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Case Study

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Modeling of Changes: A Case Study on Corrugated Packaging Firm

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Abstract In this rapidly changing competitive industrial landscape, organizational survival is possible only after accepting changes. It simply means that organization is capitalising on its growth prospect for global developments and absorbing capabilities. The focus of organizations should not restrict to survival in competition and sustainability in market share but it should go beyond it. This is possible by applying an appropriate change management scheme. This study is based on a case study carried out in an Indian corrugated box manufacturing firm. A flexible strategic change management technique named 'SAP-LAP hills' has been used which depicts all situation, actor, process, learning, action and performance elements involved with the concerned organization. An actor-process matrix has been presented with both normal and prioritized scores. SAP-LAP index of change has helped in identifying the intensity of change forces. By locating the key result areas, it becomes possible to identify prime considerations relative to situation, actor and process.
Keywords *Change Management; Actor–Process Matrix; SAP-LAP Framework; Quantification*

1. Introduction

Information and technology travels with the pace of thought (Gates, 1999) which generates the necessity to cope with emerging trends and change. Technology, information and change are three dynamic factors which every time revolve around organizations and affect their workings. Successful organizations do not develop randomly but they need to have a strong change process to support the management's vision. Change and change management are most often discussed area around organizations (Bringezu and Bleischwitz, 2009). Change is an ambiguous term and it acts uniquely in accordance of different organizational situations. The business environment is changing and organizations are facing continuous challenges as variations are pervasive. The rate of change is accelerating; therefore, it becomes necessary to identify indicators of change impacting an organization.

It becomes essential for all organizations to adopt appropriate change management scheme for their long-term survival and sustainability. Change management involves implementation of new procedures with the changing demands of business environment, or to capitalize on business opportunities. In current industrial scenario, manufacturing sector is getting more popularity as it creates productive employment and business opportunities. Change management will help all manufacturing companies to boost their performance, improve quality and cut costs. The corrugated box industry is an inevitable part of Indian manufacturing sector. It is composed **of many small and medium independent players** to meet the increasing demand of high quality boxes. The study is an attempt to know about the strategies required for the adoption of an appropriate change management scheme. Situation, Actor, Process (SAP) & Learning, Action, Performance (LAP); (SAP–LAP) framework is one such model that provides opportunity to come out with different realistic strategies to manage change and to locate the seeds of change (Sushil, 2000; Hussain, Sushil, & Pathak, 2002) in the similiar direction of performance improvement. In current business scenario innumerable changes are witnessed. Situations are not stable for any industry; therefore, flexibility of every actor contributing to vision of business through different process is fundamental. This will result in effective outputs which will ultimately satisfy all consumer needs and remain ahead of the change.

A case study of corrugated manufacturing firm (a sub segment of paper packaging industry) is considered here. OSR Packaging Co. is situated in Gurugram district which provides complete printing and packaging solutions catering to diverse needs of different e-commerce companies in NCR region. Due to frequent changes in requirement of customers many unexpected situations and changes occurred to OSR which are considered for the study. This background about the identification of potential for change is the basis of the study. The study covers herein aims to:

- Understand the present status of OSR Packaging Co.
- Develop a SAP-LAP framework by identifying different SAP-LAP elements for further study.
- Make analysis related to interaction among elements for improvement of current situation.

Further in the study, operating environment of organization and learning issues have been described, feasible actions have been suggested and expected performance has been drawn.

1.2. SAP–LAP Framework

SAP-LAP means Situation-Actor-Process-Learning-Action-Performance analysis. This framework is used for developing models of inquiry in management (Sushil, 1997). It is a verified framework in the school of thought of change management (Sushil, 2000a, 2000b 2001a). The framework has been applied by several researchers (Kak, 2004) (Hussain, Sushil, & Pathak, 2002) (Sushil, 2001b) in diverse situations, industries and sectors through case studies. The applications of SAP-LAP framework by various researchers have been presented in Table 1.

Table 1: *Applications of SAP-LAP Framework by Various Researchers*

S. No.	Authors	Remarks
1	Sushil (2001)	Presented Mode of Inquiry using SAP-LAP Models.
2	Husain, Sushil and Pathak (2002)	Analyze Technological Management Practices of Firm in the Automobile Industry in India.
3	Kak (2004)	Learning Issues About Strategic Management, Core Competence, and Flexibility used in Pharmaceutical Organization.
4	Agarwal (2005)	Issues Regarding Cultural and Environmental Factor.

5	Arshinder and Deshmukh (2007)	Analyze a Case Study of XYZ, a Leading Automotive Parts Manufacturer in India, to Throw Light on the Status of Coordination.
6	Thakkar (2008)	Information Technology Adoption and Implementation in Supply Chain.
7	Garg (2009)	Engineering Support Issues in Maintenance
8	V.R. Pramod and D.K. Banwet (2010)	System Modeling of Telecom Service Sector Supply Chain: A SAP - LAP Analysis.
9	Palanisamy (2012)	Building Information Systems Flexibility in SAP- LAP Framework: A Case Study Evidence from SME Sector.
10	Plaiwal & Kumar (2014)	System Modeling of Service Supply Chain in Manufacturing Industry: Using SAP-LAP Hills Framework.
11	Venkatesh, Dubey, & Aital (2014)	Analysis of Sourcing Process through SAP-LAP Framework – A Case Study on Apparel Manufacturing Company.
12	Kabra & Ramesh (2015)	Analyzing ICT Issues in Humanitarian Supply Chain Management: A SAP-LAP Linkages Framework.
13	Ghosh (2016)	Creative leadership for Workplace Innovation: An Applied SAP-LAP Framework.

