Fishes in Bangladesh: A Study on Some Selected Fish Markets in Dhaka.

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Fishes in Bangladesh: A Study on Some Selected Fish Markets in Dhaka.

BY

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Letter of Transmittal

November 30, 2016

To

Dr. Ashoke Kumar Ghosh

Assistant Professor

Department of Development and Poverty Studies

Sher-e-Bangla Agricultural University

Subject: **Submission of internship report.**

Dear Sir,

I am a student of MBA (Agribusiness) Faculty of Agribusiness Management. It is my pleasure to submit my internship report on "**Fishes in Bangladesh: A Study on Some Selected Fish Markets in Dhaka.**

I have tried my best to present necessary information and findings as clearly as I could within the time and resource available. I hope that the information presented in this report will provide a clear picture about the production and marketing of Bangladesh. If you have any inquiry regarding this study, I will be glad to respond.

Sincerely Yours,

Md. Sadikur Rabbi

Reg. No. 08-02656

Session: Jan-June /2013

Faculty of Agribusiness Management

Sher-e-Bangla Agricultural University

CERTIFICATE

This is to certify that the internship report entitled, Fishes in Bangladesh: A Study on Some Selected Fish Markets in Dhaka, submitted to the Faculty of Agribusiness Management, Sher-e-Bangla Agricultural University, Dhaka, in partial fulfillment of the requirements for the degree of **MASTER OF BUSINESS ADMINISTRATION in AGRIBUSINESS,** embodies the result of a piece of bona fide internship work carried out by MD. SADIKUR RABBI Registration No. 08-02656 under my supervision and guidance. No part of the internship report has been submitted for any other degree or diploma.

I further certify that such help or source of information, as has been availed of during the course of this investigation has duly been acknowledged.

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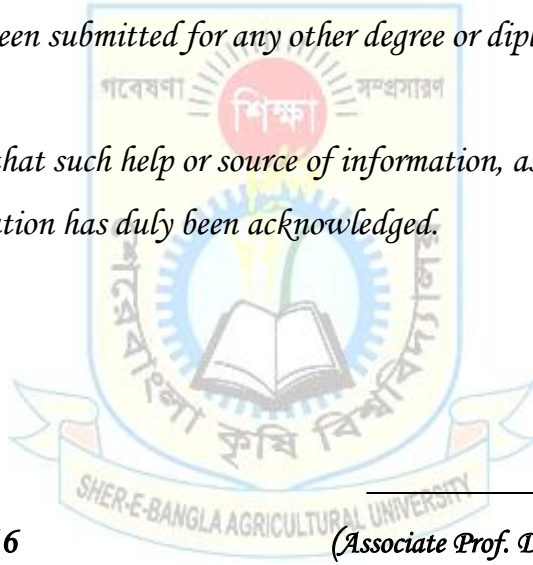
Dated: November, 2016   (Associate Prof. Dr. Ashoke Kumar Ghosh)

Place: Dhaka, Bangladesh   Supervisor

II

ACKNOWLEDGEMENT

Abstract

Vegetables have a important for its commercial and nutritional value in the world as well as Bangladesh. The study was conducted aiming at examining the marketing system of Cauliflower, Cabbage, Radish, Brinjal and Bottle gourd in selected area of Dhaka. Samples were purposively selected in order to meet the objectives. The total sample size was 40 respondents including 5 *Bepari*, 5 *Aratdar* and 30 retailers that was collected from Shewrapara, Krishi Market and Town Hall Market. Primary data were collected through face to face interview with the intermediaries by the researcher himself during the period from the month of September to November, 2016. Secondary data were collected from various books, journals and government publications. In the study, we find the purchase and selling price difference in those selected market. We also find that, retailer gets the highest margin from Mohammadpur Krishi market and that is tk. 2599.6 per day. Total cost is higher in Town hall market and that is tk.1900 per day, but maximum net profit gets the retailer from shewrapara bazaar. The *Bapari* of Chuadanga district get maximum net profit per day. From these selected vegetables, Brinjal has the maximum price in compare with other vegetables and it provides maximum margin to the middleman. The farmers usually sold their produce to local market and *Bepari*. Pricing of the product was mostly done through open bargaining by all the intermediaries. *Aratdar* was the commission agents in vegetables market at the study area. Both farmers and intermediaries face many problems in marketing of the vegetables. The major problems faced by them included lack of transportation and storage facilities, low marketing price at harvest period, lack of credit facilities, lack of infrastructure facilities, lack of adequate market information, high rate of market tolls and commission, price fluctuation and low price, problem of credit sale, problems of strike and *hartal*. Measures suggested for solving the above mentioned problems were: easy supply of institutional credit, supplying quality inputs, and improvement of transportation, storage and communication system, reducing the uncertainty of price, and bringing political stability in the country.

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CHAPTER-I

BACKGROUND OF THE STUDY

The Bangladesh fish production has nearly doubled over the last decade. Now becoming self-reliant through fish cultivation is no longer a dream. Bangladesh presently stands fourth in producing sweet water fish, according to this year's report of the UN's Food and Agricultural Organization (FAO).According to data of Bangladesh Department of Fisheries, farmed fish production was 2 million tons in 2013-14. This was only 0.8 million tones back in 2001-02.Consequently, the overall fish production increased spectacularly by around 88 percent during this period. This is great news for the nation as fish accounts for about 56 percent of Bangladesh's intake of animal protein. According to fisheries department, the country produced about 3.5 million tons of fish in the 2013-14.

Of this, 2.9 million tones came from farms and catches from various inland water sources, and 0.6 million tons were from the sea. A decade back the total fish production stood at 1.9 million tones—majority of it came from various inland water sources. This rise in fish culture is due to increase in high quality fish feed and seed production, and widespread induced breeding technology, the department says. Another reason that boosted fish production is the Jatka Conservation project that imposed a ban on Hilsa fishing. The most dominant source of fresh water fish in the country is the several thousand ponds in the villages, comprising of about 0.4 million hectare area that produce half of the Inland water fish. One quarter fish comes from flood plains. Water area for Inland fisheries comprises of approximately 4.7 million hectares across the country.

Dhaka division tops fish production with claiming 28 percent of the stake; followed by Chittagong, Khulna and Rajshahi ranging between 13 percent and 20 percent. Rangpur contributes the least with just 5 percent production. As per the Food and Agriculture Organization (FAO), global fish production was 158 million tons in 2012 and per capita fish consumption was 19.2kg .Annual consumption of fish and fish products in Bangladesh was 12 kg/per person in 2010, with Chittagong having highest annual consumption of about 17 kg/per person.

In Bangladesh, about three fourth of consumed fish are fresh water fish, among which Pangas, Rui, and Tilapi tops our chart. Pangas farming has become an established agro-processing industry in the country over the last decade. Pangas is most easy to produce due to its short culture-cycle, high growth rate and unselective feeding habit. It also has good resistance to diseases. These characteristics are somewhat also present in Tilapia. Export of fish and fish products increased by 86 percent from 2001-02 and reached 77,000 tons in 2013-14.Although, the country's exports reached its peak of about 96,000 tons in the fiscal year 2010-11, it declined in the recent years. One of the reasons behind the decline can be ascribed to the ban on Hilsa export, set to ensure the country was not deprived of the delicacy.

According to the latest FAO report, the state of World Fisheries and Aquaculture 2014, Bangladesh continues to be the fourth largest fish producer in the world for Inland waters fish capture. FAO predicts Bangladesh to be the first of the four countries, followed by Thailand, India, and China, to experience the highest growth rate in terms of fish production by the year 2022.

In the nineties there had been extensive campaigns in the country to encourage fish cultivation. FAO has published a report, The State of World Fisheries and Aquaculture, and the report's cover displays a photograph of catching fish from a

pond in Rajshahi, Bangladesh. Inside the publication to the success of Bangladeshi fish farmers in cultivating fish has been used repeatedly as an example.

According to the report, China is first in fish farming and next India and Myanmar. Experts say that the fish farmers reached this level of success after crossing many hurdles. No cooperation is extended to the fish farmers to avail the government's agricultural loans. In the 2013-14 fiscal, fish farmers received only 10% of the 140 billion taka allocated as agricultural loans. There are government storehouses for rice and jute, but no proper permanent cold storage facilities for the fish farmers. Even so, FAO sees Bangladesh as one of the countries that hold the most potential. Former fisheries secretary Z Karin says, Bangladesh is the best place in the world for sweet water fish cultivation.

