



# BUSINESS PLAN

## TECH MARSHALS

### Team Members:

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*“Good business planning is 9 parts execute for every 1 part strategy”*

## Contents

<b>BUSINESS PLAN</b> .....	1
<b>1: Executive summary</b> .....	3
<b>2: Product/Business description</b> .....	3
<b>Form of Business</b> .....	3
<b>Managing Team</b> .....	4
<b>Organizational Chart:</b> .....	4
<b>Vision</b> .....	5
<b>Mission</b> .....	5
<b>Our Goals</b> .....	5
<b>Our Values</b> .....	5
<b>Industry Size</b> .....	5
<b>Industry Analysis</b> .....	6
<b>3: Porter’s five forces model</b> .....	6
<b>1: Industry Rivalry</b> .....	6
<b>2: Bargaining Power of Supplier</b> .....	6
<b>3: Bargaining power of Buyer</b> .....	6
<b>4: Threats of new entrants</b> .....	6
<b>5: Threat of substitute</b> .....	6
<b>Competitor’s analysis</b> .....	7
<b>SWOT ANALYSIS</b> .....	7
<b>4P’s</b> .....	7
<b>Know your customers</b> .....	9
<b>4: Marketing Strategies</b> .....	9
<b>Target market Profile</b> .....	9
<b>Schools in Lahore:</b> .....	10
<b>Colleges in Lahore</b> .....	10
<b>5: Financial Plan</b> .....	11

# Business Plan

## 1: Executive summary

Our product name is “Face Marked”. Facial Attendance system is based on automatic Attendance of Students by facial Recognition. Our Idea is to mark the attendance of multiple students at the same time by recognizing faces.

- **Need**

In Colleges/Universities attendance is still marked on paper. This system is not reliable, unsecure and time consuming. Biometric systems are also available but they all have one big disadvantage that we can only mark attendance on individual bases. Due to these problems, we need a better solution for attendance.

- **Solution**

Solution of all the problems as stated above is our product will mark the attendance in few seconds so it is revolutionary attendance management system in this field. Our solution will solve many problems including saving time, saving resources and minimizing errors.

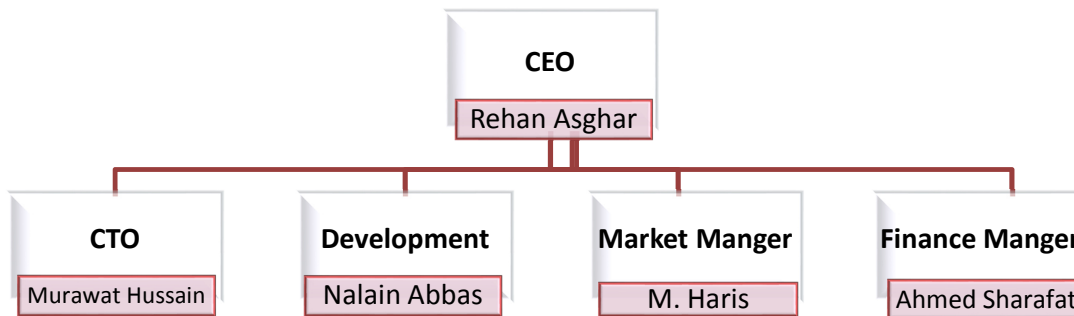
## 2: Product/Business description

Our product is attendance management system. In this system attendance is marked by facial recognition. A camera will be placed at the front of the class which is connected to the software at the back. The front consists of an IP based Digital Camera which will be connected to the back end software. Software will process each image and will match the identified persons with the database. If the person is matched his/her attendance will be marked. Camera will take a photo and send it to the software for image processing. Software will recognize all the faces in that image and mark their attendance.

### **Form of Business**

Our form of business is company based. We are five company members and role of each member in the company is clearly defined. Our company will be registered under the act of SECP 2017.

## Organizational Chart



### Managing Team

#### 1) CEO:

- Leadership
- Delegating Abilities
- Result orientated

#### 2) Marketing Manger

- Strategic Thinking
- Good Presentation Skills

#### 3) Finance Manger

- Managing Budget
- Collecting, preparing and interpreting Reports, Budget, accounts and financial statements

#### 4) Development Head

- Strong development Skills
- Energetic
- Good Research Abilities

#### 5) Chief Technical Officer

- Strong Network Skills
- Strong skills n Photoshop
- Good Skills in documentations
- Good Communication Skills

## Vision

Vision of our company is to facilitate Education Institutes of our country.

