

COMPARATIVE CONFIGURATIONS

Bolivian farmer organisations handling agency dilemmas in collective marketing: impact evaluation of an innovation grant system

International Workshop - Case Studies in Development Evaluation: Validity, Generalisation and Learning.

May 21-23, 2012 Copenhagen

Giel Ton – LEI Wageningen UR



Outline

- Background on LEI impact evaluation work
 - Challenges in evaluating value chain development
 - The promise of the realist lens for searching regularities and 'good practices'
 - The mixing of methods to reduce validity threats to conclusions
- Example:
 - Bolivian small-grants fund for collective marketing initiatives
 - Check impact
 - Check assumptions
- Conclusions

Background


- Researchers in LEI have all their specific expertise and methodological wish-list to do 'Evaluation':
 - Models/scenarios
 - Econometrics
 - Focus group facilitation
 - Thick descriptions of cases
 - Case-based methods
 - etc.
- Steps taken in the Impact Evaluation Theme-group (2008-2012)
 - We improve our research designs in a peer-to-peer process of quality checks, geared towards 'better' mixed-method design

Methodology papers

- G. Ton; S.R. Vellema; M. de Ruyter de Wildt. (2011) Development impacts of value chain interventions: how to collect practical evidence and draw valid conclusions in impact evaluation", *Journal on Chain and Network Science* 11(1). p.69-84
- G. Ton (2012) "The mixing of methods: A three-step process for improving rigour in impact evaluations" in *EVALUATION* 18(1)5-25

Agricultural value chain development

- Challenges to comparative research and impact evaluation:
 - Complex, 'container-type' interventions (no unique treatment)
 - The ones that intervene are learning and adapting the intervention during the project period
 - Multiple context specific outcome indicators
 - Multi-stakeholder settings:
 - Important outcomes / impact often materializes only after the intervention period
 - (at most) claims of contribution and no direct attribution

A woman wearing a white headscarf and a patterned dress is operating a bamboo micro-irrigation system in a field. She is standing on a raised earthen bank, holding a vertical bamboo pipe. The system consists of several horizontal bamboo pipes connected by a network of smaller pipes, with a green plastic mulch visible in the foreground. The background is a dense line of green trees under a clear sky.

Income impacts of micro-irrigation technology

A photograph showing two women in a rural setting, likely a vegetable field or processing area. They are wearing traditional headwraps and colorful vests over long-sleeved shirts. They are sorting through large piles of green leafy vegetables, possibly chard or spinach, which are laid out on the ground. A large woven basket is visible in the background. The scene is outdoors with green foliage in the background.

Impacts of certification schemes

Systematic review on effectiveness of innovation grants to smallholder producers



Leading education
and social research
Institute of Education
University of London

Effectiveness of Innovation Grants on Smallholder Agricultural Producers

Protocol for an explorative systematic review

Giel Ton, Marie-Luise Rau, Karin de Grip and Laurens Klerkx

EPPI-Centre
Social Science Research Unit
Institute of Education
University of London

EPPI-Centre protocol • December 2011



PROTOCOL



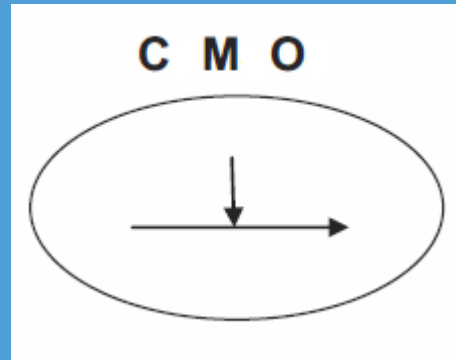
Impacts of innovation grants on collective marketing groups



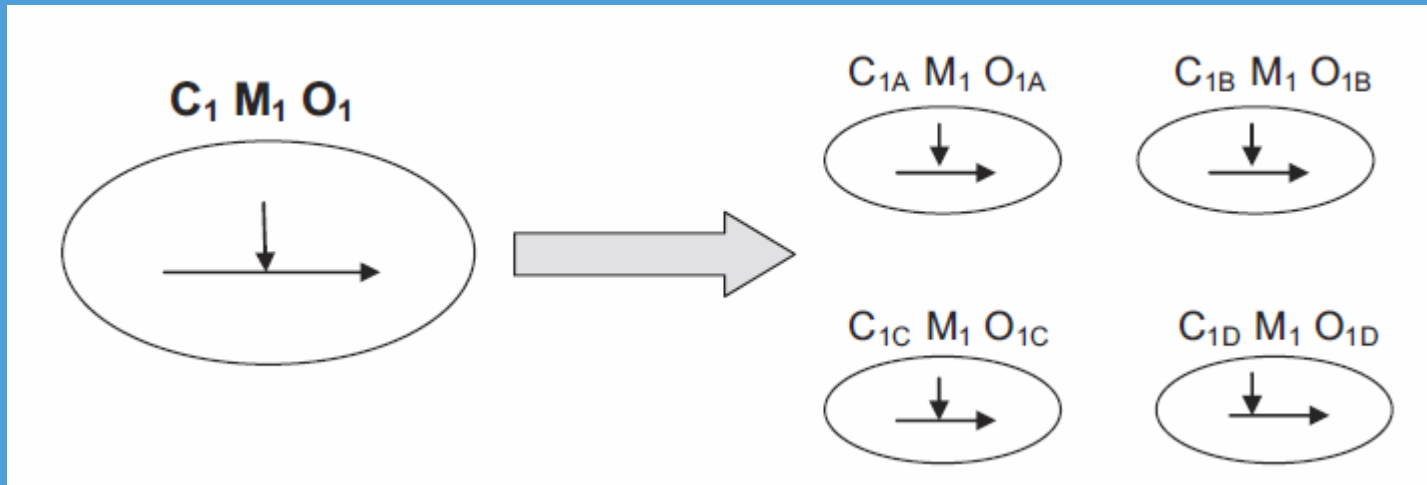
Approaches that helped us

Generalizing in complexity and diversity: realist evaluation

- “Context-Mechanisms-Outcome Configurations”