The SAP-LAP framework is a two-step model. Primarily, SAP analysis is done where ‘S’ means Situations, ‘A’ means Actors and ‘P’ means Process which are described in Table 2. The second phase considers Learning ‘L’ and experiencing the organizational environment, taking corrective Actions “A” and then observing or analysing improvement in Performance “P”.

1.3. About the Company

OSR Packaging Co. was established in the year 2013 and since then it has been at the forefront for delivering exclusive printed corrugated boxes, corrugated storage boxes. It is located at Gurugram (District) Haryana, with huge and robust infrastructural unit. Their quality assurance is guaranteed by the constant monitoring and review of stern practices, policies, and procedures. Their printed corrugated boxes are really true epitome of extensive knowledge and experience to specific demands and objectives.

The main attributes are:

- Ethical business policies
- Stringent quality control
- State-of-the-art infrastructural base
- Wide range of products
- Trustworthy vendors
- Prompt delivery
- Dexterous team of professionals
- Spacious warehouse

All the packaging products are designed and crafted using quality corrugated sheets and other papers with the help of latest machines. As per the variegated needs of the customers, they make all paper packaging products in numerous sizes, colours and designs. OSR is currently having a turnover of Rs. 5 crores and the approximate number of employees working is 30.

Table 2: *SAP Framework*

Situation	They examine internal, external, past, present and future trends. They keep on changing in totally unexpected directions (Sushil, 1997). They represent status in which managerial system operates driving forces for good performance.
Actor	This means existence of external feasibility which varies from organisation to organisation (Sushil, 2000). They refer to influencing factors for all participants for improving organisational performance. It refers to transformation of input in to output for improving situations (Sushil, 2000a).
Process	They work as transforming inputs into improved or better outputs for recreating situations.

The fusion of SAP and LAP is pictorially shown in Figure 1.

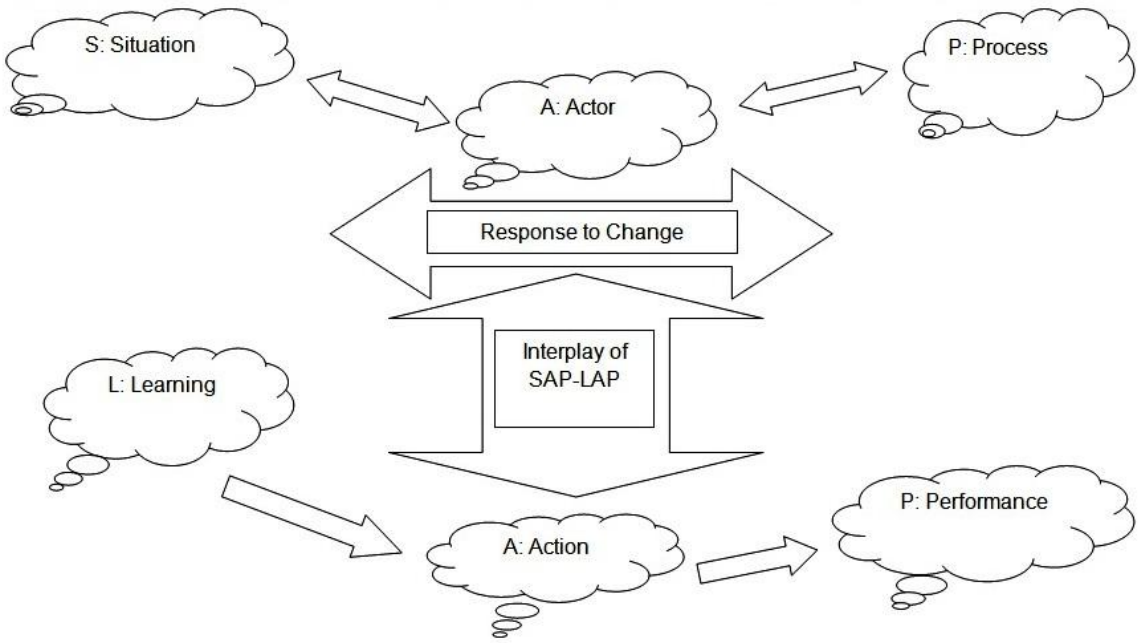

Figure 1: *SAP-LAP Framework*

2. Research Methodology

SAP-LAP framework has been extensively used in different sectors and industries through case study analysis. Here, a case study analysis of a leading packaging firm OSR is carried out to cope up with the fast changing business world; as only survival can't lead to retention of organization. Constant improvements with the growing industry are required; which can only be achieved through two attributes of success "flexibility" or "freedom of choice" (Sushil, 2001c). This will help in identifying the prospective areas for change and taking actions to setbacks faced in the change management process. The purpose of the study is to suggest actions for improvement in the performance of concerned firm.

The basic details of OSR Packaging Co. were gathered by referring to the website. The depth work for the research was carried out by frequently visiting the firm from September 2015 to May 2016. During this time period, different situations which were confronted by OSR were observed and

analysed from different aspects. It has been realised that this organization requires application of change management scheme. After the careful study of organizational environment, eleven important situations were identified for analyses which were severely affecting firm's growth and performance. With the cooperation of employees, the actors responsible for identified situations and process involved in those situations were recognized. Further discussions with Managing Director, Technical Manager and employees helped to gather insights of the company.

The former part of case study represents SAP and the further processing will involves LAP. After analysing each situation, the learning issues were identified to take unbalanced situations on right path and the relevant actions were decided to formulate expected performance outcomes. A quantified actor-process matrix has been made.

The quantification has been done in two categories:

- Without considering their priorities and
- Considering their priorities.

In the first case all the situations, learning, actions and performances have been assigned unit values and their sum is considered as the score.

In the second case, the inputs of ten respondents almost from all level of the organization have been collected with the help of questionnaire. They have been asked to mark their priorities on Likert scale of range 1-10. The average was considered as the score. Figure 2 outlines flow of SAP-LAP framework of the current study.

