To Study the Present Status of Supply Chain Management in Medium Scale Agro implements Manufacturing Industries

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Abstract

This research paper gives an insight about the status of supply chain issues occurring in medium scale agro implements manufacturing industries enterprises (MSE). In this context the main focus has been given on study of agro manufacturing industries in vidarbh region and too many factors are taken into consideration that affect overall progress of an agro manufacturing industries. Study suggest that, region have a considerable scope for small scale industries.

Key words: Agricultural industries, Agricultural industries supply chain management, Agro food Market

1. INTRODUCTION

A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers. Supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and firm to firm.

Supply chain management is normally seen to lie between completely vertically incorporated firms, where the whole material stream is claimed by a solitary firm and those where each channel part works freely. Along these lines coordination between the different players in the chain is enter in its successful management. Cooper and Ellram [1993] contrast supply chain management with an all around adjusted and very much rehearsed transfer group. Such a group is more focused when every player knows how to be situated for the hand-off. The connections are the most grounded between players who specifically pass the rod, however the whole group needs to try to win the race.

SCM plays a vital role in organization activities and an essential element to operational efficiency which can be applied to customer satisfaction and company's success. You can say that it is just like the backbone of an organization which manages the critical issues of the business organization such as rapid growth of multinational corporations, global expansion and environmental concerns which indirectly or dramatically affects the corporate strategy.

SCM offers various tools and techniques that help business organization to diagnose the problems and also provide solutions of these disruptions around the business environment. It plays an important role in moving goods more quickly to their destinations. The most important thing in today's business is managing competition among partners and in order to win this competition SCM helps business organization in a very efficient manner. All the benefits and importance of SCM makes its future so bright and because of emerging trends in organization SCM becomes the most critical business discipline in the world today.

Agro industry has historically been given high priority in Indian Policy of development programmes. The focus on agro-industry as an agent of rural development and employment generation was present in Mahatma Gandhi's emphasis on village-based agro-industry during India's independence movement and is today a central component of the national development plan. There is optimism concerning its continuing development. The FAIDA report of the confederation of Indian Industry (CII) and Mackinsey & company (1997) both show that there is great potential for development of food processing and other agro-industries in India. However, India's agro-industry, development is today faces tough challenges, including costly raw material, supply chain inefficiencies and market demand constraints? There is skepticism about whether and market multinational firms contracting small farmers will help or hurt small farmers and local small agro-industrial firms? This debate is generalized in developing countries. There is skepticism whether the cooperative movement can effectively promote agro-industrial development for small firms?

The private sector as well as government is at cross-roads in the choice of the best models for agro-industrial development. The crucial questions pertain to of institutional and organizational Arrangements/models which are appropriate for overcoming current constraints, and maximizing their contribution to rural development and safeguarding the small farmer interests?

2. PROPOSED RESERCH MODEL

A various research model developed for performance evaluation of SCM by here have been referred. Also the opinion from the expert from the field has been taken. Based on the literature review & expert opinion from the field, seven important performance parameters have been identified and presented in the table with their meaning(Annexure)

In this research work, it is proposed to take the feedback from the AIMI to know the availability of the performance parameters and also importance of the sub parameter of the SCM (to identify the status of the same)

3. RESEARCH METHODOLOGY

A structured questionnaire has been designed and developed for the prepared survey. It includes two section . first section cover the basic information regarding the AIMI . Second Section include the information on the presence of seven performance parameters of the SCM, Importance of the various sub parameters of the performance parameters of the SCM(A structured questionnaires has been send to 5o medium scale AIMI of variable region of the Maharashtra. Out of 50 AIMI, 10 respondent and 21 have been collected by personally visiting to the plant) It is decided to send structured questionnaire to 50 medium scale AIMI variable region of Maharashtra. So the Objectives of the research paper 1) To know the Awareness about SCM in AIMI 2) To study present status of SCM in AIMI

Initiated or commissioned research is expected to be more explorative in nature for two reasons: supply chain dimensions are studied more and with a greater focus in the context of LEs and lack information about the efforts of SMEs; and business characteristics and the environment of an SME are quite different to LEs. For the purpose of this framework, we advocate case study research for two reasons. The case study methodology is recognized as being particularly appropriate for examining ‘‘how and why’’ questions. In addition, because of the framework and methodology, case studies have the potential to identify additional variables and relationships not conceived of or identified adequately in theory. To understand associated phenomenon in its most natural setting, we

aim to safeguard case study research by infusing it with the principles of interpretive management research and compare this approach to positivist research, which mainly focuses on identifying ‘‘cause and effect’’ relationships between variables .
At this stage, we define the research problem as ‘‘Issues in supply chain management of small and medium scale enterprises (SMEs): The research addresses some of the objectives listed below

