

Social networks of Korean consumer co-operatives and organizational performance: A case of iCOOP KOREA

June 2012

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Research aims

- 1) To depict social networks of primary consumer co-operatives' boards in iCOOP KOREA
- 2) To investigate the relationship between social networks of consumer co-operatives and organizational performance
- 3) To discuss the research findings with regard to 'balanced networks' between business ties (as enterprises) and movement ties (as associations)

Social Network Analysis (SNA)

- **Social relationships in terms of network theory consisting of nodes and ties**
- **Theory and methodology for explaining dynamics of interaction between actions and structures**

Social Network Analysis(SNA)

- Strength of ties

- **Measures**

- Duration
- Frequency
- Closeness

- **Different effects**

- **Weak ties**
- **Strong ties**

External and internal ties of directors

- The benefits from external ties of directors
 - **Informational influences on strategic choice**
 - Shaping managerial views of environment
 - Providing example of strategic alternatives
- The benefits from internal ties of directors
 - **Information and advices**
 - **Mutual trust and emotional support**
 - **Opportunities to exploit information their firm already holds**

Balanced network

- **Disadvantage of excessively high strength of external ties**
 - If someone have no sufficient internal networks, it is impossible to utilize the value of information in spite of having enough information from external environments
- **Disadvantage of excessively high strength of internal ties**
 - Strong cohesion within organization can cause negative perspective on the outside
 - There might have a group-think
- **Importance of balanced network perspectives**

Balanced network

- **The transmission of information from environment to organizations consists of the two steps:**
 - **First, information is acquired from external sources**
 - **Second, information is passed on to internal members**
- **This research focuses on:**
 - **balanced network between external and internal ties**
 - **balanced network between business and movement ties**

Method

- **Data of External ties**
 - **From 61** primary consumer co-operatives
 - **Boundary:** iCOOP KOREA Group (including secondary co-operatives)
- **Data of Internal ties**
 - **From 30** primary consumer co-operatives
 - **Boundary:** within each primary consumer co-operative
- Nodes
 - **Internal:** The board and committees of the primary consumer co-operatives
 - **External:** The general meeting, Board, and committees of the Secondary co-operatives
- Network properties
 - **Communication networks:** through formal meetings such as general meeting, executive board meeting, and committees.
 - **Strength of tie:** frequency of director's attendance on the meetings in 2011
- Data collection
 - Annual reports of primary co-operatives and secondary co-operatives in 2011, Meetings' minutes in the Intranet of iCOOP KOREA
 - **In-depth interview:** 2 executive directors and 1 secretary general of primary co-operatives, 1 CEO and 2 secretary generals of the secondary co-operative
 - **Participant observation:** two Annual General Meetings of secondary co-operatives in 2012