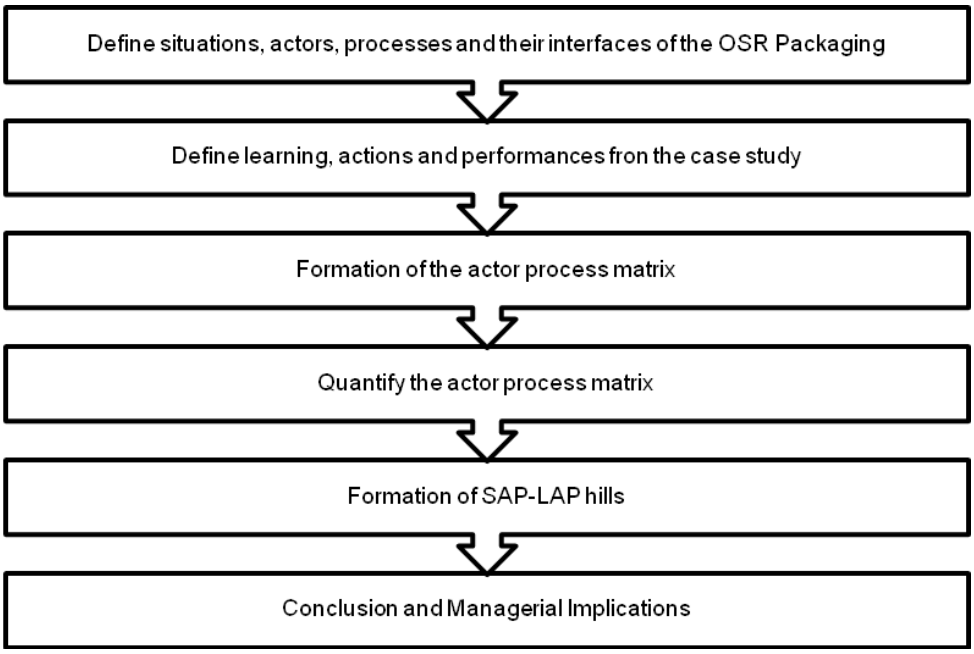

Figure 2: *Flow of the Study*

2.1. SAP–LAP Framework Formation

Actors should always be proficient enough to deal with diverse and unpredictable nature of situations. The situation for different actors can be different and the actors have to adapt as per the situations. The sudden and unexpected situation leads to an interplay of SAP (situation, actor, and process) and to handle it in an efficient manner ends with LAP (learning, action, and performance).

The interplay of SAP LAP helps in developing framework for organization to have in depth understanding about the problem and the best possible solutions. In the study, eleven major situations faced by the organization from September 2015 to May 2016 were analyzed to construct framework. A situation is dependent of internal and external factors which are described in Table 3.

2.2. Situations Considered for Study

The following situations are considered for the study:

1st Situation (S_1) - (September 2015)
Requirement of improved machines for large scale production

OSR had some big potential orders but because of absence of first hand die cutting technology, they were not in state to pitch those orders. It is utmost requirement to get fulfilled for their growth and stability.

Table 3: *Factors Responsible for Managerial Change*

External Factors	Internal Factors
Changes in customers' requirements and tastes;	New product and service design innovations;
Activities and innovations of competitors;	Low performance and morale, triggering job redesign;
New legislation and government policies;	Appointment of a new senior man top management team;
Shifts in local, national and international politics;	Inadequate skills and knowledge base, triggering training programmes;
Changes in social and cultural values;	Office and factory relocation,
Changing domestic and global economic and trading conditions;	Innovations in the manufacturing process;
Developments in technology and new materials.	New ideas about how to deliver services to customers.

2nd Situation (S_2) - (October 2015)
Increasing localized competition

Local competition is increasing because of presence of so many favourable circumstances:

- No experience is required in this corrugated field
- Huge customer base is present in this belt
- Easy availability of raw material and labour
- Government financial benefits are available
- Supportive government promotional schemes
- No requirement of managerial staff except one manager and proprietor

3rd Situation (S_3) – (October 2015)
Employee's attrition rate

As SMEs are regarded as largest source of employment generation, it has also been observed that they also have high attrition rate. During festive month of October and November, the demand of corrugated boxes was on its peak level because of association with maximum e-commerce customers. The employee's attitude towards their job has created big hurdle to fulfill the demand or respective orders.

4th Situation (S_4) – (November 2015)
Unfavourable weather conditions

No-one can control the climate. Excess winters and rain have huge impact on corrugated boxes. Their dimensions get changed, lose their strength and do not get dry to go for printing. These boxes while under manufacturing process are very temperature sensitive.

5th Situation (S_5) – (December 2015)
Future plan to set up one more plant

The vibrant opportunities and the internal strength in terms of finance and expertise provide OSR a scope to set up one additional plant in the near future. Currently, they are utilising 90% capacity of plant and existing customers want to increase their business to almost double with OSR.

Therefore, it can be a strategic decision to work for growth in all aspects.

6th Situation (S_6) – (January 2016)
Lack of skilled localized labour

Labour with better understanding of the technology to run machines like corrugation and slotting are very rare. Employees' attrition and no ease availability have setback many orders under process. This directly attacks to reliability of organisation. It does not provide chance to complete urgent orders.

7th Situation (S_7) – (February 2016)
Consumers belong to same domain

OSR has customer base of e-commerce companies as plenty of warehouses are present in their sales belt. They are operating limited in their domain. It is required for them to play strategically in market and pitch other sectors for more growth with lesser resources.

8th Situation (S_8) – (March 2016)
Excessive night shift production

To complete orders or urgent requirements, workers also need to work at night shifts. It was affecting their production rate and interest for work. Machines also need rest as in such cases it was not only increasing absenteeism but also frequent machine failures.