1. To understand the relevance of the characteristics of SME sector with their supply chain practices;
2. To identify critical success factors for the adoption of SCM in Indian SMES;
3. To explore the degree to which SMES are aware of the principles of SCM by verifying certain propositions.
4. To deliver a process model for the successful supply chain planning in Indian SMEs.

To make the research domain more focused, research questions are grouped as investigative questions, which are further grouped using specific research issues.

Identifying supply chain characteristics for SMEs	Business characteristics and requirements of SMEs are quite different from LEs and hence to their supply characteristics. Here, we aim to explore it through a multi-case study research design
Exploring an issue of buyer-supplier relationship for the supply chain of SMEs	There is still much dissatisfaction with relationships, especially regarding the equitable sharing of costs and benefits, which is mainly because of differences in the purchasing power between the customer and supplier companies
Understanding risk areas in the supply chain of SMEs	Uncertainties in supply and demand, the degree of globalization of the market, shorter and shorter product and technology life cycles and the increased use of manufacturing, distribution and logistics partners result in complex international supply network relationships – this has led to higher exposure to risks in the supply chain
Supply chain performance measures for SMEs	SMEs generally work on local performance measures and fail to appreciate that the importance of interconnectedness lies among measures. Here, our objective is to identify effective performance measures for the supply chain of SMEs

To study current status of agro manufacturing industries in vidharbh region, an intensive study have been carried out for almost more than 50 industries. While study, care has been taken to focus on major issues that are affecting in development of region likes employment, product processing, labor and many more. More than 50 current research papers are examined and studies have been done on Agro manufacturing industries.
While study, visits have given directly to Agro industries in vidharbh region. Based on problems that are currently facing for Agro industries are examined and questionnaires are created. That factors that are considered while developing questionnaires are

1. Strategic Planning Performance Metric
2. Order Planning Metric
3. Supplier Evaluation Metric
4. Production Metric
5. Delivery Performance Measures’
6. Customer Service & Satisfaction
7. Supply Chain Logistic Cost

These major factors are to be considered as factors that directly influence region growth. Study has been further extended to deep analysis and again these seven factors are classified in to sub factors listed as follows

FACTOR	**SUB FACTORS**
Strategic Planning Performance Metric	Level of Customer Perceived value of budget
	Order Lead Time
	Information Processing Cost
Order Planning Metric	Total Cycle Time
	Customer Query Time
	Product Development Cycle Time
	Accuracy of Forecasting
	Planning Process Cycle Time
	Order Entry Point
	Human Resource Productivity
Supplier Evaluation Metric	Supplier Delivery Performance
	Supplier Lead Time against Industry Norms
	Pricing Against Market
	Efficiency of Purchase Order Cycle Time
Production Metric	% of Default
	Cost Per Operation Hours
	Capacity Utilization
	Range of Product
	Effectiveness of Scheduling Technique
Delivery Performance Measures	Quality of Delivery Goods
	On Time Delivery of Goods
	Flexibility of Service System to Meet Customer Need
	Preparation of Distribution Planning Schedule

	Effectiveness of Delivery invoice method
	Number of Faculties Delivery Notes noticed
	% of Urgent Delivery
	Total Distribution Cost
Customer Service & Satisfaction	Flexibility
	Customer Query Time
	Post Transaction Measures of Customer Service
Supply Chain Logistic Cost	Total Logistic Cost
	Cost Associated with Assets & Return of an Investment
	Information Processing Cost

There are more than 50 industries are examined and based on above mentioned factors, questionnaire were made and review have taken from companies managers. While doing study, it is observed that, in vidarbh region, small scale and medium scale industries are grown up fast and their issues have been solved more as compare to large scale industries. As investment in small scale and medium scale industry is less as compare to large scale, these two kinds of industries have played vital role. To implement supply chain Management (SCM) in Small and medium scale industries is easy as it requires less information processing cost.

Below chapter 5 of the paper illustrate analysis done based on data collected from small, medium and large scale industries from vidharbh region. Chapter 5 focuses impact of each factor in Agro manufacturing industries in region.

