

# Market Function through Small Family Farms- Middleman Interaction, and Its Relation to Food Security: Evidence from Indonesia

1<sup>st</sup> Endar Purnawan  
*Agriculture Food and  
Environment Department  
University of Pisa  
Pisa, Italy*

[e.purnawan@studenti.unipi.it](mailto:e.purnawan@studenti.unipi.it)

2<sup>nd</sup> Natalia Gabriela Molina  
Navas  
*Agriculture Food and  
Environment Department  
University of Pisa  
Pisa, Italy*

[n.molinanavas@studenti.unipi.it](mailto:n.molinanavas@studenti.unipi.it)

3<sup>rd</sup> Gianluca Brunori  
*Agriculture Food and  
Environment Department  
University of Pisa  
Pisa, Italy*

[gianluca.brunori@unipi.it](mailto:gianluca.brunori@unipi.it)

4<sup>th</sup> Yuliska  
*Informatics Engineering  
Department  
Politeknik Caltex Riau  
Pekanbaru, Indonesia*

[yuliska@pcr.ac.id](mailto:yuliska@pcr.ac.id)

**Abstract**—This research addresses the interaction between small family farms and middleman and its relation to food security. Based on a qualitative method analysis derives from farmer and intermediaries interviews, this research sheds light on four types of middleman in this area: conventional middleman, rice middleman, banana middleman, and rubber middleman. It reveals factors motivating farmers to market crops through a middleman such as best crops selling price, the quantity of the crops, a new market for subsistence crops, and tied relationship. The result indicates that each middleman's role differs depending on the interaction, where most of them are simply a way to connecting farmers to the final market to earn cash quickly. Taken together, the research findings highlight the role of each middleman, including "Bertaake" interaction, which is uniquely proven to contribute to food availability and food accessibility of the small farm households from one harvest-time to another, before recommending farmers market in order to benefit farmers and the community for better local food security.

**Keywords**—*Small Family Farms, Middleman, Market Access, Farmers Market, Food Security*

## I. INTRODUCTION

Lack of formal connections between small farm holders and market actors tends to limit the access to information that farmers require to sell their produce [3]. Markelova et al. asserted that if small producers act collectively, they may actually reduce transaction costs, get updated market information, and enhance their bargaining power with buyers [6]. Nevertheless, collective actions from smallholders are a challenge due to their poor organization capacity and low level of trust amongst them [4].

Middleman has an integral role in linking smallholder farmers to traders and final markets [1]. Rubinstein and Wolinsky [14] asserted that middlemen are a time-saving institution since they shorten the negotiation time between sellers and buyers in a transaction. In Indonesia, most farmers are small-scale farmers, wherein middleman has a positive role because most farmers in Indonesia are fragmented [8]. If they distribute their agricultural products directly to

consumers, it will cause variation in prices and costs distribution will become more expensive due to irregular quantities [7]. Middleman may, however, reduce the profitability of farmers in the long-run [7]. Middleman often compromises the efficiency of distributing agricultural products by decreasing prices at the level of farmers [13] [19].

Broader than economic aspect, middleman may also function as a social network structure, as defined by group-membership [10] and institutionalization of group relations [12]. An economic transaction that involves a middleman signifies a socially-tied relationship, where close knit communities, such as those based on kinship and geographical proximity, are characterized by strong social ties [10].

This paper probes into the following: 1) the characteristics of farmers and the type of middleman, 2) factors that influence farmers' decision of marketing crops through middleman, and lastly, 3) the role of middleman on food security among family farmers in the context of Indonesia.

## II. RESEARCH METHODOLOGY

This study was conducted in Sekayam sub-district located at Sanggau district, West Kalimantan province in Indonesia. The qualitative data were analyzed using inductive and descriptive analyses to obtain in-depth and accurate outcomes [11]. In total, 21 informants were employed for this study, comprising of 6 middlemen and 15 farmers. In-depth interviews and observations were the data collection techniques used in this study. The data were gathered between April and August 2019. Table I below shows indicator used in the interviews. This study was conducted in Sekayam sub-district located at Sanggau district, West Kalimantan province in Indonesia. The qualitative data were analyzed using inductive and descriptive analyses to obtain in-depth and accurate outcomes [11]. In total, 21 informants were employed for this study, comprising of 6 middlemen and 15 farmers. In-depth interviews and observations were the data collection techniques used in this study. The data were

gathered between April and August 2019. Table I below shows indicator used in the interviews.

