


Value Chain Management Module



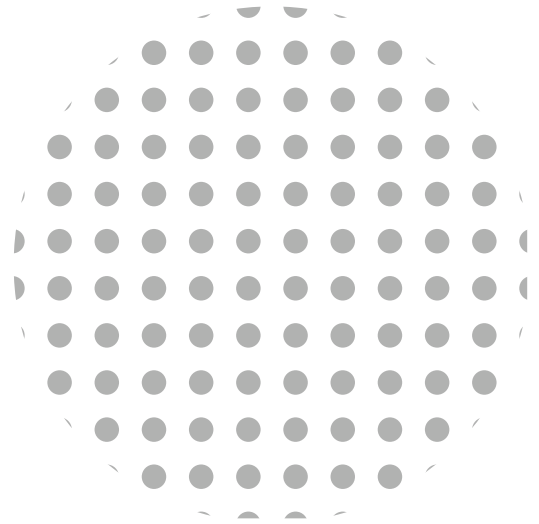
ERASMUS+

HIGHER EDUCATION – INTERNATIONAL CAPACITY BUILDING PROGRAM
Participatory and Integrative Support for Agricultural Initiative

Chiang Mai University, Chiang Mai, Thailand
2018 & 2019



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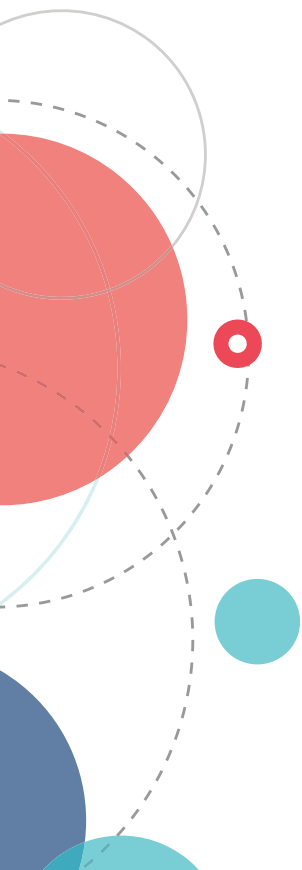


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Value Chain Management Module

August 8-26, 2018



2018

1 General Information

The module “Value Chain Management” aims to introduce students the fundamentals of scientific work applied on the issue of value chain management. The skills gathered during the course were oriented to empower participants to succeed in most of university-level scientific projects or professional field. The students participated on rigorous academic research (including data collection process in the field), they were trained to express their ideas, opinions and they learnt how to publish a research results in form of conference poster and presentation.

General Learning Objectives

- Understand of the broad concepts of value chain management.
- Get to know principles of postharvest management and marketing of agricultural products.
- Experience own research including identification of research objective (research question), setting up the research methodology and research plan, collecting and processing the data, data analysing and presentation of the results.
- Experience the multiple ways of publication of scientific results – poster, presentation, report paper manuscript.
- Make effective use of oral, written, and visual means to comment, assess, critique and communicate.

Organizing team

Hosting institution: Chiang Mai University (CMU)

Organizing team of the module:

- Chiang Mai University (CMU), Dr. Pornsiri Suebpongsang (pornsiri73@gmail.com), Dr.Juthathip Chalermphol, Dr.Chatchai Khiewngamdee.
- Czech University of Life Sciences Prague (CULS), Dr. Petra Chaloupkova (chaloupkova@ftz.czu.cz), Dr. Olga Leuner (leuner@ftz.czu.cz), Dr. Miloslav Petrtyl (petrtyl@af.czu.cz)

Period

August 8 - 26, 2018 (arrival of the participants on August 7, departure August 27)

2

Description of activities organized during the Value Chain Management Module

DAY 1

Registration, welcome session, warm up and teambuilding

The first thing in the morning was the registration of the participants, where they received the programme, name tags and backpacks of PISAI project. The official programme started shortly after the registration. The opening speech was given by Assistant Professor Dr. Budsara Limnirunkul, the head of the Department of Agricultural Economy and Development and by Assistant Professor Dr. Pornsiri Suebpongung, Director, Agricultural Technology Services Center (the main coordinator of the Module, CMU coordinator in PISAI project), representatives of the Chiang Mai University; Asst. Prof. Chutima Tantikitti (coordinator of the whole PISAI project) and Dr. Petra Chaloupková (the Module coordinator) as well as by all coordinators and the academic staffs (Dr. Olga Leuner and Dr. Miloslav Petrtýl). The students from Thailand, the Czech Republic and Finland presented their home country, universities, faculties and also themselves (their name, nickname, study programme, hobbies). After lunch, the guided trip around the university was held. At the end of first day, students were divided into 5 teams (based on random selection) and the very first team activity was an icebreaking game (called African village).



Value chain aspects

DAY 2

The lectures started second day by explaining the aspects of value chain including some practical examples of Value chain analysis. Afterwards the students visited the local market and university shops where are also sold local products.



Ton Phayom market is retail market near Chiangmai University. Both fresh fruit and vegetable and processing food are sold here. Open every day from 6 am-7 pm.

Fruit market in Chiangmai university area is market located in Chiangmai university and control the quality control for safety by faculty of agriculture.

Learning Objective:

- Experience retail market for fruit and vegetable.
- Briefly interview seller in the market for marketing channel of fruit and vegetable in the market.



DAY 3 Value chain aspects

During third day the students got information about problem formulation, popularization of science, scientific journalism and literature search and during afternoon they visited the Royal Project Produce Centre. The students were also asked to prepare own scientific news which they had to be presented on Tuesday next week (day 6).



The Royal project produce centre at Mae Hia



The Royal Project Produce Centre is centre of postharvest management of Royal project product. The centre have GMP and HACCP. It is located at Mae Hia, Mueang Chiang Mai District which take around 20 minute from Chiangmai university.

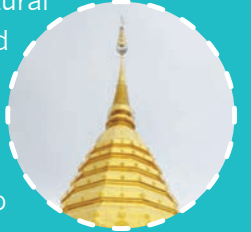
Learning Objective:

Understand the postharvest management of fruit and vegetable under GMP and HACCP

DAY 4

Teambuilding, cultural aspects, preparation for the first data collection

The presentation about cultural differences (especially during the data collection in different environment) was presented on Saturday morning together with team game and practical examples (video and short icebreaking game). Then the students were divided into different teams (5 teams with 4-5 students – mix Thai and international students). They were responsible to select one agricultural product and they dedicated the whole data collection process to their selected product. The students picked: tomatoes, melon, lettuce, chilli and cucumber. They were asked to prepare the set of questions for farmers. On Sunday, it was free day and all students organized themselves group visit of the Wat Phra That Doi Suthep, a spectacular temple on the mountain close to Chiang Mai city.



The first data collection

The visits of three different farms were organized on Monday (August 13, public in Thailand). We have visited the family melon farm (main production of family was teakwood products), the second farm was producer of melon who sell it into the supermarkets, and then two farms with mix production of fruits and vegetable. The famers usually presented their approach of production to the whole group, then we visited the farm and see the production and then the students asked the specific questions regarding their selected products.