The 25million hectares of open water bodies and the thousands and thousands of ponds in the villages have created a potential that hasn't been utilized in full. If the government pays more attention to fish cultivation and assists the farmers, Bangladesh could well become the No. 1 country in fish production. From 2004 till 2014, Bangladesh's fish production increased by 53%.Bangladesh Statistics Bureau (BBS)'s latest economic census says that in the 2013-14 fiscal, the country produced approximately 3.46million tones of fish, of which about 2million tones were farmed. With the protection of hilsa fries and other initiatives, production of the country's most popular fish hilsa has gone up from 52,000 tons to 350,000 tones. With prices of fish remaining within the reach of the common people, there has been a 100% increased in per head consumption of fish over the past 10 years.

According to a survey of 2010, the annual per head consumption of fish in Bangladesh is 12kg. The people of Chittagong consume the most fish at an annual 17kg per head and the least is in Rangpur at 7.5kb per head. Annual fish consumption globally is 22.4kg per head. The new varieties of fish bred by Bangladesh's fishery experts and the rapid expansion in this regard have given rise

to this significant increase in fish production. There has been a virtual revolution in fish farming in the ponds at Mymensingh, Bogra and Comilla and in the fish farms of the southwest regions. With fish farming having increased, over the past 10 years fish consumption has almost doubled. Fish exports have gone up by 135%. In the 2013-14 fiscal Bangladesh's export earnings from frozen fish went up by 17.35% to 41.49billion taka.

In the eighties the new varieties of pangash, rui, katal and telapia fish produced by the Bangladesh Fisheries Research Institute won instant popularity among the consumers. In recent years there has been an increase in shing, magur and shol farming. In 1990, a total of 193 thousand tonnes of farmed fish was produced. In 2000 this increased to 657 thousand tonnes. And in 2014 this has reached one million tonnes. Mymensingh and Comilla districts have created a stir in fish production. Fish farming in Khulna, Jessore, Satkhira, Bagerhat, Chittagong, Chokoria and Barisal divisions have been a boon to the economy of those areas as well as to the economy of the country as a whole. Shrimps produced in those regions are now the country's second largest export item.

There was a time when eating fish was synonymous with being a Bengali. Those days are back again. According to FAO, 57% of the protein consumption of Bangladesh's population comes from fish. According to the Trading Corporation of Bangladesh (TCB), the price of all items produced in the country has gone up by two to 36%. Only the price of rui, pangash and telapia hasn't gone up. In fact, the price of koi and magur has actually gone down somewhat. Increased production has led to decreased prices. Akhter Ahmed, the Bangladesh country head of the US-based International Food Policy Research Institute (IFPRI), says that this success in fish cultivation has come about without any master planning of the government.

It is the courage and creativity of the fish farmers that has been pivotal to this success. They take the market demand into consideration and farm fish accordingly, for which the success has been sustainable.FAO predicts Bangladesh will be the first of the four countries to achieve massive success in fish production by the year 2022. This is followed by Thailand, India and China. According to FAO, Bangladesh stands 25th in global standing for catching sea fish. However, after settlement of the maritime boundary issue with Myanmar and India, catching fish from the Bay of Bengal is likely to increase manifold, according to the organization.

1.1 Objective of the study

1. To identify the regional price variation of different fishes.
2. To identify the actors involved in fish marketing and value addition in different level of market.
3. To provide some suggestions to improve the present market situations.

CHAPTER-II
REVIEW OF LITERATURE

Alam (2014) conducted a study on fish marketing system in Swarighat, Dhaka, attempts to study of existing marketing system, economic features of marketing activities and inefficiencies. This paper attempts to identify infrastructure facilities, present market structure, nature of costs, profit margins and the factor influence the marketing system. In Swarighat, almost all fish traded internally move through the privet sector where a large number of people are dealing with fish distribution and marketing system. The market chain from producers to retailers goes onward through a number of intermediaries: traders, broker, Arotdar, wholesalers, mahajans, and dadondars. On the basis of a sample of 20 traders from the market, the usual amount of the daily turnover of fish in this market is between Tk 2.5 and 3 million and the volume varies relying on the variation in catches during peak or off-season. Virtually most of the fish (Near about 60%) is locally supplied, near about 40% brings in from all over the country including Cox's Bazar, Teknaf, Chittagong, Mohangang, Chandpur, Barisal, Kuliarchar, Jessor and Satkhira, Khulna, Bicrompur, Mymensingh. The marine fish supply and freshwater fish supply amount is near about 20% and 80% respectively. It is estimated that near about 15% of fish supplied in markets is Indian major carps, 10% exotic carps, 5% other carps, 25% hilsa, 10% catfish, 5% snake-heads, 3%live-fish, 5% small indigenous fish, 7% prawn and shrimp, 5% tilapia and 10% others including small chingri and marine fishes. Market structure, species quality, size and weight have an influence on the price of fish and it was obtained from the survey that the price of fish

increases per kilogram with size and species wise. A great amount of profit is made by all traders in the market in a successful manner.

Omar (2013) undertook a research to examine the marketing system and price behavior of tilapia fish in selected areas of Mymensingh district of Bangladesh during the month of March-May 2012. The objectives of the study were to estimate costs and margins, seasonal price variation and to test market integration of Tilapia fish. Primary and secondary data were used for this study. The higher marketing cost was incurred by Arotdars and the lowest by retailer. On the other hand, retailers earned the highest net marketing margins. Analysis of market integration shows that Tilapia fish market in Bangladesh was well integrated. The study identified some problems related to economic, technical, marketing, social and natural calamities aspects and suggested some measures for solving these problems. The findings of the study revealed that the marketing of tilapia was a profitable business and some recommendations were provided for the improvement of tilapia marketing in the country.

Goon (2013) carried out a study on fish marketing system of Mymensingh town to find out different marketing channels, fish trading, marketing cost and margins of fish at different levels. The investigation was conducted from October, 2010 to September, 2011 in sixteen markets of Mymensingh town. Among them Notun Bazar and Mechhua Bazar were very important. In Mymensingh town a large number of people were involved in the fish marketing channel as bepari, Arotdar, paiker, and retailer. Paiker and bepari bought fish from producer and finally sold fish to retailer through Arotdar. Retailers were the last intermediaries of fish marketing channel and they had

direct contact with the consumer. In the study area it was estimated that total marketing cost of fish for Arotdar was Tk. 1.325, paiker, Tk. 6.052, and retailer, Tk. 1.829 per kg of fish. Cost item of fish for different intermediaries was Tk. 9.965 total. Cost item included Arotdar commission, transportation, personal expenses, wastage, icing, wages and salary, market toll, rent and electricity, packaging materials, loading and unloading, telephone bill, grading and security. The highest marketing costs (Tk. 6.052) were for Paiker because they had paid higher Arotdari commission and higher transportation cost. Average Net profit was Tk. 3.317 for Paikers at peak period and Tk. 2.90 at lean period, for Arotdars Tk. 1.627 at peak period and Tk. 1.494 lean period and for Retailers Tk. 5.229 at peak period and Tk. 5.347 at lean period per kg of fish. Ilish (*Hilsa ilisha*) had high demand to consumers and available in the market with approximate price of Tk. 250 to Tk. 300 per piece. Traders and consumers faced a number of problems such as lack of input in proper time, lack of capital, high interest rate of credit, lack of fishery equipment, price fluctuation, low price, political instability, lack of physical facility, inadequate storage facility etc. Establishment of ice factory, improvement of fish transport facilities, introduction of fish quality control measures were suggested to improve the fish marketing in the study area.

Worldfish (2010) aimed to assist the fisher as they can make more income from their harvest out of that demand. The field investigation in Sunamganj took place during 12 through 18 May followed by visiting different markets and Chain Supermarkets in Dhaka. Altogether 83 respondents within the value chain were interviewed along with 4 FGDs with fishermen and intermediaries and different market visits. Sunamganj district is in surplus in

overall fish production. According to DoF, around 55000 MT fish was harvested in 2009. However, the total fish traded in Sunamganj comprises both local production and outside fish coming from other districts. In one hand, it exports fish captured from haor, beel and river to few major areas of the country and on the other hand, it imports culture fishes from outside along with some marine fish from Chittagong. Fish is captured round the year from rivers and *haors*/beels in the district in addition to organized harvesting during winter. A large number of active populations are involved in fishery making it a dynamic sector and a lot of fishes goes outside from Sunamganj to other districts including Dhaka and also abroad through processing companies. The end markets vary from Upazila to Upazila in Sunamganj mostly due to the communication system and ease of accessibility along with business linkages. For instance, the fish that goes to Dhaka and Sylhet mostly departs from Sunamganj Sadar due to good road communication. On the other hand, the fish captured from Sullah, Tahirpur and Dharmapasha Upazila (northern part of the district) goes to Bhoirab, Mohonganj (Netrokona) and Kuliarchar (Kishorganj). So many intermediaries exist along the marketing chain which represents poor capacity of aggregation and poor accessibility to the end markets by the fisher community.