4. DATA COLLECTION

Structure questionnaire has been send to 50 medium scale AIMI of the variable region of Maharashtra. Out of 50 AIMI, 10 responded by post. And 21 resonances has been collected personally.

5. DATA ANALYSIS

5.1 Basic Information

After data collection, we did data analysis of collected data. From Analysis , following observations are found

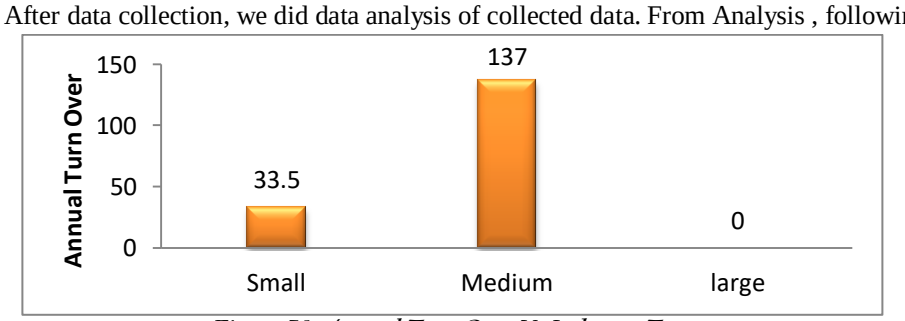


Figure 5.1: Annual Turn Over Vs Industry Type

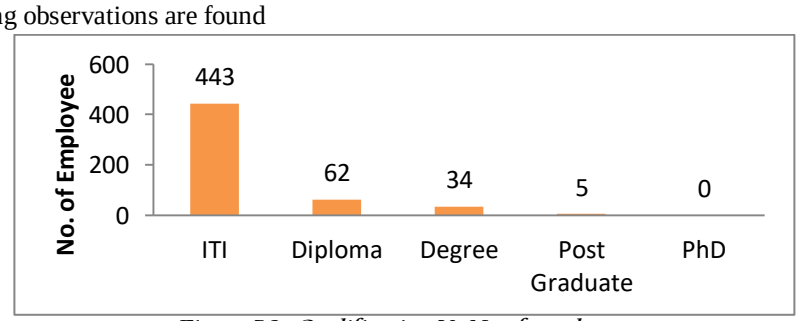


Figure 5.2: Qualification Vs No of employees

Asset turnover ratio is the ratio of the value of an industry's sales or revenues generated relative to the value of its assets. The Asset Turnover ratio can often be used as an indicator of the efficiency with which an industry is deploying its assets in generating revenue.

Asset Turnover = Sales or Revenues / Total Assets

Generally speaking, the higher the asset turnover ratio, the better the industry is performing, since higher ratios imply that the industry is generating more revenue per dollar of assets. Yet, this ratio can vary widely from one industry to the next. From figure 5.1, it is concluded that medium scale industries in vidarbh region have maximum annual turnover as compare to small and medium scale industries.

Data from quantitative and qualitative sources were gathered from 16 agro manufacturing sectors using targeted interviews, focus groups, a mailed questionnaire survey and a telephone interview survey to ascertain the level of importance employers place on their employees' qualifications. Analysis was undertaken to determine whether employers value qualifications differently by type of employee (e.g. job classification); the type of human resource management decision; and the business risk being managed. The study results suggest that employers generally value qualifications less than stakeholders inside the formal education and training system. Employer perspectives appear to vary according to enterprise size and other characteristics.