TABLE I. INDICATORS USED DURING INTERVIEWS

Indicators			
No	Farmer	No	Middleman
1.	Information of the respondent and the household	1.	Information of the respondent
2.	Land for farming, types of plants, and amounts of crops harvested each year	2.	Crops/ food items to accommodate/ sell? Where to get?
3.	Crops consumed, sold, and used for agricultural inputs?	3.	How much bought and sold? Purchase and selling price?
4.	Where the crops were sold?	4.	Where to sell?
5.	Determining factors in choosing food to consume and special moment for food?	5.	Number of intermediaries or traders in the area?
6.	Experienced difficulty accessing food (e.g., no money to buy food) and strategies to deal with it?	6.	The quantity of crops sold in this hamlet/village in one month?
		7.	The obstacles faced in becoming a middleman
		8.	The supporting factors in the business

Source: Proceed by authors

The stages of data analysis in this study adhered to that prescribed by Neuman, as follows [11]: Data 1 referred to raw data and the researcher's experience based on observation and interview in the field. Data 2 denoted data recording and physical document derived from observation in the form of visual recording and from the interviews in the form of sound recording. Data 3 derived from data selection or the final report from data 2 and other processed resources (agency documents and literature). Figure 1 illustrates the simple steps embedded for the process of data analysis.

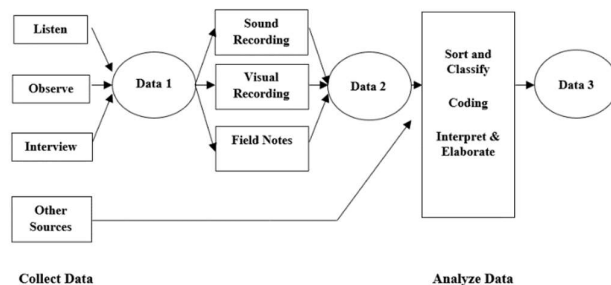


Fig. 1. Data Analysis Process (Modified from [11])

#### a. Characteristics of Farmers and Type of Middleman

##### 1) Characteristics of Farmers

This study was conducted in Sekayam Sub-district located at Sanggau District, West Kalimantan Province, Indonesia. The farmers in this area spent 32.48% only of their revenue for food from their income. Nevertheless, they spent nothing (or in small amount) for rice as staple food and vegetables. Rice, rubber, oil palm, pepper, banana, vegetables, and tropical fruits were the types of crops planted by the farmers in the study area. In average, they managed 2.68 ha of farm field per household, and they planted any commodity with good selling price to sustain their income. Farmers in this area planted a range of crops because planting only one crop reduced the variety of food for consumption, while increasing the risk of crop failure, as Von Braun and

Kennedy asserted that farmers select crop mix to gain food security and maximum return on scarce resources [20].

#### 2) Different Types of Middleman in the Research Area

The 4 types of middleman identified in this study area are as follows:

##### a) Conventional Middleman

This type of middleman is a normal middleman, whereby farmers can sell their crops to them, in order to gain cash. Most of them accepted pepper, palm oil fruits, and rubber from farmers, who then brought the crops to a wholesale (for pepper) or to a factory (for oil palm fruits and rubber). These middleman gained profit from the margin selling price between farmer and wholesaler/factories.

##### b) Rice Middleman

There is a rice middleman in Berungkat village as a result of a program namely *Pengembangan Usaha Pangan Masyarakat* (PUPM) that supported farmer shop (TTI), which was managed by the chief of joint group of farmers in Berungkat village. They accepted grain from farmers, process it, and then sold it to community. Prior to PUPM program, farmers keep their grain for their own consumption and sell it directly to consumers in small amount. This middleman motivated the farmers to produce more grain, as he could absorb their crops in large quantity.

##### c) Banana Middleman in Ruis Hamlet

This middleman initially had a part-time job harvesting bananas for several years. When the farmers need to harvest their crops, they would pay a part-time worker to help them harvest bananas in their farm. When the worker had sufficient money to buy bananas from the farmers, including harvesting cost, he served as a middleman. The interaction between the farmers and the worker had motivated him to become a banana middleman.