- Interventions can trigger mechanisms
- Mechanisms are the ‘incentives’ that influence/structure the behaviour of the stakeholders involved in the value chain



- Refinement of interventions:

If the **RIGHT** processes operate in the **RIGHT** conditions *then* the programme will prevail

(Pawson and Manzano-Santanella, 2012)

- How do we sell it:

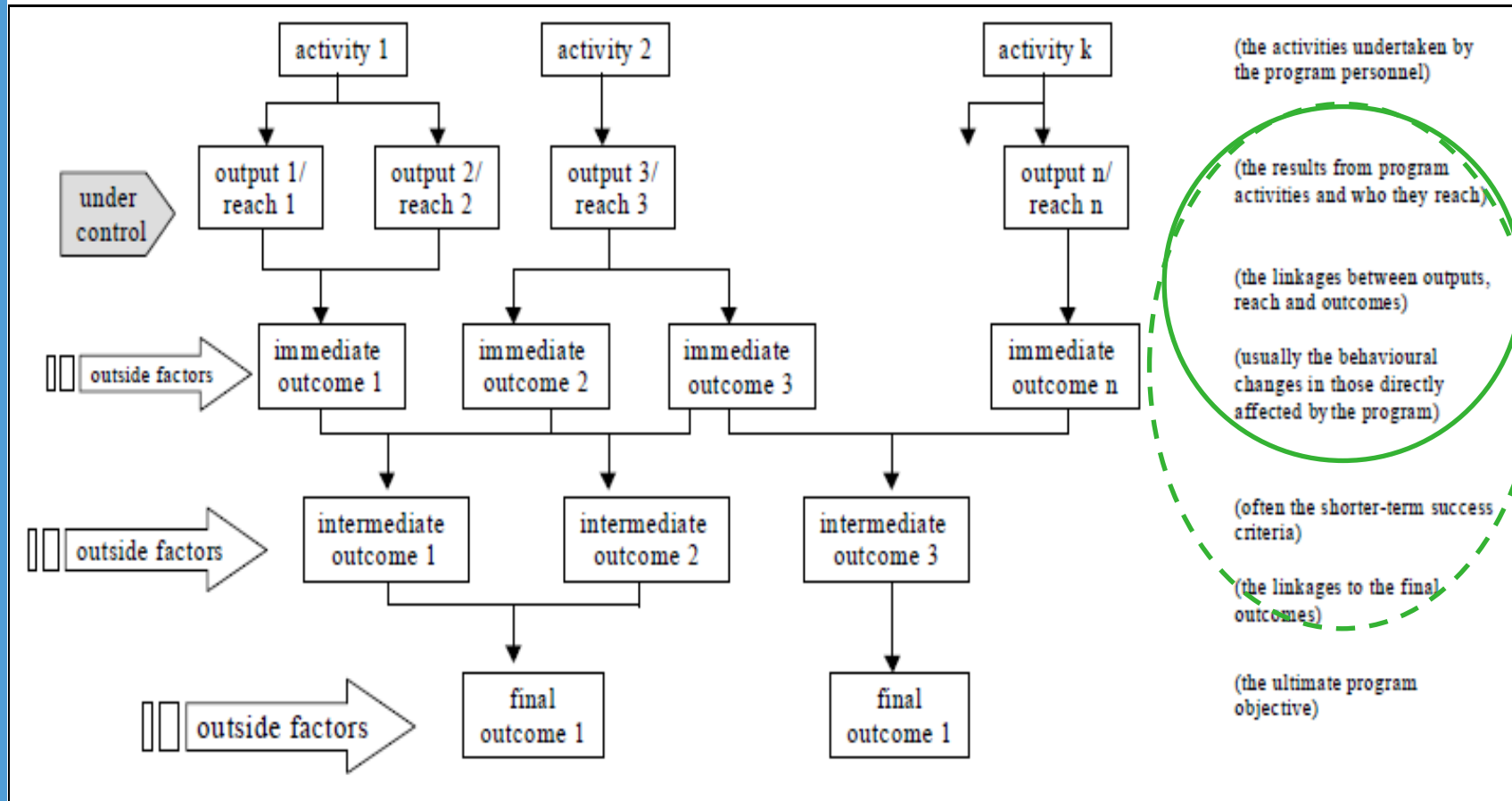
- Exploring cases to get a more refined typology of value chain conditions, each associated with a set of 'good practices'
- Rephrase evaluation question: "Does it work?..... for whom, under what conditions?"

Causality: (modest) contribution versus (direct) attribution

- Each individual factor in a configuration is a so-called *inus* condition:
 - in itself **I**nsufficient to explain the outcomes of a support intervention,
 - but a **N**on-redundant part of a wider constellation of factors;
 - A constellation that is **U**nnecessary but **S**ufficient to produce the outcome(Mackie, 1965).

