

CHAPTER IV

4. BASIC FINANCIAL ANALYSIS

4.1. Current Mount Araf Merchant Sales Record

Currently Mount Araf Merchant prices its goods to be sold by factoring both the cost price of the products from the factories plus transportation, tax, and other expenses incurred. With regards to the new manufacturing plant, units cost of products to be sold will tend to be less due to the fact that cost of operation will be less as we'd be making use of solar panels rather than diesel engine operated plants. Nonetheless, this will be compared also with the current market average price of similar products. The prices of such products can be checked on competing factory websites or by direct window shopping at their warehouses.

Having started the above, as per current Mount Araf Merchant sales records on a monthly average, the following main expenses are made.

A-Each trip in transporting the goods using the truck is between \$7000 to \$8000. This includes fueling the truck as well as any repairs encountered.

B- Payment of drivers- \$1200 per month

C- Full sales(purchases) per trip; an average of \$160,000 to \$200,000.

D- Other expenses like VAT Tax (12.5%).

For the purposes of calculation, all maximum range values are used. Transporting the Goods and purchases are done twice a month giving us a total of \$16,000 and \$400,000 respectively.

This all together gives us a total expense of \$469,350 (A+B+C+D) as shown in Table 4.1.

Table 4.1 Mount Araf Monthly Sales Analysis

| in(\$) | MountAraf | per month | per year | 10 years | 20 years |
|--------|----------------|----------------|-----------|------------|-----------|
| 2022 | Transport, etc | 417,200 | | | |
| | Tax, vat | 12.5% | | | |
| | Total expenses | 469,350 | | | |
| | Revenue | 500,000 | 6,000,000 | 60,000,000 | |
| | net income | 30,650 | 367,800 | 3,678,000 | 7,356,000 |
| | Profit margin | 6.13% | 6.13% | | |
| | ROI | 19.8% | | | |

Table 4.2 New manufacturing plant estimation analysis

| | | | | | |
|-------|-----------------------------|---------------|---------------------|--|--|
| Setup | all cost | \$3,398,402 | | | |
| | Average Revenue in 13 years | \$ 53,550,000 | | | |
| | Average Revenue per year | \$ 4,119,231 | divided by 13 years | | |
| | net income | \$ 720,829 | | | |
| | Profit margin | 17.50% | after 5 years | | |
| | ROI | 21.2% | | | |
| | | | | | |
| | | | | | |

4.2. Cost Involved in Setting up the Manufacturing plant

Construction Cost Estimates for Factory, 1 Story:

The following analysis estimates the cost to build a factory, 1 story using US National Average costs from 2013 RSMeans cost data. Costs are derived from a building model that assumes basic components, using union labor for a 30000 square foot building⁶².

⁶² <https://www.rsmeansonline.com/squarefootestimate/squarefootreportviewer/refreshpage>

