

CHALLENGES FACED BY THE INDIAN TINPLATE PACKAGING INDUSTRY: AN ANALYSIS

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The New Economic Policy of 1991 opened up the Indian markets to the world. Indian manufacturers, which once operated in the protected economy, were now open to the competition from organizations world-wide. It became imperative for the organizations to develop a competitive advantage to tide over the crisis. They were quick to evolve with a restructured strategy of neo-manufacturing from simply the economies of scale to an agile organization with a higher degree of flexibility. However, soon it was realized that focusing on manufacturing alone was not enough; one needs to have an integrated approach to carry out manufacturing in line with the value delivered to consumers. Thus, evolved the concept of the value curve and formulated strategy accordingly. The paper discusses the Indian tinplate manufacturers, which once enjoyed a monopoly in the Indian tinplate market. However, the liberalization ushered in a huge euphoria and India transformed into a freight advantageous zone for the tinplate manufacturers world-wide. The drastic reduction in import duties, coupled with weak regulatory policies by the government with respect to the packaging segment, led to unscrupulous dumping of the tinplate from outside. This landed the organizations in a crisis situation. However, the organizations were quick to respond to the situation. The paper attempts to do an analysis of the Indian tinplate packaging market and tries to identify the opportunities of the future. In addition, current approach in practice is analyzed and a shift in paradigm, needed to address the changing market needs, is being suggested. Although the detailed strategic approach is beyond the scope of discussion of this paper, it still gives the readers an overview of the new approach; that is the value innovative approach of looking into the 'mind space' of the consumer.

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1. INTRODUCTION

The Indian packaging industry is poised for growth. The rapidly growing GDP in India and the changed lifestyle in urban India are going to bring a boom in the packaging industry as a whole. Historical figures indicate that the packaging spend grows rapidly once the per capita income crosses the 4000 USD per annum¹, as the case is evident in similar economies like Brazil where the packaging spend grew at a rate by 4% (CAGR) from 1998 to 2004 with an increase in per capita income from 6920 USD to 7480 USD during the same period¹. The take-off zone for such a situation has been estimated at around 2010 in India (Ref.: Fig. 1).

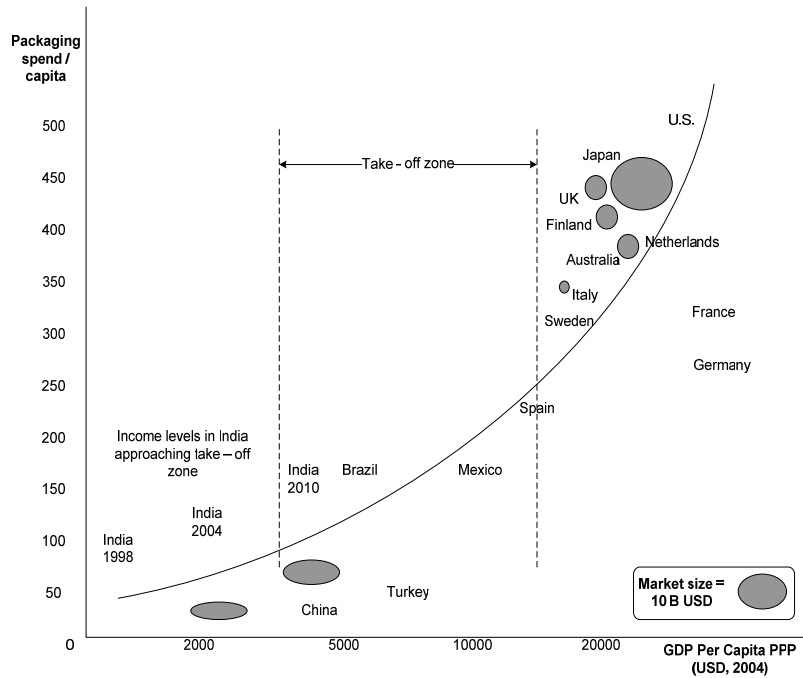


Figure 1: Packaging trend w.r.t. PPP

The Indian economy has a similarity with that of Brazil and China. Studies reveal that in both these economies, there has been a rapid growth in the packaging segments as in Fig. 2.

