formal system:** system is defined and communicated by organization (routines)  
**General:** OS system had minimal or no particular adjustment **\*\* Informal system:** system is socially organized by VPT

## Results / cross case analysis

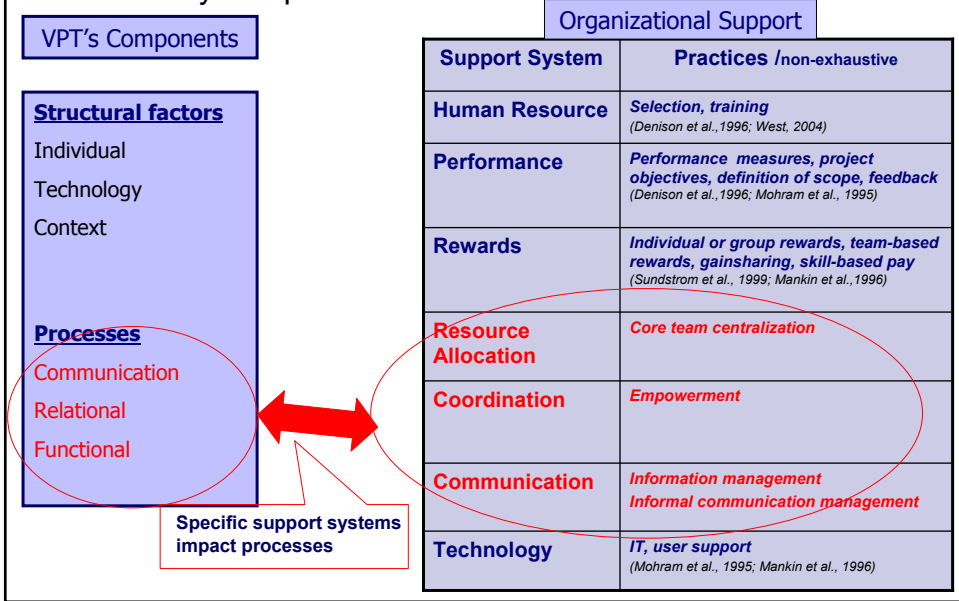
	Similarities	Differences
<b>SPECIFIC</b> Formal	<u>Resource allocation System:</u> ■ Core team centralization	<u>Communication system (CAN 2):</u> ■ Information management (document sharing, communication protocol, information access)
Informal		<u>Communication system: (CAN1):</u> ■ Informal communication management <u>Coordination system (CAN2):</u> ■ Empowerment ■ Mutual adjustment
<b>GENERAL</b> Formal	<u>Resource allocation system:</u> ■ Defining roles and responsibilities <u>Human resource system:</u> ■ Selection <u>Performance system:</u> ■ Defining scope and objectives, performance measurements, feed-back <u>Coordination systems:*</u>	<u>*Coordination system:</u> ■ Process standardization (CAN1) ■ Best practices management (CAN2) ■ Partners' involvement (CAN2)  <u>Communication system: (CAN1):</u> ■ Communication protocol
Informal	<u>Coordination system:**</u> ■ Decentralized decision-making process	<u>Coordination system:**</u> ■ Team's autonomy (CAN1) ■ Political issues management (CAN2) ■ Inter-departmental collaboration (CAN2)

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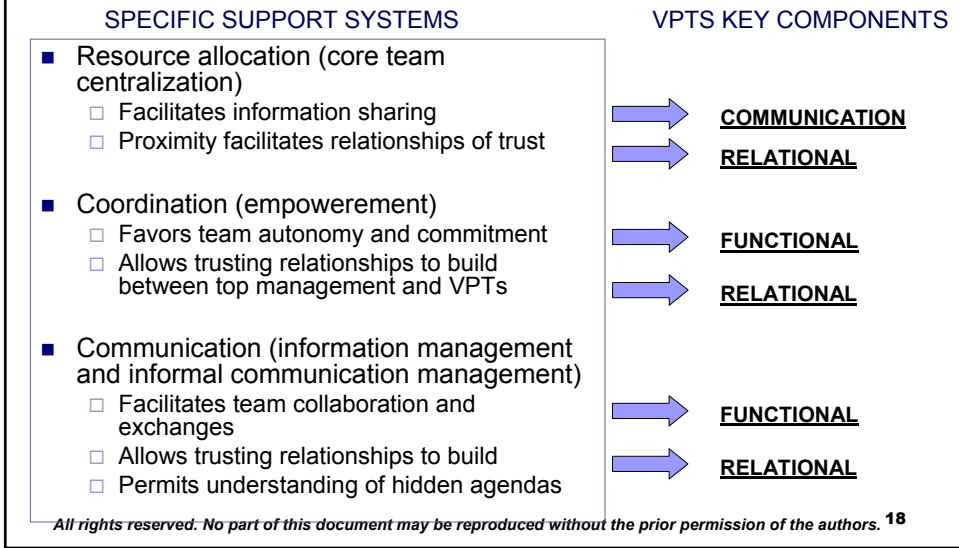
## Findings / cross case analysis

