Copyright 2017 by ABS,
Amity University Uttar Pradesh, Lucknow Campus (ISSN 2278-0904)

Scope of Implementation of the Balanced Scorecard in Indian Public Sector Undertakings with respect to The State Trading Corporation of India.

Abhinanda Bhattacharya, M.Phil., IISWBM, Kolkata, Email: abhinanda.mhrm@gmail.com

Abstract

Most companies are heavily dependent on financial indicators as the prime mode of measurement of their overall performance that have little or no bearing on the strategic focus of the organization. Balanced Scorecard is an effective Strategic Performance Measurement tool that aligns organizational mission and vision with its performance by integrating the organizational strategic goals with the roles and functions of each and every employees responsible for Organizational performance.

This paper is an attempt to find out the feasibility of implementation of the Balanced Scorecard in a Public Sector Undertaking. For this study, the State Trading Corporation of India (STC) has been selected as a case in point because State Trading Corporation of India is a Mini Ratna Public Sector Undertaking having all India presence with around 700 employees. STC is a trading organization dealing with import and export of several commodities. Given its organization structure, the pan India presence and the kind of business STC is involved with, it may be concluded that all 4 perspectives of the Balanced Scorecard are very much valid.

This paper will attempt to find out the factors-tangible & intangible, both, which would be most important in translating into performance the strategic objectives of the organization and to draw out a Strategy Map to facilitate the organizational overall performance. At individual level, the focus will be on Employee Satisfaction & Motivation Levels, at organizational level, the emphasis will be on Growth Pattern & Productivity Levels of the organization.

The primary data will be collected mainly through questionnaire method from the employees spread access various hierarchical levels of the organization as well as from the various Customers of Organization.

The significance of the Study lies in the fact that the findings of the paper may be set as a guideline for implementation of the Balanced Scorecard in other Public Sector Undertakings.

Keywords: Balanced Score Card Construction, Public Sector Undertaking, Factor analysis, Significant Factors affecting performance, Organizational development Strategy map

Introduction

Historically it has been seen that most companies are heavily dependent on financial indicators as the prime mode of measurement of their overall performance. Most financial measures being used in Indian Public Sector Undertakings till date are basic trial balance sheets that have little or no bearing on the strategic focus of the organization in question and are never equated with the Vision and Mission. More over the financial measure being the sole indicator of performance and strategic focus completely outlooks the several intangible aspects that are more motivating to the customer, both internal and external, in today's world. This is leading to the once giants in monopolistic environment to fall to a slow demise. Balanced Scorecard is an effective Strategic Performance Measurement tool that aligns organizational mission and vision with its performance by integrating the organizational strategic goals with the roles and functions of its different departments and each and every employee responsible for organizational performance. Balanced Score Card in today's scenario is being implemented in most of the organizations, especially in private sector, as an effective tool for Strategy Implementation.

With the privatization knells looming large over Public Sector Undertakings, this paper is an attempt to find out the feasibility of implementation of the Balanced Scorecard in a large Public Sector Undertaking organization. For this study, the State Trading Corporation of India has been selected as a case in point because STC is a Mini Ratna Public Sector Undertaking having all India presence with

around 700 employees. STC is a trading organization dealing with import and export of several commodities. Given its organization structure, the pan India presence and the kind of business STC is involved with, it may be concluded that all 4 perspectives of the Balanced Scorecard are very much valid. The objectives of this paper are:-

- To study the scope of implementation of Balanced Scorecard on a Public Sector Undertaking with reference to STC
- To ascertain the factors most significant for each perspective of the Balanced Scorecard

This paper attempts to find out the factors-tangible & intangible, both, which would be most important in translating into performance the strategic objectives of the organization and to draw out a Strategy Map to facilitate the organizational overall performance. At individual level, the focus is on Employee Satisfaction & Motivation Levels, at organizational level, the emphasis is on Growth Pattern & Productivity Levels of the organization.

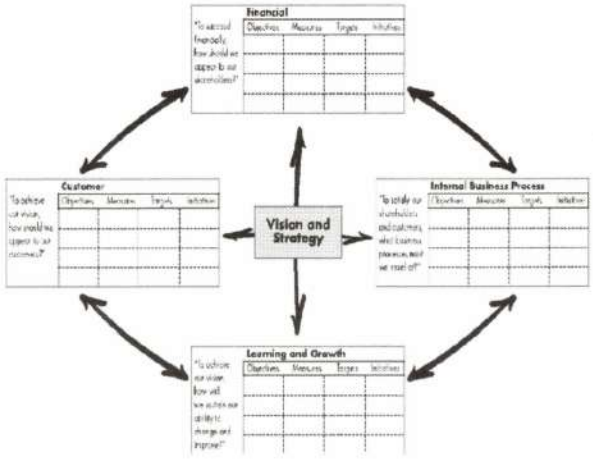
The primary data was collected mainly through questionnaire method from the employees spread access various hierarchical levels of the organization as well as from the various Customers of Organization.

Literature Survey

Despite the financial measures of industrial age environment still being profusely used in several organizations, several organizations have adopted more forward-looking measures such as on-time delivery, customer satisfaction, and productivity in addition to financial measures for performance evaluation (Anderson et al.1999; Joshi, 2001).The strongest advocates against traditional financial measures state them to be historic in nature and lacking in futuristic outlook (Schoenfeld, 1986; Dearden, 1987; Emmanuel and Otley, 1995; Kaplan et al. 1996a). Moreover traditional financial measures are usually seen to focus on the more short term objectives as they generate ready profit for the firm but on closer scrutiny many such measures may be seen to be detrimental to the company in the long run. In fact in the converse the management may reject a positive net present value project simply because it may have adverse impact on short-term return on investment due to depreciation and asset valuation policy (Dearden, 1969; Hopwood, 1972; Vancil, 1979; Kaplan, 1984; Demirag, 1998).