##### d) Rubber Middleman in Ruis hamlet

As a conventional middleman, a rubber middleman in Ruis hamlet (part of Bunggang village) had unique tie with the farmers. Local people called it "bertauke", which reflects their interaction; where farmers can borrow food items from the middleman and repay after selling their rubber. The middleman had a small grocery that sold food items to the farmers.

### III. RESULTS AND DISCUSSION

#### A. Farmers' Decision of Marketing Crops through Middleman

Based on field findings, several reasons that drove the farmers' decisions on marketing their crops were noted, such as selling price, crops quantity, new market, and tied relationship.

##### 1) Best Selling Price of Crops

A farmer (farmer 2) said that if they had a chance to reach the border line between countries to get better selling price, they would do it. The farmer said that the border between Indonesia and Malaysia used to be free for transaction, so they could freely and directly sell pepper and cocoa at the border gate. At that time, they used motorcycle to bring crops to the border gate, where a middleman from

Malaysia would be waiting for them. This shows that farmers try to get the best selling price of their crops, even though they need extra effort to obtain it.

## 2) *The Quantity of Crops*

The farmers sold small amounts of crops to small middleman in their hamlet. A farmer (farmer 12) said that when they had a small amount of pepper crop, they would sell it directly to a middleman in their hamlet. However, when they had more pepper crop, they sometimes went to a wholesaler in Nekan. Transportation and time costs were weighed in if they had decided to go to wholesaler, in order to gain better selling price that also could cover the transaction cost they spent. As for the oil palm and rubber farmers, low quantity of crops was related to lack of access to market. These commodities were sold to factory; more crops were sold directly to the factory for better selling price (oil palm or rubber factory). However, small family farms sold their little amount of crops to middleman in their community, who served as a link for farmer and trader [14]. The farmers need not to keep their crops to meet certain amount, thus being able to gain cash money more quickly.

## 3) *New Market for Subsistence Crops*

A rice middleman started buying rice grain from the farmers. Typically, rice was only for household consumption or sold in small amount directly to consumers. However, the rice middleman in Rintau hamlet (part of Berungkat village) bought rice grain from farmers under the PUPM program in the area. The farmer (farmer 2) said that the existence of those middlemen gave a great help to rice farmers in Rintau hamlet, because now they can sell their grain in large amount to gain money. This obviously motivated the rice farmers to increase their productivity. As Sadler explained, market availability and access motivate farmers to not only farming for subsistence purpose but also gain income from the farm activity [15].

## 4) *Tied Relationship*

The three examples for this farmer-middleman relationship (see [9] [11]) particular point identified in the research area are as follows: A farmer in Berungkat hamlet claimed that he sold oil palm to a middleman in Lubuk Sabuk village, who are his cousin named Pak Abang Roni. The farmer also said that two middlemen hold and buy palm fruits from farmers in the area. The relationship between banana farmer and banana middleman in Rusi hamlet is portrayed as follows, "In the beginning, I worked as a banana harvester in someone else's banana plantation, because I was the one who harvested most of the banana yields here. Finally, I have been known and trusted by farmers who own banana plantations. Once, a large banana wholesaler at Balai Karangan asked me if I was willing to supply bananas for him. We negotiated the price of bananas. Upon agreeing with the price, I approached the banana farmers and told them that I wanted to buy the bananas that I had harvested for them immediately. So, I cropped directly for them, and then I bought the bananas directly for 1,500 rupiah per kg. The farmers received the harvest directly without the need to think about the costs of harvesting and transportation. The farmers agreed, and finally, I turned into a banana middleman in this hamlet. I harvest and buy bananas directly from the farmers, and then,

I sell them to large intermediaries at Balai Karangan. Once, a farmer came to my house to offered me the job of harvesting bananas in his plantation for 300 rupiah per kg of bananas, including the costs of harvesting and transportation" (Middleman 5).

The last form of relationship is "Bertauke", between rubber farmers and a middleman in Ruis hamlet. In local language, "Bertauke" means an interaction, where farmers can borrow food items from the middleman and only pay for the borrowed items when they have rubber to sell. Normally, the middleman should have a small grocery that sells food items to the community. A farmer in Ruis Hamlet (farmer 11) said that they sold rubber products to Mr Indra, who is the only rubber middleman in Ruis hamlet. The farmer added that they could sell their rubber to any middleman outside the hamlet for better price, but they would not. Mr. Indra is his relative and they always owe goods from his small grocery.