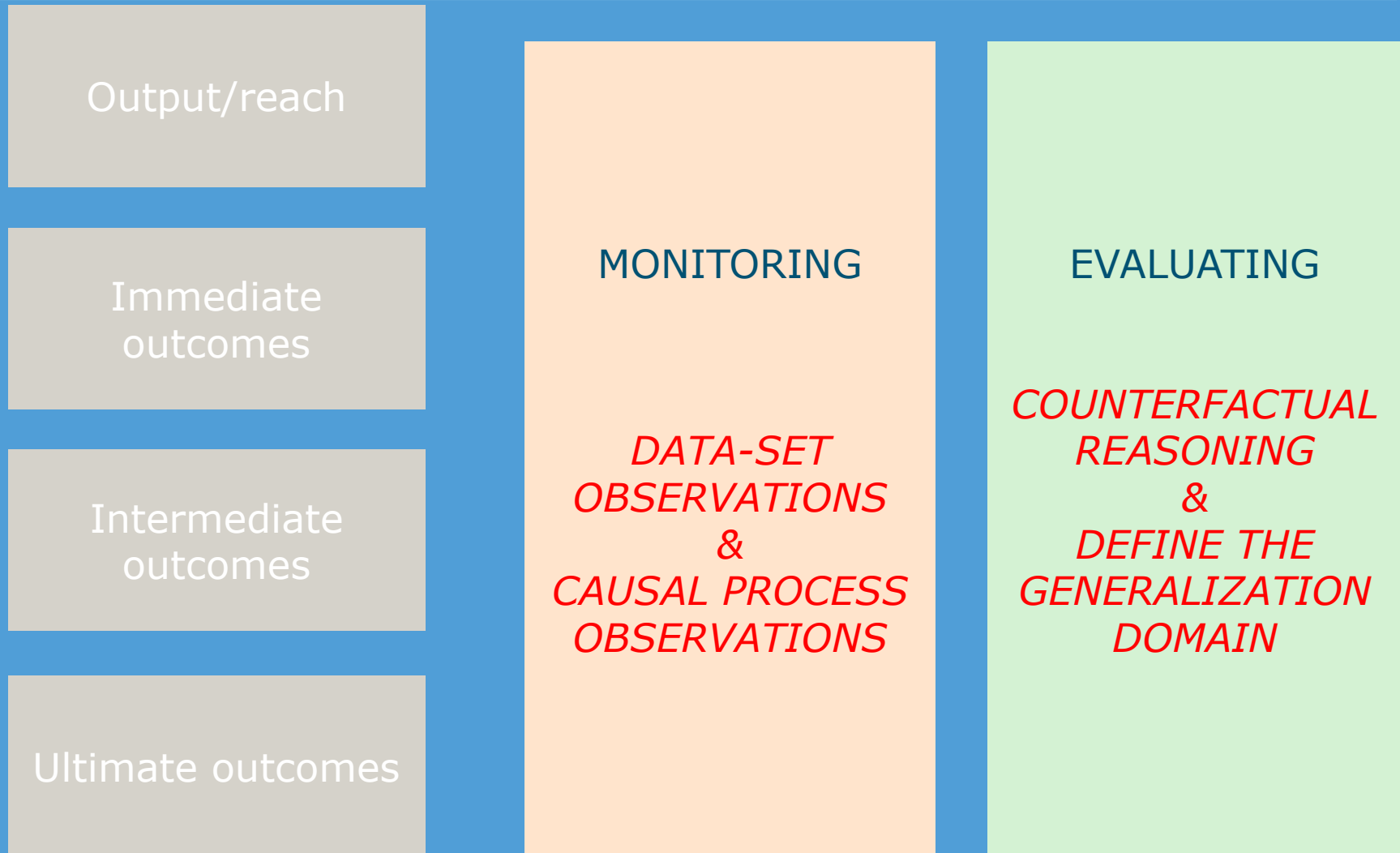
Contribution analysis

Figure 1. Logical framework to capture an intervention logic (Logic Chart)



Source: Mayne (2001), p. 9

Choosing an appropriate core methodology



Adding methods to the core methodology to reduce validity threats

- **Statistical conclusion validity:** how are inferences made from data-set observations? Are the statistical methods used well?
- **Internal validity:** how is causality attributed in the evaluation? This refers to the logic behind the observed correlations and explains why and how interventions contribute to the observed change.
- **Construct validity:** how are generalizations made from the categories used in the observations to broader units of representation? This stresses the importance of precise definitions and concepts.
- **External validity:** how are the findings generalizable to other persons, times and contexts? This requires being precise about conditions and requirements that define the generalization domain.

