

Strategy Formulation for Performance Improvement of Indian Corrugated Industry: An Application of SWOT Analysis and QSPM Matrix

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ABSTRACT

Strategy formulation and implementation is one of the most important tasks that managers in every organization need to perform. This process has emerged with a range of approaches that enjoyed different levels of support and recognition over time. But, somehow in Indian unorganized SMEs, it has not been applied effectively. The aim of the present study is to develop an appropriate strategy for Indian corrugated firms. To reach this object, the study suggests SWOT analysis along with QSPM and SPACE matrix. Vast literature survey was done to explore different factors for SWOT Analysis and then the weight and importance of each factor was defined by using Focus Group approach. Based on the inputs given by experts during focus group session, EFE and IFE matrixes were developed. The result of SPACE matrix showed that aggressive strategies are required to pursue. The QSPM after analysis resulted in to selection of "Development of R&D Department" strategy with score of 4.06. This proposed strategy is very much beneficial for corrugated industry as the whole possibility of success is based on customization aiming more space in minimum dimensions at best quality and price.

Key Words:

Strategic Planning, SWOT Analysis, QSPM Matrix, Corrugated Packaging

INTRODUCTION

Packaging is fundamental requirement nowadays, with its usage growing broadly in line with the global economy. The first perception regarding product is made mainly through its packaging itself. Its efficacy ranges to almost each sector from food, drinks, healthcare, and cosmetics to industrial sector. It acts as central element while making purchase decision as it induces feeling about quality and status of product [1]. Packaging is segmented mainly on the basis of material type like paper, board, plastic, glass, wood, metal, and among these paper and board packaging accounts for largest share of global packaging industry [2]. India being a fast-growing national market has enormous business opportunities. Manufacturing small and medium sized enterprises (SMEs) are imperative engines [3] and recognised as critical component for economic health of the country [4]. The Indian packaging industry is dominated by the unorganized sector where principally SME units are operating. The Indian packaging industry is growing at 12% per annum and is expected to grow to USD 43.7 bn by 2016 [2]. The reasons could be steady economic growth, varying demographics, changing life styles, increasing disposable income and so on. Between different types of packaging, Corrugated packaging is one of the prominent segments and India is currently ranked 15th in the world for its paper and paperboard consumption [5]. The per capita consumption of packaging in India is 4.3 kg per person per annum [5].

In today's impulsive environment, corrugation industry is facing numerous challenges like intense competition, extreme quality scrutiny, collapsed time horizons and dynamic market. According to Shri Hemant Saraogi, President, Eastern India Corrugated Box Manufacturer's Association (EICMA), it is essential to bring cost effectiveness and upgradation in performance orientation to sustain in this globalized competitive scenario. It will help

in achieving international standard specification to target exports [6]. It is not sufficient to focus only on internal operations and short term goals rather balancing opportunities and threats is must for targeting expanding demand for unfamiliar markets. There is a big necessity for SMEs to enhance their competitive capacity under this market situation by establishing effective strategies [7]. Here, it becomes salient to focus strategic management as this is one of the prominent areas required for making long term presence in the market.

Strategic Management is a process of revising and analysing internal and external environment to plan, implement and observe strategies. Practically, it proceeds in three stages: strategy formulation, strategy implementation and strategy evaluation. Strategy process is very interactive in SMEs [8]. Strategy management helps in designing clear vision and mission statement followed by an internal and external environment analysis. It helps in setting long term objectives to finally select among strategic alternatives available.

Strategic management is an important element for company's growth, continued scale expansion as well as for further development. During literature review, it has been realised that most of the studies on strategic management are based on researches of large companies. Only some of them realised the importance of strategic management in SMEs. The objective of this paper is to provide concrete and absolute strategy formulation process for corrugated industry. It will try to serve the needs of different manufacturers and other interested parties.

This study is about employing strategic management tools in Indian corrugated packaging firms. The purpose of this paper is to propose effective selection of strategy for corrugated firms which can boost their growth speed and make their strong presence. It aims to work as reference for the professionals in these firms to better improve and utilize the strategic management tools for their future growth.

For achieving the objective different strategic tools have been applied:

- Strength–Weakness–Opportunity–Threat (SWOT) Analysis,
- External Factor Evaluation Matrix (EFEM),
- Internal Factor Evaluation Matrix (IFEM),
- Threat–Opportunity–Weakness–Strength (TOWS) Analysis,
- Strategic Position and Action Evaluation (SPACE) Matrix
- Quantitative Strategic Planning Matrix (QSPM)

The proposed framework (figure 1) will help in determining all practical strategies without any contribution of personal biasness. This study will let all the corrugated SMEs to analyse the importance of each strategy alternatives by using this feasible decision making framework.

