

Full Length Research Paper

Organizational performance and readiness for change in public sector undertakings

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The present study makes an assessment of the readiness/resistance to change of employees of State Public Sector Undertakings (SPSUs), compares readiness between executives and workers of SPSUs, employees of SPSUs and Central Public Sector Undertakings (CPSUs), and between employees of Public Sector Undertakings (PSUs) making profits as well as losses. The factors affecting readiness to change were identified from literature. A standard questionnaire was used to explore the factors that contribute to the success/failure of organizational changes. A comparative study of readiness to change among the employees of State and Central PSUs is carried out using statistical measures. The study established that the human factor in the State PSUs of Kerala is less resistant and more favorably disposed to change. The executives of SPSUs are more willing to change than workers. Comparing the readiness to change of employees of SPSUs and CPSUs, the former is found more willing. There is no significant difference in the attitude to change between employees of SPSUs making profits as well as losses. Employees of CPSUs in Kerala that are making losses are more willing and less resistant to change, whereas those making profits are less willing and more resistant to change. The present research makes use of an instrument already developed by a previous researcher in a similar study. Further there is a limitation by the adequacy of samples used. The findings of the present research are of much assistance in developing strategies for the revival of PSUs in Kerala. Resistance to change of employees is alleged to be the militating factor against revival of the PSUs in Kerala. The present study comes out with findings not only to disprove this notion but also that the workers, in general, welcome change.

Key words: Central PSUs, State PSUs, organizational change, business process reengineering, critical success factors, critical failure factors, revival, readiness/resistance to change.

INTRODUCTION

Organizations need to adapt to changes as competition, technology, innovation, international integration etc. contribute to volatility and uncertainty in the industrial

scenario. Organizations that are resistant to change, normally, wither away. Business Process Reengineering (BPR) is offered to be a possible solution to this issue.

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BPR involves drastic improvements in process, process redesign, and radical change in the organization. BPR is a 'fundamental rethinking and radical redesign of business processes to bring about dramatic improvements in performance' (Hammer and Champy, 2001). World-class techniques like Benchmarking, Total Productive Maintenance (TPM), Total Quality Management (TQM), Lean, Six Sigma, etc. are powerful tools in achieving revival of organizations.

Forces of competition are the same for firms in the public and private sector units but the latter adapts quickly and easily to the changing environment. Public Sector Undertakings (PSU) reforms, as a rule, are sluggish. However, public sector reforms have been taking place in developed nations as well as many developing countries in Africa, Asia and Latin America (Jooste, 2008). Internal reform and reforms in governance have been the two broad reform movements. Measuring the performance of PSUs in the context of public sector reforms has been subject to considerable amount of research, in the past 20 years (Modell, 2005). It is obvious that organizational change is channelized through the people - the animating force- in their managerial and operational roles. Naturally, organizational change is to begin with an assessment of the mindset of the people, which should focus on their willingness / resistance to change as well as the probable solutions to alleviate resistance, if any.

Background of the study

Role of PSUs in the development of any nation, especially those that are developing cannot be over-emphasized (AL-Abrow, 2013). Glancing the Indian scenario (Kanungo et al., 2001), observes that PSUs dominated the Indian economy until the early 1990s. PSUs have also occupied a predominant position in the country's economy as it helps industrialization, generation of employment, and dispersal of industries to different parts of the country (Antony, 1992). While the global recession of 2008 rattled the economies of most of the developed countries, Indian economy remained mostly unaffected on account of the special role that PSUs enact (Kareem, 2011). However, the maladies afflicting Indian PSUs leading to low capacity utilization have been subjected to considerable discussion and criticism of experts, and the public at large.

It is a contention that Central PSUs seek havens in other States of the Union on account of unwholesome industrial climate caused by unfriendly labour practices in Kerala. Still the State of Kerala has a considerable number of State Public Sector Undertakings (SPSUs). These units together employed 132,677 personnel during 2012-13. Government of Kerala (GOK) report (MGP: II.2.1, 2005), laments that SPSUs "... in the manufacturing

sector have been plagued by poor standards of Corporate Governance". Reasons adduced are: diffused nature of ownership, lack of synchronization of critical state sponsored interventions for improving its performance, conflicting objectives advocated by trade unions, inadequate incentives for competent personnel, delayed decision making, redundancy of manpower and improper person-task fit, outdated technology and unviable processes. Many SPSUs were closed down due to their inability to survive even after revival trial under the supervision of Bureau of Industrial and Financial Reconstruction (BIFR) of Govt. of India. However, some sick units have been revived after implementing revival package under the supervision of BIFR. There is urgent need for changes and reforms of the nature of Business Process Reengineering (BPR), as the number of PSUs that face the threat of closure due to accumulated losses has increased.

