



**BDM capstone Project
Final Submission**

Data driven solution for Cost Estimation Accuracy for profit maximization

Roll No: 22f3001657
Name: Sayan Bhowmick
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Executive Summary

The following project is about Cost Estimation & Profit Maximization in a data driven way. The project is done for a small interior decoration business 'Pioneer Furnishers' which mainly operates in Kolkata, West Bengal.

The main objective of this project was to understand the factors which majorly affect the estimated cost of a project alongside understanding the major reasons of less profitability for the business. At last, after all the required analysis is done, necessary insights are shared with the business to be implemented as per needed to get back its old glory.

Project-wise data for roughly 10 months (each project each month basis, minor overlaps were ignored) was collected from the business with the permission of the owner. The raw data had no significant amount of missing data or unnecessary noise, which made the data cleaning process a bit easier. The analysis process is divided into two parts, **Financial** and **Business**. After the data was cleaned and was ready for analysis, analysis was done on some specific **stock keeping units (SKUs)** which were common in all projects because wood prices actually fall under fixed cost and it can not be manipulated by the business owner. Under Financial analysis, necessary data was extracted from the main cleaned tabular data and necessary graphs were plotted accordingly for inference. Under Business analysis, required business tools and services marketing concepts are used to suggest the proper strategies to reduce the losses and optimize on the respective resources.

After all the required analysis, necessary insights were shared with the business owner for further implementation and the necessary steps for implementation of the same.

Analysis Process

Raw Data Link – [Raw Data](#)

Analysis on Data - [Analysis](#)

Updated analysis for final submission - [Updated Analysis](#)

To study the sales trend of the business, all the months from May 2023 to February 2024 alongside their corresponding Project number, manufacturing cost and Selling price of the manufactured product, listed in 3 columns. A line chart with months on horizontal axis (x-axis) and quoted selling price on the vertical axis (y-axis). To identify the rate of drop in sales, a linear trendline is plotted to the chart. A frequency distribution of sales data with classes of revenue as 0-15 thousand, 15-25 thousand, 25-35 thousand, 35-45 thousand, 45-55 thousand and 55-65 thousand is generated using **Frequency** function of Excel. These calculations helped to observe the main aspects like what is the range of frequency revenue, how the revenue is varied from its mean value, in how many months good sales is recorded etc.

For each quarter from Q3 of 2023 to Q2 of 2024, quarterly revenue is calculated by adding up the values of corresponding months. From this calculated data, the Quarter-over-Quarter (QoQ) change is then calculated using the formula:

$$\% \text{ QoQ change} = ((\text{Revenue of current quarter} / \text{Revenue of previous quarter}) - 1) * 100$$

These quarterly revenue values and percentage change of QoQ is plotted onto a combo chart (combo chart is a bar + line chart) on two different axes for understanding the quarterly performance of the business.

From the collected data, we sorted the data for SKUs and the labor costs separately. A snap of the labor cost table is added below:

SL. No.	Charges and Costs	Amount
1	Making Charges	₹ 3,600.00
		₹ 9,600.00
		₹ 4,800.00
		₹ 3,500.00
		₹ 1,500.00
		₹ 5,250.00
		₹ 4,000.00
		₹ 11,000.00
2	Polish Labour Charges	₹ 900.00
		₹ 2,500.00
		₹ 1,000.00
		₹ 900.00
		₹ 2,200.00
		₹ 900.00
		₹ 1,500.00
		₹ 2,500.00
3	Combined Polish Cost	₹ 600.00
		₹ 2,000.00
		₹ 800.00
		₹ 600.00
		₹ 1,800.00
		₹ 600.00
		₹ 1,000.00
		₹ 1,500.00

Table-Fig-1: Non-Fixed costs separated from the actual tabular data

Labor cost which includes Making charges and Polish labor cost has major influence in the manufacturing cost. We used following functions for both the variables (Making charges and Polish labor cost):

SUM, AVERAGE, MAX, MIN and STDEV.P – to calculate total, average, highest, lowest and standard deviation for Making charges and Polish labor cost separately. Also, range is calculated using the highest value – lowest value.

Surprisingly, after calculating these values it can be seen that got the range of ₹9,500 the value of standard deviation is ₹2870 which is a high value for Making charges and for a range of ₹1900 the value of standard deviation is ₹697.78 which is a high value for Polish labor cost. To understand better we need to plot graphs with trendlines (if needed) for further analysis. At last, to understand which variable is affecting the most in determining the core manufacturing price. Another surprise is for one of the SKUs which is common in some of the projects and after the analysis something very unexpected was the outcome of it.

Also, a combined cost analysis is done to understand which variable among the following: Combines manufacturing cost, making charges, Polish labor cost and Porter cost determines the core manufacturing price.

The extracted table with consumed lamination (quantity in sheets or pieces) is shown below for reference and the detailed analysis is later in the report under **Results and Finding** section.