Hasan (2014) conducted a study on fish marketing system, fish availability and socioeconomic condition of retailers in three markets at Barisal for a period of twelve months from August 2012 to July 2013. Data were collected through questionnaire interviews and focus group discussions. The marketing channel from fishermen/fish farmer to consumers passes through a number of intermediaries such as local *paikers/Arotdar/mahajan,*

wholesalers and retailers. Four types of marketing channels were identified for fish marketing. The daily supply of fish in Port road fish market, Natun bazar and Lakhutia bazar were 5-6, 2-3 and 0.5-1 tons per day, respectively. About 85% of the fishes have been brought from different rivers and ponds of the Barisal region and about 15% from Mymensingh (mainly Thai pangus), Jessor, Satkhira (mainly tilapia, Thai koi etc.) and from India (major carps). The number of species were available in these three markets was 10-44. It is estimated that 40.33% of fish supplied in the markets were ilish, 10% catfish, 6% prawn and shrimp, 8% SIS, 6.66% koral, poa, bela, tulardati, chewa, shol and koi, 7.33% marine fish, 9% carps, 6.33% Thai pangus, 4.33% tilapia and 2% Thai koi. The price of fish depends on size, weight, season, availability and species quality. It was found that most (43.33%) of the retailers were <30 years age group and lowest (10%) were >50 years group. 68% of the retailers were Muslims and 32% were Hindus. The educational qualification of 58.33% retailers was up to primary level and 15% were up to SSC level. The average family size was 5.76 in a single family and it was higher in Lakhutia bazar (6.2). The average gross profit of fish retailers in Port road fish market, Natun bazar and Lakhutia bazar were estimated as Tk 1450/day, Tk 850/day and Tk 400/day, respectively. It was found that 71.66% of the retailers have improved their socioeconomic condition through fish selling. A number of constraints for fish marketing were reported by the retailers, the constraints were lack of storage facilities, poor supply of ice, exploitation by middlemen, lack of money and lack of infrastructure.

Although the researcher highlighted many aspect of fish markting system in Bangladesh such as Alam (2014) attempts to study of existing marketing

system, economic features of marketing activities and inefficiencies, Omar (2013) estimate costs and margins, seasonal price variation and to test market integration of Tilapia fish, Worldfish (2010) aimed to assist the fisher as they can make more income from their harvest out of that demand. Hasan (2014) conducted on fish marketing system, fish availability and socioeconomic condition of retailers in three markets.

However, they did not show the price variation in different market and income of the *Retailer, Bapari , Arotdar* who participate in buying and selling anyhow in same market. And how much price Fish farmer deprive of due to middleman for some fishes items such as Rui*, Tilapia, Katla, Shrimp, Ilish* etc.

CHAPTER –III
METHODOLOGY OF THE STUDY

The study was based on market survey obtaining information through a sample survey among fish intermediaries and retailers.

3.1 Selection of study area

Fish markets of Dhaka were selected as areas study. In Dhaka, there are many fish markets. Among them, data was collected from Kuaranbazer ,Sheuaraparabazer, Krisimarket and Townhall.

3.2 Selection of sample

The traders who dealt with fish trading were categorized into three groups, namely *Bepari, Arotdar and Retailer*. Data were collected from them through interview. Due to various size of fishes in the market, the study took standard size of 5 fishes that mostly available in the market.

Table-3.1: Standard size of fishes

Fish items	Rui	Tilapia	Katla	Shrimp	Ilish
average size	2 kg	0.5kg	1kg	medium	0.7kg

3.3 Preparation of interview schedules

For this study to fulfill the research objectives, an interview schedule was prepared to collect data from traders.

3.4 Period of data collection

The present study covered 4 months from September to November 2016. Data were collected during the period from face to face interview in five times using structured survey schedule.

3.5 Collection of data

The main target group was *Bepari, Arotdar* and *Retailer*. By using interview schedules the relevant data from the selected intermediaries through face to face interview.

3.6 Secondary Data Collection

From appropriate government and non-government organizations such as Department of Fisheries (DOF), FAO Report, BBS, Daily newspapers, Journal, Articles and secondary data about fish distribution and marketing information were gathered.

3.7 Primary Data Collection

Field surveys were used for the collection of primary data. The study area was visited officially to check on standards in term of fish distribution and marketing information. By using questionnaire interviews and direct observations, primary data were gathered for this survey.

3.8 Questionnaire Interviews

Thirty fish Retailers were choose as the most suitable in the study area through careful inspection for the questionnaire interviews. Among them 10 retilers from *Shewraparabazer*,10 retailers from *Krishimarket* and 10 from *Townhallmarket* .5 *Arotdar* and 5 *Baparies* are interviewed in Kauranbazar. Generally, data are collected from *Arotdar* and *Bapari* from 5am to 7am because *Bapari* leave from Kawranbazer within 7am. Then, leaving from Kawranbazer as soon as possible

data were collected to know price variation from retailer in three selective market. Questionnaire was examined in the field before interviews. At the market center, traders were interviewed through a formal conversation for this purpose. Information about fish marketing, pricing policy, trading actions, constrains of fish marketing and socio-economic conditions of traders are the consequences of the interviews. Focus Group discussion was held with *Bapari, Arotdar, Retailer* and consumer to know the market information, problems and their probable solution.

3.9 Tabulation and Analysis of Data

The first step was taken to scrutinize the data of each and every schedule to find out any inconsistency or omission in the data collection and to avoid irrelevant information. The data were edited carefully to eliminate possible errors contained in the schedules while recording information. Processed data were transferred to excel spread sheet and compiled with a view to facilitating tabulation. Information was collected in local units. After checking them these were converted into quantitative form by using suitable scoring. Necessary tables were prepared by summarizing the data. The collected data were analyzed according to the objectives of the study. Inconsistencies in the data were removed.

3.10 Parameters

3.10.1 Gross Profits and Net Profit of Intermediaries

The Gross profits of the intermediaries are calculated by the following formula:

Gross profit = Sales price - Purchase price

The net marketing profits of the intermediaries (after physical losses) are calculated by the following formula:

Net profit = {(Sales price - Purchase price)*amount} - Total cost

3.10.2 Price Spread

Price spread = Retailer selling Price - Price received by fisherman

CHAPTER-IV

RESULT AND DISCUSSION

4.1 Explanations of Tables

Table-4.1 Purchasing and selling price different Retail market: Average purchase price of retailer in three diferrent markets are same. Because all of them buy from Arotder in Kawranbazer. The table shows purchase price and selling price of Rui fish, Tilapia , Katla , Shrimp and Ilish. Rui fish are sold Tk.255, Tk.285 and Tk.304 respectively in Shewrapara, Krisimarket, Townhallmarket though their purchasing price is same. Selling price of other fishes is higher in Townhallmarket than those of other because of higher transportation of cost, rental value of place .

Retail Market	Rui fish (TK)		Telapea (TK)		katla (TK)		Shrimp (TK)		Ilish (TK)	
	PP	SP	PP	SP	PP	SP	PP	SP	PP	SP
Shewrapara	213	255	112	156	150	184	357	456	370	476
Krishimarket	213	285	112	166	150	191	357	474	370	488
Townhallmarket	213	304	112	174	150	202	357	489	370	502

Source: Survey 2016
Note: PP=purchase price; SP= Selling price.

Table-4.2 Gross profit of different retail market: If different between selling price and purchase price increase the gross profit also increase. In case of Townhall's gross profit Tk.7410 is highest for all fish items. It indicate that townhall market is more prefarabe for fish selling than other market. The table shows that gross profit of Shewrapara is Tk.3439 which depict this market are small in size.

Retail market	Gross Profit in Tk (Selling Price-Purchase Price)*Amount					
	Rui	Telapea	katla	Shrimp	Ilish	Total
Shewrapara	756	440	306	1089	848	3439
Krishimarket	1584	648	656	1404	1416	5708
Townhallmarket	2366	620	728	1584	2112	7410

Source: Survey 2016

Table 4.3: Total cost of Three different market: In Shewraparabazar, Retailer are in small in size. They generally use CNG as a means of transportation. On the other hand, Retailer from Townhall and Krisimarket use Pickup for transportation purpose because they are comparatively large. As a result average transportation cost in Shewrapara bazer is less than those of others.The table 3 shows that total variable cost of Shewrapara,Krisimarket and Townhall market are Tk.950,Tk.1850 and Tk.2100 respectively. The table 3 also shows that rental value of place Town hall is highest average Tk.800. As a result, total cost of Townhall markert Tk. 2900 is highest among a Shewrapra Tk.1350 and Krisimarket Tk.2450.