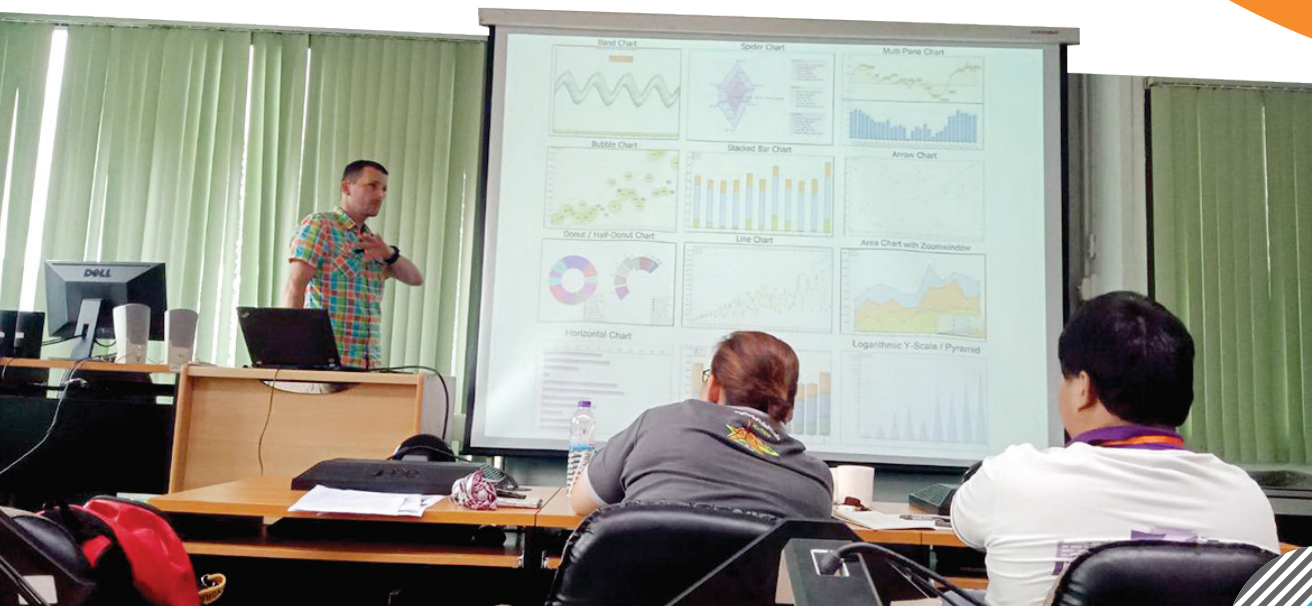
Learning Objective:

- Practice for data collection for production, marketing management and value chain of melon, fruit and vegetable.
- Understand the production, marketing management and value chain of melon, fruit and vegetable.

DAY 6

Value chain aspects, popularization of science

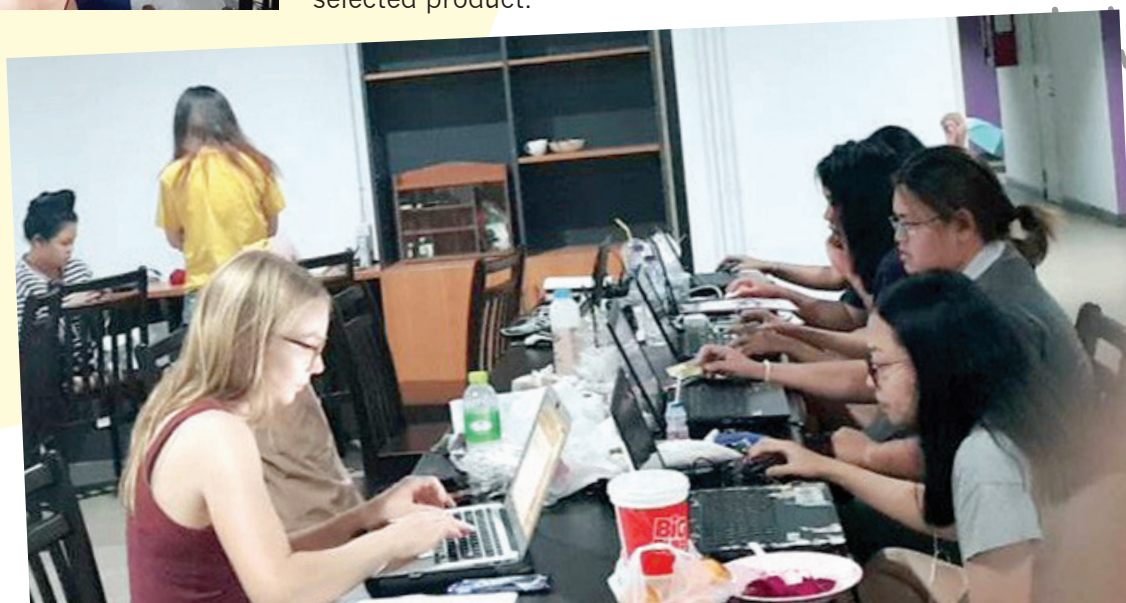
The lectures of postharvest processing and graphic designs for data collections were presented on Tuesday morning. During afternoon session the students presented their selected scientific news. They also voted for the best presentations and the winners got small present (bunch of local fruit). Three students had to prepare it again as they just copy some presentation already done. Generally, the presentations were good to satisfactory, few were very well prepared. However, English language was a big obstacle for some students.



Value chain aspects - marketing and consumer behaviour

DAY 7

The lectures regarding marketing research methods, consumer behaviour and economic evaluation of collected data were presented during Wednesday morning. In the afternoon, the students were asked to prepare their own questionnaire designed for personal interviews with consumers as well as for sellers of their selected product.



DAY 8-10

Field research

Following three days were dedicated only for data collection procedure by the teams. The students had to decide to which place will go (visit of farmers, local markets or shopping centres) and plan their research plan for data collection. The instructions were: i) to visit at least 3 different places, ii) to contact minimum 10 sellers and iii) to interview minimum 100 consumers. Every morning there was a joint meeting where the students could discuss the final version of the questionnaire, data collection approach, progress in their data collection etc.



Reflecion from the field research, scientific writing – poster (theory and practice)

On Monday morning, there was a reflection from the data collection process. The students described the shared their positive or negative experiences with other students, obstacles which they had to overcome and provide some recommendation for similar research. The requested format of final report was presented to the students: the contents and structure, each part was described so that the students were familiar with the contents that shall be add to each chapter.

In the afternoon the students got training in preparation of conference posters. In order to train it practically, they had to prepare the poster from one selected scientific article (one article for all groups) and present it to the others. The aim of this training was not only train the graphical work, but also to see the variety in final posters based on the same data set. There was the feedback from the academic staff for their posters. At the end of the session, the students were asked to prepare own poster with collected data which were presented on next day morning.



Generally, the design of the posters were nice, however the posters were characterized by the typical mistakes of beginners and broad spectrum of recommendations for improvement were mentioned by other groups as well as by the academic staff. Team work game (3 statements from agricultural fields) was played to support increasing of teambuilding capacity of the students as well as their knowledge. Each team was supposed to prepare 3 tricky statements from agricultural field – two true and one false and the other teams were supposed to identify the false one only with the help of few additional question.

At the end of the session, the students were trained in how to prepare good scientific presentation and afterwards the students prepared their own presentations from their own collected data set.

**Poster presentation,
scientific writing -
presentation
(theory and practice)**

**DAY
12**

**DAY
13**

Oral presentation and management game

Wednesday morning, the student presented their research outputs in form of oral presentation. The design of the presentations was very nice. The majority of the comments was oriented to the content of the presentations, the presentations often lacked the objective, the description of data collection procedure was unsatisfactory, the graphs and figures were not described, discussion part was often missing and conclusions usually equalled to results. The students were asked to improve their presentations for the final presentation on Friday. The lecture with practical recommendations how to write scientific article was given to the students. During the afternoon, the team working game was played (Marshmallow challenge).