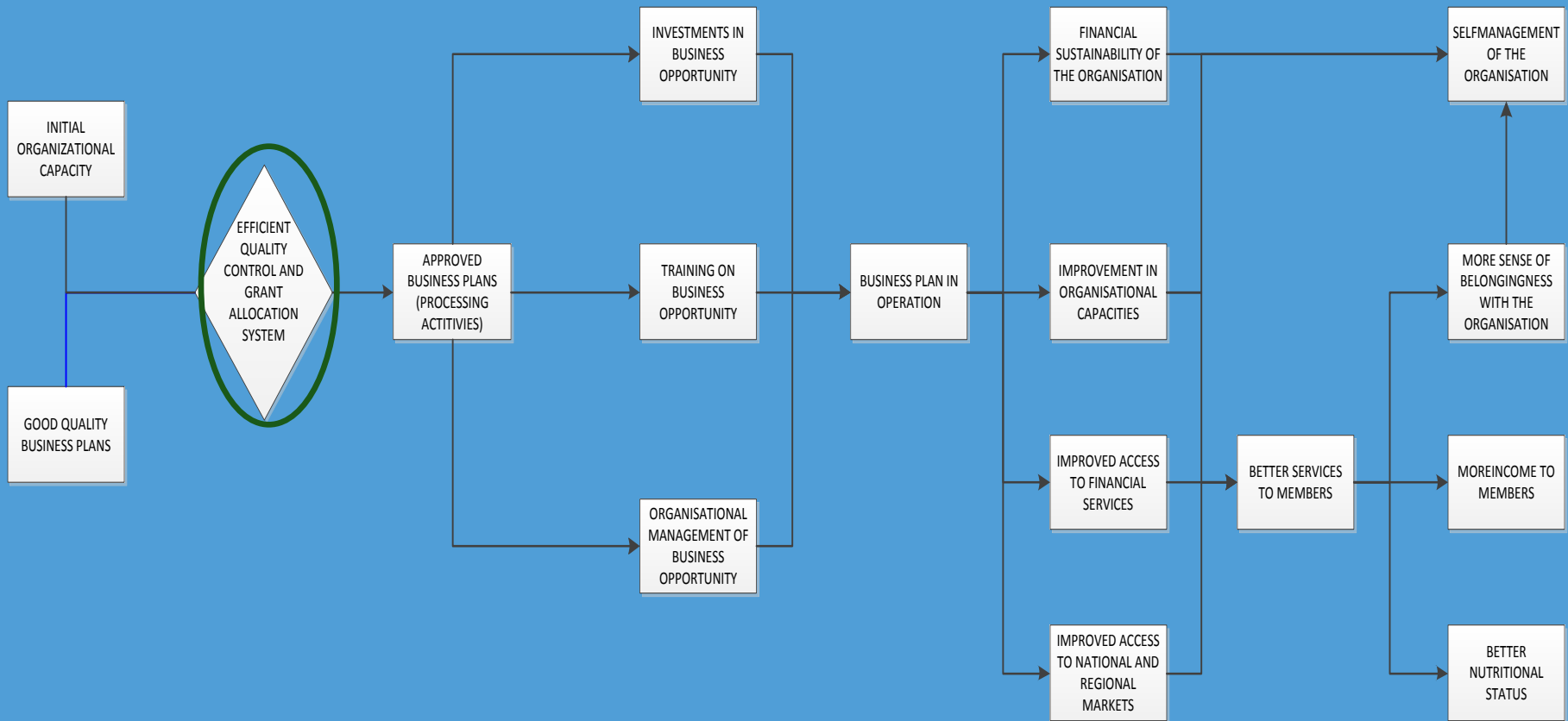
Shadish, Cook & Campbell (2002) “Experimental and Quasi-Experimental Designs for Generalized Causal Inference. Boston, MA: Houghton Mifflin Co.



Impacts of innovation grants on collective marketing groups



Intervention logic of innovation grant



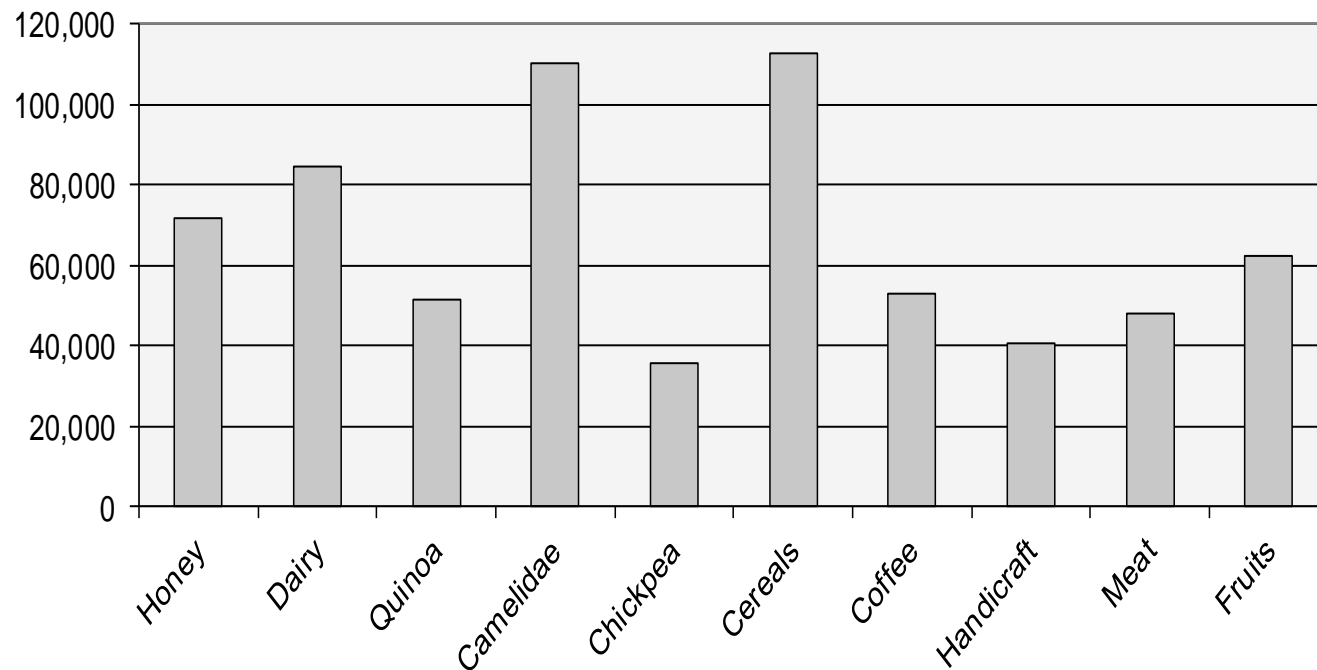


Figure 1. Distribution of FONDOECAS small-grants among different sectors (period 2007-2010, in US\$)

MONITORING & EVALUATION

TYPOLOGIES

CHECK KEY ASSUMPTION

CHECK IMPACT

CHECK IMPACT?