¹ Source : PPI International fact and price book 2000

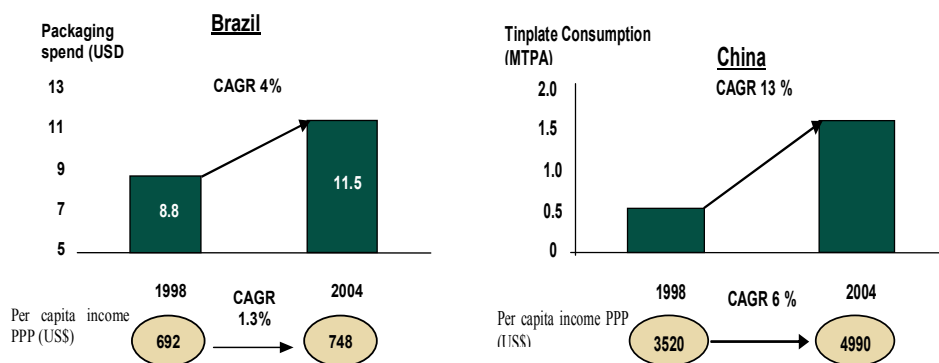


Fig. 2: Other developing markets have witnessed rapid packaging growth

The Indian packaging market is envisaging a rapid growth. The New Economic Policy of 1991 has ushered in a huge prospect in the Indian market. Liberalization has transformed the once protected economy into one of a land of opportunities for investors. In line with the WTO commitments, globalization intends to integrate the Indian economy with the world economy.

In spite of the growth in packaging spend, tinplate accounts for only a small percentage of the total packaging medium. The studies completed indicate that out of the total packaging market of rupees 35,000², only 6 % is tinplate packaging (Fig. 3). The main reason for this is that the tinplate industry in India is under severe threat from two fronts. The first threat is from the manufacturers of tinplate from all around the world. Easy access to technology makes it an industry where the threat for entry is very easy and therefore competition. Moreover, the New Industrial Policy of 1991 and WTO triggered the lowering of tariffs on imports. This opened up the competition in the Indian tinplate industry to the world steel majors, such as Nippon Steel Japan, Sollace France, Rassel Stien Germany, US Steel, etc., who have the economies of scale. This has posed a real challenge to the Indian tinplate manufacturers who are small-scale producers when compared with the steel giants. The second threat for the tinplate manufacturers is packaging from an alternative packaging medium such as tetra packs, polyethylene, etc.

² Source: Freedonia Group, Inc

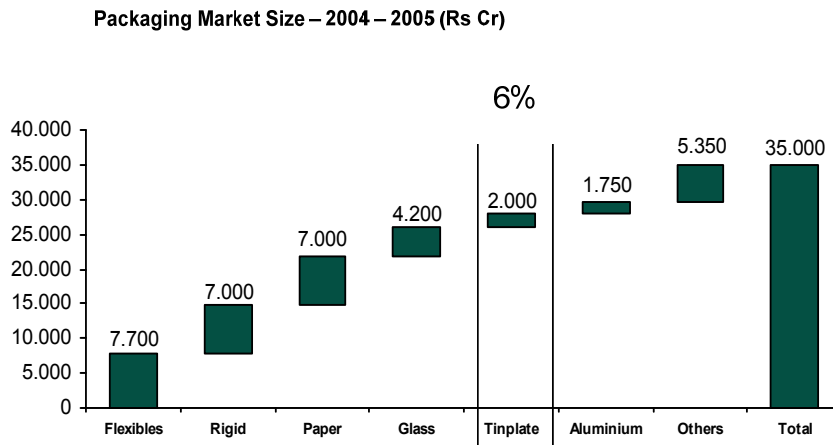


Fig. 3. Amount of tinplate in the Indian packaging industry

2. IMPACT OF GLOBALIZATION IN INDIA

The enforcement of the Industrial Policy of 1991 by the Government of India created a market crisis for the domestic players. It was a fair attempt by the then Indian Government to ensure rapid industrial development, rapid expansion of employment, progressive reduction of social and economic disparities and removal of poverty and social justice. The Industrial policies pursued until 1990. Although they enabled India to develop a vast and diversified industrial structure and also to attain self-sufficiency in a wide range of consumer goods, the growth rate was not as rapid as expected. It was felt that the government rules and regulations had put shackles on the growth of different segments of Indian industry. Lack of adequate competition resulted in an inadequate emphasis on the reduction of cost, upgrading of technology and improvement in quality standards.