METHODOLOGY

The underlined research investigates by conducting three in-depth stages to explore strategic patterns of corrugated manufacturing SME's. Data have been collected through semi structured focus group session with academicians and corrugated manufacturing plant owners. Then data were analysed by using different scoring models based on proposed framework.

Internal and external environment of the organization was analyzed and then, using SWOT, the organizations' strengths, weaknesses, opportunities and threats were evaluated. Information collection and analysis, choice of technique to investigate is an important issue to be taken into consideration as it can impact the future development of strategy. To avoid manipulations and biasness the concerned qualitative factors have assigned weights and rating to reach effective solution from the inputs of focus group discussions. Based on SPACE matrix, appropriate group strategies were identified for corrugated firms. Then, QSPM was used as it provides a transparent framework for prioritization process [9].

Figure 1: Framework Used for Implementing Strategic Planning

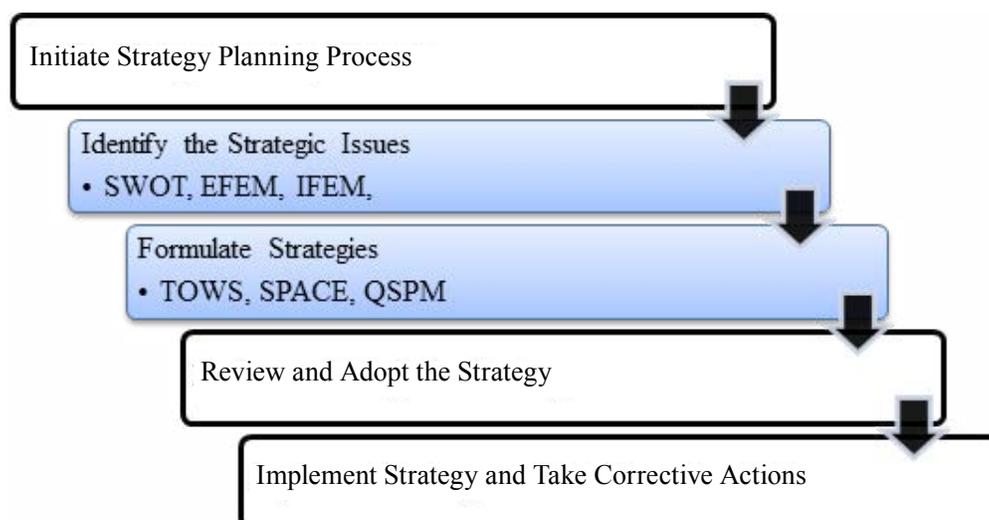
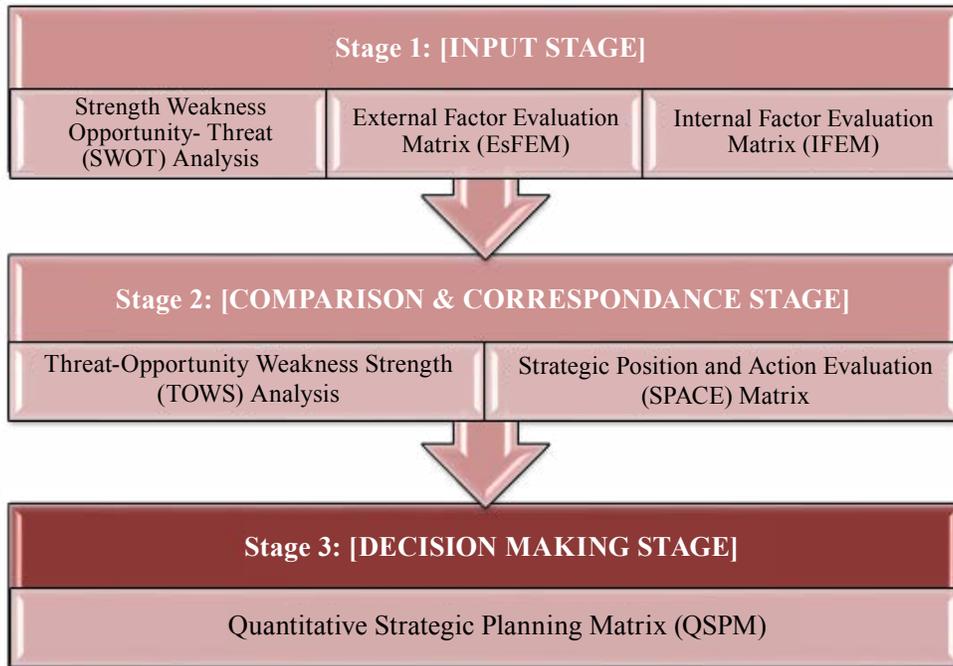


Figure 2: Flow of Study



FACTORS IDENTIFIED FOR INPUT STAGE

The following factors have been identified through literature review and discussion with industry experts to formulate strategies:

Ease Availability of Raw Material: For manufacturing corrugated boxes there are only three raw materials required i.e., paper, adhesives and stitching wire and these are available and reachable to almost every place regardless of cost associated with transportation [10].

