



Impact of Balanced Scorecard on Internal Communication in SJVN Ltd.

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Abstract: *Balanced Scorecard is highly acclaimed tool used for Performance Management by large number of organizations worldwide. Bernard Marr (2014)¹ and Dr Elijah Ezendu² in their independent studies have reflected BSC in the top eight list of PMS tools used across the world. The Balanced Scorecard features a set of performance measures derived from the organizational strategy converging them into four perspectives- Customer perspective, Financial perspective, Internal business processes, and Learning and growth. Based on these perspectives the KPIs are defined for all departments which percolate further to form the KPIs of the individuals. SJVN Ltd., a Miniratna Central Public Sector Undertaking is leveraging this tool to clarify its goals and targets and roles of all its departments for realizing its strategic targets. SJVN uses an online dashboard for defining the performance measures and recording the performance of various departments and Projects located across India and abroad which also apparently has improved Internal Communication in SJVN. In 2002, Paul R Niven³ stated in his book that Balanced Score Card can be used as a tool for three things: Measurement System, Strategic Management System and as a Communication tool. Though there have been many studies on the effective use of BSC as a PMS tool, there is not much research on the effective use of BSC as a communication tool. The present study is conducted to empirically explore the impact of BSC on the Internal Communication in SJVN Ltd.*

Key Words- *Balanced Scorecard, Internal Communication, Performance Management, Strategy, KRAs, KPIs.*

I. INTRODUCTION

Balanced Scorecard

Kaplan and Norton⁴ put forward the Balanced Scorecard as a set of measures derived from an organization's strategy. Bruce Berger⁵ (2008) in his article highlighted that the measures selected for the Scorecard maybe used for communicating to employees the performance drivers and performance outcomes by which the organization will achieve its mission and strategic objectives. Kaplan and Norton suggested that BSC is a framework that helps organizations to translate strategy into operational objectives that drive both behavior and performance. It is a system linked objectives, measures, targets and initiatives that collectively describes the strategy of an organization and how that strategy can be achieved. The system can be used to improve the further course of action for achieving the strategy.

Internal Communication

Internal Communication refers to communications and interaction among employees or members of an organization. *Business Dictionary.co*⁶ defines internal communication as "The sharing of information within an organization for business purposes and internal communication can take place via speech, telephone, mail, paging, fax, closed circuit television, e-mail, Internet connections, computer networks etc." This communication takes place between leaders, managers and employees, or peer to peer, from leader to leader, or employee to employee. It is a central process through which employees share information, create relationships, make meanings, practices, and purposes, and it is a very foundation of modern organizations. According to Jones *et.al.* 2004⁷ communications help individuals and groups in coordinating activities to achieve goals, and it is vital in socialization, decision making, and problem solving and change management process. Internal communication actually provides employees with all information relevant to their jobs. Communication can help motivate, build trust, create shared identity and encourage engagement.

SJVN Ltd:

SJVN Ltd erstwhile Nathpa Jhakri Power Corporation (NJPC) and Satluj Jal Vidhyut Nigam is presently a Mini Ratna and Schedule 'A' CPSU under the Ministry of Power, Government of India. It is a joint venture between Government of India and Government of Himachal Pradesh. SJVN was incorporated on 24th May, 1988 and since then it has been fast emerging as a major player in Power Sector. The present authorized capital of SJVN is INR 7000 crores and paid up Capital of INR 4137 Crores. The Market Capitalization is about INR 13,000 Crores. SJVN is operating major power generating projects mainly India's largest 1500 MW Nathpa Jhakri Hydro Power Station (NJHPS) located in the state of Himachal, the 412 MW Rampur Hydro Power

Station (RHPS) located in the downstream of NJHPS. and 47.6 MW Khirvire Wind Power Station (KWPS) located in state of Maharashtra and a 5 MW solar power is located in Gujrat.

II. REVIEWS:

*M. W. Grady (1991)*⁸ in his research work on “Performance Measurement: Implementing Strategy” expresses a belief that in most companies’ business strategy is set by senior management behind closed doors leaving limited scope for it to be understood by employees down the line. Further, the study also illustrated that the lack of communication between the lower and higher level employees leads to such decisions or actions which are not consistent to the organizational strategy. *Patricia Davis & Robert W. Rogers*⁹ stated that the key phases in converting the installation of a performance management system into a successful implementation include: Communication: Making the business case. Accountability: Clear roles and accountabilities for all key stakeholders, starting with the CEO. Skill: Skill development for all involved. Alignment: Aligned systems to reinforce the desired behaviors. Clear Measurement: The use of lead and lag measures.

