

## **PRESENT STATUS OF FISH MARKETING CHANNEL WITH SPECIAL EMPHASIS ON WHOLESALE AND RETAIL MARKET IN SYLHET DISTRICT OF BANGLADESH**

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### **Abstract**

The study was carried out on fish marketing system of Sylhet sadar upazila to find out the existing marketing channels and also to explore marketing cost and income of wholesalers and retailers in the study areas. The present investigation was conducted for a period of April to September 2014 in five different markets of Sylhet sadar upazila. A total of 120 fish traders were randomly selected for the study and data were collected through direct interview using a well-structured questionnaire. Focus group discussions (FGD) were carried out by a previously made checklist. Key informant interviews were made to cross-check the collected data from the fish traders. In Sylhet sadar a large number of people were involved in the fish marketing channel as bapari, aratdar, paiker and retailer. In the study area, it was found that the total marketing cost of wholesaler was estimated BDT 2.72 kg<sup>-1</sup> of fish. Transportation was the highest cost comprising 29.41% of the total marketing cost. The second highest cost component was the icing comprising 25.73% of total marketing cost and the lowest was security comprising 4.41% of the total marketing cost. The total marketing cost of retailer in the study area was estimated BDT 2.03 kg<sup>-1</sup> of fish. Icing was the highest cost comprising 29.55% transportation was the second highest 27.09% and the lowest electricity comprising 5.91% of the total marketing cost. Traders faced numbers of problems such as security, electricity, icing, market toll, personal expense and transportation etc. To improve the fish marketing facilities it is essential to establish ice factory, improve fish transport facilities and to introduce fish quality monitoring unit.

**Keywords:** Fish market channel, wholesale market, retail market, FGD.

### **Introduction**

Bangladesh is a developing country which produce much fish each year. The marketing channel provides important role for supplying these fish to the ultimate consumers. According to Adrika (1977) marketing performs so many roles in an economic system which includes: links buyers and sellers, thus makes it possible for exchange relationship; increase the standard of living; aggressive marketing has been largely responsible for the high marital standard of living of most advanced economics. Through mass low-cost marketing people today enjoy products which were once considered luxuries and which are still considered as such in the societies where marketing is in its infancy. Marketing functions or activities need people to be effectively involved hence means more jobs for the people. Also since marketing does not operate in isolations, hence more jobs for the other areas of the business to function. Its purpose is to make it possible for the utilities created by the production process to meet the ultimate economic purpose of serving the consumption process. Marketing can be the process of planning and executing the conception, pricing, promotion and distribution ideas, goods and services to create exchanged that satisfies the individual and organizational objectives (Gregor and Robert, 1994). Kotler (1989) proposed that the societal market conceptualized was more recent versions of ethnic marketing and green marketing. Sylhet is familiar as one of the most important fisheries zone of the country and plays a vital role for the development of fish culture and production. However, there is no study on the species availability and fish marketing channel in Sylhet district.

The present study was undertaken to identify the best fish marketing channel in Sylhet sadar to identify the marketing cost of wholesalers and retailers and to identify the incomes of wholesalers and retailers in the Sylhet sadar upazila of Sylhet, Bangladesh.

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## Materials and Methods

The study was carried out for a period of six months from April to September 2014.

### Selection of study area

Fish farming is increasing day by day in Sylhet sadar upazila and many farmers involved in commercial fish farming. For this reason a fish marketing network is developed among fish farmers, commission agents, fish traders, consumers and other associated groups. For the above reason, Sylhet sadar was selected as the survey area. The study area was included Kazir bazar, Bandar bazar, Modina market, Majortila market, Shibgonj market.

Different types of stakeholders like fish traders, commission agents and wholesaler were selected as respondent in the study.

A total of 120 fish traders (Retailers or Wholesalers) were designated for questionnaire interviews in 5 different markets (6 times in each market).