Vast Domestic Market: The corrugated box market in coming five years will witness considerable growth which is likely to be 11 million tons by 2020 [10], [11].

Able to Tailor to Specifications: Corrugated board can be modified to any size or shape of product to use storage space more effectively by reducing warehousing and transportation costs [12], [13].

Printable Graphics: Corrugated board is fully printable to add branding, images, messages, and special offers [12], [13]. It makes eye catching for customers at point of sale.

Widespread Usage: 80% of industrial packaging is done through carton boxes because of its numerous advantages like effective cushioning, light weight, easy to fabricate and storing, easy for disposal, no strapping necessary, printing and advertising advantages, must in export market, recyclable etc. [14].

Recyclability: Recycling corrugated helps in decreasing solid waste disposal. In 2012, 91 percent of corrugated produced was recycled into new products [15], [16].

Employment Generation: The unorganised manufacturing sector employs almost 80 per cent of labour by generating 32 per cent of income of the total manufacturing sector [16], [17].

Low Gestation Period: A small scale unit has less gestation period usually from 2-5 years [18]. It is the period after which the return on investment starts.

Viewed as Old Material: Corrugated is a conventional packaging material used since long. But in this changing scenario, its durability is a matter of concern [13]. Plastic boxes are sturdier and safer compared to cardboard boxes [19].

Wet Strength Concerns: Wet strength is the mechanical strength of paper made by adding synthetic resins so that it will sustain after submersing in water [20]. Wet Strength paper can cause health issues and damage to recycling equipment. Careful sorting is required to increase recycled cardboard value else it will make product unusable [13], [21].

Moisture Barrier: Corrugated boxes are very sensitive to moisture and humidity. These are the most common reasons for failure. Moisture content plays a significant role in designing process as it directly hits strength and stability of raw material [13], [22].

Availability of Low Cost Alternatives: There are lot many alternatives available which are competing with corrugated boxes and changing preference of buyers because of stability and environmental concerns [13]. One is corrugated plastic which is waterproof and versatile, longer shelf life and can handle moisture, snow and rain.

Low Level of Internationalization: MNCs are demanding corrugated boxes of international standards and the pattern of buying the packaging is changing [23].

Regulatory Hurdles: Lack of regulation, which leads to excess capacity and intense competition, labour issues and the muscle power of large customers over the smaller players are holding box makers from hiking prices to manage costs [18], [24].

Marketing: Marketing is quite difficult task for these types of firms as trade is only based on relationship managed with buyer organizations [18].

Booming Electronic Retail Sector: The country's largest e-commerce company, Flipkart.com ships almost 60% of items in corrugated boxes [25]. The corrugated box becomes the symbol of Amazon. in, Flipkart.com and Jabong.com in television ads.

Changing Consumer Behaviour: Consumer lifestyle, eating habits, purchasing pattern are changing resulting in to favour of demand of corrugated boxes [26].

Huge Growth Potential: MNCs are trying to enter in this area in Indian market and collaboration with existing manufacturers is only solution. It will help in entering international market [16].

Budding Exports: Budding Exports means budding demand of corrugated boxes as this is one of the packaging material required during shipments [25].

Ability to Optimize and Engineer Product and Distribution: Corrugation does not involve standardized manufactured products, regardless; it can be customized during production and even at distribution part as per buyers' requirement [13].

Investment in Direct Printing for Retail Ready Packaging: Retail ready packaging is not new in market but its features like easy to dispose, returnable, easy to identify and open makes it attractive and drives purchase decision. This solution is very much demanding as it offers quick replenishment of stocks, improves supply chain efficiency and reduces cost for retailers, and ensures effective product handling [13].

Mini-Mill's Localization Strategies: Mini-Mills are the units which extract fibre from used and old corrugated boxes and produce only one type of containerboard (either linerboard or corrugated medium). They require low capital and operating costs. The benefit is that they operate independently irrespective of integrated firms for the raw material requirements. Construction of recycled mini-mills can hold too much control on pricing power by integrated firms [13], [27].

Competition Localized: The corrugated products industry is highly competitive, with no single corrugated packaging producer having a dominant position [16], [28].

Fluctuating Raw Material Prices: Raw material costs, Kraft paper price and labour costs have increased by 25 per cent and 20% in the last six months [16], [29].

Competitive Pricing Policy: Containerboard cannot generally be differentiated by producer, which tends to intensify price competition. Relying on a competitive pricing strategy may be risky if volume cannot be maintained or if a cost suddenly rises [30].

Advances in Alternate Design: The recently commissioned study revealed that reusable/returnable plastic crates require less total energy, produce less total solid waste and generate less total GWP than the corrugated options [13], [31].

