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*“Structuration Theory in IS Research:
Relevance and Rigour from a Pluralist
Research Approach”*

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Agenda

- Research Objectives
- Context of Study
- Study Background
- Case Study
- Data Collection
- Why Pluralist Approach
- Theoretical Framework
- Relevance and Rigour
- Findings and Discussion

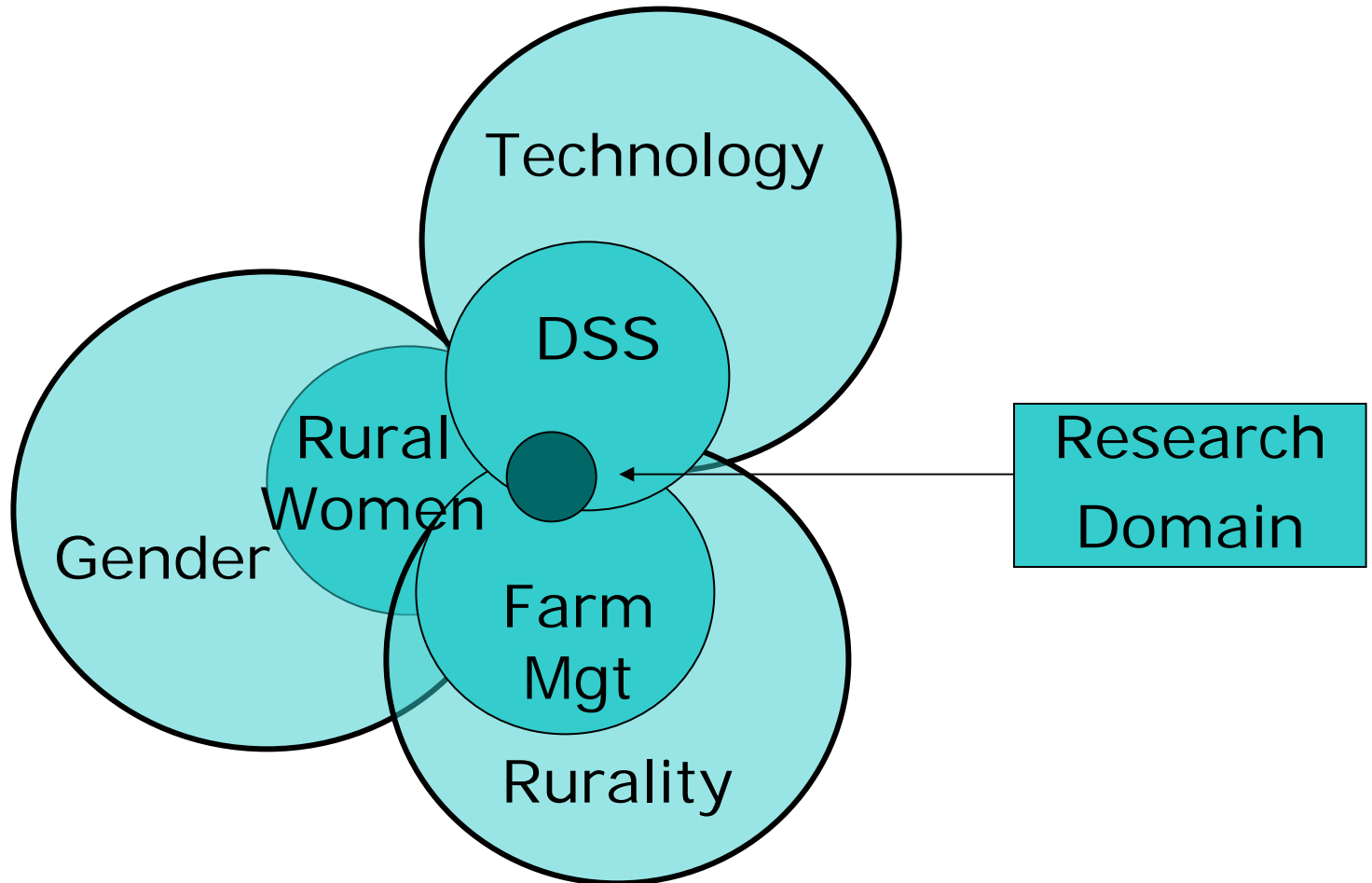
Study/Paper Objectives

To explore the **farm management practices of women** on Australian family cotton farms and their use of **agricultural decision support software** such as *CottonLOGIC* in a single case study

To be informed through the conceptual frameworks of **structuration** theory, **diffusion** theory, and **gender relations** theory

To reflect on the development and use of a **pluralist research approach** and the qualities of **rigour** and **relevance**

Context of Research





Study Background

- Poor uptake of agricultural DSS - seen as link between scientific theory of researchers and farming practice of growers
- Farm women recognised as the main users of computers for off-the-shelf applications
- Earlier studies suggest that farm women lack confidence in using farm management software for decision making
- Rural women's changing roles – more educated, diverse backgrounds, legal farm partnerships, off-farm work
- Absence of research into the interaction of women cotton growers with computers