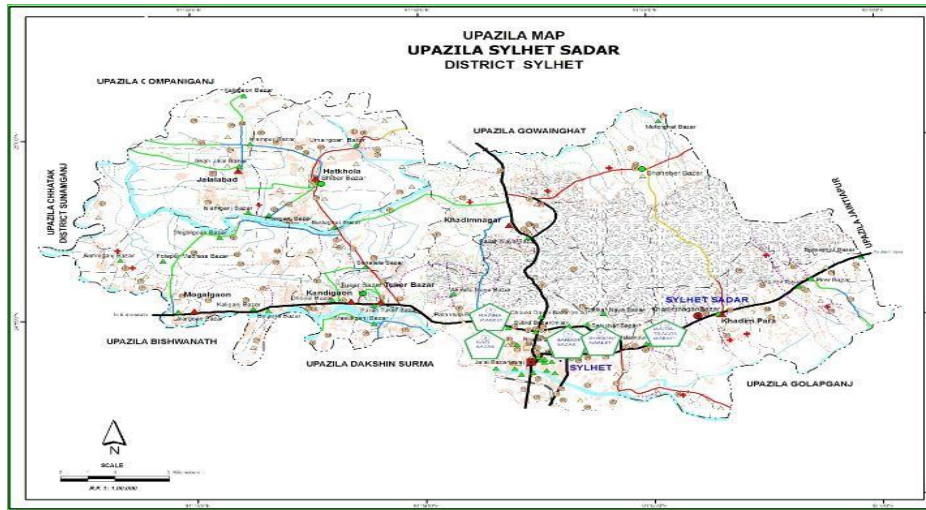


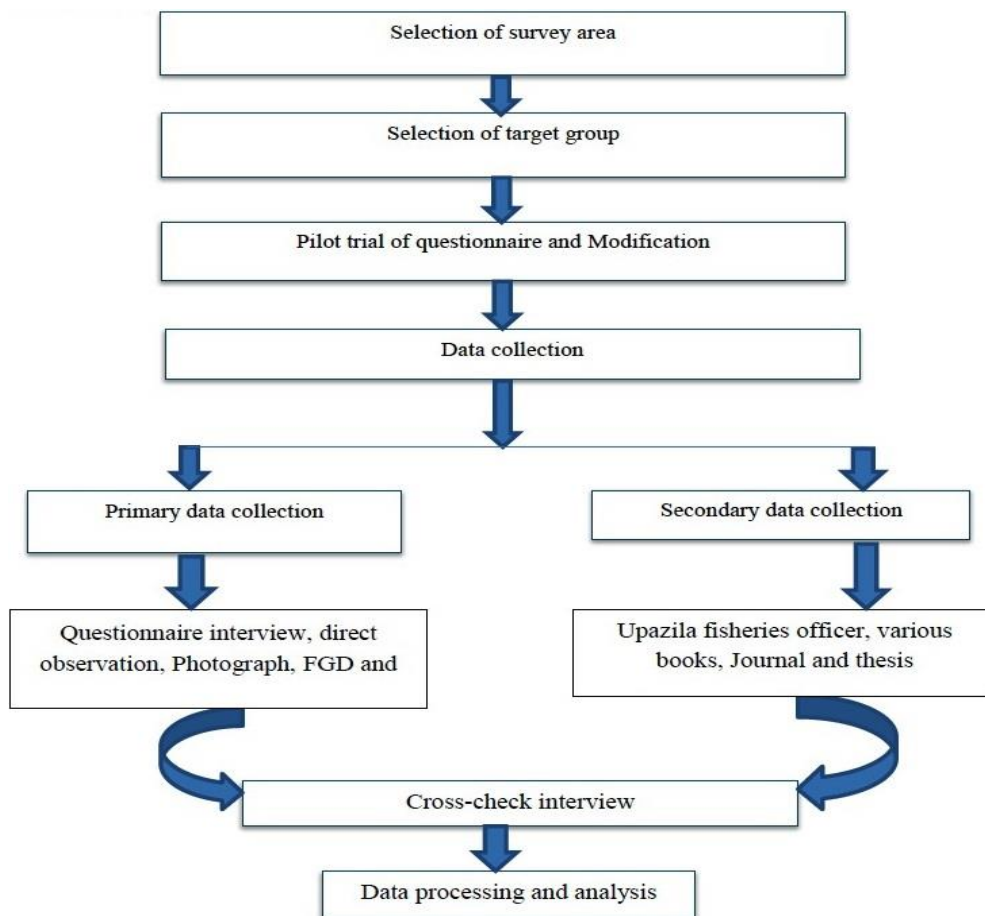
Fig. 1. Map of Sylhet sadar upazila showing different fish markets.

Table 1. Sample sizes of five different markets.

Study area	No. of the fish traders
Kazir bazar	24
Bandar bazar	24
Modina market	24
Majortila market	24
Shibgonj market	24
<b>Total</b>	<b>120</b>

### **Flow chart of the research work**

The present study had been undertaken and was completed according to the following order of methodology:



**Fig. 2. Flow chart of the research work.**

All the collected data were tested to eradicate errors and conflicts. Preliminary data sheets were compared with the original questionnaire and result sheets to ensure the accuracy of the data entry. The data were processed and finally analyzed using Microsoft Excel software.