INTERNAL MONITORING OF
GRANT IMPLEMENTATION

EXTERNAL EVALUATION OF
BUSINESS PLAN IMPACTS

CHECKING IMPACT

METHODOLOGY DESIGN

■ Intervention

Grant support to farmer organisations' business plans: value-addition through agro-processing

■ Core method:

Difference-in-difference with time-series observations on a random sample of enterprises

To explore patterns ("for whom does the grant work and under what conditions, and why")

Assessing 'organisational capacities' next to economic benefits

EXPLORING VALIDITY THREATS TO THE CORE DESIGN

TYPE OF VALIDITY THREAT	MAIN THREAT	ADDITIONAL DESIGN ELEMENTS	RESULT/OBSERVATION
STATISTICAL CONCLUSION	Selection bias between treatment and comparison group		
INTERNAL	Attribution in complex systems		
CONSTRUCT	Measurement of organisational capabilities		
EXTERNAL	Diversity in extremis		

EXPLORING VALIDITY THREATS TO THE CORE DESIGN

TYPE OF VALIDITY THREAT	MAIN THREAT	ADDITIONAL DESIGN ELEMENTS	RESULT/OBSERVATION
STATISTICAL CONCLUSION	Selection bias between treatment and comparison group	Case-based statistics to maintain case integrity in group comparisons	We identify types of responses related to types of contexts and types of constellations of factors. We added a household survey to capture factors in the local context
INTERNAL	Attribution in complex systems	Process tracing based on significant experiences in resolving agency dilemmas in collective action	Evidence of ways that organisations change their internal organisational arrangements, through thick descriptions of the key moments when organisations have made important adjustments to their rules and regulations.
CONSTRUCT	Measurement of organisational capabilities	Cross-checking of radiography instrument between local researchers	The outcome of the 'radiography' is discussed with a wider community of informed practitioners in the area, and the resulting evaluation grid is calibrated based on that feedback.
EXTERNAL	Diversity in extremis	Structured case studies, on mechanisms that limit opportunistic behaviour	Common challenges of organisations in managing collective marketing are explored and solutions presented with a defined generalisation domain

RANDOM SAMPLE SELECTION

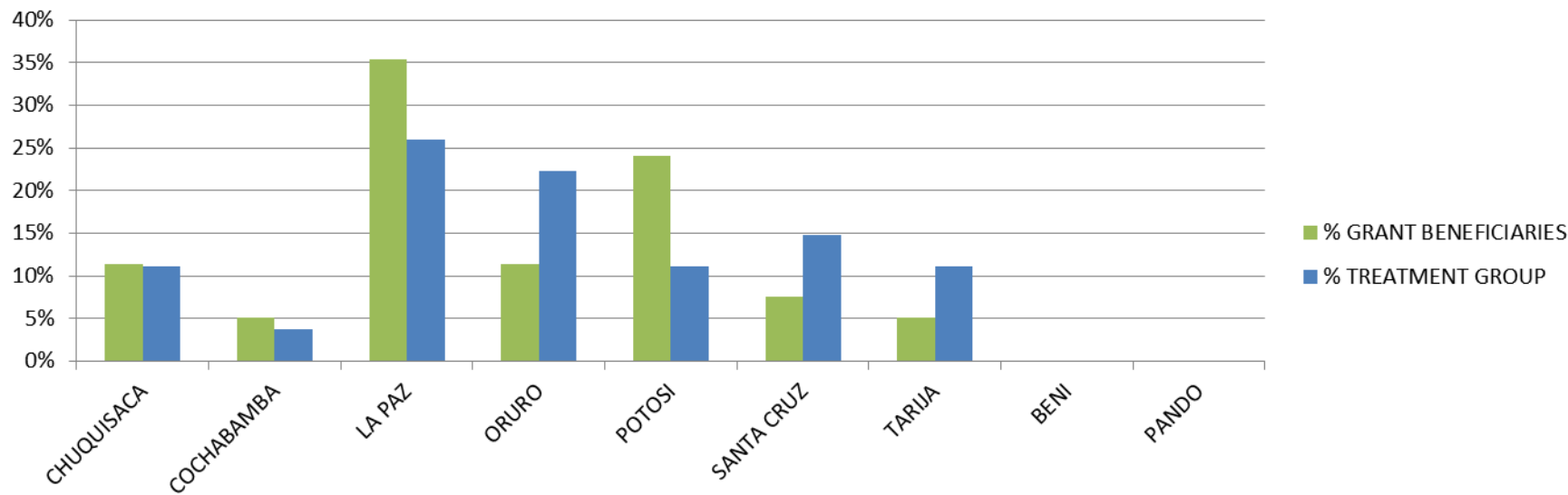
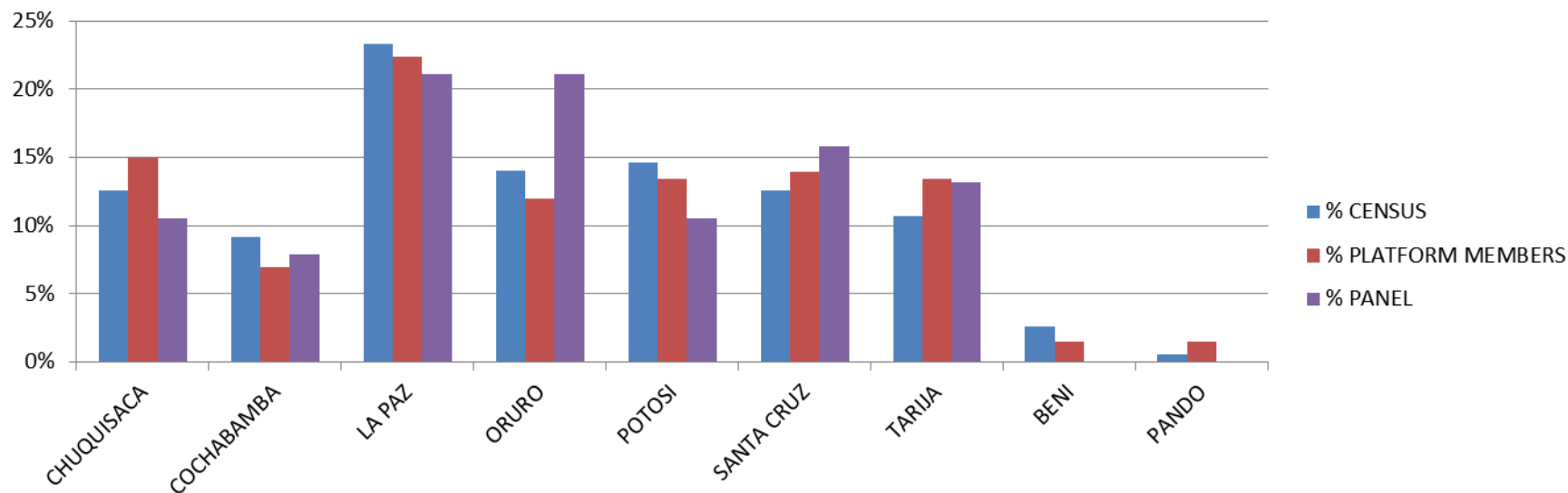
■ Difference in difference

