



Digital MachHaat: Food Fish  
Buying and Selling Service

*A digital market place to connect smallholder fish farmers to fish buyers of different kinds throughout the country and to promote a futuristic and sustainable business model.*

Fish Bangla  
House#55, Road#3, Block#B, Niketon, Gulshan#01  
1/14/2020  
[www.fishbangla.com](http://www.fishbangla.com)



## 1.0 Executive Summary

Smallholder fish farmers are the victims of demand uncertainty and price fluctuation; as a result, final consumers are also victims of preservative contamination in fish. Fish Bangla plans to increase the profit margin of smallholder fish farmers by providing timely, actionable, localized and accurate information through developing a digital marketplace (mobile app supported by a call center) to connect smallholder fish farmers with fish buyers throughout the country.

Final consumers are victims of harmful preservative contamination in fish because fish sellers do not want to make loss when demand of fish is suddenly low. Currently customers do not have any other options other than depending on their luck – whether the fish is contaminated or not. On the other hand smallholder fish farmers depend on their luck to get a good price of their harvest because after harvesting they don't have any option other than selling it at whatever price is offered.

In this project Fish Bangla tried to solve the problem with the help of technology by providing timely, actionable, accurate and relevant information to both fish farmers and suppliers so that none of them need to make a loss and finally consumers get good quality fishes.

Although initially Fish Bangla aimed to run this project as a commercial startup, but WorldFish wanted this project to run as a Private sector led extension model that combines models of both NGO and business organization. However, while designing the activities NGO model surpasses the commercial model due to extreme level of financial bureaucracy and primary focus given to policy and procedures rather than to the effort to make the project financially sustainable.

The project was designed initially to run as a commercial startup but with the suggestion from WorldFish it has been designed to follow non-profit NGO model benefiting smallholder fish farmers only but any commercial business should be focused on the benefit of customers - then only the business will be financially sustainable. To give focus on benefiting smallholder fish farmers we had to recruit field resources with NGO experience. Program was designed to train smallholder fish farmers so that they can focus on supplying fishes with good quality. However, from the project experience, we have seen that, this awareness, education could have been done better with the help of field activation agencies and other media outputs rather than field resources. Use of field resources (i.e. field officers, Sales Support Service Provider) and other face to face training increased project cost and complexity of the model and reduced the chance of being commercially sustainable. Instead of focusing on the benefit of smallholder fish farmers, the same budget could have been used to increase demand on the buyer side.

Financial budget management of the project was too difficult to make the project commercially sustainable. Extensive level of policy procedure made it difficult to procure necessary goods and other resources at a competitive price thus operation of the project went high which had a ripple effect on the end price and profitability.

Financial reporting: financial reporting was confusing and time consuming and without proper training it was not possible to use such complicated financial management model.



Marketing activities had the following steps:

Building Awareness : Through digital marketing  
Education : Through face to face training  
Trials : Through free-bees and discounts  
Drive usage : through continuous reminders and partnerships

During the inception stage of the project we had created 2500 smallholder database with the help of 45 Sales Support Service Providers, validated them and also promoted our app to these 2500 smallholder farmers and tested the market to be positive to the business idea.

User research and market research were done in two regions of Bangladesh - Khulna and Bagerhat and the idea proved to be positively accepted by future customers but due to project management difficulties and financial management difficulties the project couldn't be a successful one.

The project had a target of 100 orders per month (at least 10 from women farmers). This will include 45 Sales Support Service Providers who will also lead all the smallholder farmers' group. Smallholder fish farmers were made aware on post-harvest management during the tech literacy training.

Throughout the project period we had conducted four (04) types of meetings and training activating among smallholder fish farmers.

- Community meetings on project orientation
- Group formation meetings & Registration meetings
- Tech Literacy and post harvesting capacity development training
- Data population meetings

4 field officers with the help of 45 Sales Support Service Provider (SSSP) had completed these meetings and trainings among 2500 smallholder fish farmers in 668 meetings (167 meetings in each category). Earlier to this, 45 Sales Support Service Provider (SSSP) were trained by expert resources on Tech Literacy and post harvesting capacity development.

Even with the challenging situation we have seen overwhelming response from potential fish buyers and smallholder fish farmers to buy and sell using Digital Mach Hat Platform and through user research we got to know that, fish buyers and sellers found value for money for using this platform. If the project were continued, Fish Bangla was expecting exponential growth in coming years. This is still possible considering customers are properly aware about the availability of such services and fishes farmers throughout the countries can post their products where the prices of fishes are competitive - in current setup prices are higher than rest of the country.

Mohammad Ashrafuzzaman  
Proprietor  
Fish Bangla



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## 1. Background of the Project

### a. Grantee, WorldFish

The Feed the Future Bangladesh Aquaculture and Nutrition Activity aims to sustain positive aquaculture sector growth through an inclusive market system approach. This is a five-year assistance activity awarded by the United States Agency for International Development to WorldFish. The Activity will be implemented in collaboration with public and private sector partners and NGOs across 21 southern districts in the Feed the Future Zone of Influence and 02 north-east districts of Bangladesh.

### b. Sub-Grantee, Fish Bangla

Fish Bangla is an online based fish seller who delivers fishes anywhere in metro areas and also deliver anywhere in the country through courier services. It has started its operation from Sept 8, 2016 as a registered organization to provide affordable safe fish at customers' door step. Fish Bangla currently working directly with fishermen and middlemen (Arottdar) to collect fish from different areas of Bangladesh, processing and packaging it in their own processing center and delivery to the customers at door step as per customers' submitted order through facebook, website, call center etc.

### c. Rationale of the Business Idea

Food fish passes through various market participants and exchange points prior to reach the final consumers in distribution process. In Bangladesh, the food fish marketing and distribution system is almost exclusively controlled by middlemen's including commission agents becoming the buyer and seller of the commodity whereby they obtain a percentage fee of the auctioning. The smallholder fish farmers are often compelled to hand over their farm outputs to the trader/middleman (Arattdar/Paikar) at a price determined by the latter. The fishing communities are particularly in weak position compared to intermediaries as the middlemen have established a marketing and distribution chain based on extreme exploitation of the smallholder fish farmer communities by setting up an artificial pricing policy through intermediaries at different levels. So an appropriate marketing system is essential not only to retain the quality of fish after fishing but also to ensure the maximum profit of the smallholder fish farmers.

On the other hand, current technological landscape of Bangladesh especially in mobile sector demands the urgent need of a mobile based digital market linkage platform to address the above challenges. The total number of Mobile Phone subscriptions has reached 155.8 million at the end of October, 2018. Mobile networks and the connectivity especially growing rate of low-end smart phone penetration can be a lifeline for those smallholder fish farmers. The gradual improvement in smartphone affordability, as well as the rapid expansion in the availability of mobile broadband services, has spurred adoption of smartphones in Bangladesh over the last few years. Smartphones now account for an installed base



of 45 million, representing 31% of total connections. This is expected to reach 75% by the end of 2025.

## BUSINESS CASE BEHIND THIS INNOVATION



- We are hoping to re-coup our investment in the second year
- Add more products for the industry with no extra cost using the same platform

### d. The necessity of Food Fish Buying and Selling Service

Smallholder fish farmers are the victims of demand uncertainty and price fluctuation; as a result, final consumers are also victims of preservative contamination in fish. Final consumers are victims of harmful preservative contamination in fish because fish sellers do not want to make loss when demand of fish is suddenly low. Currently customers do not have any other options other than depending on their luck – whether the fish is contaminated or not. On the other hand smallholder fish farmers depend on their luck to get a good price of their harvest because after harvesting they don't have any option other than selling it at whatever price is offered.

Fish Bangla plans to increase the profit margin of smallholder fish farmers by providing timely, actionable, localized and accurate information through developing a digital market place (mobile app supported by a call center) to connect smallholder fish farmers with fish buyers throughout the country. Due to no availability of demand and supply information, fish middlemen, wholesalers and peddlers are completely dependent on luck. From Fish Bangla, we are trying to solve the problem with the help of technology by providing timely, actionable, accurate and relevant information to both fish farmers and suppliers so that, none of them need to make a loss and finally consumers get good quality fishes.