9th Situation (S_9) – (April 2016)
Unpunctuality of transportation agency

Transportation agency was very irregular and unpunctual in terms of time and providing right mode of conveyance. They never state their exact situation and give wrong information about their arrival time. There were late and improper deliveries. It was happening frequently and affecting goodwill of company.

10th Situation (S_{10}) – (May 2016)
Order fluctuations

Packaging is a matter of concern for online merchants, as consumers frequently object to receive their product in a corrugated container because of lacking permanence after the sale. Therefore, it is necessary for corrugated manufacturing firms to provide more and more facilities to their ultimate

consumers. It is very difficult to survive among competitors or at least to retain their present orders. The other main reason of getting fewer orders was IPL (Indian Premier League) cricket matches as customers have minimized their frequency of placing online orders because of getting busy mostly in watching matches.

11^{th} Situation (S_{11}) – (May 2016)
Unmanaged execution of plans for production

Organisations with sound management system allow handling different operations simultaneously in an effective manner. But, in the organization of the study, there was no close supervision and no instruction schedule for workers. Orders were present but converting them into final products was getting complicated. Everything was present on papers and mails but end result was not coming out as desired.

2.3. Actors Considered for the Study

The following actors were considered for above situations:

Ar_1: Proprietor

Ar_2: Manager

Ar_3: Supervisor

Ar_4: Foremen

Ar_5: Skilled and Unskilled Labour

Ar_6: Suppliers

Ar_7: Customers

2.4. Process Considered for the Study

The following processes were considered for above situations:

Pr_1: Gain information about available, better and affordable machines.

Pr_2: Review the improved machines taken by other companies.

Pr_3: Conduct strength and weakness analysis of competitors.

Pr_4: Identify the reasons of competitor's effectiveness.

Pr_5: Contact hiring/ consultancy agencies.

Pr_6: Fix terms or withhold remuneration while recruiting.

Pr_7: Analyze the effect of weather on product while manufacturing.

Pr_8: Find out prospective opportunities and orders for new plant.

Pr_9: Search for new ideal location

Pr_{10}: Outsource Labour.

Pr_{11}: Need to visit other industries and companies for order.

Pr_{12}: Teams can be made to work in different shifts

Pr_{13}: Search for other transportation agencies.

Pr_{14}: Reference to be taken from other manufacturers for selecting best transportation agencies.

Pr_{15}: Increase zone to supply final product.

Pr_{16}: Conduct supervision and instruction schedules may be prepared.

After identifying situations, actors and process in the study, learning is gained about SAP; which directs possible actions for impending situations that result into the performance. The learning, action and performances are enumerated in Table 4 and 5.

2.5. Actor Process Matrix

The Actor Process Matrix of SAP-LAP analysis clarifies and summarises all parameters involved in the concerned framework. All identified Processes are represented horizontally and Actors are shown vertically. Those cells which contain no situations, learnings, actions and performances were assigned value zero. The 'Actor-Process matrix' of OSR Packaging is shown in Table 5.

2.6. Quantified Actor Process Matrix

The matrix formed by using score 1 for each situation, learning, action and performance. The values represent the number of elements in each cell. In the study, maximum score is 6, where leading actors are Ar_1 (Proprietor), Ar_2 (Manager), and Ar_7 (Customers) and process are Pr_7 (Analyze the effect of weather on product while manufacturing), Pr_8 (Find out prospective opportunities and orders for new plant), Pr_9 (Search for new ideal location) and Pr_{11} (Need to visit other industries and companies for order). This whole scenario is represented through Table 6 and Figure 3.