Cost items/ per day	Cost (Tk)		
	Shewrapara	Krishimarket	Townhallmarket
Variable cost			
Transportation cost	250	500	600
Labor cost	500	1000	1000
Storage cost	100	200	200
Market toll	0	0	0
Other cost	100	150	300
Total Variable cost	950	1850	2100
Fixed cost			
Rental value of Place	400	600	800
Interest on operating capital	0	0	0
Total fixed Cost	400	600	800
Total Cost	1350	2450	2900

Source: Survey 2016

Table-4.4 Net Profit of retail markets: Net profit indicates not only profit but also market sustainability for a seller. Higher net profit gives higher market share and higher profit. Net profit of Shueraparabazer, Krisimarket and Townhall market are Tk.2089, Tk.3258 and Tk.4510 respectively and total cost is Tk.1350, Tk.2450 and Tk.2900. The Table shows that net profit of Townhall market is higher than other market. For this reason retailer of Townhall markets face less risk than other market although total cost of Townhall market is high.

Retail market	Gross Profit	Total Cost	Net profit
Shewrapara	3439	1350	2089
Krishimarket	5708	2450	3258
Townhallmarket	7410	2900	4510

Source: Survey 2016

Table4.5 Purchasing and selling price of different regional Bapari: Bapari is the main actor who purchases fishes from local fisherman or fish farmer. Generally Fisherman brings their fish in local market and sells it to the Bapari at cheapest price. Bapari accumulate all fishes and send to the Kouranbazer. The table show that Bapari who come from Barisal purchase Ilish at Tk.300 from farmer, Bapari from Chittagong purchase Shrimp at 310tk, Bapari from Mymensingh purchase Tilapia at 70 tk, bapari from Kishorgonj purchase Katla at 115 tk and Bapari from Khulna purchase Shrimp at Tk.300.All of them,Bapari bring the fishes at Kawranbazer in Dhaka.The Arotdar sell those fishes to retailer at Tk.370, Tk.357, Tk.112, Tk.150, Tk.357 respectively.The Arotdar takes 4% commission of the selling price.

Region	Purchasing price	Selling price
Barishal Bapari (Ilish etc.)	300	370
Chittagong Bapari (Shrimp etc)	310	357
Mymenshjng bapari (Telapea)	70	112
Voirb-Kishorgonj (Katla etc)	115	150
Khulna bapari (Shrimp etc)	300	357

Source: Survey 2016

Table-4.6 Gross Profit of different regional Bapari: Generally Bepari brings huge amount of fishes at Kawranbazer in Dhaka by truck.The study shows that the bepari who come from Barisal bring 700 kg Ilish that's why his gross profit become 49000tk.The other beparies gross profit are 7000tk, 33600tk, 42000tk, 51300tk respectively.

Region	PP-SP	AMOUNT(Kgs)	GP(tk)
Barishal Bapari	70	700	49000
Chittagong Bapari	47	1000	47000
Mymenshjng bapari	42	800	33600
Voirb-Kishorgonj	35	1200	42000
Khulna bapari	57	900	51300

Source: Survey 2016
***Note:** PP=purchase price; SP= Selling price.*

Table4.7 Net Profit of different regional Bapari: Transpotation cost depends on the distance. Higher distance indicates higher variable cost. We know total cost =variable cost+ fixed cost. The bepari who come from Khulna need higher transportation cost due to long distance. That's why his net profit is lower than other beparies.On the other hand,due to shortest distance, bepari from Voirb-Kishorgonj produses highest amount of net profit Tk.25480. Mymenshing is one of the major Tilapia fish farming area, though the price of Tilapia is lower than other fishes.The Bepari of Mymenshing gets a reasonable net profit from Tilapia.

Region	GP	TC	NP(GP-TC)
Barishal Bapari	49000	26400	22600
Chittagong Bapari	47000	29280	17720
Mymenshing bapari	33600	12584	21016
Voirb-Kishorgonj	42000	16520	25480
Khulna bapari	51300	33800	17500

Source: Survey 2016
Note: GP= gross profit; TC=total cost; NP=net profit

Table-4.8 Middleman share in the market for different fish items: Farner sell fishes to the Bapari at lower price in the local market and consumer Purchase the fish at high price from retailer via a channel. Through the channel middleman gets big a amount. The figure shows that Middleman take Tk.116, Tk.93, Tk.84,Tk.170, 189tk respectively from Rui, Tilapea,Katla,Shrimp,Ilish.

Item	Rui	Telapea	katla	shrimp	Ilish
Average Market Price	281	165	192	473	489
Middleman Share	116	93	84	170	189
Bapari pp	165	72	108	303	300

Source: Survey 2016
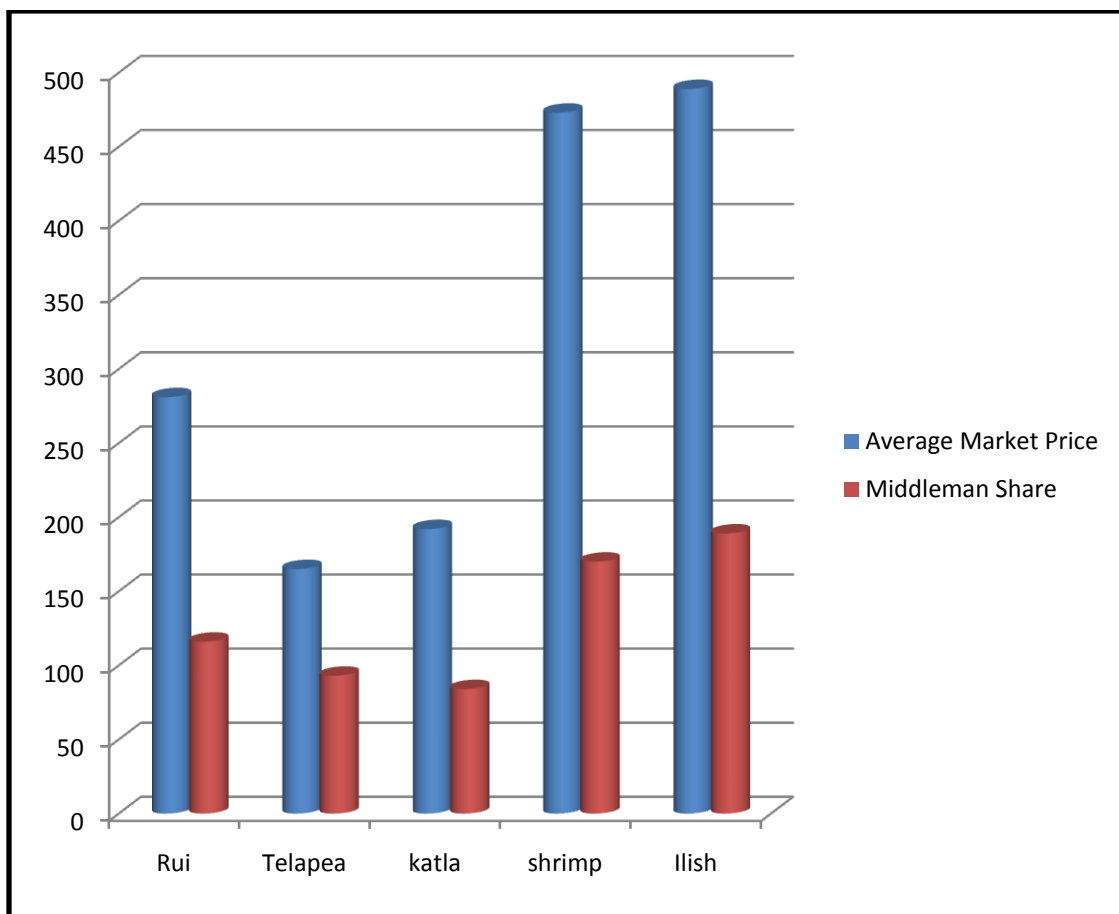
Figure-4.1: Middleman Share in Market

Table –4.9 Percentage market share of Middle man: The figure shows that in case of Rui, Middleman consume 41.3% of the average retail Price. And 56.4%, 43.8%, 35.9%, 38.7% respectively from Tilapia, Katla, Shrimp, Ilish.