### e. Goal of the Project

Goal of the project is to increase food fish selling opportunity of smallholder fish farmers to the wider audiences through a market linkage mobile application.



## 2. Project Management

### f. Geographic Coverage

Fish Bangla worked at Khulna, Bagerhat and Dhaka. Khulna, Bagerhat have acted on supply side and Dhaka acted on demand side. If the pilot was successful, this could have been rolled out nationally. The reason for selecting the working regions is because of high density of smallholder fish farmers and wholesalers. All of these three districts fall under Feed the Future Zone of Influence.

### g. Project Management Team

The Fish Bangla Project management team was consisted of the following members:

- 1) Team Leader
- 2) Account director
- 3) Project Coordinator
- 4) Account and admin officer
- 5) Field officers X 4
- 6) Call center executives X 2



Image: Fish Bangla Project team working in the field

### h. Project Administration

Recruitment: All project resources (Coordinator, Field Officers, Call Center Agents and Accounts and admin Officer) have been recruited through competitive selection

process.

Field activities: Project Coordinator was primarily responsible for planning of field activities. He was based in Bagerhat and Khulna so that he can work closely with field officers and subsequently can roll out the Sales Support Service Provider model successfully.

Field officers has maintained movement log book and visited small holder fish farmers in 9 different locations (Barakpur, Botiaghata, C&B, Chairman mor, Chuknagar, Digraz, Foila, Foltita, Mongla) to provide technical support and guidance for 4 types of training:

1. Community meetings on project orientation
2. Group formation meeting & Registration meeting
3. Tech Literacy Capacity development training
4. Sell post/data population meeting before they worked for registering smallholder fish farmers under the project.

Three field officers have been stationed in three locations; Khulna, Bagerhat and Mongla.

Coordination from Head Office: Head quarter staffs visited field activities at least twice in a month to understand about the field operation efficiency and effectiveness. Team leader, finance and admin person often visited the field.

Office: Fish Bangla has opened two project coordination offices in Khulna and Bagerhat where 1 field officer and Project Coordinator were stationed at and the second office was opened at Bagerhat where two other project officers were stationed at. Besides, Fish Bangla head office at Gulshan worked as the principle coordinating office for sales, promotion, accounts and management





### 3. Project Budget details:

Agreement Period	Start Date:15/01/2019	End Date:14/01/2020	
Duration	Total of one (1) year		
Agreement Amount (currency and amount)	\$192,091	One Hundred Ninety-Two Thousand and Ninety One US Dollars Only.	
Cash or In kind contribution	\$65,963		
Project Title	Digital MachHaat: Food Fish Buying and Selling Service		
WorldFish Contact Person:	Chief of Party and Country Director	Dr. Malcolm Dickson	m.dickson@cgiar.org
Subgrantee Contact Person	Proprietor	Mohammad Ashrafuzzaman	uzzaman.ashraf@gmail.com

#### Budget summary:

Activities	%	Total
Activity/Program costs	52%	8,435,406
Staff Salary	20%	3,210,300
Travel	13%	2,145,780
Supplies, equipments and ops cost	7%	1,073,832
Other direct cost	6%	970,750
Bonus	2%	268,274
<b>Total Budget</b>		<b>16,104,342</b>



## 4. Activity Details

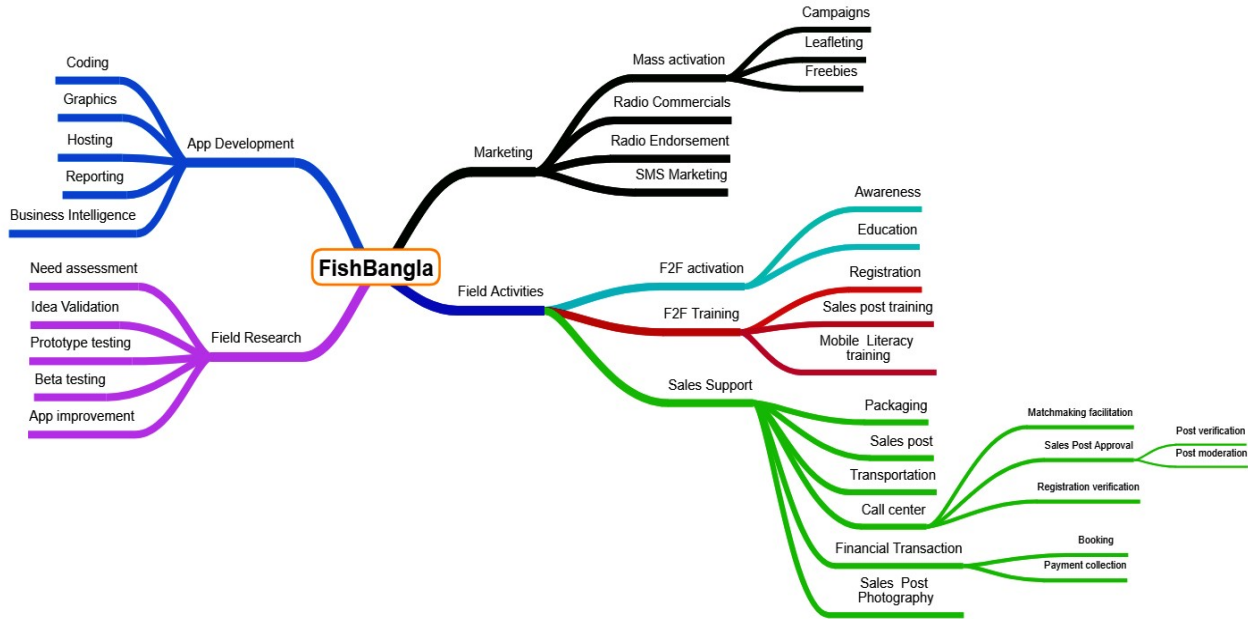


Image: Fish Bangla activity diagram

Activity	Start	Finish	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Staff recruitment &amp; office set up</b>	1/15/2019	2/28/2019	■	■										
<b>Apps development, improvement, launching &amp; server hosting</b>	1/15/2019	5/31/2019	■	■	■	■	■							
Research ( FGD, F2F) for need assesment & apps improvement	1/15/2019	5/31/2019	■	■	■	■	■							
Apps development	3/1/2019	5/31/2019			■	■	■							
APPS launching event in Dhaka	6/1/2019	6/2/2019						■						
<b>Sales Support Service Provider orientation</b>	3/1/2019	5/31/2019			■	■	■							
<b>Project orientation, group formation &amp; registration, capacity building, data population and field activation of farmers</b>	3/1/2019	5/31/2019			■	■	■							
Community meeting on project orientation	3/1/2019	31/09/2019			■	■	■	■	■	■	■	■		
Group formation & registration meeting	4/1/2019	10/31/2019				■	■	■	■	■	■	■	■	
Tech literacy capacity development training	5/1/2019	11/30/2019					■	■	■	■	■	■	■	■
Field activation-Mass campaign	5/1/2019	12/31/2019					■	■	■	■	■	■	■	■
<b>Call center establishment</b>	2/1/2019	3/31/2019					■							
<b>Communication materials, digital marketing &amp; media coverage</b>	3/1/2019	5/31/2019			■	■	■							
Commnication materials development	3/1/2019	3/31/2019			■	■								
Ad creation for FB & radio	4/1/2019	4/30/2019				■								
Digital marketing through FB & SMS	5/1/2019	12/31/2019					■	■	■	■	■	■	■	■
Bazar Campaign	5/1/2019	10/31/2019					■	■	■	■	■	■	■	
Radio Campaign	5/1/2019	12/31/2019					■	■	■	■	■	■	■	■

Image: Fish Bangla activity gantt chart

### i. Community meeting on project orientation:

Once the smallholder fish farmers' list was created, field officers were contacting



and meeting them to explain Digital Mach Hat and seeking their attention to be a part of this platform. Interested smallholder fish farmers were registered in data collection app to be used at later stage.