Measures

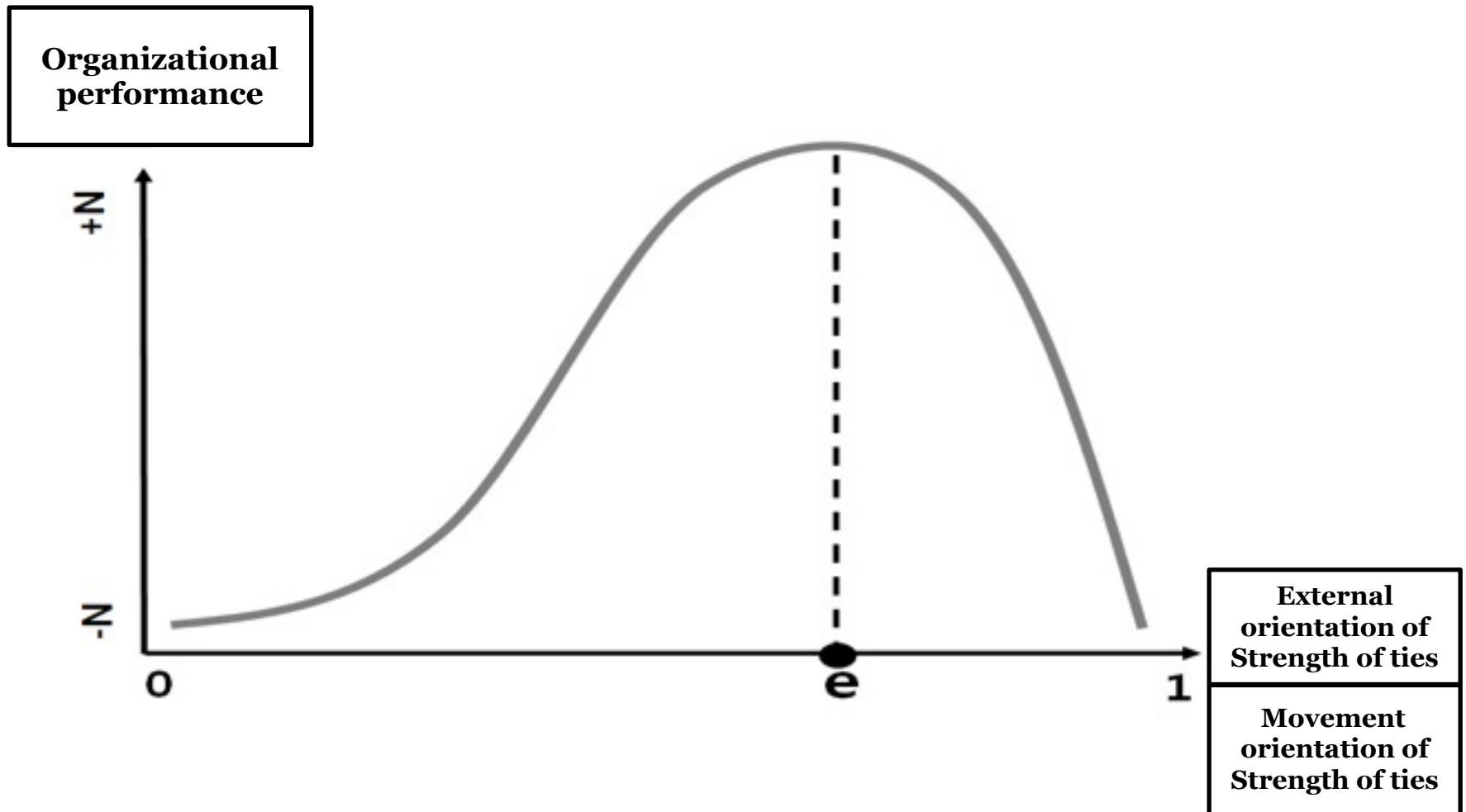
- Balanced network variables

<p>External orientation of Strength of ties</p>	$\frac{\text{Strength of external ties}}{\text{Strength of internal ties} + \text{Strength of external ties}}$
<p>Movement orientation of Strength of ties</p>	$\frac{\text{Strength of movement ties}}{\text{Strength of business ties} + \text{Strength of movement ties}}$

- Organizational performance
 - **Financial performance**
 - ROA in 2011
 - **Non financial performance**
 - increasing rate (%) of members with the previous year in 2011
 - attendance rate (%) of members on the annual general meeting in 2011
 - attendance rate (%) of members on the committees in 2011
- SNA Tool: Netminer 4.0

Research model

- Relationship between balanced network and organizational performance



Social networks of primary consumer co-operatives in iCOOP Korea

iCOOP KOREA

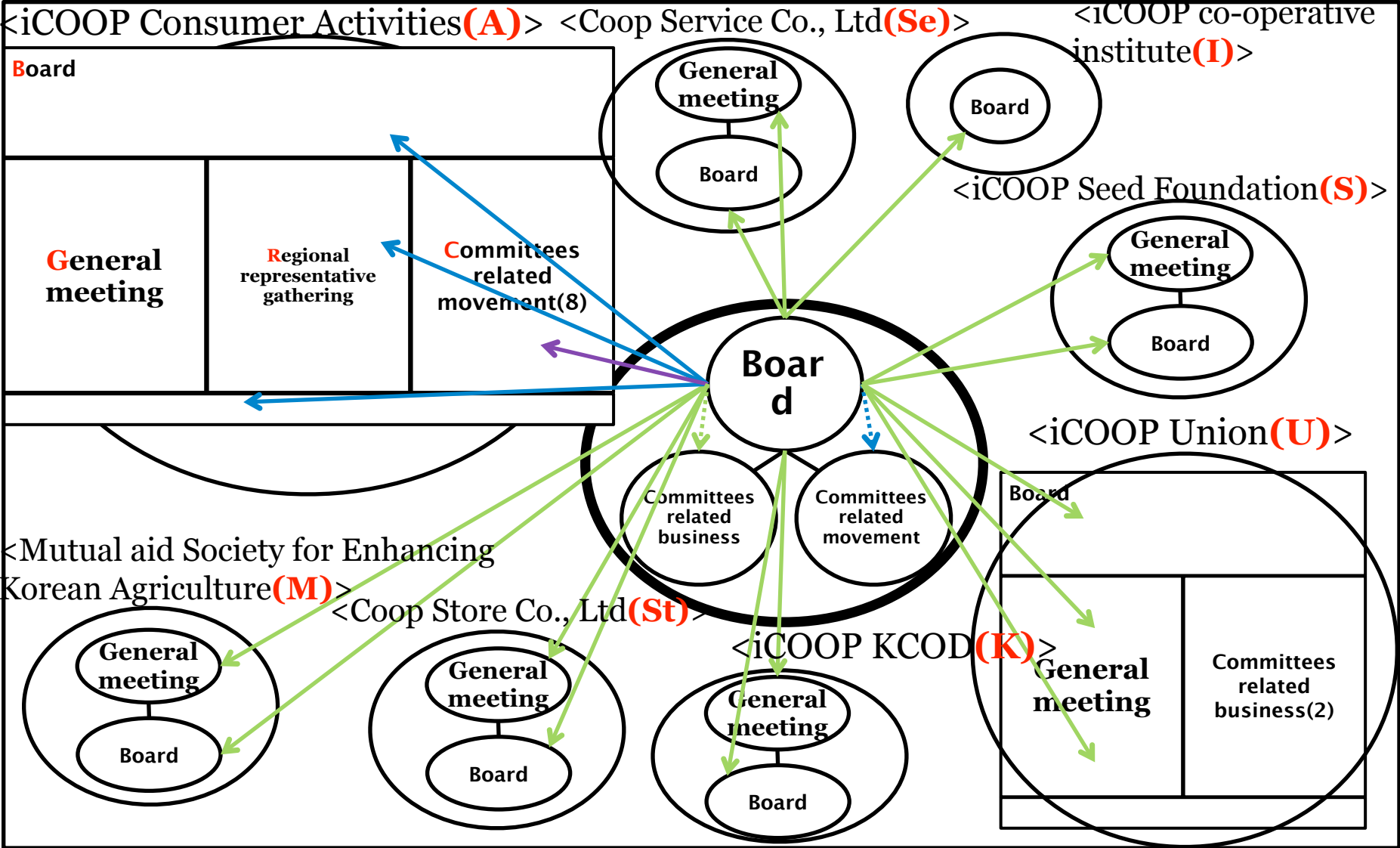
Consumer group

- iCOOP UNION
- iCOOP Consumer Activities
- Mutual Aid Society for Enhancing Korean Agriculture
- (Foundation) iCOOP Co-operative Institute
- COOP Store Co., Ltd.
- iCOOP KCOD (iCOOP Certification of Distribution for eco-friendly foods Association)
- iCOOP Certification Center
- iCOOP Eco-friendly Organic Food Cluster
- Co-op Service Co.,Ltd.
- iCOOP Seed Foundation
- COOP Eco Housing Co., Ltd