It is very difficult to transform an organization that is constantly in flux and changing due to difficulties in base lining the organization, where the organization was reeling from several years of financial losses, management discord, layoffs, and the possibility of being shut down (Chick, 2000). Public Sector Reform attempts to strengthen PSUs that are poorly organized, with irrational decision-making processes, staff mismanaged; weak accountability, poorly designed public programs and poorly delivered public services (Schacter, 2000). By implementing BPR techniques, it is possible to reduce money cost by 81 per cent, time cost by 74 per cent, human resource involved by 69 per cent and considerable improvement in efficiency and effectiveness enabling the organization to earn itself the envious status of a vibrant, dynamic and progressive concern (Zaheer et al., 2008). On their study about Organizational Change Effectiveness in an Indian Public Sector, Nandan and Verma (2013), identified four change outcomes viz; enhancement in employee involvement, improvement in employees' performance management, improvement in work environment, and improved organizational systems. The key Critical Success Factors (CSFs) for successful BPR in public sector organizations are; top management support, commitment and understanding of BPR, communication; empowerment, alleviation of downsizing fears, preparedness for organizational change, choosing the re-engineering team, and enlisting customer and stakeholder support (McAdam and Donaghy, 1999). In a comparative study on successful Federal Bureaus and unsuccessful Bureaus of United States, Simon (1998) found that a successful group had significantly higher perceived quality in terms of Leadership, Information and Analysis, Strategic Planning, Human Resource Development and Management, Process Management, Business Results, and Customer Focus and Satisfaction. Any strategic change which has impact on the enterprise due to some radical financial, and/or organizational adjustment

and is affecting the majority of the staff or having impact on the financial health of the operation is regarded as significant change by Chrusciel and Field (2006). To Weiner et al. (2008) "... readiness for change is related to and focused on planned and deliberated organizational change (often initiated by management) to move an organization from its present state to more proactive and desirable future, thereby making the organization more effective and efficient". According to Beer and Walton (1987) "readiness refers to the social, technological, or systematic ability of a group or organization to change or try new things".

Employees and organizational change

Organizational change, however, is contingent on the living force of business than on premises, assets and the like. "... employee's readiness for change and employees relationship with their managers was the strongest predictor of readiness for change" (Miller et al., 2006). To Mueller et al. (2012), a key prerequisite for successful change in organizations is to understand and develop the readiness for change of employees and of their organization. Acceptance and cooperation of employees is a sine qua non for implementation of any effort on organizational change. Naturally employee's readiness for change should be assessed. On the specifics of the change Alhaqbani (2013) emphasizes that the organization should include employees in decision-making to obviate resistance to future change and training to be provided to managerial personnel, who apply their new skills and knowledge, and share data. The organization should focus on elimination of errors and commitment to participation in improvement activities and also teamwork, knowledge-sharing and strong culture of informal communication between organization members for implementation of change. Employees who had higher 'margin in life levels' have higher 'overall readiness for change perceptions' (Madson et al., 2006; Armenakis et al., 1993) and readiness for change is significantly related to commitment to change- employees with high commitment to their organization will be more ready to accept and deal with organizational change (Al-Abrow, 2013). Supervisors' perceptions of their own readiness for change and their perceptions of the organization's readiness for change are highly related (Kling, 2003). Cinite (2006) developed a conceptual framework that would link organizational members' attitudes towards transformational change, organizational context and the perceived organizational readiness to change in public sector. The major readiness factors identified are; Commitment of senior management to the change, competence of change agents, and support of immediate managers during the change. The unreadiness factors identified are; Poor communication of

change, adverse impact of the change on work, and lack of employees' involvement in the change process. 'Resistance to change' is a major barrier to the success of BPR. Employees perceive BPR as a threat to their jobs, either directly to their existence or a threat to the quality and content of their jobs, or as causing the lack of promotion (Corrigan, 1996). To Grey and Mitev (1995), resistance of employees to change is mainly due to "fear" or "misunderstanding", which can be overcome through employees' participation in the change process.

The Critical Success Factors (CSF) for implementing a significant change are; planning and analysis, Assessment, Comprehensive communication, Perception of organizational readiness to deal with change, Top management support, User training of application, Perceived utility, and Staff critical mass (Chrusciel and Field, 2006). Holt (2002) identified the readiness factors as; Personal Confidence, Need for change, Personal benefits, Organizationally beneficial, Management support, Personal Confidence, and Need for change. Shah (2011) found that organizational justice factor can be influenced to develop positive employees' attitudes and behaviours for organizational change. To Barrera (2008), readiness for change is significantly related to; organizational commitment, intrinsic and extrinsic job satisfaction, and years employed. The major determinants for readiness for change are resources available for change, the leaders' orientation, the qualification of employees, the quality of supporting systems including information systems and the organization's structure (Elgamal, 2012).

Abdolvand et al. (2008) have given a graphic presentation of the success and failure factors of BPR implementation. The BPR Success Factors, to them are: Egalitarian leadership, Collaborative working environment, Top management commitment and Sponsorship, Change in management systems and Use of Information Technology. There are 17 sub-factors in these five Success factors. Resistance to change explains the failure factor which include; Middle management fear of losing authority, employees' fear of losing job, skepticism about project result, and feeling uncomfortable with new working environment. The BPR Success Factors with their sub factors and the resistance factors with their sub factors given by Abdolvand et al. are used per se in this research study for measuring the readiness / resistance of employees of PUSs in Kerala.

