Financial Risk Management Innovations as Key Competence in Improving the Competitiveness and Member Relationships of Cooperatives

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Risk & Competence in Coop context

- Financial risk
  - The probability that the coop's net cash flow will be inadequate to satisfy member needs and coop's financial needs (health)

- Competence:
  - The ability to function or develop in a particular way in achieving the coop (and hence member) goal(s).

Complexity of cooperatives

The biggest complexity is that cooperatives have an important *"task (goal)"* to help their members to be financial healthy

A coop can only prosper with financial healthy members
- How far must the coop go?
    - Examples of dairy cooperatives

Improving the Competitiveness and Member Relationships by means of Value Creation

- Value in terms of member benefits & value of the cooperative

- Value creation
  - Traditionally → product market-combinations
    - ✓ Coops making a "commodity" a high value product (de-commoditizing)

Risk & Financial Innovations

- Financial innovation (which allows technical innovation)

  - Decrease/manage price volatility of members (driver of member financial resilience)
    - Creating or using financial instruments to lower members' capital costs
      - ✓ capitalizing on natural hedge
  - Offering risk reduction services

Challenges: Heterogeneity of members preferences in terms of risk & return

How can a cooperative continue to be relevant for all her members from a value creation perspective?

- → Heterogeneity in member base
  - Members have different needs & preferences
    - For example: Risk management needs
      - ✓ Large differences in risk attitudes and risk perceptions of members
      - ✓ Results in different risk-return trade offs and hence behavior
      - ✓ Different member segments with different contracting (and risk) preferences

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Cooperative as Portfolio of Contract Relationships

- Volatility in input (prices) and output (prices) drives:
  - Net cash flow volatility → residual risk → cost of capital
  - What is extent of natural hedge?
  - Co-variance structure of coop's portfolio
    - What risk is left?→ so called residual risk

- Portfolio of relationships with members (heterogeneity)
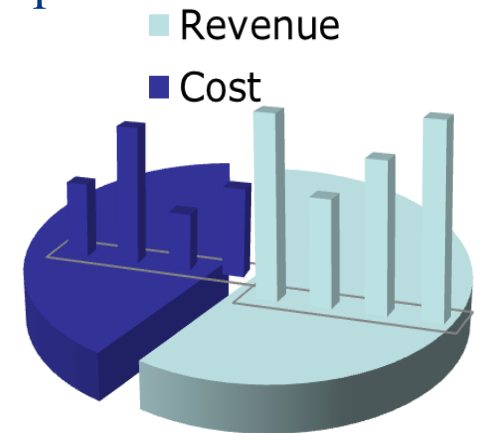
Capitalizing on heterogeneity of members

- Cooperative as a portfolio (contractual) member relationships

- Unique co-variance structure (natural hedge)
  - By adding the risks from members and other channel actors
  - Coops can reduce the risk in their own portfolio

- Revenue model for coop and members:
  - Double whammy (accelerated effect!)
  - Higher cash flow (collecting risk premium)
  - Reducing cost of capital

$$\uparrow\uparrow SV = \sum_{i=1}^{t} \frac{A_i \uparrow}{(1 + R \downarrow)^i}$$

Grain Coop (GC) case

Main challenge:

- Members face highly volatile grain prices
- Members demand action
  - ✓ needs/preferences & demands are heterogeneous
- Coop is loosing grip on physical flow of grain
  - ✓ (increasing their capital costs)

Grain Coop (GC) case

– Educate management and board members on risk management & coop relationships (coop structure): strengthening of **competence**

– Developing of action plan
  - Providing risk management service to members and combining this with physical flow challenge

– Educate members and employees about plan

– Develop tools (software) such that coop can implement and execute plan

Grain Coop (GC) case

Action Plan: Offering of 4 contractual relationships: *spot, pool, futures contracts or (virtual) storage*

- No actual storage (but instead coop goes long in futures markets on behalf of producer)

- Use storage facility for other use (e.g. fertilizer)

- Reduction in capital costs

- Cooperative insures physical flow

Grain Coop (GC) case

Results:

- Members can reduce their risk and hence cost of capital by services offered by coop

- Coop is ensured physical flow

- Using "futures" (=the action/plan) coop improves relationships, ensures physical flow and lowers its own cost of capital dramatically (capitalizing on storage)

- Coop is relevant for members again!

Leadership by Grain Coop Board and CEO

– Recognize and identify what you do **not** know→ investing in intangibles (knowledge → market-based asset); competence

– Motivating employees and coop members to *learn* and *respect* different risk-return preferences

– Capitalizing on heterogeneous risk-return preferences of members and portfolio risks of coop: Natural hedge

– Adoption of financial innovation

New founded Risk Management Coop (RMC)

Challenge:

- Dairy farmers face dramatic volatility in their margin
- Their dairy coop is not able to help them

Why?

New founded Risk Management Coop (RMC)

– Dairy farmers come together and realize that they need to hedge output (and input)

– Plan: Using futures to fix simultaneous grain (feed) price and milk price.

– They realize: we need education, we need professionals that can execute trades → development of new type of coop: **risk management coop**

Risk Management Coop (RMC)

Result

- New coop run by professionals hired by board
- Because members understand hedging they provide protocol to "managers" of RMC
- RMC complements existing dairy coop→ Improved relationships with existing coop by founding RMC!

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Experiences

- Content knowledge of CEO and Board about specific challenge is key:
  - In the case discussed:
    - Natural hedge, hedging effectiveness and optimal hedge ratios
      - ✓ Needs to be understood and quantified
      - ✓ Hedging tools (software) developed

- Capitalize on knowledge and skills available in heterogeneous membership base
  - Concept of co-creation / living lab

Risk & Coop Leadership

Demands **knowledge** and **discipline to execute**