Thus, in order to reorient and accelerate industrial development with an emphasis on productivity, growth and quality improvements to achieve international competitiveness, the Industrial policy of 1991 was announced. In line with WTO commitments, globalization intends to integrate the Indian economy with the world economy. In the reform package, it aims to do the following:

- to reduce trade barriers so as to permit the free flow of goods and services across

- the national frontiers;
- to create an environment in which the free flow of capital can take place;
- to create an environment for the free flow of technology among nation states;
- to create an environment in which the free movement of labor can take place in different countries of the world.

These objectives were achievable with the following measures:

- reduction of import duties,
- encouragement of foreign investment and
- encouragement of foreign technology transfer agreements.

The WTO commitment called for a healthy competition in the domestic markets as well, but with the opening up of the economy, many industries were at the brink of collapse under the impact of the external changes (both direct and indirect) as shown in Fig. 4.

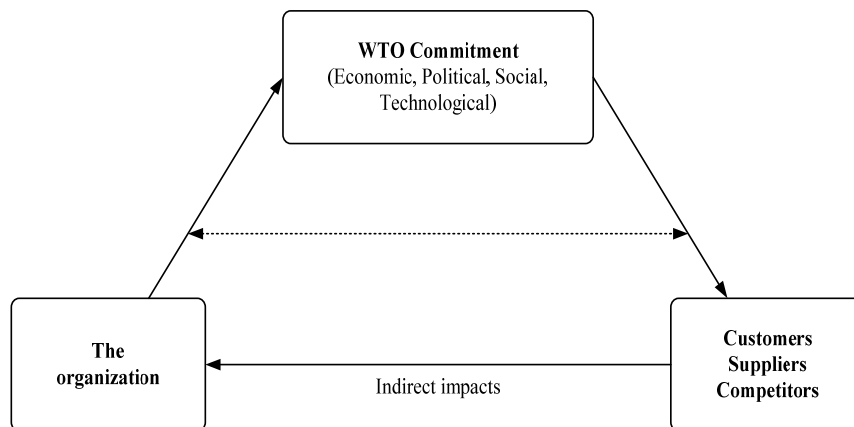


Fig. 4: Impacts of WTO commitments to organizations

3. MACRO-ECONOMIC FACTORS

In order to analyze the Indian packaging market, it is essential to get an understanding of the macroeconomic factors which have a direct impact on the

Indian packaging market as a whole. The factors identified through the studies were change in income pattern, changing age profile, retail boom and lifestyle factors.

Increasing income: With economic liberalization, more and more multinationals are in the foray to start their operations in India. This has opened up new avenues and the increasing number of Indian women in the corporate world has brought in affluence and hence a change in the living habits of average Indians. With women having little free time, there is a sharp rise in the market for ready-to-eat packaged food. This fact, coupled with prospective technologies, such as the microwave oven and advancements in packaging technology, have led to the development of convenient packaging. As per the research works carried out by Rabobank³, it is predicted that there is going to be a shift in the income bracket over the years to come (Fig. 5). The study clearly indicates a shift in the income group that India is going to experience. Rising affluence will also inculcate that habit of eating away from home and, hence, going to food outlets for burgers, pasta, noodles, etc. This also will prove to be a big opportunity for the packaging industry.

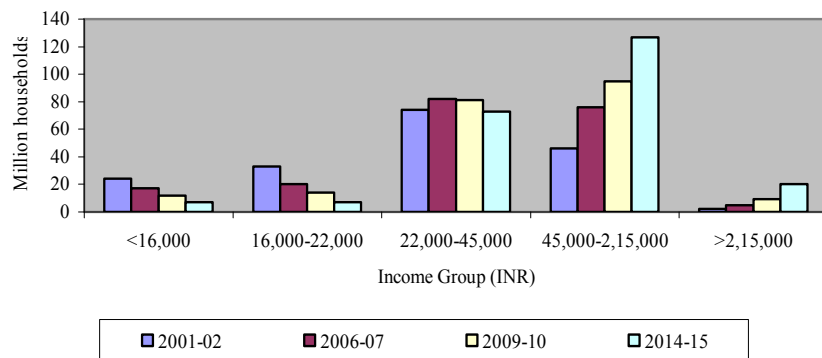


Figure 5: Average income trend of Indians

Increasing health consciousness and convenience needs: The increasing income trend has spurred a rising health consciousness in the young generation which will demand products which comply with the international standards of hygiene and health. This can only be assured through packaged branded products and, hence, a boom in the packaging segment. More and more

³ Source: Rabobank Research reports

packaged fruit juices and processed foods will not only help people to satisfy their needs with respect to healthy foods, but also increase the convenience to carry and enhance portability.