Extended Producer Responsibility: The recent efforts have expanded EPR to include reducing packaging, using more sustainable materials and preventing litter. EPR is intended to shift financial and management responsibilities for collecting and recycling packaging from local governments and taxpayers or ratepayers, to producers and consumers [13].

Table 1: Strength–Weakness–Opportunity–Threat Model (SWOT)

STRENGTHS (S)	WEAKNESSES (W)
S1: Ease availability of raw material S2: Vast domestic market S3: Able to tailor to specifications S4: Printable graphics S5: Widespread usage S6: Recyclability S7: Employment generation S8: Low gestation period	W1: Viewed as old material W2: Wet strength concerns W3: Moisture barrier W4: Availability of low cost alternatives W5: Low level of internationalization W6: Regulatory hurdles W7: Marketing
OPPORTUNITIES (O)	THREATS (T)
O1: Booming electronic retail sector O2: Changing consumer behaviour O3: Huge growth potential O4: Budding exports O5: Ability to optimize and engineer product and distribution O6: Investment in direct printing for retail ready packaging O7: Mini-mill's localization strategies	T1: Competition localized T2: Fluctuating raw material prices T3: Competative pricing policy T4: Advances in alternate design T5: Extended producer responsibility

**STRENGTH-WEAKNESS-
OPPORTUNITY-THREAT (SWOT)
MATRIX**

Strategic planning can be effectively executed with the application of SWOT to reach the goals of the organization. It helps in gaining insights for solutions related to the existing problems. SWOT means four factors strengths, weaknesses, opportunities and threats. Strengths are well operated controllable activities whereas weaknesses include the controllable activities of organizations that are badly operated [32]. Opportunities are hidden potential whereas threats are potential losses [33].

Based on the factors identified, categorization has been made in SWOT matrix to depict status of Indian corrugated industry in Table 1.

**EXTERNAL FACTOR EVALUATION
MATRIX (EFEM)**

External Factors Evaluation Matrix is a tool that allows strategist to calculate environmental factors, economic, social, political, cultural, legal, technology, market conditions and competition for the area under consideration. Factors should be quantified as much as possible to reduce misinterpretation and misunderstanding.

Table 2: External Factor Evaluation Matrix (EFEM)

External Factors	Weight	Rating	Weighted Score
OPPORTUNITIES (O)			
O1: Booming electronic retailing	0.15	4	0.60
O2: Changing consumer behaviour	0.10	3	0.30
O3: Huge growth potential (related industries)	0.05	3	0.15
O4: Budding exports	0.10	1	0.10
O5: Ability to optimize and engineer product and distribution	0.05	2	0.10
O6: Investment in direct print technology for retail ready packaging	0.1	2	0.20
O7: Mini-mills localization strategies	0.05	3	0.15
THREATS (T)			
T1: Competition localized	0.05	3	0.15
T2: Fluctuating raw material prices	0.1	4	0.40
T3: Competitive pricing policy	0.05	3	0.15
T4: Advances in alternate design	0.05	2	0.10
T5: Extended producer responsibility	0.05	3	0.15
TOTAL	1.00		2.55

The factors are assigned weights and rating on the basis of experts opinion during focus group sessions in Table 2. Discussions were made regarding each factor importance so that unbiased quantification can be done on the basis of their experience in corrugation industry. For the sector focussed upon in this paper, the most important external factor for growth in this line is “Booming electronic retailing” as indicated by the 0.15 weight. The weight column must sum to 1.0 irrespective of the number of factors. The ratings are firm specific that how well the firm is performing, where a 4 = the response is superior, 3 = the response is above average, 2 = the response is average, and 1 = the response is below average. The corrugated firm is doing excellent in regards to factors (O1, T2) as indicated by the ratings of 4.

The total weighted score of 2.55 is above the average (mid-point) of 2.5, so they are doing pretty

good by taking advantage of the external opportunities and avoiding the threats.

There is lot more scope for growth as the highest total weighted score would be 4.0. As indicated by Ratings, it especially needs to perform better regarding O4 to mitigate threats.

INTERNAL FACTOR EVALUATION MATRIX (IFEM)

Internal Factors Evaluation Matrix is a tool that reviews the strengths and weaknesses of the organization. This matrix is used as an instrument to collect information on internal strategic planning process [33]. The IFEM contains substantial quantitative data rather than fuzzy statements. The whole rating and weight score was done on the basis of expert opinions in semi structured focus group sessions.