- Treatment group: Random selection from list of beneficiaries
- Comparison group: Random selection from CIOEC-membership
- Substitution of non-response in treatment group following the random list

■ Validity threat to resulting sample:

- Potosí has reduced number of respondents for logistic difficulties to the researcher
- Non-response is high (35%) and is likely to be correlated with the outcome indicators 'organisational strength'

	Planned sample		Realized sample		Non-response	
	Treatment	Comparison	Treatment	Comparison	Treatment	Comparison
Beni	0	0	0	0	1	
Chuquisaca	3	4	3	1		2
Cochabamba	1	1	1	2		
La Paz	8	3	7	1	1	1
Oruro	5	5	6	2		3
Potosí	8	2	3	1	5	1
Santa Cruz	4	4	4	2		2
Tarija	3	2	3	2		2
TOTAL	32	21	27	11	7	11

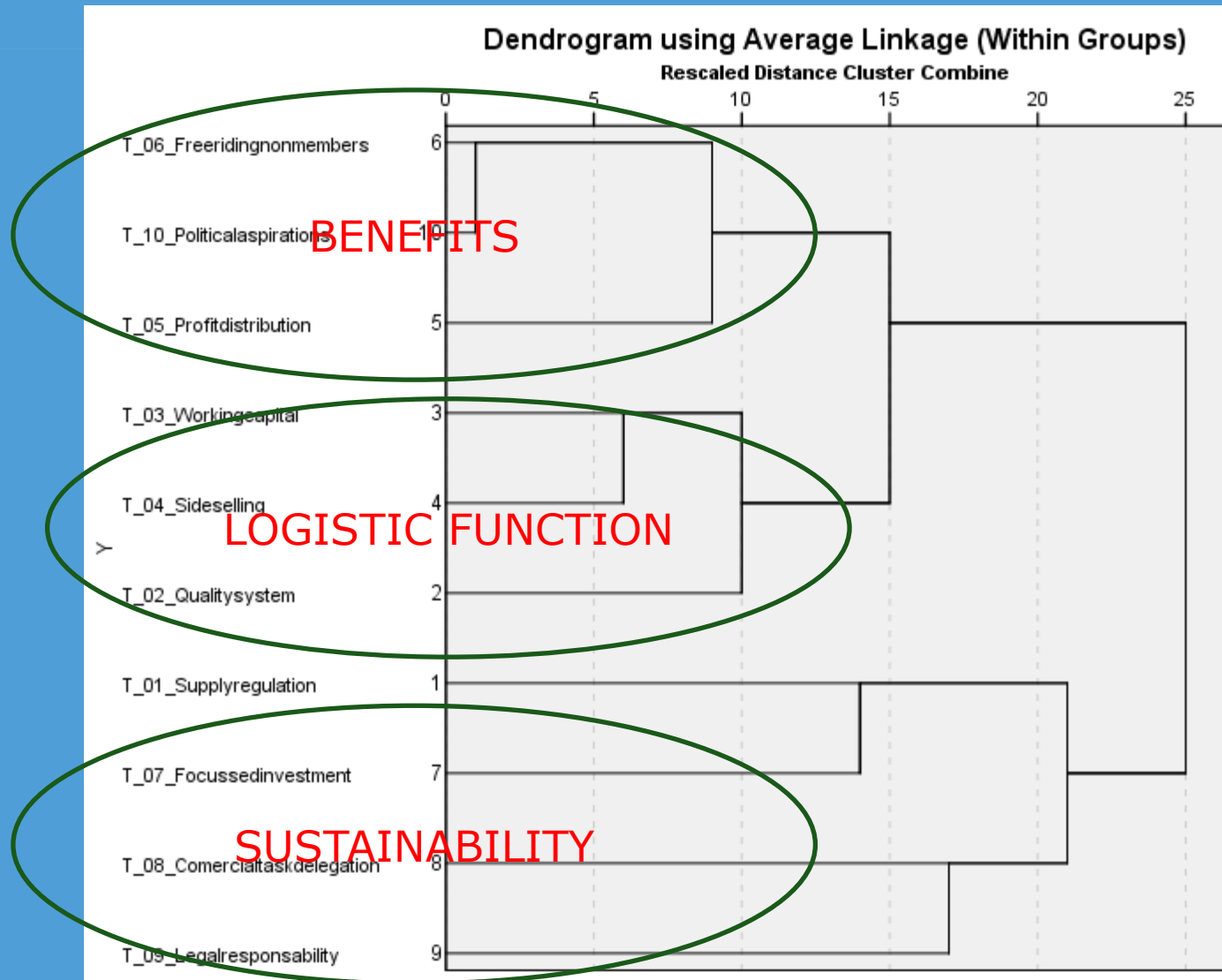


SUMMARY SHEET OF THICK DESCRIPTIONS OF STATUS AND DYNAMICS IN THE LAST 3 YEARS