Quantity(in piece/sheet)	Sunmica/Lamination price	Sunmica/Lamination price per piece
3	₹ 1,800.00	₹ 600.00
9	₹ 5,500.00	₹ 611.11
2	₹ 1,500.00	₹ 750.00
2	₹ 2,000.00	₹ 1,000.00
2	₹ 2,400.00	₹ 1,200.00
2	₹ 2,400.00	₹ 1,200.00
2	₹ 2,000.00	₹ 1,000.00
3	₹ 3,600.00	₹ 1,200.00

Table-Fig-2: Project-wise Sunmica/Lamination price list separated from the SKU tabular data

Results and Findings

Financial Analysis:

From the line chart of overall sales trend, it can be clearly observed that even though there are some ups and downs in the project-wise (approximates monthly) revenue sales values, the linear trendline shows a negative slope which indicates a fall in sales. From the chart we can say that if this trend is followed then the business will face zero sales in the future.

For further inference, we can say that the lowest sales happened in Q1 of 2024 in the month of February and the highest sales happened in Q3 of 2023 in the month of September.

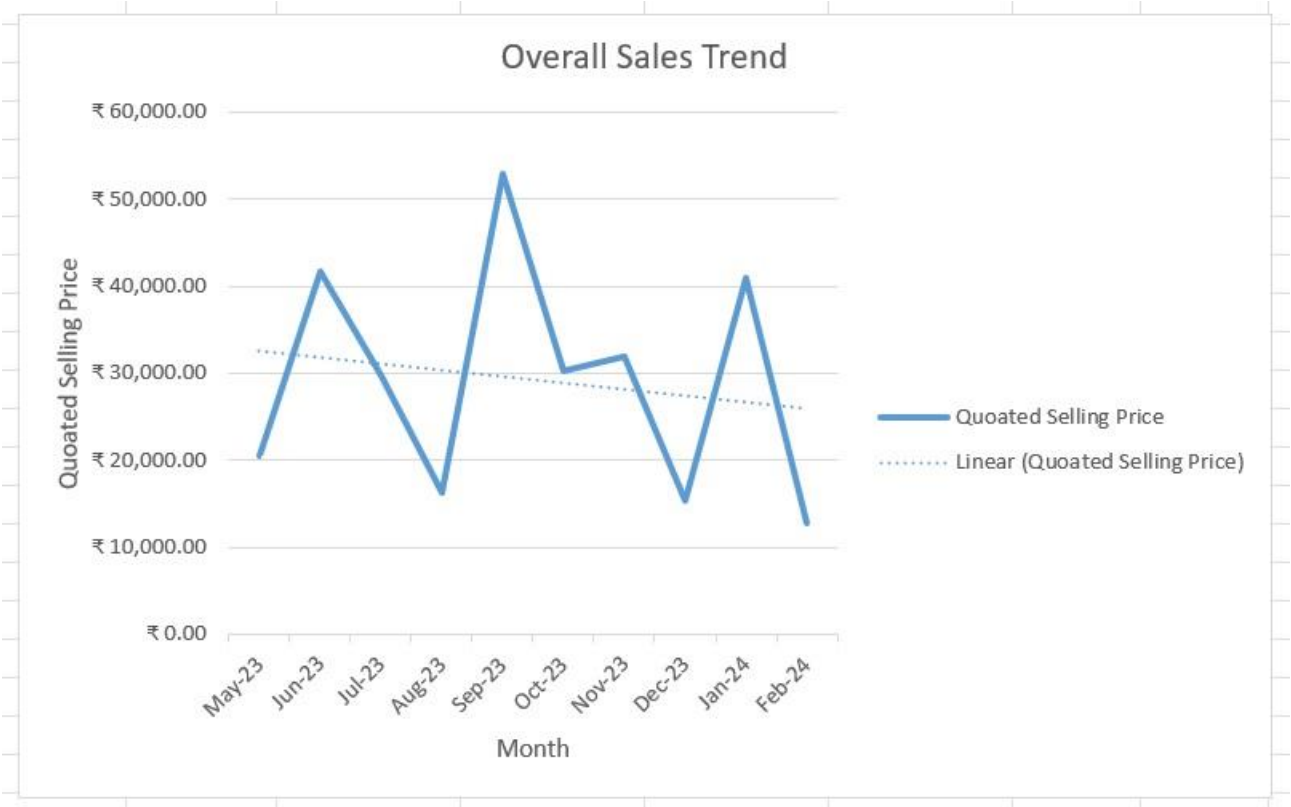


Fig-1: Overall Sales Trend

A combo chart (bar + line) is also plotted for better understanding of revenue and QoQ. In the graph, the line represents QoQ and the bars represent the revenue.

