Balanced Scorecard as a Performance Measurement Tool: Its Application in Public Healthcare Service Organisation - A Case Study

Hardeep Chahal, Vinay Raina & R.C. Dangwal

Abstract

A number of accounting scientists argue that the traditional financial and accounting measures, being developed for regulatory and financial reporting requirements, are inadequate to assess the performance of organizations. The growing importance of services industries and increased global competition have intensified the need for alternative control and performance measures. Moreover, assets in the service economy are often intangible and taking into consideration the rising demands of varied stakeholders groups, the need for a tool for comprehensive and balanced performance measurement has become all the more pressing. No wonder a number of multi-dimensional performance measurement systems, namely, six sigma, total quality management, balanced scorecard, lifecycle accounting etc were introduced in the last decade. Among these Balanced Scorecard (BSC) has emerged as one of the most widely discussed in academic literature and adopted in practice. In this context an endeavour has been made to evaluate the organizational performance of a hospital from four perspectives of BSC viz employee satisfaction, internal environment, learning and growth and finance. The data has been collected using a refined BSC scale from randomly selected 180 staff members of Government Medical College, Jammu. The study hypothesizes that all the four components are averagely contributing to the organizational performance. The reliability and validity of the scale followed by a confirmatory analysis and discussion and their implications are discussed in the paper.

Key words: Balanced scorecard, learning & growth, employee satisfaction, internal environment and financial performance.

Background

Interest among both academics and practitioners in performance measurement systems as a tool for delivering strategic objectives is well established now in management literature (Eccles 1992 and Kaplan & Norton, 1992). The drawbacks of the existing financial measures of accounting systems have led to such growth in research on new practices and tools in performance measurement. (Emmanuel & Otley, 1995). A number of accounting scientists argue that the traditional financial

and accounting measures, being developed for regulatory and financial reporting requirements, are inadequate for strategic decision making to run businesses (Johnson, 1994; Williams et al. 1994; Eccles, 1992 and Kaplan & Norton 1993). To add, management accounting researchers have also categorically reflected on the increasing irrelevance of traditional control and performance measurement practices in respect of three things: a) their failure to link performance measurement to the strategic initiatives of organizations, b) their emphasis on accounting for external reporting rather than on accounting reports useful for internal decision making, and c) lastly their failure to account for advances in technology (Palmer, 1992 and Spicer, 1992). In addition, financial information about a number of events occurring in the business environment generally extends beyond one accounting period and this creates problems in proper measurement. The measurement problem aggravates further when an organization wants to pursue its short-term goals (Kaplan, 1984 and Vancil, 1979). Moreover, the absence of non-financial tools in presenting financial statements further adds to the seriousness of the problems associated with the measurement of business performance. These limitations of traditional financial measures along with dramatic changes in the business environment (Merchant, 1985 and Neely, 1999) are paving way for the organizations to look into other better objective and comprehensive performance measures (Otley, 2000). Consequently a number of multi-dimensional performance measurement systems, namely, six sigma, total quality management, balanced scorecard, lifecycle accounting etc have been introduced in the last decade (Lynch and Cross, 1991; Fitzerland et al., 1991; Kaplan and Norton, 1992 and Lewis, 1999). Among these the Balanced Scorecard- BSC (Kaplan and Norton, 1992) has emerged as one of the most widely discussed in academic literature and adopted in practice. By focusing on the presence of both financial and non-financial measures and the translation of organizations' missions into more tangible measurable goals, actions and performance measures, it has gained wide acceptance over the globe. Besides being a multi-dimensional concept, BSC can fully capture the complexity of organizations' performance (Epstein and Manozoni, 1998). BSC as a management tool is well documented in accounts literature (Kaplan and Norton, 1992, 1993, 1996a, 1996b; Hoffecker and Goldenberg, 1994; Lingle and Schiemann 1996 and Firgo and Krumwiede 2000). Financial measures, along with non-financial measures viz internal environment, learning and growth and customer satisfaction, form the significant components of BSC. Each measure is integrated with other measures and defined with respect to the strategies, objectives, targets, action, measure and feedback.

The present study on measuring the organizational performance of a government medical college hospital is undertaken to comprehensively analyze the various aspects related to operational functions of the unit using balanced scorecard measures from a subjective perspective. Further, till today not even a single study has been conducted in India to measure the service performance of healthcare organisations using the BSC approach, with focus on employee satisfaction, learning and growth, internal business and financial variable.