This interaction was further explained by the middleman, "In this hamlet, it seems that I am the only one who accommodates rubber from farmers. I also have a small grocery store, where farmers sell rubber and buy things from me. They are accustomed to exchanging rubber with goods; bartering. So, they first take goods from me, and later sell their rubber to me, or pay off their debts with rubber. For other intermediaries around here, they take the sap from farmers in other villages. So, the latex that enters my place is approximately the amount of latex produced by the sap farmers in Ruis, which is about 3 tons a month. In this hamlet, 51 farmers routinely take goods and sell rubber to me. I sell food items commonly bartered by farmers, such as rice, edible oil, sugar, chicken, and fish" (middleman 2).

Figure 2 shows the interaction of farmers with different types of middleman, along with the reasons of farmers' decision marketing crops through middleman discussed above.

## B. *The Role of Middlemen on Food Security of Family Farmers*

The term 'intermediary' is used commonly in business sector, including agriculture, with both positive and negative connotations [9]. Intermediaries only increase personal profits without increasing the added value of the products by using limitations of market information of farmers as producers [16]. Middlemen make profit by reducing the prices of farmers as low as possible [13] [16] [18]. Farmers, at times, have no other choice because agricultural products rot easily and are bulky, thus it is better for farmers to sell them to middlemen [8]. Most Indonesian farmers (93%) were small family farmers [2]. This signifies the positive role of intermediaries as most farmers were fragmented. However, this positive role on food security might not be equal for every middleman. Hence, the following explains the contribution of different middlemen to food security of small family farms:

### 1) *Conventional Middleman*

In this study, all the farmers sold their cash crops to middlemen as explained by a farmer (farmer 4). The farmer stated that the yields of oil palm plantations in there were all sold to a middleman in Berungkat Hamlet named Mr. Ja. He accommodated from farmers and then sold palm fruits to the factory in Kembayan. Mr Ja also held rubber. Another farmer

The flowchart illustrates the rural economy in the 1980s, centered around **Farms**. The diagram shows the following flows:

- Farms' Household** provides *Foodstuffs, farm inputs* to the **Local Market** and *Labor* to the **Farms**. It also receives *Income from off-farm jobs* and *Remittances from family, remittances* from the **Farms**.
- Farms** provide *Cash* to the **Conventional Middleman**, **Bananas Middleman**, **Rubber Middleman**, and **Wholesale**. They also provide *Cash* to the **Rice Middleman** and **Community**.
- Conventional Middleman** provides *Cash* to the **Farms** and *Cash* to the **Wholesale**.
- Bananas Middleman** provides *Bananas* to the **Farms** and *Cash* to the **Wholesale**.
- Rubber Middleman** provides *Cash, harvest's labor (fixed relationship)* to the **Farms** and *Cash* to the **Wholesale**.
- Wholesale** provides *Cash* to the **Farms** and *Cash* to the **Factories**.
- Factories** provide *oil palm, rubber* to the **Farms** and *Processes crops* to the **Outer Markets**.
- Outer Markets** provide *Pepper, bananas* to the **Wholesale**.
- Rice Middleman** provides *Paddy (new market)* to the **Farms** and *Rice* to the **Community**. The **Community** provides *Cash* to the **Rice Middleman**.
- Local Market** provides *Foodstuffs, farm inputs* to the **Farms' Household**.
- Processing paddy to rice** provides *Rice* to the **Community** and *Foodstuffs, farm inputs* to the **Local Market**.

A middleman (Middleman 2) said that he used to sell pepper and cocoa to a wholesaler in Engkahan village named Mr. Mus. He even accepted the cocoa price of 5,000 rupiah because cocoa fruits do not last long. He stated that if the fruit shrinks, they can sell only 40% to the wholesaler. Linking gaining cash quickly with food security at household level is another point. However, earning extra income need not necessarily affect food consumption, as farmers need to meet many daily needs and save their money for future needs.

