

## **Bye to Vertical Integration and Welcome to the Horizontal Integration in the Textile Business**

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### **Abstract**

When it's about production then association between the machinery and efficiency is gauged. This investigation seeks the matter whether vertical integration (balanced integration) in an organization provides better results and profits. The focused industry was textile with a sample size of 30 firms from Pakistan. It is to the interest of the textile owners and industry that vertical integration for a textile firm doesn't really matter for the production efficiency in today's world. There is something more to increase the production efficiency in regards to production facility and equipments used to generate outputs. Horizontal integration is a merger/acquisition/buyout with another same organization in the market that sustains one's growth, increase production efficiency and monopoly in the industry. This integration is a matter of success for current situation of the micro and macro environment of this industry, which helps the textile firms to achieve the reduction in average cost (economies of scale) and increase the output.

**Keywords:** Textile industry, vertical integration, horizontal integration, production efficiency, economies of scope, economies of scale.

## **1. Introduction**

Lucke, Westkämper, Eissele, Ertl, and Siemoneit (2008) asserted that in today's competitive and global world, every industry is speeding up towards gaining the maximum efficiency over its rival. The production industry does ascertain initiatives that guide firm's performance towards the attainment of production efficiency and manufacturing system and lead them to achieve the global competitive edge. In developing economies, supporting industries are significantly playing their role in establishing the manufacturing industry. They manage and provide raw materials and basic components to the manufacturing industry for producing a finished item. Through this channel, the production industry has good liaison and integration with the related international organizations that basically creates synergetic efficiency and enhancing overall efficiency of the production structure. Manufacturing industries have the global access, which gives them an advantage to foster new technologies, educate, and train their personnel and workers to achieve effectiveness and efficiency. This also facilitates the industry to bloom globally and maintain the product quality, cost i. e. think globally and act locally - the core competencies locally, which leads to the global competitive edge.

Chavas, Petrie, and Roth (2005) acknowledged that the effective and efficient allocation, proper utilization and consumption of resources facilitate the economic efficiency outlook. They further proposed in their study that one of the main components of enhancing economic efficiency is to utilize the advance and new technology that best suits the production processes and manufacturing system and helps in attaining the higher efficiency. The second most important component that results in an incremental of the economic efficiency is the proper allocation of resources that minimizes the chances of waste generation, lessen the cost and maximize the profitability. The third most important component that excels the economic efficiency is the scale efficiency that measures the size of the organization which is efficient enough to operate in the industry. All these three components results in the incremental production and manufacturing efficiency of the company that directly impact the overall efficiency of economy. However, Chavas et al. (2005) further added that in this dynamic and ever changing environment, making the machinery localized is not a good initiative because it acts as a hurdle in the maximization of the output and production and thus reduces the overall efficiency of the production process.

This research is merely focused on the fact is it viable for textile firms to contain machinery equipments (inputs) i. e. backward integration in vertical integration to generate better productivity. For that matter, overall vertical integration has also been analyzed in this study i. e. backward, forward and balanced integration. The results will reveal the current status of the industry and which is the best possible way to achieve the production efficiency.

## **2. Literature Review**

### **2.1. Efficiency**

Efficiency is an imperative and distinctive mark of manufacturer's performance. In layman terms being skillful in avoiding wasted time and efforts (Färe, Grosskopf, & Lovell, 2010). Increased wage rates, focus niche markets, aged workforce, the tight laws and legislations and above all environmental friendly consumption are some of the important challenges and issues the organizations in the developing countries are facing and competing with. Mainly enterprises work on three stream levels: First, by reshaping their associations with the tertiary sector. Second, by expanding their business across the globe and lastly to give significance to the division of R&D, shared ventures, sales service and joint production of parts and machinery (North, 1997).

Hayes and Pisano (1994, p. 84) narrated that the only dispute is to increase the efficiency and in order to cater that we use specific systems i. e. TQM but in contrast to that it is not regarded as the only

best strategy to achieve competitive edge over another manufacturer. Manufacturing a product is one important function of a production line but on the other hand company must be aligned to operate in a strong position (North, 1997).