Item	Rui	Telapea	katla	shrimp	Ilish
Average Market Price	281	165	192	473	489
Total middleman Share	116	93	84	170	189
% Market share of Middleman	41.3	56.4	43.8	35.9	38.7

Source: Survey 2016
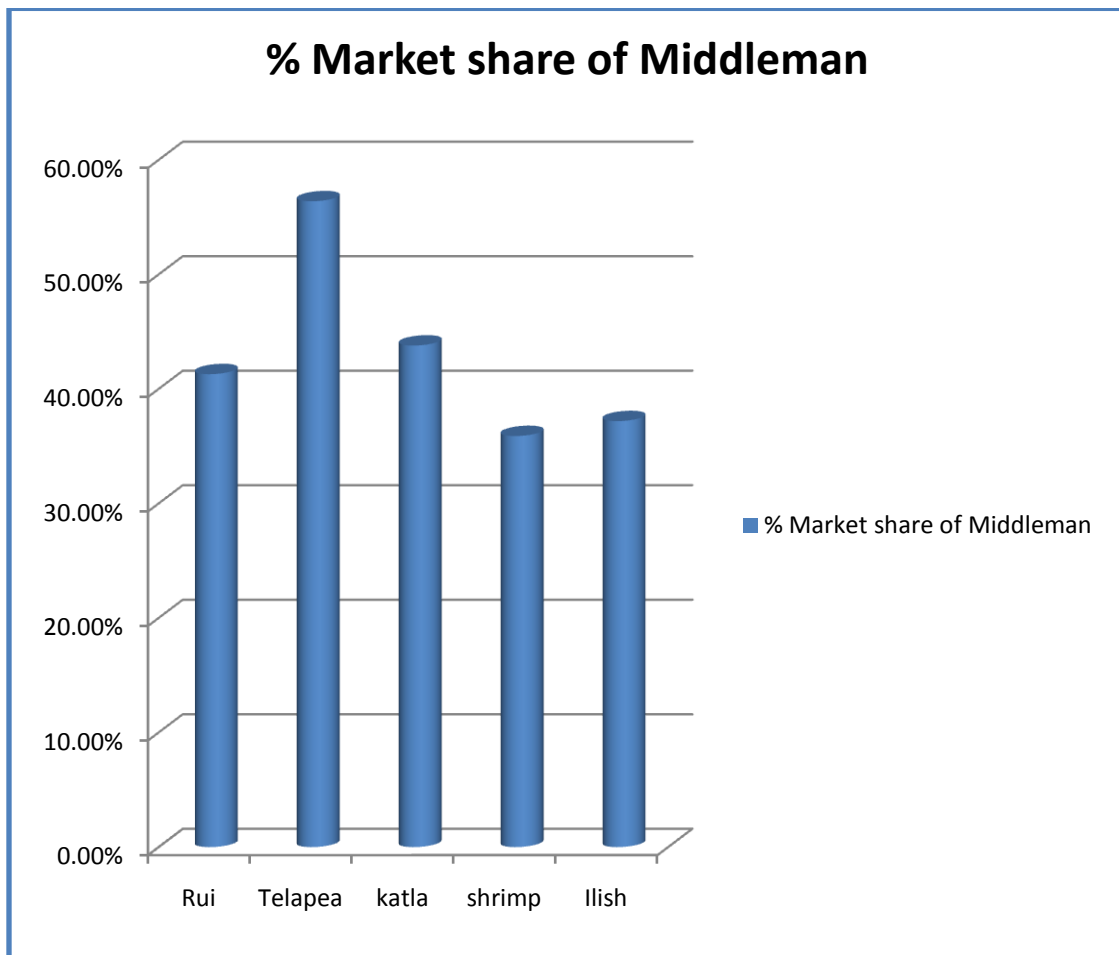
Figure-4.2: Percentage market share of Middle man

4.2 Marketing channel of Different Fish Items

4.2.1 Marketing channel of Rui

Marketing channel of Rui depicted in chart 01 shows that Rui fish reached to the hand of ultimate consumer from farmer through Bapari, Arotdar and Retailer. It is evident that if producer or farmer can sell directly to Arotdar, farmer solely or both farmer and Arotdar can share spread of Tk.48. Accordingly, if Producer/farmer directly sell fish to the Retailer the spread from farmer to consumer is Tk.116.This spread can benefited both farmer, retailer and customer.

Chart 01: Marketing channel of Rui and price of different level

Farmer's selling price
Tk.165

Local market selling price
Tk.165

Price spread from farmer to Arotder

Tk.213-Tk.165=Tk. 48

Bepari Purchase price
Tk.165

Arotdar selling price
(4%commission)
Tk.213

Retailer average selling price
Tk.281

Price spread from farmer to consumer

Tk.281-Tk.165=Tk.116

Consumer purchase price
from retailer
Tk.281
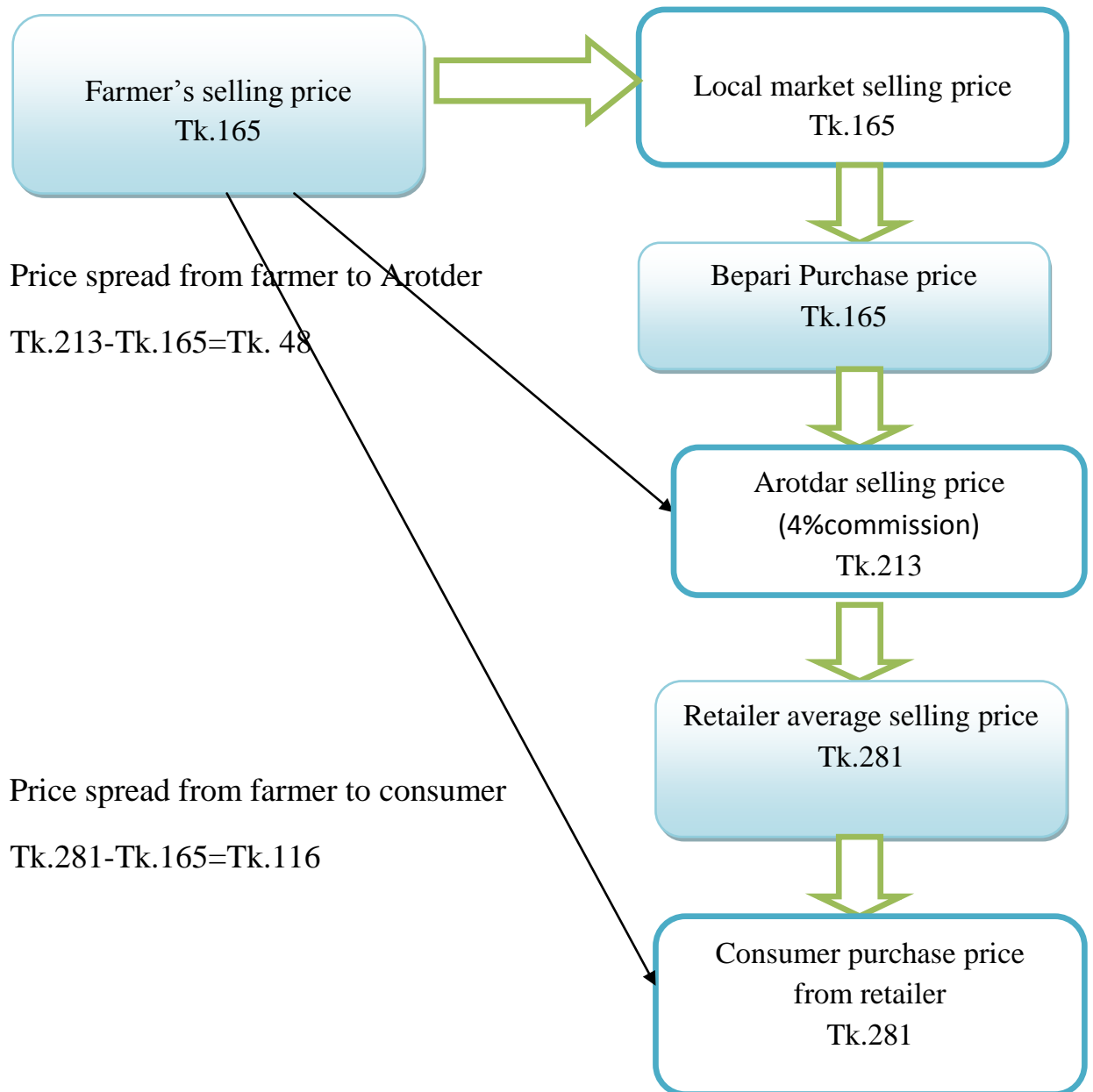
4.2.2 Marketing channel of Tilapia

Marketing channel of Tilapia depicted in chart 02 shows that Tilapia fish reached to the hand of ultimate consumer from farmer through Bapari, Arotdar and Retailer. It is evident that if producer or farmer can sell directly to Arotdar, farmer solely or both farmer and Arotdar can share spread of Tk. 40. Accordingly, if Producer/farmer directly sell fish to the Retailer the spread from farmer to consumer is Tk.93.This spread can benifited both farmer, retailer and customer.