The rice middleman (TTI) in the area was supported by the government via PUPM program to ascertain food availability and food access for the community. The middleman (Middleman 1) claimed that they were assisted by the government through PUPM funds for rice availability. The goal was to make rice available to the community in affordable and accessible price. So, they were given capital to buy grain from farmers at their price and sell rice to people at an amount determined by the government. As farmers in this area plant rice only for self-provision purpose, this program as a new market motivated farmers to produce rice more than what they need [13]. A farmer (farmer 2) mentioned that for them who are from Berungkat hamlet, all farmers sold grain to a middleman in Rintau. This is good because the farmers could sell 5 to 6 sacks of crops to restore their operational costs of paddy planting. The farmer added that the middleman helped the rice farmers a lot. Likewise, the chief of TTI (Middleman 1) explained that this condition stimulated the productivity of paddy farming in this region because they tried planting twice or thrice a year to gain more productivity. This program benefits the community, as they can buy rice at a low price (9,000 rupiah per kg), where previously they bought rice for 13,000 rupiah per kg. The TTI production was equal to 11.87% and 17.46% of rice needed in Bungkang village for 2018 and 2019, respectively.

Banana middleman in this hamlet built long-term relationship with the farmers. The middleman said, “I have

Clearly, the middleman simplified the banana market process for farmers from the long market chain. Nevertheless, in order to determine the effect of this interaction on food security at household level, more effort is required. This is because, the community in Ruis preferred saving their money than adding variety to their consumption.

The rubber middleman in Ruis hamlet built a unique relationship with the local farmers. First, the middleman had a small shop that sold many food items, where farmers could borrow the food items, and later pay with their crops. A farmer (farmer 12) mentioned that when they did not have money but they needed something, they could go to the middleman and borrowed items from his shop. The farmer lent the middleman goods because they always repaid by selling their crops to the middleman to pay off the debt. As this happened rather frequently, the middleman contributed to provide food items for the farmers in this hamlet. The farmer further explained that every month, they borrowed goods from the store. After a week or two, they would sell their produce to pay off the debt. They usually borrowed food items twice a month. The local people called this relationship “Bertauke”, as the farmers sold their crops and borrowed food items from the shop owner/middleman of their crops. If the farmers had no rice at home or no side dish to consume, they would go to the middleman and borrow food items, which are paid later. “There has never been a concern about lack of food in our house, thank God” (farmer 12).

The middleman (middleman 2) in this hamlet explained the situation very well; he stated that in this hamlet, he was the only one who accommodates rubber latex. He had a small grocery store, where farmers sold rubber and buy things from him. They were accustomed to exchanging rubber with goods; bartering. So, they first took products, owing him goods, then sold latex to him or paid off their debt with latex. For other intermediaries who were around the area, they took the latex from farmers in other villages. So, the latex that entered his

place was approximately the amount of latex produced by the sap farmers in Ruis, which was about 3 tons per month. He added that at present, he takes latex from farmers at 7,000 rupiah, while the selling price at the warehouse is 7,800 rupiah, so the profit gained is only 800 rupiah per kg of latex. He sold rubber to latex warehouses in two places, Buyung's place in Balai Karangan and Herman's in Kenaman hamlet. They are big middlemen who buy latex from small middlemen like him. When he lacked of financial capital, he borrowed money from the rubber sap container where he sells the sap. Normally, loans to rubber sap warehouse were given only half of their sales. Monthly income from collecting the sap is around 1.2 million rupiah, but sometimes less than that due to the unusual amount of sap depreciation. Not all latex that comes from farmers was clean. Sometimes the farmers mix something into the latex that would be dried so that it could add to the weight of the latex that he bought. Depreciation when selling to warehouse from his experience was 5-15% per ton latex. So, from the purchase of 1-ton of sap, he only got sales of 850-950 kg. He marketed this latex from the farmers to the warehouse or large container, which was then sent to a sap factory in Pontianak. He sold all kinds of food items commonly bartered by farmers, such as rice, chicken, fish, eggs, cooking oil, and sugar. He bought them at Balai Karangan. He estimated this trading profit at around 2 million rupiah per month.

The second reason of this unique tied relationship is the relationship itself, stemming from the extended family relationship shared between the farmers and the middleman. Despite the potential to gain better rubber selling price with other middlemen, the farmers chose to keep this "bertauke" tied with the middleman due to family ties. This established the position of the middleman among the local farmers in this hamlet, "My supporting factor is the support from farmers who always supply latex to me due to the barter system we use between food and agricultural products. Another factor is my wife; she has many farming families who continue selling their agrarian produce to me. Actually, 51 farmers in this village routinely take goods and sell latex to me" (Middleman 2).