With liberalization putting an end to the monopoly of Public Sector Undertakings in India, it can be verily stated that in today's competitive market even a giant Public Sector Undertaking has to fight it out to earn "it's share" of the market. Everything comes with an expense. It is pretty much mandated for any organization to have a clear vision of its goal and lay out its strategy to achieve the same. The biggest obstacle faced by organizations in this is the alignment of their objectives with that of its employees. And using the financial measures alone as indicators for performance and strategic alignment tends to be highly inadequate as they are unable to ensure goal congruence between management decisions and actions (Parker, 1979; Maciariello et al. 1994) which leads to the organization suffering further setback in its path of growth.

Kaplan and Norton's (1992) Balanced Scorecard is an innovative multi-dimensional corporate performance scorecard. The Balanced Scorecard supplemented traditional financial measures with criteria that measured performance from three additional perspectives-those of customers, internal business processes, and learning and growth. It is a step to ensure the organizational alignment is reflected down the ranks as it focuses on development, building capabilities and acquiring intangible assets.

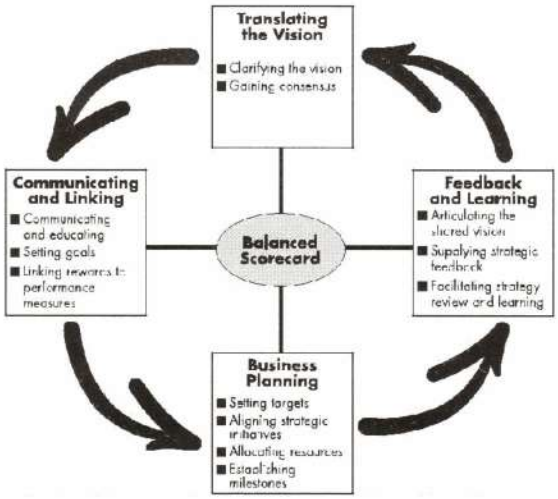


A balanced Scorecard has four perspectives:

- Financial : Financial reforms to be brought about to achieve Vision & Mission
- Customer or Stakeholder : Who are the constituents and how to engage them
- Internal Business process : Changes in Communication or technology to be brought about

- Learning & Growth: Capabilities/tools needed by the staff to help them achieve goals

Exhibit 2: Balanced Scorecard: A Framework to Manage Strategy



Kagioglou et al. (2001) further described performance indicators with regard to the financial aspect as the 'lagging' indicators which report 'the results and decisions made in the past and therefore are of little use in improving current performance'. Performance indicators which relate to the customer perspective, internal business processes, and learning and growth aspects were described as the 'leading indicators' which help identifying mistakes and wrong strategies for project goals achievement. Nevertheless, 'lagging indicators' are rarely found in the performance measurement systems developed in previous studies. In this regard, Landin and Nilsson (2001) described the Balanced Scorecard approach to performance measurement system development ensures a balance between the 'leading' and 'lagging' performance indicators in the system (Landin and Nilsson 2001).

Exhibit 3: A Balanced Scorecard Feedback Loop



Implementation of the Balanced Scorecard across Organizations

Silk (1998) found that 60 per cent of the Fortune 1000 companies in the USA have had experience with the Balanced Scorecard. Chenhall and Smith (1998) in their survey found 88 per cent adoption rate of the Balanced Scorecard in the Australian firms and observed moderate benefits from its use.

Olve, et al. (1999) presented the cases of ABB, Halifax, Skandia, Electrolux, British Airways, Coca-Cola Beverages - Sweden, and SKF that used the Balanced Scorecard or any other model similar to performance scorecard to illustrate the process of its introduction in an organization. Most of these cases have begun with the Kaplan and Norton framework discussing the issues of whether to have only four perspectives or more, choice of measures and their number, and how far this process of the Balanced Scorecard should percolate down in the organization.

In the Indian Context, BHEL implemented the Scorecard in a tailor-made fashion for its own effectiveness at its Haridwar Unit. On the context of BHEL, the success of Balanced Score Card depends on the objectives identified as also on the right identification of enabling factors (A. K. Jain and A.K. Sarkar (Sept 2009). Therefore BHEL implemented the Balanced Scorecard through a new approach by deploying two types of Balanced Score Card, namely, Result Oriented (Part A) and Enabler Oriented (Part B). BHEL has been using Balanced Scorecard since 2002-2003. The Part- A or Result Oriented Factor comprises all functional roles and activities that are further broken to individual goals. The Part-B or Enabler Oriented Factor comprises all innovative ideas and excellence initiatives that take place in the unit.

BSNL also implemented Balanced Scorecard and a study into its effectiveness by Makkar & Kumar (2002), ALTTC, Ghaziabad yielded favourable results as to the increase in overall Organizational Effectiveness post Balanced Scorecard Implementation.

This study focuses on the Scope of Implementation of the Balanced Scorecard in Indian Public Sector Undertakings with respect to The State Trading Corporation of India.