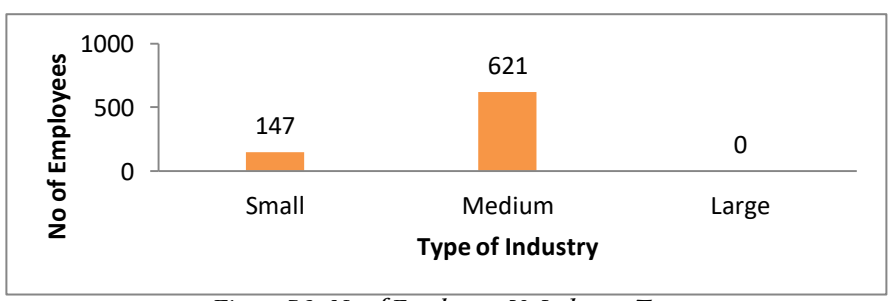


Figure 5.3: No of Employees Vs Industry Type

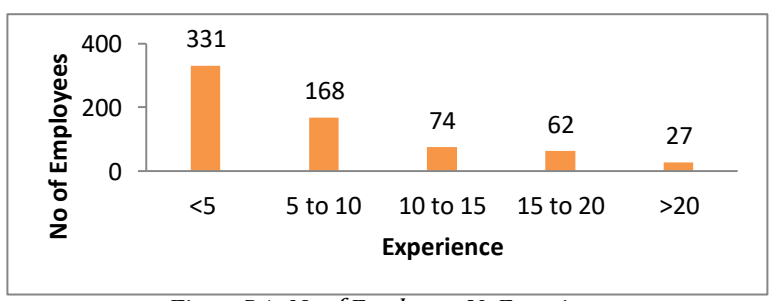


Figure 5.4: No of Employees Vs Experience

Employees who are engaged with their job and employer are more productive because they are motivated beyond personal factors. They are more focused and more motivated than their disengaged counterparts. This means they work more efficiently and with the success of the organization in mind. Not only does high employee engagement increase focus and efficiency, it decreases rates of absenteeism. Because engaged employees care about what they do, they recognize the importance of their effort in contributing to the success of their employer. This means that employees consistently turn up to work and work well while they are there. Figure 5.3 show that medium scale agro manufacturing industries have copied 81% of employees in industries.

The higher the education level. More are the effects of education and skill on job performance. As such people's ability to understand and use advanced technology is determined by the level of their education. The educated workers tend to be more responsive in receiving instructions and doing new tasks and

easily adopt new technology. This Increases their ability to innovate and improve job performance. However. the main factors considered to limit the positive effect of educational qualifications on job performance at the workplace include the quality of the work environment, organizational structure and processes, the assignment of employees in posts which did not match their qualifications and the lack of incentive systems. The findings have important policy implications in that they suggest the need for measures that can enhance the positive effect of educational qualifications on job performance.

We did survey from various small scale and large scale industries for getting their views and opinions about present status of agro based industries in a region. There are total 25 industries have been examined.

Analysis data the collected from various small, medium and large scale industries in vidharbh region got collected as

SN	FACTOR	FACTORS\INDUSTRIES	SCORE	IMPORTANCE
1	Strategic Planning Performance Metric	Level of Customer Perceived value of budget	61.6666667	Slightly Important
2		Order Lead Time	76.6666667	Important
3		Information Processing Cost	51.6666667	Slightly Important
4	Order Planning Metric	Total Cycle Time	75	Important
5		Customer Query Time	58.3333333	Slightly Important
6		Product Development Cycle Time	73.3333333	Important
7		Accuracy of Forecasting	71.6666667	Important
8		Planning Process Cycle Time	68.3333333	Important
9		Order Entry Point	60	Slightly Important
10		Human Resource Productivity	86.6666667	Important
11	Supplier Evaluation Metric	Supplier Delivery Performance	66.6666667	Important
12		Supplier Lead Time against Industry Norms	71.6666667	Important
13		Pricing Against Market	83.3333333	Important
14		Efficiency of Purchase Order Cycle Time	68.3333333	Important
15	Production Metric	% of Default	88.3333333	Important
16		Cost Per Operation Hours	86.6666667	Important
17		Capacity Utilization	85	Important
18		Range of Product	76.6666667	Important
19		Effectiveness of Scheduling Technique	73.3333333	Important
20	Delivery Performance Measures	Quality of Delivery Goods	86.6666667	Important
21		On Time Delivery of Goods	98.3333333	Fairly Important
22		Flexibility of Service System to Meet Customer Need	76.6666667	Important
23		Preparation of Distribution Planning Schedule	66.6666667	Important
24		Effectiveness of Delivery invoice method	66.6666667	Important
25		Number of Faculties Delivery Notes noticed	61.6666667	Slightly Important
26		% of Urgent Delivery	70	Important
27		Total Distribution Cost	68.3333333	Important
28	Customer Service & Satisfaction	Flexibility	71.6666667	Important
29		Customer Query Time	60	Slightly Important
30		Post Transaction Measures of Customer Service	68.3333333	Important
31	Supply Chain Logistic Cost	Total Logistic Cost	71.6666667	Important
32		Cost Associated with Assets & Return of an Investment	80	Important
33		Information Processing Cost	65	Slightly Important