Case profile

The Jammu Government Medical College Hospital (GMCH), the premier health care institution in J&K, was started in May 1973 as an undergraduate institution with the aim to train medical students and serve as a referral hospital for the Jammu province. The institution started with a total of nine hundred beds and with the inauguration of the Medical College Hospital building in the year 1993, it has increased its capacity to 1700 beds including associated hospitals and Sir Col. R.N.Chopra Nursing Home. There are four associated hospitals attached to it and these include Medical College Hospital, SMGS Hospital, Chest Disease Hospital and Psychiatry Disease Hospital. Region-wise, it caters to the needs of patients coming from different regions of the state, particularly the Jammu region and some parts of Kashmir and Ladakh as well. The GMC hospital has 15 wards and specifically there are seven wards in the medicines department with the total bed capacity of 282, five wards with the bed capacity of 148 in the orthopaedics department, eight beds in the ICU ward and 37 beds in the emergency wards of the hospital. About 168 doctors and 549 paramedicals including nurses, technical, nontechnical and other menial staff personnel are engaged in meeting the patients' needs. Annually, 30,000 indoor and 3,50,000 outdoor patients are seeking treatment from the hospital. Regarding patient satisfaction a study conducted on the hospital (Raina, 2007) found that indoor patients were averagely satisfied whereas Sharma and Chahal (1995) found that the patients were not satisfied with the hospital functioning. The ongoing efforts based on analyzing organizational performance using the four components of BSC can provide a sound platform for the hospital to move on to a better trajectory.

Hypotheses and objectives

Employee satisfaction

Employee satisfaction is a predictor of customer satisfaction and loyalty. Anything that happens to employees inside a firm affects the customers outside a firm (Schneider and Bowen, 1985). The competitive organizations improve customer services by effectively leveraging their internal strength against consumer needs. Building on organizational systems and processes that increase employee attachment, which is derived from employee dedication, commitment, productivity and effective response to a company, can thus lead to customers' attachment and satisfaction. To add, there is a strong and positive relationship between employee satisfaction, customer satisfaction vis-a-vis business performance (Rucci, Kim and Quinn, 1998 and Graham, 1996). With a high degree of employee satisfaction, a company consistently delivers superior value and wins customer loyalty and market share, subsequently leading to increased revenues and reduced cost of acquiring and serving customers. The better economics of a company pay its employees better and this in turn boosts their morale and commitment as they stay longer and their productivity rises and training costs fall. Above all, their job satisfaction, combined with their knowledge and experience, leads to better service to customers. In consequence customers are more inclined to stay loyal to the company. However, some studies indicate that employee satisfaction does not necessarily contribute directly to firms' productivity (Heskett *et al.*, 1984). On the basis of this, the study framed the following hypothesis and objective:

Hypothesis 1: Employees in general are averagely satisfied with their work in the hospital

Objective 1: To measure employees' satisfaction in the hospital

Internal business

The internal business process perspective analyses the internal operating environment using measures that contribute to financial success and stakeholders' satisfaction. Thus internal business processes are the mechanisms through which the performance goals of an organisation are achieved. The application of this measure to the healthcare sector helps in understanding the operating characteristics of the hospital which affect employees' as well as customers' satisfaction. More concretely, it helps in knowing how well the healthcare unit is running and whether its services conform to patient and employee requirements and identifying processes which are critical to employees/customers' satisfaction. The management is required to concentrate its efforts on the internal business perspective in order to excel in its fields of operation. On the basis of this, we framed the following hypothesis and objective.

Hypothesis 2: The effective and conducive internal environment of the hospital is average and contributes greatly to employee satisfaction

Objective 2: To analyse the internal operative environment of the organization

Learning and growth

Learning and growth perspective, third enabler of the balanced scorecard, focuses on employees' skills and their competencies. This perspective measures the learning orientation of the organisation to meet the changing requirement of the stakeholders with respect to the redesigned strategies, effective feedback and effective review system. This perspective helps in meeting the customers' expectations as the employees through this measure are analysed in terms of their adaptability to the new challenges occurring due to the changes in the external and internal environments of the organisation. Specifically, it facilitates in developing strategies, skills and information which result in employee and customer satisfaction. In the healthcare sector, this perspective identifies the infrastructure that the organisation must have or create for long-term growth and improvements, the investment the organisation needs to make in re-skilling employees through training programmes, regular organizing of extension activities, motivational incentives, internet-based application in the service delivery process, library well-equipped with the latest national and international journals etc. Hence keeping this perspective in mind we propose another hypothesis and objective

Hypothesis 3: Learning and growth environment of the hospital is satisfactory and affected by the financial environment and contributes significantly to employees overall performance.