Research Methodology

Research Design:

The study mainly aims at the feasibility or the scope

of improvement that can be brought about through the implementation of the Balanced Scorecard at STC. Based on the 4 perspectives of the Balanced Scorecard individual KPIs or Key Performance Indicators were identified for all the four perspectives. The Key Performance Indicators were as follows:

- Financial Perspective: Secondary data on ROCE (Return on Capital employed), Total Expense and Income and Profit before tax for last 5 years obtained from STC website through their annual reports.
- Customer Perspective: Though this perspective regards the stakeholders of an organization as a whole, only the customers and the employees have been considered due to paucity of time.
  - ❖ Customer satisfaction: A detailed questionnaire was mailed to the Assigned Person of Contact assigned for the research and hard copies/soft copies collected. The questionnaire had a 5 point Likert scale with a set of 17 questions. The questions were namely grouped under 7 factors namely, Timeliness, Information/Consultation, Professionalism of Staff Members, Service Delivery, Staff Attitude, Strategic Direction and Value Proposition.
  - ❖ Market Share: Data for last 5 years was collected through the Assigned Person of Contact assigned through a format prepared.
  - ❖ Customer Acquisition: Data for last 5 years was collected through the Assigned Person of Contact assigned through a format prepared.
  - ❖ Customer Retention: Data for last 5 years was collected through the Assigned Person of Contact assigned through a format prepared.
  - ❖ Customer profitability Percentage: Data for last 5 years was collected through the Assigned Person of Contact assigned through a format prepared.
  - ❖ Internal Business Processes: The working procedure of STC (only for Marketing Dept. as it handles their core business of Export/Import) was discussed with the concerned Management Representative and finalised as per discussion
- **Learning & Growth**
  - ❖ Employee Satisfaction: A detailed questionnaire was mailed to the Assigned Person of Contact assigned for the research and hard copies collected. There were total 38 questions on a 5 point Likert scale questionnaire. The questions were grouped under 7 factors namely, Compensation & benefits, Training, Career growth, Transparency & Communication, Role Clarity, Work-Life Balance, Belongingness
  - ❖ Employee Turnover: Data for last 5 years was collected through the Assigned Person of Contact assigned through a format prepared.

All Questionnaires and Formats used were developed based on Literature Review, Organization Profile study and discussion with Assigned Person of Contact assigned by STC for purpose of this study.

Data Analysis

Data analysis is divided into four parts as per the four perspectives of the Scorecard.

Part-1: Financial perspective

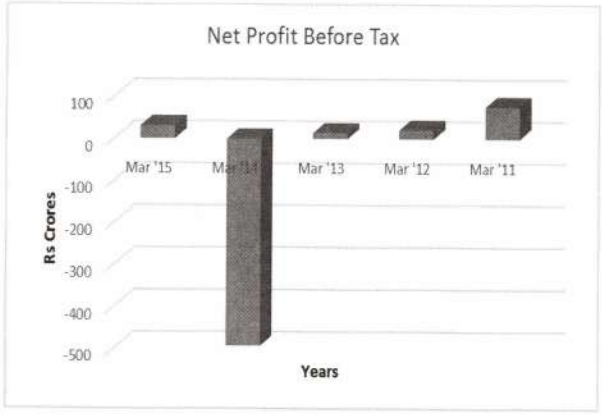
Secondary data was collected for the financial aspect of the Scorecard. Key Performance Indicators as selected were Return on Capital Employed, Total Income, Total Expenses and the Net Profit before tax for the last 5 financial years. Following is the data as obtained:

Table 1: 5 years data on Return On Capital Employed & Net Profit before tax

Key Performance Indicators	Amounts in Rs. Cr				
	Mar '15	Mar '14	Mar '13	Mar '12	Mar '11
Return On Capital Employed	13.23	16.42	11.44	9.96	11.81
Total Expenses		15,475.67	18,648.83	30,187.70	21,239.12
Total Income		15,140.22	18,838.76	30,419.45	21,502.67
Net Profit Before Tax	30.29	-492.52	13.84	20.97	76.45

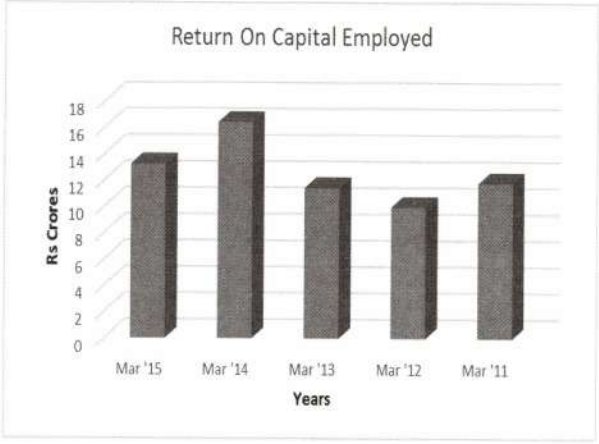
The point to note in the above table is the Net profit Before Tax of STC in FY'13-14 which is -492.52 crores showing the Company to be running in extreme losses. However the company is recuperating nonetheless.

Exhibit: 4: Net Profit Before Tax



The ROCE figures are low and have fallen compared to last FY but improved in respect of the previous 3 years before that.

Exhibit 5: Return On Capital Employed



Part-2: Internal Business Process

Following points would sum up the working process of STC. Only the Marketing dept. has been taken into consideration as the main business of Export/Import is handled by that dept.

- New proposal received at Branch Office, for a particular commodity, and is reviewed by the Branch Advisory Committee or BAC comprising of Branch manager. Head of Finance of the Branch and dealing manager(s) of the commodity.
- On finding the proposal to be feasible the Branch Manager forwards the same to the Director in charge of the Branch or Branch Director. The Branch Director forward the same to the concerned Commodity Division.
- Concerned Commodity Director forwards the BAC proposal to the concerned Commodity Department for further review.
- If new proposal received at Corporate Office, Delhi, then the same is forwarded to the dealing managers through the concerned Commodity Director or the head of the particular commodity division, as the case may be.
- The Concerned Division reviewed the proposal and submits a fresh proposal, taking the BAC proposal in cognizance and along with finance concurrence on the proposal, before the Concerned Commodity Director.
- The Commodities director re-evaluates feasibility and approves if finds fit.
- If he doesn't deem it fit he forwards to Chairman & Managing Director (CMD) who approves or forwards to Committee of Management (COM) comprising of all Functional Directors and CMD for approval or reject.
- If COM deems proposal not to be entirely rejected, but has doubts approving, it forwards to Board of Directors, comprising of all Functional Directors and Independent Directors and CMD, who approve or reject.
- No fixed timeline for the entire process.