Chart 02:Marketing Channel of Tilapia and different price level

Farmer's selling price
Tk.72

Local market selling price
Tk. 72

Bepari Purchase price
Tk.72

Price spread from farmer to Arotder

Tk.112-Tk.72=Tk. 40

Arotdar selling price
(4%commission)
Tk.112

Retailer average selling price
Tk. 165

Price spread from farmer to consumer

Tk.165-Tk.72=Tk. 93

Consumer purchase price from retailer
Tk.165

4.2.3 Marketing channel of Katla

Marketing channel of Katla depicted in chart 03 shows that Katla fish reached to the hand of ultimate consumer from farmer through Bapari, Arotdar and Retailer. It is evident that if producer or farmer can sell directly to Arotdar, farmer solely or Both farmer and Arotdar can share spread of Tk. 42. Accordingly, if Producer/farmer directly sell fish to the Retailer the spread from farmer to consumer is Tk.84.This spread can benifited both farmer, retailer and customer.

Chart 03: Marketing channel of Katla and different price level

Farmer's selling price
Tk.108

Local market selling price
Tk.108

Price spread from farmer to Arotder

Tk.150-Tk.108=Tk.42

Bapari Purchase price
Tk.108

Arotdar selling price(4%commission)
Tk.150

Price spread from farmer to consumer

Tk.192-Tk.108=Tk.84

Retailer average selling price
Tk.192

Consumer purchase price from retailer
Tk.192

4.2.4 Marketing channel of Shrimp

Marketing channel of Shirmp depicted in chart 04 shows that Shrimp fish reached to the hand of ultimate consumer from farmer through Bapari, Arotdar and Retailer. It is evident that if producer or farmer can sell directly to Arotdar, farmer solely or Both farmer and Arotdar can share spread of Tk 54. Accordingly, if Producer/farmer directly sell fish to the Retailer the spread from farmer to consumer is Tk.170.This spread can benifited both farmer, retailer and customer.
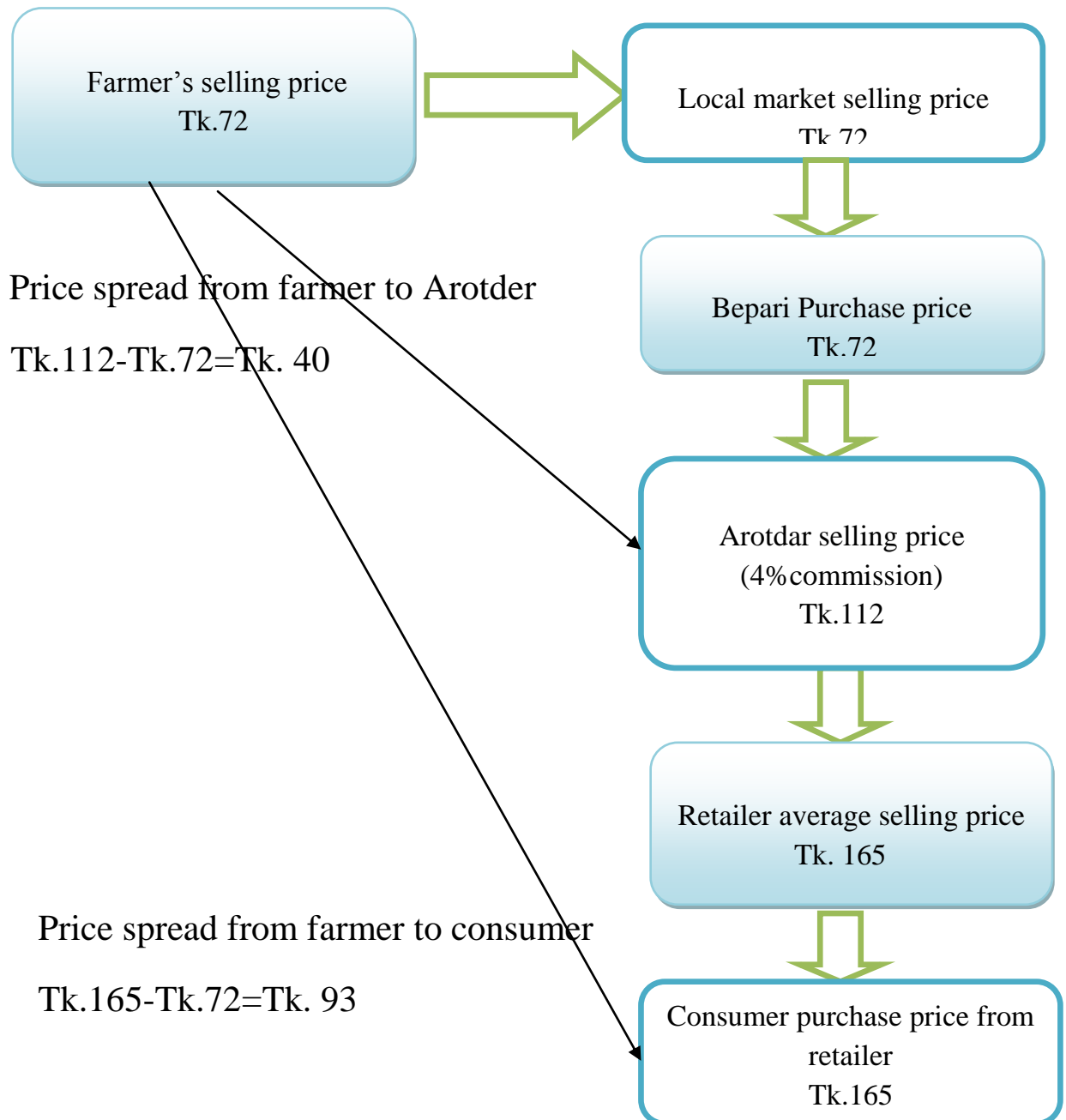
Chart 04: Marketing channel of Shrimp and different price level

Farmer's selling price Tk.303

Local market selling price Tk.303

Bepari Purchase price Tk.303

Price spread of farmer to Arotder

Tk. 357-Tk.303=Tk.54

Arotdar selling price(4%commission) Tk.357

Price spread of farmer to consumer

Tk.473-Tk.303=Tk.170

Retailer average selling price Tk. 473

Consumer purchase price from retailer Tk.473
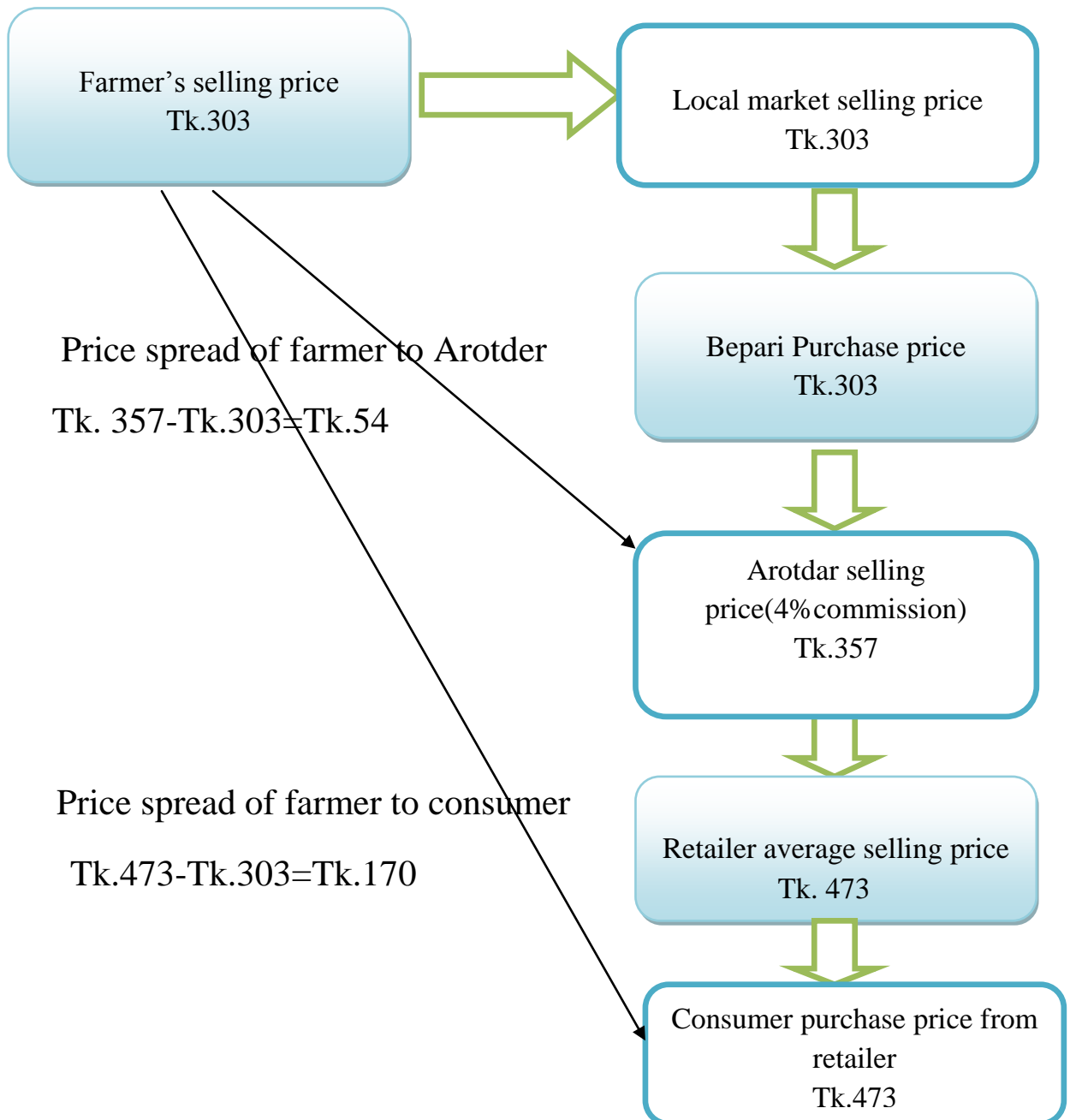
4.2.5 Marketing channel of Ilish