### **Results and Discussion**

An effort had been made to find out the marketing channel of fish which were accomplished by a number of fish intermediaries in Sylhet sadar.

The major sources of fish species were available in the haors (Tanguar haor, Hakaluki hoar, Hail haor etc.), beels (Pokuri beel, Derai beel and Medo beel) and rivers (Kushiyara river and Surma river) in Sunamganj and Sylhet districts.

## Fish species found in study area

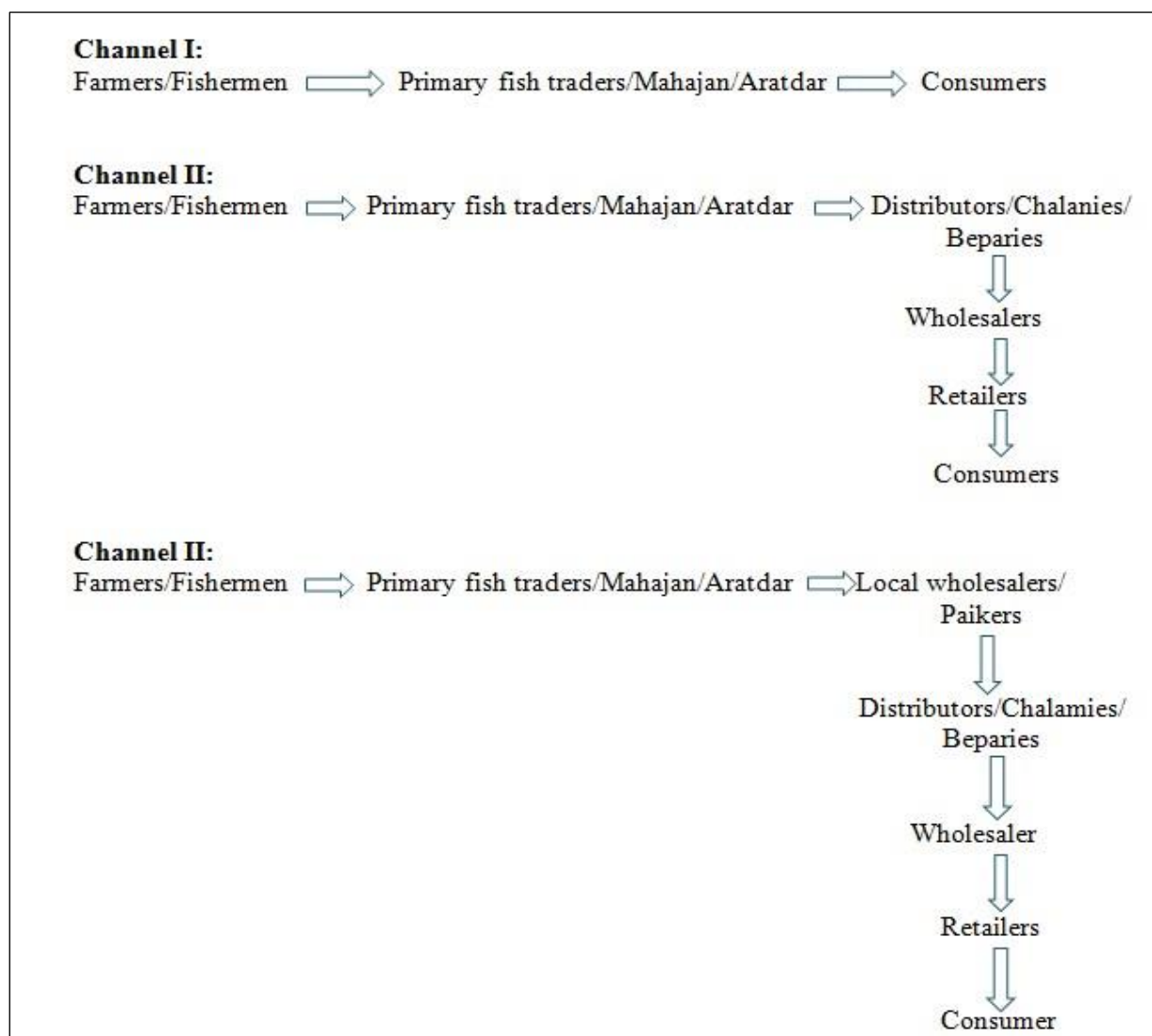
Table 2. Scientific name, local name, order and family of fish species recorded in the markets during the study period.