Objective 3: To examine the learning and growth environment of the unit.

Financial governance

Financial governance helps in knowing whether an organisation is managing its resources in a cost efficient manner to demonstrate accountability. This measure looks at hospitals' performance against expectations with respect to proficiency and services. But at the same time, the financial performance and effectiveness of the public healthcare sector is difficult to measure as the sector is being managed from funds assigned by the state or central government. Hence the financial effectiveness and governance of a public hospital is assessed on the basis of factors such as sufficiency of funds to meet the requirement of the hospital, salaries of the staff, nominal rates for services like CT scan, ECG etc, social advertising expenditure, optimal financial resources, realistic and transparent financial statements, sufficient funds to deliver quality healthcare services etc. The hypothesis and the objective set in this regard are:

Hypothesis 4: The hospital has sufficient funds to meet its requirements and to deliver quality healthcare services.

Objective 4: To know the degree of utilization of financial resources.

In addition, the study also framed a comprehensive hypothesis:

Hypothesis 5: All the components of BSC are equally important in contributing to the organizational performance.

Generation of scale items and scale purification

The balanced scorecard is a method which translates an organisation's mission and strategy into a comprehensive set of performance measures that provide the framework for a strategic measurement system (Kaplan and Norton, 1996). The BSC questionnaire for employees comprised four components, namely, employee satisfaction, internal business, learning and growth and financial governance. Initially the literature on BSC & related areas is reviewed extensively and later exploratory discussions are held with the academicians and medical experts to specify the dimensions under employee satisfaction (ES), learning & growth (LG), internal environment (IE) and financial governance (FG), which consequently checked the content validity of the questionnaires. These efforts resulted in generating 14, 16, 19 and 16 dimensions for ES, LG, IE, and FG. The draft questionnaires were pretested with thirty employees and later modified with certain additions and deletions of dimensions under all the variables - ES, LG, IE and FGon the basis of item to total correlation, inter-item scale correlation and multiple correlation. This stage led in reducing the scale to 12, 11, 12 and 10 items under various dimensions. The items selected were again discussed with the experts and modified to make them clear to enhance the face validity of the scale.

Data collection

The final questionnaire was distributed to 25 percent of the total staff population (549 paramedical and 168 doctors taken from the office of the Superintendent, Medical College/Hospital) selected randomly using SPSS. As a result the questionnaire was distributed to 180 staff members personally for data collection. The response rate is found to be 92 percent as 14 staff members did not return the

questionnaire. The selected respondents included 40 doctors, 128 paramedical staff and 12 non-technical staff.

Scale item analysis

The scale analysis is undertaken to identify and test the factor representation of the items used under the four BSC components as well as to raise the reliability of the scale. Item to total correlation, inter-item correlation, measure of sampling adequacy, KMO, factor loading vis-a-vis cross loading and Cronbach Alpha Values (CAV) were checked in various iterations for final item identification. At the outset factor analysis was conducted for data purification by retaining items using factor loading values greater than .5 and KMO greater than .7 criteria. The selected dimensions were then checked for item to total correlation, inter-item correlation, scale mean if the item was deleted and cronbach alpha to enhance the overall scale value. Items with less than .10 or greater than .90 correlation coefficients were identified for the same and this effort resulted in the exclusion of items and subsequently in a rise in the value of KMO and also explained the variance. After various iterations, these efforts resulted in , 7, 7, 8 and 4 items under ES, LG, IE and FG respectively. These steps helped in checking the construct validity of the scale. The internal consistency using split half method is used to assess the reliability of the final scale (Malhotra, 2002; Hair et al., 1995 and Tull and Hawkin, 1988). The cronbach alpha coefficient values for the main sample and two split samples came out to be above the threshold limit of .700 (Table 1.1).