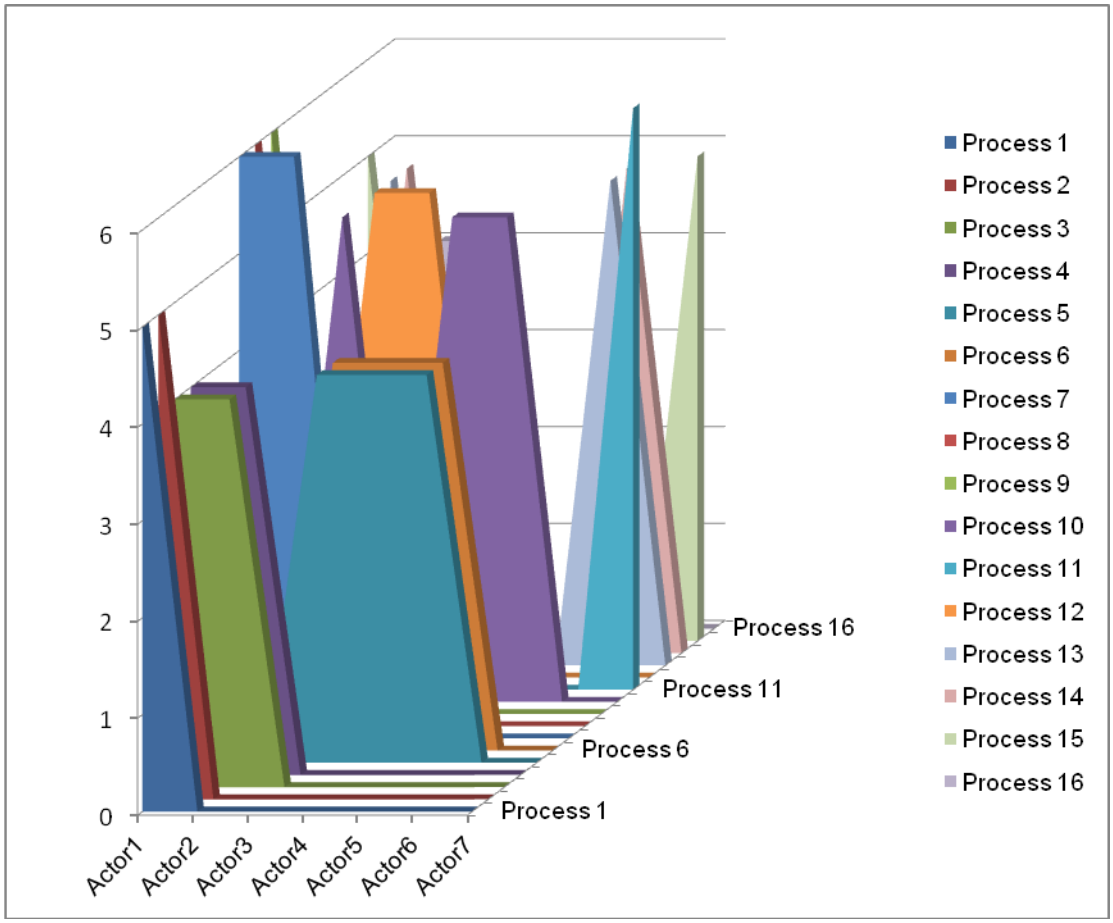

Figure 3: *SAP–LAP Hills Framework without Considering Weightages*

Table 4*: SAP–LAP Table for Company OSR Packaging Company*

S. NO.	Situation (Demographics)	Actor (Participants')	Process (considered by actors)	Learning (knowledge gain from SAP part)	Action (activities to be carried out after learning)	Performance (expected outcome of the analysis)
1	Requirement of improved machines for large scale production (S_1=7)	Proprietor (Ar_1)	Gain information about available better and affordable machines (Pr_1), Review the improved machines taken by other companies (Pr_2)	Analysis of upgraded and upcoming technology has to be taken in to account (L_1=7)	Purchase of new die cutting and stitching machine (a_1=8)	Increase in Production (P_1=9) Conversion time of raw material turnover in to final product decreases ($P_{1.1}$=8)

2	Increasing localized competitors (S_2=6)	Proprietor (Ar_1), Manager (Ar_2)	Conduct strength and weakness analysis of competitors (Pr_3), Identify the reasons of competitor's effectiveness (Pr_4)	Provide best and exact quality to customer at specified time (L_2=6)	Taking customer feedback about quality cost and compare with competitor (a_2=7)	Increase the strength of the company (P_2=6)
3	Employee's attrition rate (S_3= 9)	Supervisor (Ar_3), Foremen (Ar_4), Skilled and Unskilled Labour (Ar_5)	Contact hiring/ consultancy agencies (Pr_5), Fix terms or withhold remuneration while recruiting (Pr_6)	Employees motivation accompanied with benefits can be made (L_3=9)	Benefits are provided in view on individual output generation (a_3=8)	Employee retention (P_3=9)
4	Unfavourable weather conditions (S_4=9)	Proprietor (Ar_1), Manager (Ar_2)	Analyze the effect of weather on product while manufacturing (Pr_7)	Time gap between pasting and slotting arises because of non dryness of gum (L_4=9)	Gum imported having quality of instant dryness (a_4=9) Purchase of automatic plant sheets ($a_{4.1}$=7)	Regular Production (P_4=8) Timely Despatch of orders ($P_{4.1}$=8)
5	Future plan to set one more plant (S_5=7)	Proprietor (Ar_1)	Find out prospective opportunities and orders for new plant (Pr_8) Search for new ideal location (Pr_9)	Proper knowledge and information about the industry and region (L_5=6)	A new appointment is made to search for prospective potential of growth in same line (a_5=5)	Long term and continuous business (P_5=6) Purchase of latest automatic machinery which single will work equivalent of two to three machines ($P_{5.1}$=7) Less Dependency on Labour ($P_{5.2}$=8)
6	Lack of skilled localized labour (S_6=8)	Manager (Ar_2) Foremen (Ar_4), Skilled and Unskilled Labour (Ar_5),	Outsource Labour (Pr_{10})	Hire labour on referrals (L_6=6), Maintain records of labour which have left factory earlier ($L_{6.1}$=6)	Provide necessary training to available workforce (a_6=7)	Delays in order processing will be removed (P_6=7)

7	Consumers belong to same domain (S_7=8)	Proprietor (Ar_1), Customers (Ar_7)	Need to visit other industries and companies for order (Pr_{11})	Identify other industries except related to e-commerce (L_7=7)	Approach other sectors which use corrugated boxes for export (a_7=7)	Increased orders (P_7=7) Increased Profits ($P_{7.1}$=6) Supplying materials globally ($P_{7.2}$=8)
8	Excessive night shift production (S_8=7)	Manager (Ar_2), Supervisor (Ar_3)	Teams can be made to work in different shifts (Pr_{12})	Proper leadership and management skills will be required (L_8=7)	Advance production can be done. (a_8=8)	Goodwill on customers behalf will improve (P_8=6) Among competitors' distinguish identity will establish ($P_{8.1}$=6)
9	Unpunctuality of transportation agency (S_9=8)	Manager (Ar_2), Suppliers (Ar_6)	Search for other transportation agencies (Pr_{13}), Reference to be taken from other manufacturers for selecting best transportation agencies (Pr_{14})	Irresponsible and ignorant behaviour in any zone of manufacturing line can affect performance badly (L_9=7)	Purchase own tempo. (a_9=8)	Less Freight (P_9=8) Night despatch of orders will be possible ($P_{9.1}$=8)
10	Order fluctuations (S_{10}=7)	Proprietor (Ar_1), Customers (Ar_7)	Increase zone to supply final product (Pr_{15})	Will become hard to recover factory expenses (L_{10}=6)	Rush for new orders (a_{10}=6) Try to complete existing orders in l2 hrs in spite of 15 hrs ($a_{10.1}$=6)	Fixation of monthly orders with firms will help in recovering cost involved (P_{10}=7)
11	Unmanaged execution of plans for production (S_{11}=8)	Manager (Ar_2), Supervisor (Ar_3)	Conduct supervision and instruction schedules may be prepared (Pr_{16})	Responsibility sustains on part of proprietor himself. (L_{11}=6)	Authority should be centralised for execution (a_{11}=7)	Effective execution will lead to proper management of orders and employees. (P_{11}=6)