Any new proposal goes through the above hierarchy before being approved in STC. After Approval business continues. The feasibility study done at each level is largely compliance related than monetary.

Part-3: Customer Perspective

As specified earlier there were 4 main Key Performance Indicators identified for this category. For the purpose of this paper only the main Divisions of STC were considered for this data namely,

1. Agro Commodity
2. Pulses
3. Petroleum & Manufacturing
4. Export of Steel Plates to Iran
5. Bullion
6. General Imports
7. Fertilizers (Urea)
8. Edible Oils

a) *Customer Acquisition in last 5 years:* And following is the detail:

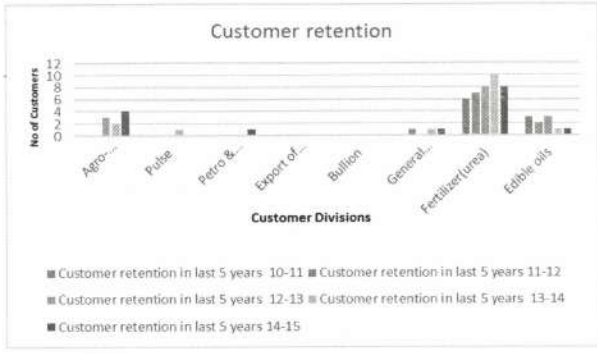
Exhibit 6: Customer Acquisition



It can be very clearly seen that over the last 5 years the Bullion business has been doing very well in terms of growth. General Imports and Fertilizers are more or less steady though figures are low. It may be noted that Petrochemicals & Manufacturing and the Export of Steel to Iran are two new Divisions showing potential.

b) *Customer Retention for last 5 years*

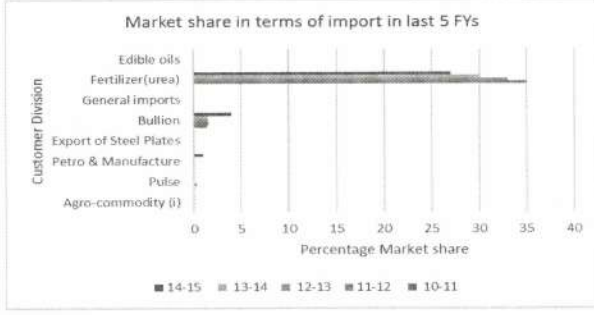
Exhibit 7: Customer Retention



This chart shows the customers that have been successfully retained in the last 5 years in STC. It also shows Fertilizers, Agro Commodity and Edible oils have a number of repeating customers. The Bullion segment however shows zero retention despite being the most productive segment in STC as on date. This may be attributed to some omitted or incorrect data.

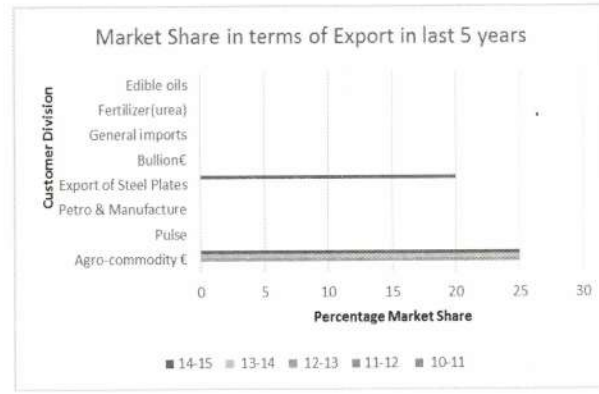
c) *Market Share*

Exhibit 8: Market Share in terms of Import



The Fertilizer business is the highest in terms of imports followed by Bullion imports. However, Fertilizer market seems to be in a steady decline while Bullion is showing high share for FY14-15.

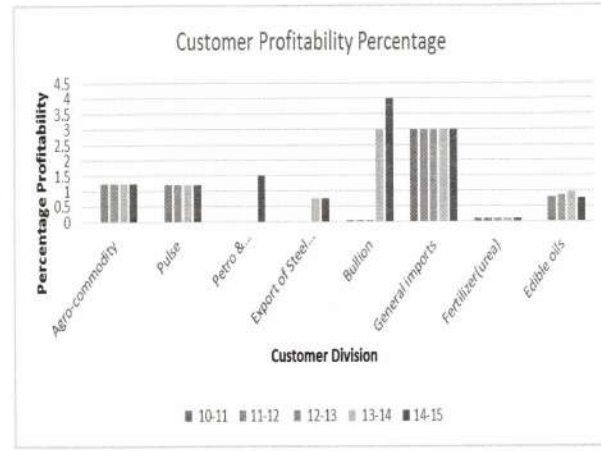
Exhibit 9: Market Share in terms of Export



Agro-Commodity exports maintaining a steady level while new business of Steel Export to Iran has captured 20% of the market in initial years of Business as a Division in itself.

d) *Customer profitability for last 5 years*

Exhibit 10: Customer Profitability for last 5 years



A comparative study of the profitability in Percentages as depicted in the chart shows Bullion to be doing the best business for STC. Not considering the Petro and Steel export as they are new, the remaining divisions seem to maintain a stable level of profitability. This basically depicts a stagnancy in the business.

e) *Customer Satisfaction*

While the above four criteria related more on STC's business, this particular Key Performance Indicator has been put in to identify the customers' perspective with respect to . STC. In order to capture the sentiments in actual a 17 point questionnaire was mailed to the Assigned Person of Contact

assigned by STC for this study. A total of 62 filled up questionnaires were received. A factor analysis was run on the same using Principal Components Method to identify the major dimensions by which the customers' were highly influenced. The respondent-ratings were subject to PCA with Varimax rotation to reduce potential multi-collinearity among the items and to improve reliability on the data. The set of 17 variables were reduced to 6 components which represented 69.95% of the overall variance indicating that the variance of original values was well captured by these ten factors.