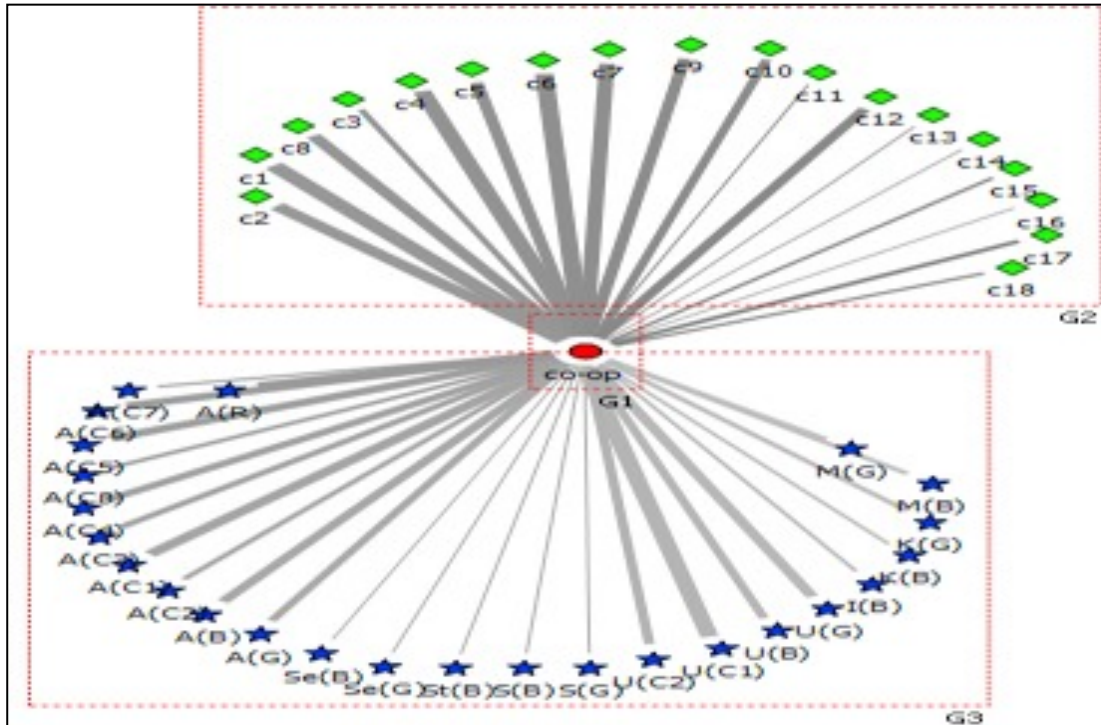
Producer group

- iCOOP Association of Producer Groups (Product Management Headquarters)
- (Agricultural Corporation) iCOOP Agricultural Production
- iCOOP Fruits & Vegetables CO., Ltd
- iCOOP Organic Food Supply Co., Ltd
- COOP Food System
- iCOOP Livestock Products Co., Ltd
- COOP Dough Co., Ltd
- COOP Bakery Co., Ltd
- Organic Food Cluster Agency Co., Ltd
- iCOOP Ramen Co., Ltd

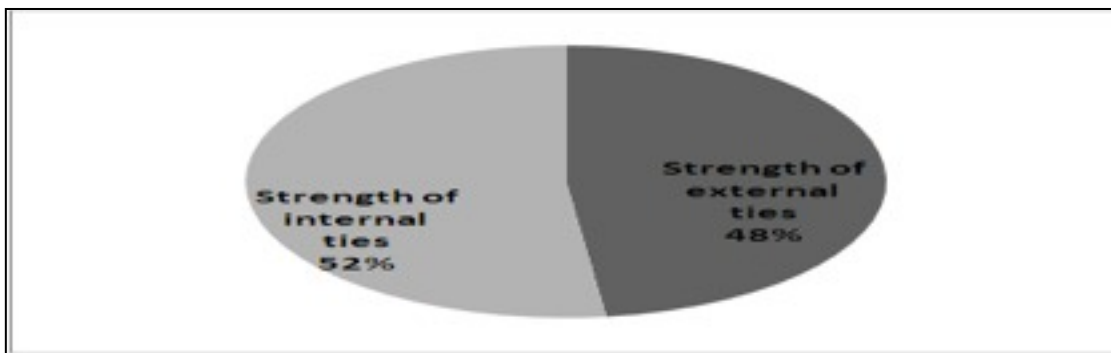
Social networks of primary consumer co-operatives in iCOOP Korea