Lastly, the convergent and discriminant validity were also assessed. The convergent validity of the construct was checked by examining the conceptual and empirical criteria (Parasuraman *et al.*, 1988) of the items. The degree of intra-correlation coefficient values in the four components ie LG, IE, ES and FG ranged between .35 and .85 and the inter-item correlation between different BSC components was less than .20. This consequently checked the convergent as well discriminant validity of the scale.

Confirmatory data analysis

The confirmatory data analysis is performed to assess the significance and contribution of the various dimensions of the BSC scale and also to test the hypotheses framed. The uni-dimensionality of the components is assessed on the basis of critical ratios. All dimensions are found to have more than a 1.96 critical ratio value indicating their significance in model fitness. Regression weights, which checked the contribution of the dimensions to the BSC components, are found to be ranging between .238 and .578 for ES, .457 and .493 for LG. .498 and .913 for ES and ..495 and .662 for FG. The construct reliability and the variance extracted are found to be .73 and .65 respectively, further supporting the result. Among LG dimensions the employees are found to be averagely satisfied as hypothesized with the values obtained as 3.60, 3.70. 3.64, 3.72, 3.68, 3.20 and 3.51 for LG dimensions relating to extension activities, regular changes in the environment, information sharing, updating of skills, motivational incentive, implementation of suggestions and implementation of the latest information, respectively. The regression weights and squared multiple correlation for only three LG dimensions, namely, changes

in the environment, extension activities and information sharing are found to be good with values as .943 & .889; .834 & .696 and .811 & .657 respectively and the remaining dimensions have score regression weight in the range of .457 - .699 and variance in the range of .209 - .489. Similarly the results for the IE dimension indicate that internal environment performance mainly rests on accommodation for patients (.913), interactive and coordinating atmosphere (.872), conducive environment (.870), conscious attitude of the management towards employees' problems (.812), quality of operational routine working (.834) and the remaining dimensions, which include management efficiency, discipline, rules and regulations, and support from management, have scored regression weights less than .700. The results of squared multiple correlation show similar strength of relationship between IE dimensions with the latent factor as identified with regression weights. The value of squared multiple correlation ranged between the minimum of .248 (support from management) and the maximum of .834 (accommodation for management). At the same time mean values for all the items under internal environment fall in the low degree of satisfaction level excluding one dimension, viz, discipline, rules and regulations followed in the unit with mean value as 1.58. In contrast, the level of employees' satisfaction is found to be above average as all values of the mean score are found to be above 3.08. (Table 1.3) and SRW and SMC are high for the needs of the staff (.761 & .578) and for the adequate strength of the staff (.751 & .564) and about average for three, ie, cooperative attitude of the staff with others (.588 & .346), staff competency (.583 & .340) and work & salary (.563 & .317) and employees' problems (.497 & .247) and overall hospital functioning (.488 & .238). The SMC show a similar trend but the intensity of relationship between items does not correspond in the same manner. The last dimension of BSC relates to financial governance. Among the four significant BSC dimensions, financial component is the core component on which the other components directly or indirectly depend. This dimension has scored below average mean value and less than average SRW values indicating that efforts are required to be made to strengthen the financial atmosphere of the hospital. The mean and SRW values are obtained as 2.86, 2.58, 2.84 & 2.39 and SRW as 0.245, 0.427, 0.438 & 0.391 for FE 7. FE 8, FE9 and FE 10 respectively. Whereas their SMC are determined as .485, .695, .662 and .625 respectively, the total effect of the financial environment on organizational performance of the hospital is found to be highest for IE (.481) followed by ES (.038) and LG (.019). The model fit indices (Table 1.4) viz CMIN/DF and CFI, which are in the range of threshold values, and the RMSEA measures outside the acceptable range indicate partial fit acceptance of the model.