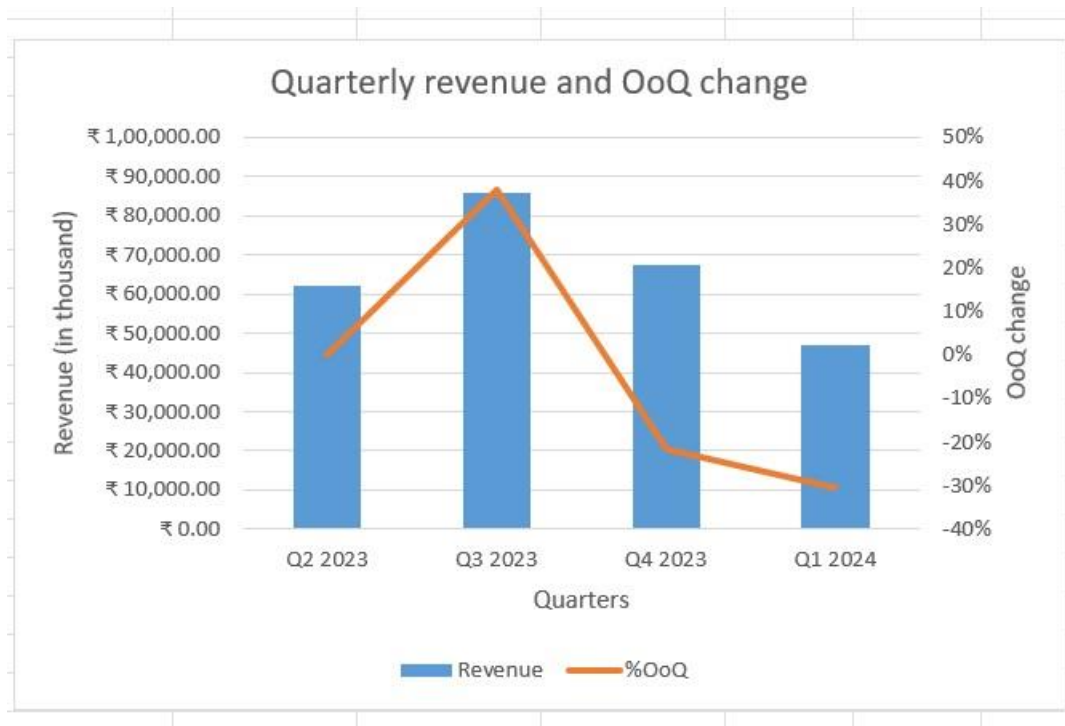


Fig-2: Quarterly revenue and QoQ change

From the graph, it is seen that there is a drastic drop on quarterly sale from Q3 2023 to Q4 2023. From Q2 2023 to Q3 2023 there was a significant hike in revenue/sales of 38.04% but from Q3 2023 onwards the revenue dropped drastically. From Q3 2023 to Q4 2023 the drop was 21.48% (negative value) which further dropped to 30.49% (negative value) in the span of Q4 2023 to Q1 2024.

Now comes the first surprise, which no one saw coming. By looking at the raw data even after separation of the SKUs and labor cost, it was very unlikely to have so much volatility in labor costs which plays a huge role in core manufacturing cost.

To understand, some descriptive statistics is done which is already mentioned before but now for better understanding a combo chart is plotted where the line represents Polish labor cost and the bars represent the Making charges also the horizontal axis (x-axis) represents the months of the year.



Fig-3: Combo chart for Making charges and Polish labor cost

From the above combo chart, we can see that there is a significant amount of volatility in both Making charges and Polish labor cost. To understand the trend better, two linear trendlines (one for Making charges and another for Polish labor cost) but it can be seen that plotting trendlines in the combo chart, it is not helping that much.

As a result, for better inference a line graph is plotted where horizontal axis (x-axis) represents ‘months’ and the vertical axis (y-axis) represents ‘Cost’. In this line graph two colors are used, **Yellow** for Polish labor cost and **Blue** for Making charges. In this chart it is clearly seen that Making charges is more volatile as compared to Polish labor cost. Now, on this line graph two linear trendlines are plotted. The **Yellow dotted** one is for Polish labor cost while the **Blue dotted** one is for Making charges.