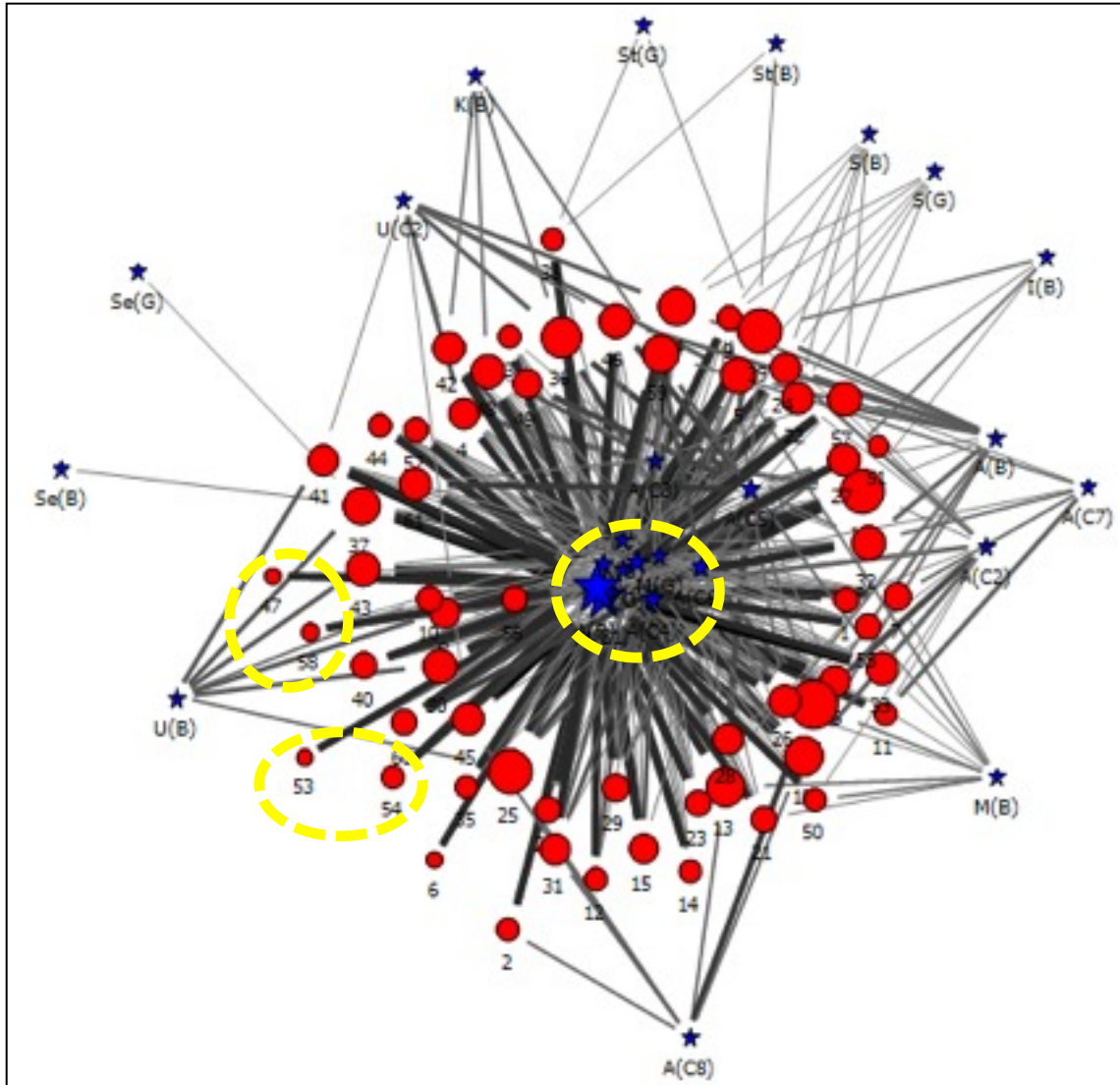
External and internal ties of whole primary consumer co-operatives' boards



- Node
 - External node: ★
 - Internal node: ◇
- Range
 - External range: 25
 - Internal range: 18
- Strength of ties
 - **External ties**
 - Regional representative gathering (A(R)) > product selection committee (U(C1)) > village meeting committee (A(C1))
 - Most of them are on the A & U
 - **Internal ties**
 - Product committee(c1) > Food safety movement committee(c6) > village meeting committee(c2)