Case Study

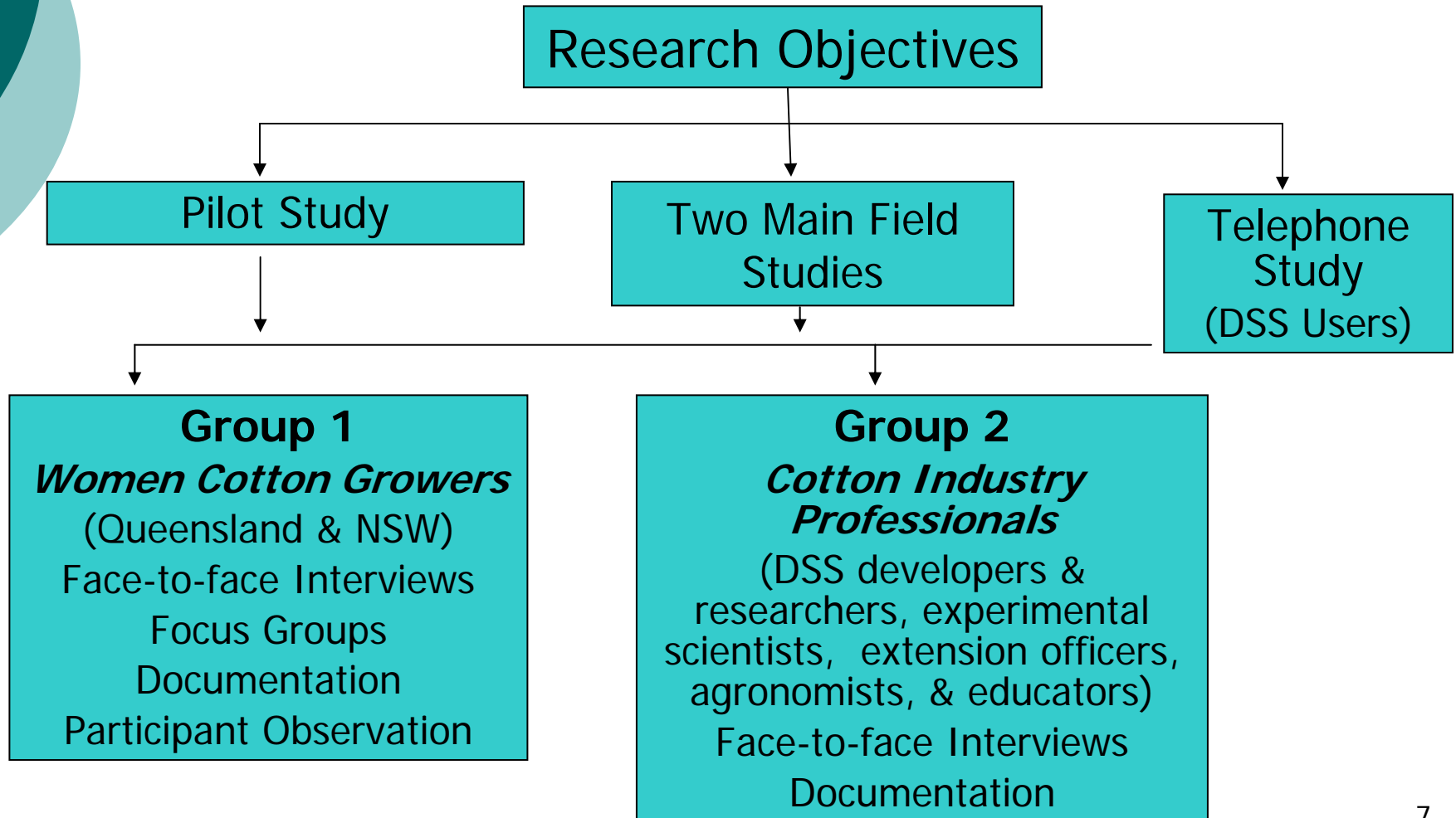
The Australian Cotton Industry

CottonLOGIC

- Launched in 1998 as 3rd generation DSS
- Assists in tactical management of cotton pests, soil nutrition & farm operations
- Software modules for record keeping and insect, soil, & water predictive models
- Committed to Best Management Practices for sustainable resource management
- Strong industry and government support
- PC & handheld versions