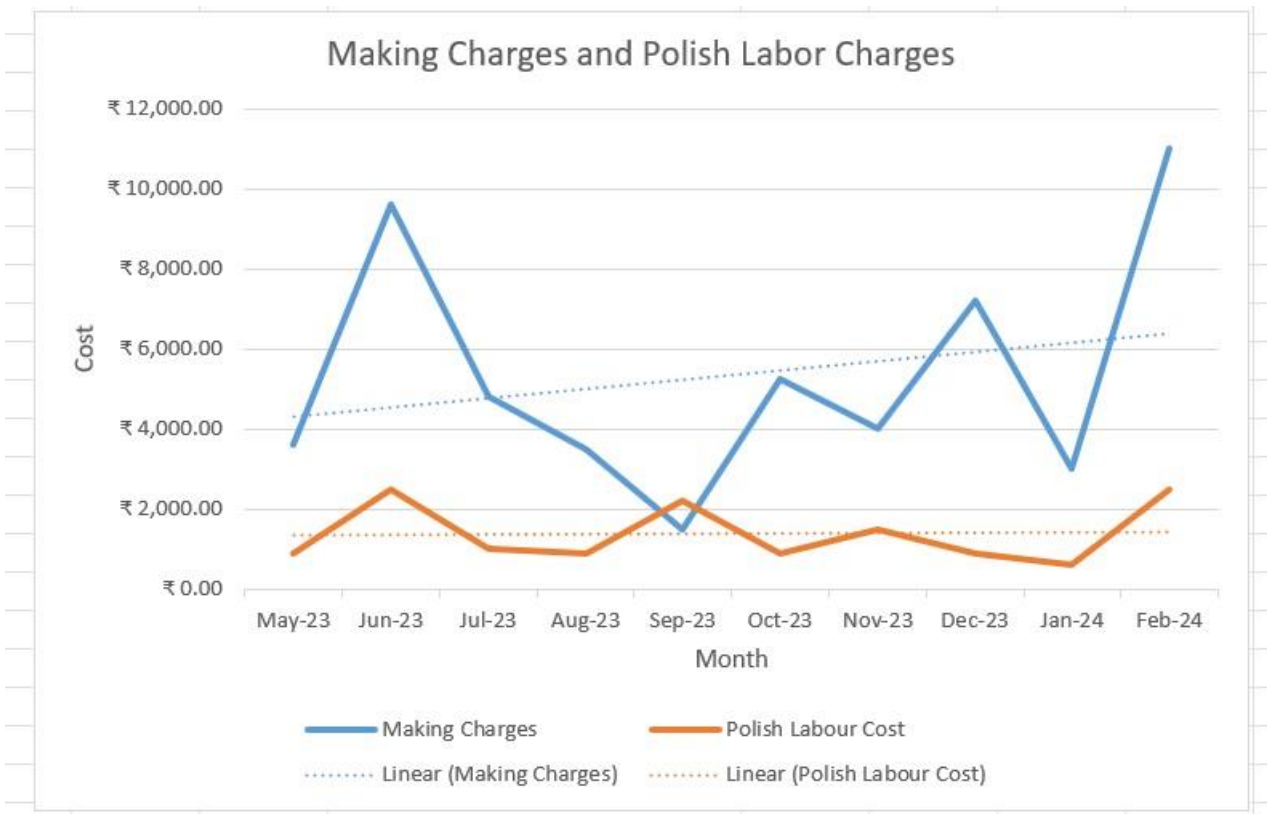


Fig-4: Line chart of Making charges and Polish labor cost

From the combination of the two-cost plotted in a single chart, it is clearly seen that there is a sharp up-trend in Making charges. This finding was totally unexpected since the owner also did not figure this problem in the business.

For further understanding, a separate line chart is plotted for Polish labor cost to see if there is also an up-trend.



Fig-5: Line chart of Polish labor cost

The above line graph, horizontal axis (x-axis) represents ‘**months**’ and the vertical axis (y-axis) represents the ‘**Cost**’. Also, the **Blue dotted** line is for the linear trendline while the **Solid Blue** line is for the values of Polish labor cost. From the above graph, it is hard to infer that there is a clear up-trend for Polish labor cost but the trendline is very slightly upwards which will not affect the core manufacturing cost in long run.

The second surprise is about one of the SKUs which was common for some of the projects and that SKU is Sunmica which is also known as the Lamination. It was a complete surprise for the owner as well because the owner had never paid attention as the price increased for lamination. It was because the increase in price was not that significant that is why the owner did not notice it at all.

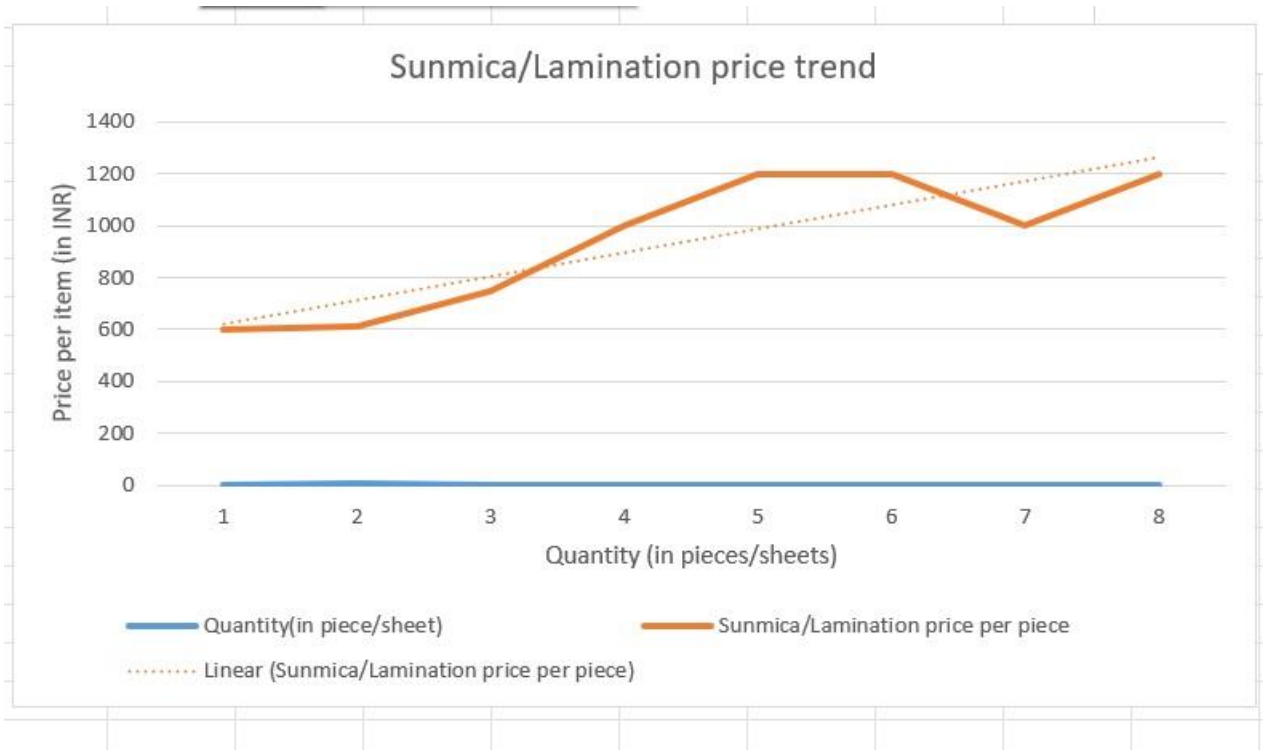


Fig-6: Line chart of Sunmica/Lamination price trend

In the above line graph, quantity (in pieces or in sheets) is plotted over the horizontal axis (x-axis) and price per item (in INR) is plotted over the vertical axis (y-axis). From the above graph, it is clearly seen that, there is an up-trend in the lamination price and a linear trendline proves the claim clearly. Also, we can infer that in past 10 months the company has consumed a good amount of lamination for their projects as well.