Marketing channel of Ilish depicted in chart 05 shows that Ilish fish reached to the hand of ultimate consumer from farmer through Bapari, Arotdar and Retailer. It is evident that if producer or farmer can sell directly to Arotdar, farmer solely or Both farmer and Arotdar can share spread of Tk.70. Accordingly, if Producer/farmer directly sell fish to the Retailer the spread from farmer to consumer is Tk.189.This spread can benifited both farmer, retailer and customer.
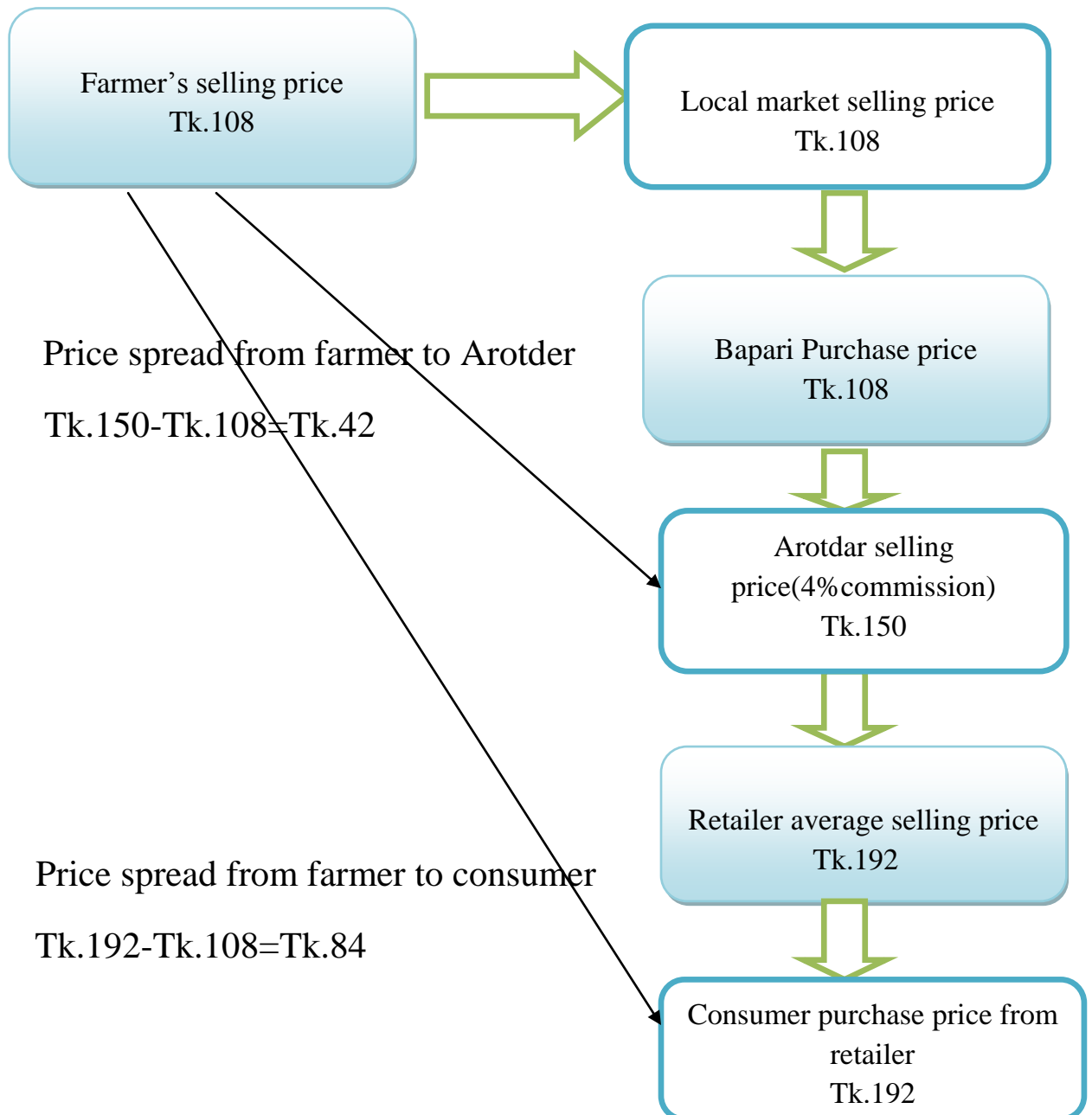
Chart 05: Marketing channel of Ilish and different price level

Farmer's selling price
Tk.300

Local market selling price
Tk.300

Bepari Purchase price
Tk.300

Price spread from farmer to Arotder
Tk.370-Tk.300=Tk.70

Arotdar selling price
(4%commission)
Tk.370

Price spread from farmer to consumer
Tk.489-Tk.300=Tk.189

Retailer average selling price
Tk.489

Consumer purchase price
from retailer
Tk.489
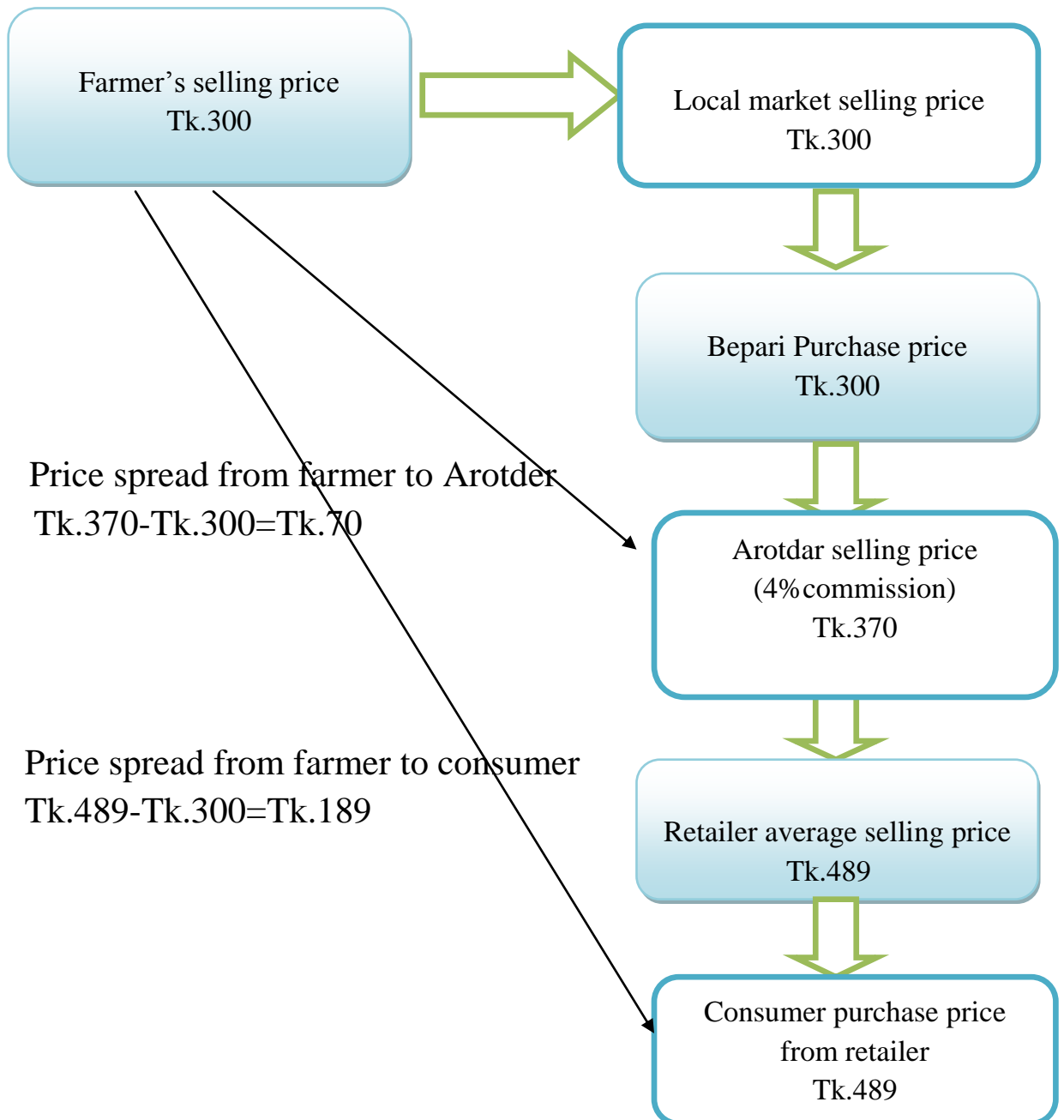
CHAPTER-V
PROBLEMS OF FINDINGS