The KMO measure for sample size and the Bartlett's test of sphericity were both run to obtain the following:

Table 2: KMO & Bartlett's Test of Sphericity

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.688
Bartlett's Test of Sphericity	Approx. Chi-Square	382.009
	df	136
	Sig.	.000

The KMO value being 0.688 makes the sample size of 62 (though poor) adequate for the Factor analysis to be run as KMO needs to be >0.5 for factor analysis to be proceeded with. Also Bartlett's Sphericity test depicts correlation of the variables at Significance level 0.000. Thus, Factor analysis was proceeded with.

Extraction was done on the basis of Eigenvalues greater than 1 and the following table was obtained:

Table 3: Customer Satisfaction survey Total Variance Explained table

Total Variance Explained

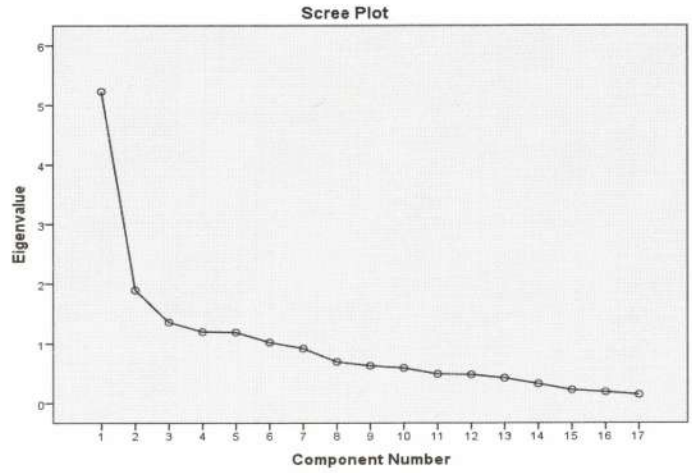
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentage of Variance	Cumulative Percentage	Total	Percentage of Variance	Cumulative Percentage	Total	Percentage of Variance	Cumulative Percentage
1	5.231	30.773	30.773	5.231	30.773	30.773	2.670	15.708	15.708
2	1.893	11.136	41.910	1.893	11.136	41.910	2.272	13.365	29.074
3	1.358	7.990	49.900	1.358	7.990	49.900	1.996	11.744	40.818
4	1.198	7.045	56.945	1.198	7.045	56.945	1.777	10.455	51.273
5	1.190	7.003	63.948	1.190	7.003	63.948	1.744	10.257	61.530
6	1.020	6.002	69.950	1.020	6.002	69.950	1.431	8.420	69.950
7	.920	5.410	75.360						
8	.696	4.092	79.453						
9	.631	3.709	83.162						
10	.592	3.479	86.641						
11	.490	2.882	89.523						
12	.481	2.829	92.352						
13	.423	2.487	94.838						
14	.324	1.904	96.743						
15	.222	1.307	98.050						
16	.188	1.104	99.154						
17	.144	.846	100.000						

Extraction Method: Principal Component Analysis.

Eigen Value refers to the amount of variance in the original variables accounted for by each of the components. The extracted 6 components are contributing 69.95 % of Cumulative variance.

The following was scree was obtained from the above data:

Exhibit 11: Customer Satisfaction survey Scree Plot



It can be seen that there are 6 components that adequately represent all the 17 variables initially started out with for this test.

Communality of each statement refers to the variance being shared or common by other statements. With reference to the first statement, the extraction is 0.660 which indicates that 66.0% of the variance is being shared or common to other statements. (Refer to Table 4)

Table 4: Communalities for Customer Satisfaction Survey

Communality

	Initial	Extraction
Timeliness of response/actions undertaken:	1.000	.660
Achievement of Deadlines	1.000	.629
Effectiveness & quality of information provided in consultation:	1.000	.631
Communication with regard to progress:	1.000	.793
Competency and professionalism of staff member(s) involved	1.000	.771
Technical expertise provided:	1.000	.607
Promptness in liasoning with multiple stakeholders like Foreign associates, customs, DGFT etc.	1.000	.807
Approachability and responsiveness of senior management for escalating customer grievances	1.000	.736
Resolution of problems encountered	1.000	.699
Strategic/Operational needs met	1.000	.774
Achievement of desired outcome	1.000	.594
Competitiveness of services w.r.t. other Public Sector Undertakings	1.000	.624
Speed of Decision Making by concerned authorities	1.000	.727
Dealt with in a professional and friendly manner	1.000	.689
Overall, in a scale from 1 to 5, how would you rate the strategic focus of our business?	1.000	.814
How would you rank our business in terms of innovation & market leadership in a scale from 1 to 5	1.000	.619
Our value proposition is clearly communicated & understood	1.000	.718

Factor Matrix is extracted with suppressing values less than 0.3 first and then values less than 0.5 to capture only the strongest components influencing the respondents. As factor matrix contains large loadings of several of the un-rotated factors, a better interpretation can always be drawn from the

Table 5: Rotated Component Matrix for Customer satisfaction Survey

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
Communication with regard to progress:	.767					
Approachability and responsiveness of senior management for escalating customer grievances	.727					
Achievement of desired outcome	.716					
Effectiveness & quality of information provided in consultation:	.510					
Dealt with in a professional and friendly manner		.801				
Timeliness of response/actions undertaken:		.659				
Our value proposition is clearly communicated & understood		.637				
Achievement of Deadlines		.622				
Overall, in a scale from 1 to 5, how would you rate the strategic focus of our business?			.885			
How would you rank our business in terms of innovation & market leadership in a scale from 1 to 5			.554			
Strategic/Operational needs met			.508		.504	
Competency and professionalism of staff member(s) involved				.816		
Technical expertise provided:				.611		
Speed of Decision Making by concerned authorities					.765	
Resolution of problems encountered					.636	
Promptness in liaising with multiple stakeholders like Foreign associates, customs, DGFT etc.						.874
Competitiveness of services w.r.t. other Public Sector Undertakings						