## **2. 2. Localizing Production Machinery**

Enterprises are shifting their shop floors to the countries to the place of their target market. Government now increases small scale producer to produce product with relatively low prices and thus enjoy the competitive edge through low cost, demands for social factor and environmental standards also seemed in organization's favor. The devastating outcome of the unregulated international stream of money has led to international calls for some reins to be implemented. Regrinding of money is necessary to remain prominent in the foundation country to fund the upgrading of varied and sustainable economies. There must be an appropriate verification and symmetry in the flow of money, inter-banks and offshore credit transfers, floating of bonds and prevention of tax evasion (Hines, 2000). Another competitive policy among the local and foreign producers should be monitored strictly by government. On one side, when local producer manufactures low price products to safeguard the interest of their people, foreign manufacturers on the other side enter into the market with best quality of good, best possible technology around the globe and improving environmental friendly and social factors. Therefore, government must keep balance among firms by monitoring their behaviors (Hines, 2000).

An assorted local economy requires the day-to-day check and proper involvement in manufacturing the optimal range of goods and services close to the point of utilization. To ensure the widest allocation altogether requires wider, political, self-governing and monetary control at a local level. A citizen's earnings will permit contribution in the economy in a positive way (Hines, 2000).

The term 'productivity' relates to the combination of all the materials donating towards production and total productivity shows the overall efficiency of a firm. The advantage of productivity index has been identified in all industries around the world. Michael Porter of Harvard University says that the only significant concept of competitiveness at a country wide level is productivity. In his opinion, the ultimate goal of a nation should be producing a higher standard of living for its habitants. In order to maintain a high level of standard of living, a nation should focus on its productivity through which its labor and capital are employed, including the capacity of its companies to achieve higher levels of productivity and also increasing productivity over time. Productivity is mostly confounded with increased production. Higher production does not relate to higher productivity. In order to achieve higher productivity, there is only one way i. e. the utilization of resources properly. Through higher productivity makes reduction in cost and supports profitability and competitiveness. Profitability is not a measure of productivity. Productivity is mainly getting affected due to some factors which include the poor capacity utilization, inefficient working, poor machinery maintenance, over-spinning, lack of modernization, power shortage, excess human power and unhealthy labor and management relations.

Productivity and Profitability are those two factors, which are closely associated within each other in the textile industry. There are number of different factors, which influence the profits of a textile mill, among those includes the commercial efficiency, product mix and technical efficiency. DEA (Data Envelopment Analysis) Model adopted by China divides the outputs in to two categories such as the agreeable and disagreeable over which the concluding statements were based. In such way they depict the environmental components of efficiency evaluation problem referring to undesirable outputs. The textile industry is one of the most perplexed manufacturing industries as it is headed by small and medium enterprises (SMEs). One of the main cost factors in the textile industry is energy. Particularly in terms of unpredictable high energy price, maximizing energy efficiency should be a primary concern for textile plants. Different energy-efficiency opportunities, which are also cost-effective exist in every textile plant.

Mostly cost-effective plans are not entertained in every textile plants due to limited information regarding how to introduce energy-efficiency factors, as mostly textile plants are listed as SMEs and

due to the fact that they carry limited resources in order to possess certain information. Cleaner production (CP) has been introduced in Pakistan's industrial sub-sectors like leather, textiles, pulp and paper, oil and gas. It is a cohesive and preventive strategy of environment which is applicable on different goods and services and the processes. The function of CP is to purify the environment by efficiently utilizing natural resources and by eliminating the production of waste and toxic substances and provide a healthy living for the society. It is a continuous process therefore the difficulties and problems are handled within the process. The study of the findings mentions that CP interventions play a very important role towards enhancing the competitiveness of industrial products and addressing Pakistan's environmental priorities. CP promotion needs to be streamlined keeping in view the amendments required for legal and regulatory framework, institutional restructuring, and development of business plans and importance of effective monitoring and evaluation programs (Mariappan & Chidambaram, 2003).