Image: Community meeting on project orientation



Image: Community meeting on project orientation

#### **j. Tech Literacy Capacity development training:**

While working in the field, it was identified that, smallholder fish farmers lacks knowledge about post harvest management which was very crucial for delivering

quality fish to customer doorsteps. Subsequently Fish Bangla has recruited post harvest management specialist to conduct training in the month of May-19 to Sales Support Service Providers who will be ultimately working with smallholder fish farmers. Fish Bangla initially aimed to recruit 45 SSSP but to keep backup; Fish Bangla recruited 53 SSSP and made them participate in 4 training sessions. These 45 SSSP later provided face to face training to all smallholder fish farmers in 7.5 months time.



Image: Tech Literacy Capacity development training



Image: Tech Literacy Capacity development training

### **k. Group formation meeting & Registration meeting:**

Selling fish online is not typical and not easy for smallholder fish farmers while being tech illiterate. Fish Bangla provided tech literacy and capacity development training on how to use digital platform to sell fish. However, getting along with the digital platform is not easy because smallholder fish farmers may need support anytime with digital platform while selling fish. To solve such problems and to sell fish successfully through digital platform, it is always convenient to create a group. Selling in a group always give opportunity to help each other and also to get important and necessary information easily. Fish Bangla helped smallholder fish farmers creating group and foster group activities through registration of the group. All the groups were named according to the name of SSSP.



**Image:** Group formation meeting & Registration meeting

### **l. Group formation meeting & Registration meeting:**

Selling fish online is not typical and not easy for smallholder fish farmers while being tech illiterate. Fish Bangla provided tech literacy and capacity development training on how to use digital platform to sell fish. However, getting along with the digital platform is not easy because smallholder fish farmers may need support anytime with digital platform while selling fish. To solve such problems and to sell fish successfully through digital platform, it is always convenient to create a group. Selling in a group always give opportunity to help each other and also to get important and necessary information easily. Fish Bangla helped smallholder fish farmers creating group and foster group activities through registration of the group. All the groups were named according to the name of SSSP.

### **m. Sell post/data population meeting**

It is very important for a buy and sell platform to have ample amount of product information on the platform for prospective buyers. However for fish farmers it is not easy to start populating product information straight away. It is not easy to understand how to create a good sell post so that prospective buyers are interested to purchase their products. Fish Bangla staffs helped smallholder fish farmers to learn product information posting on the platform. Fish Bangla staffs also arranged field meetings for smallholder fish farmers to understand how to keep continuing posting their product information on regular basis.



**Image:** Sell post/data population meeting

### **n. Bazaar campaign:**

Fish Bangla ran bazaar campaign in different locations in Dhaka city where Fish Bangla representatives met whole sales and retail fish sellers, customers and explained the Digital Mach Hat platform and helped them experience the platform by getting them registered in the platform.



#### **o. Radio campaign:**

Fish Bangla created different versions of radio commercials and ran the campaign in country's most popular radio channel – Radio Foorti. Although both Fish Bangla and Radio Foorti were expecting big impact specially increased sales but unfortunately radio campaign only created positive branding about the platform. Mostly people were interested to know about the platform and showed their interest to use the platform in future.

MEDIA PLAN				
STATION	TIME BAND (APPROXIMATE)	NUMBER OF RDC SPOTS	DURATION OF RDC (IN SECONDS)	RDC MINUTES
Radio Foortl (Nationwide 10 Station)	06:00 AM - 07:00 AM	0	0	0
	07:00 AM - 08:00 AM	0	0	0
	08:00 AM - 10:00 AM	77	20	25.66666667
	10:00 AM - 12:00 PM	0	0	0
	12:00 PM - 04:00 PM	0	0	0
	04:00 PM - 06:00 PM	0	0	0
	06:00 PM - 10:00 PM	44	25	18.33333333
	10:00 PM - 12:00 AM	0	0	0
	12:00 AM - 02:00 AM	0	0	0
	02:00 AM - 06:00 AM	0	0	0
TOTAL NUMBER OF RDC SPOTS		121		
TOTAL NUMBER OF RDC MINUTES		44		

Image: Radio Campaign Schedule

**p. Field Activation:**

After successful completion of bazaar campaign, Fish Bangla scaled up the activation in 9 major locations in Dhaka city where customers were given merchandises when successfully registered. Customers were also given 20% discounts on their purchase from the activation spot.





#### q. Digital campaign:

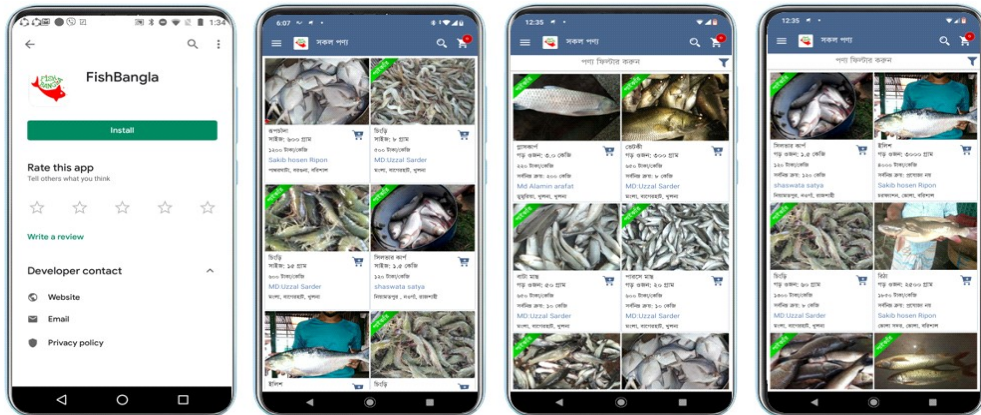
Fish Bangla has used digital marketing platform like facebook to promote the platform to potential customers. Among all other marketing initiatives Facebook appeared to be most effective platform to promote such services. Through facebook the was the highest in shortest possible time. It would have been wise to spend 100% of the marketing budget in facebook rather spending in field activities like all field training and meetings and field activation because digital marketing provides more reach and value for money than any other form of field and marketing activities for platform like Digital Mach Hat.



**Image:** Launching ceremony



**Image:** Launching ceremony



**FishBangla**  
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About  
Community  
Create a Page

Liked Following Share

Like Comment Share

Write a comment...

**FishBangla** is feeling blessed.  
August 25 at 6:20 PM · 🌐

"সবাই কে বিষ বিহীন তাজা মাছ খাওয়ানোর একটি ক্ষুদ্র প্রয়াস"  
জেলে এবং চাষীদের কাছে থেকে সরাসরি সংগৃহীত মাছ রেডি টু কুক অথবা আন্ত  
অবস্থায় হোম ডেলিভারী পাওয়ার একটি বিশ্বস্ত প্রতিষ্ঠান।  
#মাছ\_কিনুন\_ঘরে\_বসে... See More

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**About**

House 55, Road 03, Block B, Niket 1  
Dhaka, Bangladesh 1212  
Get Directions  
01913-311222  
Typically replies within an hour  
Send Message  
www.fishbangla.com  
Organic Grocery Store - Fish Market Community  
Opens tomorrow  
Closed Now  
Suggest Edits

**Page Transparency**  
Facebook is showing information to help you understand the purpose of a Page. See all the people who manage and post content...

## 5. Annual Project Progress

**In the first 12 months Digital Mach Hat has made the following progress:**

**Recruitment:** Budgeted amount for the positions specified was not sufficient to attract good resources. However, Fish Bangla managed to complete planned recruitment process on time and all staffs were on board.

**Need assessment:** Participation of female farmers were very low due to local norms and culture, however Fish Bangla had completed the need assessment study on time. Fish Bangla have tested the app among 42 users and collected feedback and accommodated those feedback later on. The improved version of the app was tested again in June and was launched in the second week of July 2019



# INNOVATIVE FEATURES FROM USER RESEARCH

## ▪Initial stage

- Primary focus should be given to call center
- Fish Bangla need to facilitate postings and transactions through its field staffs
- Fish Bangla need to facilitate transportation



## ▪Innovative Feature for the app

- Auction and harvesting calendar needs to added

**Sales Support Service Providers Recruitment:** Initially Fish Bangla targeted to recruit Sales Support Service Providers from farmer community but after conducting the field study, we had to extend recruitment towards support staffs at arots to get more useful resources. All sales support service providers were recruited on time.