Discussion

The results of the study indicate that the overall organisational environment of the hospital is satisfactory (3.01). Specifically, the hospital staff find the internal environment (2.49) and the financial governance environment (2.67) to be below the average satisfactory level. On the flip side, the staff respondents are averagely satisfied with the working of the hospital (3.40) and also with the existing learning and growth environment (3.58), which in fact has scored maximum value. The study finds that the learning & growth environment is a function of items such as

opportunity for extension activities, regular updating of skills using different sources and motivational incentives for participation in the extension programmes. Further sharing of information, implementation of suggestions and latest technical as well as non-technical information further enhance the quality of the learning and growth environment (Table 1.3). The results indicate acceptance of the hypothesis relating to the learning & growth environment. The study also supports the second hypothesis regarding the average satisfaction degree of employees (Table 1.4). The employees' satisfaction is found to be linked with dimensions relating to the friendly, humble & cooperative attitude of the staff in particular (3.64) followed by adequate staff strength and due consideration given to their needs by the administration which make them happy with their jobs. The employees indicate their satisfaction with the allocation of work as well as their salaries. Further, the competency of the staff, resolution of their problems and their functioning are factors next in a row responsible for strengthening the employees' association with the hospital. The routine working of the hospital, the overall efficiency of the management, the employees' and the patients' problems being given due focus, compliance with the rules and regulations, interactive atmosphere and support from management are responsible for below average satisfaction of the staff with regard to the internal environment. Hence the hypothesis relating to the internal environment is rejected. The financial environment is also indicated to be less attractive. The employees indicate that the working and utilisation of medical equipment and of financial resources need to be strengthened. There is also a need to launch effective awareness campaigns for society regarding the latest health hazards. The nominal costs for specialised tests need to be further looked into to make the financial environment sound. The fourth hypothesis is rejected. The overall organisation performance variable is regressed with respect to four BSC components to see the relative impact of the variables. The result reveals that all the components are significantly associated with organisational performance and the internal environment contributed most to it followed by employee satisfaction, learning & growth and financial governance. This model explains the 42.2 variance (Table 1.5).

Implications

The study has direct implications for employees. It makes employees aware about the type of relationship that exists among the four BSC indicators examined. The employees are in a position to know and understand the influence of BSC dimension on the overall organizational performance. Further, dimensions contributing to the individual components can help the health authorities in knowing the existing environment of the hospital in general and the specific strengths and weaknesses of the dimensions in particular. The study thus provides the base for the authorities to comprehend organizational performance dimensions and make efforts to have the unit on a par with the key healthcare units. All these subsequently will result in better patient satisfaction and retention.

Research limitations

The balanced scorecard is considered to be not only a performance measurement technique but also a strategic management tool. In the present study it is used as a

performance measurement tool only. To get a strategically comprehensive performance measure, a longitudinal type of study is required with focus on strategies, targets and actions taken by the hospital to improve its overall performance from different perspectives - customers, employees, government and society. The study is based on extracting responses from the hospital employees. As employees generally do not go against the goodwill of their organization, they might have been conservative in responding to certain items and hesitated to share objective and correct information. However, reliability and validity methods were employed to reduce the degree of subjectiveness and to enhance reliability and validity. Non-availability of financial data and dependence on subjective information is another limitation of the study. The information would have been more relevant if the data regarding the financial perspective had been supported by objective data. Thus, financial information ought to be collected from the personnel who are directly concerned with finance-related matters to analyse the financial perspective from a more objective angle. Further, the inference based on BSC components for examining the performance of a hospital is incomplete unless consumer satisfaction and loyalty (for both indoor and outdoor) are also considered. Thus the impact of BSC components on consumer satisfaction and loyalty should be studied in further research. Furthermore, comparative analysis, using BSC as a performance measurement tool, between public and private organizations not only in the healthcare sector but also in other service sectors such as insurance, banking, hospitality etc deserves further study.

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1.1 Total Statistics Values for Item Analysis