## Mission

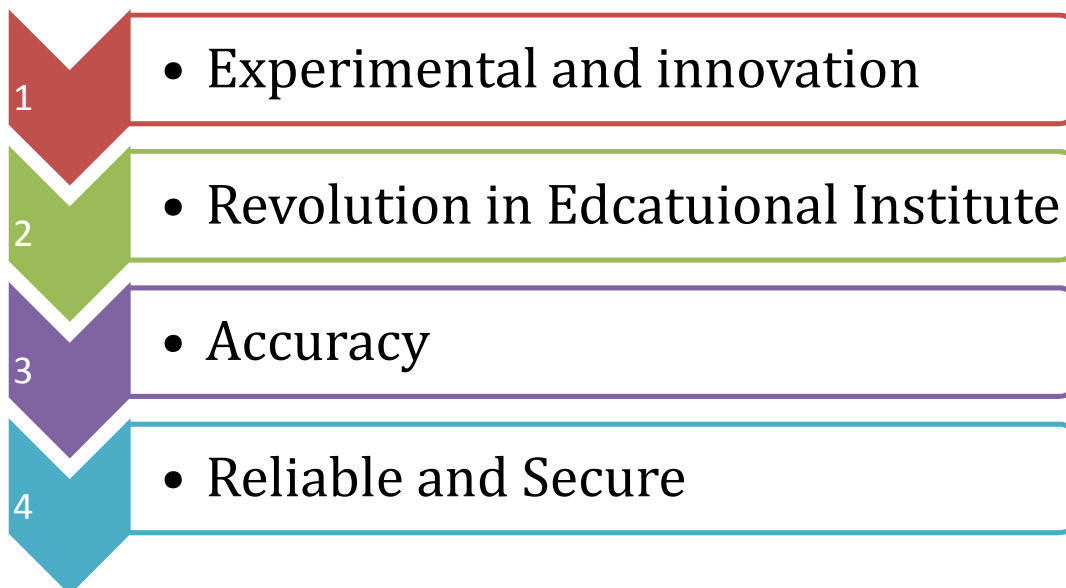
To automate the attendance system of Educational Institutes

## Our Goals

Every company has some defined goals, we have as following;

1. To make our product reliable.
2. To make an efficient facial recognition system
3. To make a secure system.

## Our Values



## Industry Size

Attendance is the most important part of any institute. The industry size is huge. There are already many companies or software houses who are developing different sort of bio metric attendance systems. These systems have been implemented in different sectors including educational institutes but there has been a limitation.

There are **20** major software houses in Lahore who are designing bio metric systems. They are designing these bio metric systems for different industries. Our product is specially designed for educational institutes. Only in Lahore there are more than **185+ colleges** and more than **100 universities** of different departments. Our target industry is Lahore and we have great opportunity.

## Industry Analysis

In industry all the pre – existing products are implemented in educational systems up to some extent but none of them implemented fully at the level of students attendance. Our product is one of a kind which is specially designed for attendance of students by facial recognition.

A thumb impression attendance system costs round about half of our product but our **unique proposition**, advanced technology and latest trend will make our product much preferable in market.

## 3: Porter's five forces model

### 1: Industry Rivalry

“Biometrics” and “Mobile Based” are the product that had completely work differently and consume time just like marking the attendance sheets in these you have to go through certain options more precisely. But product is very unique that automatically takes the match the photo of student then attendance is marked not only the single student but all the students at a time. So there is no hurdle and no competitors of our product in market.



### 2: Bargaining Power of Supplier

Our major supplies will be a digital Camera, Wires for networking, Camera holders etc. The bargaining power of supplier in our product will be medium to high.

### 3: Bargaining power of Buyer

Our product's price depends upon the requirement of the buyer. The bargaining power would be medium to higher. Price could be negotiable but it will increase or decrease according to the size of institute.

### 4: Threats of new entrants

There are always threats of new entrants but they could be minimized. The product with same feature as our product is not implemented yet at this level but if the new entry comes then we could minimize its effect by improving our product, functionalities and features. Providing extra features and advertising the company will reduce the new threats.

### 5: Threat of substitute

There are many companies who have developed different bio-metric systems but the functionality we are providing is not provided yet. So we have a good chance of survival in

the market. Substitutes could be competitive in the market but our unique value proposition will minimize the effect of threat of substitutes.