**Office rental:** Budgeted amount for office rent was not sufficient to rent suitable offices, however, with extra effort Bagerhat and Khulna office were rented according to plan.

**Post harvest management training:** From field study during the last week of February, it was identified that, there is a need for the farmers to learn about post harvest management. Fish Bangla conducted field training on post harvest management in the month of May-19.

**Call Center Establishment:** Digital Mach Hat project has implemented the Call Center from March-2019 and it became operational with smallholder fish farmer verification task.

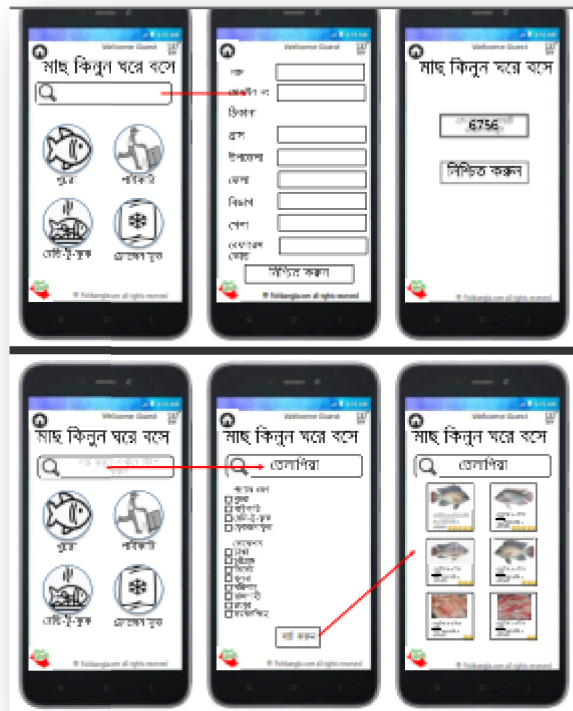
**Group formation & registration meeting:** Although information collection was challenging during the month of June due to bad weather, and in May during ramadan but with extra effort, Fish Bangla was able to reach its target to reach 48 small holder farmers.



**Community meeting on project orientation:** During the month of June due to bad weather, and in May during ramadan but with extra effort, Fish Bangla was able to reach its target to reach 1148 small holder farmers.

**Post harvest management:** Fish Bangla hired an expert to train farmers and Sales Support Service Providers on post harvest management. 53 participants participated in the training program including Fish Bangla staffs."

**App design and development:** Through market research and human centric design method, Fish Bangla had developed the platform wireframes and rapid prototyping.



### Highlights of features

- Registration
  - SMS verification
  - Upload picture (optional)
  - Reference code (for field officer activation)
  - Drop down list form
  - Registration bonus
  - Referral bonus
- Cart
  - Guest check out
  - Registered user check out
  - Check order status
  - Invoice through SMS and email
- Auction
  - Live time count down
  - Live rate show down
  - Earnest money for auction
- Payment
  - Online payment
  - Cash on delivery
  - Earnest money for auction
- Product post
  - Seller rating
  - Shop for seller
  - Image and video clip upload option
  - Post products link to facebook, IMO, viber etc.
- Transport and other service providers
  - A section (similar to product page) for transport service providers
  - A section for other service providers (i.e. ice factories, packaging materials seller) will be there
  - Location tracking/GPS tracking for packages (optional)



### App testing and improvement:

Fish Bangla had done rigorous user testing using real users in fixed intervals and collected important feedbacks and accommodated those feedbacks and this is how the app became user friendly over the period of time.



Image: Human Centric Design Session with users

### App marketing:

Marketing activities had the following steps:

- Building Awareness : Through digital marketing
- Education : Through face to face training
- Trials : Through free-bees and discounts
- Drive usage : through continuous reminders and partnerships

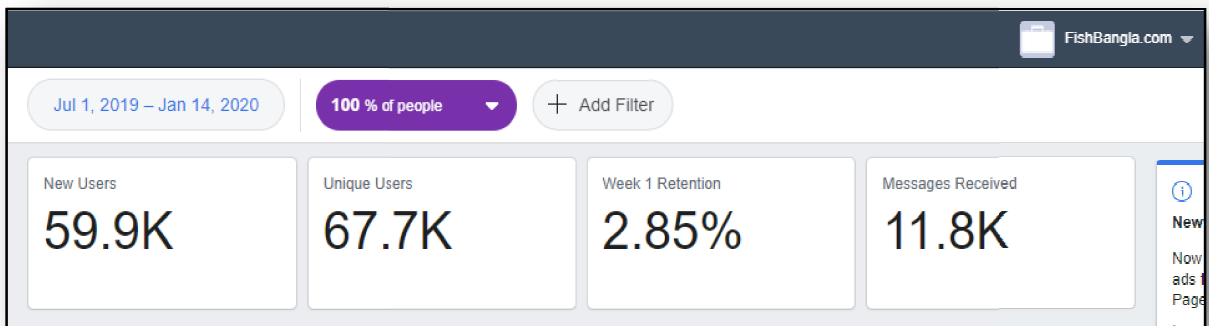
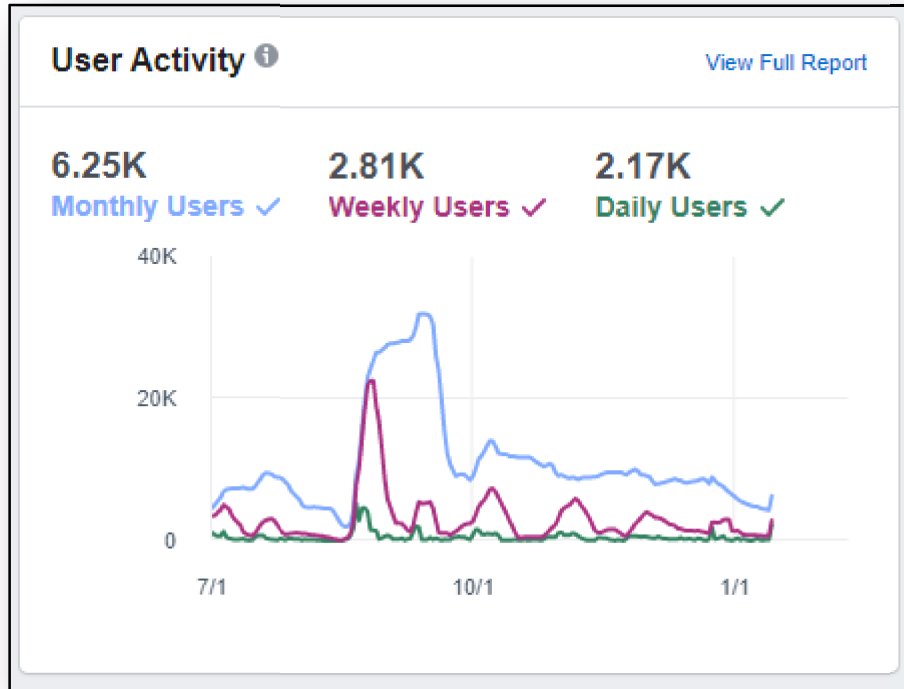
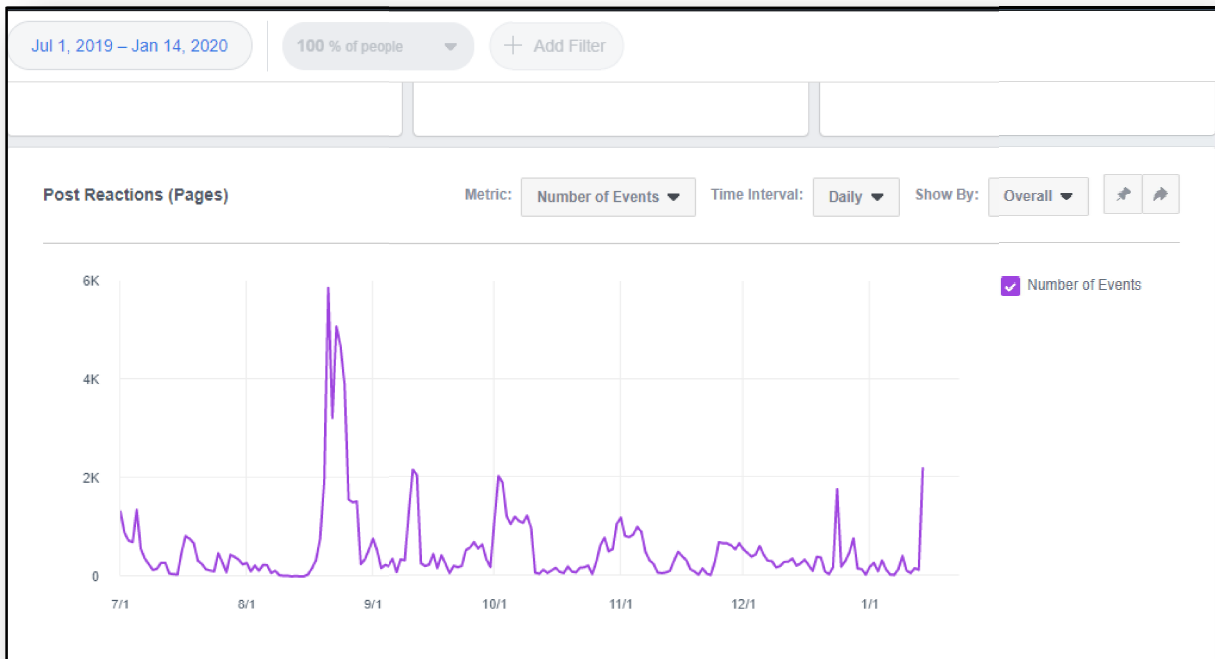