Scientific name	Local name	Order	Family
<i>Xenentodon cancila</i>	Kankila	Beloniformes	Belonidae
<i>Hyporhamphus limbatus</i>	Ek Thuita	Beloniformes	Hemirhamphidae
<i>Gudusia chapra</i>	Chapila	Cypriniformes	Clupeidae
<i>Corica soborna</i>	Kachki	Cypriniformes	Clupeidae
<i>Puntius ticto</i>	Tit punti	Cypriniformes	Cyprinidae
<i>Puntius sarana</i>	Shorpunti	Cypriniformes	Cyprinidae
<i>Puntius sophore</i>	Jatpunti	Cypriniformes	Cyprinidae
<i>Amblypharyngodon mola</i>	Mola	Cypriniformes	Cyprinidae
<i>Labeo rohita</i>	Rui	Cypriniformes	Cyprinidae
<i>Cirrhinu scirrhis</i>	Mrigal	Cypriniformes	Cyprinidae
<i>Labeo calbasu</i>	Kalibasu	Cypriniformes	Cyprinidae
<i>Labeo bata</i>	Bata	Cypriniformes	Cyprinidae
<i>Labeo gonius</i>	Goinia	Cypriniformes	Cyprinidae
<i>Osteobrama cotio</i>	Dhela	Cypriniformes	Cyprinidae
<i>Esomus danricus</i>	Darkina	Cypriniformes	Cyprinidae
<i>Tenuulosa ilisha</i>	Ilish	Clupeiformes	Clupeidae
<i>Puntius terio</i>	Teripunti	Cypriniformes	Cyprinidae
<i>Chela cachius</i>	ChepChela	Cypriniformes	Cyprinidae
<i>Lepidocephalichthys guntea</i>	Gutum	Cypriniformes	Cobitidae
<i>Botia dario</i>	Rani	Cypriniformes	Cobitidae
<i>Monopterus cuchia</i>	Kuchia	Synbranchiformes	Synbranchidae
<i>Tetraodon cutcutia</i>	Potoka	Tetraodontiformes	Tetraodontidae
<i>Channa marulius</i>	Gozar	Perciformes	Channidae
<i>Channa striatas</i>	Shol	Perciformes	Channidae
<i>Channa punctatus</i>	Taki	Perciformes	Channidae
<i>Channa barca</i>	TilaShol	Perciformes	Channidae
<i>Channa orientalis</i>	Cheng	Perciformes	Channidae
<i>Nandus nandus</i>	veda	Perciformes	Nandidae
<i>Anabas testudineus</i>	koi	Perciformes	Anabantidae
<i>Colisafa sciatus</i>	kolisha	Perciformes	Anabantidae
<i>Glossogobius giuris</i>	Bele	Perciformes	Gobiidae
<i>Parambassis lala</i>	Lalchanda	Perciformes	Ambassidae
<i>Pseudambassis baculis</i>	Chanda	Perciformes	Ambassidae
<i>Chanda nama</i>	Lambachanda	Perciformes	Ambassidae
<i>Oreochromis niloticus</i>	Nilotica	Perciformes	Cichlidae
<i>Oreochromis mossambicus</i>	Telapia	Perciformes	Cichlidae
<i>Wallago attu</i>	Boal	Siluriformes	Siluridae
<i>Ompok pabda</i>	Pabda	Siluriformes	Siluridae
<i>Heteropneustes fossilis</i>	Shing	Siluriformes	Heteropneustidae
<i>Clarias batrachus</i>	Magur	Siluriformes	Clariidae
<i>Neotropius atherinoides</i>	Batashi	Siluriformes	Schilbeidae
<i>Eutropichthys vacha</i>	Bacha	Siluriformes	Schilbeidae
<i>Ailia coila</i>	Kajuli	Siluriformes	Schilbeidae
<i>Clupisoma garua</i>	Garua	Siluriformes	Schilbeidae
<i>Rita rita</i>	Rita	Siluriformes	Bagridae
<i>Mystus bleekeri</i>	Tengra	Siluriformes	Bagridae
<i>Sperata seenghala</i>	Guizza Air	Siluriformes	Bagridae
<i>Sperata aor</i>	Air	Siluriformes	Bagridae
<i>Mystus tengara</i>	Bajaritengra	Siluriformes	Bagridae
<i>Mystus cavasius</i>	Gulsha	Siluriformes	Bagridae
<i>Mystus vittatus</i>	Tengra	Siluriformes	Bagridae