**DAY
14**

Processing of report

On Thursday, the students were preparing their final report. The report was supposed to be a complete analysis of value chain management of their (selected) product in the range of the data from their field research. The report was supposed to be presented as a document accompanied with oral presentation.

Closure of the programme before the last excursion

Each team presented their final report in front of the international committee composed by Chutima (PSU), Pornsiri (CMU), Petra, Olga (both CULS) and Oranutpa (KU). There were four issues considered: the final report, the poster, the oral presentation and the overall performance of the teams during the whole module. Each team went through rigorous series of questions and feedback comments. The committee selected the winner of the best presentation and the winner of the best report. The awardees were selected based on secret ballot among the members of the committee.

The dean of the Faculty of Agriculture (CMU) Associate Professor Dr.Nuttha Potapohn handed over the certificates for participation at the Module Value Chain management. After that, both students and organizing team gave the feedback and evaluation of the whole module, students filled in the online survey evaluation and organizers discussed their comments directly with the participants.



DAY
16

Excursion to Royal Project Stations

The visits of two Royal Project Stations were organized on Saturday 25 and Sunday 26 August. Detail of each Royal Project Station are as follow: The Royal Agricultural Station Inthanon is His Majesty the King Personal Project for eliminating opium growing. Established in 1979, the Station serves as a research centre for a wide variety of the highland fisheries, in order to develop the livelihood of the hill tribe farmers. It also serves as a centre to disseminate knowledge and new innovation derived from the research of the sustainable highland farming to other regions.



Learning Objective:

Understand the process of improving the quality of life of hill-tribe people by diminish their opium growing using sufficiency economy



Field trip to the Royal Project Station: Inthanon station
Photos from: <http://www.inthanonroyalprojectthailand.com/>



DAY
17

Excursion to Royal Project Stations

The Royal Agricultural Station Pang Da is situated in Pang Da village, Samerng district, approximately 47km northwest of the city of Chiang Mai. The station has competency in serving the activities of temperate crop propagation and other research works. At present, Pang Da Station has expanded its implementation to the tropical fruit trees, flowers, beans, vetiver and rapid-growth woods, and also conducted the activity of career development to the farmers lives in the village nearby.

The students have learned the process of improving the quality of life of hill-tribe people by diminish their opium growing using sufficiency economy.





Learning Objective:

Understand the process of improving the quality of life of hill-tribe people using sufficiency economy.



Evaluation by students

The participants evaluated the Value Chain Management Modulet positively. Following aspects were mentioned as the most valuable: i) the relationship and experience with friends from another place, ii) team-working activities and iii) field visits. The participants also recommended for improvement of the module to increase practical training activities, add some additional topics and cultural aspects (food, customs etc.).

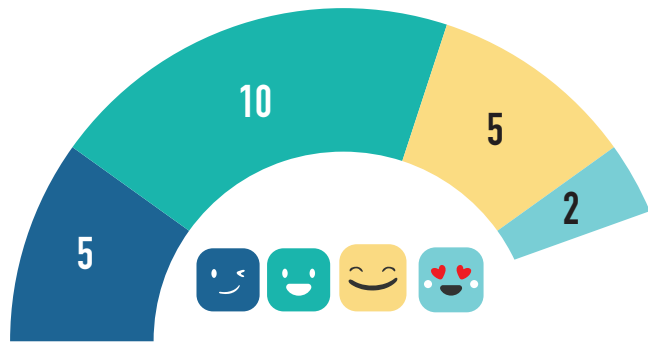


Figure 2: The participants' satisfaction scores: Value Chain Management Module.

- Excellent
- Very Good
- Good
- Satisfactory

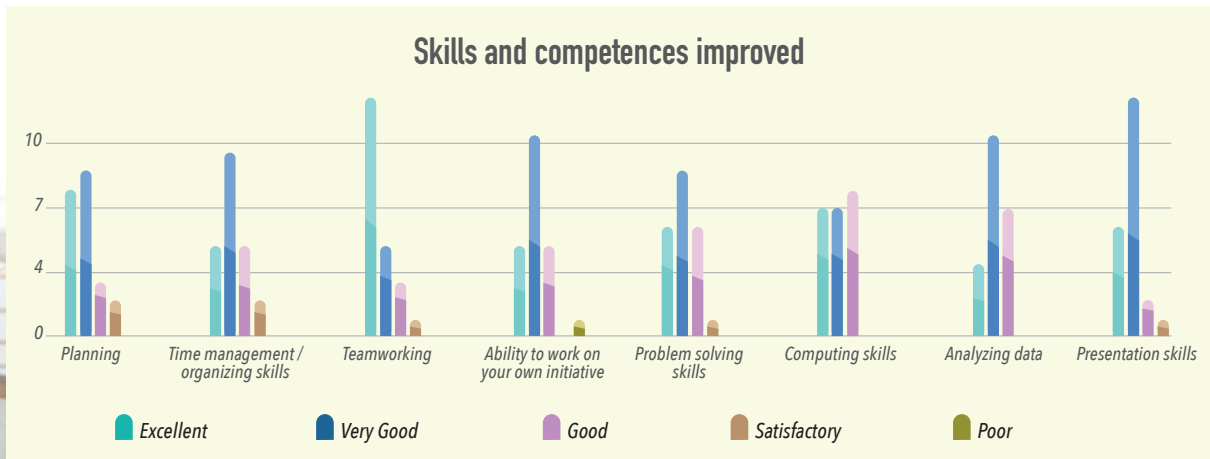


Figure 3: Improvement of skills and competences after participation at the Module