RESEARCH METHODOLOGY

Kerala has at present 93 SPSUs grouped under 13 sectors. However, the population of the present study is limited to the 37 PSUs under the administrative control of Department of Industries, Government of Kerala. In the first place, we analyzed the net profit made by the organizations for the period 2001-02 to 2012-13 on the premise that where profitability is poor or negative, change is mandatory. Profitability data was collected from the Review of

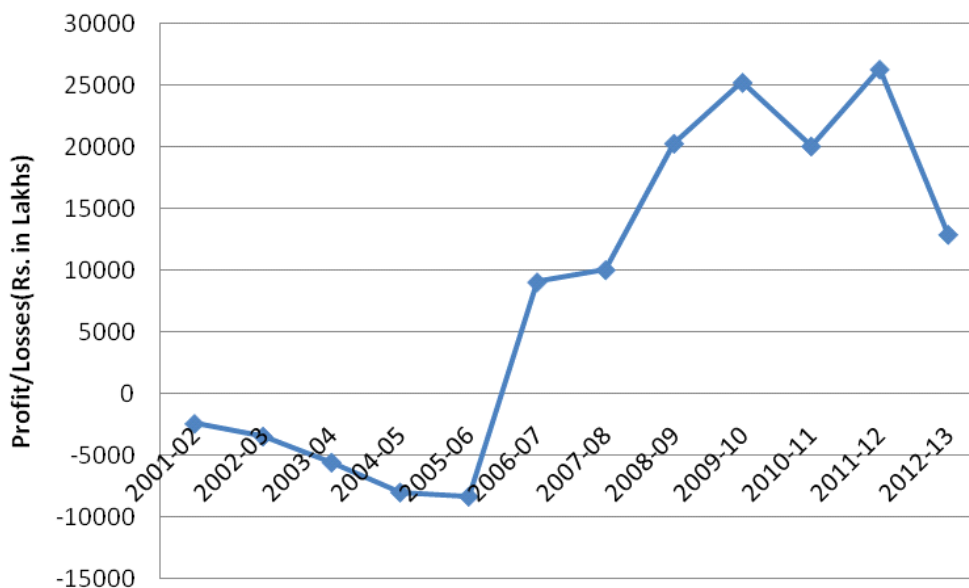


Figure 1. Performance of SPSUs.

Public Enterprises published by Bureau of Public Enterprises, Govt. of Kerala for the years from 2001-02 to 2012-13. The net profit made by these 37 companies during this period is compiled and is given in Appendix 1. A visual presentation of the same is given in Figure 1.

In the second step, we tried to identify the readiness factors applicable to the PSUs in Kerala. For this we examined the literature on organizational change and readiness to change to identify most typical factors. The five critical success factors (with 19 sub factors) and the resistance factors (with 5 sub factors) given by Abdolvand et al. (2008) have been found to be extremely relevant and useful in the present context of research for measuring the readiness of employees of PUSs in Kerala. Using the above mentioned factors, we have developed a questionnaire. On account of the difference in the cultural context of the original and present studies, we conducted a pilot study and collected expert opinion for ensuring reliability to this questionnaire. The test of reliability using Cronbach's Alpha revealed a score of 0.88, denoting high reliability for the tool. In the original study, by Abdolvand et al. (2008) based on which the present questionnaire is developed; the Cronbach's Alpha was 0.76.

Readiness levels of each organization is assessed and compared by collecting data from executives and workers. Comparison is also made on readiness to change between better performing organizations and poor performing organizations. Two Central Public Sector Undertakings (CPSUs) were selected for comparing the readiness of SPSUs with CPSUs in Kerala. Various statistical tools are used for assessing the significance of difference in readiness to change. We place our findings in the order as narrated above.

RESULTS

Figure 1 gives a summary of the performance of the SPSUs for the period 2001-02 to 2012-13.

Performance of the PSUs remained poor during the period 2001-02 to 2005-6. There is an ugly record of 25 SPSUs, out of the 37, making loss during 2001-02. On comparing the profit/loss made by companies in various sectors, it is seen that performance of Chemical and Developmental and Infrastructure sectors was good as they showed positive net profit for the entire study period. The ceramic sector made profit for six out of 12 years, electrical and electronics sector made loss for six out of 12 years and made nominal profits for the remaining years. Engineering and manufacturing sector, textile sector, traditional industries and welfare agencies were making losses for most of the years in the study period. Performance of some of these sectors improved in subsequent years due to conducive steps taken by GOK. To measure the performance of CPSUs in Kerala, two typical organizations Heavy Machine Company and a Health Care Company were selected. The performances of the selected CPSUs are presented in Appendix 2. This is presented in Figures 2 and 3.

It can be seen that the Machine Tools Company (MTC) has been making losses for seven years and the Health Care Company (HCC) has been performing well and making profits for the entire period.