Table 3: Internal Factor Evaluation Matrix (IFEM)

Internal Factors	Weight	Rating	Weighted Score
STRENGTHS (S)			
S1: Ease availability of raw material	0.08	3	0.24
S2: Vast domestic market	0.12	3	0.36
S3: Able to tailor to specifications	0.10	3	0.30
S4: Printable graphics	0.08	4	0.32
S5: Widespread usage	0.04	3	0.12
S6: Recyclability	0.12	4	0.48
S7: Employment generation	0.04	3	0.12
S8: Low gestation period	0.02	3	0.06
WEAKNESSES (W)			
W1: Viewed as old material	0.02	2	0.04
W2: Wet strength concerns	0.05	1	0.05
W3: Moisture barrier	0.15	1	0.15
W4: Availability of low cost alternatives	0.02	2	0.04
W5: Low level of internationalization	0.03	2	0.06
W6: Regulatory hurdles	0.03	2	0.06
W7: Marketing	0.10	1	0.10
TOTAL	1		2.50

IFEM provided in Table 3 represents the three crucial factors required to being successful in business which are “Vast domestic market, Recyclability, Moisture barrier.” The corrugated firm is doing outstanding on “Printable Graphics” as indicated by the 4 ratings.

This analysis results in to a 2.5 total weighted score which on a 1 to 4 scale is exactly average/half way indicating there is huge scope in operations/ strategies/ policies/procedures. Therefore to derive firm’s strategies it could be better to make systematic match of strengths and weaknesses with opportunities and threats. For this purpose, TOWS matrix is incorporated.

THREAT-OPPORTUNITY-WEAKNESS-STRENGTH (TOWS) ANALYSIS

This (Threat – Opportunity – Weakness – Strength) analytical tool utilizes the internal and external factors to generate strategies. It comprises of following 4 strategic groups [34].

1. How strengths are used to exploit opportunities.
2. How weaknesses are reduced by using opportunities.
3. How strengths are used to minimize the impact of threats.
4. How weaknesses should be handled that will make these threats a reality.

Based on SO/ST/WT/WO approach different strategies are formulated to explore new segments of growth in Table 4.

Table 4: Threat–Opportunity–Weakness–Strength (TOWSs) Matrix

<p style="text-align: center;">INTERNAL FACTORS</p> <p style="text-align: center;">EXTERNAL FACTORS</p>	<p style="text-align: center;">STRENGTHS (S)</p> <p>S1: Ease availability of raw material S2: Vast domestic Market S3: Able to tailor to specifications S4: Printable graphics S5: Widespread usage S6: Recyclability S7: Employment generation S8: Low gestation period</p>	<p style="text-align: center;">WEAKNESSES (W)</p> <p>W1: Viewed as old material W2: Wet strength concerns W3: Moisture barrier W4: Availability of low cost alternatives W5: Low level of internationalization W6: Regulatory hurdles W7: Marketing</p>
<p style="text-align: center;">OPPORTUNITIES (O)</p> <p>O1: Booming electronic retail sector O2: Changing consumer behaviour O3: Huge growth potential (related industries) O4: Budding exports O5: Ability to optimize and engineer product and distribution O6: Investment in direct printing for retail ready packaging O7: Mini-mill's localization strategies</p>	<p style="text-align: center;">“SO Strategies” [Aggressive]</p> <p>SO1: Establish R&D department within a existing unit {S3, S4, S5, O1, O5, O6} SO2: Set one more similar plant {S2, S5, O1, O3, O7}</p>	<p style="text-align: center;">“WO Strategies”</p> <p>WO1: Make more B2B connection {W7, O1} WO2: Make relationship with MNCs {W5, O3, O4} WO3: Focus can also shift on trading part {W2, W3, O3, O6}</p>
<p style="text-align: center;">THREATS (T)</p> <p>T1: Competition localized T2: Fluctuating raw material prices T3: Competitive pricing policy T4: Advances in alternate design T5: Extended producer responsibility</p>	<p style="text-align: center;">“ST Strategies”</p> <p>ST1: Make customization edge to provide more quantity in same size. {S3, T4}</p>	<p style="text-align: center;">“WT Strategies” [Defensive]</p> <p>WT1: Introduce retail ready packaging solutions {W1, W5, T4}</p>

STRATEGIC PLANNING AND ACTION EVALUATION (SPACE) MATRIX

To identify proper set of strategies from different options available, many tools like BCG matrix, IE matrix, CPM, SPACE matrix can be used. The Strategic Position and Action Evaluation matrix is a strategic management tool that focuses on competitive position of organization. It is based on four areas of analysis: Financial strength and competitive advantage under Internal Strategic Dimensions; Environmental Stability and Industry Strength under External Strategic Dimensions.

For the present study, SPACE matrix was applied where different variables were gauged and quantified on the basis of expert opinion. From the stated result in Graph 1, values are plotted on x axis and y axis to find out the intersection point. The line reveals “Aggressive Strategies” are required to pursue.

When we have 2-3 strategies and need to decide which one is best then Quantitative Strategic Planning Matrix (QSPM) is best to use. Aggressive strategies showed two options: Establishing Research and development (R&D) department within an existing unit and Setting one more similar plant; both these strategies require lot of investment in all scope. So, to select best among them, finally, QSPM is been used.