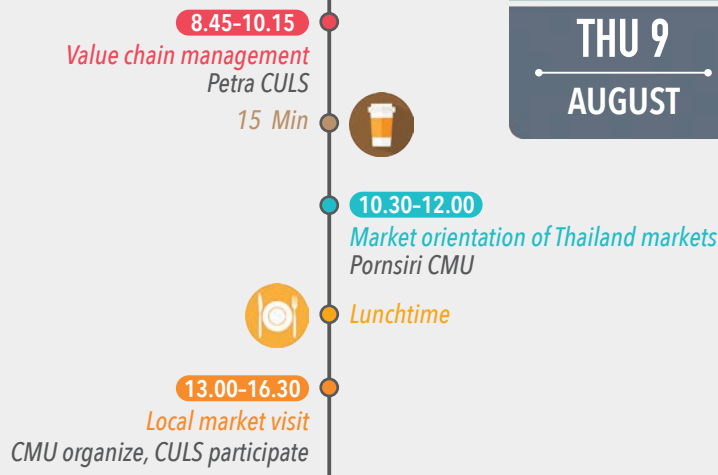
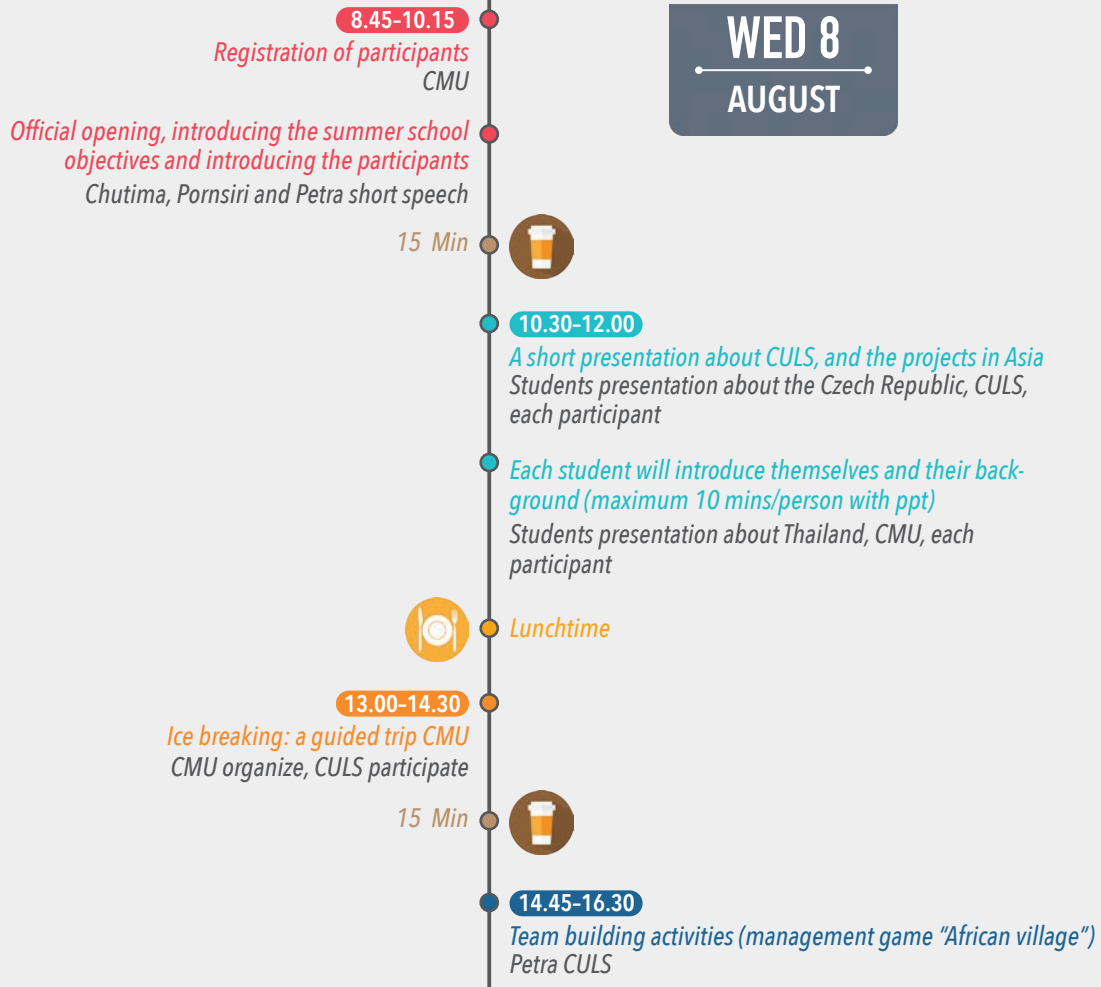



4. Practical recommendations

There are several practical issues which are highly recommended to follow during the organizing next modules.

- The participants of the module must have sufficient knowledge of English language.
- The European students should be informed in advance regarding the practical recommendations for appropriate dress code during the lectures (closed shoes and covered shoulders and knees).
- The group of Thai and Czech students prepared in advance the powerpoint in which they presented their country, university, faculties and also each student introduce himself/herself.
- During first day is recommended to play some icebreaking games to create friendly environment.
- The students fill in the questionnaire with the expectations and motivation why they participate the module.
- A tool for sharing the presentations and tasks with the students should be set up prior the beginning of the module.
- It is key point that the students have lots of practical examples. The level of English and background knowledge is extremely different among the group. Therefore the main attention should be given to the practical examples and tasks for the students. Long lectures are not recommended.
- The best practise is to divide the time for lecture, then practical exercise during morning part and some visit of farm or market, other practical experience or team work for afternoon session.
- It is not suitable to have lectures on Saturday, as the canteen is closed and there is no available food during the day (or maximum to have lectures only in the morning session).
- At the end, the student evaluate the whole module via anonymous online questionnaire.









**FRI 10
AUGUST**


8.45-10.15
*Postharvest management for agribusiness
and Food Quality*
Olga CULS

15 Min 

10.30-12.00
Postharvest management for agribusiness Food Quality
Olga CULS


 **Lunchtime**

13.00-16.30
Visit the Royal Project Produce Centre
CMU organize, CULS participate




**SAT 11
AUGUST**


8.45-10.15
Problem formulation, Methods and tools (Sampling)
Olga and Milda CULS

15 Min 

10.30-12.00
Format of the research proposal, Literature search
Olga and Milda CULS

 **Lunchtime**

13.00-14.30
Instructions for scientific news
Olga and Milda CULS

15 Min 


14.45-16.30
Students prepare own scientific news
Students own preparation



SUN 12


DAY OFF

9.00-16.00
Field trip to the melon farm and each group interview farmer
Team work: data collection from sellers and producers




MON 13
AUGUST


8.45-10.15
Preparation for data collection for the Melon farm
Petra and Milda CULS

15 Min 


10.30-12.00
Scientific news discussions
Olga and Milda CULS

 *Lunchtime*

13.00-14.30
Scientific news discussions
Olga and Milda CULS


15 Min 

14.45-16.30
Students in teams prepare set of questions for interviews
Team work: preparation for data collection



TUE 14
AUGUST





**WED 15
AUGUST**

8.45-10.15
Marketing research methods (consumer behaviour)
Petra CULS
15 Min

10.30-12.00
Preparation for field research
Team work: preparation for data collection

Lunchtime

13.00-14.30
Economic evaluation
Pornsiri CMU
15 Min

14.45-16.30
Prepare for data collection according to research question related to economic point of view
Pornsiri CMU

**THU 16
AUGUST** **FRI 17
AUGUST** **SAT 18
AUGUST**

Whole day *Field research: students in teams visit different markets and collect data with consumers*
Team work: data collection from consumers

SUN 19
DAY OFF



8.45-10.15

Reflection from field research - feedback from data collection by teams
Petra and Milda CULS

15 Min



10.30-12.00

Discussion about collected data, how to analyse it
Petra and Olga CULS



Lunchtime

13.00-14.30

Debate on selected topics (two teams, controversial topic, strong arguments)
Petra and Olga CULS

15 Min



14.45-16.30

Debate on selected topics (two teams, controversial topic, strong arguments)
Petra and Olga CULS



8.45-10.15

Scientific writing - poster, ppt presentation
Olga CULS

15 Min



10.30-12.00

Scientific writing - poster, ppt presentation
Olga CULS



Lunchtime

13.00-14.30

Poster preparation by teams
Team work: poster preparation

15 Min



14.45-16.30

Poster preparation by teams
Team work: poster preparation



WED 22
AUGUST

8.45-10.15

Scientific writing - how to write an article/thesis

Petra and Olga CULS

15 Min



10.30-12.00

Scientific writing - how to write an article/thesis

Petra and Olga CULS



Lunchtime

13.00-14.30

Poster preparation by teams

Team work: poster preparation

15 Min



14.45-16.30

Poster preparation by teams

Team work: poster preparation



FRI 23
AUGUST

Whole day *Preparation for the final report (manuscript including introduction, materials and methods, results, discussions and conclusions)*
Team work: final report preparation





8.45-10.15
*Presentation of the results by students' teams-
evaluation by staff*
Petra and Olga CULS

15 Min



10.30-12.00

*Presentation of the results by students' teams-
evaluation by staff*
Petra and Olga CULS



Lunchtime

13.00-14.30

*Evaluation of the module, closure of the module
with award certification ceremony*
Pornsiri CMU, Chutima and Petra and Olga CULS

15 Min



14.45-16.30

*Evaluation of the module, closure of the module
with award certification ceremony*
Pornsiri CMU, Chutima and Petra and Olga CULS



Whole day *Field trip to the Royal Project Station : Intanon station*
CMU



Whole day *Field trip to the Royal Project Station: Pangda station*
CMU





INTENTION OF CUSTOMERS TO PAY MORE TO GET ORGANIC LETTUCE

Jana Tulková, Czech University of Life Sciences Prague, Czech Republic, Natthidech Beesa, Kasetsart university, Bangkok, Thailand, Warin Klakankhai, Prince of Songkla University, Songkhla, Thailand, Chankan Klinpratun, Khon Kean University, Khon Kean, Thailand



INTRODUCTION

Organic agriculture, a worldwide growth industry, can be a profitable, sustainable business for agricultural producers interested in going through the certification process necessary to enter this market. Organics have continued to expand during the last few years, and industry experts are forecasting steady growth of 9 percent or higher (OTA 2017). This is the main reason for establishment of this study, what could show demand of customers in Chiang Mai City for organic lettuce and how much is customer willing to spend for getting better quality lettuce.