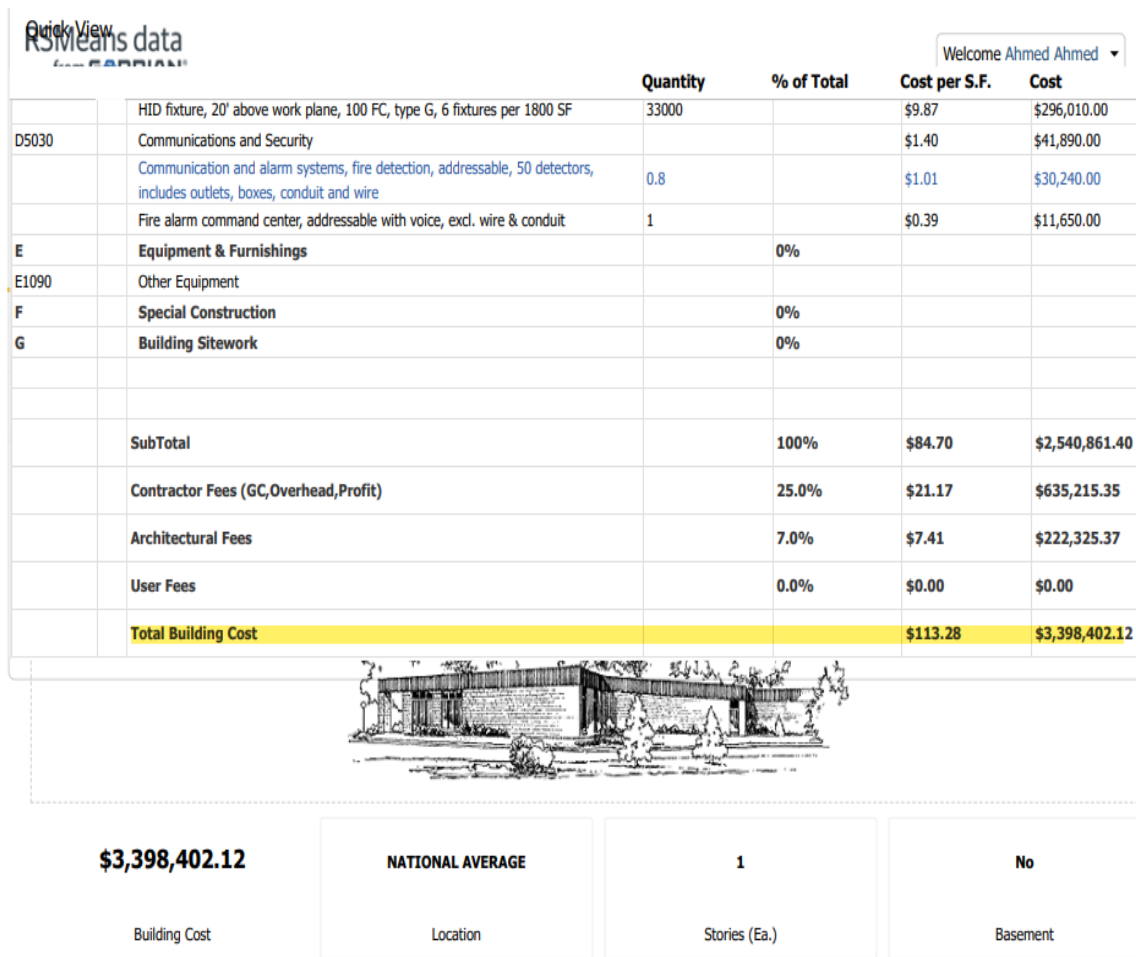


Figure 4.1. Estimated Cost needed to start the Manufacturing Plant.

Source: <https://www.rsmeans.com/model-pages/factory-1-story>

Annex1 shows the Breakdown of the various cost involved and total cost estimated to be needed in setting our manufacturing plant⁶³.

Using Dow's data from Table 2.1 Dow Chemicals' revenue and net income from 2005 to 2017, average net profit margin and average net revenue was calculated and tabulated below.

⁶³ <https://www.rsmeans.com/model-pages/factory-1-story>

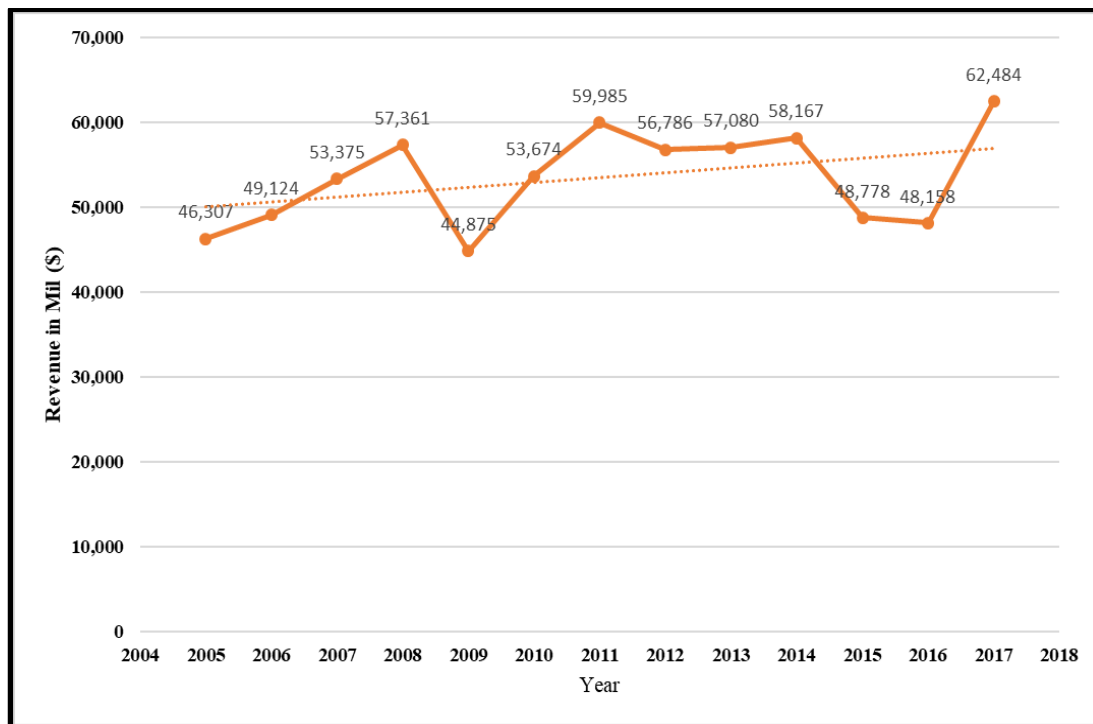


Figure 4.2. A graph of revenue vs year for Dow Chemical's plant (2004-2005)

Table 4.2 Dow Chemical's plant average net profit margin and average net revenue

| Year | Revenue in mil. USD | Net income in mil. USD | Net profit margin |
|------|---------------------|------------------------|-------------------|
| 2005 | 46,307 | 4,515 | 9.8% |
| 2006 | 49,124 | 3,724 | 7.6% |
| 2007 | 53,375 | 2,887 | 5.4% |
| 2008 | 57,361 | 579 | 1.0% |
| 2009 | 44,875 | 336 | 0.7% |
| 2010 | 53,674 | 1970 | 3.7% |
| 2011 | 59,985 | 2402 | 4.0% |
| 2012 | 56,786 | 842 | 1.5% |
| 2013 | 57,080 | 4447 | 7.8% |
| 2014 | 58,167 | 3432 | 5.9% |
| 2015 | 48,778 | 7345 | 15.1% |
| 2016 | 48,158 | 3978 | 8.3% |
| 2017 | 62,484 | 1460 | 2.3% |
| | 53,550 | 2,917 | 5.6% |

Initial capital can be obtained from angel investors, seed capital, or advertising companies that would like to partner with us.

As the main focus of the production line will be on items that are bought the most, we will be having production lines for the following plastic products;

- Buckets
- Paint containers
- Pegs
- Drums and chairs.