5 .1 Retailer's Problem

A. Lack of rickshaw, van in *Kawranbazer:* Kawranbazer is the midpoint of Dhaka city. Generally rickshaws, vans are not allowed because of traffic congestion. So it is difficult to get rickshaw, van for carrying goods.

B. Higher transportation cost: Due to lack of sufficient vehicle, retailer faces higher price to transport goods from Kawranbazer. Sometimes, they carry their goods by CNG which is very costly.

C. Less sold because of Super shop: Now a day's Dhaka city consist a lot of super multi-shop. Affordable Consumer prefers to buy goods in super shop rather than retail market.

5.2 Arotdar's problems

A. Higher rental value at *Kawranbazer:* Kawranbazer is the most valuable place in term of place value in Dhaka city. So Arotdar pays high rental value for a space.

B. Higher labor cost: Labor is highly demandable in Kawranbazer because of nature of works. Higher wage is charged due to the high laborious work.

5.3 Bapari's problem

A. Lack Storage of facility: Fishes are perishable in nature. So it needs storage immediately after catching. But in local area, it is difficult to storage them because storage facilities are not available.

B. Higher transportation cost: Generally fishes are carried by truck, pick up etc. But it is not cost effective for Bapari. So that, they demand high prices for fishes.

C. Bribe to police, goon etc: Bapari has to give bribe to the police in the way when they transport their fishes. Moreover, they are often victims by goons and have to pay huge amount of money.

CHAPTER-VI

CONCLUSION & RECOMMENDATION

6.1: Conclusion

Net profit of Townhall market retailer is highest Tk.4510 among other two retailers such as Shewrapara retailer Tk.2089 and Krisimarket retailer Tk.3258. For this reason retailer of Townhall market faces less risk than other market although total cost of Townhall market is highest.

In case of Bapari who come from Kishorgong and Mymensingh get more net profit than those of Khulna, Chittagong by sending their fishes at Kawranbazer because of short distance take lower transportation cost. But Bapari who come from Barisal get reasonable net profit though their Transportation cost is high because Barisal is the top region for capturing Ilish.

The study shows that Fish Farmer selling price of Rui to the Bapari at is Tk.165. Ultimately consumer purchase it from retailer at Tk.281 via Bapari and Arotdar. So price spread is Tk.(281-165) = Tk.116. The result shows that middleman take 41.3% of Consumer purchase price.

The study depicts that Fish Farmer selling price of Tilapia to the Bapari at is Tk.72. Ultimately consumer purchase it from retailer at Tk.162 via Bapari and Arotdar. So price spread is Tk.(162-72) = Tk.93. The result shows that middleman take 56.4% of Consumer purchase price.

The study indicates that Fish Farmer selling price of Katla to the bapari at is Tk.108. Ultimately consumer purchase it from retailer at Tk.192 via Bapari and Arotdar. So price spread is Tk.(192-108) =Tk.84. The result shows that middleman take 43.8% of Consumer purchase price.

The study shows that Fish Farmer selling price of Shrimp to the Bapari at isTk. 303. Ultimately consumer purchases it from retailer at Tk.473 via Bapari and Arotdar. So price spread is Tk. (473-303)=Tk.170. The result shows that middleman take 35.9% of Consumer purchase price.

The study explains that Fish Farmer selling price of Ilish to the Bapari at is Tk.300. Ultimately consumer purchase it from retailer at Tk.489 via Bapari and Arotdar. So price spread is Tk.(489-300)=Tk.189.The result shows that middleman take 38.7% of Consumer purchase price.

6.2: Recommendation

Fish farmers are deprived of market margin although they produce fish with hard labor .If farmer don't get reasonable price and satisfactory profit, they are not able to go further production. That's why we should protect our fish farmer at first. This study shows why fish farmers do not get reasonable price. In case of market spread from farmer to consumers is so high. That means that middleman has a bad affect in case of fish pricing. There are two types of middle man in fish marketing channel such as Bapari and Arotdar. Bapari is the local person who buys fishes from fish farmer in the local market. Then they send it at Kawranbazer in Dhaka city. There are lots of Arotdar at Kawranbazer who sell fishes to retailer. They take 4 % commission from Bapari. Retailer is the ultimate intermediaries from whom consumer purchase fishes from local retail market such as Shewrapara, Krisimarket, Townhall etc. So, price increases in every step.

Price increasing is also burden for consumer. When a consumer goes to the market to buy a good quality fish; retailer wants high price. Retailer shows excuse of their higher purchasing price from Aroddar at Kawranbazer. However, present of intermediaries not only burden for farmer but also for consumer.

We have a concept that middleman create employment opportunity. It is true but few person get opportunity in this occupation. And it is obvious that they earn more than they desire without any contribution. Fish farmer is the key person for producing fish. But they don't get actual price which they deserve. Their socio-economic condition is not improved because sometimes they are not able to yield their production cost. So we should give first priority to fish farmer.

This study suggests that Fish Farmer need co-operation to their locality. If they engaged in co-operative marketing they can sell their fish direct to retailer. As a result, they will get reasonable price. On the other hands, Consumer will be benefited of less purchasing price. Some suggestion to save both Fish farmer and consumer are given bellow.

i.   Credit Facility to the fisherman especially who catch Ilish
ii. The government should provide the transport facilities to carry their fishes in Dhaka and other part of the country
iii. To establish local based cooperative market for fish farmer
iv. Fisherman should be informed about present market situation

The study suggests that co-operative marketing society will save Fisherman from the middleman. So the income of the framer will increase and his economic condition will improve.

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Appendix-1
Interview schedule
Price variation of fishes in Townhall Market /Shewrapara Bazar/Krishimarket

1. Identification

Name:	Age:
Occupation:	Mobile no:

2. Identification of fishes

Items	Amount	Purchase price	Selling price

3. Cost estimation

Cost items	Cost
Variable cost	
Transportation cost	
Labor cost	
Storage cost	
Market toll	
Other cost	
Fixed cost	
Rental value of Place	
Interest on operating capital	

4. Means of Transportation:

5. Income

   A. Current: B. Highest   C. lowest

6. Family size :   7. Year of experience:

8. Identification of problem:

A.   B.   C.

9. Probable solution:

A.   B.   C.

   Signature :   Date:

Interview schedule
Price variation of fishes in case of bapari in Kauranbazar

1. Identification

Name:	Age:
Occupation:	Mobile no:

Identification of fishes

Items	Amount	Purchase price	Selling price

2. Cost estimation

Cost items	Cost
Variable cost	
Transportation cost	
Labor cost	
Storage cost	
Market toll	
Other cost	
Fixed cost	
Rental value of Place	
Interest on operating capital	

3. Means of Transportation:
4. Income
   A. Current: B. Highest   C. lowest
5. Family size :   7. Year of experience:

8. Identification of problem:

   A.   B.   C.

9. Probable solution:

   A.   B.   C.

Signature: Date:

Interview schedule

Price variation of fishes in case of Aradder in Kauranbazar

1. Identification

Name:	Age:
Occupation:	Mobile no:

2. Identification of fishes

Items	Amount purchase	Nature of income

Total income:

3. Cost estimation

Cost items	Cost
Variable cost	
Transportation cost	
Labor cost	
Storage cost	
Market toll	
Other cost	
Fixed cost	
Rental value of Place	
Interest on operating capital	

4. Means of Transportation:

5 .Year of experience:

6. Identification of problem:

A.   B.   C.

7. Probable solution:

A.   B.   C.

Signature: Date: