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# A STUDY OF VALUE CHAIN AND FINANCIAL ACHIEVEMENTS AMONG AGRO-FOOD COOPERATIVES IN MALAYSIA

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# **SCOPE OF PRESENTATION**

INTRODUCTION 1. **PROBLEM STATEMENT** 2. **RESEARCH OBJECTIVE** 3. **4. LITERATURE REVIEW RESEARCH FRAMEWORK** 5. **6. FINDINGS** 7. RECOMMENDATIONS AND CONCLUSIONS



# **RESEARCH MEMBERS**



# **BACKGROUND OF THE STUDY**

- □ The goal of the agrofood sector that applies economic, social and environmental elements is the main target to be achieved by 2030.
- □ The contribution of the agrofood sector to the added value of the agricultural sector increased from 41.78% in 2010 to 48.02% in 2020, this shows that the potential of the agrofood sector contribute more to GDP.

The intention of the National Agrofood Policy 2.0 is to increase the contribution of the national economy which will be measured through parameters such as compound annual growth rate (CAGR) and food trade balance CAGR



□ The GDP contribution of the agricultural sector in the national economy has decreased in 2020 compared to 2010 and this shows that there is a reduction of dependence on this sector.



# **PROBLEM STATEMENT**

Low of productivity

Malaysia imports a total of RM54 billion in food supplies Replacing the middleman role as suppliers of agricultural inputs

Lack of technology used

Small scale agriculture



### ACHIEVEMENTS OF COOPERATIVES IN AGRICULTURAL 2016-2019

| Year                      | 2016          | 2017          | 2018           | 2019          | 2020           | 2021           |
|---------------------------|---------------|---------------|----------------|---------------|----------------|----------------|
| Furnover                  | RM39.7 bilion | RM40.2 bilion | RM 40.3 bilion | RM45.8 bilion | RM 41.4 bilion | RM 37.9 bilion |
| No. of Coop               | 13,428        | 13,899        | 14,247         | 14,625        | 14, 629        | 14,834         |
| Ne of Coop<br>Agriculture | 2,886         | 3,021         | 3,125          | 3,236         | 3237           | 3329           |
| Furnover of Agriculture   | RM1.2 bilion  | RM1.2 bilion  | RM 1.3 bilion  | RM 1.2 bilion | RM 1.1 Bilion  | RM1.3 Billion  |
| Percentage Contribution   | 3.0 %         | 3.0 %         | 3.2 %          | 2.6 %         | 2.6 %          | 3.4 %          |

(Source: Cooperative Commission of Malaysia, 2021)



# **IMPORTANCE OF STUDY**

Providing an overview of the profile, prospects and potential of the agrofood sector on cooperative movements in Malaysia.



Assist policy maker in formulating the direction and strategic planning of agrofood cooperative in Malaysia.

Identify the contribution gap towards financial achievement for cooperatives movement in Malaysia. Provide an appropriate action plan to empowering the agrofood Sector in Malaysia through cooperatives movement.

Findings of this study can be used as a reference or guidance to further studies



# **RESEARCH OBJECTIVE**

To identify the profile of cooperatives involvement towards agrofood industry in Malaysia

> To identify the involvement of cooperatives in agro-food value chain activities in Malaysia

To determined agro-food value chain aspect between cooperatives financial achievements in Malaysia

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# **LITERATURE REVIEW**

B

Value chain is the activity carried out by a company in a specific industry to add value to products or services in the market (Porter, 1985) Advanced technology enables organizations to monitor activities in terms of operations, the machinery used, materials, labor, and cost-effective solutions, allowing us to monitor avtivities, operatios, machine processes, materials, data collection, analysis, and immediate decision-making. (Nagy et al., 2018)

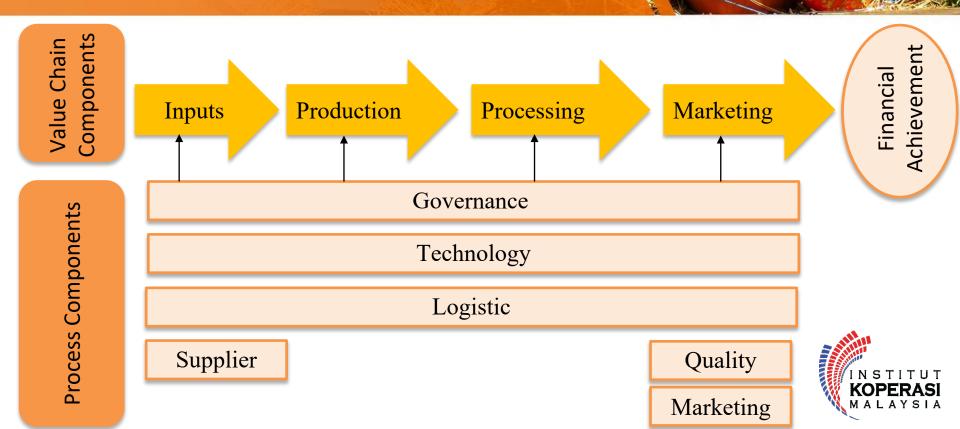


Companies can enhance the competitiveness of their products and achieve their desired market position through the appropriate implementation of value chain integration (Siddh et al., 2017 & Zhao et al. 2021)



Performance measurement and management refer to goals, strategy development, key performance indicators, human resource management, and organizational learning feedback processes (Otley, 1999).

### VALUE CHAIN CONCEPTUAL FRAMEWORK



# **SCOPE OF STUDY**

#### A cooperative involvement in agrofood activities

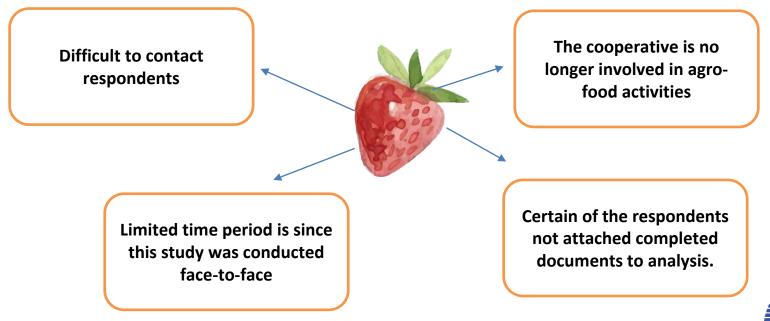
- 3,236 cooperatives (2019)
- Only 84 cooperatives were engaged in agro-food activities as of 2019.
- These cooperatives were involved in activities related to vegetables, rice, livestock, and aquaculture.

(Board or Manager) represents each cooperative

**6 main zones** which are North, East, Central, South, and Sarawak / Sabah Zone



### **LIMITATIONS OF THE STUDY**





# **METHODOLOGY**

#### RESEARCH DESIGN

- Quantitative
- Questionnaire
- Face-to-face and field interviews



# POPULATION & SAMPLE

- Population: an active agricultural
  - cooperative
- The sample of this study : 54 cooperative respondents



#### STUDY INSTRUMENTS

- Part A: Background and demographics
- Part B,C,D,E : Vegetables and fruits, livestock, Aquaculture, Paddy)
- Part F: Aspects of the agrofood value chain
- Part G: Technology and financial achievements



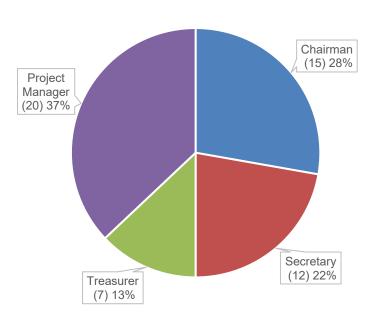
#### Data analysis

- Descriptive Analysis
- Inferential analysis using SPSS



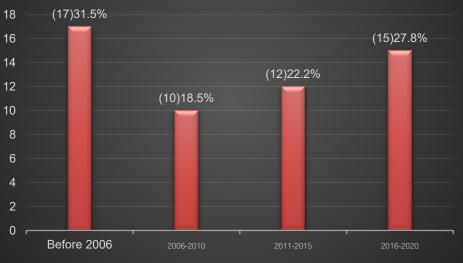
## **OBJECTIVE 1**

TO IDENTIFY THE PROFILE OF COOPERATIVES INVOLVEMENT TOWARDS AGROFOOD INDUSTRY IN MALAYSIA



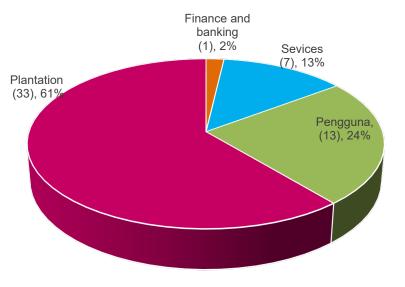
POSITION



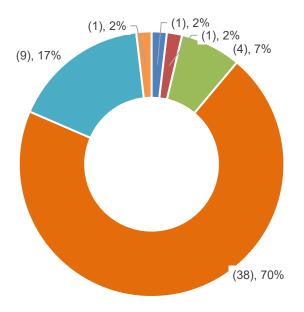


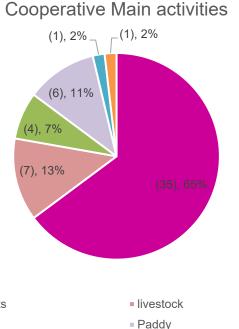


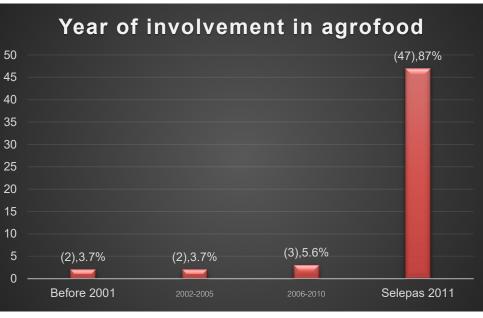
#### **Cooperative Function**



#### Certification



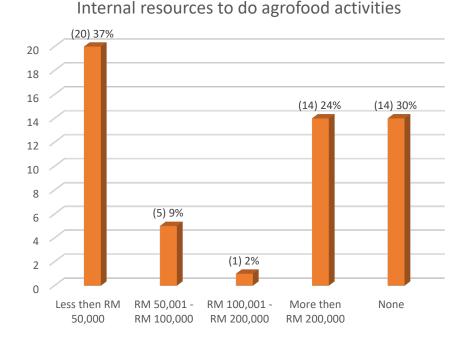




- Vegetables and fruits
- Aquaculture
- livestock and Paddy

Vegetables and fruits and Aquaculture





# External resources to do agrofood activities



#### CROSS TAB : INTERNAL & EXTERNAL SOURCES

|           |             |         | Internal ı | resources  |         |       |
|-----------|-------------|---------|------------|------------|---------|-------|
|           |             |         | RM 50,001  | RM 100,001 |         |       |
|           |             | Less RM | - RM       | - RM       | More RM |       |
|           |             | 50,000  | 100,000    | 200,000    | 200,000 | Total |
| Enternal  | Less        | 6       | 0          | 5          | 3       | 14    |
| resources | RM 50,000   |         |            |            |         |       |
|           | RM 50,001 - | 0       | 3          | 0          | 1       | 4     |
|           | RM 100,000  |         |            |            |         |       |
|           | RM 100,001  | 1       | 0          | 0          | 0       | 1     |
|           | - RM        |         |            |            |         |       |
|           | 200,000     |         |            |            |         |       |
|           | Lebih       | 2       | 0          | 3          | 8       | 13    |
|           | RM 200,000  |         |            |            |         |       |
| Total     |             | 9       | 3          | 8          | 12      | 32    |