Scientific name	Local name	Order	Family
<i>Bagarius bagarius</i>	Bagaair	Siluriformes	Sisoridae
<i>Macrornathus aculeatus</i>	Tarabaim	Synbranchiformes	Mastacembelidae
<i>Mastacembelus pancalus</i>	Guchibaim	Synbranchiformes	Mastacembelidae
<i>Mastacembelus armatus</i>	Baim	Synbranchiformes	Mastacembelidae
<i>Notopterus notopterus</i>	Foli	Osteoglossiformes	Notopteridae
<i>Notopterus chitala</i>	Chitol	Osteoglossiformes	Notopteridae
<i>Macrobrachium rosenbergii</i>	Golda	Decapoda	Palaemonidae
<i>Macrobrachium rude</i>	Kucehinghri	Decapoda	Palaemonidae
<i>Aristichthys nobilis</i>	Bigheadcarp	cypriniformes	Cyprinidae
<i>Ctenopharyngodon idella</i>	Grasscarp	cypriniformes	Cyprinidae

### Fish distribution and marketing system

A number of middlemen were involved between farmers and consumers in fish marketing system in Sylhet sadar. The market sequence from farmers to consumers passed through a number of intermediaries, which divided into three channels. These are shown below:



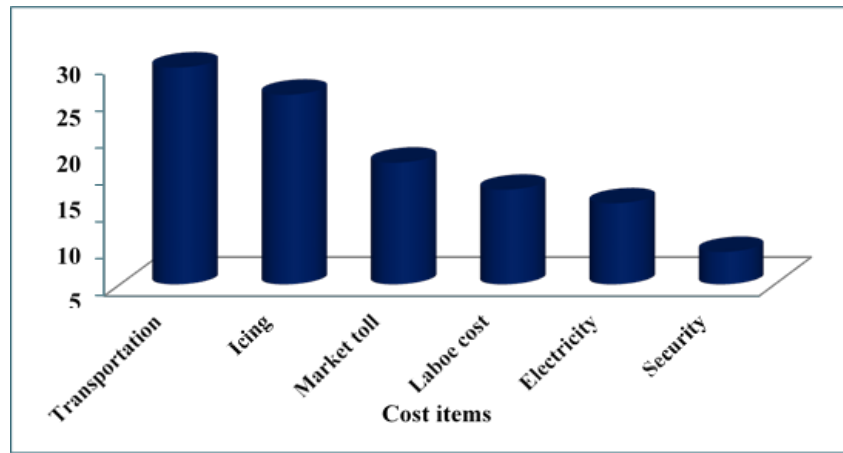
**Fig. 3. Overall fish marketing channel showing five different markets from farmers to consumers in Sylhet sadar upazila Bangladesh.**

Under the channel-I it was found that all fish traders were more benefitted than channel-II and channel-III. It was showed that, shortest the marketing chain highest the profit.

In case of channel-II it was found that, this channel was comprised of more intermediaries than channel-I but less than channel-III. In the marketing channel-II the highest profit gainers were retailers 18.10% followed by wholesalers 16.92%, distributors 15.90% and primary fish traders 15.22%. This channel was less profitable than the channel-I but more profitable than channel-III. It was observed that channel-III made up of highest number of intermediaries than other two marketing channels. In channel-III most benefitted intermediaries are retailers 15.85% followed by wholesalers 15%, distributors 14.16%, local wholesalers 13.60% and primary fish traders 12.62%. The channel simply reveals that, the highest number of intermediaries involved in a marketing channel less the profit. Among the three channels, now it can be concluded that, the channel-I is more profitable than channel-II and channel-III. But channel II and III is important for wider distribution of large amount of fish.

**Marketing cost of wholesaler**

Wholesaler performed the function of marketing arrangement for selling fish to producers and paikars. For performing these functions they had to incur some costs.



**Fig. 4. Marketing cost of wholesaler in Kazibazaar, Sylhet,**

The total marketing cost of wholesaler was estimated BDT 2.72 kg<sup>-1</sup> of fish. Transportation was the highest cost item comprising 29.41% of the total marketing cost. The second highest cost was the icing, which was 25.73 % and security was the lowest comprising 4.41 % of the total marketing cost. This result similar found to be the result of Jamal (2012) who reported that marketing cost of wholesaler was calculated BDT 167 kg<sup>-1</sup> of fish. Trader’s commission was the highest cost item comprising 48.01% of the total marketing cost. The second highest cost item was transportation cost, which was 12.99% of total marketing cost in the study area of Gopalpur upazila of Tangail district.

**Marketing cost of retailer**

The retailers generally purchased fish from the producer and paikars through aratdars and sold to the consumers at different market. The cost components were included security, electricity, icing, market toll, personal expense and transportation.

