

# Risk Drivers of Inadequate Communication in South African Virtual Project Teams



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# Introduction

- ❖ Risk Management = project management
- ❖ Virtual teams
- ❖ Communication is vital!
- ❖ Risk review in changed environment:
  - Recent, widespread take up of virtual work.
  - Increased demand.
  - Increased reliance on ICT.
  - A wide variety of tools and technology now available.
  - Inconsistent telecommunication infrastructure within South Africa.
  - Limited information on communication risks in SA.
  
- ❖ **What are the most prevalent drivers of inadequate communication in South African virtual project teams?**

# Literature Review

## ❖ Evolution of 'virtualness' of teams

- A group of people with unique skills who work interdependently towards a shared objective and whose primary means of communication is through digital tools

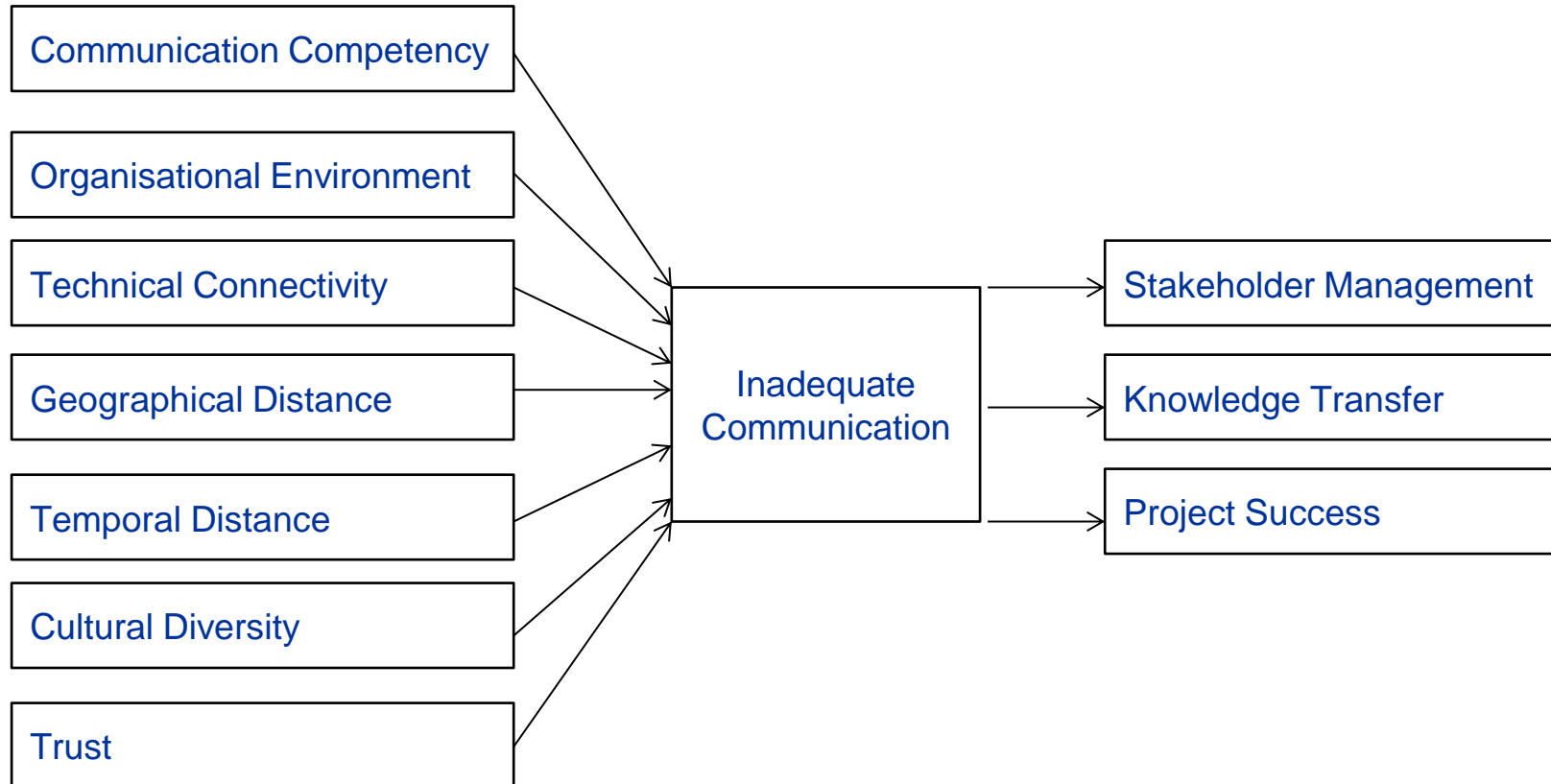
## ❖ Hallmarks of a virtual team

- Hardware
- Software
- Bulk infrastructure

## ❖ Project communication

- The exchange of specific project information with an emphasis on building a common understanding between sender and receiver
- Underlies all aspects of teamwork
- Communication management the most effective risk management strategy for virtual projects