## OBJECTIVE 2

To identify the involvement of cooperatives in agro-food value chain activities in Malaysia OBJECTIVE 2: To identify the involvement of cooperatives in agro-food value chain activities in Malaysia

|   | Types of Agro-<br>food |   | Input<br>supply | Process | Collection | Marketing | Slaughter | Logistic   | Harwasting | Manufacturing       |
|---|------------------------|---|-----------------|---------|------------|-----------|-----------|------------|------------|---------------------|
| 1 | Vegetables and         | Κ | 10              | 14      | 19         | 25        |           | 16         |            |                     |
|   | fruits                 | Α | 1               | 4       | 1          | 3         |           | 3          |            |                     |
|   | 36                     | L | 25              | 3       | 2          | 4         |           | 3          |            |                     |
|   |                        | Т | -               | 15      | 14         | 4         |           | 14         |            |                     |
| 2 | Livestock              | Κ | 2               | 2       |            | 6         | 1         | 4          |            |                     |
|   | 8                      | Α | -               | -       | -          | X         | -         | -          |            |                     |
|   |                        | L | 6               | 1       |            | 1         | 3         | 1          |            |                     |
|   |                        | Т | -               | 5       | M          | 1         | 4         | 3          |            |                     |
| 3 | Aquaculture            | Κ | -               | 1       | 45         | 4         |           | <b>4</b> 5 |            |                     |
|   | 5                      | Α | 1               | -       |            | 1         |           | N N        |            |                     |
|   |                        | L | 4               | -       | -          | -         |           | -          |            |                     |
|   |                        | Т |                 | 4       |            | -         |           | -          |            |                     |
| 4 | Paddy                  | Κ | <b>4</b> 5      | -       |            | 1         |           | 4          | 4          | <b>4</b> 5 <b>7</b> |
|   | 7                      | Α |                 | -       |            | 1         |           | 1          | 1          | 1                   |
|   |                        | L | 2               | 1       |            | -         |           | 1          | 1          | -                   |
|   |                        | Т | -               | 6       |            | 5         |           | 1          | 1          | 1                   |

# Factors that influence the value chain

|   | Variables  | Item | Cronbach's<br>Alpha | Mean |
|---|------------|------|---------------------|------|
| 3 | Suppliers  | 7    | 0.601               | 3.88 |
| 2 | Governance | 8    | 0.789               | 4.02 |
|   | Marketing  | 8    | 0.728               | 3.37 |
| 4 | Technology | 5    | 0.949               | 3.69 |
| 1 | Quality    | 6    | 0.867               | 4.29 |
|   | Logistic   | 6    | 0.905               | 2.90 |

| Variables | Questions | Mean     |
|-----------|-----------|----------|
|           | PM1       | 3.76     |
|           | PM2       | 3.81     |
|           | PM3       | 3.63     |
| Supplier  | PM4       | 4.13 (2) |
|           | PM5       | 4.30 (1) |
|           | PM6       | 3.67     |
|           | PM7       | 3.87 (3) |

#### Supplier

- 1. PM5 : The delivered input supply meets the specified quality
- 2. PM4: Cooperation exists between suppliers and cooperatives
- PM7: Cooperatives get supplies directly with major suppliers



| Variables  | Questions | Mean     |
|------------|-----------|----------|
|            | TU1       | 3.74     |
|            | TU2       | 3.76     |
|            | TU3       | 4.26 (2) |
|            | TU4       | 4.09     |
| Governance | TU5       | 4.20 (3) |
|            | TU6       | 3.87     |
|            | TU7       | 3.91     |
|            | TU8       | 4.35 (1) |