Rotated Component Matrix. Following result appeared in the rotated component matrix:

It can be seen that the almost similar kind of attributes have been clubbed together to form the 6 different components. Considering the results the following main heads may be considered as the principal 5 factors influencing customers. The last two may be discarded as there is only one loading of the second last variable and no loading for the last variable. Following table depicts the main factors influencing the customer satisfaction:

Table 6: Factors influencing Customer Satisfaction

Communication and feedback	Professionalism	Strategic Focus or Direction	Skills and expertise	Decision making abilities
Communication with regard to progress:	Dealt with in a professional and friendly manner	Overall, in a scale from 1 to 5, how would you rate the strategic focus of our business?	Competency and professionalism of staff member(s) involved	Speed of Decision Making by concerned authorities
Approachability and responsiveness of senior management for escalating customer grievances	Timeliness of response/actions undertaken:	How would you rank our business in terms of innovation & market leadership in a scale from 1 to 5	Technical expertise provided:	Resolution of problems encountered
Achievement of desired outcome	Our value proposition is clearly communicated & understood	Strategic/Operational needs met		
Effectiveness & quality of information provided in consultation:	Achievement of Deadlines			

Part-4: Learning & Growth Perspective

Historically Key Performance Indicator measures for Employee perspective include Employee satisfaction, Employee Retention and Employee Productivity. However Employee Productivity being related to performance measures and appraisals of employees, the data being confidential in nature, was unavailable. As such Key Performance Indicators for this perspective is being limited to Employee Satisfaction and Employee Retention or Employee Attrition.

a) Employee Turnover

STC comprises mainly two categories of employees: the Manager and the Staff. An analysis was made of the attrition data available from the HR department for the last 5 years and it was found that there has been zero attrition in the Staff category in last 5 years. There have however been resignations in the Manager category, a summary of which is as follows:

Table 7: Percentage resignations in STC for last 5 years

As on	NO. OF EMPLOYEES	No. resigned all in Management Category	Percentage
31.03.2012	847	11	1.30
31.03.2013	829	9	1.09
31.03.2014	795	5	0.63
31.03.2015	739	15	2.03
31.01.2016	684	10	1.46

The Percentage shown in the last column shows the resignations to be negligible but the Percentages

Exhibit 12: Last 5 years trend in resignation among Managers in STC



have been taken on the entire gamut of employees in STC (Managers and Staff included). A trend would show a rise in the attrition level.

b) Employee Satisfaction

The above Key Performance Indicator is directly linked to satisfaction of the employees who are also one of the stakeholders of the company, in fact the principal stakeholders. In order to understand the factors influencing satisfaction of the employees a questionnaire comprising 38 questions covering various aspects of work life was forwarded via email to the Assigned Person of Contact appointed by STC for this study. A total of 108 filled up questionnaires were received in hard copy or in mail.

The 38 questions were grouped into 7 broader heads namely, Compensation & benefits, Training, Transparency, Career Growth, Role Clarity, Employee Relations and Work Life Balance. The mean score of the each respondent on the questions falling under one category was taken to be the score of that respondent for that particular category. The Final attribute score sheet looked as per Annexure I enclosed.

A factor analysis was performed on the above data set to understand the most significant factors influencing employee satisfaction. All the 108 response set for the 7 broad variables was subjected to Principal component analysis with Varimax rotation with Kaizer Normalization.

Also, KMO Measure for adequacy of sample was checked along with Bartlett's test of Sphericity for correlation of samples.

Table 8: KMO & Bartlett's Test of Sphericity for Employee Satisfaction Survey

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.686
Bartlett's Test of Sphericity	Approx. Chi-Square	91.207
	df	21
	Sig.	.000

The KMO value being 0.686 the sample size is thus taken to be adequate and Factor analysis could be proceeded with as KMO value >0.05 is desirable. Also at Significance level 0.000 the sample matrix is correlated and thus factor analysis can be proceeded with.

Table 9: Total Variance explained table for Employee Satisfaction Survey

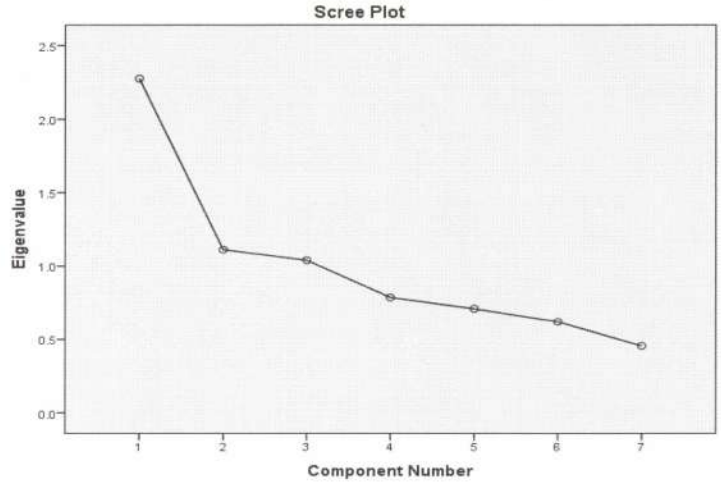
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentage of Variance	Cumulative Percentage	Total	Percentage of Variance	Cumulative Percentage	Total	Percentage of Variance	Cumulative Percentage
1	2.276	32.519	32.519	2.276	32.519	32.519	1.804	25.770	25.770
2	1.111	15.875	48.394	1.111	15.875	48.394	1.316	18.803	44.573
3	1.039	14.840	63.234	1.039	14.840	63.234	1.306	18.661	63.234
4	.787	11.244	74.478						
5	.710	10.144	84.623						
6	.621	8.867	93.489						
7	.456	6.511	100.000						

The extraction of factors was done on the basis of Eigenvalues being greater than 1. The following Total Variance explained table was obtained:

The above table depicts 3 components to be having Eigenvalues >1. The 3 components represent 63.23% of the total sample size thus may be depicted as good enough to proceed with the analysis.