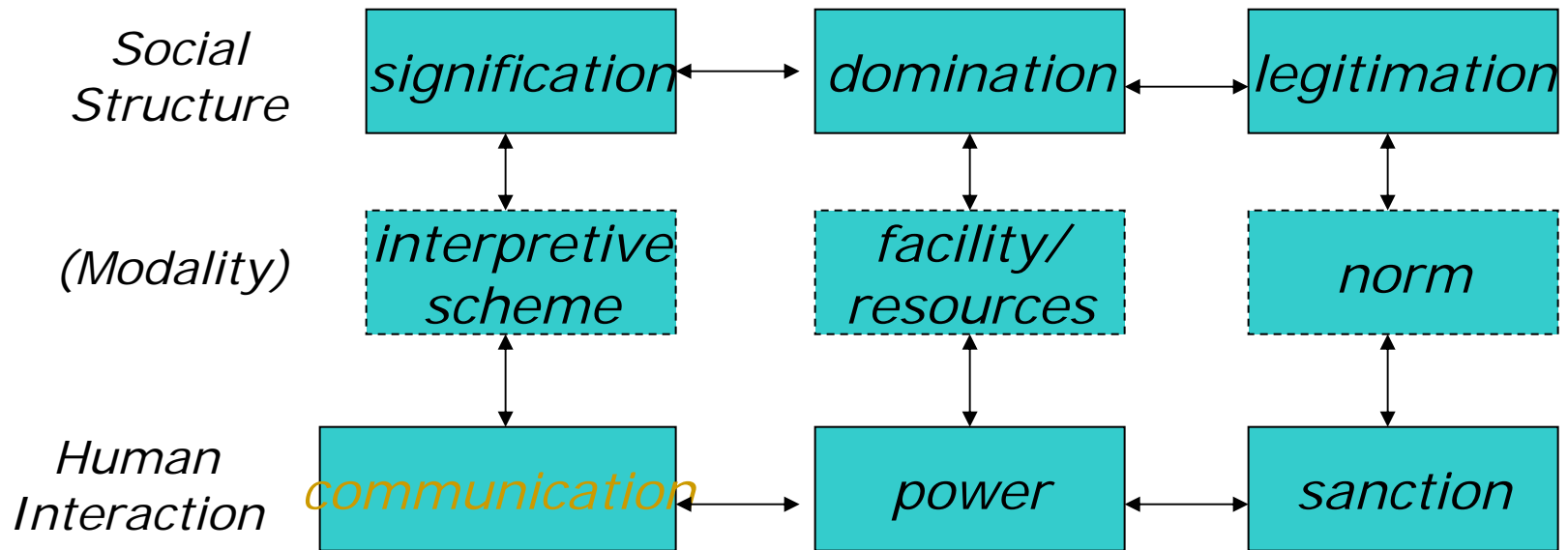


Data Collection



Theoretical Framework

Structuration Theory – Meta-theory (Giddens 1984)



Theoretical Framework

Diffusion of Innovations Theory – Positivist

Rogers (1983; 1995)

Features of an innovation (DSS software):

- Relative advantage
- Complexity
- Compatibility
- Trialability
- Observability

**Communication
for sharing
information**

Theoretical Framework

Gender Relations Theory – critical and emancipatory

Connell (1987; 2002)

Four main conceptual dimensions of gender:

- Production
- Power
- Emotional
- Symbolic relations

**Communication
in gender
relations**

Why Pluralist Approach

Structuration Theory (Meta-Theory)	Diffusion Theory (Functionalist Paradigm)	Gender Relations Theory (Radical Humanist Paradigm)
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Based on Burrell and Morgan (1979) paradigmatic categories and seen as distinct and mutually exclusive

Initially adopted **interpretivist** approach for analysis - people construct their own realities. However

- technology seen as immutable
- gender ignored in structuration and diffusion theories

Ultimately adopted theories based on opposing paradigmatic assumptions

- **structuration** theory by Giddens (1984)
- **diffusion** theory by Rogers (1995)
- **gender relations** theory by Connell (2002)

Need to consider incommensurability between paradigms
Structuration theory overcomes the objective-subjective (positivist-interpretivist) dualism (Weaver & Gioia 1994)

Multi-paradigmatic Approach

Critics of four distinct paradigms approach

- Deetz (1996), Falconer & Mackay (1999)
 - Acknowledge real world situations are complex - research results will be richer and more reliable
 - Focus on purpose of research and nature of phenomena being studied rather than paradigmatic differences
- Robey (1996)
 - Argues for disciplined methodological pluralism
- Benbasat & Weber (1996)
 - Argue for uniformity within IS discipline
- Mingers (1997; 2001)
 - Proposes 'critical pluralism' as a new paradigm
 - Emphasises pluralism on many levels: philosophical, social, methodological
- Giddens (1987)
 - Emphasises strong focus on multi-methods
 - *"I do not try to wield a methodological scalpel".*

Findings and Discussion

- Themes of **communication** and **teamwork** emerged:
 - Selma (grower): *"We work as a team really. I'm more focussed on the administration side of things. Bill [farm partner] is more focussed on the day-to-day running, and keeping out of the office which he shouldn't do. He needs to be more involved."*
- Major finding was women's preparedness to do whatever was required on the farm - did not reinforce social convention of distinct gender-based roles:
 - Connell (2002, p.9), *"gender relations do include difference and dichotomy, but also include many other patterns"* but *"the key is to move from a focus on differences to a focus on relations"*.

Research Quality

- **Klein and Myers**
 - Seven fundamental principles for the conduct and evaluation of IS interpretive field studies
- **Giddens**
 - Criteria for evaluating social science research
 - assess clarity and helpfulness
 - sensitivity to complex skills of actors
 - importance of principle of contextualisation
- **Triangulation** for reliability and validity (rigour)
 - **Data** or sources triangulation where a variety of data sources are used
 - **Theory** or perspective triangulation where multiple theories are used to analyse and interpret the data
- Theoretical perspectives sought to illuminate topic rather than force data into rigid categories
 - > importance of **relevance**

Any Questions?

