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APPENDIX 1: INDICATORS AND VARIABLES FOR SECOND OBJECTIVE

Table 1: Indicators for second variable

Indicators	Variable	Type of variable	Unit of measurement
1. Transport	Price_Transport	Continuous	GEL
	Farmer_believe_transport_high	Categorical	Likert scale 1-5 (strongly disagree-strongly agree)
	Transport mode	Categorical	1-3 transports mode: (1= public transport, 2= own car,
2. Quantity	Frequency_selling	Categorical	Weeks
	Quantity_transported	Continuous	Kilogram
	Farmer_believe_quantity_low	Categorical	Likert scale 1-5 (strongly disagree-strongly agree)
3. Quality	Farmer_believe_quality_low	Categorical	Likert scale 1-5 (strongly disagree-strongly agree)
4. Price of cheese (sulguni type)	Price	Continuous	GEL
	Farmer_believe_price_low	Categorical	Likert scale 1-5 (strongly disagree-strongly agree)
5. Labor	Farmer_believe_lack_labor	Categorical	Likert scale 1-5 (strongly disagree-strongly agree)
6. Cheese marketing	Distance	Continuous	Kilometer
	Type_Market	Categorical	1-5 types of market: 1=local open

	Actors	Categorical	market, 2= supermarkets, 3= farm gate, 4= restaurants, 5= Cheese processors 1-5 actors: 1=retailers, 2= middlemen, 3= supermarket owners, 4= consumers, 5= cooperative
7. Type of contracts	Contract	Categorical	1-3 types: 1= oral, 2= written, 3= No contract at all
8. Price agreed before hand	Price_agreement	Categorical	Yes/ No
9. Farmers receive inputs from middlemen	Access_inputs	Dichotomous	Yes/ No
10. Farmers receive loans from middlemen	Access_loans	Dichotomous	Yes/ No
11. Monopsony position of middlemen	Small-scale producers	Continuous	Number

APPENDIX 2: RESULTS -TABLES

Table 2 : Institutional arrangements between farmers and middlemen

Indicator	Farmers sell via middlemen n= 10	Farmers sell directly to other traders n= 90
Contract forms	100 % -Word of mouth contracts between farmers and middlemen	
<ul style="list-style-type: none"> • Written • Oral (word of mouth) • No form of contract 		
Contract specification	100 % - The price is agreed before trading with middlemen	
Price		
<ul style="list-style-type: none"> • Price agreed before hand • No pre-agreed price 		
Inputs (animal feed, milk, rennet, artificial insemination)	100 % -Farmers do not receive inputs or other support	
<ul style="list-style-type: none"> • Yes • No 		
Credit/ Loans	100 % -Farmers do not receive any financial credit or get access to financial services from middlemen	
<ul style="list-style-type: none"> • Yes • No 		

Table 2: Descriptive statistics of price of Normal cheese

	N	Mean	Std. Deviation	95% Confidence Interval for Mean		Min	Max
				Lower Bound	Upper Bound		
Small-scale cheese producers	10	8.23	.962	7.04	7.42	5	9
Middlemen	5	9.40	1.14	7.98	10.82	8	11
Retailers	12	11.58	1.16	9.84	11.32	9	13
Total	11	7.67	1.46	7.40	7.93	5	13

Table 3: ANOVA test of mean prices of normal cheese between farmers, middlemen and retailers

Sulguni cheese price					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	95.881	2	47.941	34.786	.000**
Within Groups	157.110	114	1.378		
Total	252.991	116			

Note: ** significance at 95 % level

APPENDIX 3: RESULTS -FIGURES

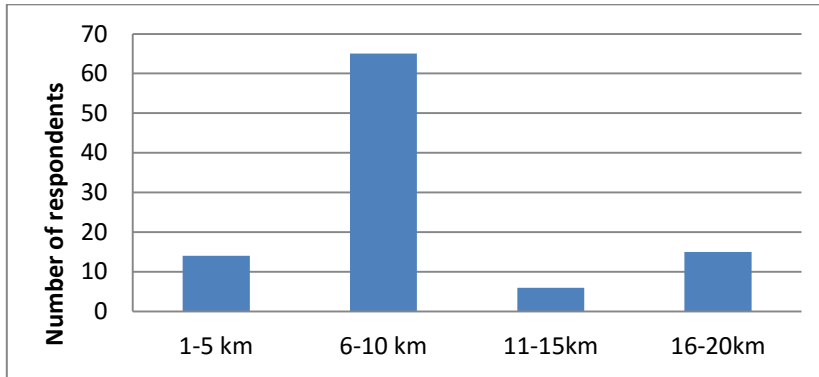


Figure 1: Average distance traveled by small scale farmers to reach the local open markets

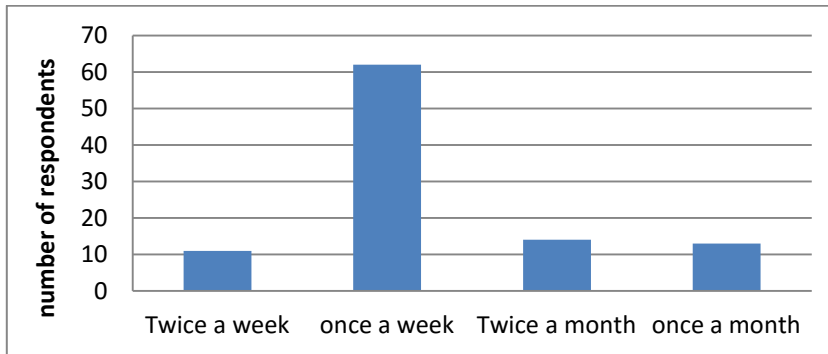


Figure 2: meeting frequency of small scale farmers with traders

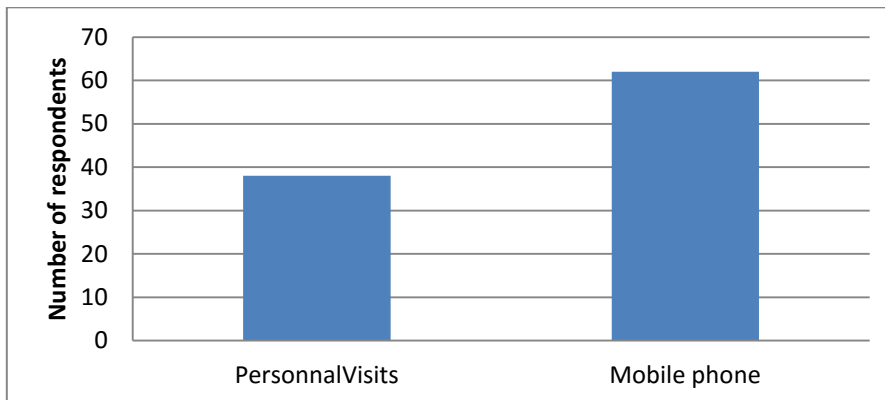


Figure 3: Communication channel between small scale farmers and traders

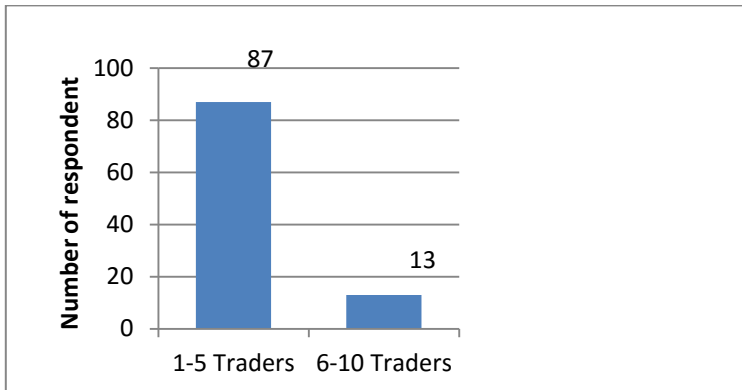


Figure 4: Average traders

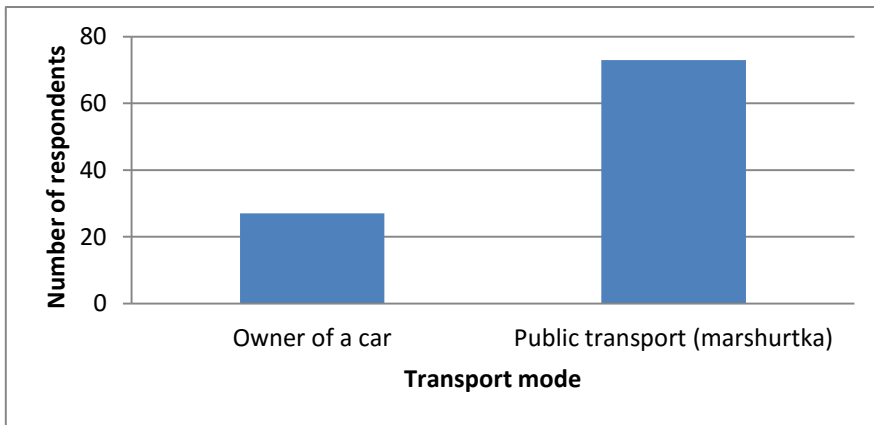


Figure 5: Transport mode

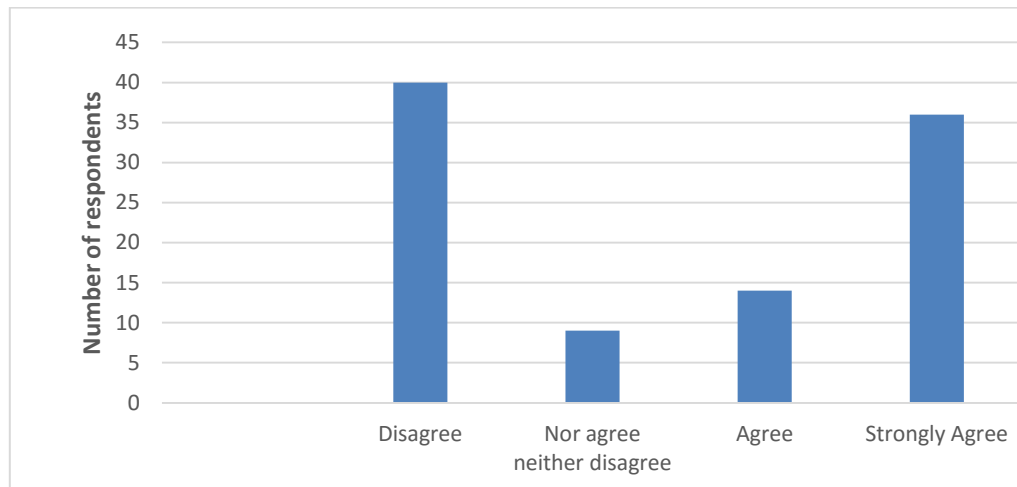


Figure 6: Farmers are satisfied with current trader

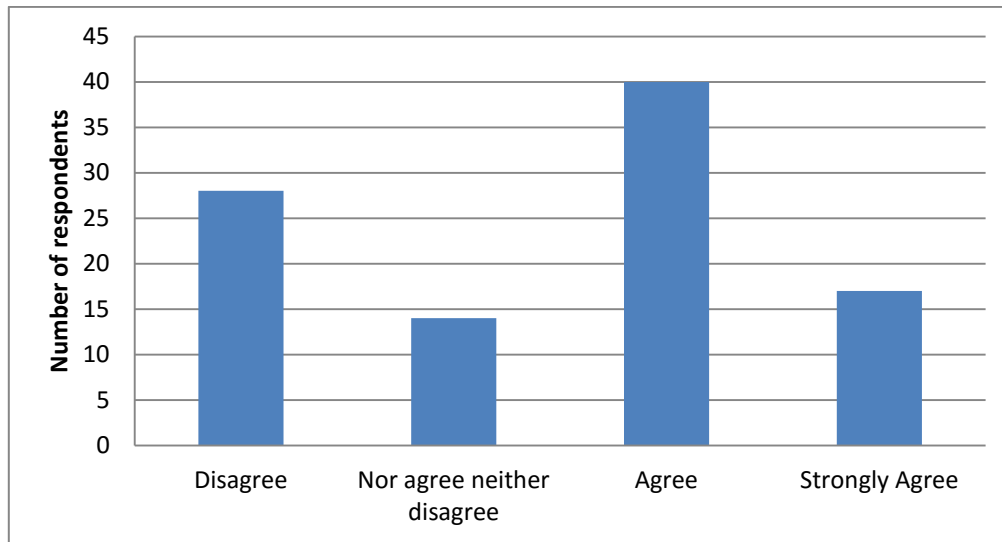


Figure 7: Willingness of farmers to join a cooperative

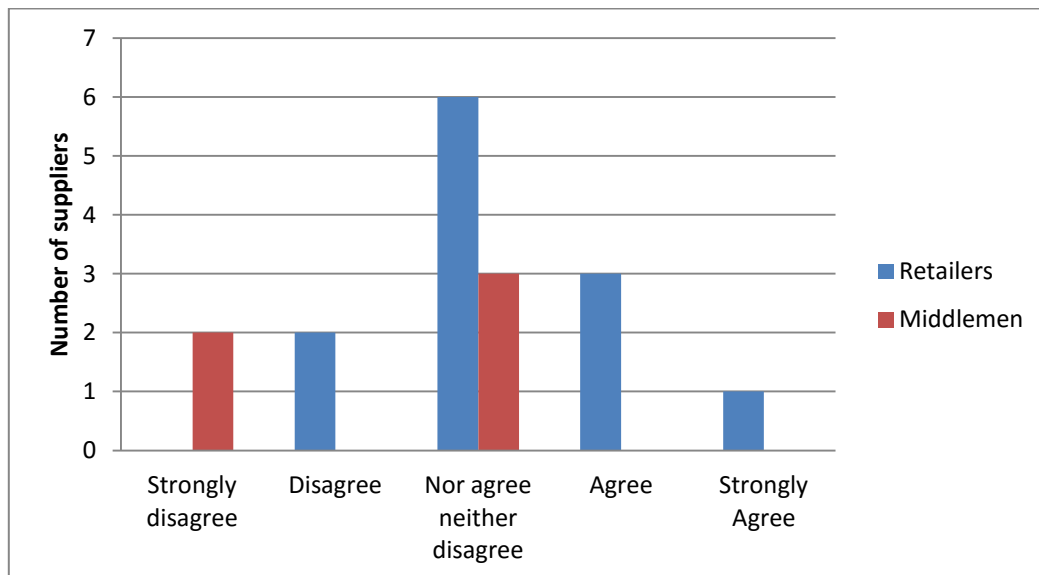


Figure 8: Middlemen and retailers point of view on distribution channel, after farmers join cooperative

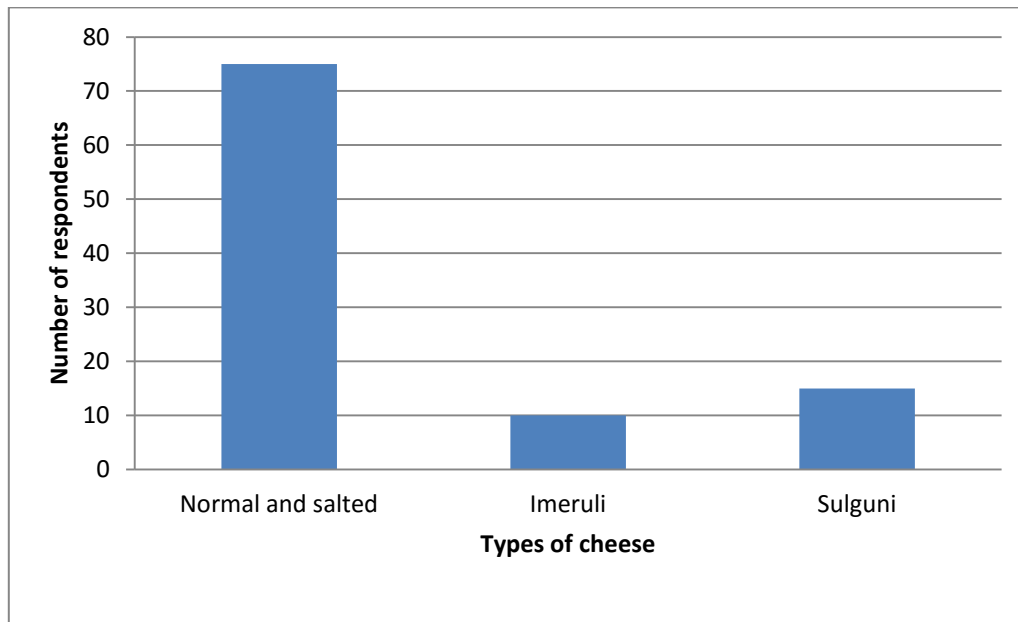


Figure 9: Cheese types

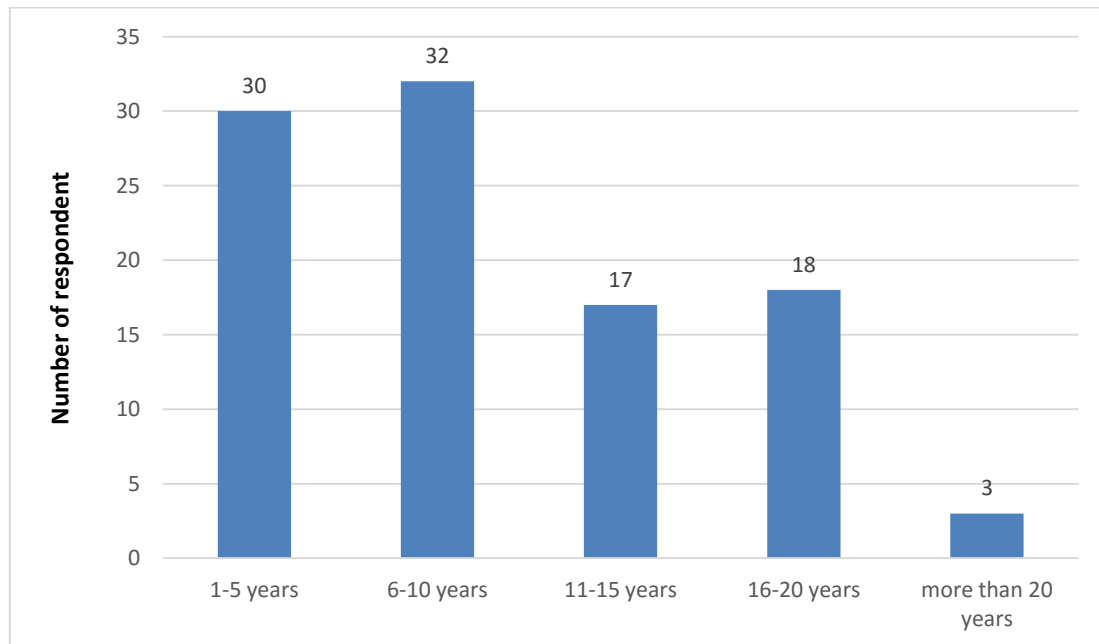


Figure 10: Years since farmers have been in cheese business

APPENDIX 4: CATTLE BREED AND CHEESE MAKING IN IMERETI REGION



Source: Author



Source: Author

APPENDIX 3: QUESTIONNAIRE FOR CHEESE COMMERCIAL FARMERS

Introduction

My name is Pacifique Ingabire and I would like you to help me fulfill this questionnaire, which is about Cheese commercial farmers and how they access the market. This survey is a part of my requirements for my academic studies at the Czech University of Life sciences in Prague.

Main objective of the study is to identify key constraints that limit farmer's productivity in the local value chains with special regard to the role of local middlemen

No. of questionnaire
Village
Name of respondent
Gender of respondent
Date of interview

Section 1: CHEESE MARKETING CHANNEL

1) How does your cheese access to the market

- Sell directly to retailers
- Middlemen
- Wholesale traders
- Urban market/ supermarket
- Farm gate
- Consumers
- Other (specify)

2) What types of markets are available for you in your area?

- Individuals
- Cheese Processors
- Schools
- Supermarkets
- Local open Market
- Restaurants
- Other (specify)

3) What is the average distance to the local market in km

..... Km

4) What is the price of public transport to the nearest local open market

.....GEL

5) For how many years, have you been selling cheese?

- 1-5
- 6-10
- 11-15
- 16-20
- More than 20 years

6) How many kilograms do you transport from here to the market every week?
kg

7) Do you have any idea where your harvest goes?

- YES
- NO

If yes describe the distribution channel

.....

8) How many buyers do you supply too?

- 1-5
- 6-10
- 11-15
- 16-20
- More than 20

Section 2: THE ROLE OF MIDDLEMEN, TRADERS AND OTHER BUYERS

9) Where does he collect your products?

- Home
- Nearest village
- market
- Cooperative
- Other (specify)

10) How often do you meet with the trader?

- Twice a week
- Once a week
- Twice a month
- Once a month
- Other, specify

.....

11) How many farmers does your buyer work with (if you have knowledge of this information)?

- 1-5
- 6-10
- 11-15

- 16-20
- More than 20

12) What type of cheese do you supply?

- Salted cheese
- Sulguni
- Mozzarella
- Gouda
- Other types, specify

.....

13) Why do you supply to your current buyer?

- Pays more
- Neighbor
- Family member
- Distance
- Quantity
- Other reasons, specify

.....

14) To what extent would you agree by the following statements? ONLY FOR FARMERS WHO TRADE WITH MIDDLEMEN

Question/ Options	Strongl y agree	Agr ee	Nor agree neither disagree	Dis agr ee	Stro ngly disa gree
I believe middlemen give me a decent price					
It is more important for me to receive money as soon as possible from the middleman rather than wait for better price later on the market					
I am satisfied with the situation to supply to middleman, I do not want to supply to retailers					
I am in a good position to negotiate a better price					

15) To what extent would you agree by the following statements? ONLY FOR FARMERS WHO TRADE WITH RETAILERS, SUPERMARKET OWNERS AND OTHER BUYERS

Question/ Options	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Retailer, supermarket owner, or other buyer give me a decent price					
It is more important for me to receive money as soon as possible from the buyer rather than wait for better price later on the market					
I am satisfied with the current situation with the buyer, I do not want to supply to middlemen or others					
I am in a good position to negotiate a better price					

TO BE ANSWERED BY ALL

Section 4: Institutional Arrangements of buyers and small-scale cheese producers

16) What type of contract do you have

- Word of mouth contract
- Signed contract
- No contract at all (specify how does the buyer contact you)

17) How are you paid?

- In advance
- Cash on the spot
- Later
- If later, specify when.....
- If in advance, specify when.....

18) When do you agree on the price with the buyer?

- No pre-agreed price
- Price is agreed before selling cheese
- Price is agreed after selling cheese
- Other method, specify.....

19) How do you communicate with your buyer?

- Visit my home
- Over mobile phone
- Email
- Through other farmers

- He does not communicate at all
- Other: Specify _____

20) What is your source of information about current prices of retail for your product

- Communication with relatives or friends
- Internet system
- Middleman
- I visit the market personally
- I don't have any source
- Other: Specify _____

21) What is your mode of transportation to supply to local markets?

- own car
 - Marshuti (public transport)
 - Walk to the market
 - Other, Specify
-

22) Do you get any loans from your trader?

- YES
- NO

If yes specify

.....

23) Does the trade provide any input or other support

- YES
- NO

24) What are the retail and Final price of cheese? (specify for every type of cheese)

Sulguni : Retail / Final

Mozarella: Retail / Final

Imeruli : Retail / Final

Other types of cheese (specify) /

.....

Section 5: Constraints of cheese small-scale producers

25) **To what extent would you agree by the following statements?**

	Strongly agree	Agree	Neither	Disagree	Strongly disagree
--	----------------	-------	---------	----------	-------------------

disagree

ree

Cost of transportation to reach the market is high, I sell to the nearest buyer
I receive low price compared to retail price on the market
I produce small quantity of cheese

I produce low quality of cheese

I do not have enough labor to take my products to the market and sell it

Section 6: Joining Cooperative and market channel change assessment

26) Are you a member of a cooperative or farmers Union?

- Yes
 No

IF YES, Respond to question 24 and 25

27) Do you supply your cheese production to the cooperative?

- Yes
 No

28) Do all farmers in the cooperative supply together to the cooperative as you?

- YES
 NO

IF NO, fill out this table

To what extent do you agree with following statements?