#### Governance

- 1. TU8 : Effective communication exists between employees and management
- TU3: Performance reports related to agrofood activiries are discussed in ALK meetings
- TU5: The employees involved have skills based on the their task



| Variable  | Questions | Mean     |
|-----------|-----------|----------|
|           | P1        | 4.24 (2) |
|           | P2        | 4.26 (1) |
|           | P3        | 3.78 (3) |
|           | P4        | 3.43     |
| Marketing | P5        | 2.52     |
|           | P6        | 3.20     |
|           | P7        | 2.74     |
|           | P8        | 2.81     |

#### Marketing

- 1. P2 : Cooperatives have a pricing strategy
- 2. P1 : The products/services sold are

provided according to the customers'

demands

3. P3 : Cooperatives actively make

promotional activities



| Variables  | Questions | Mean     |
|------------|-----------|----------|
|            | T1        | 3.57     |
|            | T2        | 3.50     |
| Technology | Т3        | 3.70 (3) |
|            | T4        | 3.91 (1) |
|            | T5        | 3.74 (2) |

#### Technology

- 1. T4 : Technology can help cooperatives increase production
- 2. T5 : Technology can help cooperatives overcome market competition
- 3. T3 : Technology reduces cooperative

operating costs



| Variable | Questions | Mean     | Qu | ality |
|----------|-----------|----------|----|-------|
|          | K1        | 4.46 (2) |    |       |
|          | K2        | 4.37 (3) | 1. | K3    |
|          | К3        | 4.48 (1) |    | reo   |
| Quality  | K4        | 4.30     | 2. | K2    |
|          | K5        | 3.80     | 3. | K1    |
|          | K6        | 4.33     |    | cu    |

#### y

3 : Cooperative products are well

eceived by customers

- 2 : Products meet the set standards
- 1 : Marketed products meet the needs of ustomers



| Variable | Questions | Mean     | Logistik                                       |
|----------|-----------|----------|--|
|          | L1        | 3.31 (1) |  |
|          | L2        | 2.83     | 1. L6 : Cooperative using third party logistic |
|          | L3        | 2.76     | 2. L1 : Cooperative have logistic facility     |
| Logistic | L4        | 2.94 (3) | 3. L4 : Cooperative doing logistic             |
|          | L5        | 2.48     | maintenance periodically                       |
|          | L6        | 3.04 (2) |  |



| Variable    | Questions | Mean     |
|-------------|-----------|----------|
|             | FP1       | 4.07 (3) |
|             | FP2       | 3.65     |
|             | FP3       | 3.91     |
| Financial   | FP4       | 4.13 (2) |
| Achievement | FP5       | 3.50     |
|             | FP6       | 3.61     |
|             | FP7       | 4.22 (1) |

#### **Financial Achievement**

- FP7 : Supply chain management (suppliers, quality, technology, marketing, governance, logistics) can help cooperatives generate income
- 2. FP4 : Agrofood activities successfully contribute to the increase in cooperative income
- 3. FP1 : Agrofood activities successfully contribute to the increase in cooperative income

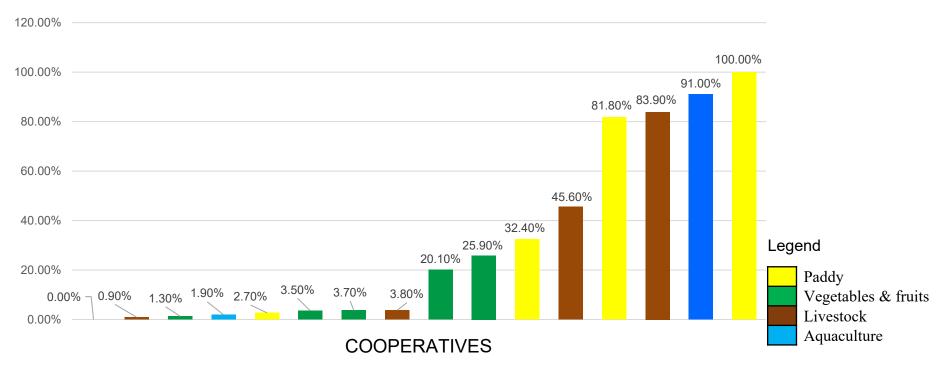


### **OBJECTIVE 3**

To determined agro-food value chain aspect between cooperatives financial achievements in Malaysia