METHODOLOGY

The data for research have been collected through questionnaire-based survey. Within a questionnaire have been asked questions about gender, age, nationality, preferences for lettuce and the most favourite type of lettuce. For this purpose have been visualised 8 different types of lettuce (Fig. 1).



Figure 1. Visualisation of different types of lettuce in questionnaire

RESULTS

A total of 104 questionnaires from consumers were analyzed. Results showed that the most responders have found Green Oak and Red Oak Leave lettuce as the most popular and often bought especially in age group 20-50 years old Thai and foreigners (Fig. 2)

In preference of buying lettuce prevails intention of diet, healthy lifestyle and also taste (Fig. 3). The majority of responders are willing to spend more money for getting higher quality goods, which is related to the healthy lifestyle. More than half of responded women would spend more than 70 Thai baths for organic lettuce (Fig. 4).

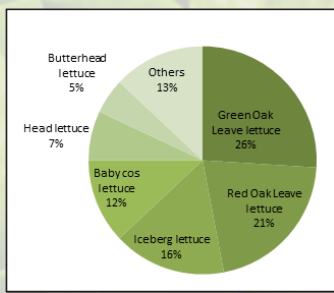


Figure 2. Preferences in type of lettuce consumed

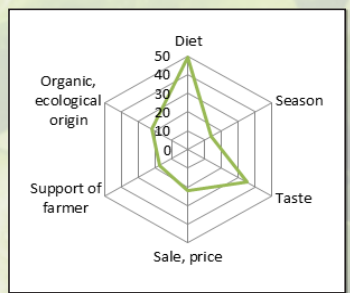


Figure 3. Intentions of consumers for buying lettuce

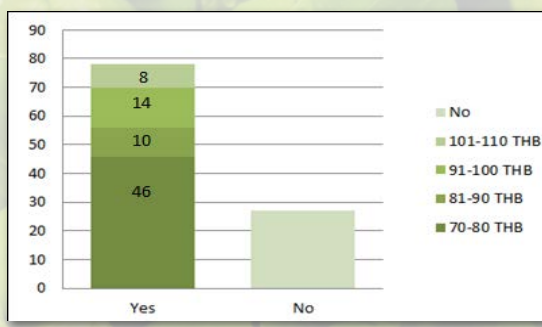


Figure 4. Willingnes of customers for buying more expensive organic lettuce and amounts in Thai Baht (THB)

CONCLUSION

The Green Oak lettuce have been by responders evaluated as the best possible option. More then half of responders would spend more to 70 THB to get higher quality lettuce, which brings to the farmer possibility to modify his production of lettuce to high demand for organic products. This could bring higher income and also make healthy lifestyle more suitable to customer.

REFERENCES

Organic Production Survey, National Ag Statistics Service (NASS), USDA, 2017



Preferences and consumer behavior of melon consumption

Keminee Tongma^{1/}, Laksanaporn Sriyapunt^{1/}, Chuleewan Bunchamni^{2/}, Sornnarin Suangto^{2/}, Magda Jirsova^{4/}, Petra Chaloupkova^{4/}, Olga Leuner^{4/}, Pornsiri Suebpongsung^{3/}

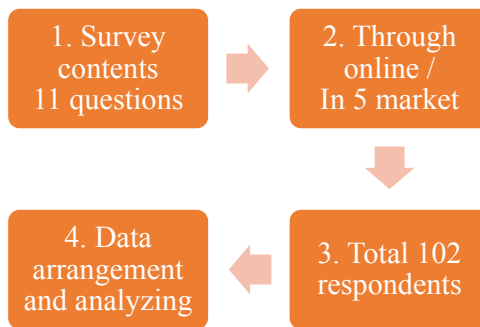
^{1/}Prince of Songkla University, ^{2/}Khon Kaen University, ^{3/}Chiang Mai University, ^{4/}Czech University of Life Sciences Prague



Introduction

The purpose of this project is to focus on significant questions about melon. Melon is one of the most important produce in Chiang Mai areas. Melon is fresh fruits especially in tropical countries as is Thailand and also is full of vitamins which are health for human body. The study give information on customers and their opinion about melon. It could be very useful for farmers who grow melon and their decision and plans for future.

Methodology



Results

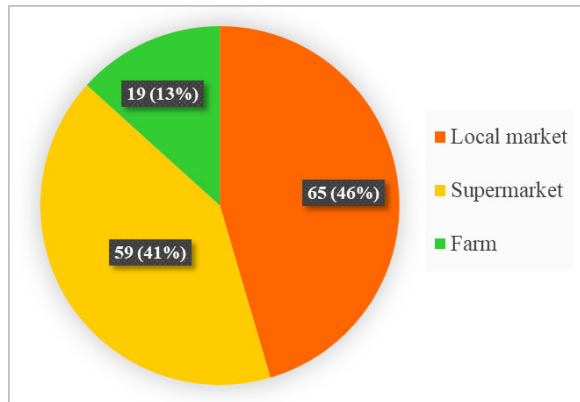
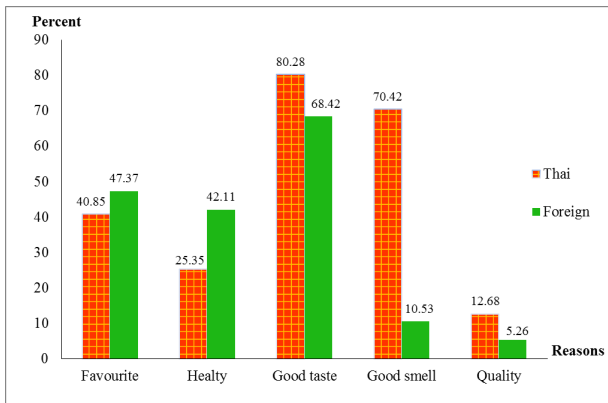


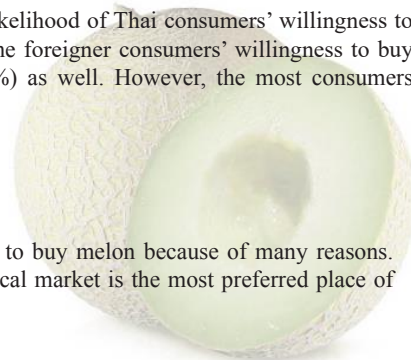
Fig. 1 Reasons to buy a melon compare between Thai and foreigners.

Fig. 2 Places the consumers buy melons from.

Using an questions for Chiang Mai consumers, our study shows that the likelihood of Thai consumers' willingness to buy fresh melon products because of good taste (80.28%) and smell (70.42%). The foreigner consumers' willingness to buy fresh melon products because of good taste (68.42%) and their favorite (47.37%) as well. However, the most consumers interest about buying melon in local market (46%) and supermarket (41%).