	Strongly agree	Agr ee	Nor agree neither disagr ee	D i s a g r e e	Str ong ly dis agr ee
1) I am willing to join a cooperative to change the buyer I am selling to					
2) I believe my cheese production would increase if I join a cooperative.					
3) I believe I am able to negotiate a better price if I join cooperative					
4) I believe the distribution channel will change, as a result of joining cooperative					
5) I believe that If every member supply to the cooperative , the cooperative will supply retail markets directly					
6) I believe that if the middleman or retailer pays in cash earlier, I will send my production to him instead of the cooperative.					
7) I believe that with other farmers together we can produce and supply more					

APPENDIX 6: QUESTIONNAIRE FOR MIDDLEMEN

Introduction

My name is Pacifique Ingabire and I would like you to help me fulfil this questionnaire, which is about Cheese commercial farmers and how they access the market. This survey is a part of my requirements for my academic studies at the Czech University of Life sciences in Prague. Main objective of the study is to identify key constraints that limit farmer’s productivity in the local value chains with special regard to the role of local middlemen

QUESTIONNAIRE FOR MIDDLEMEN IN NIKEA MARKET- IN KUTAISI.

No. of questionnaire:
Market:
Name of respondent:
Gender of respondent:
Date of interview:

Section 1: Cheese marketing

- 1) For how many years, have you been buying and selling cheese?
.....

- 2) How many cheese small scale farmers do you buy from?
.....

- 3) How many retailers or other traders do you supply to?
.....

- 4) To what kind of markets do you sell cheese to?
 - Individuals
 - Cheese Processors
 - Schools
 - Supermarkets
 - Local open Market
 - Restaurants
 - Other (specify)

- 5) Do you have any of the facilities (below) to use for your services?
 - Truck
 - Cooling facilities
 - Refrigerators
 - Storage facilities
 - Other, specify.....

- 6) If you do not sell cheese or store immediately, how long does it take you to trade cheese?
.....
...

Section 2: Quality and Quantity purchased from Small scale farmers

- 7) Are you satisfied by the cheese quality of farmers?
 YES
 NO
 Describe the good quality.....
- 8) Do you think the quality of production is sufficient?
 YES
 NO
- 9) What problems do you encounter when dealing with cheese small scale producers?
 Low quality
 Insufficient quantities
 Unreliability
 Lack of trust
 Other, specify
- 10) What is the current price are you buying and selling from? (specify for every type of cheese)
- | | | | | |
|-------------|---|--------------|---|-------|
| Sulguni | : | Retail | / | Final |
| | | | | |
| Mozzarella: | | Retail | / | Final |
| | | | | |
| Imeruli | : | Retail | / | Final |
| | | | | |
- 11) What is the minimum quantity and the maximum quantity you usually requires?
 1-5
 6-10
 11-15
 16-20
 More than 20 kilogram
- 12) Does the price depend on quantity?
 YES
 NO
 Specify,
how.....
- 13) Does the price depend on quality?
 YES
 NO
 Specify,
how.....
- 14) If yes, what mainly influences the quality?
 Taste
 Shape
 Color
 Texture

Other ...

15) What happens when farmers fail to reach agreed quality?

.....
.....
.....

16) Have you ever refused to buy products due to low quality?

.....
.....

Section 3: Middleman institutional arrangements between small scale producers and retailers

17) How do you find your clientele?

.....
.....
...

18) How do you get the information about current prices?

- Communication with other traders in the market
- Internet system
- Retailers
- I visit the market personally
- I don't have any source, I settle the price
- Other: Specify _____

19) Do you share information with other traders?

- YES
- NO

20) Is there any type of agreement with farmers before buying from them?

- Price
- Quality
- Quantity
- No agreement before buying
- Other agreements, specify

21) What is the legal form of your trading business

22) Do you need any license or registration from the state in order to act as a trader?

- YES
- NO
- Explain how.....

23) Who do you work with?

- Independent
- With other traders in an association

24) What type of contract do you have between you and small scale farmers and retailers

- Word of mouth contract
 - Signed contract
 - No contract at all (specify how does he contact you)
-

To what extent do you agree with following statement?

Question/ Options	Strongly agree	Agree	Nor agree	Disagree	Strongly disagree
25) I believe I am in better position to negotiate with a farmer for a better price for me					

Section 4: Joining Cooperative and market channel change assessment

To what extent do you agree with following statement?