Table 5: *Actor-Process Matrix with Estimated Weightages*

Actors	*Process*															
	Pr_1	Pr_2	Pr_3	Pr_4	Pr_5	Pr_6	Pr_7	Pr_8	Pr_9	Pr_{10}	Pr_{11}	Pr_{12}	Pr_{13}	Pr_{14}	Pr_{15}	Pr_{16}
Ar_1	(S_1 =7) (L_1 =7) (A_1 =8) (P_1 + $P_{1.1}$ =9+ 8)	(S_1 =7) (L_1 =7) (A_1 =8) (P_1 + $P_{1.1}$ =9+ 8)	(S_2 =6) (L_2 =6) (A_2 =6) (P_2 =6)	(S_2 =6) (L_2 =6) (A_2 =6) (P_2 =6)			(S_4 =9) (L_4 =9) (A_4 + $A_{4.1}$ =9+ 7) (P_4 + $P_{4.1}$ =8+ 8)	(S_5 =7) (L_5 =6) (A_5 =5) (P_5 + $P_{5.1}$ + $P_{5.2}$ =6+ 7+ 8)	(S_5 =7) (L_5 =6) (A_5 =5) (P_5 + $P_{5.1}$ + $P_{5.2}$ =6+ 7+ 8)						(S_{10} =7) (L_{10} =6) (A_{10} + $A_{10.1}$=6 +6) (P_{10} =7)	
Ar_2			(S_2 =6) (L_2 =6) (A_2 =6) (P_2 =6)	(S_2 =6) (L_2 =6) (A_2 =6) (P_2 =6)			(S_4 =9) (L_4 =9) (A_4 + $A_{4.1}$ =9+ 7) (P_4 + $P_{4.1}$ =8+ 8)			(S_6 =8) (L_6 + $L_{6.1}$ =6+ 6) (A_6 =7) (P_6 =7)		(S_8 =7) (L_8 =7) (A_8 =8) (P_8 + $P_{8.1}$ =6+ 6)	(S_9 =8) (L_9 =7) (A_9 =8) (P_9 + $P_{9.1}$ =8+ 8)	(S_9 =8) (L_9 =7) (A_9 =8) (P_9 + $P_{9.1}$ =8+ 8)		(S_{11} =8) (L_{11} =6) (A_{11} =7) (P_{11} =6)
Ar_3					(S_3 =9) (L_3 =9) (A_3 =8) (P_3 =8)	(S_3 =9) (L_3 =9) (A_3 =8) (P_3 =8)						(S_8 =7) (L_8 =7) (A_8 =8) (P_8 + $P_{8.1}$ =6+ 6)				(S_{11} =8) (L_{11} =6) (A_{11} =7) (P_{11} =6)

Ar_4					(S_3 =9) (L_3 =9) (A_3 =8) (P_3 =8)	(S_3 =9) (L_3 =9) (A_3 =8) (P_3 =8)				(S_6 =8) (L_6 + $L_{6.1}$ =6+ 6) (A_6 =7) (P_6 =7)						
Ar_5					(S_3 =9) (L_3 =9) (A_3 =8) (P_3 =8)	(S_3 =9) (L_3 =9) (A_3 =8) (P_3 =8)										
Ar_6													(S_9 =8) (L_9 =7) (A_9 =8) (P_9 + $P_{9.1}$ =8+ 8)	(S_9 =8) (L_9 =7) (A_9 =8) (P_9 + $P_{9.1}$ =8+ 8)		
Ar_7											(S_7 =8) (L_7 =7) (A_7 =7) (P_7 + $P_{7.1}$ + $P_{7.2}$ =7+ 6+ 8)				(S_{10} =7) (L_{10} =6) (A_{10} + $A_{10.1}$=6 +6) (P_{10} =7)	

Table 6: *Quantified Actor-Process Matrix without Considering Weightages*

Actors	Process															
	Pr_1	Pr_2	Pr_3	Pr_4	Pr_5	Pr_6	Pr_7	Pr_8	Pr_9	Pr_{10}	Pr_{11}	Pr_{12}	Pr_{13}	Pr_{14}	Pr_{15}	Pr_{16}
Ar_1	5**	5**	4*	4*			6***	6***	6***						5**	
Ar_2			4*	4*			6***			5*		5**	5**	5**		4*
Ar_3					4*	4*						5**				4*
Ar_4					4*	4*				5**						
Ar_5					4*	4*				5**						
Ar_6													5**	5**		
Ar_7											6***				5**	

2.7. Classification based on the Intensity of Change

The change forces on the basis of intensity of change can be classified into four regions:

- Still, where the change forces are minimum
- Breeze, where the change forces are moderate
- Wind, where the change forces are intense
- Storm, where the change forces are extremely high

In the study,

- No cell belongs to still region.
- The cells (Ar_1, Pr_3), (Ar_1, Pr_4), (Ar_2, Pr_3), (Ar_2, Pr_4), (Ar_2, Pr_{16}), (Ar_3, Pr_5), (Ar_3, Pr_6), (Ar_3, Pr_{16}), (Ar_4, Pr_5), (Ar_4, Pr_5), (Ar_5, Pr_5), (Ar_5, Pr_6) belong to moderate region.
- The cells (Ar_1, Pr_1), (Ar_1, Pr_2), (Ar_1, Pr_{15}), (Ar_2, Pr_{10}), (Ar_2, Pr_{12}), (Ar_2, Pr_{13}), (Ar_2, Pr_{14}), (Ar_3, Pr_{12}), (Ar_4, Pr_{10}), (Ar_5, Pr_{10}), (Ar_6, Pr_{13}), (Ar_6, Pr_{14}), (Ar_7, Pr_{15}) belong to wind region.
- The cells (Ar_1, Pr_7), (Ar_1, Pr_8), (Ar_1, Pr_9), (Ar_2, Pr_7), (Ar_7, Pr_{11}) belong to storm region.