# Conceptual Model



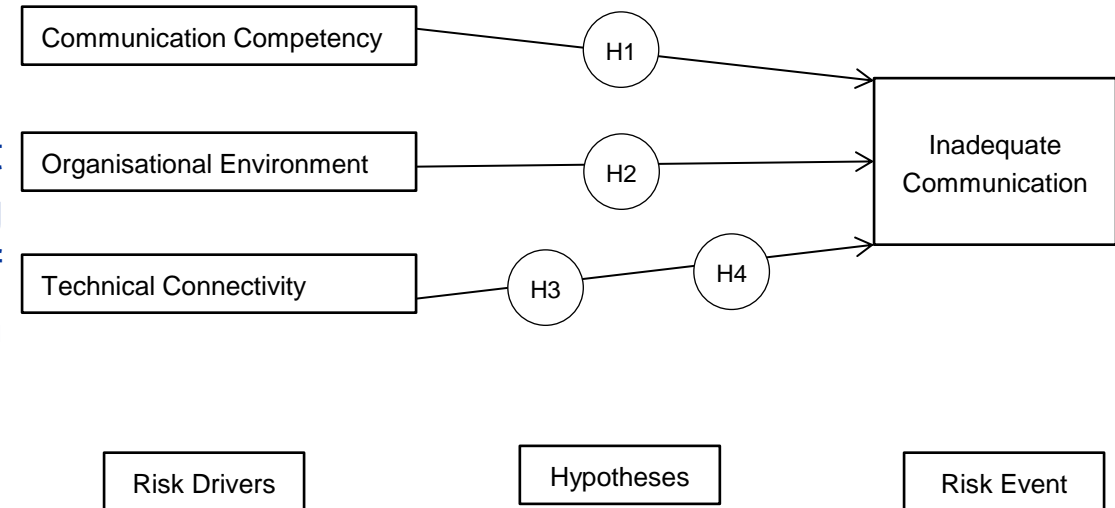
Risk Drivers

Risk Event

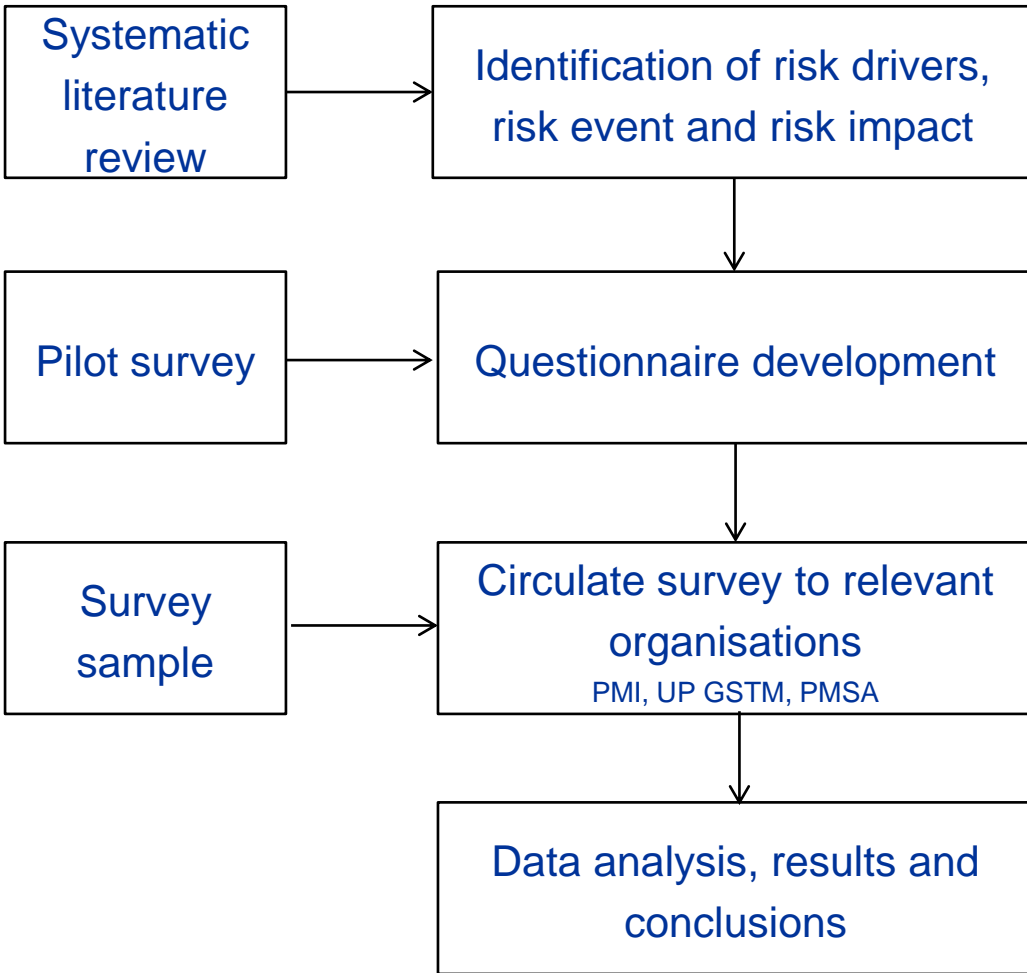
Risk Impact

# Hypotheses

- ❖ Hypothesis 1: Low levels of communication competency are a prevalent risk driver of inadequate communication in South African virtual project teams.
- ❖ Hypothesis 2: Organisational environments which do not have policies, procedures and processes supporting virtual project teams is a prevalent risk driver of inadequate communication in the South African environment.
- ❖ Hypothesis 3: Unstable electricity supply is a prevalent risk driver of inadequate communication within South African virtual project teams.
- ❖ Hypothesis 4: Insufficient internet connectivity is a prevalent risk driver of inadequate communication within South African virtual project teams.



# Research Design and Methodology



Variable	Question	Source	Data Type
<b>Screening</b>	Based on your past three years working in a project environment, to what extent have you worked as part of a virtual project team? A virtual project team is defined as: A group of people with unique skills who work interdependently towards a shared objective and whose primary means of communication is through digital tools.	Gallego, Ortiz-Marcos, Romero Ruiz, 2021	Ordinal 0-20% 21-40% 41-60% 61-80% 81-100%
<b>Communication Competency (Hypothesis 1)</b>	I am able to effectively communicate with my project team in the virtual workspace	Ammad et al., 2019	Ordinal Strongly disagree
	I am able to easily work in the virtual workplace, without the support of an ICT professional		Disagree Neutral
	I am able to choose the most appropriate communication medium to effectively communicate with my project team		Agree Strongly agree
	My project team is able to effectively communicate with me and other team members in the virtual workspace	Ammad et al., 2019	
	My project team is able to easily work in the virtual workplace, without the support of an ICT professional		
	My project team is able to choose the most appropriate communication medium to effectively communicate with other team members in the virtual workspace		

# Data Analysis

## Level of Virtual Work

0 - 20%	15%
21 - 40%	8%
41 - 60%	17%
61 - 80%	32%
81 - 100%	28%

## Experience

0-3 years	2%
4-6 years	11%
7-9 years	12%
10-15 years	36%
Greater than 15 years	39%

## Major Sectors

ICT	26%
Built Environment	24%
Energy	9%
Mining	9%

❖ The study measured four independent variables:

- Communication competency
- Organisational environment
- Unstable electrical supply
- Insufficient internet connectivity

❖ All variables were shown to be independent and statistically significant with  $p < 0.05$

Variable	Cronbach's Alpha
Communication Competency	0,82
Organisational Environment	0,75
Unstable electrical supply	0,60
Insufficient internet connectivity	0,79