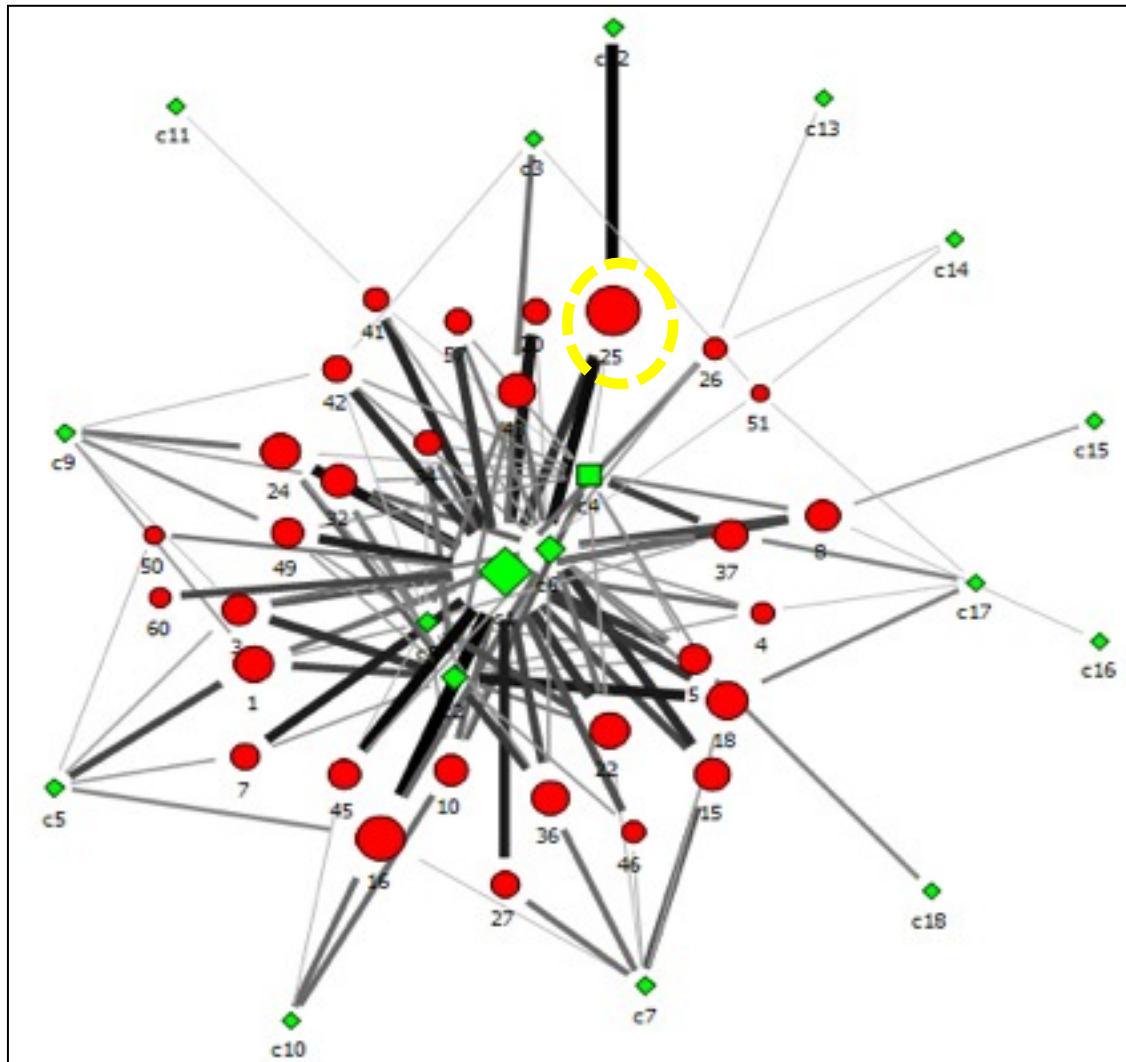


External ties of primary consumer co-operatives' board



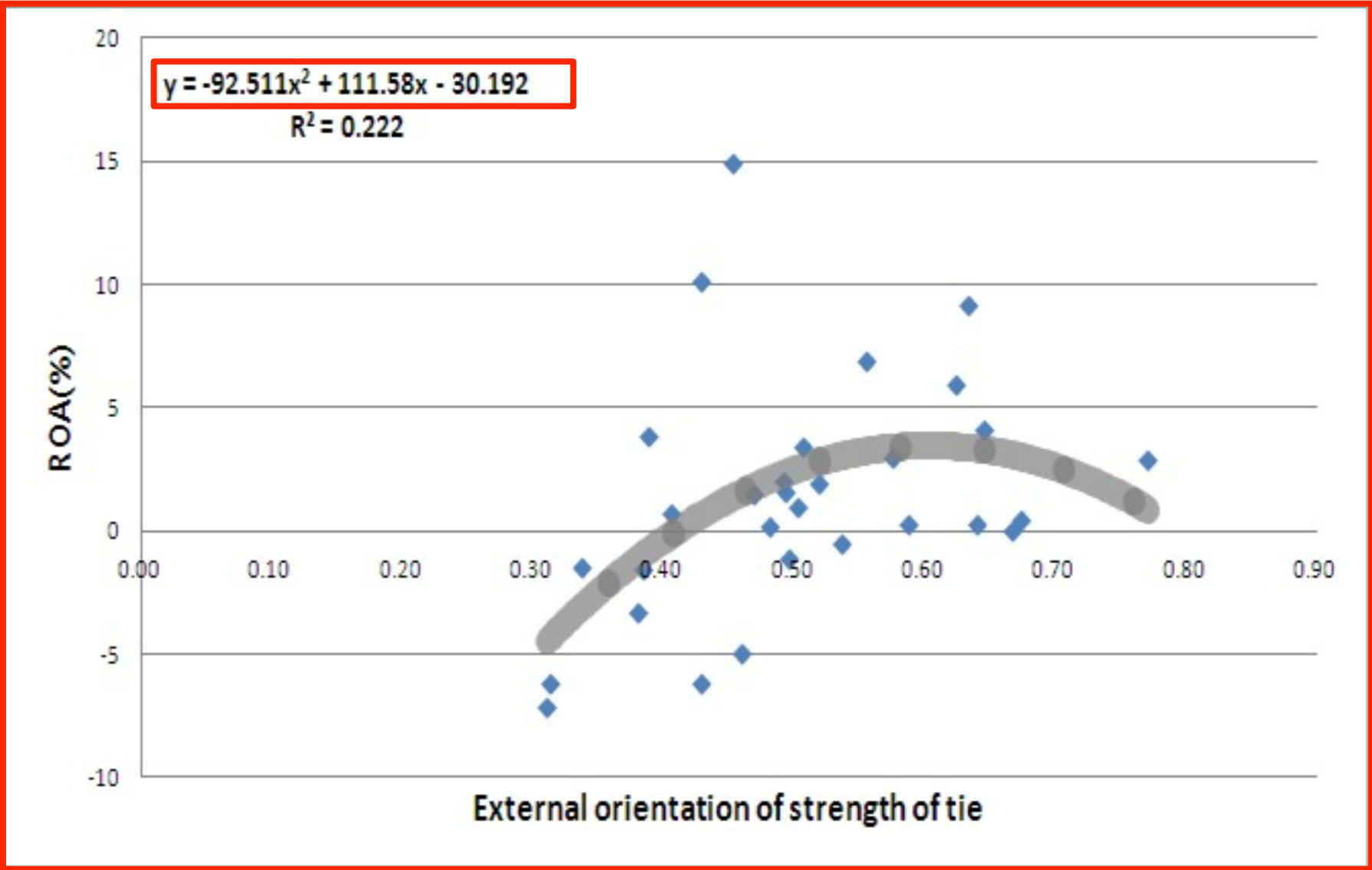
- Collaborative filtering model
 - **Distance between the different types of node**
 - Probability that one node type will participate in the another node type
 - **Distance between the same types of node**
 - Degree of similarity of participating pattern to another nodes
- Node
 - Primary co-op (○)
 - External node (★)