2.8. Prioritized Actor Process Matrix

It is practically impossible that all situations, learning, actions and performances have equal values. Therefore, quantification was done to get more precise result. The prime actors involved in the study were requested to prioritize the situations, learning, actions and performances on the scale of 1-10. It was done through brainstorming sessions. The figures were added. The maximum score was 50. The values corresponding to each actor and process is shown in Figure 4 and Table 7.

2.9. Classification based on the Intensity of Change (with considering Weightages)

In the study,

- No cell belongs to still region.
- The cells (Ar_1, Pr_3), (Ar_1, Pr_4), (Ar_2, Pr_3), (Ar_2, Pr_4), (Ar_2, Pr_{16}), (Ar_3, Pr_{16}) belong to moderate region.

- The cells (Ar_1, Pr_1), (Ar_1, Pr_2), (Ar_1, Pr_8), (Ar1, Pr9), (Ar_1, Pr_{15}), (Ar_2, Pr_{10}), (Ar_2, Pr_{12}), (Ar_2, Pr_{13}), (Ar_2, Pr_{14}), (Ar_3, Pr_5), (Ar_3, Pr_6), (Ar_3, Pr_{12}), (Ar_4, Pr_5), (Ar_4, Pr_6), (Ar_4, Pr_{10}), (Ar_5, Pr_5), (Ar_5, Pr_6), (Ar_5, Pr_{10}), (Ar_6, Pr_{13}), (Ar_6, Pr_{14}), (Ar_7, Pr_{15}) belong to wind region.

- The cells (Ar_1, Pr_7), (Ar_2, Pr_7), (Ar_7, Pr_{11}) belong to storm region.

Table 7: *Quantified Actor-Process Matrix with Considering Weightages*

Actors	Process															
	Pr_1	Pr_2	Pr_3	Pr_4	Pr_5	Pr_6	Pr_7	Pr_8	Pr_9	Pr_{10}	Pr_{11}	Pr_{12}	Pr_{13}	Pr_{14}	Pr_{15}	Pr_{16}
Ar_1	39**	39**	25*	25*			50***	39**	39**						32**	
Ar_2			25*	25*			50***			34**		34**	39**	39**		27*
Ar_3					34**	34**						34**				27*
Ar_4					34**	34**				34**						
Ar_5					34**	34**				34**						
Ar_6													39**	39**		
Ar_7											43***				32**	