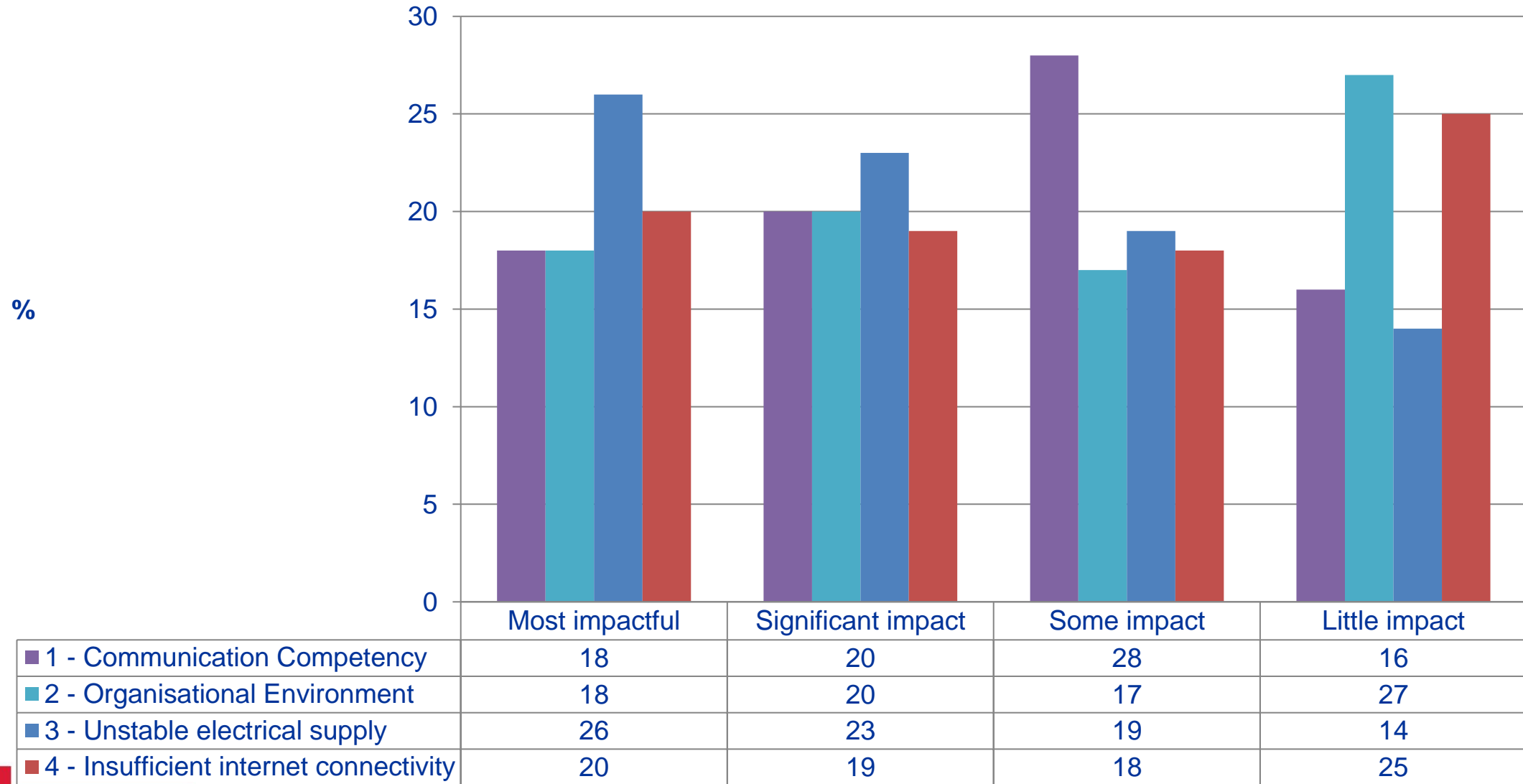


# Results and Discussion

Risk Driver	Results
Low levels of communication competency	<b>91%</b> of respondents considered themselves to have sufficient soft skills and technical skills for effective communication Project teams rated between <b>85% – 87%</b>
Organisational environments do not have policies, procedures and processes supporting virtual work	<b>70% – 80%</b> of respondents agreed that their organisation has policies, procedures and processes in place. <b>89%</b> of respondents agreed that their organisation had the appropriate software
Unstable electricity supply	<b>85%</b> agreed that loadshedding hindered effective communication while <b>42% - 48%</b> of respondents 'somewhat agreed' that project teams were able to work around loadshedding, with a much smaller percentage of <b>18% - 26%</b> strongly agreeing with the statement
Insufficient internet connectivity	<b>85%</b> of respondents agreed that unstable internet connections hindered effective communication <b>72%</b> of respondents agreed that limited internet speed hindered effective communication Consensus could not be obtained on high data costs