Graph 1: Strategy Selection Matrix

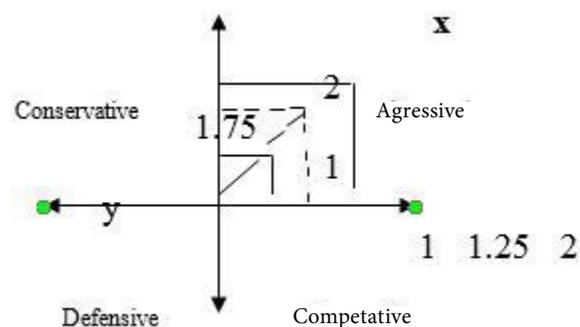


Table 5: Strategic Planning and Action Evaluation Matrix (SPACE)

Internal Strategic Position		External Strategic Position	
COMPETATIVE ADVANTAGE (CA)		INDUSTRY STABILITY (IS)	
Axis x	(-2) Product Quality	(4) Growth Potential	
	(-2) Customer Loyalty	(4) Ease of Entry in Market	
	(-4) Degree of Vertical Integration	(3) Access to Financing	
	(-2) Market Share	(4) Profit Potential	
	(-2.50) Average	(+ 3.75) Average	
Total x axis score: 1.25			
FINANCIAL STRENGTH (FS)		ENVIRONMENTAL STABILITY (ES)	
Axis y	(4) Return on Investment	(-3) Inflation)	
	(5) Liquidity	(-4) Competitive Pressure	
	(5) Working Capital	(-2) Risk Involved in Business	
	(4) Cash Flow	(-2) Demand Variability	
	(+4.5) Average	(- 2.75) Average	
Total y axis score: 1.75			

Table 6: Quantitative Strategic Planning Matrix (QSPM)

Key Factors		(SO1) Establish one R&D department		(SO2) Set one more similar plant	
	Weight	Attractiveness Score	Total Attractiveness Score	Attractiveness Score	Total Attractiveness Score
S1	0.08	0	0.00	3	0.24
S2	0.12	1	0.12	4	0.48
S3	0.10	4	0.40	0	0.00
S4	0.08	4	0.32	2	0.16
S5	0.04	1	0.04	3	0.12
S6	0.12	3	0.36	0	0.00
S7	0.04	0	0.00	1	0.04
S8	0.02	2	0.04	3	0.06
W1	0.02	2	0.04	1	0.02
W2	0.05	3	0.15	4	0.20
W3	0.15	3	0.45	4	0.60
W4	0.02	3	0.06	1	0.02
W5	0.03	1	0.03	1	0.03
W6	0.03	0	0.00	4	0.12
W7	0.10	2	0.20	3	0.30
TOTAL	1.00				
O1	0.15	2	0.30	2	0.30
O2	0.10	4	0.40	1	0.10
O3	0.05	2	0.10	4	0.20
O4	0.10	0	0.00	1	0.10
O5	0.05	3	0.15	2	0.10
O6	0.10	4	0.40	0	0.00
O7	0.15	1	0.15	2	0.30
T1	0.05	2	0.10	3	0.15
T2	0.10	0	0.00	2	0.20
T3	0.05	0	0.00	2	0.10
T4	0.05	4	0.20	0	0.00
T5	0.05	1	0.05	2	0.10
TOTAL	1.00		4.06		4.04

QUANTITATIVE STRATEGIC PLANNING MATRIX (QSPM)

The Quantitative Strategic Planning Matrix is an excellent tool for assimilating and prioritizing key internal, external, and competitive information needed for devising an effective strategic plan [35]. This approach attempts to impartially select the best strategy for a firm [34].

The left column of QSPM involves internal and external factors which are directly drawn from IFE and EFE matrixes. The top row consists of alternative strategies derived from SPACE matrix. Attractiveness Score indicates importance of each factor to alternate strategy. The AS ranges from (1-4) or (not attractive – highly attractive). Total Attractiveness score (TAS) indicate the relative importance of each individual strategy. The QSPM sum total attractiveness score reveals the decision regarding which strategy to pursue.

According to above analysis in Table 6 “SO1” scores 4.06 and “SO2” scores 4.04. There is very closer difference between identified aggressive strategies. Both are attractive but “Establishing R&D” department in the existing unit has greater scope of growth as corrugation is customization according to customer’s needs.

DISCUSSION AND CONCLUSION

This paper provides guidelines to show how different strategic management tools helps decision making. In the absence of these approaches management cannot analyse internal and external environment. The quantitative approach of these tools makes them more reliable. They help in avoiding misinterpretations.