Retail boom: India's lifeline in the supply chain, retail outlets, are going to be the main players. With large corporations, like Reliance, Subiksha and ITC, as well as multinationals like WalMart and McDonald's already in the foray to open up chain retail outlets, many soon will follow.

This has extended not only to the urban areas, but the outlets have also found their places in remote rural India like e-choupal, etc. The studies have further revealed that the retail boom by 2007-2008⁴ in India will be:

- about 50 million sq. ft. of quality space under development,
- seven major cities to account for 41 million sq. ft. of development,
- 300 malls, shopping centers and multiplexes,
- 35 hypermarkets, 325 large department stores, 1500 supermarkets and more than 10,000 new outlets.

Thus, with such type of retail opportunity in the Indian economy in the future, there definitely is going to be a great boom in the packaging market.

Government Policies: The Government of India has rolled out a very ambitious plan to consolidate the fragmented food processing industry in India. In its declaration, the Ministry of Food Processing Industries has clearly put forward the Vision of 2015⁵ which states that:

- India to become the food factory of the world;
- Treble the size of processed food;
- Increase the level of processing from 6% to 20%;
- Increase the value addition from 20% to 35%;
- Increase the share in global agricultural trade from 1.5% to 3%.

4. INDIAN TINPLATE PACKAGING MARKET

The market survey gave an idea of which were the areas and segment-wise market share of tinplate packaging. It covered a wide range of products from

⁴ Reference: Retail Boom, Economic Times June 8th, 2006

⁵ Reference: Declaration in public interest by Ministry of Food Processing in the Telegraph, dated: May 22nd, 2006

packaged edible oil to processed tobacco. The team found out that the edible oil segment was having the biggest market share with 45 % to a 3% share in the battery jacket segment (Fig. 6).

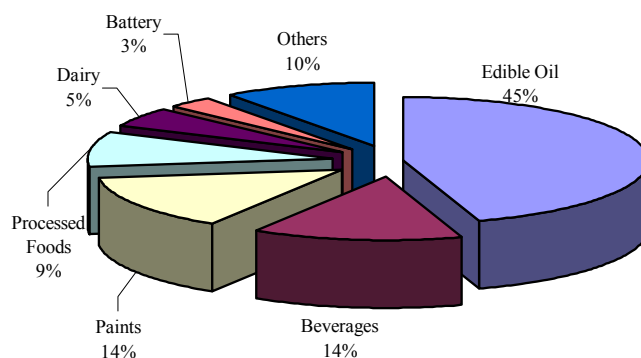


Figure 6: Segments of the Indian tinplate packaging market

The Indian tinplate packaging market is highly fragmented, with three major manufacturers. The value chain of the tinplate manufacturers starts off with the hot rolled coil supplier. All three manufacturers possess facilities for cold rolling and tin coating, but they do not have an integrated structure, which is able to manufacture cans from the hot rolled coil supply, so common with the 'global giants'. This definitely makes the conditions far more competitive not only with the imports, which not only have the added advantage of being a part of the integrated steel plant, but also with the low customs duty, which makes imports competitive for the domestic players. Added to that, the substitutes too have an edge over the tinplate manufacturers. Thus, WTO commitment made India a freight advantageous zone, offered an opening for organizations operating in the same business segment from Europe and developed Asian nations to start dumping unscrupulously. Thus, the domestic players, who once enjoyed a monopolistic position with a fair control over the pricing strategy, suddenly ended up in an oligopolistic market, with little or no control over the buyers, who now have more access to the products of the world market at competitive prices.