Conclusion

In conclusion, study showed both Thai people and foreigners would like to buy melon because of many reasons. Taste and smell are important factors for their decision to buy melon products. Local market is the most preferred place of consumer to buy melons due to its convenience.



CUCUMBERS CONSUMPTION IN NORTHERN THAILAND

David Syříštil^[1], Aleksandra Kaleova^[2], Apinya Saentho^[3], Nongnaphat Jongkrajjak^[4], Poramet Kaewprasert^[5]

^[1] Faculty of Economics and Management, Czech University of Life Sciences Prague, ^[2] Department of Plant Production, Faculty of Agrobiology, Food and Natural Resources, Czech University of Life Sciences Prague, ^[3] Department of Soil Science and Environment, Faculty of Agriculture, Khon Kaen University, ^[4] Department of Aquatic Science, Faculty of Natural Resources, Prince of Songkla University, ^[5] Department of Plant Science, Faculty of Natural Resources, Prince of Songkla University

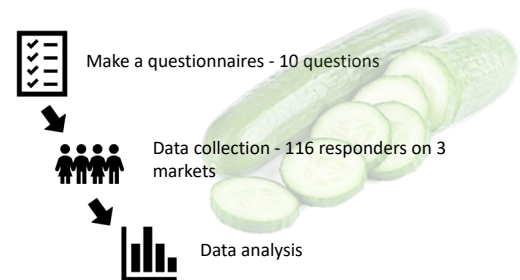
1 INTRODUCTION

Cucumbers are the eight most consumed vegetable in Thailand, after sweet corn, baby corn, chilli, big chilli, watermelon, yardlong bean and garlic, which makes it the first fresh salad vegetable from the list.

Our research deals with analyzing the consumers' attitude of cucumbers in Northern Thailand, more specifically in the Chiang Mai province. For this reason, data was collected from local markets and supermarkets where consumers were surveyed about their personal preferences of cucumber consumption. Data was collected in the form of a questionnaire. Data was later analyzed and main conclusions were made about consumers' preferences about cucumbers.

2 METHODS

A questionnaire was designed, composed of 10 questions in order to specify the consumers' preferences about cucumbers. Later our research moved to the local supermarkets and markets where data was acquired from 116 responders.



3 RESULTS

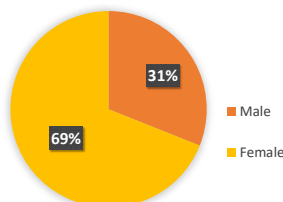


Fig 1. Responders' gender

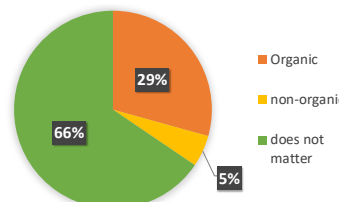


Fig 2. Responders' preference of organic cucumbers

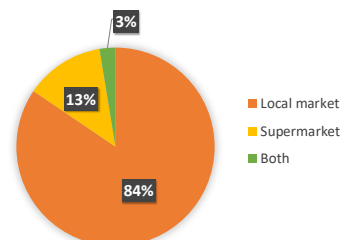


Fig 3. Responders' preferred location of buying cucumbers

Table1 Average of cucumbers production in 2017 in Northern Thailand

Province	Farmer's member	Harvesting area (rai)	Average yield / harvested area (kg)	Average farmer selling price (THB / kg)
Chiang Rai	157	314	4,306	10.76
Chiang Mai	204	392	2,345	14.19
Phayao	185	59	7,443	8.85
Nan	107	41	1,565	8.71
Phrae	10	9	1,144	16.01
Mae Hong Son	48	17	5,122	21.87
Lampang	143	37	462	31.61
Lamphun	9	11	918	20.25
Uttaradit	34	26	735	17.17

Source: DOAE, 2016

4 CONCLUSION

The data following about where consumers prefer to buy cucumbers might have been influenced by the fact that we visited only local markets, where almost everyone answered they buy cucumbers in the local markets. Probably the most striking was the fact that the people questioned did not make a strong preference about organic or non-organic produced cucumbers. One person, however, stated she would buy more often if there were less pesticides used during production. Therefore, if quality increases while prices stay stable, it is also likely that the consumption will increase.

5 REFERENCE

Bunchay, P. (2016). *Data collection and reporting systems for plant production*. Centre for Information and Communication Technologies, Department of agriculture.

CONSUMER PREFERENCE OF FRESH TOMATOES IN CHIANG MAI

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INTRODUCTION



Since tomato is one of the most consumed vegetable worldwide, we have decided to find out more about consumer preference and shopping habits regarding tomatoes in Chiang Mai and its surroundings. Question in our questionnaire were focused on purchase, place of purchase and origin and type of tomatoes.

METHODOLOGY



We have collected 102 questionnaires consisting of four questions during data collection. Majority of the questionnaires was collected personally from consumers at markets in Chiang Mai. The data were then processed and transferred into graphs to make the results more understandable.

FIGURES

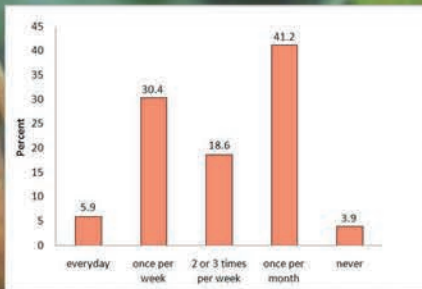


Fig. 1: Frequency of the purchase of tomatoes

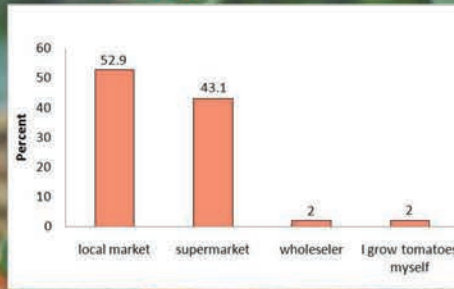


Fig. 2: Location of the purchase

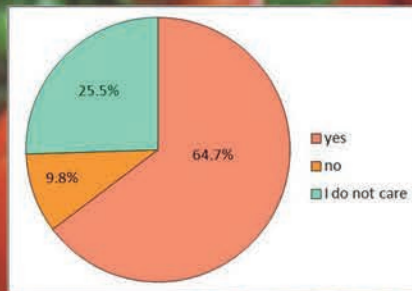


Fig.3: Preference of local grown tomatoes

RESULTS and CONCLUSION



It is clearly visible from our results that the classic tomatoes are much more preferred over the Cherry tomatoes, since 70% of consumers answered positively for the classic tomatoes. Majority of respondents also prioritize local grown tomatoes and buy them at the local market or supermarket. The most variable question turned out to be the question of frequency of a purchase, where majority of the answers varied from once a week to once a month. These results show, that for a farmer it would be potentially most profitable to grow classic tomatoes locally and sell them at a local market or supermarket.

REFERENCE



FAOSTAT. 2016. FAOSTAT DATA. <http://www.fao.org/faostat/en/#data>. Accessed 21.8.2018.