Image: Number of people reached through the digital activities





**Image:** User activity at different times



**Image:** Post reaction by users at different time





**Image:** Age and gender breakdown of the digital reach

### **Facilitate initial transactions:**

Fish Bangla has tried to meet fish wholesalers in Dhaka market but there were strong pushback by fish wholesalers who think this platform will be their competitors and were reluctant to use this app to purchase fishes. However, customers from households and restaurants keep placing orders because they found value for money for the services provided by Fish Bangla. Traditionally fish wholesalers do not make profit in every shipment. But in our platform farmers are posting their fishes with regular price which is sometimes more than market price."

### **Farmer registration in the platform:**

With all project management and budget management difficulties Fish Bangla managed to register 1227 users in the app in 2 months of marketing activities.

### **Sell post from farmers:**

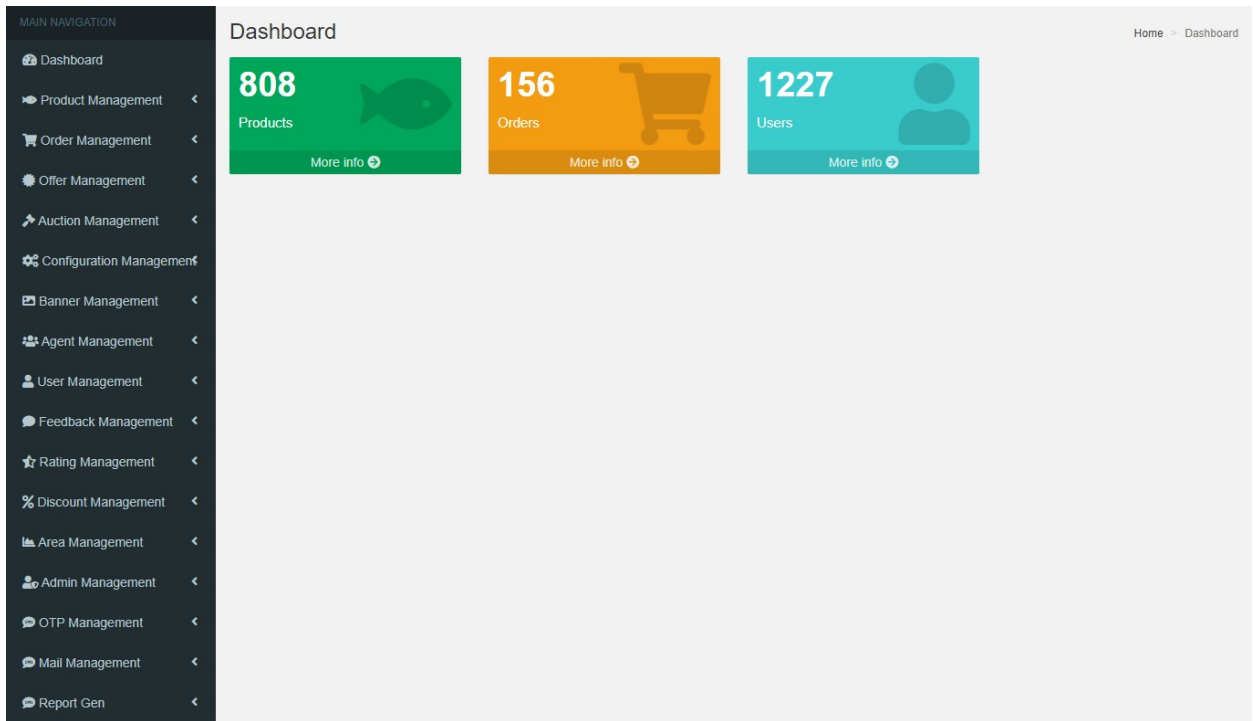
In 2 months of advertisement and field activities 808 products were posted for sale in the platform.

### **Sell through the app:**

In 2 months of advertisement 156 orders were made through the mobile. 814,455 Taka (9,605 USD) worth of orders were received through this platform after launch.