Therefore, the bargaining forces that are in play in the Indian tinplate market had to be analyzed. The array of forces in the Indian tin can industry (Fig. 7) makes the condition very competitive. The suppliers of steel have many other industries to sell to. Therefore, the tinplate industry does not have much leverage in the market. This shows the power and the ability of

one participant in the value chain to force its will on others in the chain. Thus, domestic tinplate manufacturers accept the price determined by steel makers.

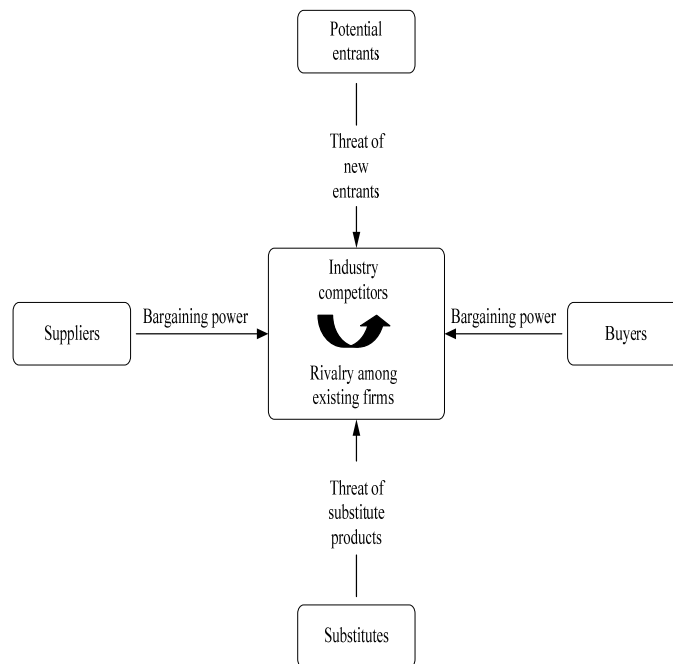


Figure 7: Porter's five competitive forces

The users of cans are primarily a small group of large food processors. They can wield their power to force the domestic players to reduce prices by playing other competitors against it. Producers of alternate forms of packaging, such as aluminum, PET, HDPE, etc., are also threatened by substitute plastic packaging for cans. In fact, many food processors have already moved to plastic packaging. Consequently, for local parties, the competition intensifies, as the demand for cans shrinks.

Making matters worse is the fact that, at any point in time, a new player in the industry might emerge, as the can making machines can be purchased easily by new entrants. This opens up the industry to new competitors, if profit margins are at an attractive level.

The manufacturing technology is widely available and reasonably priced and the barriers to entry are low. These four forces make the industry highly competitive. The fifth force, rivalry among existing firms, is equally intense and, hence, organizations compete for orders from a shrinking group of customers with the possibility of a bitter price war. The users of the final product are primarily a small group of large food processors. Users can wield their power to force the organization to reduce prices by playing other competitors against it.

Analysis of strengths, weaknesses, opportunities and threats (SWOT) for the Indian tinplate manufacturers has also been conducted (see Table 1).

Table 1. SWOT analysis of the Indian tinplate packaging industry

Strengths	Weaknesses
<ul style="list-style-type: none"> ➤ Low cost producer of tinplate ➤ Skilled manpower with 86 years of experience ➤ India is freight advantageous zone 	<ul style="list-style-type: none"> ➤ Inadequate focus on control mechanism for prevention of usage of lower grade imported tinplate in health sensitive packaging ➤ Weak research and development facilities ➤ Inadequate regulatory mechanism to take care of food products ➤ Highly fragmented tinplate packaging market
Opportunities	Threats
<ul style="list-style-type: none"> ➤ Increase of Indian GDP will provide opportunity for growth of packaging spend ➤ Retail boom will increase packaged food products ➤ Changing food habits and health consciousness of next generation Indians 	<ul style="list-style-type: none"> ➤ Innovation in alternative packaging such as HDPE, polyethylene, etc. ➤ Reducing tariff levels on imports result in unscrupulous dumping of lower grade tinplate from CIS countries ➤ Rising cost of tin which has to be imported completely from outside

In addition, strategic challenges that are ahead of the Indian tinplate manufacturers as a whole, have been identified. The four areas included global challenges, business level issues, tactical issues and customer front. The strategic challenges and their options may be summarized as given in Table 2.