The total marketing cost of retailer was estimated BDT 2.03 kg<sup>-1</sup> of fish. Icing was the highest cost item comprising 29.55% of the total marketing cost. Transportation was the second highest cost 27.09% and electricity was the lowest cost 5.91% of the total marketing cost. This finding was similar to the result of Goon (2011) who estimated retailer total marketing cost of BDT 1.8285 kg<sup>-1</sup> of fish. Transportation was the highest cost item comprising 22% of the total marketing cost. The second highest was the personal expenses, which accounted for 20% of total marketing cost in the study area of Mymensingh town.

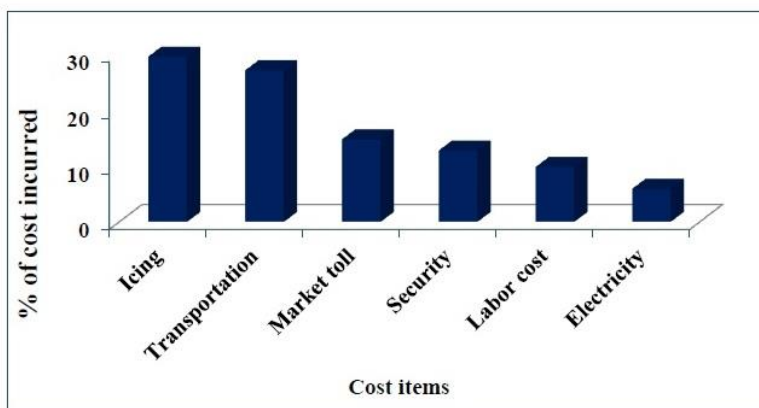


Fig. 5. Marketing cost of retailers.

#### Time of fish trading

Kazir bazar traders were engaged in fish trading from 7.00 am to 3.00 pm, while in Bandar bazar traders were engaged in fish trading from 4.00 am to 10.00 pm and Modina market traders were involved from 5.00 pm to 12.00 pm and Majortila market traders were involved from 9 am to 12 pm and Shibgonj market traders were involved from 4 pm to 11 pm. This result was agreed with the finding of Salma (2013) who described that in Kazi bazar traders were engaged in fish trading from 7.00 am to 2.00 pm, while in Bandar bazar traders were engaged from 5.00 pm to 10.30 pm and in Modina market traders were engaged from 4.00 pm to 11.00 pm in Sylhet district.

#### Amount of fish sold

There were different types of fish traders involved in the study area, they sold fish in different amount every day.

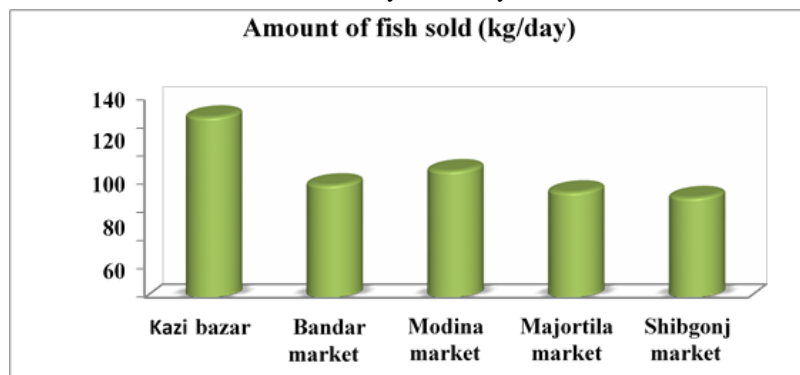


Fig. 6. Amount of fish sold in different market (kg day<sup>-1</sup>) of Sylhet.

From the study, it can be said that the highest average fish sold by traders in Kazir bazar was 128 kg fish day<sup>-1</sup> followed by Madina market 90 kg fish day<sup>-1</sup> Bandar bazar 80 kg fish day<sup>-1</sup>, Majortila market 75 kg fish day<sup>-1</sup> and Shibgonj market 71 kg fish day<sup>-1</sup>. This finding was similar to the result of Salma (2013) who reported that in Kazir

bazar traders sold on an average 200 kg fish day<sup>-1</sup>, 120 kg fish day<sup>-1</sup> in Bandar bazar bears and 80 kg fish day<sup>-1</sup> in the Modina market, Sylhet district.

**Incomes of whole salers and retailers:** Average income (BDT day<sup>-1</sup>) of the wholesalers and retailers in different market of the study area is shown in Table 4.