Clearly, the tied relationship between farmers and middleman had uniquely contributed to food availability, food accessibility, and food utilization of the small farm households from one harvest to another. Essentially, the interaction contributes to food stability during the cycling of food scarcity for the farmers. Table II lists the reasons on why the farmers sold crops to middlemen and the contribution of these middlemen to farmers.

TABLE II. HOW MIDDLEMEN BENEFIT FARMERS

No	Type of middleman	Reason to sell	Benefit
1.	Conventional middleman	Best selling price Quantity of crops	Gain cash quickly, and do not need to pay additional distribution cost, or only need to pay in small amount.
2.	Rice middleman	New market	Before, farmers in this area planted rice only for self-provision. This middleman helped the farmers to earn extra income from paddy farming, and

			motivated the farmers to produce rice more than they needed.
3.	Banana middleman	Tied relationship (middleman and harvest labor)	The farmers received cash directly without the need to think about harvesting and transportation costs. Simplified the banana market process for farmers.
4.	Rubber middleman in Ruis hamlet	Tied relationship (extended family and "bertauke")	Uniquely contributes to food availability, food accessibility, and food utilization of the small farm households from one harvest time to another. The interaction contributes to food stability during the cycling of food coping strategy.

Source: Proceed by authors

#### b. The Need for a Farmers Market Initiation

In former parts, it is clearly seen that the small farmers are very dependent to middlemen. Although the farmers want to get the best price in selling their crops, they often end up selling it to middlemen in their area with cheaper price because of their limited access to the market and the small quantity of their crops. Tied relationship and "bertauke" culture are also additional factor for farmers to sell their crops to middlemen. In addition, the lack of information about the value of the product and market also play a significant role to this kind of interaction. Hence, a farmers market needs to be initiated.

Farmers market is still an unfamiliar concept for farmers in Sekayam Sub-district and even for most small farmers in Indonesia. But, the initiation of farmers market can be a great option for small farmers to market their crops with the best price. As Singleton *et al.* explained that to provide more benefits to smallholders, there must be innovation in terms of marketing arrangements, where farmer or producer organizations can play a better role in this new arrangement. For example, farmers' markets can be a solution to break the long food chain; at the same time, farmers' markets can also be a place for nutrition intervention [17]. Furthermore, there are several reasons why farmers' markets are ideal places for nutrition and food security programs, such as good interactions between buyers and sellers, which open up opportunities for buyers to find out more information about the food to be purchased, food and drink which are sold fresh and healthy and involve food processing skills by involving food ingredients and other healthy food ingredients [15]. Even farmers' markets are said to contribute positively to alleviating food desert challenges and can impact meeting social justice goals [5]. Those explained that farmers market provides numerous advantages for small farmers from minimizing their interaction to middlemen, asses to the best price, to gain more information about the value of their products.

#### IV. CONCLUSION

In light of small family farms within this study context, the intermediaries had a role in connecting farmers to the final market, where farmers could earn some quick cash. However, the farmers received lower prices because the intermediaries

took advantage of the difference in price obtained from farmer price and selling price to large intermediaries or factories.

The farmer-middlemen interaction known as "Bertauke" proved the contribution of food security for farmers. Another intermediary provided staple food (rice) to the community at a lower price. Other intermediaries were essentially a way for farmers to gain cash. However, the link between receiving cash and family food security demands more investigation. The availability of money might not directly guarantee increment in family consumption, as other needs of farmer families must be met. The farmers preferred saving money to prepare for difficult times than significantly changing their diet.

This paper strongly recommends farmers market initiation to benefit farmers, for better local food security either for the small family farms and the community at the same time.

#### ACKNOWLEDGMENT

This work was supported and funded by Indonesia Endowment Fund for Education (LPDP), Ministry of Finance, Republic of Indonesia.