Table 2. Summary of strategic challenges and options

Type	Strategic Challenge	Strategic Option
Global	In India and international markets, competition is from world steel majors who have economies of scale, consistency in product offering and also focus on R&D	Address economies of scale Improve quality standards
	WTO triggered tariff lowering	Enhance cost competitiveness
	Per capita consumption in India, less than 0.3 kg, is one of the lowest. A similar economy, like China, consumes 1 kg.	Increase growth of market size in India
Business	80% of imports are non-prime. Dumped imports impact market share, prices and place in doubt growth for domestic players.	Address dumping and unscrupulous practices
	Competition with substitute forms of packaging.	Enhance cost competitiveness Packaging solutions/ innovations
Operations	Quality yields consistent at 87%.	Check inconsistent process management
	Capacity utilization, though increasing, is at a slower rate.	Increase through puts
Customer	Overall customer satisfaction steady at 61%.	74% against world class in similar industry

5. STRATEGY TO FACE UP TO THE CHALLENGE

The strategic options to face the challenges posed by the new economic policy were related to developing the economies of scale through capacity enhancement of the existing facilities and upgrading the technology. Improvement of quality standards was achieved through the implementation of initiatives, such as the Statistical Process Control (SPC). The greatest advantage of globalization was the growth of the market and, hence, the increase in the per capita consumption of the end-product. The operational improvements were achieved through the implementation of the Total Operational Performance (TOP), which is a three-pronged strategy to improve upon throughput, reduce costs and improve quality. Although substantial benefits were accrued, it was not enough as it called for an organization-wide cultural change through the deployment of the much acclaimed Total Productive Maintenance (TPM) under the guidance of JIPM (Japan Institute of Plant Maintenance). This called for improving upon the Overall Equipment Effectiveness (OEE), thereby improving on all organizational aspects of losses on the account of productivity, quality, safety, environment, cost, etc. This will enable the organizations to face up the challenge posed by the increase in the cost of raw materials. Furthermore, as the

price is governed by the buyer, the domestic tinplate manufacturers have little or no control over the pricing strategy. The approach aims to satisfy the needs of the customers in the value chain (in this case, the can fabricators and fillers) within the specification limits as laid down in the Technical Delivery Compliance (TDC).

The integrated approach, as in Fig. 8, called for enhanced organizational performance and faced up to the challenges posed by the open economy on the account of globalization.

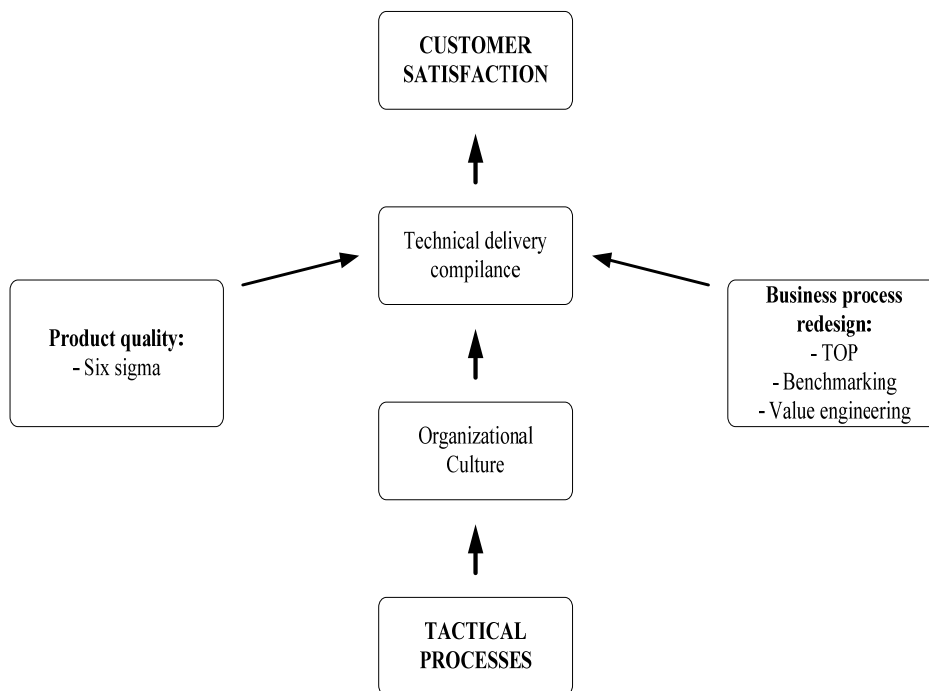


Figure. 8: Enhanced organizational performance through an integrated approach

6. NEO-STRATEGIC APPROACH

The conventional strategy described above shows an integrated approach towards improving the operational excellence at the organizational level. This is necessary, but not enough, if the changing market scenario is analyzed. The current strategic approach is restricted to the customer level only, whereby enhancing the functional benefits over the existing standards is emphasized