**Table 3. Average incomes of wholesalers and retailers in the study area.**

Parameters	Kazir bazar	Bandar bazar	Modina market	Majortila market	Shibgonj market
Wholesalers (average income BDT day <sup>-1</sup> )	16500	-	-	-	-
Retailers (average income BDT day <sup>-1</sup> )	-	4633.75	4712.29	5183.79	4100.25

The result of the present study showed that average daily incomes of wholesaler in Kazir bazar was BDT 16500 day<sup>-1</sup> while in Bandar bazar retailers incomes was BDT 4633.75 day<sup>-1</sup>, in Modina market it was BDT 4712.29 day<sup>-1</sup>, in Majortila market it was BDT 5183.79 day<sup>-1</sup>, in Shibgonj market retailers incomes BDT 4100.25 day<sup>-1</sup> (Table 4). This result was similar of Salma (2013) who mentioned that average daily income of wholesaler in Kazir bazar was BDT 2000 day<sup>-1</sup> while in Bandar bazar it was BDT 1000 day<sup>-1</sup> and in Modina market was BDT 850 day<sup>-1</sup> in the study area of Sylhet district.

**Average profit (BDT day<sup>-1</sup>) of the wholesalers and retailers:**

**Table 4. Average profit of wholesalers and retailers in the study area.**

Parameters	Kazir bazar	Bandar bazar	Modina market	Majorila market	Shibgonj market
Wholesalers (average profit BDT day <sup>-1</sup> )	2500	-	-	-	-
Retailers (average profit BDT day <sup>-1</sup> )	-	716.16	751.17	797.09	655.20

The average daily profit of wholesaler in Kazir bazar was BDT 2500 day<sup>-1</sup> while in Bandar bazar retailers profit was BDT 716.16 day<sup>-1</sup> and in Modina market, and Shibgonj market BDT 655.20 day<sup>-1</sup> (Table 5).

**Table 5. Average retail price (BDT Kg<sup>-1</sup>) of fishes in different market in Sylhet district.**

Fish species		Kazir bazar	Bandar bazar	Modina market	Majorila market	Shibgonj market
Average price of fish (BDT kg <sup>-1</sup> )						
Indian major carps	Catla	186.87	237.86	205	313.58	245.50
	Rohu	157	221.43	225.5	225	225
	Mrigal	133.5	202.25	160.25	225.71	230
	Kalibaush	134.17	172.30	170	152.30	160.5
Exotic carps	Silver carp	82.5	142.5	120	147.50	142.24
	Grass carp	115.55	185	165.62	145.25	170.25
	Common carp	116.25	160	166.25	170.30	162.30
	Bighead carp	91.5	135.20	130.50	135.25	140.25
Indigenous species	Pungus	89.5	106.87	131.75	140.75	142.20
	Tilapia	106	154.29	148.75	147	153.24
	Ilish	575.25	750	800	770	780
	Boal	252.5	456.25	450.25	712.5	600
	Koi	300	500	512.5	530.20	520.20



Shing	251.15	500	526.25	620.75	550.5
Pabda	370	700	800	900	750
Magur	270.25	300.30	320.20	344.5	318.30

It was observed in the study area that average retail price of rohu was the highest BDT 225 kg<sup>-1</sup> in Shibgonj market and the lowest BDT 157 kg<sup>-1</sup> in Kazir bazar. Catla was the highest BDT 313.58 kg<sup>-1</sup> in Majortila market and the lowest BDT 186.87 kg<sup>-1</sup> in Kazir bazar. Mrigal was the highest BDT 230 kg<sup>-1</sup> in Shibgonj market and the lowest BDT 133.5 kg<sup>-1</sup> in Kazir bazar. Silver carp was the highest BDT 147.50 kg<sup>-1</sup> in Majorila market and the lowest BDT 82.5 kg<sup>-1</sup> in Kazir bazar. Grass carp was the highest BDT 170.25 kg<sup>-1</sup> in Shibgonj market and the lowest BDT 115.55 kg<sup>-1</sup> in Kazir bazar (Table 6). This result was similar to the result of Jamal (2012) who reported that average retail price of rohu, catla, mrigal, silver carp, gras carp in Gopalpur bazar was BDT 176.67 kg<sup>-1</sup>. Rohu, catla, mrigal, silver carp, grass carp BDT 172.5 kg<sup>-1</sup> was in Belua bazar. Rohu, catla, mrigal, silver carp, gras carp BDT 166.67 kg<sup>-1</sup> was in Alamnagor bazar. Rohu, catla, mrigal, silver carp, gras carp BDT 169.58 kg<sup>-1</sup> was in Suti bazar. Rohu, catla, mrigal, silver carp, gras carp BDT 168.75 kg<sup>-1</sup> was in Nandanpur bazar in the study area of Gopalpur upazila of Tangail district.