The strategic plan defines the performance to be measured, while performance measurement provides the feedback that keeps the strategic plan on target. The connection strengthens both processes:

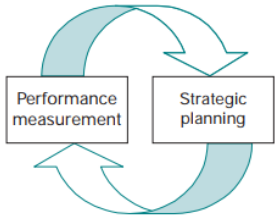


Figure 7.5 The Circle of Strategic Planning and Performance Measurement

Performance measurement relies on specified end outcomes—not just activities, but the results of those activities. The strategic plan's goals and objectives focus performance measurement on outcomes and help define appropriate performance indicators. Strategic plans must regularly revisit and "truth test" goals, objectives, and outcome measures. Circumstances change. Periodic reporting of performance indicators provides the information necessary to guide adjustments in strategic plans. This information keeps strategic plans on target and able to accommodate environmental changes.
Delivery performance can be defined as the level up to which products and services supplied by an organization meet the customer expectation. It provides an indication of the potentiality of the supply chain in providing products and services to the customer. This metric is most important in supply chain management as it integrates (involves) the measurement of performance right from supplier end to the customer end. Delivery performance (DP) is a broadly used standard KPI measurement in supply chains to measure the fulfillment of a customers demand to the wish date.

Customers are important stakeholders in organizations and their satisfaction is a priority to management. Customer satisfaction has been a subject of great interest to organizations and researchers alike. .Customer satisfaction is the main concern of business sectors of today, their researchers are always conducting research about the customers especially on what relates to their satisfaction. Moreover, because this problem of satisfaction concerns the most unpredictable stakeholder in the business environment; the customers, who remains the main character that keeps the business in operation; and because satisfaction varies and changes among individuals, there is a need for continuous research in this area

Customer satisfaction is difficult to measure due to several reasons. Counting on customer satisfaction owing to their feedback is not the case because most people prefer keeping quiet when satisfied. Some people see no need of contacting the service provider while others seek to pass their complaints. Requirements for customer satisfaction are not only unique but difficult to quantify. Setting standards and improving employee relationships with customers is central strategy of measuring customer satisfaction and ensuring that success is determined. By Analyzing data from survey taken, customer service & satisfaction is important activity in supply chain management processing agro based manufacturing industries.

Forecasting and demand planning are critical to achieving an optimal balance between service and costs. Unipart Logistics has mature skills in forecasting and demand planning across our sectors, and can deliver constant step changes in customer performance – whilst reducing the supply chain costs and inventory investment. Analysis graph4 shows that average rating for order planning metric became fairly important as it directly affect performance & customer satisfaction & delivery of product in Supply chain management.

Optimal production planning and scheduling is essential for manufacturing companies. It ensures efficient production, reliable delivery, and lower costs.

Logistics is defined as the management process for the movement of goods across country or across the globe. Companies map out the transportation path of their goods into a supply chain, or a path of transport that they use repeatedly to have goods shipped to them or to customers. When goods travel, they are moved using a combination of travel methods that includes ships, trucks, trains and airplanes. Companies use logistics to manage the timing and location of their goods in transport as a component of their overall supply chain management. In vidharbh region agro based manufacturing companies, Logistic cost if considered as important in Supply chain management.

6. FUTURE DIRECTIONS IN RESEARCH

Indian SMEs are failing to achieve their business potential due mainly to myopic viewpoints and shortsightedness, which results in weak quality processes and products, late deliveries, problems with inventory management and a poor mismatch between demand and forecasts under conditions of uncertainty. Increased manufacturing and delivery lead times as well as low trust concerning LEs in their business dealings also influence the plight of the Indian SMEs.However, SCM offers Indian SMEs the capacity to leverage their scalable competences (for example, product design and radical process innovation) in a cooperative network through fast and feasible access to assets of complementary partners (Arend and Winser, 2005). The proposed research framework will help redefine the supply chain for the SME sector, which is mainly focused on studies about LEs. For the purposes of the proposed approach, an exploratory multiple case study would be conducted. In addition, the outcomes of such research are expected to identify causal relationships between SCM and SMEs, which will further help to prioritize Decision making in SMEs.
The inputs of many les in India are derived from SMEs. Hence, improved fine and reduced fees on the sub-meeting level can truly deliver cost to the client. the proposed research framework is also expected to provide following advantages for the SME area:

1. A higher knowledge by way of SMEs of their logistical weaknesses, which have been until these days, taken into consideration to be habitual. This expertise will improve the responsiveness of the supply chain through reduced prices and improvements within the pleasant of merchandise.
2. A higher understanding of the elements that produce a strategic in shape among SCM and SMEs. This can highlight the vital changes required in present practices, in particular related to it, overall performance dimension and organizational structures.