PISAI's Students



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Value Chain Management Module

August 7-27, 2019



2019

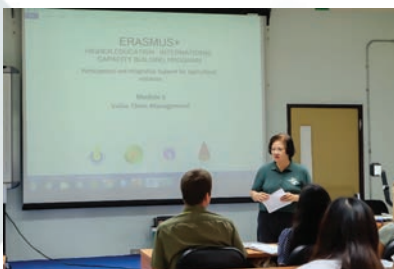




Daily activities, 7th – 27th August 2019

7th Aug: Guided trip CMU, registration, welcoming, team building activities

During the first day of the program, students had a tour guided by CMU representative for orientation the campus areas. After that, the program begun at the Department of Agricultural Economy and Development with the registration of all participants, following by the official opening speech of Associate Professor Dr. Nuttha Potapohn, Dean of the Faculty of Agriculture, and by Assistant Professor Dr. Pornsiri Suebpongsung, Director of Agricultural Technology Services Center, representatives of the Chiang Mai University. Then, Asst. Prof. Chutima Tantikitti (coordinator of the whole PISAI project) had an opening speech to welcome as well as informing about project. All students introduced each other. After lunch, students presented about themselves (their name, nickname, study program, hobbies) and about their countries. In order to get students to know each other better, icebreaking games were introduced (Name game and Guessing game). Students were also grouped into four groups for further team working activities.



DAY 2

8th Aug: Lecture, visiting local market

Students started to learn about knowledge of the concept of value chain management by the lecture of Agricultural Economics and Value chain management. After that, each group chose one agricultural product for working on during this whole summer school (rice, mango, garlic, banana). In the afternoon, all students visited the local market called Ton Pa Yom market and Rimping supermarket. Students tasks were to observe the differences of how their products were sold between these two markets (price, quality, packaging, hygiene...). This also helped students orientating with differences of markets in Thailand and their home country.



DAY 3

9th Aug: Lecture, group task assignment, visiting cooperative farm

The third day started with the lecture of Market orientation. Afterwards, the students were working on literature review of their selected products. Two PhD students from the Czech Republic (Jan Stas and Veit Ny), assessed them with basic knowledge about how to look for the scientific information. Students prepared this literature for presentation on 14th August to Dr. Petra Chaloupková (Vice Dean for International Relations) and Dr. Olga Leuner (Vice-Dean for Science, Research and Doctoral Study), from the Faculty of Tropical AgriSciences. In the afternoon, students visited the cooperative farm, San Pa Tong Agricultural Cooperative Ltd. to study about dry longan production. Students learned about the vision and mission of this cooperative farm and saw the production line of dry longan for exportation. Aside from this, they also got the information about other products of the farm such as rice, bean, corn and how this cooperative farm work in their community.





DAY 4

10th Aug: Planting rice

On this day, all students had the opportunity to participate the rice planting ceremony. It was organized by the Faculty of Agriculture of Chiang Mai University and took place in the rice fields of the university. In the morning, there was an opening ceremony by the Head of the Department of Agricultural Economy and Development, Assistant Professor Dr. Budsara Limnirunkul. After that, students were instructed to remove the rice seedlings from the nursery beds and transplant to flooded paddies. This ceremony is done every year for the first year Bachelor students to participate and learn about the importance and how the rice is planted



DAY 5

11th Aug: Day-off

This day was the weekend for the students. Some students visited Chiang Mai Zoo, some relaxing at home, and others enjoy the city or visiting local night market. In the evening, students also participated the Yoga class, organized by Czech colleague, Kateřina Michálková.



DAY 6

12th Aug: Group task: preparation of literature review

Students had the whole day to continue working on their group task about the value chain of their selected products for the upcoming presentation. The department provided the computer room for students to look for information and working in groups.



DAY 7

13th Aug: Lecture, visiting Royal Project distribution center

In the morning, there was a given lecture about the Logistic distribution and Basic methods of statistical analysis. This could help students in analysis their data collected from market for the future assignment.

In the afternoon, students visited the Teen Tok Royal Project Development Center. It is center of postharvest management of Royal project product. The center was created in order support the increase of crop production in mountain areas of Thailand and to preserve and to revive natural resources and environment in collaboration with the involved organizations. Students can understand the postharvest management of fruit and vegetable under GMP and HACCP from this center.



DAY 8

14th Aug: Presentation the group task, lecture



On this day, Dr. Petra Chaloupková and Dr. Olga Leuner presented themselves to the students. After that, students presented their literature review of the value chain management of their selected products. In the end of the presentations, students also got feedbacks, advices, and recommendation to improve their presentation. Dr. Olga Leuner gave a lecture about the details of How to look for literature sources such as scientific papers with impact factor, patents, proceedings, technical reports etc. Furthermore, she also guided students about how to formulate research problems, methods and samplings by looking in to types of data and setting the objectives of the research questions.



After lunch, Dr. Petra Chaloupková also gave a lecture about the marketing research methods, which focused on consumer behavior. The course detailed about common sources of scientific journals published the consumer behavior researches; factor influenced buyers and consumer behavior; how to develop the research plans for this type of research. This course also included the information about how to interview and team working during the survey. After that, the students started preparing their research questionnaires regarding to their product.



DAY 9

15th Aug: Discussion about the prepared questionnaire, icebreaking game, visiting black garlic production

Students presented their draft questionnaires about how many questions they want to ask and how they will distribute the survey. They also got recommendation and correction before starting their survey. There was also icebreaking game, called African village in order to build the team connection. In the afternoon, students visited Nopphada Products Co., Ltd. where students could learn about the value-added garlic product called Black garlic (B-garlic).



DAY 10

DAY 11

16th -17th Aug: Field research

The next two days were dedicated to student's field research. According to previous discussion in the groups, students choose which markets they would like to visit, and they divided the tasks for next two days. We could see different approaches for the data collections - some groups choose to work as a team, so they went to each place together. The other ones went separately and then combined the data together. The data collection was done on two different types of market – the local market and supermarket. Each group were supposed to collect at least 100 questionnaires.



DAY 12

18th Aug: Day-off

On the Sunday (Day off), students had the opportunity to join organized trip to the highest mountain of Thailand – Doi Inthanon and to the near temple Doi Suthep. Together 10 students decided to go for that trip, and they enjoyed it a lot, even though the temperature on Doi Inthanon was only around 9°C, which was challenging for some Thai students.



DAY 13

19th Aug: Excursion to the farms

On Monday, students woke up in early morning and went for whole day excursion to two local small-scale farms. The first farm was rice and rice product focused association, which connects several small-scale farmers together to produce different products, namely rice, germinated powder beverages, bananas, garlics, mangos and other seasonal fruits and veggies. Students had the opportunity to see the main orchard, where they also tasted several kinds of fruits (fresh coconut, dragon fruit, pomelo, etc.). After the lunch in local restaurant, we moved for a second farm, which is focused on longan, banana and poultry. We also get a chance to try the harvesting process of longan fruit.



DAY 14

20th Aug: Reflection from the field research, scientific writing (theory), poster presentation

On Tuesday morning, there was a reflection from the data collection process. The students described and shared their positive or negative experiences with other students, obstacles that they had to overcome and provide some recommendation for similar research. Feedback section was followed by lecture about scientific writing – how to do a poster and scientific presentation. The afternoon started with team game called **Marshmallow challenge** that strengthened the communication skills and ability to work as a team. After that, the students were asked to prepare own poster from collected data. Posters were presented on next day morning. The aim of this training was not only training the graphical work, but also to see the variety in final posters based on the similar data.



DAY 15

21st Aug: Poster presentation, scientific writing (theory)

The day started with poster presentation by each group. Generally, the design of the posters was nice, however the posters were characterized by the typical mistakes of beginners and broad spectrum of recommendations for improvement were mentioned by other groups as well as by the academic staff. Teamwork game (3 statements from agricultural fields) was played to support increasing of teambuilding capacity of the students as well as their knowledge. Each team was supposed to prepare three tricky statements from agricultural field – two were true and one was false, and the other teams were supposed to identify the false one only with the help of few additional questions. At the end of the session, the students were trained in how to prepare good scientific article/thesis and afterwards the requested format of scientific poster and final report was presented to the students: the contents and structure, each part was described so that the students were familiar with the contents that shall be add to each chapter.