The following scree was plotted as per the above table:



Communality as explained before is the Common Factor Variance.

The Communalities or the variance shared by one variable to the other variables as shown below also depicts high Correlation.

Table 10: Communalities for Employee Satisfaction Survey

Communalities		
	Initial	Extraction
Compensation & Benefits	1.000	.562
Training	1.000	.844
Career Growth	1.000	.682
Role Clarity	1.000	.579
Transparency	1.000	.455
Employee relations	1.000	.536
Work Life	1.000	.768

(The factor matrix comprising several factor loadings that have not been rotated is usually hard to interpret. As such the set is rotated to obtain the Rotated Component Matrix. Varimax Rotation with

Kaizer normalization process followed and rotation converged in 5 iterations. In the first run the values below 0.3 were set to be suppressed. However due to excessive overlapping and high difference between values the same was set to 0.45.

Following is the Rotated Component Matrix:

Table 11: Rotated Component Matrix for Employee Satisfaction Survey

Rotated Component Matrix[a]

	Component		
	1	2	3
Role Clarity	.760		
Compensation & Benefits	.710		
Employee relations	.589		
Work Life		-.848	
Transparency		.594	
Training			.918
Career Growth			.610

From the above the following points can be inferred:

1. Training & Career Growth are most important factors that are influencing the employees of STC. Component 3 having the highest Combined Loading Average. This may also explain the attrition in management cadre as Career growth in a Public Sector Undertaking is limited and subject to time with no link to performance.
2. Component 1 depicts they understand the role they play in the organization and are motivated through a high compensation & benefits package and good employee relations. Though the last factor is not as important as the first two.
3. The second factor has the lowest combined Factor Loading average, in negative. Here though transparency matters to the employees they are not much perturbed regarding work life balance. This may be depicted to a large number of employees being posted away from home location in case of Managers. For the Staff category employees there are rarely any transfers and they are accustomed to a 10 to 5 office timing hence do not give much thought to the factor.

The Balanced Scorecard

The Balanced Scorecard is a performance measurement tool that optimizes organizational performances by aligning all its departments with each other and the organizational objectives as a whole.

STC has the following Mission & Vision:

Vision: To be the leading World Class Training organization continuously diversifying and delivering excellence in all areas of its operation thereby enhancing stakeholder's value.

Mission: To continuously take advantage of upcoming business opportunities and trends with proactive enterprising spirit thereby delivering substantial year on year growth and contribute to enhancing India's share in World Trade.

The entire analysis done in the preceding pages indicates a lot in contradiction of the above two statements.

Firstly, there is a gradual decline in the business of STC as is seen from the 5 year data collected. Profits are stagnant. Any change in the business environment would cause business to perish overnight. The only new businesses started in last 2 years are Export of Steel to Iran (2014) and Petro and Manufacturing (2015). Both though doing well, would need to be catered with more customers and newer markets for export/import.

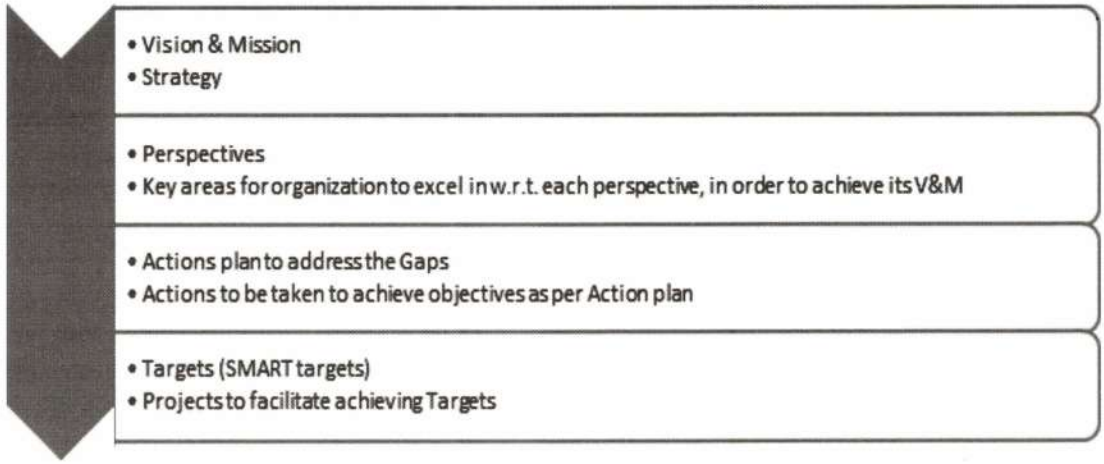
Secondly, there is no record/information available on defined procedure of work and/or guideline

regarding new business development. As seen in the Internal Business Process Aspect, a hierarchy is followed where one official simply forwards files to another till the highest authority accords their approval. The process though going on since inception of STC, leads definitely to a loss of potential customers who value time.

Lastly and most importantly, recent trend of resignations among the Managers is a serious alarm that rightly points out to a change that is needed in the company's way of working.