In sum, this paper is informative in nature. But, it has documented many key issues associated with the SME sector in India and the problems it faces in the deliver chain. At this degree, we remember that studies tasks that observe the framework endorsed above and take account of the expected effects, information about SCM and SMEs in India may be increased. The under references additionally offer pathways for growing insightful understandings about the various issues faced through SMEs in India.

7. OBSERVATION

1. About 14%, 7.67 %, 1.12 % employees having basic diploma level, Degree and PhD level qualification at region agro manufacturing industries
2. 27% of the respondents(managers) were having more than 30 years of experience
3. Average turnover, investment and year of presence of AIMIs in the sample were 13.7 Cr, 137 Cr and 0 Cr years respectively which indicate scope for small and large scale industries are more in region

4. All variables of factors has been observed to be important

8. CONCLUSION

Empirical results of the study thus highlight the need for a proper balancing of the 'inward looking' (emphasis on agro manufacturing industries) strategy. The study suggests that this two-pronged strategy could generate adequate demand leading to a sustainable high growth trajectory in the agro manufacturing industries. The important conclusion, which emerges from this study and which need to be re-emphasized is that though in the study period, the share of agriculture in agro manufacturing industry has declined, its contribution in terms of generating demand for the other sectors of the economy, especially the industrial sector, has become more pronounced. From survey study, we must conclude that

An agro manufacturing industries Structure Survey also demonstrated that the largest proportion of agricultural holdings in the vidarbh was formed by medium scale holdings while the smallest group involved next to it. Need of investment in large scale industries needs more attention. Need to be having a good quality and qualified emplacement in agro manufacturing industries in vidarbh region. Factors like onetime product delivery, product quality are important measures to success growth of an agro manufacturing industries.

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APPENDIX

1. STRATEGIC PLANNING PERFORMANCE METRIC

SN	Parameter	Meaning
1	Level of Customer Perceived value of budget	Perceived value pricing is that value which customers are willing to pay for a particular product or service based on their perception about the product.
2	Order Lead time	A lead time is the latency between the initiation and execution of a process.
3	Information Processing Cost	Information processing cost refers to the cost of manipulation of digitized information by computers and other digital electronic equipment.
4	Total Cycle Time	The period required to complete one cycle of an operation; or to complete a function, job, or task from start to finish. Cycle time is used in differentiating total duration of a process from its run time.

2. ORDER PLANNING METRIC

SN	Parameter	Meaning
1	Customer Query Time	Customer query time refers to a time for a firm to respond to customer enquiry with required information.
2	Product Development Cycle Time	the various stages that a new or improved product or service goes through from design, through developing, testing, and marketing it
3	Accuracy of Forecasting	Calculating the accuracy of supply chain forecasts. Forecast accuracy in the supply chain is typically measured using the Mean Absolute Percent Error or MAPE. Statistically MAPE is defined as the average of percentage errors.
4	Planning Barrier Cycle Time	A fence or other obstacle that prevents movement or access
5	Order Entry Method	Order entry method, sometimes referred to as computerized provider order entry or computerized provider order management, is a process of electronic entry of product.
6	Human Resource Productivity	Human Resource Productivity is an assessment of the efficiency of a worker or group of workers. ... Typically, the productivity of a given worker will be assessed relative to an average for employees doing similar work.

3. SUPPLIER EVALUATION METRIC

SN	Parameter	Meaning
1	Supplier Delivery Performance	Supplier Delivery Performance (SDP) is a broadly used standard key performance indicator measurement in supply chains to measure the fulfillment of a customers demand to the wish date.
2	Supplier Lead Time against Industry Norms	A lead time is the latency between the initiation and execution of a process.
3	Pricing against Market	In economics, market price is the economic price for which a good or service is offered in the marketplace. It is of interest mainly in the study of microeconomics. Market value and market price are equal only under conditions of market efficiency, equilibrium, and rational expectations.
4	Efficiency of Purchase order Cycle Time	Purchase order Cycle time can have a significant impact on a industry's bottom line. It is a key component of delivery cycle time, along with the time it takes to make the product and the time it takes to deliver the product.