**Image:** Digital Mach Hat platform management panel



## 6. Key Challenges:

### Business model challenges:

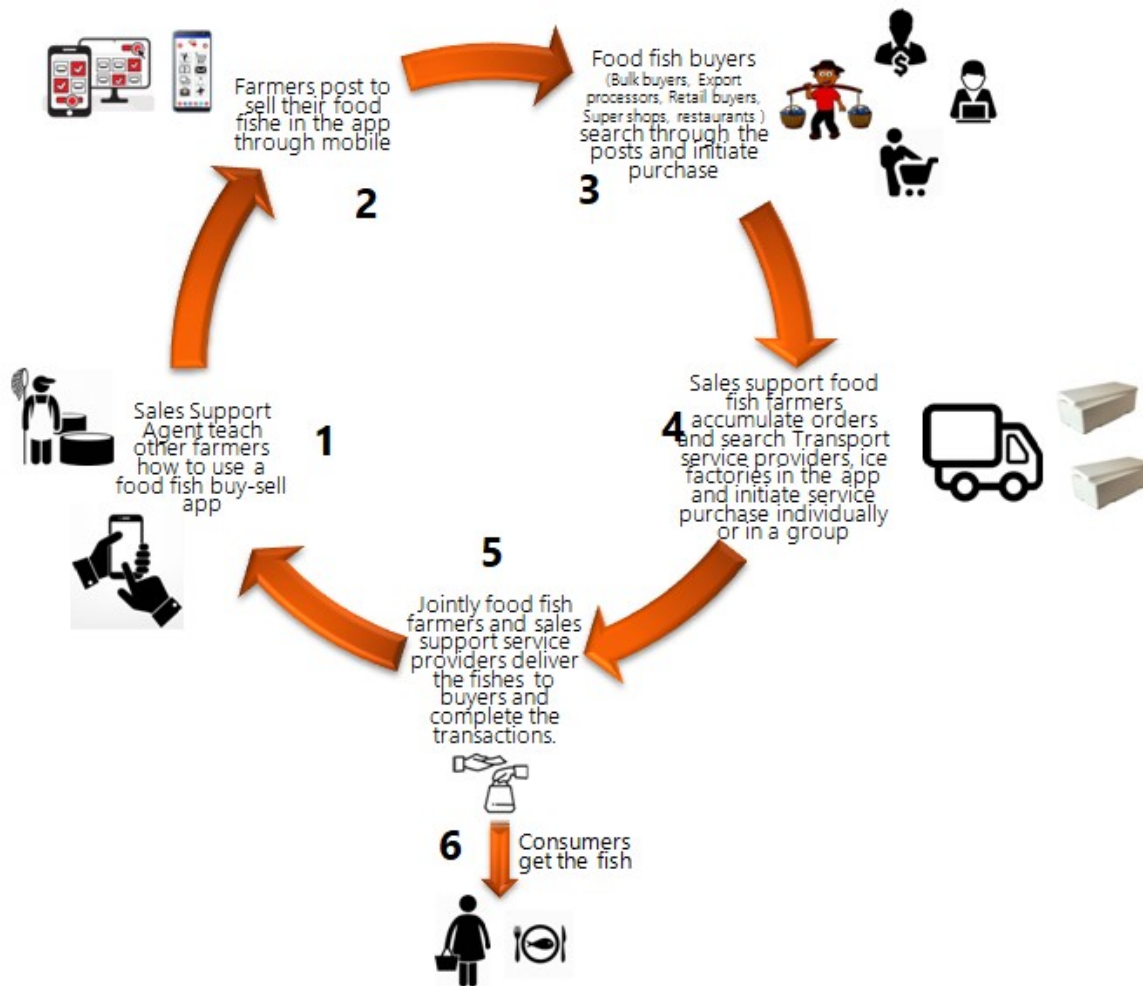


Image: Working model of Digital Mach Hat

- Good quality of fishes with good quality of post harvest management will win the heart of the final consumers if they are made aware about the benefit - it can be done through marketing campaign where final consumers will get to know how to choose fresh fishes over others.
- To practice good post harvest management skills the price of the fishes went higher on top of inflated price
- Fish Bangla has tried to meet fish wholesalers in Dhaka market but there were strong pushback by fish wholesalers who think this platform will be their competitors and were reluctant to use this app to purchase fishes. However, customers from households and restaurants keep placing orders because they found value for money for the services provided by Fish Bangla.

- Traditionally fish wholesalers do not make profit in every shipment. But in our platform farmers are posting their fishes with regular price which is sometimes more than market price."
- During the month of January-2020 Fish Bangla tried to buy fishes directly from farmers who posted their fishes in the app in Bagerhat and in Khulna region and tried to sell it in the wholesale market in Dhaka - namely Abdullahpur and Kawranbazar wholesale market. But due to heavy competition and purchase price being higher than other part of the country, it was not possible to make a profit. However, due to good quality of post harvest management of the fishes - it was acknowledged by the retailer that quality of the fishes were better when reached to Dhaka market compared to others. But fish retailers were reluctant to buy good quality fishes over other fishes because they were afraid that buyers won't pay extra for good quality fishes.

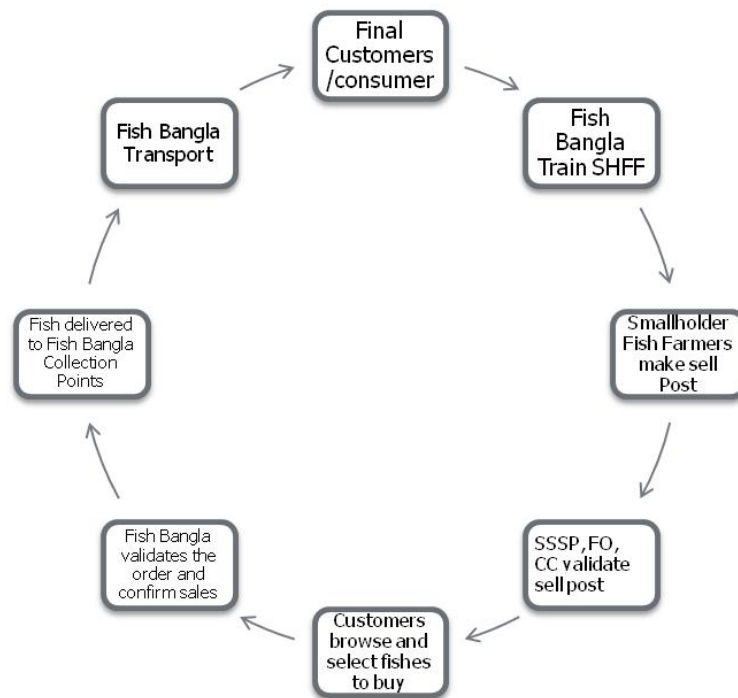


Image: Business model of Digital Mach Hat

## Financial reporting challenges

- Trust issue by grantee to sub-grantee in every steps of project expenditure even though it was a cost-sharing project
- Financial reporting expectation vs. reality: Financial reporting was focused on process rather on success of the project. Accounts and project resources were spending valuable project times on collection of receipts, vouchers, log sheets, attendance sheets, event reports etc.
- Financial reporting training: It was never clear to Fish Bangla about the



financial reporting requirement until the 5<sup>th</sup> month of the project. Fish Bangla received first financial reporting compliance training after 6 months of the launch of the project.

- Financial reporting template: Fish Bangla was surprised to see how complicated and manual labor intensive was the financial reporting format of the project. Fish Bangla tried to fit in the accounting data in an automated system but failed to find such accounting procedure readily available in any advance accounting system.
- Absence of a centralized accounting system: A centralized accounting staff handles payables and receivables for all locations. This result in processes being followed more consistently and efficiently, as a team in one location works together in a more coordinated effort.
- Extensive paperwork made reporting expensive and time consuming
- Budget for accounting resources led to recruitment of basic resource but requirement for this project was higher. Resource required for this position with the amount of work load and expertise, the project needed resource with at least 2 times of the salary allocated for this position. Also it was difficult for one person to manage the amount of work needed to be done. Also the budget should have been allocated for 14 months because of extended need of accounting work by WorldFish (last month's report and support mandatory audit by WorldFish).
- Fulfillment of audit requirements: in the month of Sep-19 WorldFish first raised the concern of procurement package for marketing expenditure and launched an audit. After two weeks of delay the audit was completed and partial fund was disbursed but the audit report was never been shared with Fish Bangla. Final installment of payment is still due to another audit which was supposed to be launched in end of Jan-20 but that has been launched in mid Feb-20 and ended at the end of Feb-20. Still audit report was not shared and final installment has not been released. Many of the vendors are still unpaid due to this delay which has destroyed the reputation of this project and Fish Bangla.

### **Technical reporting challenges**

- Challenge regarding reporting format: the technical reporting format is suitable for development project where main objective of the project is to reach target audiences. However, this format is not suitable for commercial projects trying to be sustainable. Most of the report doesn't add any value for any commercial organization to make decision. So mostly it was waste of valuable time to prepare monthly report.
- Challenge regarding reporting of information: the information that Fish Bangla had to input in the technical report was not useful to make any decision that can support to make the business sustainable. Again it was waste of valuable project time.
- Repetition of monthly report in quarterly report: every quarter Fish Bangla



had to submit quarterly report which was nothing but the sum of previous three months' report where Fish Bangla had to submit third month's report as well. This might be useful for development project where project target is reach but for a commercial project leading to sustainability, it was redundant.

### **Project Implementation Challenges**

- When process is prioritized over business activities, success is denied - constant ambiguity of continuation of the project has affected the activities to failure.
- Farmers showed less interest in four (4) different trainings, because they have understood the concept and were more interested to sell their fishes through the online platform rather attending trainings compromising their regular activities. However, Fish Bangla field staffs managed to made all of them to the training and meeting sessions on time.
- Due to irregularities in payments to Sales Support Service Providers (SSSP) due to delay in fund disbursement by grantee to sub-grantee confused the whole field resources. In Sep-19, Oct-19 and again in Nov-19 and in Dec-19 payments to the SSSPs were not smooth. In different occasions SSSPs were meeting each other in different training and meetings and they were communicating with each other. Due to irregularities of payments by Grantees to Sub-grantees, partial payments were done by sub-grantees which created confusions and dissatisfaction among SSSPs which turned into negative impression among them which affected the activities of the project to a great extent.
- Some SSSPs and smallholder farmers asked cash loan for fish farming and when denied by Fish Bangla, it made them frustrated.
- Presence of WorldFish in different meetings and trainings created confusion among SSSPs and smallholder fish farmers. They thought Fish Bangla got a big donation and supposed to give away cash or loan to smallholder farmers but instead Fish Bangla is trying to hide it and asking SSSPs to work. Many SSSPs were saying, "We want our share of the donation that came from WorldFish and Fish Bangla needs to pay separate for the work we are doing." This confusion become even stronger when WorldFish/WorldFish representatives called SSSPs and fish farmers from unknown number in different occasions to check authenticity of field expenditure.