### Competitor's analysis

#### SWOT ANALYSIS

<b>Strength</b> <ul style="list-style-type: none"><li>• Unique and Reliable</li><li>• Provides fully autonomous system</li><li>• Easy to install and use.</li></ul>	<b>Weakness</b> <ul style="list-style-type: none"><li>• Expensive than other bio metric systems</li><li>• Weak Image Processing</li><li>• Complex to code</li></ul>
<b>Opportunity</b> <ul style="list-style-type: none"><li>• Strong competitor for existing bio-metric systems</li><li>• High Demand</li></ul>	<b>Threat</b> <ul style="list-style-type: none"><li>• Product can be copied.</li><li>• Threat of new entrants</li></ul>

### 4P's

#### 1. Product

Our product consists of two parts. The front end and back end. The front consists of an IP based Digital Camera which will be connected to the back end software. Software will match the identified persons with the database. If the person is matched his/her attendance will be marked.



#### Components

IP Camera, Database, Image Processing Software, Networking/jumper wires and Bluetooth Module.



## 2. Price

Pricing of our product depends upon the requirement of educational institute. Price of product will vary according to the size of institute and the number of classrooms. We have designed a basic package for an institute of 20 classrooms.

**Price of one unit = RS 300,000** including **20** Cameras and Installation.

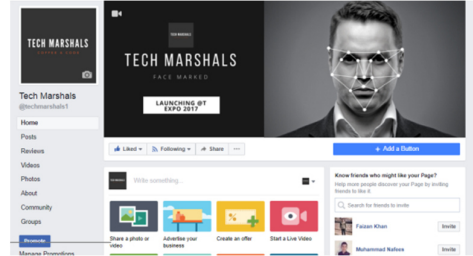
**Price = Cost + Desired profit**

**300,000 = 60,000 + 240,000**

## 3. Promotion

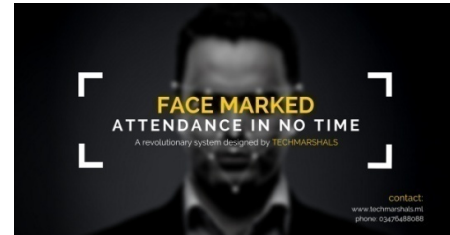
- Facebook Page

Social media is the best online presence now days. We have launched our company Facebook page which contains all the important information about the company, Product and contact details etc.



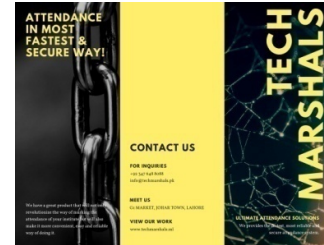
- Facebook Ad

We have designed a Facebook ad about our product Face Marked and we will post a campaign on Facebook. Facebook have different packages for paid ads and we have added this in our financial plan under marketing expenses.



- Brochure

We have designed brochure for the marketing of our product. Brochure has all the details about the company, our vision, mission and the product details.



- Poster

## 4. Place

- Office

Our product will be available at our office. We are selling as a Service for institutes so they can buy or contact our office.

- Website

Online store is the emerging market place so our product will be available at our website. Any buyer could order our product online and then we will contact them back.



## Know your customers

“Facial Recognition Attendance System” is specially designed for the attendance of students in educational institutes so following would be our applications

- Schools, Colleges, Universities attendance.
- Employee Management System

And the owners of these institutes would be our customers.

## 4: Marketing Strategies

### Target market Profile

Segmentation	
<b>Geographic</b>	Educational institutes of Lahore. Only in Lahore there are more than 200+ Colleges and 185+ universities.
<b>Demographic</b>	Our main Target is Schools, Colleges and Universities. This software could be operated by management of institute of any gender and Adult Age person.
<b>Psychographic</b>	Social class: not required Life Style : urban, rural
<b>Behavioral</b>	Benefits : quality, average price, latest technology with latest feature Loyalty Status : strong Usage status : first time users

### Target Market:

Our main target market is the educational sector in Lahore. Mainly we have two sectors:

- Government Sector
- Private Sector

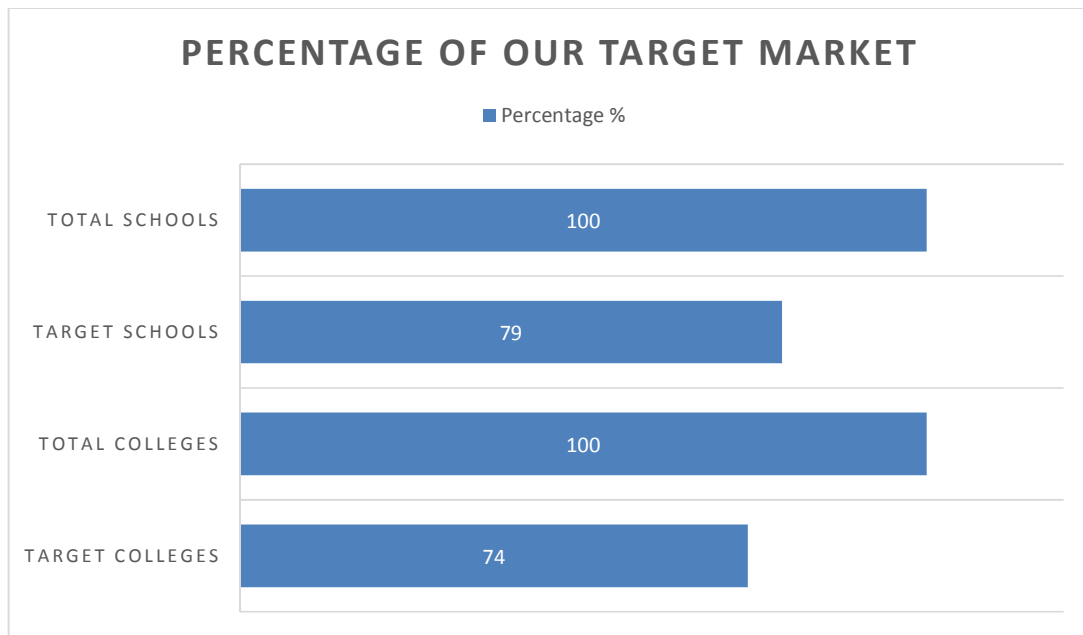
Approaching Government is not easy and efficient way so Private sector is our prime focus. There are 5000 registered private schools and 136 registered Inter, Degree and post graduate colleges in Lahore.

**Schools in Lahore:**

Out of these 5000 schools, every school is not our customer so our target is at least top 100 private schools. These top private schools include LACAS, LGS, American Lycetuff, Pak Turk and Educators etc.

**Colleges in Lahore**

Out of these 136 private colleges, every college is not our customer so our target is at least top 50 colleges (including Inter, Degree and Post Graduate). Some top private colleges includes Superior group of College, Punjab group of Colleges, Concordia, LSE, Imperial College etc.



## 5: Financial Plan

### Initial Investment

Initial Investment				
Sr. No	Description	No. Of Units	Cost/Unit	Amount (RS)
1	Furniture Table Executive Chairs Other Chairs	3 3 5	5000 3500 2000	35,500
2	Laptops	5	25000	125,000
3	Printer	1	10,000	10,000
4	Air Conditioner	1	20,000	20,000
5	Power Backup – UPS	1	25,000	25,000
6	Security Camera	2	5,000	10,000
7	Matlab License	1	250,000	250,000
8	Website (Domain, Hosting)	1	5,000	5,000
<b>Total</b>				<b>480,500</b>

Operational Cost				
Sr. No	Description	Cost / Unit	Cost / Month	6 months
1	Office Rent	15000	15000	90000
3	Internet Charges	5000	5000	30000
4	Electricity		10000	60000
5	Office Boy	10000	10000	60000
6	Repair and Maintenance		1000	6000
7	Salaries	15000	90000	540000.00
8	Marketing / Advertisement		20000	120000
8	Misc.		2000	12000
<b>Total</b>			<b>153,000</b>	<b>786,000</b>

### Start UP Capital

<b>Initial Investment</b>	<b>Operating Cost 6 Months</b>	<b>Total</b>
480500	786000	1266500

### Source of Fund

Total Start Up Capital Required = **1266500**

Investor's Investment = **50% = 633,250**

Investment by Company = **50% = 633,250**

### Profit Sharing:

Share of Company = **75%**

Investor's Share = **25%**

### Pro forma Income Statement:

Revenue	<b>3,000,000</b>
Operating Cost	<b>786000</b>
Depreciation	<b>60400</b>
Camera Cost	<b>600000</b>
Net Income	<b>1446400</b>
15% Tax	<b>216960</b>
<b>Net Profit</b>	<b>1229440</b>

### 6 month profit sharing

Investor = **307360**

Directors = **922080**

**Break Even Point:**

$$= (\text{Depreciation} + \text{Operating Cost}) / \text{Net Profit per unit}$$

$$= 846400 / 240000$$

$$= \mathbf{4 \text{ units}}$$

$$\text{Break Even Point} = \mathbf{2 \text{ months}}$$

**Pay Back Period:**

$$633250/307360 = 2 \text{ periods of 6 months} = \mathbf{1 \text{ year}}$$