Therefore, this proposed study aims to evaluate and analyze the Indian Corrugated manufacturing industry by the SWOT and QSPM strategic planning approach. For this, the current status of the industry

was analyzed, appropriate strategy was identified and selection of suitable strategies was made via applying the comprehensive framework of strategy design [36]. SWOT matrix indicates a framework for helping the planners to identify the strategies of achieving goals. However, QSPM enhances the probability that the final strategic decisions will be best for the firm to pursue.

The results of analyzing the internal and external factors matrix represented that there is a huge scope of growth as indicated by the score of 2.50 for internal factors and 2.55 for external factors. It has been realised that this sub segment of packaging industry has a desirable position reflected during SWOT Analysis. The SPACE Matrix indicates that the aggressive strategy will best fit the industry needs. In addition, WO, ST, SO, and WT strategies were identified by applying TOWS matrix, and according to the position obtained SO strategies were found as suitable solutions. After reaching this stage, it was assumed that QSPM matrix would provide more accurate analysis. Based on the analysis, the strategies were prioritized as “Establishing R&D unit in similar plant” as TAS of (4.06) and “Set one similar unit” as TAS of (4.04). After exploring internal and external environment it has been found that “Establishing R&D department in the existing unit” is best strategic decision. R&D unit works towards product improvisation, upgradation of manufacturing process to meet the demand of modern society. It is the only assumed way of success in this segment as everything is only dependent on product and relationship management.

Investment in packaging innovation influence end-user consumption and retailer’s operational efficiency through packaging designs. Indian corrugators, rather than quitting should work on innovations and technological improvements to deal with regard to the need for superior products worldwide [6].

LIMITATIONS

Since this paper focuses on the SMEs in corrugated manufacturing industry, hence, it may not be generalized to other packaging sub-segments. On the other hand, it is difficult to take it on the broader scale as it is based on limited opinion during Focus Group sessions.

REFERENCES

- [1] Lal, R.C., Yambrach, F., and McProud, L., "Consumer Perceptions towards Packaging Design : A Cross Cultural Study," *Journal of Applied Packaging Research*, vol. 7, issue 2, pp. 1-34, 2015.
- [2] Organisation, W. P., and Ltda., P. I., *Market Statistics and Future Trends in Global Packaging*. Brazil: ABRE – Brazilian Packaging Association, 2008.
- [3] Van, G.A., "Management and Governance in Dutch SMEs," *European Management Journal* , pp. 583, 2005.
- [4] Ghobadian, A., and O'Regan, N., "Developing an exploratory model to determine the link between organizational culture, leadership style, and contingency factors on the corporate strategy of manufacturing SMEs," *International Journal of manufacturing technology and management* , pp. 1-7, 2000.
- [5] ONICRA Credit Rating Agency of India., *Packaging : a new role packed and delivered*, 2014.
- [6] Saraogi, S.H., "Corrugated Fibre Board Boxes," (EICBMA), [online] 2007, <http://www.eicbma.com/chspeech/sem-iip-kol-050707.pdf> (Accessed: 13 May, 2015).
- [7] Chen, J., "Development of Chinese Small and Medium Sized Enterprises," Emerald Group Publishing Limited, 2006.
- [8] Ates, A., and Bititci, U., "Strategy in small to medium sized enterprises: Evidence from UK Manufacturing SMEs," pp 5.
- [9] David, M.E., "The quantitative strategic planning matrix (QSPM) applied to retail computer store," *The Coastal Business Journal*, pp 42-52, 2009.
- [10] Singha, S.P., Tegegneb, F., & Ekenemc, E., "The Food Processing Industry in India: Challenges and Opportunities," *Journal of Food Distribution Research* , pp 88, 2010.
- [11] Narain, S. "Indian Corrugated Market : The Insurgence," (ReedManch Exhibitions) [online] 2013, <http://www.reedmanch.com/indian-corrugated-market-the-insurgence/> (Accessed: 15 May, 2015).
- [12] Newport, R. "Mr Corrugated Highlights the Benefits of Corrugated Board," (S. Lester Packing Materials Ltd.) [online] 2013, <http://www.slesterpacking.co.uk/2013/09/mr-corrugated-highlights-the-benefits-of-corrugated-board/> (Accessed: 15 May, 2015).
- [13] Schmidt, D., "Assessing the Current Sustainability Profile of the Corrugated industry," *Corrugated Packaging Alliance*, 2011.
- [14] Scheme on Corrugated Board and Boxes, The office of Development Commissioner (MSME), Ministry of Micro, Small & Medium Enterprises, Government of India, [online] 2015, <http://www.dcmsme.gov.in/reports/Corrugated%20boxes.html> (Accessed: 15 May, 2015).