SKUs like Wooden bit and Fevicol (Fevicol falls under Glue category) were also a had some kind of a price hike, but the hike was not that significant. During analysis, it is seen that wooden bit price trendline is very close to a straight line parallel to the horizontal axis (x-axis) which makes it a neutral SKU. Whereas for Fevicol, we cannot say that.

The two graphs shown below (fig-7 and fig-8) and the explained analysis will clearly justify the above statements made about the SKUs Wooden bit and Fevicol.



Fig-7: Line graph for Wooden Bit price trend

In the above line graph, horizontal axis (x-axis) represents Quantity consumed (in pieces) and the vertical axis (y-axis) represents the cost per item (in INR). Now from the above graph it is seen that, the trendline for price per item is almost a straight line parallel to the horizontal axis (x-axis) which makes this SKU a neutral one (Neutral SKUs do not have massive impact in the final outcome and for this case it will be affecting the core manufacturing cost).



Fig-8: Combo chart for Fevicol price

In the above combo chart, horizontal axis represents the amount of quantity consumed (in kilograms) and the vertical axis represents the price in INR. The **Grey Line** represents the Total price (in INR) while the **orange bars** do represent price per kilogram. For clear inference, a linear trendline is also plotted for total price and it can be seen that, there is an up-trend in Fevicol prices as well.

Another SKU which is observed which is ‘Glass’ which had some price hike in past 10 months.

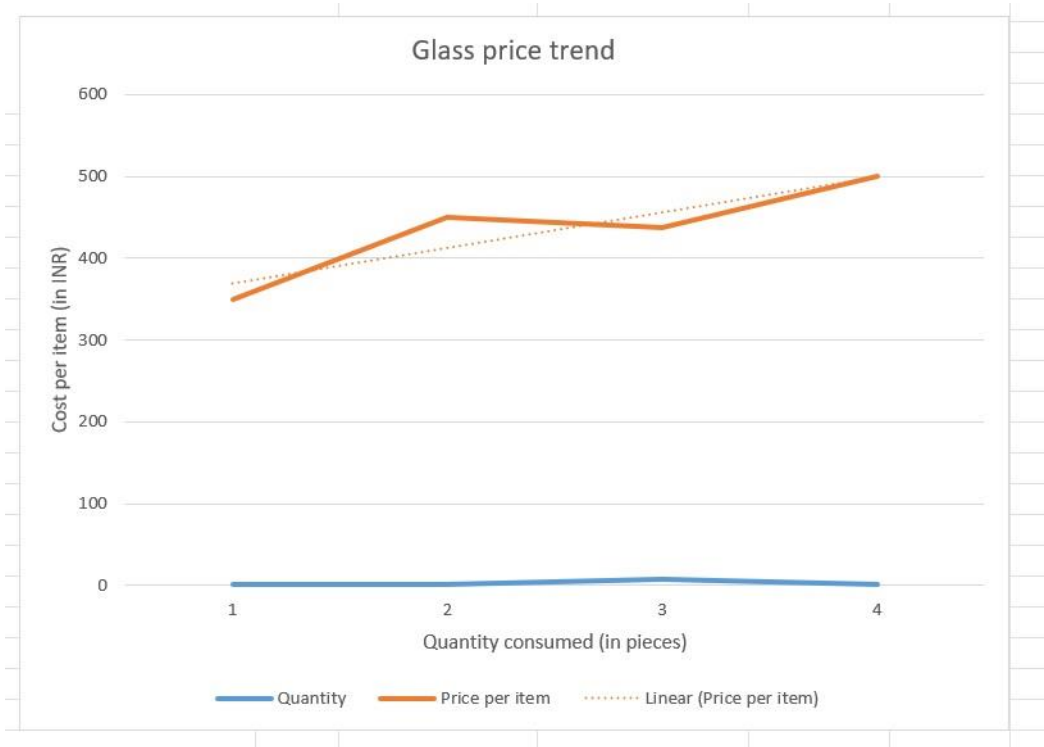


Fig-9: Line chart for Glass price trend

The above graph has quantity consumed in pieces/sheets plotted on the horizontal axis (x-axis) and cost per item (in INR) on the vertical axis (y-axis) alongside a linear trendline for glass price trend analysis.

From the above graph, it can be seen that there is an up-trend in price cost per piece/sheet of glass but also it can be seen that there is no significant hike.

The overall analysis shows that whatever the business owner claimed about the price hike in some certain SKUs was totally true but the analysis also showed that there are some certain SKUs such as ‘Glass’ and ‘Sunmica/Lamination’. Apart from the SKUs, it is also seen that labor cost mainly Making charges has a huge volatility and it is also seen that there is a clear up-trend in that variable of analysis.