upon. The factors, such as rigidity, stack ability, printability, leakage prevention, etc., play the pivotal points for decision-making. However, the authors feel that going one step further and tapping into the 'mind-space' of the consumer is necessary, in order to combat with the new market trends.

6.1. Consumer 'mind-space'

In one of the studies conducted by the Point of Purchase Advertising in the US (POPAI), it was established that:

- A consumer spends, on average, 22 minutes per visit in a self service department store.
- The number of variants/brands on display is in excess of 1700 on average.
- Of these, around 8% are eye catching.
- Of all the impromptu buying, 70% are made in the store.
- The indicators for impromptu buying are based on the package graphics, presentation quality and cost. All these decisions are taken within a time span of nine seconds per package.

With the Indian economy growing and the purchasing power parity also rapidly rising, it is being observed that cost, which was, until now, being considered as one of the main factors for purchasing decisions, may not remain the same in the times to come. Therefore, the new value curve at the consumer level should be established. This will help to identify the factors that matter most to the consumers, who are going to be the driving force for decision-making in retail packaging. Construction of the new value curve will enable the tinplate manufacturers to emphasize the points that are of most importance to the consumer and raise their levels, thereby reducing or eliminating the factors that have the least importance or no importance at all.

Plotting of the value curve and tapping into the consumer needs are not new in the Indian market. The domestic airlines can be used as an example, with Air Deccan serving as a benchmark. When all the airlines were busy providing more facilities at the same price and, in turn, 'eating' their own profits, Air Deccan came up with the revolutionary idea of cheap flights. They did not target at the existing group of customers. Instead, they tried to venture into the market of people traveling in upper class railways. While plotting the value curve, they must have realized that beautiful airhostesses, complementary meals and warm napkins hardly matter for a person traveling by train. What matters to him/her is basic neatness, comfortable travel and

security, all of which are available in a train, as well. Air Deccan decided to cut into this segment of travelers. Thus, it kept in mind all these factors and provided flights which were marginally costlier than a railway ticket. Further, this flight helped the person to save time and it abides by all the safety norms as per airport authority norms. Thus, Air Deccan created a market space which never existed before and now we find many more airline operators, like Spicejet, which are ready to make an entry in the same segment on a bigger scale. This is a winning strategy, whereby the value offered is enhanced to the traveler (the value is much more when compared with the marginal extra price being paid).

A similar approach to the strategy should be adopted by the tinplate manufacturers. On one hand, they should try and increase the market share in areas of their product leadership through business excellence measures adopted by the discussed organizations. On the other hand, they should create new boundaries along with the upcoming food processing industry and jointly try to enhance the importance of processed foods packaged in tinplate. This will not only help in sustaining the position of tinplate packaging, but also enable India to reach the standards of developed countries, where regulatory norms are far different from that existing in India. The concept of co-branding will also be in place.

In order to overcome the new challenges, it can be concluded that now is the right time for the domestic players to implement strategies in terms of innovating value. The organizations should stop operating in the given industry conditions and the conditions set by their competitors. Competitive benchmarking can not help to create a new strategic position and increased market share. Imitative approaches should be avoided. The organizations, thus, should shift their approach from a competitive one to that of value innovation.

The players should not only be engrossed in outpacing the competition, but rather should focus on dominating the market by introducing a major advance in the buyer value. Thus, it is imperative for organizations to construct a new value curve which calls for a conscious approach to identify what the buyers really value. In this approach, one has to undertake an unbiased approach⁶, in order to:

⁶ W. Chan Kim & R. Mauborgne: *The Strategic Logic of High Growth*, Harvard Business Review on Strategies for Growth

- identify the factors which can be reduced well below industry standards,
- eliminate the factors that the industry has taken for granted,
- raise the factors well above the industry standards and
- create factors which the industry has never offered.