- [15] Smart choices today give the future a great start, Corrugated Packaging Alliance, [online] 2015, <http://www.corrugated.org/viewpage.aspx?contentid=38> (Accessed: May 15,2015).
- [16] Rao, A.L., “An industry analysis with special reference to indian paper industry,” International journal of business management & research , pp. 82-83, 2012.
- [17] Trivedi, P., Lakshmanan, L., Jain, R., and Gupta, Y. K., “ Productivity, Efficiency and Competitiveness of the Indian Manufacturing Sector,” Reserve Bank of India, [online] 2011, <https://www.rbi.org.in/scripts/PublicationsView.aspx?id=13366#ACK> (Accessed: May 15,2015).
- [18] Gupta, T., “Swot Analysis Of Small Scale Industries In India,” International Journal of Management and Social Sciences Research (IJMSSR) , pp. 28, 2013
- [19] Cardboard Box and Corrugated Boxes, Plastic boxes though somewhat more expensive, are sturdier and hence safer compared to cardboard boxes, [online] 2012, <http://blog.helenprinting.com/plastic-boxes-though-somewhat-more-expensive-are-sturdier-and-hence-safer-compared-to-cardboard-boxes/> (Accessed: May 15,2015).
- [20] Guidelines for recycled content in paper and paper board packaging, Sustainable Packaging Coalition, [online] 2011, <http://www.sustainablepackaging.org/Uploads/Resources/recycled-content-paper-packaging.pdf> (Accessed: 17 May,2015).
- [21] Recycling cardboard and brown paper bags helps reduce pollution, Valley Recycling Centre, [online] 2011, <http://valleyrecycling.org/what-how-to-recycle/recycling-cardboard/> (Accessed: 17 May,2015).
- [22] Lynga, H., and Siko, G., Moisture Dynamics in Corrugated board boxes, 2003.
- [23] Global Competitiveness of Indian Paper Industry. J P Consulting, , [online] 2002, http://dipp.nic.in/English/Publications/Reports/Final_9092002.pdf (Accessed: 17 May,2015).
- [24] Sushma, U.N., “Cardboard box makers shut shop due to lack of regulation, input cost hike,” (Times of India), [online] 2014, <http://timesofindia.indiatimes.com/business/india-business/Cardboard-box-makers-shut-shop-due-to-lack-of-regulation-input-cost-hike/articleshow/32458764.cms> (Accessed: 17 May,2015).
- [25] Bailay, R., “Flipkart, Myntra strike with packaging, make boxes worth keeping,” (Economic Times), [online] 2014, http://articles.economictimes.indiatimes.com/2014-06-23/news/50798507_1_ankit-nagori-flipkart-boxes (Accessed: 17 May,2015).
- [26] Bose, S.K., and Chaterjee, J., “Challenges faced by Indian Tinplate Packaging Industry: An Analysis,” Management, Vol.13, 2008.
- [27] Mies, W., Pulp and Paper Magazine: Buyers Say Corrugated Suppliers Bring Value, But Business Reinvestment Warrants Concern, Beedford: RISI: The leading information provider for the global forest products industry, 2002

- [28] Vincent, R., Integrating Systems & Processes to Maximize Growth & Profitability in the Paperboard Packaging Industry, (N G Tech), [online] 2011, http://www.ngtechinc.com/download/White_Paper_PIKPAC.pdf, (Accessed: 15 May, 2015)
- [29] Ramakrishna, B., Input costs hurt corrugated box makers, (Business Standard Pvt. Ltd), [online] 2011, http://www.business-standard.com/article/sme/input-costs-hurt-corrugated-box-makers-111051000095_1.html, (Accessed: 15 May, 2015)
- [30] Tellis, G.J., "The impact of corporate size and strategy on competitive pricing," *Strategic Management Journal*, vol. 10(6), pp. 569–585, 1989.
- [31] Lindell, B., "Building the Business Case for Reusable Transport Packaging," *International Track: Containers and Materials*, 2008.
- [32] Hunger, J.D., "Principles of Strategic Management," Tehran: Cultural Research Bureau, 2010.
- [33] Ahmadi, A., Alireza., Fatolahi., Mehdi., Taj-al-Din., and Iraj., "Comprehensive Strategic Management Approach.," Tehen: Tolid Danesh Publication., 2008.
- [34] Ommani, A.R., "Strengths, Waeknesses, Opportunities And Threats (SWOT) Analysis For Farming System Businesses Management: Case of wheat farmers of Shader-van District, Shoushtar Township, Iran," *African Journal of Business Management* , pp. 9452, 2011.
- [35] David, M.E., David, F. R., & David, F. R., "The quantitative strategic planning matrix (qspm) applied to a retail computer centre," *The Coastal Business Journal* , pp. 42-48, 2009.
- [36] Mirzakhan, M. Parsammal, E. and Golzar, A., "Strategy Formulation with SWOT Matrix: A case study of an Iranian company," *Global Business and Management Research: An International Journal*, pp. 165, 2014.