The following flowchart depicts the Balanced Scorecard:

Exhibit 14: Flowchart showing steps to building up a Balanced Scorecard



With respect to STC the above may be put into use as follows:

Table 12: Strategy Map for STC

Vision	Strategy	Perspectives	Areas to Excel	Action to take	Smart Targets	Projects to facilitate
To be the leading World Class Training organization continuously diversifying and delivering excellence in all areas of its operation thereby enhancing stakeholder's value.		Customer	To develop better communication and relation with customer (factor: Communication & feedback & Professionalism)	Provide feedbacks at every level of development or progress		An In house Customer meet to facilitate introduction of the Customers with STC
				Assign a designated employee for communicating		
		Finance	Payments & Accounts	Ensure timely clearance of supplier cheques		
Mission	Develop better customer relations by delivering flawless service			Explain payment norms to new customer In detail at the beginning of any new project/business		
		Business Process	Develop a streamlined process of work (For Role Clarity & Transparency; Boost Decision Making & Professionalism)	Decide on the basis of approving proposals. Some basic criteria for all.	Conduct a joint meeting to draw out ground rules. Draw out meeting minutes to be presented for proposal ratification	

To continuously take advantage of upcoming business opportunities and trends with proactive enterprising spirit thereby delivering substantial year on year growth and contribute to enhancing India's share in				Decentralise certain proposal approvals to Branch level based on Monetary amount to save time		
				Post facto approvals may be given		
		Learning & Growth	Technical Skills (Training Factor)	Training & Mentoring	Segregate Section wise training requirements. Then arrange trainings as per section and individual requireme	

Conclusion

The paper may be summarised by saying that Building a scorecard for an organization is an immensely time consuming job. It would require several sittings with various levels of the management to get a clear picture of the strategic objectives of the organization. Also the gaps would be identified and steps taken accordingly to bring down the same to conform alignment at all levels.

Similarly this paper was an attempt to understand the gaps in STC with respect to its Strategic Mission & Vision. It was seen that STC requires a well-defined working procedure to reduce cycle of time service/business development. Also it was seen that STC is dwindling when it comes to new business development. Its market share is diminishing by the day. Also several managerial level employees are leaving the organization. The factors that were identified through Factor analysis may be stressed upon on interactions and training programmes.

The Balanced Scorecard today is one of the most effective Strategic tools and several Public Sector Undertakings are using the same to their benefit. This paper attempts to demonstrate in a simplified manner the implementation procedure of the same.

There is ample scope to improve and fine tune the inferences to be more specific and to the point keeping in mind the unbalancing the balanced scorecard with respect to the State Trading Corporation of India.

References

Anderson, Shannon W and Lanen, William N (1999). "Economic Transition, Strategy, and the Evolution of Management Accounting Practices: The Case of India," Accounting, Organizations and Society, 24(5&6), July-August, 379-412

Chenhall, R H and Smith, K L (1998). "Adoption and Benefits of Management Accounting Practices: An Australian Study," Management Accounting Research, 9(1), 1-19.

Dearden, J (1969). "The Case against ROI Control," Harvard Business Review, 47(3), May-June, 124-135.

Dearden, J (1987). "Measuring Profit Center Managers," Harvard Business Review, 65(5), September-October, 84-88.

Demirag, J S (1998). "Short-term Performance Pressures, Corporate Governance, and Accountability: An Over-view," in Demirag, J S (ed.) Corporate Governance, Ac-countability, and Pressures to Perform: An International Study, Connecticut: JAI Press Inc., 7-24.

Emmanuel, C and Otley, D (1995). Readings in Accounting for Management Control, London: Chapman and Hall.

Hopwood, A G (1972). "An Empirical Study of the Role of the Accounting Data in Performance Evaluation: Empirical Research in Accounting," Supplement to Journal of Accounting Research, 10(3), 156-182.

Jain, A. K. And Sarkar, A.K. (Sept 2009). Service Quality Journal, Vol 2, 1-7

Joshi, P L (2001). "The International Diffusion of New Management Accounting Practices: The Case of India," Journal of International Accounting,

Auditing, and Taxation, 10(1), 85-109.

Kagioglou M., Cooper R. and Aouad A. (2001), Performance management in construction: a

Conceptual framework, Construction Management and Economics, 19:1, 85-95.

Kaplan, Robert S (1984). "The Evolution of Management Accounting," The Accounting Review, 59(3), 390-418.

Kaplan, Robert S and Norton, David P (1992). "The Balanced Scorecard: Measures that Drive Performance," Harvard Business Review, 70(1), January-February, 71-79.

Kaplan, Robert S and Norton, David P (1996a). The Balanced Scorecard: Translating Strategy into Action, Boston: Harvard Business School Press.

Landin A. and Nilson C.H. (2001), Do quality systems really make a difference, Building Research and Information, 19:1, 12-20.

Maciariello, Joseph A and Kirby, Calvin J (1994). Management Control Systems: Using Adaptive Systems to Attain Control, Englewood Cliffs: Prentice Hall.

Makkar, U. & Kumar, H. (2002). "Impact of Implementation of Balanced Business Score Card on Organizational Effectiveness, with Special Reference to Bharat Sanchar Nigam Ltd", 7-16.

Olve, Nils-Goran, Roy, Jan and Wetter, Magnus (1999), Performance Drivers: A Practical Guide to Using the Balanced Scorecard, Chichester, England: John Wiley & Sons.

Parker, L D (1979). "Divisional Performance Measurement: Beyond an Exclusive Profit Test," Chapter 25, in Em-manuel, C and Otley, D (eds.) Readings in Accounting for Management Control, 551-568.

Schoenfeld, H M (1986). "The Present State of Performance Evaluation in Multinational," in Holzer, H P and Schoenfeld, H M (eds.) Managerial Accounting and Analysis in Multinational Enterprises, Berlin: Walter de Gruyter, 217-252.

Silk, S (1998). "Automating the Balanced Scorecard," Management Accounting, 79(11), 38-44.

Vancil, R F (1979). Decentralization: Management Ambiguity by Design, Illinois: Irwin.

Websites:

- www.stc.gov.in
- www.moneycontrol.com