- Few specific support systems for VPT's context
- Minimal adjustment to virtual context for most of the support systems used
- Differences between firms are explained by firms' own characteristics and type of project (i.e, internal / external client)

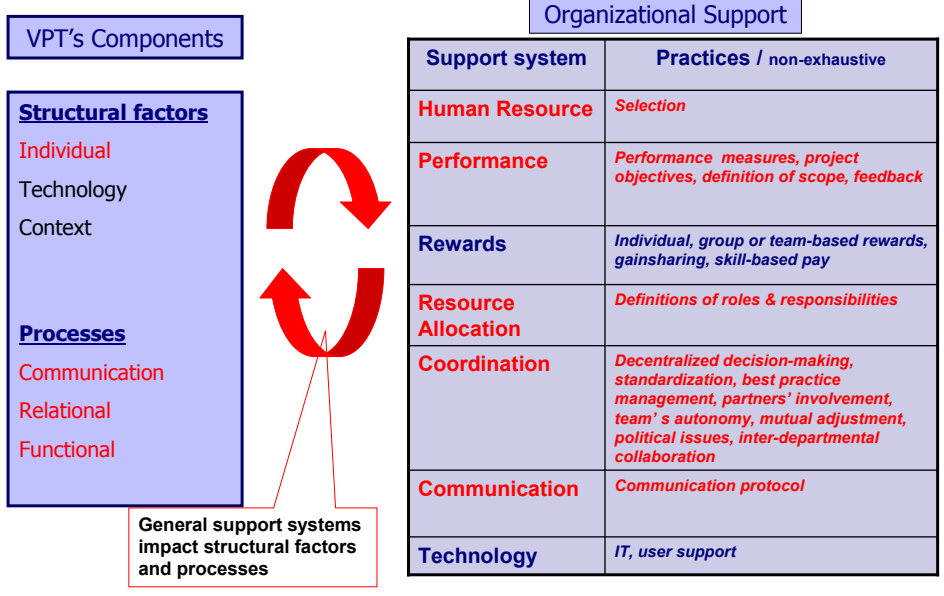
## Findings / specific support systems impact processes of VPT's key components



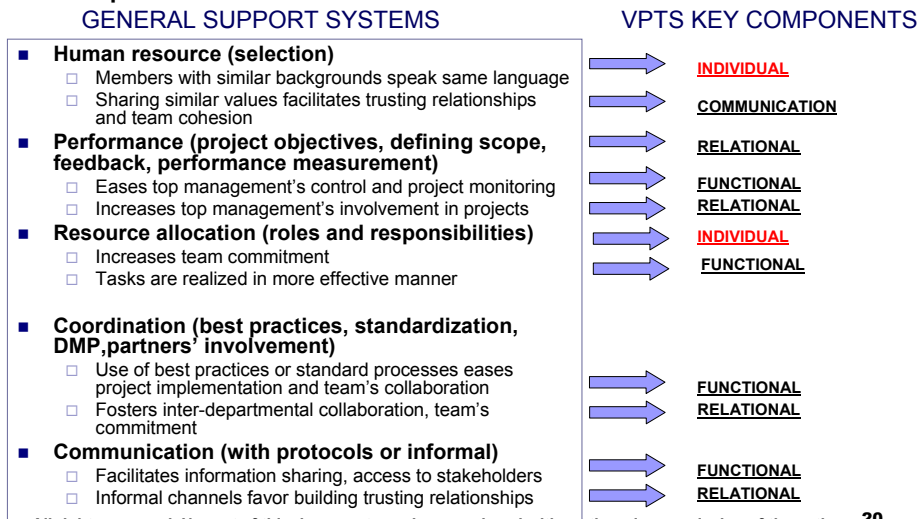
## Findings / specific support systems impact processes of VPT's key components



## Findings/ general support systems impact structural factors and processes of VPT components



## Findings/ general support systems impact structural factors and processes of VPT components





## Main conclusions

- Not a great deal of sensitivity to virtual context
- Not a great deal of specific support from organizations
- Coordination and communication systems rely mainly on informal practices (specific support)
- More research needed

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## Future directions

- Direct influence of support systems and their related practices on VPT's outcomes
- Link VPT's size, distribution and OS
- Investigate support combinations (OS and project managers)

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# Practical issues

- Link support systems and practices to VPT's key components
  - Structural factors: team selection, choice of technology
  - Processes: functional, relational and communication
  
- Practices can be formal or informal, as long as they:
  - Enhance trusting relationships
  - Create a "common ground" between team members
  - Provide standards to manage projects
  - Favor core team proximity ("war room")
  - Offer teams flexibility to respond rapidly to change, autonomy in decision-making, empowerment

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## QUESTIONS?

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