4. PRODUCTION METRIC

SN	Parameter	Meaning
1	% of Defaults	Failure to appear at the required time in a legal proceeding
2	Cost of Operation Hours	Operating cost. Operating (Operational) costs are the expenses which are related to the operation of a business, or to the operation of a device, component, and piece of equipment or facility. They are the cost of resources used by an organization just to maintain its existence.
3	Capacity Utilization	Capacity utilization is a measure of the extent to which the productive capacity of a business is being used. It can be defined as: The percentage of total capacity that is actually being achieved in a given period.
4	Range of Products & Services	A set of variations of the same product platform that appeal to different market segments.
5	Effectiveness of Scheduling Techniques	Scheduling is the art of planning your activities so that you can achieve your goals and priorities in the time you have available.

5. DELIVERY PERFORMANCE MEASURES

SN	Parameter	Meaning
1	Quality of Delivery Goods	An assessment of how well a delivered service conforms to the client's expectations. Service business operators often assess the service quality provided to their customers in order to improve their service, to quickly identify problems, and to better assess client satisfaction.
2	On Time Delivery of Goods	On-time delivery (OTD) is one of contract manufacturing's most common measurements
3	Flexibility of Service System to Meet customer Need	The ability to move the products within a manufacturing facility.
4	Effectiveness of Distribution Planning Schedule	Distribution resource planning (DRP) is a method used in business administration for planning orders within a supply chain. DRP enables the user to set certain inventory control parameters and calculate the time-phased inventory requirements.
5	Effectiveness of Delivery invoice	An invoice, bill or tab is a commercial document issued by a seller to a buyer, relating to a sale transaction and

	method	indicating the products, quantities, and agreed prices for products or services the seller had provided the buyer.
6	Numbers of Faultiness delivery notes noticed	The inaccuracy associated with a given product system resulting in a dispersion.
7	% of Urgent deliveries	Requiring or compelling speedy action or attention
8	Information richness in carrying out delivery	Media Richness Theory, sometimes referred to as information richness theory or MRT, is a framework used to describe a communication medium's ability to reproduce the information sent over it.
9	Total Distribution Cost	Cost incurred by a producer incident to activities connected with placing a finished product in the hands of a customer

6. CUSTOMER SERVICE & SATISFACTION

SN	Parameter	Meaning
1	Flexibility	The ability to be easily modified.
2	Customers Query Time	Customer query time refers to a time for a firm to respond to customer enquiry with required information.
3	Post Transaction Measures of Customer Service	Post-transaction marketing is a deceptive marketing practice used by many companies, which have then been subject to investigation, charges from state attorneys general, and class action lawsuits.

7. SUPPLY CHAIN & LOGISTIC COST

SN	Parameter	Meaning
1	Total Logistic Cost	Total Logistics Costs Tradeoff Total logistics costs consider the whole range of costs associated with logistics, which includes transport and warehousing costs, but also inventory carrying, administration and order processing costs.
2	Cost Associated with assets & return of innovation	The original cost of an asset takes into consideration all of the costs that can be attributed to its purchase and to putting the asset to use. These costs can include such factors as the purchase price, commissions, transportation, appraisals, warranties and installation
3	Information Cost	Information costs. Transactions costs that include the assessment of the investment merits of a financial asset.

PARTICIPANT INDUSTRIES

- J.S. Coperation MIDC Akola
- Shri. YMB Agrotech MIDC Akola
- S.K. Education & Agro Ltd
- Padson Ind Pvt Ltd
- Baba Engineering Works MIDC Akola
- Aditya Agro MIDC Akola
- Shriram Associate MIDC Akola
- GUKSS MIDC Amravati
- Jadhao Layland MIDC Amravati
- Jadhao Engineering Corporation MIDC Amravati
- MLS Jadhao Steel Alloys
- Jadhao Engineering PVT Ltd
- Jadhao Gears MIDC Amravati
- Jadhao Icons MIDC Amravati
- MLS Sengar Industries MIDC Amravati
- Jadhao Engineering PVT Ltd Saturna Amravati

All these prominent agro manufacturing industries are belong to vidharbh region, Maharashtra. While mapping each factor and its sub factors, rating given based an expert views

- 1 – Not at all important
- 2 – Slightly Important
- 3 - Important
- 4 – Fairly Important
- 5 – Very Important
- 0 - No Opinion