Measurement of readiness/resistance

In the light of the poor performance of the PSUs, it is natural to think about methods of revival, for which readiness of employees is given a serious thought of. Five Readiness factors of change with their respective

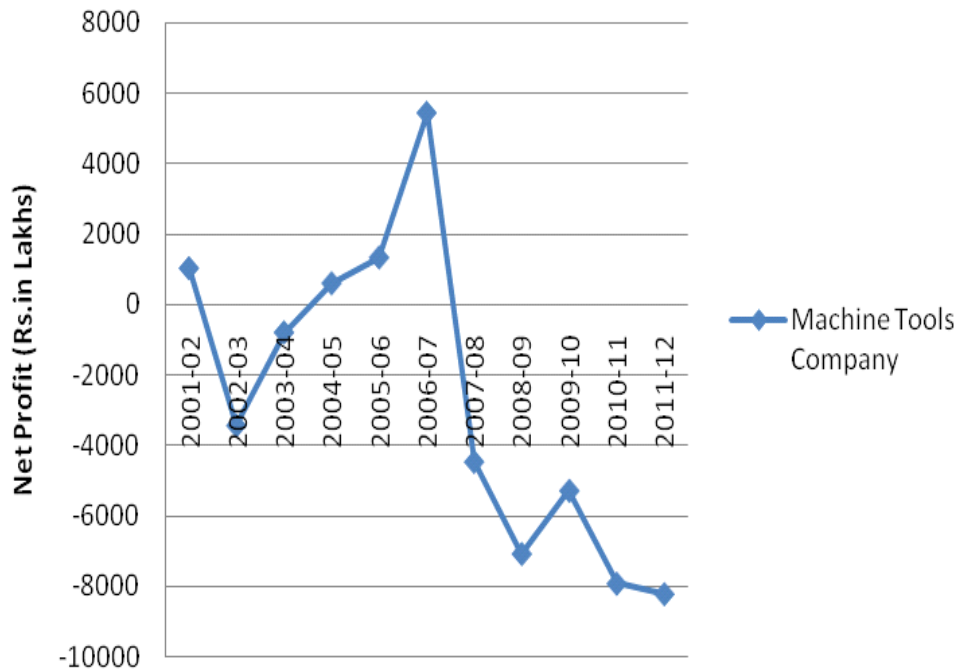


Figure 2. Performance of machine tools company.

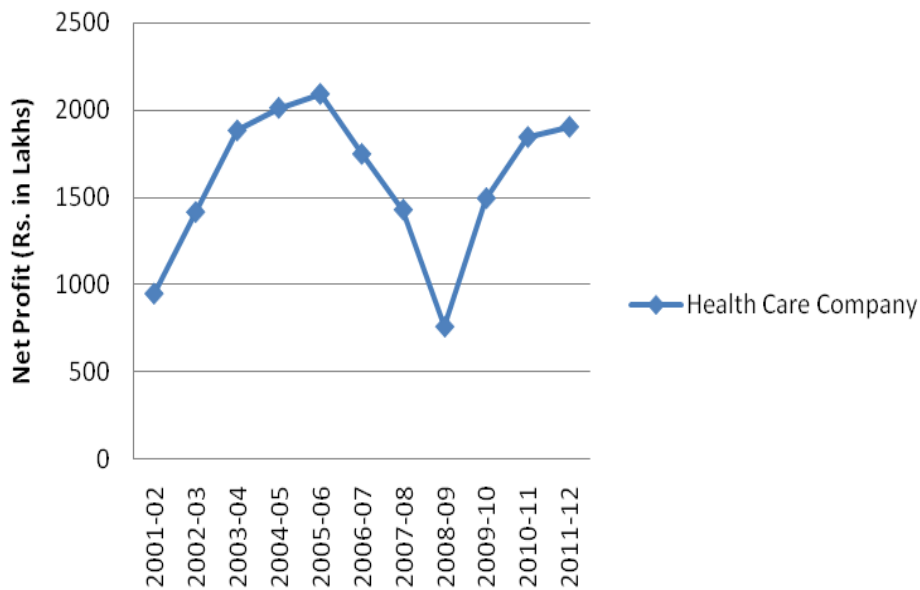


Figure 3. Performance of health care company

sub factors and the resistance factor along with its sub factors are given in Table 1.

We have used Likert type ordinal scale in measuring the level of readiness of employees under five readiness factors. The options given to particular questions are: (a)

always, (b) more, (c) moderately, (d) less and (e) never with values 5, 4, 3, 2 and 1 respectively, assuming an equal interval between choices. With regard to the resistance factors the options measures their worriness towards change.

Table 1. BPR success/failure factors*.