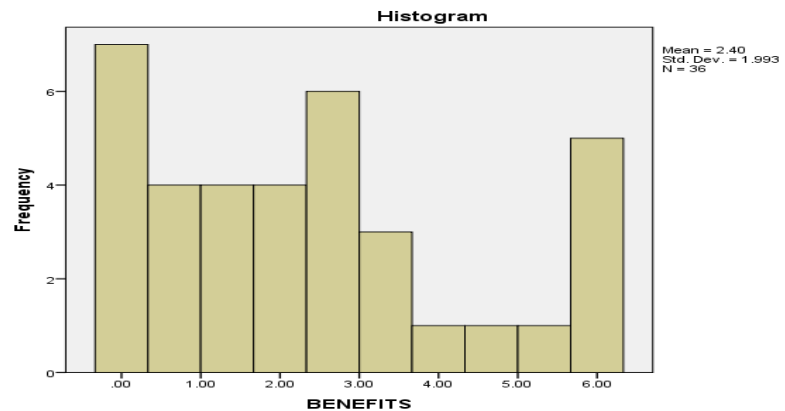
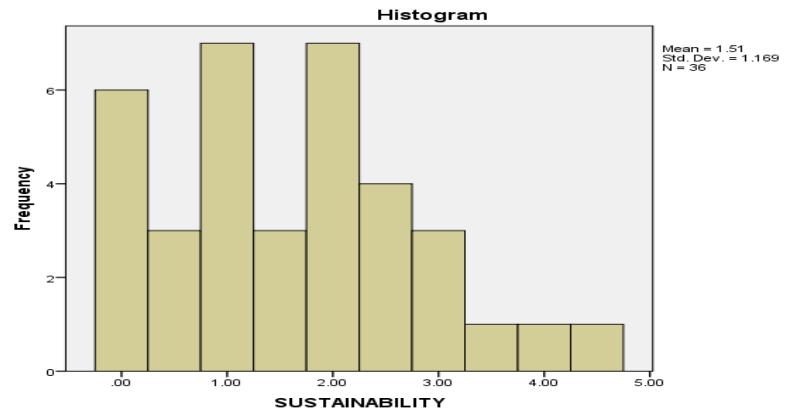
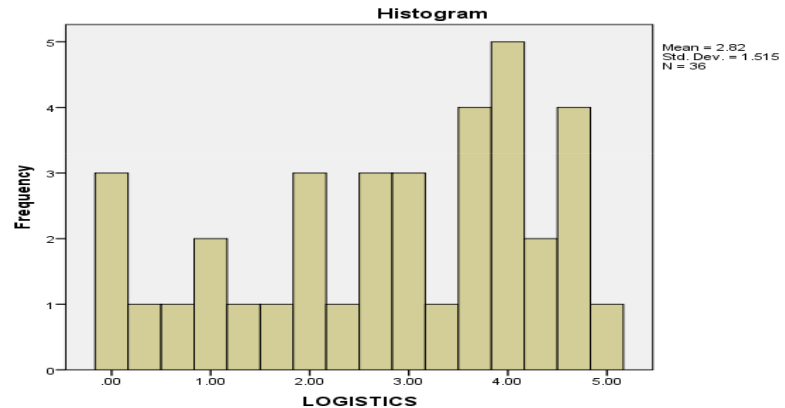
	Question 1			Question 2		
<p>RENT TENSIONS IN COLLECTIVE MARKETING THAT NEED ORGANISATIONAL MECHANISMS TO RESOLVE THEM</p>	<p>This tension is present in the activities we realize</p>	<p>Hardly present</p>	<p>Never present</p>	<p>We have managed to resolve it with organisational agreements / internal regulations</p>	<p>We are looking for ways to resolve it</p>	<p>We don't need to resolve it</p>
<p>1- <i>“Regulating member supply”</i> Members sometimes protest that the organisation does not buy all their produce?</p>						

[illegible]

Baseline analysis



- Most capacity in core functions
- Relatively low in sustainability



Forthcoming.....