This was figured out as per sales records done for the past 25 years, as these were products always in high demand and presently still are on high demand.

The figure below shows some of the production lines to be bought.



Figure 4.3. Cheap price horizontal 90 ton 80 ton injection molding machines for making plastic bucket

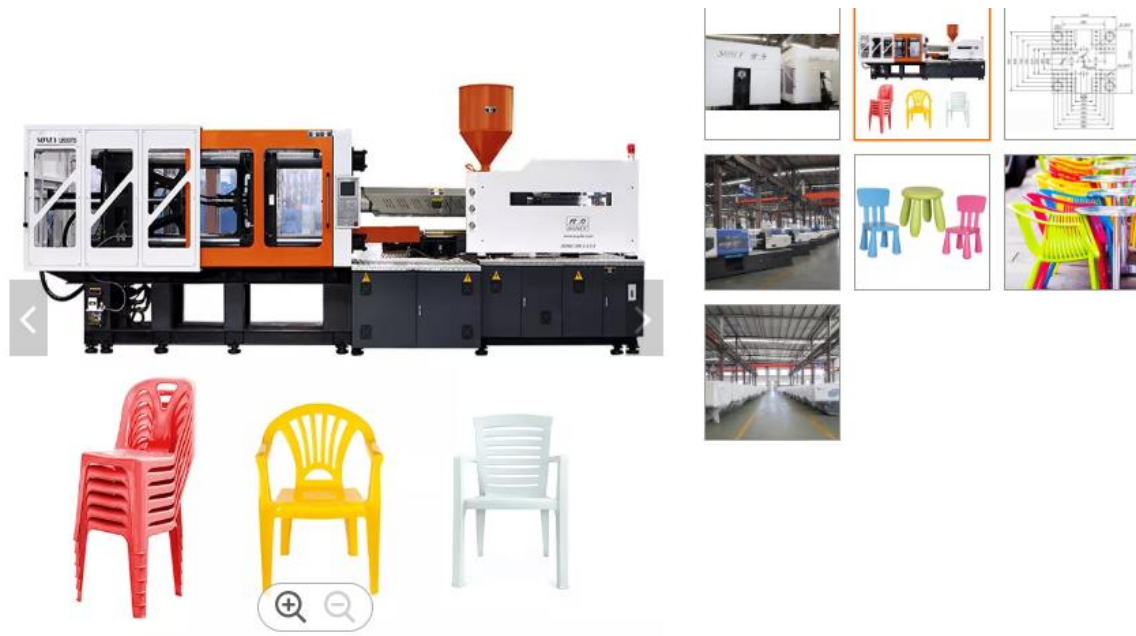


Figure 4.4. Ton automatic plastic table and chair making equipment injection plastic molding machine for sale⁶⁴

⁶⁴ https://www.alibaba.com/product-detail/550-ton-automatic-plastic-table-and_1600145454358.html?spm=a2700.details.0.0.66cb75dfsjgwyr

CHAPTER V

5. RESULTS AND DISCUSSIONS

5.1. Value-added Tax (VAT)

Except for supplies made by a wholesaler or retailer of goods, which are taxed at a total flat rate of 3%, the usual VAT rate is 12.5 percent. When a taxable supply is made by a taxable person in the course of business, VAT is paid on the provision of goods and services⁶⁵.

5.2. Return on Investment

Return on investment (ROI) or return on costs (ROC) is a ratio between net income (over a period) and investment (costs resulting from an investment of some resources at a point in time). A high ROI means the investment's gains compare favorably to its cost. As a performance measure, ROI is used to evaluate the efficiency of an investment or to compare the efficiencies of several different investments. In economic terms, it is one way of relating profits to capital invested⁶⁶.

Calculation

Return on investment can be calculated in different ways depending on the goal and application. The most comprehensive formula is:

Return on investment (%) = (current value of investment if not exited yet or sold price of investment if exited + income from investment – initial investment and other expenses) / initial investment and other expenses x 100%.

Example with a share of stock: You bought 1 share of stock for US\$100 and paid a buying commission of US\$5. Then over a year you received US\$4 of dividends and sold the share 1 year after you bought it for US\$200 paying a US\$5 selling commission.

⁶⁵ [https://taxsummaries.pwc.com/ghana/corporate/other-taxes#:~:text=Value%2Dadded%20tax%20\(VAT\)&text=The%20standard%20VAT%20rate%20is,in%20the%20course%20of%20business.](https://taxsummaries.pwc.com/ghana/corporate/other-taxes#:~:text=Value%2Dadded%20tax%20(VAT)&text=The%20standard%20VAT%20rate%20is,in%20the%20course%20of%20business.)

⁶⁶ <https://www.investopedia.com/terms/r/returnoninvestment.asp>

Your ROI is the following:

$$\text{ROI} = (200 + 4 - 100 - 5 - 5) / (100 + 5 + 5) \times 100\% = 85.45\%$$

As the duration of this investment is 1 year, this ROI is annual.

For a single-period review, divide the return (net profit) by the resources that were committed (investment)⁶⁷:

return on investment = (gain from investment – cost of investment) / cost of investment

or

return on investment = (revenue – cost of goods sold) / cost of goods sold

or

return on investment = (net program benefits / program costs) x 100

Simply to see what one made on the investment, that can be put back in the business. With reference to the above ROI calculation; Mount Araf makes a ROI=

$(500,000 - 417,200) / 417,200 = 19.8\%$ whereas using an assumption of an average revenue of a data from one of the best performing plastic industry, we have an average revenue of \$53,550,000 in 13 years which results in a yearly revenue of \$4,119,231. That been said, an average annual ROI of 21.2% $(\$4,119,231 - \$3,398,402) / \$4,119,231$ is achieved. Clearly it can be seen considering same conditions and operating cost, the Industry definitely has a higher ROI.

With regards to the net profit margin, the same trend is seen with the manufacturing plant estimated to have an average annual profit margin of 17.50% as compared to the current 6.13% Mount Araf Merchant is obtaining.

Much attention is placed on the net profit margin has that is what can be used in expanding the business as well investing in other relevant societal activities. As seen in

⁶⁷ https://en.wikipedia.org/wiki/Return_on_investment

the above, the difference in ROI might be not much but in a long run the profit margin makes a huge difference.

In a long run, profit margin will even increase more, as expenses in terms of operation is likely to reduce as we make use of recycle products and not purchasing new raw materials as well energy used via solar, which requires minimal maintenance cost.

5.3. Marketing Investment

Marketing has an impact on investment levels in addition to net earnings. Three of the key categories of investments that might be impacted by marketing choices are new plants and equipment, inventory, and accounts receivable. A recent study found that business collaborations with "micro-influencers" have higher return on investment than those with well-known celebrities⁶⁸.

5.4. Good Return on Investment

Making money is your only objective when investing. And everyone who invests wants to profit as much as they can. Because of this, before making any investments, you should have at least a broad notion of the kind of return you might expect.

The amount of return, or profit, an investment makes in relation to its costs is measured by the profitability ratio known as return on investment, or ROI. When assessing particular investments or competing investment opportunities, ROI, which is stated as a percentage, is quite helpful. But what constitutes a good ROI? This question doesn't have a single correct response. A "good" ROI is based on a number of variables.

The financial necessity is the most crucial factor to take into account when calculating a solid ROI. Consider a young couple investing, for instance, to cover their newborn child's college expenses. For them, a decent return on investment is one that permits their initial and recurring investments to increase to the point that they can cover college costs 18 years from now.

⁶⁸ https://en.wikipedia.org/wiki/Return_on_investment

A retiree looking to augment their income would not define a good ROI the same way as this young family would. The retiree would define a decent rate of return as one that produces enough recurring income to support them comfortably. Naturally, how one retiree defines a comfortable lifestyle may not be the same as how another defines a good return on investment⁶⁹.

To determine what would be a good rate of return, it's also crucial to take into account what you are investing in. Compound annual growth rates (CAGR), which assume that all gains are reinvested, are shown for a number of significant and well-liked investment assets from 1926 to 2019 in the following table:

Table 5.1 Compound annual growth rates for various asset types

| Asset Type | Compound Annual Growth Rate (CAGR) |
|------------------|------------------------------------|
| Small-cap stocks | 11.9% |
| Large-cap stocks | 10.2% |
| Government bonds | 5.5% |
| Treasury bills | 3.3% |

Source: <https://www.fool.com/investing/how-to-invest/stocks/good-return-on-investment/>

5.5. Margin vs. Turnover

Another widely used retail classification is called "margin versus turnover" and is based on a company's gross margin percentage and inventory turnover. A store's gross margin percentage and inventory turnover both provide information about how much money the retailer is making from the sales of its products. For instance, a retailer would be suffering monthly turnover if their inventory changed 12 times annually.

The characterization of margin versus turnover commonly uses four categories:

Low margin/low turnover: This type of retailer would struggle because they don't aggressively offer products and have a low profit margin.

⁶⁹ <https://www.fool.com/investing/how-to-invest/stocks/good-return-on-investment/>

Low margin/high turnover: Low gross margins are a concern for this industry, but inventory moves quickly. An illustration of this category is Amazon.

High margin/low turnover: Despite having a high gross margin, this industry has a poor rate of inventory turnover. When you think of this category, think of jewelry shops or funeral homes.

High margin/high turnover: Due to the large gross margin and high product turnover in this category, retailers in this group operate very lucrative businesses. You've supported this kind of business if you've ever bought a T-shirt at a sporting event or concert⁷⁰.

5.6. Calculating Profit Margins

One of the most common and straightforward financial ratios in corporate finance may be the profit margin. On an income statement, a company's profit is broken down into three categories, starting with gross profit and moving up to net profit, which is the most complete. Operating profit is somewhere between these two. By dividing the profit amount by revenue and multiplying by 100, the equivalent profit margins for all three are determined.

By taking into account the costs associated with manufacturing and selling items, profit margin indicates the relative profitability of a company or commercial activity. Gross profit, operating profit, or net profit can all be used to calculate margins.

A higher profit margin is preferable, but a high gross margin and a low net margin can be signs that something needs to be looked into further.

5.6.1. Gross Profit Margin

Gross profit is the simplest profitability metric because it defines profit as all income that remains after accounting for the cost of goods sold (COGS). Only costs directly related to the creation or manufacture of things intended for sale are included in COGS, including the cost of raw materials and the labor costs involved in producing or assembling goods.

⁷⁰<https://study.com/academy/lesson/types-of-retailers-informal-classification-examples.html>

This amount excludes, among other things, any costs associated with loan repayment, taxes, operations or administrative expenses, and one-time purchases like new equipment. The gross profit margin measures the percentage of each dollar of sales that is kept as profit after deducting the cost of production by comparing gross profit to total revenue⁷¹..

The formula for gross profit margin is:

$$\text{Gross profit margin} = \frac{\text{Net sales} - \text{COGS}}{\text{Net sales}} \times 100$$

5.6.2. Operating Profit Margin

A little more complicated metric is operating profit, which includes all overhead, operating, administrative, and sales costs involved in daily operations of the company. This figure does include asset amortization and depreciation but continues to ignore loans, taxes, and other non-operational costs. This mid-level viability margin indicates the portion of each dollar that remains after paying for all costs required to keep the business operational by dividing operating profit by revenue.

⁷¹ <https://www.investopedia.com/ask/answers/031815/what-formula-calculating-profit-margins.asp#citation-2>

The formula for operating profit margin is:

$$\text{Operating Profit Margin} = \frac{\text{Operating Income}}{\text{Revenue}} \times 100$$

5.6.3. Net Profit Margin

The total amount of revenue that remains after all costs and additional income sources are taken into account is represented by the infamous bottom line, net income. This covers not just COGS and operational costs as previously mentioned, but also debt repayment, tax payments, one-time costs or payments, and any profits from investments or side businesses. A company's overall capacity to convert revenue into profit is indicated by its net profit margin⁷².

The formulas for net profit margin are either:

$$\text{Net Profit Margin} = \left(\frac{\text{Revenue} - \text{Cost of Goods Sold} - \text{Operating expenses} - \text{Other expenses} - \text{Interest} - \text{Taxes}}{\text{Revenue}} \right) \times 100$$

or

$$\text{Net Profit Margin} = \left(\frac{\text{Net income}}{\text{Revenue}} \right) \times 100$$

⁷² <https://www.investopedia.com/ask/answers/031815/what-formula-calculating-profit-margins.asp#citation-2>

Good Net Profit Margin:

The definition of a healthy net profit margin varies greatly by industry. The averages range from approximately 29 percent for railroad transportation to almost -20 percent for renewable and green energy, according to a January 2022 analysis of businesses by New York University. Restaurants have a 12.63 percent net profit margin on average, whereas general retail has a 2.65 percent net profit margin⁷³.

Therefore, as a business owner or manager, a healthy net profit margin to go for significantly depends on your particular industry. It's critical to monitor your rivals and evaluate your net profit margins in light of their performance. To make sure you are in good financial shape, it's also crucial to examine the profit margins of your own company from year to year⁷⁴.

Most Useful Profit Margin Formula:

Because it employs net income, the net profit margin is most likely the most significant profit margin. Investors, creditors, and business decision-makers all value the bottom line of the company. In a company's financial statements, this number is most likely to be stated.

To be used for internal analysis, each formula has a specific value. Management can distinguish successful from unsuccessful product lines by looking at the gross profit margin on a per-unit or per-product basis. The operating profit margin is helpful in determining how much money is left over after expenses to pay the Internal Revenue Service (IRS), the business's debt holders, and equity investors⁷⁵.

5.7. Maintenance cost

5.7.1. Operational Costs of a Solar Panel System

A solar panel system's economic feasibility involves more than just the cost of acquisition. During the time under consideration, the solar PV systems also incur operating costs (usually 20 to 25 years).

⁷³ https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html

⁷⁴ <https://www.investopedia.com/ask/answers/031815/what-formula-calculating-profit-margins.asp#citation-2>

⁷⁵ <https://www.investopedia.com/ask/answers/031815/what-formula-calculating-profit-margins.asp#citation-2>

These must form a crucial component of the evaluation of its economic feasibility. The annual operating costs might be considered to be between 1 and 1.5 percent of the solar panel system's purchasing cost.

For solar PV systems, many businesses offer maintenance contracts. The annual cost is roughly \$200.

In the end, failures in solar panel systems can be avoided with the use of maintenance agreements, and when the solar PV system fails, no electricity can be generated⁷⁶.

Table 5.2 Operational Cost of a 5kWp Solar PV System

| In the case of 5 kWp solar PV system, the operational costs include the following expenses: | | |
|---|----------------------------|---------------------------|
| operational costs for ⇅ | Frequency ⇅ | Average amount per year ⇅ |
| Solar power inverter | on average every ten years | 1,5% of investment costs |
| Electricity of inverter | annually | \$50 |
| Maintenance | annually | \$200 |
| Solar panel cleaning | every 1 to 3 years | \$125 to \$150 (5 kWp) |
| Liability insurance | annually | \$50 |
| Photovoltaic-insurance | annually | \$200 |
| Total operational costs | per year for 5 kWp | \$700 to \$800 |

Source: <https://www.powerfromsunlight.com/operational-costs-solar-panel-system/>

⁷⁶ <https://www.powerfromsunlight.com/operational-costs-solar-panel-system/>

Solar is a better option as it occasionally requires no upkeep. Even without financial assistance and with declining oil prices, the cost of producing electricity at coal, gas, and diesel power plants is higher than or on par with that of onshore wind power plants, geothermal and hydropower, and biomass-based power plants⁷⁷.

One of the most competitive sources of additional energy capacity is wind energy in several nations, including Europe. Without outside funding, individual wind energy projects usually provide electricity at \$0.04 per kWh, whereas the cost range for fossil fuel-powered power plants is \$0.04–0.14 per kWh⁷⁸.

The most competitive industrial-scale solar energy and solar PV projects provide electricity for \$0.08 per kWh without outside funding, and further lower prices are feasible while cutting finance costs. In China, North America, and South America, their price range is currently within the parameters that characterize generation based on fossil fuels⁷⁹.

The study confirms the International Energy Agency's (IEA) assertion that solar power now provides the cheapest electricity ever in its World Energy Outlook 2020 report. According to the prognosis, the technology is more affordable than coal and gas in most developed nations⁸⁰.

⁷⁷ Dr. S.S. Kalamkar, Dr. Sonal Bhatt, Dr. Hemant Sharma, Solarisation of Agricultural Water Pumps in Western India, Allied Publishers, 2020

⁷⁸ <https://www.sciencedirect.com/topics/engineering/cost-of-electricity-production>

⁷⁹ Wadim Strielkowski, Renewable energy sources, power markets, and smart grids, in Social Impacts of Smart Grids, 2020

⁸⁰ <https://www.weforum.org/agenda/2021/07/renewables-cheapest-energy-source>

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

As time goes on, consumers have higher expectations of retailers. Along with ease and effectiveness, they desire customized experiences. They desire low prices and quick shipment, but they are also prepared to pay more for companies with which they identify⁸¹.

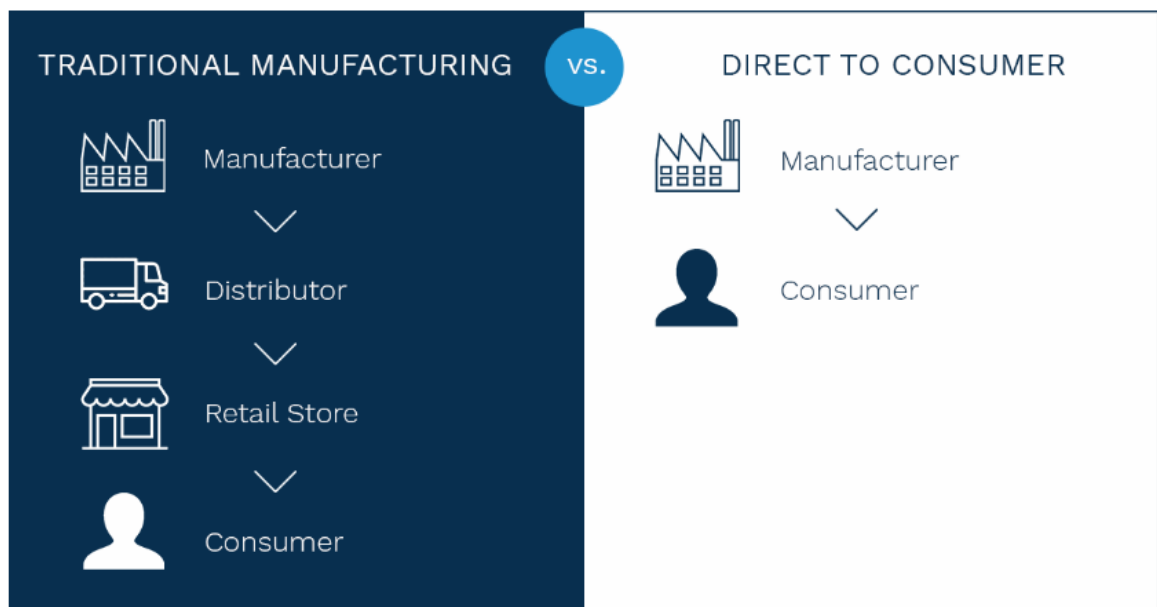


Figure6.1.Traditional Manufacturing vs Direct to Consumer⁸².

What better method to achieve this than to start selling directly to digital clients instead of going through retailers? It seems that having complete control over their operations has become a priority for many businesses. Manufacturers of goods that have been in great demand over the past few difficult months are increasingly following this pattern. Manufacturers are choosing direct sales for a variety of reasons, including the following advantages:

Brand control:

You have complete control over your brand image when you run your own website and online store. In order to give their customers, the impression they want, manufacturers

⁸¹ <https://www.bigcommerce.com/blog/retail/#conclusion>

⁸² <https://www.dynamicweb.com/resources/blog/d2c-ecommerce-in-manufacturing-to-futureproof-your-business>

are free to include as many details and information about their products as they like, along with appealing photos, high-quality content, and a well-designed page.

Higher profit margins:

Direct sales avoid the costs of maintaining distributor and supplier warehouses, transport, and inventory insurance, as well as contracts and profit-sharing with all parties involved. This can be seen in the results that we obtained with the idea of having a new manufacturing industry generating a higher net profit.

Simply put, “if the cake is not shared, it means more slices for the manufacturer”. Manufacturers must, however, pause to evaluate how cost-cutting in one area can result in increased spending in another⁸³.

Use of clean energy as there is a lot of sun:

Solar going a long run to save operating cost and increase net income which can be used for other purposes. This factory will also incorporate the use of solar panels; because it will be built in a place where there is abundance of sun supply throughout the year.

This is definitely a greener source of power to run the plant as compared to the other manufacturing plants making use of diesel run engines. In as much as Mount Araf Merchant are cutting down on operational cost in terms of maintenance in a long run, Mount Araf Merchant tend to also eliminate any source of carbon foot print to the environment.

Increase in Economic Activity:

Industrialization of the area will end up improving the lives of people as this will also encourage the government to improve on-road connections enticing others to come open businesses in the area. Because of the good roads as well, this will also lead to opening investment opportunities.

Secondly, this factory will tend to provide jobs in the society which is a form of CSR activities. This will also reduce the rural urban migration that has been going on for a very long time.

⁸³ <https://www.dynamicweb.com/resources/blog/d2c-ecommerce-in-manufacturing-to-futureproof-your-business>

Importance of having a good road:

Economic growth has always been based on the creation and distribution of wealth. Owning the transportation tools necessary to enable the escalation and globalization of the interchange of goods and services is crucial for achieving these objectives⁸⁴.

Over the years 1998 to 2008, areas with better access to new main roadways saw an increase in the number of local businesses and, as a result, a rise in local jobs. Industries already present in these regions cut staff while achieving similar levels of output, suggesting better labor productivity⁸⁵.

Raw materials:

Use of old plastics to make new products instead of them going to waste- as we are going around getting these old plastics it will end up reducing the cost of raw materials.

Raw materials will also be cut down due to the in situ recycling plant present, this serving as a cheap source of materials as no expenses will be incurred in purchasing raw materials.

Finally, the use of a recycling plant in the manufacturing plant will tend to reduce operating cost in terms of cost that would have been used in purchasing raw materials. The industry will be environmentally friendly because we use solar panel and recycling techniques.

RECOMMENDATIONS

It is highly recommended for CRM to be implemented in establishing the manufacturing plant as well for the following reasons.

- 1. CRM systems make sure that users may better validate their own requirements.
- 2. CRM systems make sure that the functionality is consistently of high quality.
- 3. A unified and integrated information system architecture is offered by CRM systems.
- 4. CRM systems make a decent amount of standardization possible.
- 5. CRM systems offer reliable and consistent documentation of the system.

⁸⁴ The Socio-Economic Benefits of Roads in Europe 2007, pg 7

⁸⁵ Steve Gibbons, Henry Overman, Teemu Lyytikäinen, Rosa Sanchis-Guarner, New road infrastructure: The effects on firms, 2017

- 6. CRM systems are incredibly high-quality and productive in terms of system creation and maintenance⁸⁶.

This idea should be implemented in other fields of retailing to maximize the effort of industrializing rural areas.

Branding and Marketing Ideas with Firms:

Just like the way footballers have jerseys with brand advertisements, some brands also use billboards. In this circumstance, we can see these forms of advertisement will not serve both the deaf and blind, which poses an advertisement idea on the produced plastic product. Ads can be put on the products which can be seen to serve those who can't hear and also embroidered on these products which can be felt for those who are blind to actually know what has been advertised. Indirectly we will realize that these purchases made in the rural places serve as both a form of advertisement to these people and also would end up creating some sort of revenue from ads advertised on these products.

As mentioned previously, our focus on production will be on high-demand purchases, thus will result in the maximum advertisement made with continuous sales of constantly selling products.

Furthermore, it is also recommended to see how much of a sales force will be required to run this new factory in further research. With time, recycling should go into the manufacturing of bricks. This is with the intent of opening more jobs, creating affordable housing in the rural areas, and reducing the waste of plastics as well.

⁸⁶ Vivek Kale, *Implementing SAP® CRM: The Guide for Business and Technology Managers*", ISBN 978-1-4822-3142-7, by Taylor & Francis Group, LLC 2015, p 67-91

REFERENCES

1. Berens, J.S., "The Marketing Mix, the Retailing Mix and the Use of Retail Strategy Continua", Proceedings of the 1983 Academy of Marketing Science (AMS), [Part of the series Developments in Marketing Science], pp. 323–27
2. Cant, M.C.; van Heerden, C.H. (2008). Personal Selling Juta Academic. p. 176. ISBN 978-0-7021-6636-5.
3. Coleman, P., Shopping Environments, Elsevier, Oxford, 2006, p. 28
4. Conlin, J., Tales of Two Cities: Paris, London and the Birth of the Modern City, Atlantic Books, 2013
5. Eckhardt, G.M. and Bengtsson. A. "A Brief History of Branding in China", Journal of Macromarketing, Vol, 30, no. 3, 2010, pp. 210–21
6. Eckhardt, G.M. and Bengtsson. A. "A Brief History of Branding in China", Journal of Macromarketing, Vol, 30, no. 3, 2010, p. 212
7. Fletcher, L. A. 2001. Going beyond the buzzword: what exactly is CRM?. Learned Publishing, 14(3), p 213-222
8. Harper, Douglas. "retail". Online Etymology Dictionary. Accessed: 16 March 2022.
9. Jones, Brian D.G.; Shaw, Eric H. (2006). "A History of Marketing Thought", Handbook of Marketing. Weitz, Barton A.; Wensley, Robin (eds), Sage, p. 41, ISBN 1-4129-2120-1.
10. Kalamkar S.S., Bhatt. S., Sharma H., Solarisation of Agricultural Water Pumps in Western India, Allied Publishers, 2020
11. Lambda, A.J., The Art Of Retailing, McGraw-Hill, (2003), 2008, pp. 315–26
12. McGeough, K.M., The Romans: New Perspectives, ABC-CLIO, 2004, pp. 105–06
13. Morschett, D., Swoboda, B. and Schramm, H., "Competitive Strategies in Retailing: An Investigation of the Applicability of Porter's Framework for Food Retailers Journal of Retailing and Consumer Services, Vol. 13, 2006, pp. 275–87
14. Parker, Christopher J.; Wenyu, Lu (2019). "What influences Chinese fashion retail? Shopping motivations, demographics and spending". Journal of Fashion Marketing and Management. 23 (2): 158–175
15. Pevsner, N. and Hubbard, E., The Buildings of England: Cheshire Penguin, 1978, p. 170

16. Pride, W.M., Ferrell, O.C. Lukas, B.A., Schembri, S. Niininen, O. and Cassidy, R.,
Marketing Principles, 3rd Asia-Pacific ed., Cengage, 2018, pp. 449–50
17. Pride, W.M., Ferrell, O.C. Lukas, B.A., Schembri, S. Niininen, O. and Cassidy, R.,
Marketing Principles, 3rd Asia-Pacific ed., Cengage, 2018, p. 451
18. Rebecca M. Seaman, ed. (2013). Conflict in the Early Americas: An Encyclopedia of
the Spanish Empire's p. 375. ISBN 978-1-59884-777-2.
19. Schumpeter, J.A. (1934) The Theory of Economic Development, Harvard University
Press, Boston, MA.
20. Schumpeter, J.A. (1939) Business Cycles, McGraw-Hill, New York.
21. Schumpeter, J.A. (1942) Capitalism, Socialism and Democracy, Allen & Unwin,
London.
22. Steve Gibbons, Henry Overman, Teemu Lyytikainen, Rosa Sanchis-Guarner, New
road infrastructure: The effects on firms, 2017
23. The Socio-Economic Benefits of Roads In Europe 2007, p 7
24. Thompson, D.B., An Ancient Shopping Center: The Athenian Agora, ASCSA, 1993
pp. 19–21
25. Thrupp, S.L., The Merchant Class of Medieval London, 1300–1500, pp. 7–8
26. Townsend, Matt; Surane, Jenny; Orr, Emma; Cannon, Christopher (8 November
2017). "America's 'Retail Apocalypse' Is Really Just Beginning" Bloomberg.
Retrieved 15 March 2022.
27. Verhoef, P., Kannan, P.K. and Inman, J., "From Multi-channel Retailing to Omni-
channel Retailing: Introduction to the Special Issue on Multi-channel Retailing",
Journal of Retailing, vol. 91, pp. 174–81. doi:10.1016/j.jretai.2015.02.005
28. Vivek Kale, Implementing SAP® CRM: The Guide for Business and Technology
Managers", ISBN 978-1-4822-3142-7, by Taylor & Francis Group, LLC 2015, p 67-
91
29. Volpato, G. and Stocchetti, A., "Old and new approaches to marketing: The quest of
their epistemological roots", MPRA Paper No. 30841, 2009, p. 34
30. Wadim Strielkowski, Renewable energy sources, power markets, and smart grids, in
Social Impacts of Smart Grids, 2020

LIST OF INTERNET RESOURCES

1. <https://businessjargons.com/retailing.html>
2. <https://www.iedunote.com/retailing>

3. https://en.wikipedia.org/wiki/Retail#cite_note-1
4. <https://nrf.com/resources/top-retailers/top-100-retailers/top-100-retailers-2019>
5. <https://www.dynamicweb.com/resources/blog/d2c-ecommerce-in-manufacturing-to-futureproof-your-business>
6. <https://www.bigcommerce.com/blog/retail/#conclusion>
7. <https://www.weforum.org/agenda/2021/07/renewables-cheapest-energy-source>
8. <https://www.sciencedirect.com/topics/engineering/cost-of-electricity-production>
9. <https://www.powerfromsunlight.com/operational-costs-solar-panel-system/>
10. <https://www.investopedia.com/ask/answers/031815/what-formula-calculating-profit-margins.asp#citation-2>
11. https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html
12. <https://study.com/academy/lesson/types-of-retailers-informal-classification-examples.html>
13. <https://www.fool.com/investing/how-to-invest/stocks/good-return-on-investment/>
14. <https://business.monash.edu/marketing/marketing-dictionary/r/retail-mix>
15. https://en.wikipedia.org/wiki/Return_on_investment
16. <https://www.investopedia.com/terms/r/returnoninvestment.asp>
17. https://www.alibaba.com/product-detail/550-ton-automatic-plastic-table-and_1600145454358.html?spm=a2700.details.0.0.66cb75dfsjgwyr
18. <https://www.rsmeans.com/model-pages/factory-1-story>
19. <https://www.rsmeansonline.com/squarefootestimate/squarefootreportviewer/refreshpage>
20. [https://taxsummaries.pwc.com/ghana/corporate/other-taxes#:~:text=Value%2Dadded%20tax%20\(VAT\)&text=The%20standard%20VAT%20rate%20is,in%20the%20course%20of%20business.\)](https://taxsummaries.pwc.com/ghana/corporate/other-taxes#:~:text=Value%2Dadded%20tax%20(VAT)&text=The%20standard%20VAT%20rate%20is,in%20the%20course%20of%20business.)
21. <https://khatabook.com/blog/how-to-start-a-plastic-recycling-business-in-india/>
22. https://en.wikipedia.org/wiki/dow_chemical_company#performance_plastics
23. <https://www.themanufacturer.com/press-releases/start-manufacturing-business-without-money/>
24. <https://www.freepressjournal.in/business/setting-up-a-manufacturing-plant-here-are-the-factors-you-need-to-keep-in-mind>
25. <https://khatabook.com/blog/plastic-manufacturing-business/>
26. <https://www.iedunote.com/retailing>
27. <https://www.feedough.com/what-is-retail-retailing-types-functions-characteristics/>
28. <https://www.quantzig.com/blog/types-retail-stores/>