No	Factor	Item
I. Readiness Factors		
1	Egalitarian leadership	Shared vision/information Open communication Confidence & trust in subordinates Constructive use of subordinates' idea Friendly interactions
2	Collaborative working environment	Confidence and Trust Team work performance Corporative Environment Recognition among employees
3	Top management commitment	Sufficient knowledge about BPR project Realistic expectation of BPR result Frequent communication with BPR team and users New reward system
4	Change in management systems	Performance measurement Employee Empowerment Timely training and education The role of IT
5	Use of Information Technology	Use of up to date communication technology Adoption of IT
II. Resistance Factor		
1	Resistance to change	Middle Management fear of losing authority Employees fear of losing job Skepticism about project result Feeling uncomfortable with new working environment

*Abdolvand et al. (2008).

Readiness to change of executives and workers of SPSUs

A comparative study of readiness to change/resistance to change of executives and Workers of SPSUs in Kerala is given in Table 2.

According to the system given above, a value greater than 3 shows that readiness to change is more than moderate. The table shows very clearly that both workers and executives are in favour of change. The group mean of the readiness to change for executives is 3.76 and that of workers is 3.15, which shows that both groups are favourably disposed to change. The mean value of each group tells us the extent of readiness in that factor. It also gives us a comparison of readiness. Therefore it can be stated that the executives exhibit the highest degree of readiness in respect of 'collaborative working environment' (4.04), followed by 'top management commitment' (3.99) and 'egalitarian leadership' (3.95). Similarly the mean values against each readiness factor in respect of the workers tell us the area in which they are more or

less ready to change. Coming to resistance, the values are 2.81 and 2.72 respectively for executives and workers, showing that both groups are less resistant to change.

Table 3 gives the results of t-test comparing the mean values of readiness to change of Executives and Workers of SPSUs. In the case of 'egalitarian leadership', 'collaborative working environment' and 'top management commitment' there is significant difference in readiness to change between executives and workers. On the other hand in factors such as 'change in management system', 'use of information technology', and 'resistance to change' there is no significant difference in readiness between the above two categories.

Table 4 gives the results of t-test comparing the overall mean of readiness to change of Executives and Workers of SPSUs.

In the case of overall readiness, there is significant difference between executives and workers even at 99 per cent confidence, clearly indicating that executives show greater readiness to change than workers.

Table 2. Readiness to change of executives and workers of SPSUs.

Number of Respondents (N)	Executives (35)			Workers (147)		
	Mean	Factor Mean	S.D	Mean	Factor Mean	S.D
A. Egalitarian leadership						
1- Shared vision/ information	3.97		0.95	2.87		1.42
2- Open communication	4.11	3.95	0.83	2.80	2.89	1.33
3- Confidence & trust in subordinates	3.91		0.78	3.12		1.29
4- Constructive use of subordinates' idea	3.80		0.72	2.78		1.32
B. Collaborative working environment						
1- Friendly interactions	3.91		0.89	3.30		1.35
2- Confidence & trust	4.03		0.92	3.13		1.35
3- Teamwork performance	4.57	4.04	0.56	3.44	3.19	1.80
4- Cooperative environment	4.06		0.87	3.22		1.35
5- Recognition among employees	3.63		0.84	2.87		1.38
C. Top Management Commitment						
1- Sufficient knowledge about the projects	3.97		0.79	3.20		1.41
2- Realistic expectation of results	3.91	3.99	0.78	3.22	3.23	1.57
3- Frequent communication with project team and users	4.09		0.82	3.27		1.41
D. Change in Management Systems						
1- Good reward system	3.40		0.88	2.93		1.51
2- Performance measurement	3.46	3.32	0.85	3.01	3.00	1.48
3- Employee empowerment	3.23		0.88	3.01		1.44
4- Timely training & education	3.20		0.80	3.04		1.45
E. Use of Information Technology						
1- The role of IT	3.46		0.95	3.31		1.40
2- Use of up-to-date communication technology	3.46	3.50	0.85	3.44	3.44	1.45
3- Adoption of IT	3.57		0.95	3.58		1.58
Readiness to Change Mean		3.76			3.15	
F. Resistance to change						
1- Middle management fear of losing authority	3.03		0.98	2.79		1.58
2- Employees fear of losing job	2.74		1.04	2.62		1.67
3- Skepticism about project result	2.74	2.81	0.78	2.80	2.72	1.52
4- Feeling uncomfortable with new working environment	2.71		0.99	2.68		1.58
Resistance to change Mean		2.81			2.72	

Source: Primary Data.

Readiness to change between SPSUs and CPSUs

A comparative analysis is made on the readiness to change between employees of SPSUs and that of CPSUs as given in Table-5.

An analysis based factors on willingness to change bet-

ween employees of State and CPSUs is done in Table 6.

From Table 6 it can be seen that, between SPSUs and CPSUs there is no significant difference in readiness in the factor 'egalitarian leadership', but there is significant difference in other readiness factors.

The overall readiness to change among employees of

Table 3. t-test of readiness to change of executives and workers of SPSUs.