At last, project-wise costs are separated on a new sheet in a tabular form. After that, the table is again was cleaned (some costs were summed up for easy calculation). A line chart is then plotted based on that cleaned tabular data, to see which cost variable is affecting the core manufacturing cost the most. The fixed cost variable cannot be changed or manipulated by any means until and unless the market decides depending on the demand and supply property. Apart from fixed cost there are **three** more cost variables and those are: Porter cost, Polish labor cost and making charges.



Fig-10: Line chart for Overall Cost Price

The above graph (Fig-10) is about the overall cost price line chart which got four different variables to look at. Firstly, the horizontal axis represents the **months** whereas the vertical axis represents the **Cost (in INR)**. The **Blue** line defines the **Combined Fixed Cost Amount**, the **Grey** line defines **Making charges**, the **Yellow** line defines **Porter Cost** and finally the **Orange** line defines **Polish labor cost**.

From Fig-10, it can be seen that the **Grey** line which defines Making charges has a huge impact in determining the final manufacturing cost. We are totally omitting the combines fixed cost because as discussed earlier the business cannot reduce or manipulate that value as it solely depends on the market and its ‘demand and supply’ as well as some other factors which is not in the company’s hand.

Business Analysis:

After the Financial analysis, business analysis using the services marketing concepts and theories have been done, one of them is **7Ps Marketing Mix**.

It says as well as explains seven segments with respect to the select business: Product, Price, Promotion, Place, People, Process and Physical Evidence.

Detailed explanation for each segment for the business is given below -

Product: The product lies in between the window of **Pure Commodity Good** and **Pure Service**. The quality and value of the product is also a part of this segment. After talking to some of the clients, all of them said the price of the products do justify the quality as well as they are extremely satisfied with the product and service provided by the company.

Price: Now for price segment, it is clearly seen after talking to of the clients of the business that the clients/consumers are satisfied with the listed/quoted price for the products and services provided by the business. Price plays a very crucial role in services business due to high competition and the uncontrollable factors related to the business.

Promotion: Now about promotion, this is a very interesting part, because the business has no online presence till date but still it gets contracts. The promotion part is actually works on 'Word of Mouth', which concludes that all of the consumers of the business (Company) are totally satisfied with the products and the services provided to them.

Place: The business runs totally offline till date. If some consumer wants to give a contract to make some wooden furniture or for overall interior decoration then the only way to find the business is via phone (Business owner has mobile phone connection).

People: The whole business is run by the owner himself. Talks of new projects or if any existing consumer/client needs something to be fixed, everything is managed but the business owner. The business got five to six workers depending upon the availability of the projects as well as two workers exclusively to work on polish works.

Process: All the measurements are done by either the business owner or his son or by both while the work is done by the workers who are hired for that particular project. All the process, from project inspection to project finalization, everything is monitored by the owner. Some designs are made by the company and some are handpicked by the clients.

The delivery of the products does depend on the project, if the project work is done at the place of the client, then no delivery is needed while on the other hand, if some specific products such as box cot or chairs is mostly made at the workshop and then it is delivered to the client/consumer.

And at last,

Physical Evidence: Whenever the workers are working at the client's place, the owner is very careful about the sanity during the work as well as after the work is done either totally or for that particular day. After talking to some of the clients it is concluded that the cleanliness is maintained as well as the facilities provided by the business. The staffs are extremely well mannered and polite.

The business/company caters for every project being offered to them and is not targeted to only high paying clients from a Private Project point of view. The company provides its services/work to its clients as per the client's needs and if the founder/owner of the company feels during the meeting with the client before the project deal is finalized that the work cannot be done with such small amount of money otherwise the quality will be compromised either the company does not take the contract or informs the client that the quality of work will be degraded. If the client agrees to degraded work/products with less amount of money spent then only the project is taken. There were cases as well where the client agreed to pay some more amount to get good products and services and there were clients in the past who just said they will pay any amount of money but their work should be top notch.

So, from **Pricing Strategy Matrix**, we can clearly say that the company is offering all the names mentioned in the upper triangular part of the matrix. The Pricing Strategy Matrix is shown below –

	High	Medium	Low
High	Premium	High Value	Superb Value
Medium	Over-Charging	Average	Good Value
Low	Rip-off	False Economy	Economy

Table-Fig-3: Price Strategy Matrix with Markers

In the above graph, the horizontal High, Medium and Low represents the **Price** of the project or product while the vertical High, Medium and Low represents the **Quality** of the product/work.

The values in Green, shows the upper triangular part of the price strategy matrix.

The interior decoration business is a combination of **Pure Commodity Good** and **Pure Service** which is one of the reasons why to set the price for any specific work/product is extremely hard mostly.
Pure Commodity Good is Salt, Sugar, Rice etc while Pure Service contains Local enquiry desk, public conveyances etc whereas Doctor’s Advice is in the middle and is considered as the equilibrium point which means it neither falls under pure commodity good nor pure service just like the Overton window concept in political science.

A small window format of Pure commodity good and Pure service is shown below where if we move to the far left, we move towards the pure commodity goods whereas the far right denotes pure service –

Pure Commodity Good					Pure Service				
Salt	Soft Drinks	Radio	New car	Fast food service	Doctor’s advice	Certificate	Running account	Public conveyances	Local enquiry desk

Table-Fig-4: Pure Commodity Good – Pure Service window

Interior decoration business falls in between **New car** and **Public conveyances**. The justification of such inference is easy, some client can hire an interior decorator just to share his/her insights on any project which makes it a service. On the other, if some client hires an interior decorator to perform some work, then it becomes commodity good.