Internal ties of primary consumer co-operatives' Board



- Node
 - Primary co-op (○)
 - Internal nodes (◇)
- 25 Co-op' performance
 - Poor organization performance

Balanced network between external and internal ties and organizational performance



Balanced network between external and internal ties and organizational performance

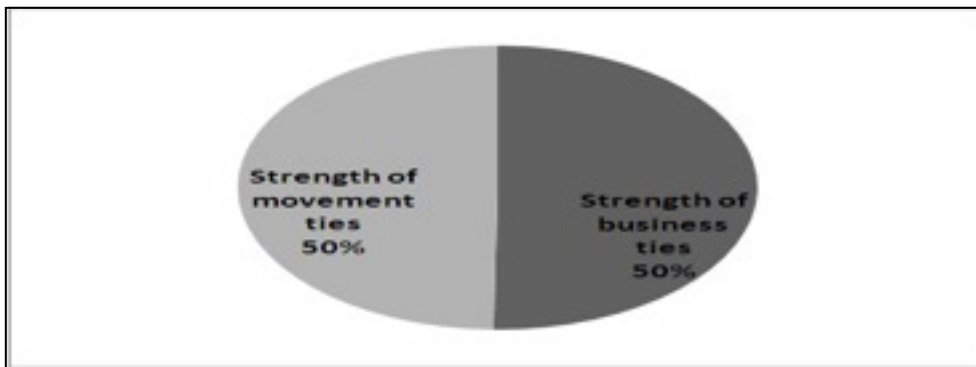
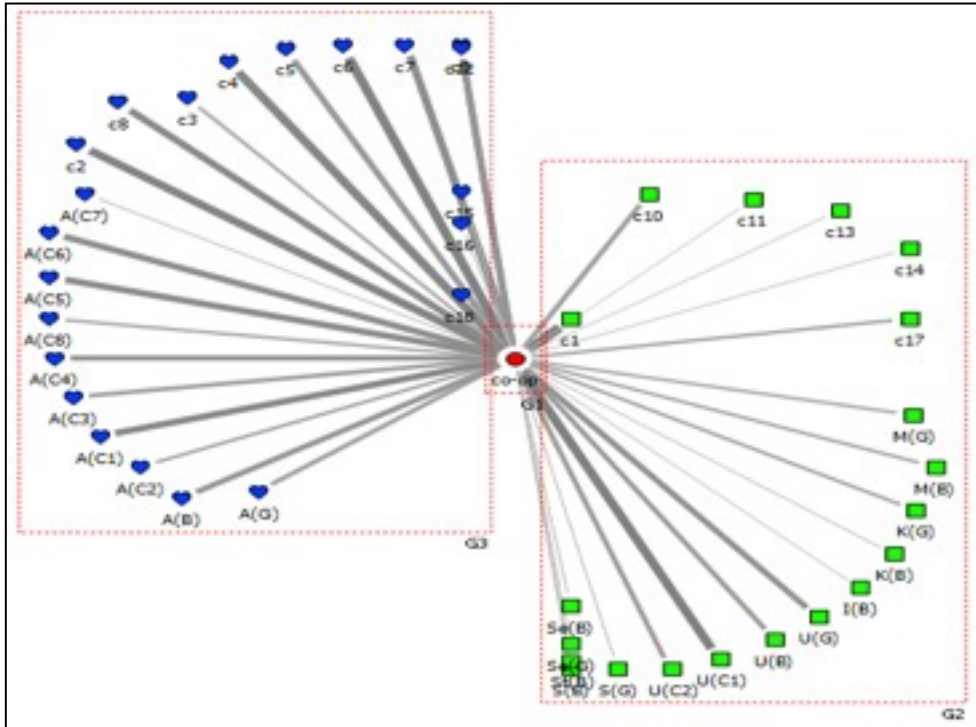
- Proposition 1

- Balanced network between external and internal ties is more significantly associated with organizational performances than unbalanced network.