# Results and Discussion

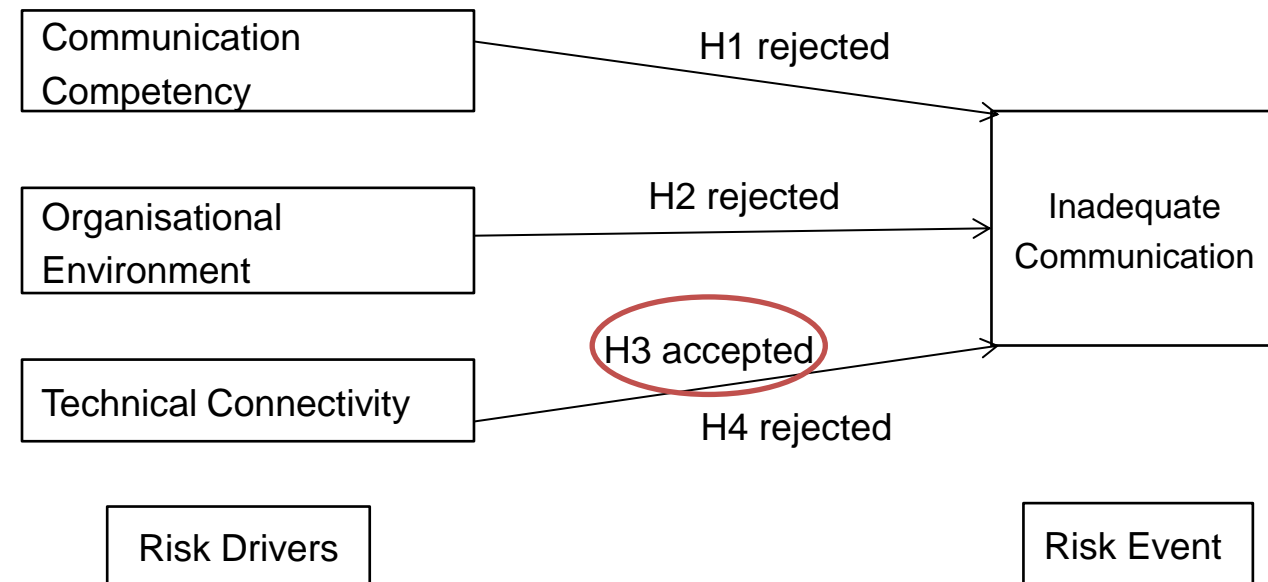


# Conclusion

- ❖ The results show that communication related risk factors prevalent in global virtual teams are less prevalent in South African virtual teams.
- ❖ Hypothesis 3: Unstable electricity supply is a prevalent risk driver of inadequate communication within South African virtual project teams
- ❖ Challenge shared with other developing countries (Ghana, Pakistan, Uganda, Tanzania and Nigeria)
- ❖ War/civil unrest/natural disaster

- ❖ Mitigations:

- Invest in equipment, hardware and software that is less affected by electrical shortages
- The cost of investments should be incorporated into business overheads and individual costs
- Risk driver of internet connectivity is partially dependant on a stable power supply.



# Further Research

- ❖ Findings diverged from existing literature, further communication related risk factors should be tested for relevancy in the South African environment
- ❖ Test the strength of the relationship unstable electrical supply and:
  - ❖ inadequate communication
  - ❖ impacts upon stakeholder management, knowledge transfer and project success
- ❖ Limited to risk drivers of the **negative** risk event of inadequate communication.
- ❖ Explore **positive** risk events with similar risk drivers, that is, drivers of efficient communication within virtual project teams.
- ❖ Risk mitigation of positive and negative risk events.
- ❖ Conflicting information on impact of high data costs

**THANK YOU!**

**QUESTIONS?**