Readiness factors	Employees' grade	N	Mean	Std. Deviation	t-value	Sig. (2-tailed)
Egalitarian leadership	Executives	35	15.8000	2.67670	5.57	0.000*
	Workers	147	11.5646	4.30047		
Collaborative working environment	Executives	35	20.2000	3.35892	4.34	0.000*
	Workers	147	15.9660	5.52753		
Top management commitment	Executives	35	11.9714	2.05062	3.63	0.000*
	Workers	147	9.6871	3.58613		
Change in management systems	Executives	35	13.2857	2.78199	1.56	0.121**
	Workers	147	11.9864	4.73111		
Use of Information Technology	Executives	35	10.4857	2.52483	0.24	0.807**
	Workers	147	10.3197	3.81415		
Resistance to change	Executives	35	11.2286	3.20005	0.39	0.694**
	Workers	147	10.8912	4.80458		

Note: * Significant at 95% confidence level; **Not significant.

Table 4. t-test of total readiness of executives and worker.

Employees' grade	N	Mean	Std. Deviation	t-value	Sig. (2-tailed)	Sig. (1-tailed)
Readiness Total	Executives	35	60.514	10.703	3.648	0.00034*
	Workers	147	48.633	18.521		

Note: * Significant at 99% confidence level.

Table 5. Readiness to change of SPSUs and CPSUs in Kerala.

Number of Respondents (N)	State PSUs (182)		Central PSUs (56)	
	Factor	Mean	Factor	Mean
A. Egalitarian leadership		3.70		2.87
B. Collaborative working environment		3.36		2.78
C. Top Management Commitment		3.38		2.79
D. Change in Management Systems		3.06		2.62
E. Use of Information Technology		3.45		2.59
Readiness to Change Mean		3.39		2.69
F. Resistance to change		2.74		3.38

SPSUs is higher than that of CPSUs in Kerala, with values respectively of 3.39 and 2.73 and is found significant by the t- test. In the case of resistance to change, the State PSUs have a moderate value of 2.74, whereas that of CPSUs is 3.38 indicating less willingness to change. This finding is also supported by the t-test. In short employees of SPSUs are more inclined to change

than that of CPSUs.

Comparison of readiness of SPSUs making profits and those making losses

In order to analyze the readiness of employees in SPSUs

Table 6. t-test for readiness to change factors of SPSUs and CPSUs in Kerala.

Readiness factors	Public sector category	N	Mean	Std. Deviation	t - value	Sig.(2-tailed)
Egalitarian leadership	SPSU	182	12.38	4.37	0.65	0.519**
	CPSU	68	11.97	4.66		
Collaborative working environment	SPSU	182	16.78	5.44	2.46	0.014*
	CPSU	68	14.78	6.41		
Top management commitment	SPSU	182	10.13	3.46	2.92	0.004*
	CPSU	68	8.68	3.58		
Change in management systems	SPSU	182	12.24	4.45	2.17	0.031*
	CPSU	68	10.93	3.68		
Use of Information Technology	SPSU	182	10.35	3.60	4.58	.000*
	CPSU	68	8.04	3.39		
Resistance to change	SPSU	182	10.96	4.53	-3.52	.001*
	CPSU	68	13.18	4.17		
Readiness Total	SPSU	182	50.92	17.90	3.55	0.000*
	CPSU	68	41.22	22.33		

Note: * Significant at 95% confidence level; **Not significant at 95% confidence level.

making profits and those making losses, one of the SPSUs from Electronic Sector, which is running at profit for past few years and one of the SPSUs from Ceramics Sector which is running at loss for almost all years in study period are selected and the findings are given in Table 7.

Only in 'collaborative working environment' and 'change in management systems' significant difference is shown between SPSUs making profits as well as losses. On no other factor the difference in readiness to change is significant. This result shows that in almost all SPSUs readiness to change is mostly positive. Therefore it is proved that employees in all SPSUs welcome change.

Comparison of readiness to change of employees of CPSUs making profits as well as losses

A comparative statement of the analysis of the readiness to change of employees of CPSUs making profits as well as losses is given in Table 8.

From Table 8 it is seen that readiness to change is low (2.29) in the case of employees of CPSU making profit - Health Care Company (HCC), compared to (3.44) that of CPSU making loss viz. Machine Tools Company (MTC). Likewise resistance to change is more (3.76) for CPSU

making profit than that of CPSU making loss (2.86). It is found that employees of CPSU making loss are more in favour of initiating change than employees of CPSU making profit. And in the case of resistance to change, employees of CPSU making loss are less resistant. This is confirmed by the result of the t-test given in Table 9.

DISCUSSION

The study aimed at identifying the scope for implementing change in PSUs of Kerala. From the performance evaluation, it is found that most of the SPSUs are poor performers and require change for survival. Organizational readiness for change is influenced by individual readiness for change (Armenakis et al., 1993). Supervisors' perceptions of their own readiness for change and their perceptions of the organization's readiness for change are highly related (Kling, 2003). In the present study overall readiness for change of executives is 3.76 and that of workers is 3.25 indicating high readiness of employees for change. Standard deviation of the readiness for workers is more than that of executives which shows that there is more variation in opinions of workers than that of executives. From Table 3 it is seen that there is no significant difference in

Table 7. Readiness/resistance to change of SPSUs making profits and those making losses.