Scale	Scale Mean if Ttem Deleted	n Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted	MSA	Factor Loading Values
LG1	75.84	284.48	0.05	0.70	0.82	0.782	0.906
LG2	75.73	283.31	0.12	0.79	0.82	0.741	0.849
LG3	75.80	283.16	0.10	0.66	0.82	0.748	0.820
LG5	75.72	282.91	0.15	0.53	0.82	0.768	0.740
LG6	75.76	279.27	0.22	0.43	0.82	0.794	0.644
LG11	76.23	281.17	0.18	0.33	0.82	0.773	0.515
LG16	75.93	283.29	0.06	0.35	0.82	0.725	0.486
IE1	76.88	241.94	0.64	0.74	0.80	0.721	0.907
IE2	77.16	246.59	0.57	0.60	0.80	0.798	0.884
IE3	76.81	241.30	0.62	0.75	0.80	0.810	0.863
IE4	77.86	263.77	0.41	0.41	0.81	0.679	0.861
IE5	76.80	246.52	0.57	0.80	0.80	0.809	0.848
IE6	76.61	240.34	0.66	0.84	0.80	0.804	0.732
IE7	76.58	242.33	0.63	0.78	0.80	0.727	0.604
IE11	76.89	251.23	0.49	0.38	0.81	0.720	0.514
ES1	75.83	276.38	0.19	0.52	0.82	0.722	0.732
ES2	75.83	277.03	0.17	0.54	0.82	0.596	0.719
ES3	75.80	277.06	0.18	0.43	0.82	0.661	0.704
ES4	76.27	277.15	0.15	0.44	0.82	0.728	0.701
ES5	76.34	266.87	0.36	0.42	0.81	0.558	0.623
ES6	76.36	269.36	0.35	0.38	0.81	0.563	0.550
ES15	75.88	280.03	0.11	0.40	0.82	0.740	0.540
FE7	76.58	265.10	0.30	0.30	0.82	0.724	0.724
FE8	76.86	264.89	0.35	0.41	0.81	0.687	0.687
FE9	76.60	264.28	0.35	0.40	0.81	0.687	0.687
FE10	77.05	262.65	0.33	0.40	0.82	0.566	0.566

 $\label{thm:control_c$

Item Values		SAMPLE	
	Main Sample	Sample1	Sample 2
Cronbach Alpha	0.818	0.784	0.842
Mean	3.029	2.971	3.086
Inter-item Correlation	0.128	0.103	0.154
Construct Reliability	.73	-	-
Variance Explained	.65	-	-

Table 1.4 t Test and Significance Values for the BSC Components

Values	Overall	ES	LG	IE	FG
t- values	8.98	8.55	6.41	1.39	1.44
significance	.029	.034	.00	.34	.00

Table 1.5 R, R Square, Beta and Mean Values for Overall Organisational Performance Model

	Standardized Coefficients (Beta)	Mean	t	Sig.
(Constant)	-	3.01	8.98	0.000
Employees Satisfaction	0.22	3.40	8.75	0.000
Learning & Growth Internal Environment Financial Governance	0.19 0.24 0.16	3.58 2.49 2.57	-6.04 1.09 -1.44	0.043 0.000 0.008
R	0.65			
R Square	42.2 (p=.000)			

Employee Satisfaction	Mean	CR	RW	SMC	Internal Environment	Mean	CR	RW	SMC
Adequate Staff	3.61	10.322	0.564	0.751	Operational routine working	2.56	13.055	0.834	0.696
Needs of Staff	3.61	10.497	0.578	0.761	Management efficiency	2.28	9.98	0.692	0.479
Cooperative attitude	3.64	7.579	0.346	0.588	Mgt conscious of employees problem	2.63	12,514	0.812	0.659
Competency	3.17	7.502	0.34	0.583	Discipline, rules & regulations	1.58	7.232	0.534	0.285
Functioning	3.1	6.093	0.238	0.488	Conducive environment	2.64	13,964	0.87	0.758
Problem	3.08	6.218	0.247	0.497	Accommodation for patients	2.83	15.148	0.913	0.834
Work & Salary	3.56	7.202	0.317	0.563	Interactive and coordinating atmosphe	re 2.86	14.012	0.872	0.761
					Support from management	2.55	6.665	0.498	0.248
Grand Mean	3.40				Grand mean	2.49			
Learning & Growth	Mean	CR	RW	SMC	Financial governance	Mean	CR	RW	SMC
Extension Activities	3.6	12.937	0.834	0.696	Nominal cost for specialised tests	2.86	5.658	0.495	0.245
Changes in Environment	3.7	15.775	0.943	0.889	Social advertising expenses	2.58	7.575	0.654	0.427
Sharing of Information etc	3.64	12.39	0.811	0.657	Asset utilisation	2.84	7.666	0.662	0.438
Updating of skill	3.72	10.055	0.699	0.489	Efficient utilisation of financial resources	2.39	7.25	0.625	0.391
Motivational Incentive	3.68	8.058	0.588	0.345					
Implementation of Suggestions	3.2	6.512	0.49	0.241					
Implementation of Latest Information	3.51	6.018	0.457	0.209					
Grand Mean	3.58				Grand Mean	2.67			