### Age structure of fish traders

The information of age structure of traders was essential for estimation probable and energetic human resources from the market survey it was found that 35.83% was between 20 - 30 years of age, 45.83% between 31 - 40 years and 18.83% between 41 - 50 years (Fig. 7). The highest percentages of the fish traders in all the markets was up to 31 - 40 years age group. They can do better in their marketing activities and the lowest percentages of the fish traders in all the markets was up to 41 to 50 years age group. These result of Jamal (2012) who reported that 60% between 21 - 35 years, 30% traders were in the age range of 36 - 40, 10% were below 20 years in the study area of Gopalpur upazila of Tangail district which is not similar to this study.

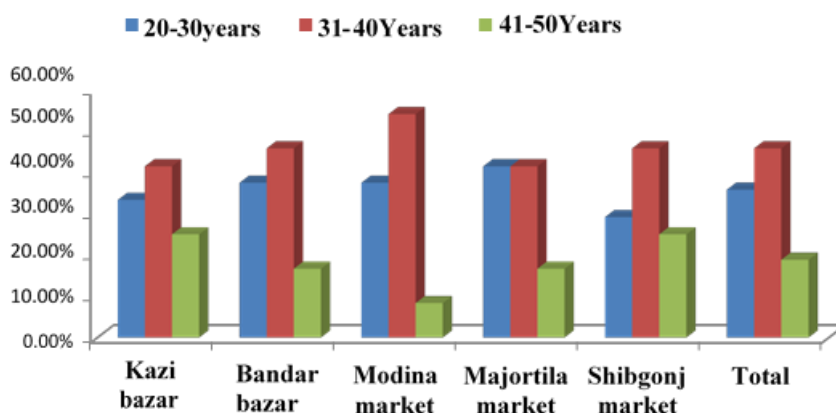


Fig. 7. Age group distribution of fish traders in district Sylhet.

### Fish trading experience of traders

Various experienced persons were involved in the study areas. These types of persons have done in different types of marketing activities. There was very little difference in average experience of the fish traders among the five markets (Fig. 8).

In the study areas 28.33% traders were up to 1 - 5 years, 39.17% between 6 - 10 years and 32.29% between 11 - 20 years experienced. The highest percentages of the fish traders experience in all the markets was 39.17% between 6 - 10 years. Six to ten (6 - 10) years experienced people can do better performance in their marketing activities and the lowest percentages of the fish trading experienced in all the markets was 28.33%. This result was agreed with the finding of Jamal (2012) who stated that 70% of the respondents had 2 - 10 years of experience and 26% was more than 10 years and 4% was less than one year experience in the study area of Gopalpur upazila of Tangail district.

It was noted that indigenous species were sold at higher price than the Indian major carps and Indian major carps were sold at higher price than exotic carps. Indian major carps catla showed the highest price and kalibaas was the

lowest price. Among the exotic carps the highest price was found in common carp and lowest price for silver carp. Among indigenous species the highest price was found for pabda. Different types of problems faced by traders were in sufficient icing and electricity facilities high personal expense, labor cost and transportation. So that appropriate action should be taken for the improvement of existing marketing systems.

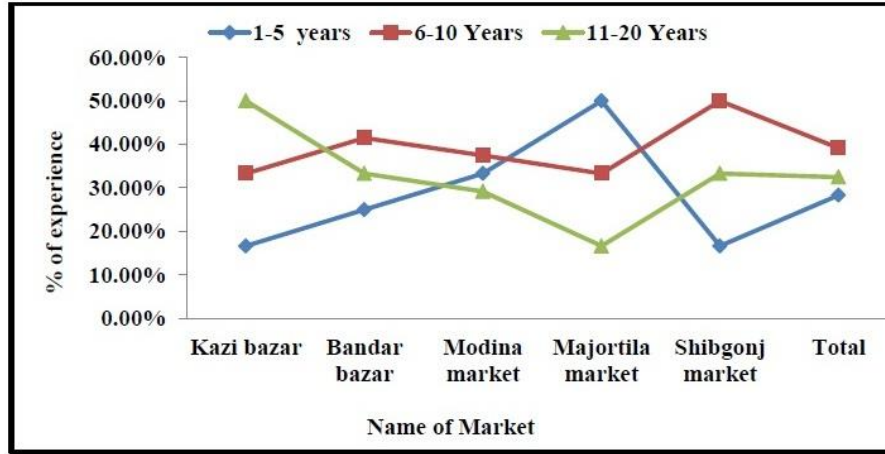


Fig. 8. Experience distribution of fish trader in fish trading.

**Acknowledgement**

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