Readiness Factors	Type of SPSUs	N	Mean	Std. Deviation	t-Value	Sig. (2-tailed)
Egalitarian leadership	Making Profits	31	10.00	4.06	-1.86	0.067**
	Making Losses	29	11.97	4.11		
Collaborative working environment	Making Profits	31	18.90	4.77	7.69	0.000*
	Making Losses	29	10.62	3.41		
Top management commitment	Making Profits	31	9.06	3.86	-0.65	0.516**
	Making Losses	29	9.66	3.07		
Change in management systems	Making Profits	31	11.35	4.83	-2.13	0.037*
	Making Losses	29	13.90	4.38		
Use of Information Technology	Making Profits	31	10.16	4.02	-0.96	0.342**
	Making Losses	29	11.17	4.15		
Resistance to change	Making Profits	31	13.03	4.44	1.64	0.106**
	Making Losses	29	11.03	4.97		
Readiness Total	Making Profits	31	46.45	19.96	0.38	0.970**
	Making Losses	29	46.28	15.14		

Note: * Significant at 95% confidence level; **Not significant.

Table 8. Readiness/resistance to change of CPSUs making profits as well as losses.

Readiness/Resistance Factors	Health Care Company Making Profit (N=33)	Machine Tools Company Making Loss (N=35)
	Factor Mean	Factor Mean
A. Egalitarian leadership	2.35	3.60
B. Collaborative working environment	2.12	3.75
C. Top Management Commitment	2.43	3.32
D. Change in Management Systems	2.33	3.11
E. Use of Information Technology	2.23	3.42
Readiness to Change Mean	2.29	3.44
F. Resistance to change	3.76	2.86

readiness to change between executives and workers in certain factors, whereas in certain other factors and in total of readiness to change there are significant differences. The p-value of 0.00068 in one tailed t-test shows that the overall readiness to change of executives is more than that of workers. Readiness for change of executives and workers are good and the figures of executives are comparatively more than that of workers. The argument that readiness for change is significantly related to managerial commitment is supported by Al-Abrow (2013), Madsen et al. (2005), Shah and Shah (2010) and Cinite (2006). So there is better scope for

change in the PSUs in Kerala.

We have attempted a comparison of the readiness / resistance of the employees of the SPSUs with CPSUs in Kerala and it is found that there is significant difference in the readiness and resistance to change of the employees of SPSUs and CPSUs. It is also our finding that readiness to change of employees of SPSUs is better than that of CPSUs and resistance is less in SPSUs than CPUs.

We further attempted a comparison of the readiness / resistance of the employees of SPSUs and CPSUs making profits and losses. In the case of SPSUs there is

Table 9. t-test of CPSU Making Profit and Making Loss.

Readiness Factors	Company Name	N	Mean	Std. Deviation	t-value	Sig. (2-tailed)
Egalitarian leadership	HCC	33	9.39	4.79	-5.23	0.000*
	MTC	35	14.40	2.94		
Collaborative working environment	HCC	33	10.58	5.91	-6.79	0.000*
	MTC	35	18.74	3.85		
Top management commitment	HCC	33	7.30	4.24	-3.29	0.002*
	MTC	35	9.97	2.19		
Change in management systems	HCC	33	9.33	3.93	-3.80	0.000*
	MTC	35	12.43	2.73		
Use of Information Technology	HCC	33	6.70	3.65	-3.43	0.001*
	MTC	35	9.31	2.59		
Resistance to change	HCC	33	15.03	4.42	-3.93	0.000*
	MTC	35	11.43	3.06		
Readiness Total	HCC	33	28.27	24.40	-5.48	0.000*
	MTC	35	53.43	10.31		

Note: * Significant at 95% confidence level.

no significant difference in readiness and resistance, whereas in the case of CPSUs there is significant difference in readiness and resistance to change between those making profits and those making profits. The employees of the CPSU making loss are found to be more ready for change than that of CPSU making loss. These facts establish that there is good scope for implementing change in SPSUs in Kerala.

Conclusion

The study aimed at identifying the scope for implementing change in PSUs of Kerala. A preliminary investigation established that most of the SPSUs are poor performers and require substantial changes to survive. The overall readiness for change of executives and workers was encouraging. Further, no significant difference in readiness to change was observed between executives and workers in certain factors, whereas in other factors and in total of readiness to change there are significant differences. A comparison was also done between the readiness / resistance of the employees of the SPSUs and CPSUs. A significant difference in the readiness and resistance to change was found between employees of SPSUs and CPSUs. The readiness to change of

employees of SPSUs is better than that of CPSUs and resistance is less in SPSUs than CPSUs. Another significant finding was that the employees of the CPSU making loss were more ready for change than that of CPSU making loss. This establishes that there is good scope for implementing change in SPSUs in Kerala.