### **Value Chain Challenges:**

- Fish harvest at a time: smallholder farmers want to harvest all of their fish at a time to save time and cost. However, in Digital Mach Hat platform customers were placing order in small quantity which was sometimes not economical for smallholder fish farmers. However, to accommodate the need of a new concept many of the farmer supplied fishes according to customer's requirement (i.e. 20/40 kg shipment)



- Price fluctuation due to weather: sometimes price of fish changes due to change in weather which has created challenges for smallholder fish farmers after they have posted their fishes on certain price on the platform but had to sell in a different price to local market. In bad weather farmers are forced to harvest (i.e. heavy rain and flood) and price of fishes changes rapidly and thus create a vacuum in the market afterwards.
- Fish Paikar's business model: at the beginning fish Paikars were interested to buy fishes from the Digital Mach Hat platform but they always wanted an auction model but smallholder fish farmers don't want an auction model because they don't have control on the price of the fish while auctioned.
- Price gap of the fish from pilot locations with other locations: When Fish Bangla started shipping fishes in Dhaka and shipments started to compete with shipments from other sources, it was evident that, price of fishes from Khulna and Bagerhat were always high compared to fishes coming from other parts of the country.
- Price increase due to post harvest management practices: Due to post harvest management practices and with the extra requirement of ice and other logistical requirements prices of the fish goes higher.
- Credit cycle of existing market system: Existing fish trade runs on the cycle of credit but this project was running on cash transactions. So when fish wholesalers were asked to pay cash for every transaction, they became reluctant. However, this could be solved by proving that Digital Mach Hat value chain can give them better value in the long run.
- Demand amount vs supply amount: It was a big challenge to supply more than demanded. Although in the short run it was customized considering it a pilot, but in the long run when competing with traditional value chain, this could be a threat to the business model.



## Partnership Challenges:



**Image:** This is what happens when process becomes more important in a project than the result

- First financial management training were shared 4 months later after the kick off of the project. First budget management training was conducted 6 months after the kick off of the project. First of all, advance payment was done for quarterly payment, then the decision came for monthly disbursement, then another decision came for disbursement in two months, this financial disbursement model created confusion and difficulties in managing the project.
- USAID financial management policy or WorldFish Financial Management policy had been mandatorily governed the project while this was a partnership project financially. For example, Fish Bangla had policy of cash disbursement if the value is less than 50,000 taka but the project had to limit its cash disbursement to nil, in every instance cheque disbursement made the project extremely difficult.
- Fish Bangla would name the project relationship as client vendor relationship rather than partnerships. In many occasions Fish Bangla were treated guilty until proven not-guilty – this type of questionable partnership model creates obstacle for small businesses to success.
- Sub-grantees were 3 quotation system applied for every small to large procurement of assets and consultancy – which has wasted lots of time which was the most important elements of the project. While Fish Bangla appreciate the practice of transparency and accountability, but also expects respects in terms of

selection process and judgment from so called partnership.

- Financial reporting was very much critical and difficult to understand and there were several changes in the reporting system which has taken toll on the success of the project.
- All the cash advancements were delayed due to complexity in fund management, which made it extremely difficult to manage the project, as the project budget was heavily dependent on the funding.
- From the very beginning there were number of reporting system, which many times were redundant and not necessarily important for the success factor of the project and was barrier for sustainability. Fish Bangla had submitted weekly activity report while monthly, event wise and quarterly report were submitted too in parallel to other on demand reports.

## Monitoring and Reporting

Fish Bangla and WorldFish worked together to capture the progress and learning of the Digital Mach Hat project, BANA MEL team monitored field activities, financial expenses and overall progress of the project on daily basis. Fish Bangla project management team fully complied with the requirement of the grantee's requirement.

For monitoring and evaluation, Fish Bangla worked with WorldFish Monitoring and Evaluation team as and when requested by WorldFish to help developing result chain and other evaluation tools.

Field activities monitoring: Fish Bangla's field resources regularly carried out activities and communicated with the Sales Support Service Providers and smallholder fish farmers, on top of that regular interval field visit was done by the management team along with WorldFish representatives. All field activities were done according to the plan which was adjusted from time to time with consultation with WorldFish.

### Financial Reporting

- Monthly ledger
- Monthly detail financial report synced with monthly ledger
- Fund status
- Bank Reconciliation Report
- Report submission cover letter
- Fund request letter

Financial reports included at a minimum the following information:





- Budget versus actual expenses, with current reporting period data and grant to date data.
- Detailed list of expenses that include description, transaction date, amount, expense category, exchange rates used to convert to reporting currency.
- Cost Share or matching progress report for period;
- Vouchers, receipts, bills, log sheet, procurement package, emails to vendors and other supporting documentation as asked by WorldFish.
- Fund balance status – cash received from WorldFish versus expenditures reported to WorldFish
- Besides financial reporting, Fish Bangla team has to submit the following justification and documentation
  - Purchase note, requisition, at least 3 quotations submitted, before going into the selection process, every assets, and equipment list purchase decision has to get approval and follow the guideline of USAID and BANA procurement process
  - Any recruitment shall pass through standard procedure, job description and advertisement shall pass through approval process
  - Any hiring of consultant shall be taken with full approval process and with proper justification, 3 quotation of similar services were mandatory in each and every selection of consultant.
- Asset registrar
- Inventory Registrar

#### Technical Reports

Fish Bangla has submitted the following technical reports to WorldFish

Notes to the technical report

Every technical report shall consists of following

- In case of event, event registrar, participant list, photographic evidence
- Scanned copy of participants list and soft copy of participant list
- Future activities plan
- Any deviation of project planned with proper justification and if such case happen



what is the next course of action

- Farmers Registrar (Name, Address, Phone Number, ID, Signature)
- Farmers profile with pond size, water quality, environment quality
- Farmers agreement paper
- Farmers registration ID



## 7. Completion and Achievement

During the project period Fish Bangla has achieved all planned activities and submitted evidences to WorldFish

- Signing the sub-grant agreement
- Copy of staff joining letter
- Copy of office rental document
- Copy of Beta version of App
- Copy of agreement for server hosting
- Copy of need assessment report
- List of selected Sales Support Service Providers
- Copy of different communication material like Sticker, Leaflet, Flyer, T-shirt, Cap, Umbrella etc.
- Copy of Ad. for FB and Radio
- Invoice copy of laptops and other devices purchase
- Time sheet of staffs engaged with the intervention
- Copy of participant lists/event reports of all completed events including launching event
- Picture of different events
- Link/Copy of final version of Apps namely "Digital MachHaat"
- Schedule of radio campaign
- Sample copy of FB & SMS Marketing
- Copy of Time sheet of staffs engaged with the intervention
- Copy of field allowance sheet of sale support service agents
- Copy of participant lists/event reports of all completed events
- Time sheet of staffs engaged with the intervention
- Copy of field allowance sheet of sale support service agents shared



- Copy of product test report shared
- Copy of approved project completion report/final report submitted

By completing the above activities Fish Bangla has achieved sales of 1075 kgs of fishes among its beneficiaries.

## 8. Conclusion and Recommendation

Smallholder fish farmers are the victims of demand uncertainty and price fluctuation; as a result, final consumers are also victims of preservative contamination in fish. Fish Bangla designed the Digital Mach Hat Project to increase the profit margin of smallholder fish farmers by providing timely, actionable, localized and accurate information through developing a digital marketplace (mobile app supported by a call center) to connect smallholder fish farmers with fish buyers throughout the country. A lot of challenges including irregular fund disbursement, bureaucratic approval and contracting process, time-frame and limitation of qualified technical resources has impeded the final outcome, Fish Bangla still hopes to carry on the learning and harvest the benefit to make Digital Mach Hat platform a successful one but it doesn't want to repeat the same mistakes going forward.