Question/ Options	Strongly agree	Agree	Nor agree	Disagree	Strongly disagree
26) If farmers would join a cooperative, it might reduce the quantity I trade					
27) If farmers cooperate, they might negotiate a higher price					
28) If farmers cooperate they might raise the competition					

Thank you so much for your cooperation.

Contacts: pacis30@gmail.com

APPENDIX 7: QUESTIONNAIRE FOR CHEESE SELLING RETAILERS

Introduction

My name is Pacifique Ingabire and I would like you to help me fulfil this questionnaire, which is about Cheese commercial farmers and how they access the market. This survey is a part of my requirements for my academic studies at the Czech University of Life sciences in Prague. Main objective of the study is to identify key constraints that limit farmer's productivity in the local value chains with special regard to the role of local middlemen

No. of questionnaire:
Market:
Name of respondent:
Gender of respondent:
Date of interview:

Section 1: Cheese marketing

29) For how many years, have you been buying and selling cheese?
.....

30) How many cheese small scale farmers do you buy from?
.....

31) How many middlemen or other wholesale traders do you buy from
.....

32) Do you have any of the facilities (below) to use for your services?
 Truck
 Cooling facilities
 Refrigerators
 Storage facilities
 Other, specify.....

33) If you do not sell cheese or store immediately, how long does it take you to trade cheese?
.....

Section 2: Quality and Quantity purchased from Small scale farmers

34) Are you satisfied by the cheese quality of farmers?
 YES
 NO
 Describe the good quality.....

35) Are you satisfied by the cheese quality from middlemen?
 YES
 NO
 Describe the good quality.....

36) What problems do you encounter when dealing with cheese small scale producers?

- Low quality
- Insufficient quantities
- Unreliability
- Lack of trust
- Other, specify

37) What is the current price are you buying and selling from? (specify for every type of cheese)

Sulguni : Retail / Final

Mozzarella: Retail / Final

Imeruli : Retail / Final

38) What is the minimum quantity and the maximum quantity you usually requires from either farmers or wholesale traders?

- 1-5
- 6-10
- 11-15
- 16-20
- More than 20 kilogram

39) Does the price depend on quantity?

- YES
- NO
- Specify, how.....

40) Does the price depend on quality?

- YES
- NO
- Specify, how.....

41) If yes, what mainly influences the quality?

- Taste
- Shape
- Color
- Texture
- Other ...

42) What happens when farmers fail to reach agreed quality?

.....

.....

43) What happens when farmers, middlemen or wholesale traders fail to reach agreed quality?

.....

.....

44) Have you ever refused to buy products due to low quality?

.....
.....

Section 3: Middleman institutional arrangements between small scale producers and retailers

45) How do you find your clientele?

.....
.....

46) How do you get the information about current prices?

- Communication with other retailers in the market
- Internet system
- Farmers
- Middlemen or wholesalers
- I visit the market personally
- I don't have any source, I settle the price
- Other: Specify _____

47) Do you share information with other retailers?

- YES
- NO

48) Is there any type of agreement with farmers before buying from them?

- Price
- Quality
- Quantity
- No agreement before buying
- Other agreements, specify

49) What is the legal form of your retailing business

.....

50) Do you need any license or registration from the state to sell as a retailer?

- YES
- NO
- Explain how.....

51) What type of contract do you have between you and small scale farmers and middlemen or wholesale traders

- Word of mouth contract
- Signed contract
- No contract at all (specify how does he contact you)

To what extent do you agree with following statement?

Question/ Options	Strongly agree	Agree	Nor agree neither disagree	Disagree	Strongly disagree
52) I believe I am in better position to negotiate with a farmer or a wholesale for a better price for me					

Section 4: Joining Cooperative and market channel change assessment

To what extent do you agree with following statement?

Question/ Options	Strongly agree	Agree	Nor agree neither disagree	Disagree	Strongly disagree
53) If farmers would join a cooperative, it might reduce the quantity I buy from them					
54) If farmers cooperate, they might negotiate a higher price					
55) If farmers cooperate they might raise the competition					

Thank you so much for your cooperation.