The study established that the human factor in the State PSUs of Kerala is less resistant and favorably disposed to change. The executives of SPSUs are more willing to change than workers. Comparing the readiness to change of employees of SPSUs and CPSUs, the former is found more willing. No significant difference was observed in the attitude to change between employees of SPSUs making profits as well as losses. Employees of CPSUs that are making losses are more willing and less resistant to change, whereas in those making profits they are less willing and more resistant to change.

REFERENCES

- Abdolvand N, Albadvi A, Ferdowsi Z (2008). Assessing readiness for business process reengineering, *Bus.Process Manage. J.*14:497-511.
- AL-Abrow HA (2013). Individual differences as a moderator of the effect of organisational commitment on readiness for change: a study of employees in the higher education sector in Iraq, *Int. J. Manage.* 30:4.

- Alhaqbani AM (2013). Impact of key organisational factors in facilitating tqm in a saudi arabian public sector organization: an empirical study, *Intl. J. Innov. Bus.* 2(8):732-761
- Armenakis AA, Harris SG, Mossholder KW (1993). Creating readiness for organizational change, *J. Human Relat.* 46(6):681-703.
- Barrera LPN (2008). A study of job satisfaction, organizational commitment and readiness for change in public service employees, Dissertation, University Of Phoenix.
- Beer M, Walton AE (1987). Organization change and development, *Ann. Rev. Psychol.* 38:339-367.
- Chick DE Sr. (2000). Large-scale change in the public sector: a case study, Dissertation, Pepperdine University, California.
- Chrusciel D, Field DW (2006). Success factors in dealing with significant change in an organization, *Bus. Process Manage.* J. 12(4):503-516
- Cinite I (2006). Measurement of perceived organizational readiness for change and employee's attitudes towards change in the public sector, PhD Thesis, Carleton University, Ontario.
- Cinite I, Duxbury LE, Higgins C (2009). Measurement of perceived organizational readiness for change in the public sector, *Br. J. Manage.* 20:265-277.
- Corrigan S (1996). Human and organisational aspects of business process reengineering, research report, Institute of Work Psychology, University of Sheffield.
- Elgamal MA (2012). A proposed model of the determinants of the readiness for change in small professional sub- organizations, *Int. J. GSTF Bus. Rev.* 1:3.
- Government of Kerala (2002 to 2013). A review of public enterprises in kerala (2001-02 to 2011-12), Bureau of Public Enterprises, Thiruvananthapuram.
- Government of Kerala (MGP: II.2.1, 2005), state level public enterprises reform: implementation of SLPE reform, www.old.kerala.gov.in/archive/221.pdf
- Grey C, Mitev N (1995). Re-engineering organizations: a critical appraisal, *personnel review*, 24: 6-18.
- Holt DT (2002). Readiness for change: the development of a scale, A Dissertation submitted to the Graduate Faculty of Auburn University, Alabama
- Kanungo S, Sadavarti S, Srinivas Y (2001). Relating IT strategy and organizational culture: an empirical study of public sector units in India, *J.Strategic Infor. Sys.* 10:29-57
- Kareem E (2011). Resurgence of state level public enterprises: the Kerala experiences, International Workshop on Kerala Studies, January 1-3.
- Kling EB (2003). Supervisor and employee perceptions of the Alabama cooperative extension system's readiness for change, Dissertation, Auburn University, Alabama
- Madsen SR, John CR, Miller D (2005). Influential Factors in Individual Readiness for Change, *J. Bus. Manage.* 12(2):93-110
- Mc Adam R, Donaghy J (1999). Business process re-engineering in the public sector: A study of staff perceptions and critical success factors, *Bus. Process Manage. J.* <http://search.proquest.com/docview/220296430?accountid=135053>
- Miller D, Madsen SR, John CR (2006). Readiness for change: implications on employees' relationship with management, job knowledge and skills and job demands, *J. App. Manage. Entrepr.* 11:1.
- Mueller F, Jenny GJ, and Bauer GF (2012). Individual and organizational health-oriented readiness for change: Conceptualization and validation of a measure within a large-scale comprehensive stress management intervention, *Int. J. Workplace Health Manage.* 5(3):220-236
- Nandan S, Varma A (2013). Organizational change effectiveness in Indian public sector organizations: perceptions of employees at different levels, *South Asian J. Manage.* URL: ABI/INFORM Global, 20(1):97
- Schacter M (2000). Public Sector Reform in Developing Countries Issues, Lessons and Future Directions, Institute on Governance, Ottawa, Canada.
- Shah N (2011). A study of the relationship between organisational justice and employee readiness for change, *J. Enterprise Inform. Manage.* 24(3):224-236
- Shah N, Shah SG (2010). Relationships between employee readiness for organisational change, supervisor and peer relations and demography, *J. Enterprise Inform. Manage.* 23(5):640-652.
- Simon CA (1998). Organizational performance in the public sector: a comparison of 77 federal bureaus receiving or not receiving the president's quality award 1992-1997, Dissertation Submitted to United States International University.
- Zaheer A, Rehman KU, Saif MI (2008). Development and testing of a business process efficiency scale, *Eur. J. Soc. Sci.* 7:2.