There is also one more factor, which should be kept under consideration from the business point of view and that is **Types of Buying Decision Behaviour** by the clients.

The chart form of ‘Types of Buying Decision Behaviour’ is shown below -

	High Involvement	Low Involvement
Significant Differences between Brands	Complex Buying Behavior	Variety-Seeking Buying Behavior
Few Differences between Brands	Dissonance-Reducing Buying Behavior	Habitual Buying Behavior

Table-Fig-5: Types of Buying Decision Behaviour

The following chart form explains that if a product/service has high involvement and the same is provided by several different brands then the customer will show a complex buying behaviour whereas if the involvement is low as well as the same is provided by different brands but the number of brands is less then the customer shows a habitual buying behaviour. We can infer a major thing from this study, and that is if a customer gets options and the cost of the product/service is high, then the buying behaviour becomes complex, which could be a possible case in terms of interior designing project which starts from 50,000 Rupees onwards.

Now, for the analysis, there are several companies which provides interior decoration services to several clients both personal and professional. After talking to some of the clients of 'Pioneer Furnishers', it is understood that there is a significant amount of shift in buying furniture as well as the overall interior decoration work field. Some customers are more inclined towards renting furniture from some well-known companies whereas there are still some number of customers who are willing to buy furniture as well as they are willing to pay the required money for their required need as per the whole interior decoration work goes.

It is very interesting to see that there are still some new age customers who are willing to own their own furniture rather renting those from some well-known company and there are some customers who are aged and they want to rent their furniture from those well-known companies.

As per the analysis, most of the clients want to own their furniture which means if the business gets a project either it will get the full interior decoration project or it will get projects as per the client's need.

Recommendation to the business

Pioneer Furnishers is facing a tough time accepting their crashing revenue. The trends are clearly showing a warning sign that immediate measures should be taken and are extremely important for the survival of the company. To compensate the losses due to drop in revenue, the business owner has already taken some decisions in terms of controllable operating expenses -

Optimal usage of the available resources to minimise the cost and profit maximization:

- Suspended CCTV operations to save power as well as its maintenance cost
- Disconnected the dedicated landline connection for the business
- The owner is working himself on some projects full time instead of hiring some workers to save the labour cost

The above actions could reduce the cost incurred to the company but it cannot help the business towards addressing the actual problems. For this purpose, we can frame some set of recommendations based on the collected and analysed data.

From project-wise revenue analysis:

After understanding the project-wise (approximately monthly) revenue analysis in terms of quarters which also can be seen in terms of seasons, we can see that, the months April, May, June which is Q2 of a year and July, August, September which is Q3 of a year the sales are notably good. However, the sales slowly drop as we step into the final quarter of the year as well as we enter the first quarter of the next year.

It is known that from April to first week of August is wedding season. So, the ideas stated below might help the company get some more private projects as well as to minimize the costing of the manufacturing:

- To save wastage of raw materials, the business should buy exact number of raw materials.
- The business should increase the use of machines such as: Wood and Plywood cutters, electric planners, electric drills, electric grinders etc to save manual labor cost.
- While the manufacturing is going on inside the company's own workshop, to save electricity, some ground rules should be made such as: after the day's work is done and the workshop is going to be closed for that day, turn all the lights off (it is noted that the workers don't turn them off) and another way to save electricity is to change the existing 100W and 200W bulbs with energy efficient 9W to 12W LED bulbs (as per requirement).
- During the off-season (non-wedding season) when the chance of getting private projects is less, that time the business should take small projects provided by the bank (These small projects are not the old repairing work)
- In some small projects use of materials which were extra and came from some old projects should be used if the raw materials are in good condition and will not affect the end product. This will help the company to reduce its fixed cost to some extent.

From Cost analysis:

After the cost analysis, we have seen a lot of factors which actually affect the core manufacturing cost but some of those variables fall under the fixed cost part which cannot be manipulated or be controlled by the business. Still the business can follow the ways which are mentioned below to minimize the costing:

- The owner has to supervise the workers again just like he used to in the past such that the workers do not make any mistakes which will lead to wastage of raw materials.
- The owner should hire skilled workers more who are passionate about the work.
- The owner should hire workers who are charging fewer daily wages as compared to the existing workers who are charging way too much for every project or the owner can hire workers on a contractual basis.
- For huge projects, the owner should tie up with some other small company which will provide required services as well as the required products for the project work in a reasonable price. The main target will be reducing the core manufacturing work cost which can save the business a huge chunk of money under the costing section such that the business does not lose any client.

For profit maximization:

After making all the possible analysis on the collected data, we can suggest the business some point which they should follow to reduce their further downfall and also with time the business can gain its old glory in the private interior decoration market as it had and still have in commercial interior decorator section (mostly for the bank) in Kolkata, West Bengal.

There are 5 steps to price Interior Design Services. There are design services that one undertakes as professional designer – not the physical construction and labor costs of the builder to undertake a construction project.

The steps are:

Step 1: Listing out the services for the project – Not all the interior designers offer the same kind of services, therefore the first step is to list out the exact services that the business is offering as an interior designing business.