*Robert S Kaplan and David Norton*¹⁰ (1996) in the book “The balanced scorecard: Translating Strategy into Action” have defined how the Companies gradually started using Balanced Scorecard as a Strategic Management System using the measurement focus of the scorecard to accomplish critical management processes: 1) Clarify and translate vision and strategy 2) Communicate and link strategic objectives and measures 3) Plan and set targets, and align strategic initiatives 4) Enhance strategic feedback and learning. “Using the Balanced Scorecard as a Strategic Management System” revealed that how companies use BSC not only to clarify and communicate strategy but also to manage strategy.

*Salini Bafaneli and Gosekwang Setibi (2016)*¹¹ found that the BSC model is best fit for any type of organization as it not only is a performance management tool but also is a strategy management tool and a communication tool.

*Richard Greatbanks and David Tapp*¹², researched on the impact of Balanced Scorecard at three levels: Strategic Planning, Team Management and Individual Staff Performance. The empirical Evidences suggested that the use of Scorecards within the case organization enables employees to clearly appreciate their role and focus on delivery of performance related measures which support organizational strategy. Clarity of role appears to have a positive influence on the achievement of the organization’s business plan and excellence goals regarding the delivery of customer service.

*Sabina Ridleberg and Sandra Sevansson (2006)*¹³, also conducted a study on use of BSC as a communication tool with the subject named “Welcome to Reality–A study of Balanced Scorecard as a Communication Tool”. Based on the theory of Communication and BSC they developed a model which showed that how BSC can be used as a possible way to communicate strategy, and how communication can be improved in the organization. They empirically tested this model in Kunglav Hospital, a part of a bigger organization naming Vastra Gotaland Region using interview survey method. In their study they concluded that the BSC can be used as communication tool since it creates an opportunity to formulate goals and measures that can be communicated in the way that employees can understand and when the BSC is used properly as a communication tool it helps the company to ensure that all employees work towards same goal. The use of BSC also made it easier for the employees to focus on what is essential and keep themselves updated with the relevant information. They also concluded that the time different respondents spent working with the BSC as a tool was related to how they prioritized their time, and their priorities in turn were related to how important they considered the scorecard to be as a tool, which depended on their understanding of the scorecard.

III. OBJECTIVES OF STUDY

1. To study the relationship between Balanced Scorecard and Internal Communication & Employee Engagement in SJVN.
2. To study the impact of Balanced Score Card on Internal Communication system of the organization.

IV. RESEARCH METHODOLOGY

This study has been conducted in SJVN Ltd which is a Central PSU. SJVN Ltd adopted Balanced Scorecard as a Performance Management tool on the mandate of the Department of Public Enterprises and since then the Balanced Scorecard based Performance Management System of SJVN has been evolving. Presently, the organization has in place a robust target formulation and evaluation system for BSC. Once the BSC comprising of Critical Success factors and Key Performance Areas are finalized taking cues from the Strategic Objectives, these are widely shared and circulated throughout the organization along all locations in the form of Charts and Booklets. Recently, an online dashboard has been created on ERP software, on which all the Performance centers update the monthly status of the BSC which is directly viewed by the Top Management. There are 11 Performance Centers, however the for KPI setting these Performance Centers have various sub performance centers (which are usually the departments/ sections). The KPIs of the department or Section further forms the basis of formulation of KPI of the employees of the department/ section.

The total manpower of SJVN on regular roles is 1426 who are posted throughout India and neighboring countries on various projects and offices of the organization. The majority of operation, maintenance and construction work are outsourced through award of contracts to various ancillary industries, only the core works like designing, quality control, operations control etc. are done in house.

The employees on regular roles of the organization are taken as the population of this study. As per the requirement of the study, the statistical tools used and the total population the sample size of 360 has been taken which works out to be more than 25% which is higher enough and adequate to represent the population. For sampling the convenient and judgment sampling techniques have been applied and thereafter the sample has been selected on the stratified random sampling basis. The employees in SJVN Ltd are broadly categorized as Executives, Supervisors and Workmen and thus the population was also selected accordingly and also as per the location into two categories- employees at Corporate head quarters / regional offices and employees posted at Projects. Finally, the sample has been selected at random sampling basis from the different levels and locations.

V. VARIABLES USED:

Initially for the research two variables were considered to be used. But with the review of literature and going through the earlier researches the two variables i.e. Balanced Score card (BSC) and Internal Communication (IC) were assigned sub-variables which are depicted as under:

Balanced Scorecard (BSC): The study made by *Prita D Mallya (2204)*¹⁴ taking reference from *Euske (1990)*¹⁵, *Koontz & Wehrich (1990)*¹⁶ and *Homgren et al (2000)*¹⁷ suggested that for any Performance Management System to be effective should have the four factors i.e. It should be Apt for the organization, It should be fair in all respects, It should be able to achieve Goal i.e. Goal Congruence and It should be Complete in all respects. Hence the following sub-variables of BSC were assumed:

1. **Aptness** termed as **AP** in current research
2. **Fairness** termed as **FI**
3. **Goal congruence** termed as **GC**
4. **Completeness** termed as **Comp**

A self designed structured questionnaire, taking clues from standardized questionnaire on subject was prepared on Likert scale and was pilot tested on a small population of SJVN. Suitable changes were done and final questionnaire thus prepared was checked for its reliability and validity before administering it to the respondents. The final questionnaire was circulated among the sample size of 400 employees posted at various projects/ locations of SJVN. Only 360 correctly filled questionnaires were received which were used for this study. To study the impact of Balanced Scorecard on Internal Communication multiple regression has been used. The data has been analyzed with the help of IBM SPSS 21.0.

VI. FINDINGS:

To analyze the effect of Balanced Scorecard on Internal Communication Multiple Regression has been used.

In Multiple Regression **Internal Communication** has been considered as dependent variable whereas **Balanced Scorecard** (Aptness, Fairness, Goal Congruence and Completeness) has been taken as Independent Variable. Accordingly following model has been framed:

$$\text{Internal Communication} = \beta + \beta_1(\text{Aptness}) + \beta_2(\text{Fairness}) + \beta_3(\text{Goal Congruence}) + \beta_4(\text{Completeness})$$

Where β , β_1 , β_2 , β_3 and β_4 are regression coefficient in Regression model.

Table: 1: Model Summary^b predicting IC

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1 | .665 ^a | .442 | .435 | 16.18719 | 1.713 |

a. Predictors: (Constant), completeness, aptness, GC, fairness

b. Dependent Variable: IC

Model summary table 1 gives us the R-Value for assessing the overall fit of the model. The adjusted R square value in this case is .435. This tells us that the four independent variables i.e. Aptness, Fairness, Goal Congruence and Completeness of Balanced scorecard account for 43.5% variance in the dependent variable that is Internal Communication. This value of R square is fair enough to predict that the model is good fit.

The Durbin Watson (d) value is 1.713, which is between $1.5 < d < 2.5$ and therefore we assume that there is no first order linear auto-correlation in our multiple linear regression data in this case.

Table: 2: ANOVA^a table

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|--------------|----------------|-----|-------------|--------|-------------------|
| 1 Regression | 75629.677 | 4 | 18907.419 | 72.159 | .000 ^b |
| Residual | 95639.147 | 365 | 262.025 | | |
| Total | 171268.824 | 369 | | | |

a. Dependent Variable: IC

b. Predictors: (Constant), completeness, aptness, GC, fairness

From the Anova (Table 2), the F-value for this data is $F(4, 365) = 72.159$, which is significant at $p < 0.001$. Therefore, our regression model results in significantly better prediction of Internal Communication if we use the mean value of Internal Communication. Hence the model overall predicts Internal Communication significantly well. Thus it is inferred that perception about Balanced Scorecard with respect to its Aptness, Fairness, Goal Congruence and Completeness put significant impact on Internal Communication in SJVN.

Table 3: Coefficients^a predicting IC

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|--------------|-----------------------------|------------|---------------------------|-------|------|-------------------------|-------|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 (Constant) | 23.996 | 7.002 | | 3.427 | .001 | | |
| aptness | .320 | .387 | .049 | .828 | .408 | .434 | 2.304 |
| fairness | .945 | .304 | .220 | 3.105 | .002 | .306 | 3.270 |
| GC | .728 | .351 | .141 | 2.076 | .039 | .332 | 3.009 |
| completeness | .969 | .171 | .333 | 5.653 | .000 | .441 | 2.266 |

a. Dependent Variable: IC

The Coefficient (table 3) provides estimates of the model parameters (the beta values) and significance of these values. So from the table we can say that b_0 is 23.996 and it can be interpreted that when none of these predictor variables (Aptness, Fairness, Goal Congruence and Completeness) are present, the model predicts that Internal Communication will be 23.996%. Values of regression coefficients b represents the change in the outcome resulting from the one unit change in predictor and that if the predictor has a significant impact on our ability to predict the outcome then these Bs should be different from zero. If the significant value is less than 0.05, the result reflects a genuine effect. Thus, it is observed from the table that Completeness variable makes significant contribution (p -value < 0.05) to predict Internal Communication, whereas, the other variables Aptness, Fairness, Goal Congruence are not putting significant effect on Internal Communication.

From the above model we can also say that with an increase of one unit in Aptness there will be an increase of 0.320 in Internal Communication. With an increase of one unit in Fairness there will be an increase of 0.945 in Internal Communication. Also with an increase of one unit in Goal Congruence there will be an increase of 0.728 in Internal Communication and with an increase of one unit in Completeness there will be an increase of 0.969 in Internal Communication.

Further from the table, it can also be interpreted that Completeness of Balanced Scorecard ($\beta = 0.333$) is putting high impact on Internal Communication and Fairness ($\beta = 0.220$) putting moderate impact on Internal Communication. However, Aptness ($\beta = 0.049$) and Goal Congruence ($\beta = .141$) have lesser contribution to predict the Internal Communication.

The Variance Inflation Factor (VIF) indicates whether a predictor has a strong relationship with the other predictor has a strong relationship with other predictor(s). Since the largest VIF is not greater than 10 and the tolerance is not greater than 1, hence it can be assumed that regression is not biased.

Accordingly, the regression model will be:

$$\text{Internal Communication} = 23.996 + .320 (\text{Aptness}) + .945 (\text{Fairness}) + .728 (\text{Goal Congruence}) + .969 (\text{Completeness})$$

The normality of residuals of table 2 has been checked by plotting the histogram and Normal probability plot. (Figure 1 & 2)

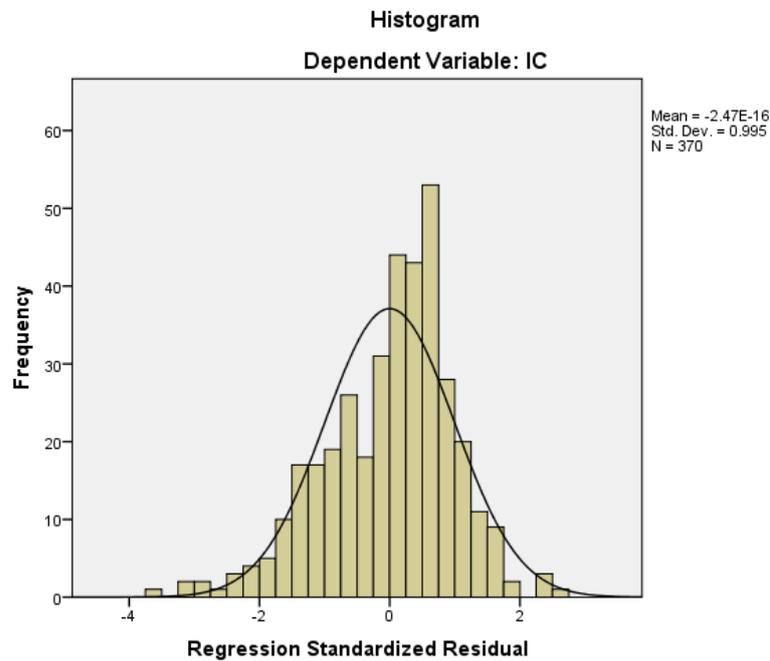


Figure 1: Histogram of Impact for impact of BSC on IC

The figure 1 shows that the histogram is symmetrical and bell shaped which means that the distribution is very normal. The figure 2 shows that the dots lie almost exactly along the diagonal, which also indicates the normal distribution of residuals.

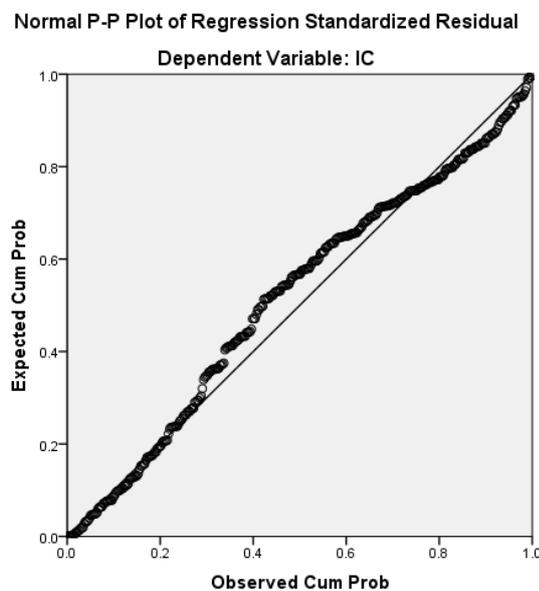


Figure 2: Normal Probability Plot for impact of BSC on IC

Therefore, the linear model for Internal Communication will be as follows:

Table-4: Linear Model predicting IC

| | B | SE B | Beta | P value |
|-----------------|--------|-------|------|---------|
| Constant | 23.996 | 7.002 | | .001 |
| Aptness | .320 | .387 | .049 | .408 |
| Fairness | .945 | .304 | .220 | .002 |
| Goal Congruence | .728 | .351 | .141 | .039 |
| Completeness | .969 | .171 | .333 | .000 |

(R²=.355; Adjusted R²=.348)

VII. CONCLUSION AND SUGGESTION:

Perception about Aptness, fairness, Goal Congruence and Completeness of Balanced Scorecard is putting significant impact on Internal Communication

The results of regression analysis tell us that the four independent variables i.e. Aptness, Fairness, Goal Congruence and Completeness of Balanced scorecard account for 44.2% variance in the dependent variable that is Internal Communication.

B^0 is 23.996 from which it can be interpreted that when none of these predictor variables (Aptness, Fairness, Goal Congruence and Completeness) are present, then Internal Communication will be 23.996%. Values of regression coefficients B represents the change in the outcome resulting from the one unit change in predictor and that if the predictor has a significant impact on our ability to predict the outcome then these B s should be different from zero. If the significant value is less than 0.05, the result reflects a genuine effect. Thus, it is observed from the table that Completeness variable makes significant contribution (p -value < 0.05) to predict Internal Communication, whereas, the other variables Aptness, Fairness, Goal Congruence are not putting significant effect on Internal Communication.

From the above model we can also say that with an increase of one unit in Aptness there will be an increase of 0.320 in Internal Communication. With an increase of one unit in Fairness there will be an increase of 0.945 in Internal Communication. Also with an increase of one unit in Goal Congruence there will be an increase of 0.728 in Internal Communication and with an increase of one unit in Completeness there will be an increase of 0.969 in Internal Communication.

Further from the table, it can also be interpreted that Completeness of Balanced Scorecard ($\beta = 0.333$) is putting high impact on Internal Communication and Fairness ($\beta = 0.220$) putting moderate impact on Internal Communication. However, Aptness ($\beta = 0.049$) and Goal Congruence ($\beta = .141$) have lesser contribution to predict the Internal Communication.

The point wise findings are illustrated as follows:

1. Completeness of BSC has higher impact on Internal Communication:

Completeness as explained earlier also relates to the inclusiveness of BSC of all aspects of all performance centers. If the scorecards of all sections, departments, and projects are available across the organization to all individuals then obviously it will help increasing the communication. The individuals in this way get the access to more interdepartmental information. Thus we see that the completeness of BSC affects the Internal Communication. Also the comprehensive information as related to all aspects of business is also a feature of BSC. This also helps employees know every nick and bone of the organization and hence contributes to improved Internal Communication.

2. Fairness of BSC effects Internal Communication to some extent:

If the performance measurement system is fair and transparent then there will be no need to hide it. It can be openly communicated. BSC acts as a good tool for performance measurement. Its evaluation method is so simple and it generally involves all concerned. The evaluation is done by the department itself and is just agreed to by the evaluating committee thus the communication is boosted by this. The transparency is maintained and employees feel more satisfied with the internal communication.

3. Goal Congruence and Aptness of BSC have comparatively lesser impact on Internal Communication:

The Goal Congruence means the alignment of departmental/sectional goals to the organizational goals. This certainly impacts the Internal communication as the individuals working in a department gets to know the big picture- the organizational strategy. Aptness has comparatively lesser impact on Internal Communication as this component is not much related to Internal Communication, however these are important features as these are more impactful in predicting the performance parameter.

Thus on the basis of above findings we can conclude that the BSC help in fostering the Internal Communication especially the completeness and Fairness factors of BSC. Hence, the BSC should be complete in all respects i.e. it should cover each and every unit or department specifying targets along with the performance indicators. The KRAs and KPIs should be based on the organizational strategy covering all the four aspects of BSC. If all the aspects of business are covered in BSC and the same is open to all with a wide distribution through various media it will automatically enhance the Internal Communication. Similarly, the fairness aspect of BSC also boosts the Internal Communication as the employees put more faith in the information and have a better confidence in the internal environment.

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