- The research and data-collection is on-going:
 - Base-line radiography is finished (2011)
 - Household survey in progress (2012)
 - Second measurement (2013/2015)
- Analysis – compare/contrast two ways to detect plausible moderating conditions
 - Case-based configurations: QCA - seek patterns in the constellation of conditions that seem to explain the success of the innovation grant
 - Variable-based regressions: Moderation analysis – assess the strength/importance of factors that determine why organisations are successful or unsuccessful

CHECKING THE KEY ASSUMPTION

MONITORING & EVALUATION

TYPOLOGIES

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INTERNAL MONITORING OF GRANT IMPLEMENTATION

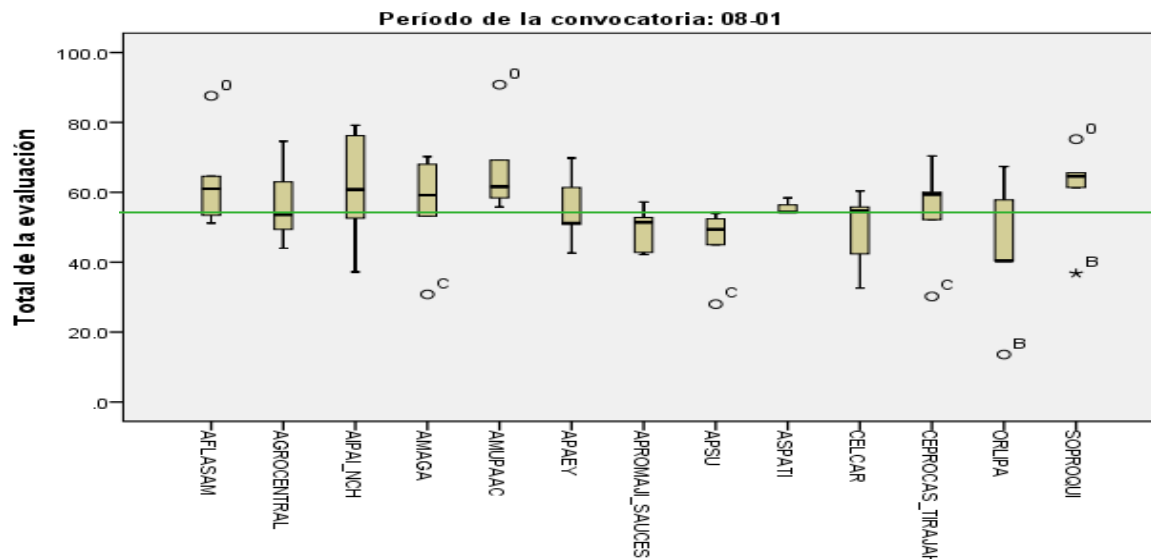
EXTERNAL EVALUATION OF BUSINESS PLAN IMPACTS

*THE STRENGTH
OF A GRANT-FUND LIES IN ITS
CAPACITY TO REJECT
NOT THE CAPACITY TO APPROVE
BUSINESS PLANS*



LEI

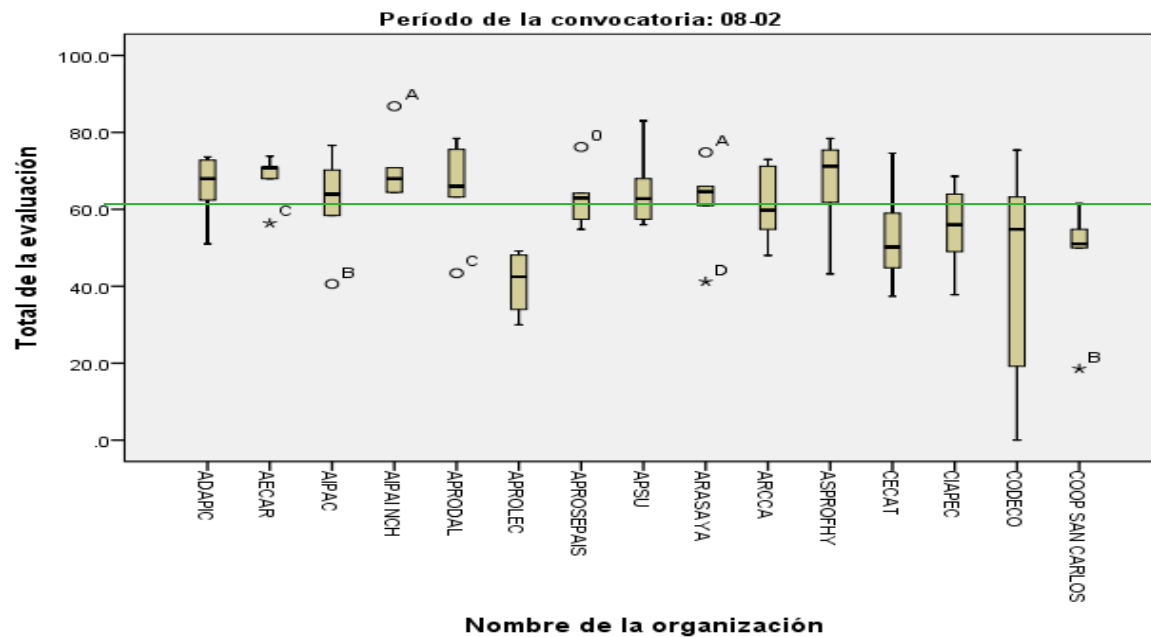
WAGENINGENUR



APROVED

55 POINTS

REJECTED



APROVED

60 POINTS

REJECTED

Conclusions

■ Validity

- Focus and refine the evaluation questions
- Check for validity threats to the likely conclusions and mix your methods accordingly
- Don't phrase your conclusions too bold

■ Generalisation

- Try to generate useful knowledge to refine intervention theories that people can believe in
- What might work for whom under what conditions?

■ Learning

- Choose an output format for the documented observations that facilitates learning by practitioners

Thank you!

The research in Bolivia is financially supported by:

