Basic Problems faced by the Small Scale Industry Sector

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Abstract. Industries contribute cordially towards massive developments in the country but however it’s the Small Scale Industries which has a very low contribution towards this development. Most of the small scale industries are still struggling make the best out of them but due to numerous problems and issues their effort lies incomplete. In this paper, a short analysis about SSI sectors based on a case study on a Small scale industry conducted by us and an analysis of reviews about small scale enterprises and its development and growth by various authors. Mainly factors like lack of a proper work environment, technical and financial support from the government, high competition against the large scale units in the market etc. are the root reasons behind their halt in growth and development. Thus looking upon all the basic problems an industry faces and looking upon our result a list of feasible suggestions can be considered that could benefit the operations and working of these industries.

1. Introduction
Usually small scale industries are situated in semi-urban or rural areas. They do not have a large number of machineries nor they use highly advanced technologies. The main purpose of these industries is to use the locally available raw materials efficiently as well as it acts as a platform to create employment opportunities for the local people as they do not necessarily need skilled workers. They have a limited boundary for their markets. As compared to large scale industries, the SSI sectors cannot enjoy the benefits and that’s also due to their size and nature. These industries have importantly contributed to the economy but due to lack of support they face problems in their operations.

According to the amount of capital invested in plant and machinery the ministry of MSME has further divided these small scale into micro, small and medium enterprises-

| Description          | Investment in plant and machinery |
|----------------------|-----------------------------------|
| Micro Enterprises    | Up to 25 lakhs                    |
| Small Enterprises    | Between 25 lakhs- 5 crore         |
| Medium Enterprises   | Between 5 crore to 10 crore       |

Table 1. Different categories of industries with their investment in plant and machineries (MSME report)

Few SSI sectors are provided with support for technical up-gradation. There were certain provisions by the government for the SSI sectors like reserving some particular products for manufacturing. This was the benefit the small scale units had over the large scale enterprises who were
refrained from producing the items that was kept for the Small scale sectors. But due to the gradual rise in the economy and globalization, this provision which these sectors had have been affluently vulnerable. Thus these sectors are now facing the race against large scale industries in India as well as foreign countries.

2. Objectives
   - To study and examine the working of a small scale industry.
   - To analyze the problems faced in different aspects of manufacturing, by the industry

3. Literature Review
Jos Frijins et al.(1999)[6], has emphasized on safer and clean manufacturing methods by various technological and operational barriers. The research discusses feasible ways to prevent the deterioration of small scale industries in developing nations, giving importance to strategies towards clean manufacturing and production. The author refers to his project on controlling pollution in a small scale metal firm in Nairobi, Kenya. The study showed that cleaner production initiatives is a significant approach towards controlling pollution in an economic manner, but small-scale firms require external assistance to work onto these initiatives to minimize wastes.

Kateshiya Sumeet(2017)[2], has studied and examined the growth rate of SSI sectors and further researched about the problems of a Small Scale Industry based on his case study in Jamnagar city in context of Brass Part units. His study and analysis have resulted towards the need to utilize modern technology in production methods, suitable infrastructure and the role of the government in supporting these units.

Prof M. Chandraiah et al.(2014)[1], has focused the importance of MSMEs towards the nation’s development. The study shows the purpose of MSMEs, the operations and results of the MSMEs in the Indian economy, its policies and the issues it encountered. On a conclusion it can be noted from the analysis that MSMEs sector faced Key Challenges like as Lack of access to markets at a global level, Limited access to equity capital, Storage issues, package and designing issues and marketing, etc.

Harri Ramcharran(2016)[3], has studied about the performance of small and medium sized industries by empirically estimating the efficiency of bank loans and its rates to the SME sector of India. It was done using data from 1979 to 2013. The results have important policy implications regarding the allocation of capital and risks associated since bank loans are the main source behind financing these industries. The results show the rise in productivity (i.e. output elasticity) of bank credit from 0.76 to 1.23; the productivity of labor turned out to be negative, but increased from −1.57 to −0.628. The sector’s efficiency had improved from returns to scale of −0.89 to 0.607 which was mainly due to the increasing productivity of bank credit.

Sangita G.Patil et al.(2014)[4], has studied and analyzed on the problems faced by SSI’s. According to the author small scale industries are the roots behind the entire economy and if they are developed then the other economy related problems can be resolved automatically. The author as a result urges towards supporting of MSMEs, their education and empowerment so as to achieve development.

Nafis Khuriyati et al.(2015)[5], has studied on the Cleaner Production Strategies for enhancing the Performance of a Small Scale Biscuit Industry through an analysis based on a case study on the Cracker Industry in Yogyakarta Special Province. Upon the analysis it was found that the End of pipe treatment strategy which has been known until that day is in fact has lost its utility due to its high cost. And Good Housekeeping techniques have been one of the cheap and easy techniques in clean production strategies.

4. Research Methodology
   - The study and analysis is based on the information collected by us from the case study we conducted on an industry.
Some information and sample data were gathered from related research manuscripts and online sources which complimented the further analysis of the problems faced by the SSI. Limitations

Although we managed to collect necessary information but there were few operative data to which we were unauthorized to access, due to official constraints of the firm.

4.1. About the Industry

The Industry is located in the Mancheswar Industrial Estate of Bhubaneswar city. It is a small scale manufacturer of a wide range of polymer products in Odisha. An Iso-9001:2008 certified venture, it was established in 2005. With all the passing years of production and growth the company achieved to expand its venture as a Polymer firm (Iso-9001:2015). The company has a two-level organizational structure with the owner being the sole proprietor. The industry was set up within an area of about 6500 sq. feet belonging to the owner himself, which comprises of their factory and storage space. With the strength of around thirty employees (out of which eleven are female) the company manages to earn about 10-15% profit annually, annual turnover being about ₹ 5 crore. They produce around 400 variety of products like PET water and juice Bottles, PVC Garden pipes, HDPE Jars, Electrical gang box, Plastic Buckets and mugs, Electrical fittings, Flip top caps etc and the products manufactured by the Polymer firm includes plug boards, electrical sockets, switches etc. Among different processes of manufacturing the products, a significant factor that benefits the overall revenue of the firm is the recycling of waste products. The products that are manufactured normally give out wastes from the processed raw materials at the end, which are recycled back using additives in a hopper and are processed similarly to make new products. The machineries used in the firm are modern injector molding machines for molding buckets, mugs, containers etc, another machine is used called PVC Garden pipe plant to produce the PVC TR pipes and regarding recycling the recycling PIECCO scrap grinder machine is used. The machine specifications are as follows:

| Machine                        | SPECIFICATIONS                        |
|--------------------------------|----------------------------------------|
| Injector Moulding-( 200/125)   | 415 V, 3-Φ 50 c/s, 24VD,              |
|                                | Based on tonnage of raw materials.     |
|                                | Rated current- 60 A.                  |
|                                | Power consumption- (80 kW/ 60-70 kW)  |
|                                | Servo injection moulding using hydraulic clamping. |
| PVC Garden pipe plant          |                                        |
| Plastic scrap grinder machine  | Motor-5HP                               |
|                                | Output- 100to110 kg/hr                 |

Table2. Machine Specifications of the machineries used by the industry

The industry has a well connected web of clients throughout the city as well as in different parts of Odisha and nearby states. The industry also produces varieties of any single product as per the specifications required by the clients. Thus, it establishes a healthy Manufacturer-client relationship.

4.2. Different aspects of a manufacturing industry
4.3. Analysis of the problems faced by the SSI

| PRODUCTION: | INVENTORY: | SUPPLY CHAIN: | QUALITY CONTROL: |
|-------------|------------|--------------|------------------|
| • Problems due to sudden absence of the regular workforce. | • No proper protocol to manage inventory. | • Transportation issues | • Absence of proper quality control processes |
| • Machinery faults and errors. | • Inadequate space for inventory and storage. | • Limited market coverage and fluctuating demand | • Usage of polymers and chemicals which are less hazardous to the environment. |
| • Longer idle gaps | | | |
| • No fixed production rate | | | |

Table 3. Problems faced by the Industry with respect to the general problems faced by the SSI sectors.

In the manufacturing system of the industry, a lot of issues have been observed (some prominent ones mentioned in the chart above). The highlighted issues as in Table 2 with respect to different aspects have more likely occurred and are the key points which need to be focused. In comparison to other SSI sectors, the industry primarily face the following problems:-

4.3.1. Production Problems

- At times Unavailability of adequate workforce affects the production rate. The number of regular workers is very few and thus strict rules cannot be imposed on the workers against the risk of losing them.
- In case of absence of regular workers the machines cannot be operated with full efficiency. But usually it’s the machine failure and error which causes the halt to machining processes. The machines used are quite modern and electronic, which requires high maintenance. But they don’t have their own maintenance team so they have to send the parts workshops far away which lead to ideal time.
- Due to fluctuating demands by the clients, production quantity fluctuates due to which the company sometimes faces a longer idle time. These idle gaps are usually utilized to clean
up the machines work area or carryout other product manufacturing. These are instances when the demand highly falls and the production processes halt for the while.

- Being a SSI, there’s no standard production rate. Amount of raw materials varies blindly meeting the random fluctuations of the demand. And hence, the output quantity of the product also varies.

4.3.2. Inventory Problems

- According to their policies the industry have no standardized inventory control. They don’t have a fixed rate of production as to manage their Ordering quantity or Re-order level. They have a good friendly relationship with the dealer who unquestioningly provides them with required raw materials.
- No separate spaces for inventory and storage. The workspace is about 6500 sq. feet which restricts the proprietor to spend separately for inventory or storage. The backyard of their factory is used as inventory/storage.

4.3.3. Supply Chain Problems

- After the manufacturing of the products they need to be transported to the market. And concerning the supply (in) of raw materials to the supply (out) of products, its transportation that controls the process. The company has 1 vehicle of their own and borrower 3-4 vehicles from sources in order to carry out the processes. Having fewer vehicles consumes a lot of time regarding process completion.
- The market coverage of SSIs is limited so they fall behind in the competitive market. The net supply chain is also very complicated due to fluctuating demands and production which hampers the linear profit and growth of the firm.

5. Discussion

The analysis shows the prominent problems or constraints faced by the industry regarding its proper functioning and efficiency. Given below are a couple of suggestions based on reviews by prominent researchers and merging our opinions with their work which can preferably help towards the betterment of the industry-

- An improved working environment which can motivate the workers on giving more effort and punctuality towards their work. Implementation of proper safeguarding and cleaning of the workplace by improving the efforts of the workers during work hours and cleaning the waste scrap on the production equipments prior to washing improves performance and safety to the environment.[6]
- A well organized production system and procedure including legal protocols and proper project planning which can help in cordially governing the system and can also reduce unwanted idle time. This includes proper inventory control and quality control techniques.
- The authorities should focus more on enhancing the skills and knowledge of the existing workforce, such as good managing and housekeeping skills so as to compete with the high standards of the large scale units.[5],[4]
- The proprietor should pay more attention on promoting and marketing its products which can earn business bonds with other industries especially large scale industries. Thus in a way it can establish a strong web of corporate relationships and a healthy supply chain.[1]
- Favorable and clean manufacturing and production measures which are economical and which can be very feasible to the SSI Sectors. Government and large institutions must
undertake the initiative to provide technical and financial initiatives for better enhancement. It requires effective organization of the firms. The SSI’s must be given the opportunity and additional support to waste minimization methods.[6],[2]

- Apart from government bodies and large scale industries it’s the banks that can provide the industries with capital, resulting in improvement in the scale efficiency of the Small Scale and middle scale sectors of India. It is mainly due to the increasing productivity of bank loans. Other studies discussed before also report a positive impact of external financing on growth of the industries.[3]
- Machineries must be renewed in order to avoid the inferior performance and quality of the output, comparing to the large scale firms. Moreover, the small-scale enterprises should efficiently care about the fluctuating preferences and of the people. Accordingly, modernization and rationalization is a must in these industries.

5.1. Other Problems
Besides the above discussed problems small scale industries face a lot of other problems like lack of financial assistance, from well established large-scale industries, poor project planning, etc. These problems prevent the SSIs to reach a prestigious stage.

6. Conclusion
And we could thus suggest the best optimal solutions and alternatives keeping in mind the methods and approaches adopted by other researchers that can help the sector to grow healthily. In developing nations like India quite a proportion of the industries are SSI and are still emerging. In order to succeed and make their best they must work on the constraints which act as hurdles in their paths. In the case study conducted upon the industry, the problems were identified and analyzed. It can be seen that in comparison to various other industries the problems that persisted in the industry were nearly in the same page. In India it’s either the government or the large scale sectors that can help the sector to grow. With additional support and initiatives possible solutions can be expected. And the extent of succeeding the nation’s growth with the SSI’s depend on how fast and up to how deep are these initiatives implemented.

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