Step 2: Dedicating time to each task - This step is all about dedicating an amount of time to each task which is to be done. It is to be remembered that an educated guess is an excellent first step.

Step 3: Choose a Pricing system – This step is about choosing a pricing system, for example hourly, monthly, package, etc. Every system has its own benefits and shortfalls so it is better to take time think about which system suits the service.

Step 4: Using the correct rate – In order to price correctly, one need to know what the business's time is worth so that the business do not undercharge its projects. So, the next step is all about to work out on the rates.

Step 5: Systemising the price – The first time, it will take the longest, but after that, the business needs to systemise it, create templates, and package things up so that it can get more efficient and faster every time.

There is one more step, a bonus step, which is,

Step 6: Cross-Check the price using another system – If the business price the project or interior design service correctly, the figures will come out similarly using another method, so the business can easily cross check if something is not correct.

Alongside the five plus one steps of pricing strategy, the business can follow the points below to regain its old glory in the field of interior decoration business.

Important factors to be considered for implementation of strategies:

1. **Overtime and Contractual:** The business should avoid over time work by workers since the workers do charge insanely high for per hour of overtime and as the hours increase the overtime rate also increases which will affect the core manufacturing cost and reduce the profit margin as well as impact in long run. Another thing to be done is, hiring workers on a contractual basis but not on daily wage basis.
2. **Punctuality and Return on Investment:** Workers should start their daily work from 9 AM sharp (which is not happening right now) and end in 8 hours such that the ROI (Return on investment, since the owner is paying the workers so the owner expects some return out of it and in this case, it is the work which is assigned to the specific worker) is better for the owner.
3. **Hiring process of workers:** For comparatively small projects the owner should not hire any workers so that the cost of the labor is saved which the owner can claim on his own alongside the project profit by working on the project himself.
4. **Usage of Lamination:** The usage of lamination should be either none or less in projects which can be finished without the usage of it.
5. **Optimization of excess Raw Material usage:** The business should use the existing extra raw materials in some small projects or even possible in comparatively big projects to minimize the costing.
6. **Understanding the market and optimizing the labor cost:** There are some specific sections such as wooden windows and wooden window frames which is not pocket friendly to make in a low quantity so in such case, the business to either buy those from the market or to make the frames using extra raw materials which they have available in their workshop already but for wooden windows it is highly recommended to buy it from market to save the extra labor cost.
7. **Finding new fields of work:** These days wooden windows are sort of obsoleted, that is why the business should take projects of aluminium sliding windows which is a thing these days and try to buy those from local stores at first to get the job done and, in the meantime, learn how to build those in their own workshop just in case in the future the rates go high from where the business is buying for their work.
8. **Project rates and costing:** Choosing fixed rates for specific project and its works such as: self-closing glass door project, where glass is needed for the door but a self-closer machine is also need, here the business can give the market rate by hiring someone on a project-based contract to get the job done without any issues.

9. **Making an online presence:** For more recognition, the business is suggested to make some presence online as well, for example: having a Facebook page or an Instagram account where the pictures of previous works/project work and some remarks from their customers will be posted to make those available for other 'potential customers'.
10. **Finding alternatives of some specific SKUs:** If possible, the business should try some alternatives to Fevicol such as 'Jivanjor Allrounder', 'Mahacol Jalveer' etc so that the costing goes down as well as the quality of the product also does not degrade.
11. **Building a dedicated portfolio:** The business should create its own portfolio as well, there will be a catalogue which will contain all the services and items they manufacture/provide to their customers and everything will be categorised properly so the person from the company who is talking to an existing customer or to a potential customer can pitch properly.
12. **Exploring the potential at the bottom of the pyramid:** Another way the business should follow is gaining in sales that is even if the company is not getting enough projects, it can work on several small projects and still can gain profits to some extent.

Conclusion

The current era is the e-commerce era and even in this era of e-commerce, small businesses like Pioneer Furnishers stands as the backbone of the country's economy and does occupy almost 70% of total consumer goods sales in India. However, despite being located in Bowbazar, Kolkata the prime location of the city, Pioneer Furnishers, a B2B as well as B2C interior decorator in Central Kolkata is witnessing a downfall in revenue. Huge loss in revenue is caused by several factors such as bank shutting down the repairing work in the year 2013 then COVID in 2020 alongside the workers who are not properly skilled charging too much for each project work alongside the price hike in raw materials as well. The project has been effective in identifying the underlying reasons behind the business problem.

Overall sales trend, quarterly revenue and QoQ change, analysis on Making charges as well as Polish labor cost alongside analysis on SKUs such as Sunmica/Lamination, Glass, Fevicol (Glue), Wooden bit etc are studied at a great detail. It was seen that there is a significant amount of hike in price of Sunmica/Lamination, Glass and Fevicol. It was also seen that these SKU costs do come under the fixed cost which cannot be controlled by the business but for analysis purpose it is a finding because the business owner had no clue about the hike in price for these SKUs for some reason and that is why we saw that Making charges is playing a big role in determining the final core manufacturing cost apart from all the costs which can be controlled. This has been seen in Overall Cost Price analysis.

A comprehensive list of recommendations is framed for the business out of the insights drawn from the data analysed which is presented in the report and was explained to the business owner as well. The feasibility of the implementation of the solutions which are proposed and the timeline within which the business need to be taken up were discussed as well.

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----- End of the report -----