Plotting of the new value curve will enable the organization to truly scan the buyers requirements and for what they value. This will help in eliminating unnecessary facilities which the buyer might not value at all, but adds on to the price. Thus, a shift in the approach from one of a conventional competitive strategy to one of value innovation (Fig. 9) will not only help the organization to enhance the market share, but also delight customers with value-added offerings at a competitive price.

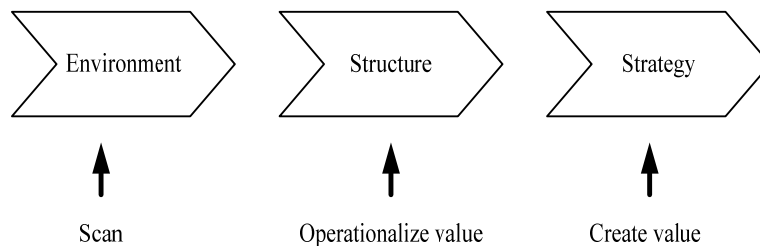


Fig 9: Strategic approach for value innovation

7. CONCLUSION

Thus, we see that the Industrial Policy of 1991 opened up the economy of India to integrate with the world economy. Although it opened up opportunities for many with an objective of rapid industrialization, higher employment, alleviated poverty, increased competition resulting in improvement of quality and reduced costs, it was the threat to many industries, like the one under consideration, which opened up to the onslaughts of global players and hence the brink of closure. However, the discussion has shown how the dynamic world class measures such as TPM and business excellence initiatives had helped the Indian tinplate manufacturers to stand back and turn around. Not only did it help to consolidate its position in the domestic market, but with the adoption of world class manufacturing initiatives, it also started exporting which grew from a minor 3% in 1989 to 37% in 2004 to European and Asian countries. In an era of fierce competition with stiff challenges from global

players, the initiatives help in gaining competitive advantage in terms of cost, productivity and quality. However, the time is sharp to undertake future strategies whereby one has to innovate in terms of value and create a niche for itself. The strategic approach needs a shift from competition to value innovation which would help the tinplate industry become the most choiced packaging medium in the Indian market as a whole.

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ANALIZA IZAZOVA S KOJIMA SE SUOČAVA INDIJSKA INDUSTRIJA LIMA ZA PAKIRANJE

Sažetak

Nova indijska ekonomske politika iz 1991. godine otvorila je indijsko tržište svijetu. Indijski proizvođači, koji su poslovali u zaštićenoj ekonomiji, sada su otvoreni za natjecanje sa organizacijama diljem svijeta. Postalo je nužno da indijske organizacije razviju komparativne prednosti kako bi preživjele krizu. One su brzo odgovorile restrukturiranjem strategije - od naglašavanja ekonomije razmjera prema razvoju agilnih organizacija s visokim stupnjem fleksibilnosti. Međutim, brzo se došlo do zaključka da fokusiranje na samu proizvodnju nije dovoljno, već da je potrebno razviti integrirani pristup, koji može uskladiti proizvodnju s vrijednošću koju treba isporučiti potrošačima. Ovaj rad govori o indijskim proizvođačima lima za pakiranje, koji su nekoć imali monopol na indijskom tržištu. Međutim, liberalizacija je uzrokovala veliku euforiju i transformirala Indiju u zonu s niskim troškovima prijevoza za proizvođače lima širom svijeta. Drastično smanjenje uvoznih carina, zajedno s slabom regulativnom politikom vlade dovelo je do bezobzirnog uvoza lima ispod tržišne cijene, što je dovelo do krizne situacije za domaće proizvođače. Ovim se radom analizira indijsko tržište lima, te se pokušavaju identificirati prilike za budućnost. Nadalje se pokušava identificirati trenutni pristup u praksi, kao i promjene u postojećoj paradigmi, potrebne za zadovoljavanje promjenjivih tržišnih potreba. Iako je detaljni strateški pristup izvan obuhvata ovog rada, u njemu se pruža pregled novog pristupa, odnosno inoviranja vrijednosti, utemeljenog na percepciji potrošača.