- Proposition 2

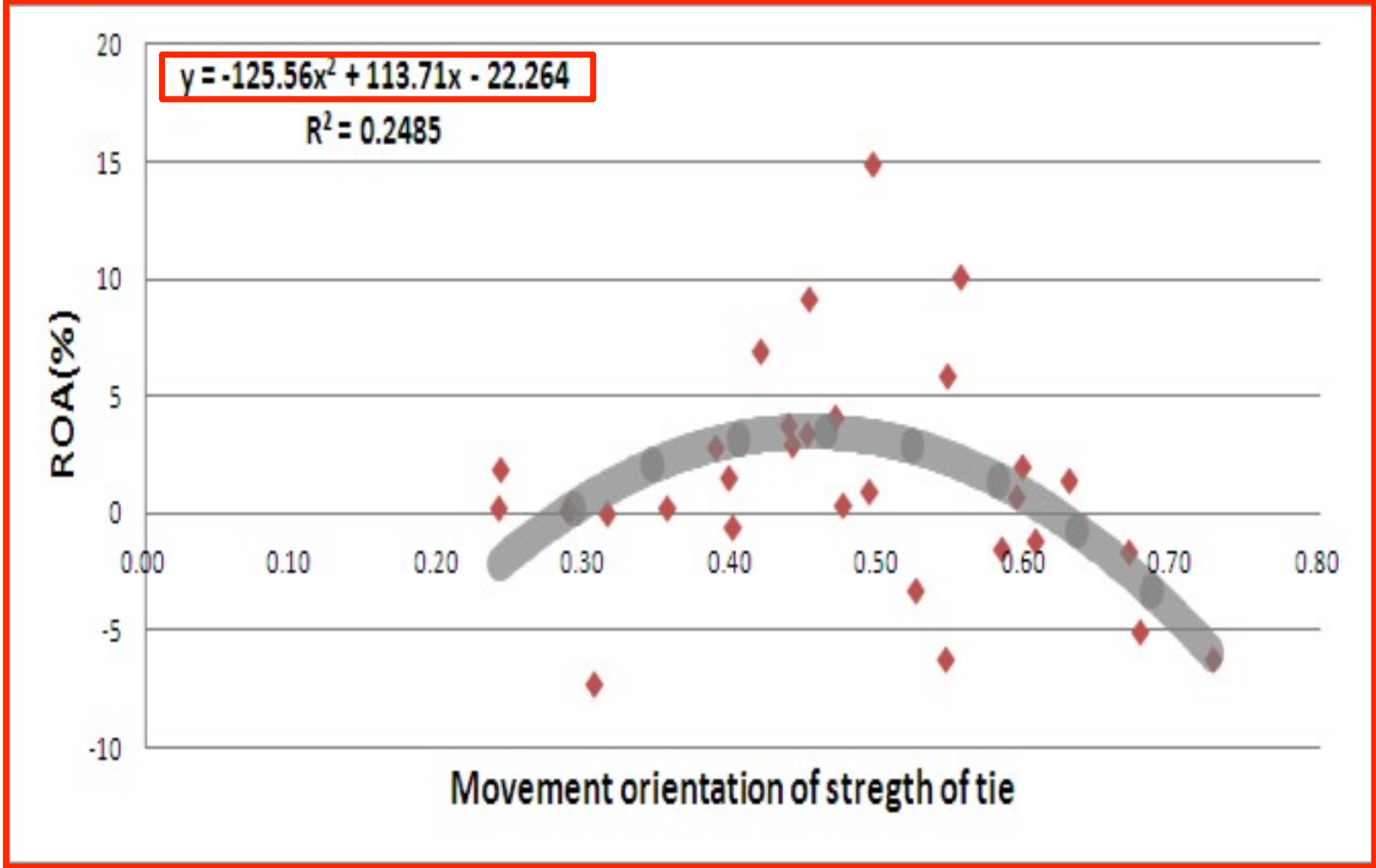
- Financial performance will have an inverted U-shaped relationship with board's external orientation of strength of ties. Financial performance is maximized at the balanced level between internal and external ties.

Balanced network between business and movement ties and organizational performance



- Node
 - **Business node:** (□)
 - **Movement node:** (♥)
- **Business ties**
 - **Range: 22**
 - **Strength of ties**
 - Most of them are low except ties related U
- **Movement ties**
 - **Range: 23**
 - **Strength of ties**
 - Most of them are likely to be high

Balanced network between business and movement ties and organizational performance



Balanced network between business and movement ties and organizational performance

- Proposition 3

- Balanced network between business and movement ties is more significantly associated with financial performances of co-operatives than unbalanced networks.

- Proposition 4

- Financial performance of co-operatives will have an inverted U-shaped relationship with board's movement orientation of strength of ties. Financial performance of co-operatives is maximized at the level of balanced network between business and movement ties.

Conclusion

- Balanced network is more significantly associated with organizational performances than unbalanced networks between external ties and internal ties.
- The equilibrium point of balanced network will maximize financial performance of co-operatives.
- Future research questions
 - Where can be the equilibrium level of balanced networks between business and movement ties?
 - How can we identify and measure the level of balanced networks?

Appendix: iCOOP KOREA Group

The Consumption Part

The followings are the businesses operating on donations from 75 nation-wide member co-operatives and their members.

- **iCOOP UNION** - Chairperson SIN, Bok-su(Former chairperson of Incheon local co-op)
iCOOP UNION is business federation invested by local co-ops to run iCOOP's co-operative business on a national scale.
- **iCOOP Consumer Activities** - Chairperson OH, Mi-ye(Former chairperson of Goyang local co-op)
The association financed by 75 local co-ops was created to promote consumer co-op movement by members. In Korean context, the main activity sectors of this network are food safety, education and child care, gender, saving eco system, and caring for local communities. The body operated by elected member-activists.
- **Mutual Aid Society for Enhancing Korean Agriculture** - Chairperson JUNG, Hyun-hwa(chairperson of Gangseo local co-op)
This organization supports members and producers in financial need due to natural disasters, loss of job or important family events.
- **(Foundation)iCOOP Cooperative Institute** - Chairperson LEE, Jeong-joo(Former Chairperson of iCOOP Association of Consumer Co-operatives)
iCOOP Cooperative Institute is involved in a variety of academic activities: documentation on iCOOP KOREA's identity; key activities training; diverse research projects; forums; symposiums; and projects on education, publishing and public relations.
- **COOP Store Co., Ltd.** - President LEE, Jeong-joo(Former Chairperson of iCOOP Association of Consumer Co-operatives)
COOP Store conducts businesses of Natural Dream stores invested by members of local co-ops.
- **KCOD(Korea Certification of Distribution for Eco-friendly Foods Association)** - President PARK, In-ja(Former chairperson of Jinju local co-op)
With the "A mark," KCOD has created new inspection criteria for the entire producing, distributing, and consumption process so consumers can safely trust organic produce.
- **Center for KCOD** - Representative Director JEONG, Chan-yul(Secretary-Generals of KCOD)
Center for KCOD is selected by the National Agricultural Products Quality Management Service as Gyeonggi-do Strategic Certification Organization for Eco-friendly Produce.
- **iCOOP Eco-friendly Organic Food Cluster** - Representative Director JIN, Kyung-hee(Former chairperson of Hanbat local co-op)
Under iCOOP UNION, the iCOOP Eco-Friendly Food Cluster Inc. is a company that develops and manages such a cohesive system of cluster.
- **COOP SERVICE Co., Ltd.** - Representative director KIM, Kyun-seop(Executive director of iCOOP UNION)
Co-op Service is a logistics company established jointly by local co-ops and producers.
- **iCOOP Seed Foundation** - Chairperson SIN, Bok-su(Former chairperson of Incheon local co-op)
iCOOP Seed Foundation is a designated donation organization certified by the Ministry of Strategy and Finance, spreading desirable donation culture and developing various public services.
- **COOP Eco Housing Co., Ltd.** - Representative director LEE, Hee-han(Chairperson of Bitpoel local co-op)
COOP Eco Housing is an architectural company established by COOP Store's investment, aiming eco-friendly architectures.