#### REFERENCES

- [1] G. K. Abebe, J. Bijman, A. Royer, "Are middlemen facilitators or barriers to improve smallholders' welfare in rural economies? Empirical evidence from Ethiopia", *Journal of Rural Studies*, Vol. 43, 2016, pp. 203-213. <https://doi.org/10.1016/j.jrurstud.2015.12.004>
- [2] FAO, "Smallholders data portrait" (available at [www.fao.org/family-farming/data-sources/dataportrait/farm-size/en](http://www.fao.org/family-farming/data-sources/dataportrait/farm-size/en)), 2018.
- [3] A. Hall, "Challenges to strengthening agricultural innovation systems: where do we go from here?", In: Scoones, I & Thompson, J (Eds.) *Farmer First Revisited: innovation for agricultural research and development*, Practical Action Publishing, Rugby, 2009, pp.30-38.
- [4] J. Howells, "Intermediation and the role of intermediaries in innovation", *Research Policy*, Vol. 35, 2006, pp. 715-728. <https://doi.org/10.1016/j.respol.2006.03.005>.
- [5] K. Larsen & J. Gilliland, "A farmers' market in a food desert: Evaluating impacts on the price and availability of healthy food", *Health & Place*, Vol. 15(4), 2009, pp. 1158-1162. <https://doi.org/10.1016/j.healthplace.2009.06.007>
- [6] H. Markelova, R. Meinzen-Dick, J. Hellin, S. Dohrn, "Collective action for smallholder market access", *Food Policy*, Vol. 34 (2009) 1-7, 2009, pp. 1-7. <https://doi.org/10.1016/j.foodpol.2008.10.001>
- [7] G. Mejía & C. García-Díaz, "Market-level effects of firm-level adaptation and intermediation in networked markets of fresh foods: A case study in Colombia", *Agricultural Systems*, Vol. 160 (October 2015), 2018, pp. 132-142. <https://doi.org/10.1016/j.agsy.2017.06.003>
- [8] J. S. Meliala, M. Hubeis, S. Jahroh, and A. Maulana, "Aggregator Business as an Intermediary in Agriculture: A Literature Review", In *Proceedings of the 4th Sriwijaya Economics, Accounting, and Business Conference (SEABC)*, 2018, pages 56-64. ISBN: 978-989-758-387-2
- [9] D. D. Monieson, "Explorations & insights a historical survey concerning marketing middlemen as producers of value", *Journal of Historical Research in Marketing*, Vol. 2(2), 2010, pp. 218-226. doi:10.1108/17557501011042560.
- [10] K. Munshi, "Community networks and the process of development", *J. Econ. Perspect.*, Vol. 28, 2014, pp. 49-76.
- [11] W. Lawrence Neuman, "Social Research Methods: Qualitative and Quantitative Approaches", Sixth Edition, United States of America: Pearson Education, Inc, 2006.
- [12] A. Portes, "Social capital: its origins and applications in modern sociology", *Annu. Rev. Sociol.*, Vol. 24, 1998, pp. 1-24.
- [13] R. Ranjan, "Challenges to farm produce marketing: A model of bargaining between farmers and middlemen under risk", *Journal of Agricultural and Resource Economics*, Vol. 42(3), 2017, pp. 386-405.
- [14] A. Rubinstein & A. Wolinsky, "Middlemen", *Q. J. Econ.*, Vol. 102, 1987, pp. 581-593.
- [15] R. C. Sadler, "Strengthening the core, improving access: Bringing healthy food downtown via a farmers' market move", *Applied Geography*, Vol. 67, 2016, pp. 119-128. <https://doi.org/10.1016/j.apgeog.2015.12.010>
- [16] T. Shankar, K. M. Singh, and S. Dwiwedi, "An Analysis on Problems of Vegetables Marketing in Farmers' Market of Jharkhand: A Case Study in Ranchi District", Vol. 62(1), 2017, pp. 175-183. doi:10.5958/2230-7311.2017.00054.X.
- [17] C. R. Singleton, B. Sen, and O. Affuso, "Disparities in the Availability of Farmers Markets in the United States", *Environmental Justice*, Vol. 8(4), 2015, pp. 135-143. <https://doi.org/10.1089/env.2015.0011>
- [18] J. P. Simon, P. J. Benghozi, and E. Salvador, "The new middlemen of the digital age: The case of cinema", *Info*, Vol. 17(6), 2015, pp. 97-115. doi: 10.1108/info-04-2015-0023.
- [19] S.K. Tapsavi, "Uttarakhand state cooperative federation: can it help the horticulture farmers?: Case Analysis 1", *The Journal of Business Perspective*, Vol. 13(21), 2009, pp. 63-64
- [20] J. Von Braun & E. Kennedy, "Commercialization of subsistence agriculture: income and nutritional effects in developing countries", Vol 1, Washington DC: International Food Policy Research Institute, 1986.