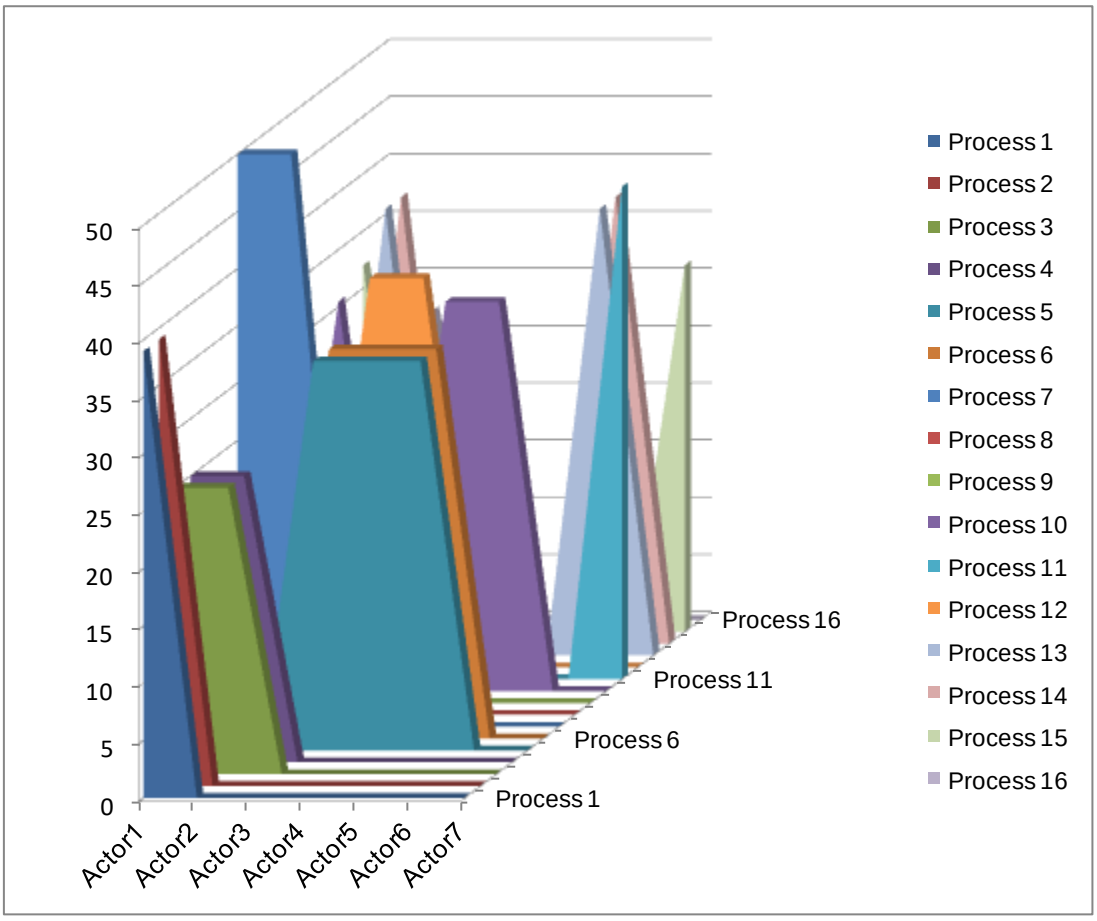

Figure 4: *SAP-LAP Hills Framework with Considering Weightages*

2.10. SAP-LAP Index of Change

SAP-LAP Index of change is a technique to benchmark the existing change force to the maximum possible. The strength of change forces in the organization calculated using this quantification approach. SAP-LAP Index of change is the ratio between the sum of the change indices to the sum of the change intensity at the extreme situation.

According to SAP-LAP Index of change, the change forces are divided into four regions as shown in Figure 5. They are explained as:

- In the first region, the change forces can be neglected as they are almost less than 10 percent of the benchmark.
- In the second region, the change forces are between 10 percent and 50 percent of the benchmark, where company needs to be little careful.
- In the third region, change forces vary from 50 percent to 75 percent of benchmark where company has to be cautious and require formulating emergency action.
- In the fourth region, the change forces vary from 75 percent to 100 percent of the benchmark which may lead to disastrous organizational failures.

SAP–LAP Index of change = Sum of change forces in cell * 100 / Maximum change * Number of cells

= 1047 * 100 / 50 * 112

= 18.696

In the study, SAP-LAP Index of change is 19 which lie in the second region, where care is required to be taken by organization. It acts as an instrument for condition monitoring. It makes possible to revise requirements and application of changes in the functioning of organization.

SAP-LAP INDEX OF CHANGE	10	20	30	40	50	60	70	75	80	90	100
ACTION RECOMMENDED	NEGLECT	CARE				CAUTIOUS			EXTREME		

Figure 5: *Regions Showing Impact of Change*

2.11. Managerial Implications

A detailed three dimensional figure of change i.e., “SAP-LAP Hills” is the major source of explanation to this study which is shown in Figure 3 and 4. A systematic procedure is illustrated by locating all the leading actors and processes in the SAP-LAP Hills Framework. To facilitate managers, to

understand the necessity of change in this virtualization era, SAP-LAP index of change is an ideal parameter. It helps in identifying the vulnerability of organization.

3. Action Plan Based on the Research

An action plan was made for uplifting the most crucial aspects which were hindering the change management process. From the study it was observed that the leading actors and processes were concentrated in two clusters. In the first cluster, the leading actors were Ar_1 (Proprietor) and Ar_2 (Manager) and the process was Pr_7 (To find out effect of weather on product while manufacturing). In the second cluster, the leading actor was Ar_7 (Customers) and the process was Pr_{11} (Need to visit other industries and companies for order).

a. Proprietor

In this organization, the proprietor is an active member in almost all the situations. Maximum authority lies in his hands and very few have been delegated. All controls related to purchase, sale, process, dispatch lies in his hand. However, all these functions are performed by manger and foremen but after his approval. Daily schedules are sometimes also been drawn by proprietor. There is 80% of centralization.

b. Manager

In the hierarchy of the organization, there is very close involvement of proprietor and manager. Manager has the duty to maintain all the records related to stock and employees. All the finances are under his control. He is liable to maintain close supervision and all the work is performed under his guidance.

c. Customers

Customers are the prime stakeholders of an organization. In this regard, the organization requires making action plans for creating new customers as maximum of them belongs to only one sector (e-commerce). The needs and expectations of the existing customers should be maintained by providing and satisfying them appropriately in accordance of their requirement.

d. To find out effect of weather on product while manufacturing

A strong corrugated box is a result of healthy internal environment and appropriate external weather conditions. Suitable temperature is directly related to strength of box. If it is not properly manufactured, it will not serve the end result. Disturbance in the temperature directly affects quality of box which will become major obstacle on the growth of the organization.

e. Need to visit other industries and companies for order

OSR packaging is currently serving one industrial segment of the market and they are not identifying other opportunities in the market. Different segments have different requirements that will help the organization for creating innovations in the boxes. Therefore, it is essential and prime requirement for OSR to pitch other segments in the market for growth and performance improvement.

4. Conclusion

SAP-LAP is a framework used for analyzing and synthesizing any case context (Sushil, 1997, 2000, 2001). The interplay of situation, actor, and process helps to analyze the different perspectives related to business and better interplay leads to better results which can be calculated by performance measures or KRAs (key result areas) (Sushil and Stohr E., 2014). The structured flexibility analysis framework in the study; helped in bringing out all the learning issues and "suggested actions" for "improvement in the performance". The actors in the key result areas were "Proprietor", "Manager" and "Customers"; and the process were "To find out effect of weather on product while manufacturing" and "Need to visit other industries and companies for order".

Therefore, this framework helps in identifying all the key areas with concrete results and there was no scope for vague judgements. This will lead in directing all the essential efforts in the result oriented desired direction. Proper action plans for the organization were formulated but their implementation requires a lot of strategic involvement. The study reveals that in order to have a good change management scheme the organization needs to concentrate on all the identified parameters for their performance improvement.

5. Limitations and Future Scope

The study needs to be interpreted in light of the following limitations:

- The interdependencies among the elements in the Actor-Process matrix have not been taken into account.

- Strategic involvement was required to execute and implement action plan.

The limitations of study provides enough direction for the further research and future scope would be to consider interdependencies and in depth analysis.

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