DAY 16

22nd Aug: Processing of final presentation and report

On Thursday, the students had the whole day for preparation their final report. The report was supposed to be a complete analysis of value chain management of their (selected) product in the range of the data from their field research. The report was supposed to be presented as a document accompanied with oral presentation.



DAY 17

23rd Aug: Final presentation, closure of the program

In the morning, each group presented their final presentation, which was afterwards evaluated by the students, and also by international academic committees, Dr. Chutima (PSU), Dr. Pornsiri (CMU), Dr. Petra, Dr. Olga, Jan and Veit (all CULS). Each group got the recommendation for future improvement. After all groups finished, the best presentation was chosen by the audiences and awarded with small gift. The same followed with the poster section and final reports. We could see great improvement in the quality of the scientific materials as well as in presentation skills by each student.

The Dean of the Faculty of Agriculture (CMU) Associate Professor Dr. Nuttha Potapohn handed over the certificates for participation at the Module 1 - Value Chain management. After that, both students and organizing team gave the feedback, evaluation of the whole module, students filled in the online survey evaluation, and organizers discussed their comments directly with the participants.



DAY 18

24th Aug: Field trip to the Extended Royal Project Station

On Saturday, students visited the Extended Royal Project Station, in the mountainous area, close to Burma border. Students have gained the knowledge about the history of this community and the development of their agricultural system. They also had a chance to see and try the agricultural fruits such as longans, grapes, mangoes.



DAY 19

26th: Field trip to Huay Som Poi Royal Project development center

On Monday, students had another excursion to the Royal Project Station, Huay Som Poi Royal Project development center. Students have seen the planting system of the lettuces, peppers, and passion fruits. Students also learned about the seedling lettuce in greenhouse system.





Evaluation by students

In general, the participants evaluated the Module Value Chain Management positively and the majority of the students would recommend this Module to their friends and colleagues. Following aspects were mentioned as the most valuable: i) Learning and exchanging experiences with friends from various universities, ii) team-working activities and iii) field visits and excursions. The students recommended several improvements for similar Modules such as: (i) courses could be shorter in time, ii) to add some additional topics and iii) to increase practical training activities. Moreover, the students request to have more time for preparing the project study and receive detail information in English during the field visits.

Satisfaction with knowledge gained

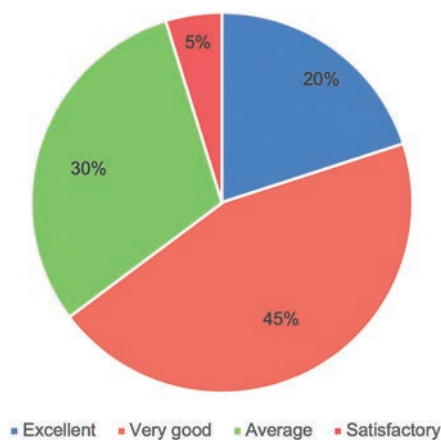


Figure 1: The participants' satisfaction with knowledge gained during the Module 1



Figure 2: Improvement of skills and competences after participation at the Module 1

PISAI'S Students

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Miss. Ammarin Auparakat



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Mr. Weerachai Pengple



Mr. Chutisorn Deemak



Miss. Ploiphailin Tantiwit



Miss. Kewalin Somboon



Miss. Timapon Artnafai



Miss. Kawintip Kongin



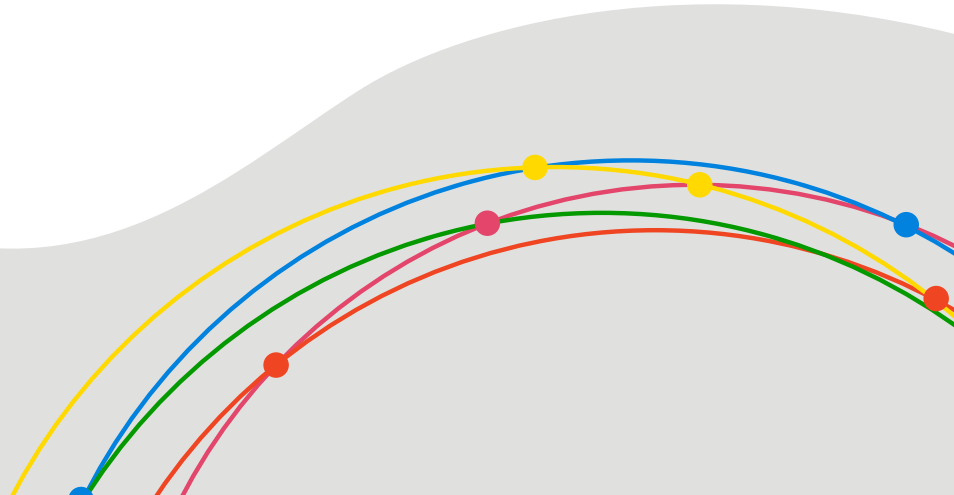


CONCLUSION

Value Chain Management module aims to introduce students the fundamentals of scientific work applied on the issue of value chain management. The skills gathered during the course were oriented to empower participants to succeed in most of university-level scientific projects or professional field. The learning activities therefore comprise theory along with practical approaches. To train students all around, writing and presentation skills were inserted into the module in order for them to present their practical research during the course of the Module 1.

The emphasis of the practical part was for the students to have direct experience on entire value chain of agricultural commodity, from farm production system, processing and marketing and consumer perception/preferences. For effectiveness of learning activities of the module, CMU together with CULS designed the details and discussed intensively for the best program. The module details were then opened for suggestions from PISAI consortium. During the module implementation, the students participated on rigorous academic research (including data collection process in the field), they were trained to express their ideas, opinions and they learnt how to publish a research results in form of conference poster and presentation. After implementing the pilot module for the first batch of PISAI's students, CMU coordinator and CULS team, experiences gained and evaluation by students were employed for improvement of the learning activities for the second year. The improvement includes preparation for English language and allocation more time for subject orientation. Since the Module 1 is the first time that students from four partners studied and spent time learning together, they reflected that getting to know their classmate was very important. Therefore, the ice-breaking activities were arranged in the first part of this module.

Overall, Module 1 implementation in both year 1 and 2 was very satisfying. Students benefitted from the gained knowledge and research methodology as well as practical experiences on value chain of agricultural commodities. Being a coordinator developing and organizing the module, the gained experiences in pedagogy of module arrangement and activities are direct and very beneficial for development and improvement of a course in value chain management. I have inserted the practical learning activities into the course at the Faculty of Agriculture, Chiang Mai University. The experiences are also shared with collegial society at the university.





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Faculty of Tropical AgriSciences

Practice Youth Teamwork Time Humid Thai Money
 Survey Tropics Memory Floor Team
 Chain Knowledge Thai Money
 Poster Happy Bye Presentation Noodles Czech Fruits Mountain
 Redcar English Poter Temples Rice Friendship Report Different
 Value Development Tired
 Walk Buddha Fun 40 Friend Chian
 Chiang Home Elephants City Royal Smite Lanna Summer
 Lettuce Project Speech Culture Ok Language Stimulus Na Market Food Good Sleepy
 Langu You Miss Rain Experience Mai Style Data Skill
 New Thailand Work Igness University School Melrose
 Ancient Lectures Development Adaptation Teaching Agriculture