However, Fish Bangla appreciates the contribution and grant from WorldFish, the way it helped in learning to work with a research organization like WorldFish, budget management and it will definitely help Fish Bangla to decide to work with similar organizations in future.

## 9. Annexure - I

### **Fish Bangla team's roles and responsibilities:**

#### I. Team Leader (01 person, Part-time 25%):

Team Leader, was responsible for strategic setup and guideline, overall project supervision, guiding the project team for the success of the project. He will also be the signatory authority of the project with Feed the Future BANA. He will provide his 25% of total time to the project. Where 12.5% of 25% will be covered by WorldFish and rest 12.5% will be contributed by FishBangla.

#### II. Project Coordinator (01 person, 100%):

Project Coordinator was responsible fulltime to the project and was designing the program guideline to the project, develop farmers engagement guideline, develop and execute training modules, oversaw development and execution of promotional materials, sales support activity supervision, and was liaising and maintaining relationship with fish sector related stakeholders. He was also responsible for the



overall supervision, team mobilization, reporting and business focal point in the field. He maintained the field and other field activities, time to time report and supervised the planned execution, maintain close relationship with marketing and procurement team and also with the smallholder fish farmers farming groups.

### III. Field Officer (4 persons, 100%):

Aquaculture Market Linkage Program Field Officer (FO) were responsible for improving capacity of Sales Support Service Providers in the community to implement Food Fish Buying and Selling activities with smallholder fish farmers. They were catalyzing and facilitating online buying and selling activities. They assisted Project Coordinator for the proper implementation of the project activities and were spending approximately 80% time in the field. They also organized, facilitated and conducted in field training (Project orientation, group formation & registration, capacity building, data population and field activation of smallholder fish farmers) for the service providers to improve quality of services. 50% of salary were covered by WorldFish and rest 50% were contributed by Fish Bangla.

However, field officers were recruited with the suggestion from WorldFish although Fish Bangla didn't see enough value addition of such position in the project. However, field officers were helpful gathering smallholder farmers' information from the ZOI but the budget could have been better used if an activation agency were used to create awareness, education and trial users. Also in a commercial organization

### IV. Accounts Director (1 position part time 10%):

Account director oversaw Digital Macchhaat cash inflow and outflow authorizing payment for procurements specially marketing agency and app development agency recruitment. She will also be managing accountant and overseeing their day to day activities. She will also be responsible to make the project financially viable and sustainable in the long run. She will provide her 10% of total time to the project. Where 5% of 10% will be covered by WorldFish and rest 5% will be contributed by Fish Bangla.

### V. Accounts and admin officer (1 position 100%):

The project accountant was responsible for smooth functioning of organizational finance and accounts as per organizational and project policies. He was also responsible for producing organizational financial statements; ensure financial reports of the project.

Although initially it was assumed that, accounts and admin officer would be following generally accepted accounting procedure but WorldFish wanted him to follow WorldFish accounting rules and procedures which had created lots of extra workloads slowed down administration activity which was not beneficial for any commercial organization to become sustainable. The amount of accounting work needed to be done – with the allocated budget in the project, it was not possible to recruit resources with similar types of capabilities with experiences. Also extra



human resources were needed to complete extra paper works.

VI. Call center agents (02 positions 100%):

2 Call center agents were working in this project dedicatedly and were responsible to communicate with Sales Support Service Providers and to customers on a day to day basis to make sales, solve customers' problems related to sales post. 100% of the salaries were contributed by Fish Bangla.

While recruiting call center agents, we faced the following problems:

Call center agents with knowledge on fisheries or aquaculture were difficult to find, however candidates with fisheries or aquaculture qualifications, it was not possible to recruit one with the allocated salary. So we had to recruit resources with general call center experiences.

However, second challenge was selling fish as a job is culturally considered less productive job. So resources with good qualifications and experiences were unwilling to join in such positions.

### **Quarterly Progress details**

1<sup>st</sup> Quarter Progress of Fish Bangla: During the first quarter Digital Mach Hat project had achieved the following progress:

Recruitment: Budgeted amount for the positions specified was not sufficient to attract good resources. However, Fish Bangla managed to complete planned recruitment process on time and all staffs were on board.

Need assessment: Participation of female farmers were very low due to local norms and culture, however Fish Bangla had completed the need assessment study on time.

Sales Support Service Providers Recruitment: Initially Fish Bangla targeted to recruit Sales Support Service Providers from farmer community but after conducting the field study, we had to extend recruitment towards support staffs at aroto to get more useful resources. All sales support service providers were recruited on time.

Office rental: Budgeted amount for office rent was not sufficient to rent suitable offices, however, with extra effort Bagerhat and Khulna office were rented according to plan.

Post harvest management training: From field study during the last week of February, it was identified that, there is a need for the farmers to learn about post harvest management. Fish Bangla conducted field training on post harvest management in the month of May-19.

2<sup>nd</sup> Quarter Progress of Fish Bangla: During the second quarter Digital Mach Hat



project had achieved the following progress:

Research (FGD, F2F) for need assessment & apps improvement: Fish Bangla have tested the app among 42 users and collected feedback and accommodated those feedback later on. The improved version of the app was tested again in June and was launched in the second week of July 2019

Group formation & registration meeting: Although information collection was challenging during the month of June due to bad weather, and in May during ramadan but with extra effort, Fish Bangla was able to reach its target to reach 48 small holder farmers

Community meeting on project orientation: During the month of June due to bad weather, and in May during ramadan but with extra effort, Fish Bangla was able to reach its target to reach 1148 small holder farmers

Post harvest management: Fish Bangla hired an expert to train farmers and Sales Support Service Providers on post harvest management. 53 participants participated in the training program including Fish Bangla staffs."

3<sup>rd</sup> Quarter Progress of Fish Bangla: During the third quarter Digital Mach Hat project had achieved the following progress:

Due to uncertainty of the continuation of the project in the month of August when it was the peak time for this project and also most importantly the harvesting season and subsequent uncertainty of funding in the following months field activities were heavily affected and destroyed the image of this project among fish farmers and local agents. We have seen great lacking of reliability for this project when we returned in the field after 1 month of absence. SSSPs and farmers were reluctant to work for this project because they don't want to be involved in a project which doesn't have a secured future while they have to compromise their regular job."

4<sup>th</sup> Quarter Progress of Fish Bangla: During the fourth quarter Digital Mach Hat project had achieved the following progress:

Due to uncertainty of the continuation of the project in the month of October and subsequent uncertainty of funding in the month of November and December field activities were heavily affected and completely destroyed the image of this project among fish farmers and local agents. We have seen great lacking of reliability for this project when we returned in the field in the month of December after another month of absence.

During the month of January-2020 Fish Bangla tried to buy fishes directly from farmers who posted their fishes in the app in Bagerhat and in Khulna region and tried to sell it in the wholesale market in Dhaka - namely Abdullahpur and Kawranbazar wholesale market. But due to heavy competition and purchase price being higher than other part of the country, it was not possible to make a profit. However, due to good quality of post harvest management of the fishes - it was acknowledged by the retailer that quality of the fishes were better when reached to



Dhaka market compared to others. But fish retailers were reluctant to buy good quality fishes over other fishes because they were afraid that buyers won't pay extra for good quality fishes.

To practice good post harvest management skills the price of the fishes went higher on top of inflated price

Good quality of fishes with good quality of post harvest management will win the heart of the final consumers if they are made aware about the benefit - it can be done through marketing campaign where final consumers will get to know how to choose fresh fishes over others.

When process is prioritized over business activities, success is denied - constant ambiguity of continuation of the project has affected the activities to failure.

Fish Bangla has tried to meet fish wholesalers in Dhaka market but there were strong pushback by fish wholesalers who think this platform will be their competitors and were reluctant to use this app to purchase fishes. However, customers from households and restaurants keep placing orders because they found value for money for the services provided by Fish Bangla.

Traditionally fish wholesalers do not make profit in every shipment. But in our platform farmers are posting their fishes with regular price which is sometimes more than market price."