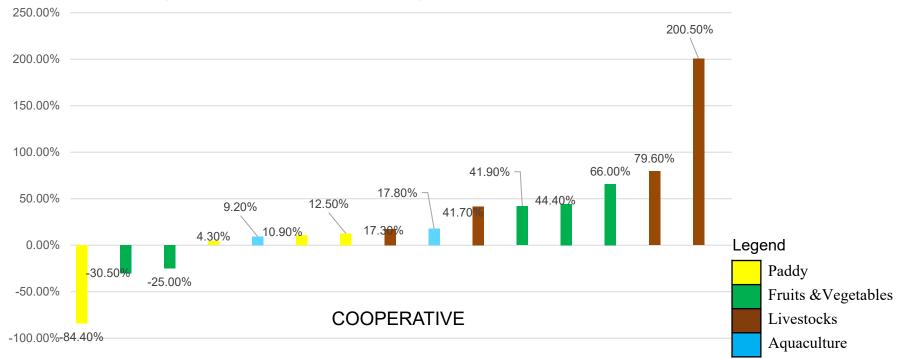
### OBJECTIVE 3: To determined agro-food value chain aspect between cooperatives financial achievements in Malaysia

Percentage of agrofood income contributed to cooperatives



#### OBJECTIVE 3: To determined agro-food value chain aspect between cooperatives financial achievements in Malaysia

Percentages Profit of Investment in Agro-food Activities



OBJECTIVE 3: To determined agro-food value chain aspect between cooperatives financial achievements in Malaysia

| -  |                                      |            |             |            |            |
|----|--------------------------------------|------------|-------------|------------|------------|
| No | TOTAL VALUE CHAIN<br>ACTIVITIES      | 1          | 2           | 3          | 4          |
| 1. | AVERAGE TOTAL INCOME<br>RATIO        | 0.4%       | 6.5%        | 12.6%      | 7.7%       |
| 2. | AVERAGE AGRICULTURAL<br>INCOME RATIO | 0.1%       | 2.4%        | 0.2%       | 4.9%       |
| 3. | AVERAGE OVERALL<br>INCOME            | RM916 ,000 | RM10 mil    | RM5 mil    | RM914,000  |
| 4. | AVERAGE AGRICULTURAL<br>INCOME       | RM 33,000  | RM 458 ,000 | RM 107,000 | RM 590,000 |
| 5. | AVERAGE SHARE CAPITAL                | RM3.5 mil  | RM2.6 mil   | RM445,000  | RM117 ,000 |
|    | TOTAL OF COOPERATIVES                | 3          | 6           | 2          | 2          |

# RECOMMENDATIONS AND CONCLUSIONS

# RECOMMENDATIONS

- Empowering guidance and training for cooperatives
- Collaboration with industry experts in agro-food
- Empowering modernization and smart agriculture
- Improve commercial production results
- Improving Good agro-food Management Practice Models should be practiced (eg: from Japan)
- ✤ Capital injection especially grants for cooperatives



# CONCLUSIONS

- The involvement of cooperatives that run agro-food activities in Malaysia is still low and active in agro-food activities after 2011 and does not have any certificates such as MyGAP, MYOrganic, Halal & MeSTi Certificates
- The majority of cooperatives are engaged in value chain activities in marketing
- The key factors influencing the value chain in agro-food are quality, management, and suppliers
- Return and profit percentages from agro-food activities are favorable