## **2. 5. The Impact of HR Policies and Practices on Restricting the Employees**

Taking the view of the middle-eastern countries as an example, there has been a pause in the areas of localizing workforce over the past few years (Forstenlechner, 2009). No such programs have been developed for localizing the expatriates in the state, which has resulted in favoring the employment of the national employees rather than valuing the expatriates. This provides an opportunity to the national employees for serving in their own economy, which enables the economy to get prosper and flourish. However, the international collaboration with multinational companies helps the economy to provide better opportunities for national employees and facilitate their growth and skills development by giving them the exposure of the international market (Forstenlechner, 2009).

The public sector of middle-east shows a significant growth in the localization of the local employees but in the private sector, wherever employment decisions is generally prepared by expatriates ,made on the source of an apparent business grounds which now favors expatriates. The study basically investigates the issues of publicized workforce in the middle-east market and also addresses the issue pertaining to the recruitment and selection processes of the expatriates.

The Asian economy is considered in the study and a comparison is made between the two on the basis of nationalization of workforce. It is being noticed that the nationalization plays a significant role for the locals in the organizations. The nationals usually face less financial risk in the organizations because they are well aware of the culture of the organization. This localization results in reducing the learning capabilities of national employees because they don't get access to any international company and market (Forstenlechner, 2009).

## **2. 6. Localized Knowledge Spill Over and Skill Based Performance**

The advantage that skilled labor gets from the local knowledge wide spread is far more than the unskilled labor. In the long run those countries that have local knowledge, tends to invest more towards studies and they keep hunting for skilled workers in order to make a perfect combination that is skilled and educated worker. When knowledge spill combines with the risk taking action, it boosts the chances of creating of a new entity and it defines the relation of the whole economy (Agarwal, Audretsch, & Sarkar, 2007). Thus, spreading the localized knowledge spill increases the ratio of people who have skills in a region. On the other hand it benefits the force of local people to inject their money in education and is likely to get more return in their country (Gambardella & Giarratana, 2010).

With all these aspects of this research, the new insight to already known facts of textile industry is the decision to adopt the vertical or horizontal integration on their current status, which is either empowering economy or stagnating the economy.

### **Hypotheses**

H1- There is a difference between the vertical integrations and horizontal integrations in terms of production efficiency

### 3. Research Methods

#### 3.1. Data Collections, Sampling and Econometrical Test

In order to investigating the formulated hypothesis the productions efficiencies of 30 textile (Denim) industries (15 Vertical and 15 Non-vertical units) were recorded for period 2001 to 2010 on monthly basis through restricted non probability sampling method. The sample/ data which constituted 3600 monthly observations were interrogated through paired T-test.

### 4. Findings and Results

Table 1:

	Type of Industry	N	Mean	Std. Deviation
Productions Efficiency	Non-vertical/Horizontal	15	790860	34115.820
Per Month i. e. Nos. of Denim/ Month	Vertical	15	318000	6268.652

The findings of this paper suggest that for the denim industry in Pakistan, the productions efficiency for non vertical/ horizontal units are far better than those of horizontal units, working in the same industry as the mean productions efficiency per month for denim by horizontal units is 790860 with SD 34115. 8 which visibly so high than the 31800 which is the productions efficiency of denim by vertical units as the whole.

### 5. Discussions and Conclusion

As suggested by Forstenlechner (2009) that the localized productions in the vertical units affects adversely to organizations in terms of lacking in specialization, insufficient productions and not meeting time lines given by the buyers. The finding of this paper also abides with Forstenlechner's school of thought and concludes that it is the history now that the vertical units were the leaders in the denim industry in producing consignments, in today's world for becoming an efficient in denim productions an industry does outsource the various activities to meet the time lines of consignments and the buyers, thus the era is over for vertical units and good bye to them.

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