The Production Part

Followings are enterprises founded on producer contributions led by the iCOOP Association of Producer Group.

- **iCOOP Association of Producer Groups** - Chairperson PARK, Seg-weon(Representative of 933 Environmental Agricultural Farming Cooperative Co.,Ltd)
The association promotes sustainability and ethical production in agriculture and society.
- **(Agricultural Corporation) iCOOP Agricultural Production** - Representative Director JOO, Jung-bok(Former Director of Hongseong Poolmu Cooperative)
Under the iCOOP Association of Producer Group, it manages such eco-friendly produce as rice, Korean wheat, minor grains, vegetables and fruits.
- **iCOOP Fruits & Vegetables Co., Ltd.** - Representative KWON, Young-jun(Director of iCOOP Association of Producer Groups)
iCOOP Fruits & Vegetables not only products eco-friendly fruit and vegetable, but also makes collective purchase contract with iCOOP UNION.
- **iCOOP Organic Food Supply Co., Ltd.** - Representative Director PARK, Seok-won(Representative of 933 Environmental Agricultural Farming Cooperative Co.,Ltd)
This organization supplies safe meals to schools and companies through a transparent distribution system.
- **COOP food system** - Representative Director KIM, Jin-soo(Representative of Chamalgun Farm Co-operative Co.,Ltd)
As a subsidiary of Co-op Agriculture Co. Ltd, the Co-op Food System is in charge of processed food business such as dry milk, powdered food, and rice porridge.
- **iCOOP Livestock Products Co., Ltd.** - Representative Director LEE, Soo-geom(Former Representative Sandul Farm Co-operative Co.,Ltd)
The corporation manages production and distribution of all processed meat products supplied by iCOOP KOREA.
- **COOP Dough Co., Ltd.** - Representative Director CHOI, Byung-guk(Representative of Gajin Farm)
iCOOP Dough, a subsidiary of Co-op S&D focuses on supplying dough for bakeries inside Natural Dream stores.
- **COOP Bakery Co., Ltd.** - Representative Director KIM, Young-suk(Former Vice chairperson of iCOOP Association of Consumer Co-operatives)
Co-op Bakery is managed directly by iCOOP KOREA for purpose to make fresh and delicious breads, cakes, and sweets stuffs sold in Natural Dream stores.
- **Organic Food Cluster Agency Co., Ltd.** - Representative Director PARK, Dong-ho(Executive Director of Woorikong Food) / Head of Business CHOI, Yang-boo
Selected as official supporter for 'Regional Strategic food Industry Development Plan' of the Ministry for Food, Agriculture, Forestry and Fisheries, Organic Food Cluster Agency is smoothly implementing Goseon Natural Dream Park development project.
- **iCOOP Ramen Co., Ltd.** - Representative Director CHA, Min-seok(Representative of Sandulchon Food Co.,Ltd)
iCOOP Ramen produce instant noodles lightening the price burden as well as safe Korean native wheat instant noodles through technical development of seasoning and direct production from a long-term perspective.

Appendix: Committees of iCOOP KOREA Group

Product selection Committee(U(C1))	Products dealing-decision, inspection of producing areas
Product handling standards Committee(U(C2))	Decision on handling standards of Products decision
Village Meeting Committee(A(C1))	Activities to share and cope with various daily issues
School Lunch Committee(A(C2))	Parents' activities for eco-friendly school lunch
Publicity & Editing Committee(A(C3))	Activities of broadcasting co-operative, public relations
Food Safety movement Committee(A(C4))	Educating members on food safety, activities for heightening food safety indices
Rice Field Ecosystem Research Committee (A(C5))	Activities to learn and promote activities for enhancing biodiversity in paddy fields
Education Committee(A(C6))	Activities to share knowledge and wisdom from co-operatives to society and humanities
packing materials recycling Committee(A(C7))	Activities to share knowledge and wisdom from co-operatives to society and humanities
Food safety index evaluation group(A(C8))	Development and evaluation on food safety index

Appendix: iCOOP KOREA's Today

Target
gross sales
in 2012
KRW350billion
(CDN310-
million)



Unit:hudred mill,KRW

$$y = -92.511x^2 + 111.58x - 30.192$$
$$R^2 = 0.222$$